Introduction to the Facilities Manual

Volume 1, Chapter 1

1.1 FACILITIES MANUAL PURPOSE AND RESPONSIBILITY

The University of California Facilities Manual (FM) is intended to allow easy access to important policies, procedures, and guidelines for all UC Facilities. Various departments at the Office of the President are responsible for FM preparation, publication, and administration. Policies and procedures are changed, updated, or transferred into the FM in an ongoing manner, and campuses are notified of changes through an email listserv.

Each Facility is encouraged to develop its own procedures manual that expands on and complements FM content.

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1.2 FACILITIES MANUAL ORGANIZATION

The FM is organized into six volumes, each focused on a different aspect of Facilities management and operation:

Volume 1:

- Executive Summary and University Administration

Volume 2:

- Planning

Volume 3:

- Design

Volume 4:

- Construction Contracting

Volume 5:

- Bidding and Construction Administration

Volume 6:

- Plant Operation and Maintenance

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1.3 FACILITIES MANUAL CONTENT, STYLE, AND LANGUAGE

This section explains and gives examples of the different ways information is presented in the *FM*.

1.3.1 Content Levels

All FM volumes except Volume 1 contain two introductory sections, "Introduction to the Facilities Manual" and "Volume Introduction and Summary," followed by numbered *chapters*.

Each chapter is subdivided into numbered *articles*, e.g., **5.1**, which means, "Chapter 5, Article 1." Articles may contain numbered **paragraphs**, e.g., **5.1.1**, which means, "Chapter 5, Article 1, Paragraph 1."

The final content level, the *subparagraph*, is not numbered but begins with a boldface, italic heading: e.g., ***Subparagraph Heading***.

At the bottom of each volume are links to a Resource Directory (RD) containing figures, models, a glossary, a list of selected University policies, a bibliography, and attachments.

1.3.2 Cross-References

When an item within the particular FM volume is cross-referenced, a notation like the following is given: (see **5.1**). This means, "See *this* volume, Chapter 5, Article 1."

When an item in another FM volume is being referred to, the cross-reference will additionally include the volume number, as in the following: (see 2:5.1). This means, see Volume 2, Chapter 5, Article 1.

References to multi-part volumes contain a roman numeral in brackets indicating in which part the reference can be found, e.g., (see **[I]:3.2**), which refers to the volume being used, Part I, Article 3.2, or (see **FM2[I]:3.2**) which refers to Volume 2, Part I, Article 3.2. (Article 3.2 is the short form of saying, "Chapter 3, Article 2. ")

References R) items contain the RD section and item number, usually preceded by the name of the RD section: e.g., (see Figures, **RD1.1**). Sometimes the number and entire name of a particular item are given, and the name of the RD section is intentionally omitted: e.g., (see **RD1.1**, Typical Flow Chart).

1.3.3 References List

References to publications (other than the *FM)*, laws, and University policies are listed in boldface type at the beginning of the article or paragraph they pertain to most. By researching these references, readers can obtain further information on items covered in the FM. Bibliographic references are also listed in the RD.

1.3.4 Approved Documents

The FM contains documents approved by the Office of the President and UC Legal - Office of the General Counsel (UCL) for use by the Facilities.

1.3.5 Language

Much FM content is based on University policies. When a policy is being quoted or paraphrased, its name is referenced, and the text often contains the words shall or must: e.g., "The contractor *must* submit . . .". For easy reference, the full text of selected policies can be found in FM, Volume 1.

Another major portion of the FM is composed of recommended guidelines. Guidelines often contain the words "should" or "may".

Terms that have special meaning within the context of the FM are capitalized throughout the text, e.g., "Facility" and "University," along with some titles and legal or contract terms: e.g., "President" and "Agreement." Definitions of special terms may be found in the Glossary.

The *Gregg Reference Manual*, seventh edition (by Sabin), serves as the basis of most FM grammar, usage, and style conventions.

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1.4 FACILITIES MANUAL REVISION, MAINTENANCE, AND REPRODUCTION

This section contains background on the process by which the FM is distributed and updated and gives suggestions for FM maintenance and reproduction.

1.4.1 Distribution

The Office of the President maintains the FM entirely online now and no longer provides hard copy distribution services.

1.4.2 Revision, Maintenance, and Reproduction

FM redline revisions are distributed by the Office of the President via an electronic listserv.

Comments and suggested revisions should be sent to: UCOP Design and Construction Services staff.

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Facilities Manual Executive Summary

Volume 1, Chapter 2

(To be provided upon completion of all *Facilities Manual* volumes. See 1.2 for the subjects covered in each volume.)

University Governance and Organization

Volume 1, Chapter 3

INTRODUCTION

References:

Constitution of the State of California, Article IX, Section 9.

The University of California (University) was chartered in 1868 by the Constitution of the State of California; classes began in Oakland one year later. Today, with its ten campuses, national laboratory, Agriculture and Natural Resources, six academic health centers, and numerous other units and affiliated institutions, the University is one of the largest and most renowned centers of higher education in the world.

This chapter outlines the University's basic organizational structure and lines of authority for governance and facilities management and briefly discusses the preparation of Regents' materials.

(See Universitywide Organization Charts at the UCOP website.)

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3.1 UNIVERSITY GOVERNANCE

Governance of the University is entrusted to the Board of Regents (The Regents). The Regents appoint the President of the University and, with the President's advice, the officers of the University. Among these officers are the Executive Vice Presidents, other Vice Presidents, and

the Chancellors. The Regents also appoint their own principal officers: the General Counsel, the Chief Investment Officer, and the Secretary and Chief of Staff.

3.1.1 The Regents

References:

Bylaws and Standing Orders of The Regents of the University of California, Office of the Secretary of The Regents, Oakland, CA, adopted April 18, 1969 (and succeeding amendments).

The Regents' role is similar to that of the board of directors of a large corporation. They are responsible in this case for governing and setting policies for the University.

Members. The Regents consist of 26 members: 18 each appointed by the Governor of California to a 12-year term; one student is appointed by The Regents to a one-year term; and seven ex-officio members (the Governor, the Lieutenant Governor, the Speaker of the Assembly, the Superintendent of Public Instruction, the President of the University, and the President and Vice President of the Alumni Associations of the University). In addition, two faculty members — the chair and vice chair of the Academic Council — sit on the board as non-voting members. In the history of the University, more than 400 people have held the position of Regent.

Although the Governor is officially the President of The Regents, in practice, The Regents' Chairperson is the presiding officer. Both the Chairperson and the Vice Chairperson are elected from among The Regents' membership to a one-year term.

Committees. The Regents operate through eight standing committees: Academic and Student Affairs, Compliance and Audit, Finance and Capital Strategies, Governance, Health Services, Investments, National Laboratories, Public Engagement and Development, and Special. There are also a varying number of subcommittees and special committees.

Meetings. The Regents hold six, two-day meetings each year. Standing and special committees meet as required, usually on the day preceding The Regents' meetings.

Authority. The Regents have the basic authority for governing the physical planning, design, construction, operation, and maintenance of the University's facilities. This authority is set forth in the Bylaws of The Regents.

The Regents have delegated much operational authority to the University President and have delegated some authority to University faculty in matters related to academic programs.

With few exceptions, all matters requiring Regents action are first considered by the appropriate Regents' committee, which has authority only to recommend or report to The Regents.

3.1.2 The President

References:

Standing Orders of The Regents, 100.4, "Duties of the President of the University."

The President of the University is an ex-officio Regent and an officer of the University who is responsible to The Regents.

Authority. Authority in facilities-related matters is delegated by The Regents to the President. The President can therefore determine facilities-related policy for the University. Duties of the President are listed in the Standing Orders of The Regents.

Office of the President. The Office of the President is composed of the President, the President's staff, and the Executive Vice Presidents, other Vice Presidents, and their respective staffs.

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3.2 UNIVERSITY FACILITIES

Within the *FM*, the proper name Facility is given to any University campus, laboratory, unit of the Division of Agriculture and Natural Resources, or location of any other administrative unit. The common term facility refers to a building, structure, site, or ground improvement, or other item built or installed to serve the University's mission of providing academic, scientific, and public service.

3.2.1 Campuses

Each of the ten University campuses is managed by a Chancellor who is an officer of the University and is responsible to the President. The ten campuses are Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz.

Authority. Authority in facilities-related matters is delegated by the President to each of the ten Chancellors. Each Chancellor determines policy for the campus.

Office of the Chancellor. The Office of the Chancellor is composed of the Chancellor, the Vice Chancellors, the Directors of University Hospitals, and their respective staff. The Vice Chancellors and Directors report directly to the Chancellor and indirectly to the President through the Chancellor. Normally, one Vice Chancellor is assigned duties in facilities-related matters.

3.2.2 Government Laboratory

The Department of Energy's Lawrence Berkeley National Laboratory is managed by a Director who is an officer of the University and is responsible to the President. (The Lawrence Livermore National Laboratory and Los Alamos (New Mexico) National Laboratory are each managed by an LLC of which the University is a member.)

Authority. Authority in facilities-related matters is delegated by the President to the Laboratory Directors. The Director determines policy for the laboratory.

Office of the Director. The Office of the Director is composed of the Director, the Director's staff, and the Deputy Directors and their staff. The Deputy Directors are officers of the University who report directly to the Director and indirectly to the President through the Director. Normally, one Deputy Director is assigned duties in facilities-related matters.

3.2.3 Division of Agriculture and Natural Resources

The Office of the Vice President – Agriculture and Natural Resources (VP A&NR) resides within the Office of the President. The VP A&NR is usually delegated authority in facilities-related matters.

3.2.4 Other Administrative Units

Certain University units, such as the University of California Press, University Extension, and the Laboratory of Biomedical and Environmental Sciences, have not been delegated authority in facilities-related matters. These functions are normally performed by the facilities management department at the Facility where each unit is located.

3.2.5 Affiliated Units

UC Law San Francisco (formerly UC Hastings) is affiliated with the University but is not subject to University policies and procedures regarding facilities-related matters.

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3.3 PREPARATION OF REGENTS' MATERIALS

References:

Regents' Meeting Planning & Process Within the Office of the President, the Immediate Office of the Provost coordinates Regents' Meeting agenda items from the campuses. The final meeting agenda is prepared by the Secretary. Facilities should refer to the materials on the referenced website when preparing agenda items or other materials for The Regents, such as Interim Authority items and Emergency Authority items. Copies of the guide have been distributed to the Vice Presidents, the Chancellors. Regents' Coordinators at each Facility and at the Office of the President are available to assist in the preparation of Regents' materials.

***Approval of Building Design*.** (See **FM3** for guidelines on preparing Regents' items regarding the approval of a building design.)

Regents' Agenda Items. The Treasurer, General Counsel, Secretary, and Chief of Staff to The Regents prepare their own agenda items, which the Secretary assembles and mails. The Regents' Agenda Coordinators at the Office of the President prepare all other items, duplicate them in the

proper quantities, and forward them to the Secretary for mailing as the President's portion of the agenda.

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Delegations and Limitations of Authority

Volume 1, Chapter 4

INTRODUCTION

This chapter addresses the University of California's system of reserving and delegating authority in the areas of facilities planning, design, construction, operation, and maintenance.

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4.1 BASIC AUTHORITY

References:

Bylaws and Standing Orders of The Regents of the University of California, Office of the Secretary of The Regents, Oakland, CA, adopted April 18, 1969 (and succeeding amendments).

Bylaws of The Regents: The Regents have the basic authority for governing the planning, design, construction, operation, and maintenance of the University's facilities. This authority is set forth in the Bylaws of The Regents.

Standing Orders of The Regents*:* The Standing Orders of The Regents provide the President of the University (and other University officers) with certain responsibilities and authority. Except as otherwise provided in the Bylaws and Standing Orders, the President, as executive head of the University, has full authority and responsibility over all affairs and operations of the University (Standing Order 100.4).

The Regents set policy for the University as a whole; therefore, Regents' policies may also serve to establish or limit an authority.

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4.2 DELEGATED AUTHORITY

As permitted by the Standing Orders, the President may delegate authority to staff members. The President and persons who receive such authority from the President act as agents of The Regents. Authority provided to the President by The Regents in the Standing Orders may be limited. Redelegations of authority by the President may contain additional limitations. Facilities-related authorities and their redelegations by the President are listed in **4.3**.

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4.3 DELEGATIONS OF AUTHORITY TABLE

Selected facilities-related delegations of authority and their redelegations by the President are listed in Delegation of Authority 2629. The Delegation and Limitations of Authority Table is arranged so that the sequence of authorities follows the typical sequence of events for a project in the Capital Improvement Program.

Go to Delegations and Limitations of Authority Table

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University Policies

Volume 1, Chapter 5: List of Regents and Presidential Policies

INTRODUCTION

This chapter contains Regents and Presidential policies that may be referenced by the FM.

5.1 Text of referenced Policies

A complete list of Regents Policies can be found at https://regents.universityofcalifornia.edu/policies/welcome.html

A complete list of Presidential Policies can be found at policy.ucop.edu

Regents' Policies	
Date	**Number and Title**
09/22/2005	5201: Policy On Fundraising Campaigns Policy Statement
09/22/2005	5301: University Risk Financing Policy Policy Statement
11/17/2016	5307: University of California Debt Policy Policy Statement

03/21/1997	5401: Policy On Procurement Of Foreign-Made Equipment, Materials, Or Supplies Produced By Forced, Convict, Or Indentured Labor (See Administrative Guidelines issued April 7, 1998) Policy Statement
11/14/2019	5402: Policy Generally Prohibiting Contracting for Services Policy Statement
10/21/1977	5508: Policy on Bonding Requirement for Construction Contracts Policy Statement (Authority delegated in DA 2564)
03/15/2018	8103: Policy on Capital Project Matters Policy Statement
09/22/2005	8201: Policy On Naming Facilities To Include Full Name Of Individual Policy Statement01
01/01/2008	8301: Policy on Higher Education Bond Measure Information and Advocacy Implementation Plan Policy Statement
01/20/2011	8302: Policy On State Funding Of Capital Projects: UC Endorsement Of Educational Facilities Bond Measure Campaigns Policy Statement
09/22/2005	8401: Policy On The Acceptance Of Gifts For Housing Student Groups Policy Statement
03/17/1989	University Procedures for Implementation of CEQA Policy Statement

Presidential Policies	
Date	**Number and Title**
6/30/1992	BFB-BUS-19: Registration and Licensing of University-Owned Vehicles Policy Statement
07/01/2007	BFB-BUS-29: Management and Control of University Equipment Policy Statement
11/01/2010	BFB-BUS-38: Disposition of Excess Property and Transfer of University-Owned Property Policy Statement
03/01/2021	BFB-BUS-43 Purchases of Goods & Services; Supply Chain Management Policy Statement

06/30/1987	BFB-BUS-54: Operating Guidelines for University Supply Inventories Policy Statement
06/14/1991	BFB-BUS-56: Materiel Management: Purchases from Entities Violating State or Federal Water or Air Pollution Laws Policy Statement
02/02/1966	Capital Improvements Longevity Policy Statement
07/13/2023	Developing and Maintaining Presidential Policies (Policy on Policies) Policy Statement
07/02/1973	Found and Unclaimed Property Policy Statement
05/22/2018	Guidance on Compendium of COI and Integrity Policies Policy Statement
04/21/2020	Guidelines on Contracting for Services Guidelines (These guidelines do not apply to design and construction services.)
03/21/2016	Hoverboard Policy Policy Statement
03/13/2024	Integrated Pest Management Policy Policy Statement
06/12/2013	Laboratory Safety Training Policy Statement
10/28/2005	Management of Health, Safety and the Environment Policy Statement
06/12/2013	Minors in Laboratories and Shops Policy Statement
12/19/2002	Naming University Properties, Academic and Non-Academic Programs, and Facilities Issuance Letter and Policy Statement
06/12/2013	Personal Protective Equipment Policy Statement

07/17/1985	Policy for Independent Design and Cost Review of Building Plans Policy Statement
01/01/1996	Policy to Ensure Equal Opportunity in University Business Contracting and Related Administrative Guidelines Policy Statement
12/20/2023	Responding to Immigration Enforcement Issues Involving Patients in UC Health Facilities Policy Statement
04/03/1987	Safe Drinking Water and Toxic Enforcement Act of 1986, Reporting Obligations of Designated Employees Policy Statement
01/25/2006	Safeguards, Security and Emergency Management Policy Statement
11/12/2024	Seismic Safety Policy Policy Statement https://policy.ucop.edu/doc/3100156/Seismic
04/10/2024	Sustainability Practices Policy Statement https://policy.ucop.edu/doc/3100155/SustainablePractices
02/09/2018	Unmanned Aircraft System (Drone) Policy Policy Statement
02/28/2013	University-Provided Housing & Related Renovations/Remodeling Policy Statement DA 2598 (supersedes 2574, 2574 supersedes 2230, 2230 supersedes 2223, 2223 supersedes 2158 & 2159)
03/01/2010	University-wide Statement on Conflict of Interest G-39 Conflict of Interest Policy and Compendium of Specialized University Policies, Guidelines, and Regulations related to Conflict of Interest Policy Statement
04/07/1998	Administrative Guidelines on the Procurement of Foreign-Made Equipment, Materials, or Supplies Produced by Forced, Convict, or Indentured Labor (See Regents Policy 5401) Issuance Letter & Guidelines
01/01/1996	Ensure Equal Opportunity in University Business Contracting Policy Statement
04/05/1994	Administration of University of California Housing Facilities Policy Statement
11/01/1993	Capital Improvement Program Management Policy Statement

08/17/1964	Policy on Equipment Budgeting For New or Remodeled Buildings Policy Statement

State Laws

Volume 1, Chapter 6

INTRODUCTION

Certain state laws require the University to follow specified procedures for the design, bidding, and construction of projects. The University also has elected by policy to follow additional state laws regarding construction contracting.

6.1 STATE LAWS APPLICABLE TO UNIVERSITY CONSTRUCTION CONTRACTING

The table lists state laws the University is either required to follow, or has elected to follow, regarding the performance of construction projects. This selected list has been limited to laws specifically mentioned or implied in the University's construction documents.

View the State Laws table

Project Quality Management Program

Volume 1, Chapter 7

INTRODUCTION

This chapter sets forth requirements and procedures for establishing a Project Quality Management Program.

Quality requirements for University construction projects are established first by The Regents, next by the President, and then by the Facilities. Quality is measured as conformance to requirements established by facilities management personnel. Project quality is ultimately appraised by the Facility client.

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7.1 PROGRAM GOALS

The goal of a Project Quality Management Program is to ensure that the design and construction of a project meet the quality requirements established by a Facility. To accomplish this goal, facilities management personnel should perform the following functions for the project team to ensure the desired quality of the construction project:

- Establish requirements (see 7.3)
- Build teamwork (see 7.4)
- Supply resources (see 7.5)
- Evaluate performance (see 7.6)

7.1.1 Project Team Members

The project team usually consists of the following principal parties and their associates:

Owner *(University)*:

- Client
- Owner's Representative
- Planning staff
- Programming staff
- Budgeting staff
- Facilities management staff
- Project manager (University employee)
- Project manager (outside professional)
- Construction manager (outside professional)

Design Professional:

- Architect or other design professional
- Architect's consultants
- University design consultants

Contractors:

- Construction contractor
- Subcontractors
- Project manager
- Construction manager (acting as contractor)

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7.2 PROGRAM SCOPE

A Project Quality Management Program includes the following:

- Quality management planning and implementing policies, procedures, and requirements.
- Quality control ensures that work is being performed and that work is being checked prior to its acceptance.
- Quality assurance verifying that quality control tasks are being performed.
- Continuous quality improvement continually pursues improvement in the quality of the project process.
- Quality costs redoing a project item, even when this increases the item's cost.

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7.3 PROGRAM REQUIREMENTS AND PROCEDURES

The first and most basic step in establishing a Project Quality Management Program is to formulate written requirements that specify the roles and responsibilities of project participants. The FM establishes basic University requirements; additional requirements should be established by the respective Facility or by the project team through a partnering effort (see 7.4.1).

7.4 TEAMWORK

The total Project Quality Management Program applies to the following sequential project phases:

1. Planning
2. Programming
3. Budgeting
4. Design
5. Construction Documents
6. Bidding
7. Construction

A Project Quality Management Program should not only address technical issues, but should also address people-related issues and encourage teamwork. Technical issues include checklists, inspections, interdisciplinary plan checks, other reviews, and value engineering. People-related issues include encouraging commitment to the project, building teamwork, defining expectations, and partnering (see **7.4.1**). Cooperation within the project team should be encouraged as early as possible during the project process.

7.4.1 Partnering

In the context of a Project Quality Management Program, partnering means:

- Defining expectations of the University (as Owner), the design professional, and the contractor.
- Reviewing procedures ensuring that procedures reflect each project team member's expectations.

- Resolving conflicts, setting up a mechanism early in the project for resolving conflicts, and for periodic progress reviews.

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7.5 PROGRAM RESOURCES

At minimum, the Facility should provide the budget, personnel, and time necessary to meet quality requirements for each project phase (see **7.3**). This task is accomplished through decisions made by facilities management staff.

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7.6 EVALUATION BY THE PROJECT TEAM

During or upon completion of each project phase and upon total project completion, members of the project team should evaluate the team's performance as a whole. In evaluating a project for quality, the project team should:

- Define expectations.
- Define problems.
- Determine what is needed to rectify problems.
- Estimate needed resources.
- Determine if the project cost or program needs refining.

Periodic project team evaluations will assess team performance in accomplishing project quality goals by considering the team's:

- Effectiveness in relation to established quality requirements.
- Efficiency (staying within budget).
- Timeliness (remaining on schedule).
- Compliance with imposed constraints as stated in policies, procedures, and programs.
- Teamwork

Evaluations can be made by completing evaluation forms predesigned with questions and data-entry requests that have been developed on an objective basis.

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Volume 2: Planning

Introduction and Summary

This volume of the Facilities Manual explains the process and procedures used to develop a capital project. Many factors determine whether a project proposal becomes a capital project. The factors include budget, growth, renewal, technological improvement, infrastructure, environmental impact, and life safety. There are also many different aspects of University planning academic, physical, and resource that are coordinated to assess priorities and justify projects.

Purpose of This Facilities Manual Volume

This volume of the University of California Facilities Manual includes policies and procedures for guiding the planning and development of a capital improvement project. Each Facility is encouraged to develop its own procedures manual that expands on and complements this volume.

CHAPTER 1: ACADEMIC AND ENROLLMENT PLANNING

Academic and enrollment planning are part of the University's total facilities planning program. Academic and enrollment plans are used to assess priorities and to help justify projects. Ideally, capital improvement projects are the result of comprehensive and coordinated Facility planning academic, physical, and resource that includes an analysis of the effectiveness of existing space. Each Facility is responsible for maintaining a balanced Capital Improvement Program that takes into consideration growth, renewal, improvement, infrastructure, environmental impact, and life safety.

CHAPTER 2: SPACE PLANNING

Space planning is a process that coordinates academic programs with physical space over a specific period of time. The University's goal is to achieve the best use and organization of space to meet academic needs.

Staff in Facility capital planning offices prepare Facility-wide space plans. Space plan development is a continuous process and consists of a series of analyses, spreadsheets, reports, graphics, and other documents that are not necessarily compiled into a single document called a space plan. A Facility must determine its long-term space objectives regarding the location of programs and the ultimate use of buildings. The space plan considers which programs are expanding, which are downsizing, and which need to be consolidated.

CHAPTER 3: LONG-RANGE DEVELOPMENT PLANS

A long-range development plan (LRDP) is a comprehensive plan that guides physical development such as the location of buildings, open space, circulation, and other land uses. An

LRDP identifies the physical development needed to achieve academic goals and is an important reference document for the campus, University, and the general public.

Because a long-range development plan affects an area's physical environment, an evaluation of its impacts is required by the California Environmental Quality Act (CEQA). This evaluation constitutes the Environmental Impact Report (EIR).

CHAPTER 4: ANCILLARY AREA PLANNING

Ancillary area planning at a Facility includes precinct or area plans, inclusion areas, and off-site properties. Precinct or area plans are intermediate in scale, falling somewhere between Facility-wide plans and individual project plans. They divide a Facility into sub-areas and evaluate each area in more detail. Inclusion areas are parcels of land added to Facilities for income production or other forms of Facility support. These parcels are developed for a variety of uses such as for-sale housing, office buildings, and research and development. Each Facility may lease or own off-site properties that are adjacent to or far from the Facility. Planning responsibility for these properties depends on whether they are permanent, who funds the use of the properties, and which entity within the University has administrative responsibility for the properties.

CHAPTER 5: ENVIRONMENTAL ISSUES

All University projects are required to comply with the California Environmental Quality Act (CEQA). The *UC CEQA Handbook* is a guide for preparing University environmental documents. It describes compliance with CEQA from a University perspective and is a companion volume to CEQA statutes and guidelines. The *Handbook* is updated as state law and University process, policy, and requirements change.

As environmental health and safety issues become more important in transactions dealing with land and building construction, Facility environmental health and safety (EH&S) offices have a broader role in project development. EH&S offices assist their Facilities in all aspects of project planning. With new construction projects, EH&S advises on industrial hygiene, laboratory safety, sanitation, radiation safety, hazardous waste, and environmental site assessment.

On most campuses, fire marshals are located within EH&S. Fire marshals interact with the State Fire Marshal's Office (SFM) to ensure compliance with all applicable codes and standards. Fire marshals assist planners, architects, and engineers by identifying alternative fire safety solutions to be discussed with the SFM.

CHAPTER 6: PRE-DESIGN PHASE

Pre-design is the phase of work that occurs after some form of funding is available. Pre-design studies are an analysis of the problems to be solved by a project design. The pre-design phase may include a number of different studies site analysis, programming, special studies, construction costs, and value engineering.

A proposed project site is analyzed to understand the constraints the site will impose on the project and its design. Frequently, multiple sites are analyzed for a single project. This information is used both to guide project development and to evaluate a project's impacts on the environment.

Studies are conducted to evaluate existing project conditions. These studies include geotechnical reports, hydrology studies, land surveys (including boundaries, topography, and utilities), existing building analysis, and surveys of existing hazardous materials (environmental due diligence).

Programming defines the needs of the user. That includes defining a project's functional needs interior and exterior functional requirements, including space sizes, contents, activities and relationships. A project program serves not only as a basis for design and a source of information about a project, but frequently as a basis for seeking funding.

Special studies determine if the data gathered for the project program regarding the site are complete, clear, and free of contradictions. Special studies may be made during the Schematic Design Phase for non-state projects, or during the Detailed Planning Phase for state-funded projects.

CHAPTER 7: CAPITAL PLANNING OVERVIEW [In development]

CHAPTER 8: STATE-FUNDED CAPITAL PROGRAM [In development]

CHAPTER 9: NON-STATE FUNDED CAPITAL PROGRAM [In development]

Academic and Enrollment Planning

Volume 2, Chapter 1

INTRODUCTION

Academic and enrollment planning are part of the University's total facilities planning program. Academic and enrollment plans are used to assess priorities and to help justify projects. Ideally, capital improvement projects are the result of comprehensive and coordinated Facility planning that includes an analysis of the effectiveness of existing space for academics, physical planning, and resource allocation. Each Facility is responsible for maintaining a balanced Capital Improvement Program that takes into consideration growth, renewal, improvement, infrastructure, environmental impact, and life safety.

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1.1 ACADEMIC PLANNING

A Facility academic plan is used to evaluate academic programs as well as auxiliary enterprises, business operations, and libraries. The academic plan sets academic goals for general, professional, and health sciences instruction and organized research units (ORUs). The academic goals form the framework for program and physical planning.

1.1.1 Academic Program Approval

Each Facility's academic programs are approved by the Academic Senate, Office of the President, and the California Post-Secondary Education Commission (CPEC).

1.1.2 Design and Planning Issues

Academic Programs. A Facility must consider which academic programs are to be initiated, terminated, consolidated, or relocated. Student enrollments, the number of faculty and staff, the types of degrees offered, and program time frames all impact a project's design and planning. Teaching methods (small seminars versus large lectures), research needs, and supporting utilities and technologies also must be appraised before a project begins.

Facilities. Program, design, and planning issues affect the size of a structure and its construction, renovation, or demolition. An academic program's impact on existing space must be evaluated.

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1.2 ENROLLMENT PLANNING

References:

The Donahoe Higher Education Act of 1960.

A master plan for the development of higher education in California called the Donahoe Higher Education Act of 1960 (The Master Plan), assigned the University three functions: to provide undergraduate education, to provide graduate education through the doctorate level, and to serve as the primary state-supported academic agency for research. A citizens' commission and the Legislative Joint Committee for Review of the Master Plan for Higher Education reviewed The Master Plan in March 1985. Subsequently, the Legislature approved, and the Governor signed, legislation that reaffirmed the University's mission of teaching, research, and public service.

Ideally, the University is to accommodate all qualified undergraduates and graduate and professional students within standards of excellence, societal need, and available resources. To do this, the University must maintain a core of well-balanced, quality programs and also support emerging fields. The Master Plan specifies that the University must select students from the top 12.5 percent of public high school graduates. Admission standards are set accordingly.

Institutional Research and Academic Planning's (IRAP) Planning unit facilitates the development and identification of goals related to student enrollment.

1.2.1 Undergraduate Enrollment

Undergraduate enrollment projections take into account demographic factors such as birth rates and kindergarten through twelfth-grade enrollments. These projections also include assessments of enrollment potential, for example, estimates of the number of students eligible for the University, the proportion who will enroll, and expected improvement in eligibility for under-represented minority groups.

1.2.2 Graduate Enrollment

Graduate enrollment growth is based on the University's graduate enrollment planning report. The University incorporates data from new national studies in its graduate enrollment projections. Information about future national needs to replace doctoral degree holders retiring from academic and nonacademic employment, expectations of undergraduate enrollment growth, and research and development growth in the private economy are all included in this report.

1.2.3 Health Sciences Enrollment

Under The Master Plan, the University has a responsibility to develop basic knowledge in the health sciences and to train students as investigators and teachers. Located on six academic health centers are 21 health professional schools, fourr children's hospital campuses, and a Global Health Institute. The health professional schools providee education in the health fields of medicine, dentistry, nursing, public health, optometry, pharmacy, and veterinary medicine. State and federal fund sources determine health science enrollments.

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Space Planning

Volume 2, Chapter 2

INTRODUCTION

Space planning is a process that coordinates academic programs with physical space over a specific period of time. The University's goal is to achieve the best use and organization of space to meet academic needs.

2.1 SPACE PLANS

Staff in Facility capital planning offices prepare Facility-wide space plans. Space plan development is a continuous process and consists of a series of analyses, spreadsheets, reports, graphics, and other documents that are not necessarily compiled into a single document called a

space plan. There is no required format for submission of the space plan. However, as space plans form one of the primary methods of justifying capital improvement projects, verification of space planning is an important component of project documentation. Space plans can be presented to the Office of the President in several ways: Facility staff present the documentation to Office of the President staff at annual visits, as supporting documentation in Project Planning Guides, and in conversations that explain the selection of projects included in the Capital Improvement Program.

2.1.1 Overall Objective

A Facility must determine its long-term space objectives regarding the location of programs and the ultimate use of buildings. Possible objectives might include:

- Each major discipline (e.g., biological sciences, engineering, social sciences) has its own building.
- Classrooms are within a 10-minute walking radius and are located on the lower levels of buildings.
- Faculty and academic offices are in buildings separate from research activities but next to classrooms.
- Back-office administrative activities are located outside prime academic areas or off-site.

2.1.2 Building Status and Potential

The space plan delineates how space is currently used and how current usage deviates from the overall objective of the Facility. The plan also considers the reuse of buildings and estimates how much new space is required.

2.1.3 Program Requirements

The space plan considers which programs are expanding, which are downsizing, and which need to be consolidated. The space plan also takes into account the programs that are the Facility's highest priority, the amount and type of space required for those programs and when the space is needed.

2.1.4 Possible Approaches to the Space Plan

Facilities do several types of studies in order to develop a space plan. Examples of these are:

- Threshold analysis when projected enrollment in a priority discipline or program reaches a certain threshold, new space is built.
- Domino analysis the sequence of events that needs to occur to meet the overall objective is determined.
- Additional studies additional studies are conducted to support or modify the plan of action, such as utility, circulation, and seismic studies.

Long Range Development Plans

Volume 2, Chapter 3

INTRODUCTION

A Long Range Development Plan (LRDP) is a comprehensive plan that guides physical development, such as the location of buildings, open space, circulation, and other land uses. An LRDP identifies the physical development needed to achieve academic goals and is an important reference document for the campus, University, and the general public.

[Editor's Note: Because only campuses and medical centers have long-range development plans, the more specific term campus is used at times in this chapter in place of the usual term "Facility."]

References:

- Bylaws of The Regents of the University of California
- Committee Charter of the Finance and Capital Strategies Committee, Appendix C
- Regents Policy 8103: Policy on Capital Project Matters
- Long Range Development Plans (LRDPs) for each campus

3.1 LONG RANGE DEVELOPMENT PLAN

Campuses prepare LRDPs based on their academic goals and the projected number of students for an established future date. Each LRDP indicates how a campus will accommodate the student population, along with the faculty and staff required to support that student population. The Regents approve each LRDP and its accompanying Environmental Impact Report (EIR), which evaluates the impact of the proposed development.

An EIR must be prepared to evaluate the environmental impacts of an LRDP (see 3.1.4). Once certified, the environmental documentation process for subsequent projects covered by the LRDP EIR can be simpler.

There are no University requirements for the content, organization, or longevity of an LRDP. However, for ease of distribution to The Regents, prepare them on 8 1/2" x 11" paper. The Office of the President assists planners and reviews LRDPs. The following sections are guidelines for the organization, elements, and organizing concepts that can be included in an LRDP.

3.1.1 LRDP Organization

The organization of an LRDP may vary, but it usually includes the following information:

1. Historical perspective, including historical plans for the campus and the evolution of those plans over time.
2. Relationship with the community.
3. Location and setting.
4. Surrounding land uses.

5. Physical setting, including:
    a. Existing environmental resources.
    b. Existing land uses.
    c. Existing landscape and open space.
    d. Existing circulation and transportation systems.
6. Facility characteristics, including:
    a. Facility population.
    b. Academic organization.
7. Planning process for the LRDP, including community outreach.
8. Projected needs, including:
    a. Facility population.
    b. Space needs for academic and support systems.
9. Guidelines for implementation.

In addition, the LRDP shows how and where space needs will be met on the site and contains the following elements:

- Land use
- Landscape and open space
- Circulation and transportation
- Utilities

3.1.2 LRDP Elements

Land Use. This element shows the location of proposed land uses. The goal is to provide guidance for locating future structures and uses while maintaining adequate flexibility for future decision making. The level of detail in this element varies. Academic uses may all be under a single "Instruction and Research" land use designation, or there may be separate designations for academic uses, administration, recreation, student housing, family student housing, support services, and open space.

Landscape and Open Space. Each campus has different types of open space: formal paved plazas and courtyards, less formal landscaped areas, and undeveloped natural areas. The LRDP indicates the role of open space, for example, whether buildings are integrated into the predominant land forms and vegetation (e.g. the Santa Cruz campus), or buildings are predominant and open spaces are connections among building clusters. Open areas may gain significance due to ongoing unauthorized or informal use, which then forms the basis of opposition if the site is proposed for use.

Circulation and Transportation. The LRDP shows how people move to and through the site in the future. All forms of travel are considered: pedestrian, bicycle, mopeds, motorcycles, cars, service and delivery vehicles, emergency vehicles, and hazardous material transportation. The LRDP indicates which paths and roads are shared by one or more forms of travel and which are segregated. Parking for all vehicle types is addressed.

Utilities. This element focuses on the campus systems for domestic and irrigation water, wastewater, storm drainage, sanitary sewers, chilled water and steam, electrical distribution, natural gas, and communications. Each type of utility's expansion strategy is planned to accommodate the growing campus population and technology changes.

3.1.3 LRDP Organizing Concepts

An LRDP may be organized according to several possible concepts such as:

Physical Form. The physical form may be a grid system, satellite development, development along a spine, or spoke development around a circular core.

Neighborhoods. Colleges, quads, precincts, and academic neighborhoods form sub-areas of a campus that accommodate academic clusters or combinations of academic and living functions.

Systems. The framework of support systems includes circulation, utilities, and information. One of these frameworks may be the organizing concept for future campus development.

3.1.4 Environmental Impact Report

References:

Because a Long Range Development Plan affects an area's physical environment, an evaluation of its impacts is required by the California Environmental Quality Act (CEQA). Because an LRDP may create significant impacts, an Environmental Impact Report (EIR) is required. Environmental evaluations are normally managed by the planning office at each Facility. Once the comprehensive evaluation of environmental impacts is completed and approved, subsequent projects may have simpler environmental documentation requirements if they were covered in the LRDP EIR.

3.1.5 LRDP Approval and Amendment Process

At the initiation of a new or major LRDP update, each campus must consult with the Office of the President about format and content, as well as campus and public participation processes. Preparation of an LRDP includes consultation with a wide variety of people on- and off-campus: faculty, students, staff, adjacent jurisdictions, and community groups. The mechanism and extent of consultation vary by campus.

A campus submits a draft LRDP and an administrative draft LRDP EIR to the Office of the President for review. Once the draft LRDP and EIR are finalized, they will be presented to The Regents for approval. The LRDP is considered a draft plan until it is approved by The Regents. A campus prepares the Regents item and a presentation about the LRDP and the EIR requesting the Regents' approval.

An LRDP may be amended at any time and is in effect until a new LRDP replaces it. LRDPs may be amended either for individual building projects or area plans, or they may be totally

revised when they become out of date. The Environmental Impact Classification form (see RD2.1) within the Program Planning Guide for each project asks whether the project conforms with the LRDP.

The Finance and Capital Strategies Committee has the authority to amend LRDPs. Minor LRDP amendments may be made by the Executive Vice President - Chief Financial Officer, provided the amendment preserves the fundamental planning principles of the LRDP and is limited to:

(i) modifying up to and including 30,000 gross square feet of allocated building space,
(ii)changing land use boundaries or designations for up to and including 4 acres of land, or
(iii) administrative corrections or changes.

Ancillary Planning

Volume 2, Chapter 4

INTRODUCTION

Ancillary area planning includes Facility precinct or area plans, inclusion areas, and off-site properties. Planning at these scales and for these areas is done at the discretion of each Facility. Standing Order 100.4(ff) authorizes the President to administer real properties used for campus-related purposes. These areas are defined as properties within the boundaries of a University Facility and other properties used for student and employee housing, parking, athletic programs, research, public service, educational programs, or administrative staff purposes.

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4.1 PRECINCT OR AREA PLANS

Precinct or area plans are intermediate in scale, falling somewhere between Facility-wide plans and individual project plans. They divide a Facility into sub-areas and evaluate each area in more detail. The divisions may be determined geographically or topically, for example, the Northwest precinct or the Engineering precinct. Precinct or area plans provide information that makes site selection and site analysis easier and translates planning concepts into a physical form.

Precinct or area plans do the following:

- Test the development capacity of a district in more detail than is possible in a larger-scale plan.
- Analyze the physical relationship between building programs and activities in an area.
- Evaluate the relationship of buildings and open space.

- Evaluate connections between circulation, academics, and utilities, for example, how traffic moves through an area, or which pedestrian links need to be preserved as an area is developed.
- Identify ways to emphasize the identity of a precinct or area (if desired).

4.1.1 Guidelines for Implementation

Facilities may produce guidelines to provide more detail about their desired image, landscape treatments for special areas, architectural massing, and building orientation. These guidelines are advisory and do not require a discretionary action by The Regents and thus are not subject to the California Environmental Quality Act.

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4.2 INCLUSION AREAS

Inclusion areas are parcels of Facility land designated as income production or other forms of Facility support. These parcels are developed for a variety of uses, such as for-sale housing, office buildings, and research and development. These areas often provide valuable connections between industry and academia, where academic endeavors are used in commercial applications.

Inclusion areas are usually planned in conjunction with the Facility's real estate development or equivalent office. Coordination between Facility planning and real estate offices verifies that the goals and plans for each inclusion area are consistent with overall Facility goals, and that activities within inclusion areas are compatible with existing LRDP land uses.

4.2.1 Off-Site Properties

Each Facility may lease or own off-site properties. Planning responsibility for these properties depends on whether they are permanent, who funds the use of the properties, and which entity within the University has administrative responsibility for the properties. Examples of these types of properties include:

- Natural Reserve System: A collection of 41 land areas where natural science research takes place. The Natural Reserve System is a subdivision of the Division of Agriculture and Natural Resources (DANR). Each reserve is assigned to a campus for administration.
- Agricultural Extension: The DANR also includes nine agricultural centers and field stations and 60 county cooperative extension offices throughout California. Land use planning for these Facilities is administered by DANR's Office of Facilities Planning and Management.
- Gift properties: Property donated or willed to a campus.
- Faculty or student housing.
- Agricultural research fields.
- Observatories and marine laboratories.

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Environmental Issues and CEQA Compliance

Volume 2, Chapter 5

INTRODUCTION

All University projects are required to comply with the California Environmental Quality Act (CEQA).

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5.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

References:

- Amended University Procedures for Implementation of the California Environmental Quality Act (CEQA), The Regents of the University of California, March 17, 1989 (pdf)
- California Code of Regulations, State of California CEQA Guidelines, Title 14, Section 5000 (CEQA Guidelines).
- State Public Resources Code, California Environmental Quality Act (CEQA), Sections 21000-21189 (CEQA Statute).

The California Environmental Quality Act (CEQA) defines “projects” as activities that have the potential to result in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. A “project” constitutes the whole of an action and applies to typical capital projects as well as certain real estate transactions.

The Regents adopted the State CEQA Guidelines and all state guideline updates as the guidelines for UC to follow. Key points about the University's application of CEQA are as follows:

- The University is the lead agency for all University projects; it prepares the appropriate CEQA document and evaluates the environmental significance of each proposed project.
- Per Regents Policy 8103: Policy on Capital Project Matters, the certification and adoption of environmental documents is undertaken at the level of associated project approval.
- An Initial Study, Negative Declaration, Findings, and/or an Environmental Impact Report (EIR) must be completed prior to an irrevocable commitment to a project, which is defined as design approval. Preliminary plans and feasibility studies may be done to define a project, but prior to major capital investment, an environmental assessment must be completed.

- Approval, and execution of ground leases and related documents for which ground lease business terms and design approval following action pursuant to CEQA has occurred would not result in a modification to the physical characteristics of an approved project; therefore such actions are considered implementing actions that do not require additional review under CEQA.

Recommendations for preparing environmental documents follow.

Start early. Starting the environmental evaluation process in the initial project planning phases enables the Facility to identify environmental impacts and modify the project design or site with far less cost and difficulty than doing the environmental evaluation when the project design is further along and when changes become more expensive. Integrating sound environmental practices into site selection and into the project can reduce the number and severity of the mitigations that could otherwise be required to remedy environmental impacts.

Disclosure. The purpose of CEQA is to disclose the environmental impacts of each project and to make that information available to both the public and University decision-makers. Decision-makers (The Regents or Chancellor) may decide a project is worth doing despite the environmental impacts, but they do so after the public has had an opportunity to comment on the project, and with knowledge of the environmental consequences, and with a statement of overriding considerations.

Coordination. The preparation of an EIR or other environmental document requires coordination among several Facility functions: facilities management, facility planners, legal staff, community affairs, environmental health and safety, operations and maintenance, and academic representatives. Each has information relevant to the project, and responsibility for implementing some portion of the project and mitigating the impacts of the project. The extent to which various Facility offices communicate throughout the process can ease or hinder the environmental review process and affect a project's schedule. A project's scope may change substantially through planning and design, and close coordination should occur between various project stakeholders to assure the proposed environmental documentation remains appropriate. Environmental health and safety issues are a key part of the environmental review process. These issues are discussed below.

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5.2 ENVIRONMENTAL DOCUMENTATION

The environmental documents required for a project will vary depending on the project and the LRDP. This section describes the documentation that may be required for a project.

5.2.1 Environmental Impact Classification Form (see RD2.1).

The Environmental Impact Classification Form (EIC) is an internal University of California form that is used to determine whether a University project or action is exempt from CEQA, or if not, what environmental documentation is anticipated. The EIC is required to be included in the

Program Planning Guide (PPG) for each project, or separately prepared if no PPG is required. If a project involves a Regental approval, or an Office of the President (OP) approval, concurrence, or review of the project's environmental analysis, an EIC must be prepared and approved by the campus and then sent to OP Physical & Environmental Planning for concurrence. If a project does not involve Regental approval or Office of the President approval, concurrence, or review of the project's environmental document, an EIC must be prepared by the campus environmental planner and signed locally.

The EIC provides a brief description of the project, the type of environmental documentation anticipated for the project, and whether the project is consistent with the long-range development plan. If a proposed project is determined to be exempt from CEQA, the EIC and any necessary attachments must provide justification for the exemption pursuant to the criteria set forth in the CEQA Statute and Guidelines. Should the scope of a project change substantially following local or OP signature on an EIC, it should be amended and re-signed to confirm that the anticipated CEQA document or determination of exemption remains valid. This one-page form is an internal University of California form that is required to be included in the Program Planning Guide (PPG) for each project, or separately prepared if no PPG is required. This form provides a very brief description of the project and alerts the Office of the President to which type of environmental documentation is anticipated for the project and whether the project is consistent with the long-range development plan

5.2.2 "Common Sense" Exemption

The California Environmental Quality Act does not apply to projects when it can be seen with certainty that there is no possibility the action will result in physical change to the environment or the action is specifically exempted by statue. This may apply, for example, to an extension of a lease where there is no change in use and no physical change to the building.

5.2.3 Categorical Exemption

There are many classes of projects which are normally considered exempt because they are not expected to create significant environmental impacts. If a project, otherwise considered exempt, may cause a significant impact to the environment due to (1) its location, (2) the cumulative effect of the project and successive similar projects in the same area over time, or (3) unusual circumstances, it may not be classified as Categorically Exempt.

5.2.4 Initial Study

An Initial Study combines a thorough project description with a preliminary checklist of the potential areas of environmental impact to determine if an Environmental Impact Report is required to fully analyze the impacts of the project, or, if no potentially significant environmental impacts are found, to support the conclusion of a Negative Declaration.

5.2.5 Tiered Initial Study

When a long-range development plan EIR is approved, it evaluates a wide range of campus-wide impacts and determines the appropriate impact mitigations. LRDP EIRs may also project future specific building projects. When those specific building projects are proposed, a tiered Initial Study may be prepared. This form of the Initial Study acknowledges the previous campus-wide environmental evaluation and focuses on whether the specific project creates any new or more severe environmental impacts, or whether any new alternatives or mitigations are made possible through the implementation of the project. If there are no new significant impacts, Findings may be prepared documenting the reliance on the long-range development plan EIR.

5.2.6 Negative Declaration

A Negative Declaration is one of the possible outcomes of an Initial Study. It states that the project will not create any significant environmental impacts.

5.2.7 Mitigated Negative Declaration

A mitigated negative declaration applies when a project would have created a significant impact, but mitigations have been incorporated into the project to avoid the impact.

5.2.8 Environmental Impact Report

If a project will or may create a significant impact on the environment, an EIR must be prepared. The EIR evaluates in more detail the potential impact areas and recommends mitigation measures to avoid or reduce the impact. A Mitigation Monitoring Report is required to document who is responsible for implementing the mitigations, when they are to be completed, and the mechanism to verify their completion. Per the Amended University Procedures for Implementation of CEQA (pdf), a public meeting is required for all projects for which an EIR will be prepared.

5.2.9 Findings

Findings are a summary of the rationale behind a project approval.

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5.3 ENVIRONMENTAL HEALTH AND SAFETY LIAISON

-Guidelines-EH&S, Fire Marshal, and Site Analysis During Project Planning

As environmental health and safety issues become more important in transactions dealing with land and building construction, Facility environmental health and safety (EH&S) offices have a broader role in project development. EH&S offices assist their Facilities in all aspects of project planning. With new construction projects, EH&S advises on industrial hygiene, laboratory safety, sanitation, radiation safety, hazardous waste, and environmental site assessment.

EH&S is frequently involved in planning issues that require coordination with Facility planning staff and the Office of the President (OP). In addition, EH&S informs Facilities about environmental and occupational regulatory requirements and University policies and requirements that may affect a project.

The involvement of EH&S in the pre-design through construction of a project offers the following benefits:

- Provides EH&S insight into programmatic development and conceptual planning stages of a proposed project.
- Avoidance of unnecessary project planning and construction delays due to overlooked EH&S issues and resulting cost overruns.
- Reduction in building occupants' health and safety complaints and Workers' Compensation cases as well as avoidance of significant public health and safety problems.

Environmental health and safety concerns are regulated by a number of federal, state, and local agencies including the California Environmental Protection Agency, which now includes the Department of Toxic Substances Control, Regional Water Quality Control Boards, Air Quality Management Districts, and Cal-OSHA; the Office of the State Fire Marshal; and the federal Environmental Protection Agency.

Each Facility's administrative structure differs; as such, there may be other Facility organizations that are involved in EH&S matters. For example, some Facilities have separate fire departments or laboratory animal care offices. EH&S offices refer Facilities personnel to the appropriate department that has jurisdiction over a specific programmatic area of EH&S.

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5.4 FIRE MARSHAL AND FIRE AND LIFE SAFETY ISSUES

-Guidelines-EH&S, Fire Marshal, and Site Analysis During Project Planning

Fire marshals are located within EH&S, except at the Davis and Santa Cruz campuses, where there are separate fire departments. Fire marshals interact with the State Fire Marshal's Office (SFM) to ensure compliance with all applicable codes and standards. Fire marshals assist planners, architects, and engineers by identifying alternative fire safety solutions to be discussed with the SFM.

On hospital projects, the Department of Health Care Access and Information (HCAI) is the primary authority during the design and construction period. However, if the hospital facility is a state-owned building, the SFM still has jurisdiction over occupancy certification. Projects will benefit by coordinating with the fire marshals during the HCAI review process, which includes plan reviews and inspections.

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Revised May 29, 2012 (Change No. 12-006-P)

Pre-Design Phase

Volume 2, Chapter 6

INTRODUCTION

Pre-design is the phase of analysis that occurs after some form of funding is available and before design begins. During the pre-design phase, studies are done to analyze space requirement issues, the constraints and opportunities of the proposed site, and the cost versus the budget. The amount of funding available in the pre-design phase varies and is a critical factor in determining which studies take precedence. Funds may be available to develop a detailed project program or only to investigate certain technical issues to determine scope, budget, or project schedule.

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6.1 PRE-DESIGN

The pre-design phase may include site analysis, programming, construction cost analysis, and value engineering.

- Site analysis includes site selection, geotechnical reports, and review of existing structures.
- Programming defines the project needs of the user. Programming includes cataloging the spaces and equipment needed, and functional relationships.
- The construction cost analysis provides a construction budget amount for the capital improvement budget (CIB) and a cost plan to assist in explaining the budget and in guiding project management.
- Value engineering in the pre-design phase scrutinizes the program, site selection, and project budget.

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6.2 SITE ANALYSIS

References:

Professional Services Agreement (see FM3:4.1, 4.2 , 4.3, 4.4, 4.7 and Contract Templates - Design and Other Consultants). Executive Design Professional Agreement (see FM3:3, 4 and Contract Templates - Design and Other Consultants).

A proposed site, an existing building, or existing infrastructure, on- or off- campus, is analyzed through a series of investigations to understand the constraints that may be imposed upon a project and its design. The analysis of gift properties as well as ground leasing campus real property and purchasing campus-related property must follow certain due diligence procedures established by Office of the President and the Office of the Chief Investment Officer. These procedures may be used as guidelines to analyze facility sites.

Frequently, multiple sites are analyzed for a single project. This information is used both to guide project development and to evaluate a project's impacts on the environment.

Studies are conducted to evaluate existing conditions. These studies include geotechnical reports, hydrology studies, land surveys (including boundaries, topography, and utilities), existing building analysis, and surveys of existing hazardous materials (environmental due diligence).

These studies are typically performed by consultants who have the specific expertise required. The study reports describe the investigations made and the measurements taken, and they often make recommendations for incorporating the results of the investigations into the building design. These studies also significantly influence project feasibility as well as life-safety and legal issues. Other studies identify existing conditions that may or may not be quantified. These studies include data compilation, site analysis reports, site analysis drawings, and comparative site analysis.

(See FM3:4.1 to 4.4 and 4.7 for the appropriate use of the Professional Services Agreement when contracting for site analysis.)

6.2.1 Geotechnical Reports

A Facility may hire a geotechnical engineer to produce a geotechnical report that provides the Facility with information about the soils and geologic conditions on and below the surface at a project site.

The geotechnical report contains information about existing project conditions. The information typically includes reports done previously for neighboring buildings and actual samples taken at the project site. Sampling techniques vary depending on the project.

Geotechnical Hazards. Critical geotechnical hazards that need to be identified include:

- Areas subject to subsidence and liquefaction.

- Landslides and mudflow hazards.
- Fault zones.

Soil Samples. Soil samples are tested in a laboratory to determine moisture content, soils type, expansion, percolation, bearing capacity, friction, and other factors pertinent to the proposed building. Other important soils information includes:

- Drainage characteristics and permeability.
- Depth to ground water.
- Depth to bedrock.
- Susceptibility to compaction and erosion.
- Shrink and swell potential.
- Compressive strength and stability (bearing capacity).
- Evidence of fill.

Recommendations. The data gathered are then translated into recommendations for:

- Site preparation, such as compacting or replacing existing soils.
- Bearing loads and the corresponding expected amount of settlement.
- Steps to be taken to deal with ground water and surface water as they may affect construction operations and the finished project.
- Special foundation requirements.

The Office of the President recommends that the Facility have the geotechnical engineer review the construction documents for compliance with the recommendations made. It is also beneficial to have the engineer present during construction excavation in order to verify that actual conditions agree with the anticipated conditions.

6.2.2 Hydrology Studies

Hydrology studies are performed by environmental consultants or hydrologic engineers. The studies are based on the review of existing maps and records, as well as the collection of site-specific hydrologic measurements. The hydrology studies include:

- Surface water drainage patterns (on and off site).
- Floodplain zones.
- Aquifers and recharge zones.
- Depth to ground water.
- Storm drainage system requirements.
- Erosion hazard areas.
- Debris flows and mudslides hazards.
- Coastal flooding and tsunami hazards.

6.2.3 Land Surveys

Land surveys describe existing site features, project boundaries, and legal boundaries (if applicable) such as property lines, rights-of-way, and easements. The surveyor locates physical elements, including structures, roads, trees, and land formations and reviews existing records to gather information on utilities and boundaries. The survey determines the site configuration and area.

The surveyor's measurements of the elevations of existing elements are particularly important for tying the proposed project into existing roads and utilities and, possibly, to existing buildings. Grades are indicated and related to a fixed point, often a datum established campus-wide.

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6.3 EXISTING BUILDING ANALYSIS

When a project involves one or more existing buildings, a variety of studies are used to determine the feasibility of reusing some or all of the buildings. These studies include analysis of functional, structural, and code issues and provide information on the following:

- Overall building suitability and adaptability for the proposed use (e.g., area on each floor, column bay sizes, floor-to-floor heights, and vibration and acoustic control).
- Capacity, suitability, and adaptability of the existing engineered systems (e.g., electrical, HVAC, fire protection, and plumbing).
- Vertical load bearing capacity (e.g., slabs, beams, girders, and columns).
- Earthquake resistance and lateral load capacity (e.g., shear walls and frame bracing).
- Accessibility to the disabled.
- Fire and life-safety systems.
- Energy issues.

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6.4 SURVEYS OF EXISTING HAZARDOUS MATERIALS (DUE DILIGENCE)

Consultants are used to inspect existing sites or buildings that contain asbestos, polychlorinated biphenyls (PCBs), old fuel tanks, or other suspected hazards and recommend the proper removal or mitigation methods. Although the Facilities are generally aware of hazards on current sites, new sites or previously occupied sites may pose soil or groundwater contamination problems as a result of past uses.

The University established procedures to assist Facilities in the assessment of toxic and hazardous substances on real property. Procedures are also in place for reviewing gifts of real property for hazardous substances. Visit the Real Estate Services Group website for more information.

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6.5 DATA COMPILATION

References:

UC CEQA Handbook, Procedural Handbook and Model Approach for Implementing the California Environmental Quality Act (CEQA), University of California, Office of Physical and Environmental Planning, Office of the President, May 1991, revised February 1994.

-Guidelines-EH&S, Fire Marshal and Site Analysis During Project Planning

To identify existing project conditions, data is compiled for a variety of categories including climate, site features, environmental influences, historical data, land-use and regulatory controls, building codes and requirements, visual analysis, and circulation and access. These factors are included in an Initial Study, even though the objective of the Initial Study is to determine a project's impacts, if any (see *CEQA Handbook*).

6.5.1 Site Analysis Report

The Office of the President recommends that the site analysis report include any of the following studies and reports that may have been previously completed by the University relating to the project:

- Surveys of asbestos, PCBs, and seismic hazards
- Disabled access
- Long-range development plans and related Environmental Impact Reports
- Circulation and parking plans
- Utility plans
- Roadway plans
- Expansion plans for nearby buildings
- Precinct or area plans
- Facility design guidelines
- Vehicular plans
- Bicycle plans

6.5.2 Site Analysis Drawings

Site analysis drawings graphically combine a variety of the site analysis studies into a drawing or set of drawings. Although many of the items on these drawings are environmental, the drawings are not intended to be an exhaustive description, or to substitute for any of the requirements of the environmental impact report process.

6.5.3 Comparative Site Analysis

A comparative site analysis measures trade-offs among different project locations against a set of criteria and draws conclusions as to the most appropriate project site. A first step in this analysis is defining the criteria and their relative priorities. The criteria are typically derived from goals,

objectives, or specific performance requirements. These measures may be divided into threshold criteria, which are absolute either acceptable or not acceptable requirements and more detailed criteria that have varying degrees of suitability. The criteria may include:

- Accessibility.
- Proximities.
- Hazards.
- Land availability and configuration (area and shape).
- Physical characteristics and constraints.
- Environmental impacts.
- Costs (development and operation and maintenance).
- Timing.
- Design aspects.
- Acceptability.
- Compatibility of proposed use with existing uses.
- Availability of essential services.

A subsequent step in the comparative site analysis is defining functional and Facility requirements for the intended site. The project program, its phasing, and other operational and management considerations must be understood to test if the program fits the site.

A comparative site analysis is an essential step if an EIR is to be prepared for the project. An EIR requires an evaluation of project alternatives, which can include alternative site locations. The preferred site must be justified based on its satisfaction of project objectives.

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6.6 FACILITY AND INFRASTRUCTURE ANALYSIS

References:

Supplemental Report of the 1984 Budget Act, Item 6440-001-001 University of California, State of California Legislative Analyst, Sacramento, CA, June 14, 1984.

The University's Facility Audit and Inspection Program was established as a result of the recommendations contained in the Supplemental Report of the 1984 Budget Act. This audit and inspection program is designed to identify and prioritize deferred maintenance projects.

This process also identifies projects or systems that require replacement through the Capital Improvement Program. Facility planners should coordinate with operation and maintenance of plant departments to be aware of the Capital Renewal and Replacement Projects identified in this analysis (see FM6:2).

Campuses identify new utility requirements through the long-range development planning process or through more detailed campus-wide utility plans.

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6.7 PROGRAMMING

References:

- **RD4: Project Programmatic Guidelines**

6.7.1 Programming Objectives

Programming defines the needs of the user. That includes defining a project's functional needs interior and exterior functional requirements including space sizes, contents, activities and relationships. A project program serves not only as a basis for design and a source of information about a project, but frequently as a basis for seeking funding. The final product of programming is the project program, sometimes referred to as the Detailed Project Program (DPP).

6.7.2 The Project Program

The programming process concludes with a clear and orderly statement of the problem. Detailed program information is usually separated from the more general functional data. Project programs establish quality and scope. Quality is often defined abstractly in the project goals and more specifically in the project program. Scope is clearly defined and incorporates the following factors:

- The definition of the users and the purpose of the users
- The functions and programs
- The assigned square feet of the proposed facility
- Special factors

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6.8 CONSTRUCTION COSTS

This section describes approaches used to establish construction costs for project budgets. The construction cost of a project is part of the total project cost in the present Capital Improvement Budget (CIB).

6.8.1 Sources of Cost Information

Estimating construction costs typically involves using costs from similar prior projects and applying those costs to the present project, allowing for adjustments in location, scope, construction time period, and other factors.

6.8.2 Methods of Estimating Costs

The following methods are used to estimate construction costs (in order of increasing detail):

Cost per gross square foot. This method uses data about the costs for various building types published by cost information services, or compiled in databases by organizations such as the Association of University Architects (AUA).

Cost by building systems/components. Reference books are available that provide costs on components by building square foot and by square foot of building component.

Cost by building trade or Construction Specifications Institute (CSI) division. This level of estimate is useful at the Construction Documents Phase when enough detail is available on the project to break the various systems into component parts and do an accurate quantity survey similar to that done by contractors who are bidding a project.

6.8.3 Contingencies

Contingencies are normally used with all of the methods of estimating to allow for unknowns. Avoid adding explicit contingencies on top of implicit contingencies. The CIB provides for design and project contingencies.

The design contingency allows for the fact that projects often contain more elements when they are fully designed than could have been anticipated earlier in the design process. The project contingency is for unknowns during construction. The project contingency allows for unknown factors that could increase construction and related costs beyond the estimate. Project contingency is not the same as the escalation factor. (See 6.8.5 for information on indexing.)

6.8.4 Preparing the Construction Cost Estimate

The University capital improvement project funding process requires a level of estimating detail equivalent to the Cost by building systems/components method discussed above before a building design is established with components from which to estimate. Estimating the design cost is done from a written description of what is included in the proposed design.

Representative projects can be used as examples. Recommended comparisons are similar University-wide projects. By using the list of factors that influence costs and making assumptions about the factors relevant to the proposed project, these factors can be compared to those identified in the examples. A cost for each building component (factor) can be established by adjusting the related cost (e.g., weight of structure and loading) from the representative project to what are the assumed conditions of the proposed project.

6.8.5 Cost Indexing

Projecting historical cost data forward is accomplished by using the index published by Engineering News Record (ENR).

6.8.6 Donation Guidelines

Where all or any part of the labor and/or materials to be used in the design and construction of a project will be donated for no consideration or transferred to the University "at cost", state contracting laws and University policies may apply. Consult construction counsel and the *Guidelines for Donation* to properly characterize the donation and determine the best treatment. Where volunteer labor will be used on a project, all volunteers (and their parent or guardian, if applicable) should complete a waiver form (Also see "Volunteer Labor").

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Revised June 30, 2015 (Change # FM 15-007-P)

Capital Planning & Real Estate Approvals

Volume 2, Chapter 7

INTRODUCTION

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters
- Regents Policy 5300 on External Financing

- DA2628, Authority to Approve, Obtain, and Manage External Financing and to Execute External Financing Documents

Questions regarding this chapter should be directed to campus/medical center capital planning/real estate staff, the UCOP Director of Capital Planning or Director of Real Estate.

Project consistency (7.5.1) with: the most recently approved Capital Financial Plan (CFP), the accepted Physical Design Framework (PhDF), and the approved Long Range Development Plan (LRDP) are the determining factors for the proper approval path for a capital project. Consistency with PhDF and LRDP not required for off-campus projects for which there is no applicable PhDF or LRDP.

Total project budget shall be defined as all costs of the project including administrative, design, construction, interest accrued during construction, costs related to infrastructure needed to implement the project, and where applicable equipment costs as well as acquisition cost of land or other real property.

Phased work: A project cannot be divided into separate phases for independent consideration for any of the approvals and/or delegations within this chapter. Phased work includes but is not limited to: using the same contractor to perform similar modifications on multiple buildings, performing multiple projects over a period of years on the same building, and constructing multiple buildings in a complex or separating work into several projects. In such cases, separate projects or phases will be considered part of the same budget.

The consideration of separate projects or phases for determining the appropriate level of project budget approval should not affect the requirements for the bidding and contracting of those separate projects or phases. The approvals and delegations in this chapter are related to capital project budgets that may be for projects that are distinct from "projects" as defined in the Public Contract Code. It is possible that an approved capital project budget would be implemented under multiple contracts. Any contract for the implementation of an approved project budget would be subject to relevant bidding and contracting requirements (5.1).

Delegated Authority: Regents Policy 8103 on Capital Project Matters delegates specific capital project approval authorities to the President of the University. Delegation of Authority [2629] further delegates some of these capital project approval authorities to Chancellors, Director - Lawrence Berkeley Laboratory, Executive Vice President - Chief Operating Officer (UCOP), and Vice President - Agriculture and Natural Resources according to their areas of responsibility as summarized below.

Delegation of Authority 2629 also further delegates certain capital projects approval authorities to the Executive Vice President - Chief Financial Officer (UCOP).

All projects must comply with the California Environmental Quality Act (CEQA). CEQA defines "projects" as activities that have the potential to result in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. A

"project" constitutes the whole of an action, and applies to typical capital projects as well as certain real estate transactions. For additional information on CEQA compliance, see 5.1.

Information on external financing may be found in the Regents Policy 5300 on External Financing and DA2628 Authority to Approve, Obtain, and Manage External Financing and to Execute External Financing Documents.

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7.1 CAPITAL PROJECT BUDGET APPROVALS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Capital Planning.

This section addresses the authority that has been granted to Chancellors, Director - Lawrence Berkeley National Laboratory, Executive Vice President - Chief Operating Officer, and Vice President - Agriculture and Natural Resources for their areas of responsibility under DA2629 and the requirements for related transactions.

A capital project cannot be divided into separate phases for independent consideration for any of the approvals and/or delegations within this chapter. See definition of "Phased Work".

The consideration of separate projects or phases for determining the appropriate level of project budget approval should not affect the requirements for the bidding and contracting of those separate projects or phases. The approvals and delegations in this chapter are related to capital project budgets that may be for projects that are distinct from "projects" as defined in the Public Contract Code. It is possible that an approved capital project budget would be implemented under multiple contracts. Any contract for the implementation of an approved project budget would be subject to relevant bidding and contracting requirements (5.1).

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7.2 CAPITAL PROJECT DESIGN APPROVALS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Design and Construction.

This section addresses the authority that has been granted to Chancellors, Director - Lawrence Berkeley National Laboratory, Executive Vice President - Chief Operating Officer, and Vice President - Agriculture and Natural Resources for their areas of responsibility under DA2629 and the requirements for related transactions.

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7.3 CAPITAL PROJECT BUDGET AUGMENTATIONS AND SCOPE CHANGES

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Capital Planning.

This section addresses the authority that has been granted to Chancellors, Director - Lawrence Berkeley National Laboratory, Executive Vice President - Chief Operating Officer, and Vice President - Agriculture and Natural Resources for their areas of responsibility under DA2629 and the requirements for related transactions.

7.3.2 Scope Changes

A. Scope changes are evaluated on the basis of the value of the change. Scope changes do not include minor errors and omissions in construction documents or to respond to minor unforeseen site conditions. If these changes cannot be reasonably considered as minor or if they alter the programmatic capability or physical characteristics, the budget approval authority must be informed of a potential scope change. A project cannot be divided into separate phases for independent consideration. See definition of "Phased Work".
B. Scope change information should consider any mandated reviews and design approvals as well as any required California Environmental Quality Act compliance (5.1).

7.3.3 Related Materials

Related Sections in Facilities Manual: Capital Project Budget Approvals (7.1), Capital Project Design Approvals (7.2), Certification Checklist Directions (7.5), Reporting for Capital Projects (7.6), Business Case Analysis (RD2.6)

Information on California Environmental Quality Act Compliance (5.1)

Information on external financing may be found in the Regents Policy 5300 on External Financing and DA2628, Authority to Approve, Obtain, and Manage External Financing and to Execute External Financing Documents.

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7.4 GUIDELINES FOR MINOR AMENDMENTS TO PHYSICAL DESIGN FRAMEWORKS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Design and Construction.

The goal of Physical Design Frameworks (PhDF) is to create a common vocabulary for planning and design at the campus, while demonstrating how processes and standards at the campus support consistent implementation. The PhDF is to be a comprehensive report identifying the campus's principles and objectives for the design of the physical environment, how those relate to the campus Long Range Development Plan (LRDP), and how they are integrated into project planning and design.

Pursuant to the Regents Policy 8103 on Capital Project Matters, minor amendments to the PhDF may be approved by the President and this authority has been further delegated to Executive Vice President - Chief Financial Officer through DA2629. This document sets forth those guidelines and the process for approving changes to a campus PhDF.

7.4.1 Amendments

Minor amendments to the physical design framework are defined below:

- Addition of land or sites not currently in the approved PhDF, that are (i) already owned, leased, or otherwise occupied by the Regents, and (ii) covered in the adopted LRDP. The proposed amendment would identify the land or site, include appropriate principles and objectives for the design of the physical environment at the added location, and articulate how these relate to the current PhDF accepted by the Regents and to the adopted LRDP.
- Changes to the PhDF principles and objectives for the design of the physical environment, when these changes (i) are in compliance with the adopted LRDP and (ii) preserve the fundamental principles and objectives in the PhDF accepted by the Regents. The proposed amendment would explain how the changes relate to the adopted LRDP.
- An amendment to the PhDF that is occasioned by a new or amended LRDP, so long as the proposed PhDF amendment preserves the fundamental principles and objectives in

the PhDF accepted by the Regents. This may be prompted by addition of land or sites to be acquired, leased, or otherwise occupied by the Regents, or minor changes related to the design of the physical environment prompted by the new or amended LRDP. The proposed amendment would explain how the changes relate to the new or amended LRDP.

- In each of the above cases, if the proposed changes would be integrated into project planning and design in a different way from the process described in the accepted PhDF, the proposed amendment would describe the revised process.

7.4.2 Process for Approval of Changes

The campus/medical center shall submit a draft action item that includes:

1. The action to be taken;
2. An executive summary providing a brief general description of the changes to the PhDF, and the context and rationale for the changes;
3. A bulleted summary of previous or concurrent Actions (Regental, Presidential, Administrative or Chancellorial) that are relevant to the requested Action;
4. A complete accounting, with brief descriptions and depictions, of the changes to the PhDF, accompanied by documentation establishing that the changes (i) are within the President's authority as outlined above in the Guidelines, and (ii) preserve the fundamental principles and objectives in the PhDF accepted by the Regents; and,
5. Attachment of the section(s) of the PhDF proposed to be revised, in "redlined" and clean final proposed formats.

Completed draft action items will be reviewed by Capital Programs and UC Legal - Office of the General Counsel (UCL). Within fifteen working days after initial receipt, Capital Programs will either forward the Item for Presidential approval if no changes are required, or will provide comments back to the campus. Upon the President's approval, the changes to the PhDF will be effective immediately.

7.4.3 Physical Design Frameworks are not "Projects" as Defined by CEQA:

The California Environmental Quality Act (CEQA) defines "projects" as activities that have the potential to directly or indirectly affect the physical environment. The University of California plans for physical development through the LRDPs for each campus and individual project approvals. Environmental Impact Reports (EIR) are prepared to support each LRDP. Subsequent to the LRDP approval and EIR certification, CEQA evaluation is done for individual projects as needed. PhDFs are guidance documents that do not entitle or allow physical development, but rather further define design principles and material choices. Minor amendments to PhDFs are similarly not considered "projects" as defined by CEQA, as they do not themselves allow development. Any project that requires a minor amendment to the PhDF will have project specific CEQA evaluation to support the design approval of the project.

7.4.4 Related Material

Related Sections in Facilities Manual: Capital Project Design Approvals (7.2), Certification Checklist Directions (7.5)

Information on California Environmental Quality Act Compliance (5.1)

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7.5 CERTIFICATION CHECKLIST DIRECTIONS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Capital Planning.

The Certification Checklist is used to document a project's eligibility for delegated budget approvals and design approvals following action pursuant to the California Environmental Quality Act.

7.5.1 Certification Checklist Eligibility

This section defines eligibility criteria, and provides guidance on the information required in the Certification Checklist (RD2.8).

Each capital project must demonstrate:

A. Total cost between $10 million and no more than $70 million
B. Capital Financial Plan consistency
C. Physical Design Framework consistency as applicable
D. Long Range Development Plan consistency as applicable
E. Compliance with California Environmental Quality Act and University/Regental Policies
F. Financial feasibility as applicable
G. No special circumstances exist that may merit review by the Regents

Projects funded wholly or in part by State funds are not eligible for budget approval through the Certification Checklist (RD2.8); however, the design of projects using State funds with a project budget no more than $70 million may be approved under DA2629.

A. Major capital improvement projects with a total project budget up to and including $70 million

Projects of $10 million or less do not need to use the Certification Checklist (RD2.8) to document eligibility for delegated budget for non-State and design approvals.

Non-State funded projects with a total project budget more than $10 million and no more than $70 million are eligible for budget and design approval using the Certification Checklist (RD2.8). State funded projects with a total project budget more than $10 million and no more than $70 million are eligible for design approval using the Certification Checklist (RD2.8). It is recommended that campuses consult with UCOP Capital Assets Strategies for projects with budgets near the $70 million ceiling at the time of approvals to ensure the project will not risk exceeding the maximum budget threshold during project delivery.

B. Capital Financial Plan (CFP) consistency

The CFP identifies proposed capital projects, public-private partnerships, and acquisition of real property for each campus and medical center. The projects and transactions are presented within the context of goals and needs, current economic conditions, and specific circumstances for each location.

Consistency: For purposes of determining eligibility to use the Certification Checklist (RD2.8) for approvals, consistency with the CFP is verified if it has the same budget, scope, and funding source(s) identified in the most recently accepted CFP and supplemental materials included with that CFP. Generally, a project is considered consistent if the proposed budget is within 15% of the budget in the accepted CFP. Any project with a total project cost over $70 million will require Regental approval.

The location, program, square footage, purpose, and distribution of funding across sources will be evaluated by UCOP to confirm that they support the project as described in the most recently accepted CFP and supplemental materials included with that CFP. Reasonable variations in these elements are anticipated; however any significant variations that are not supported by sufficient justification for the changes could result in the action being recommended for Regental approval.

Early consultation with UCOP regarding funding or scope changes is recommended to facilitate timely review.

C. Physical Design Framework (PhDF) consistency

The PhDF is a guidance document that identifies the campus's planning principles and objectives for design of the physical environment; how the PhDF relates to the campus LRDP; and how objectives will be integrated into project planning and design. The PhDF is a Regents-accepted document with both visual and textual elements and includes key planning requirements such as density parameters, sustainability guidelines, circulation guidelines, vistas and sightlines, physical connections to the adjacent community, and design guidelines. The guidelines may include building heights, build-to lines, building orientation, building materials and colors, site furnishings, landscaping and hardscaping, and architectural style guidance. The PhDF also describes the campus design review and approval process. The PhDF guides campus development in a coherent manner, ensures stewardship of the campus environment, and informs design professionals of design principles and objectives important to the campus.

Consistency: The Certification Checklist and attachments must demonstrate that the stated planning principles, design objectives, specific design guidance, and the campus design review and approval process have or will be met by the project. Consistency with the accepted PhDF is not required for off-campus projects for which there is no applicable PhDF.

D. Long Range Development Plan (LRDP) consistency

A LRDP is a comprehensive land use plan that guides physical development and generally includes four standard elements: land use, open space, circulation, and utilities. The plan identifies the physical development associated with projected enrollment and population and is an important reference document for the campus, the University, and the general public.

Consistency: A project that demonstrates general conformance with the land use designations for the site is considered consistent. Consistency with the approved LRDP is not required for off-campus projects for which there is no applicable LRDP.

E. Compliance with CEQA and University/Regental Policies

A number of key University policies are identified in the Certification Checklist (RD2.8) and require documentation of compliance in the submittal. Additional documentation may be requested depending on project-specific attributes (e.g. gift policy, student fee policy with respect to capital facilities, etc.).

F. Financial feasibility

When a project is funded in whole or in part with external financing and/or standby/interim financing, the campus must analyze the affordability of such debt-funded projects on a ten-year pro-forma basis, with the additional debt burden assessed against metrics such as debt service to operations, debt service coverage, and expendable resources to debt. Capital Markets Finance (CMF) coordinates with campuses on the debt model and affordability and debt funded projects are subject to the UC Debt Policy.

Third-Party Funding: The total project cost limits (of up to and including $70 million) and financial feasibility requirements apply to all capital projects, even those fully or primarily funded with resources other than campus funds or UC external financing. For example, projects structured with 100% gift funds or as public-private partnerships have potential impacts on the campuses' debt affordability and therefore require review. In circumstances where the nature of these projects means the typical documentation of total project cost—i.e., the Capital Improvement Budget—are not available, the campus should consult with UCOP Capital Assets Strategies to determine acceptable substitute documentation.

G. Special circumstances

Despite the authority in DA2629, at the recommendation of the Executive Vice President - Chief Financial Officer (UCOP) or the General Counsel and Vice President - Legal Affairs, the President of the University may determine that a project merits review and approval by the

Regents because of special circumstances related to budget matters, external financing, fundraising activities, project design, environmental impacts, community concerns, substantial program modifications, or potential to create negative system-wide precedent including, but not limited to, compliance with CEQA.

7.5.2 Submittal Requirements

A Certification Checklist (RD2.8) must be submitted to UCOP Capital Programs to confirm that the project is eligible to proceed with budget and design approval(s) pursuant to DA2629. Elements of the submittal package are described further below. As described in the checklist, the required elements will vary depending in the type of approval. Once a submittal package is received and completeness confirmed, a 15-working-day review period begins. Examples of submittal materials can be provided upon request.

A. Certification Checklist

- Chancellor or Sole Campus Designee or Sole Medical Center Designee signature is required
- General project information must be provided, all relevant checkboxes completed, and applicable dates in blanks provided.
- Physical Design Framework: provide a brief narrative demonstrating the major points of consistency with the PhDF and include design graphics used in campus design review and relied on by the Chancellor for design approval.
- Sustainable Practices: Enter minimum planned LEED™ goal and stretch goal, if any.
- Other Relevant Policies: If "Yes," note the other policies that apply. A "Yes" answer indicates a project is in compliance with those other identified policies.

B. Draft Action Item

An unsigned draft of the item that is proposed for the Chancellor's action should be submitted with the checklist. The draft action item is to be signed in final format by the Chancellor or Sole Campus Designee or Sole Medical Center Designee after the Office of the President endorses the Certification Checklist (RD2.8). The draft action item must reflect the budget, scope, schedule, and other supporting documentation in the checklist.

C. Attached documentation

The Certification Checklist requires project documentation that demonstrates the: need being addressed, program description and justification, project scope, Capital Improvement Budget (CIB), schedule, planning and review process, and Environmental Impact Classification (EIC) (RD2.1).

A capital project's Project Planning Guide (PPG) includes all the above information and may be a convenient way to submit the documentation.

D. Campus Planning and Review Process

Include dates of campus reviews.

E. Environmental documentation

Certification Checklist and Checklist Attachment 1 outline the submittal package contents, including but not limited to:

- EIC (RD2.1) signed by UCOP and campus; typically included in the PPG
- Environmental Documentation
- Public notification of pending delegated approval
- Required CEQA noticing
- For Environmental Impact Reports only, public scoping meeting dates and public hearing dates

F. Design Review

Attach the graphics used in campus design review and approval, including a location plan, representative floor plans, site plan/landscaping plan, exterior elevations including materials, and renderings. For projects that are not buildings (such as infrastructure) or projects that are entirely interior to a building, provide graphics to describe the scope of the project and document design phase and campus reviews. Graphics should be consistent with scope described in environmental documents. Include the dates of design review.

7.5.3 Process

UCOP is committed to expediting reviews of eligible projects. A UCOP Capital Programs Team Leader (Team Leader) will be established for every project to serve as a single point of contact and to coordinate concurrent review by various UCOP units. The Team Leader will be identified with the initial Checklist Submittal and will be the contact person for every phase of the process. Review is more expedient with a complete Certification Checklist (RD2.8), consistent information across documents, and readily verified compliance with relevant policies.

Certification Checklist - Subsequent Approvals: Campuses/medical centers may elect delegated approval of the budget before design begins (or early in design), then have the Chancellor approve design pursuant to CEQA later in the preliminary plans phase. Final CEQA documents are not required to be completed prior to submittal of the Certification Checklist to UCOP Capital Programs for review. The campus/medical center should coordinate with UCOP Physical and Environmental Planning and UC Legal for the review of administrative draft CEQA documents prior to public review and finalization. The campus/medical center is responsible for assuring all required CEQA documents are complete and appropriately attached to subsequent design approval at the time of the Chancellor's approval. A second Certification Checklist for design approval is not required.

Certification Checklist - Consolidated Review: For projects with no State funding, campuses may opt for a consolidated submittal including budget and design at the same time, usually at or

near the completion of the design development phase, but always before the start of the construction documents.

GENERAL ORDER OF ACTIONS FOR THE DELEGATED PROCESS

A. Chancellor Approval of Preliminary Plans (may be required)
B. Consultation (Optional)
C. Checklist Submittal Review
D. Executive Vice President's Determinations
E. Campus and Medical Center Approval Actions

A. Chancellor Approval of Preliminary Plans (*may be required*)

The delegated approval of design generally requires completion of schematic design, and the project's executive architect must be retained under an Executive Design Professional Agreement (EDPA). In the absence of full budget approval, the EDPA requires that the project must be formally approved for preliminary plans funding (P Approval), consistent with UC policy. The Chancellor action item approving the expenditure funds for preliminary plans does not require a Certification Checklist nor is it reviewed at UCOP.

B. Consultation (*Optional*)

For projects that are straightforward, complete and fully coordinated, submittals generally require little consultation between the campus/medical center and UCOP. However, projects are becoming increasingly complex. A consultation phase is available for all projects, and advisable on complex projects, to facilitate collaborative resolution of issues and potentially shorten the final Certification Checklist review time.

Upon receipt of the draft Checklist Submittal (campus signatures not required), the Team Leader will acknowledge receipt and will circulate the materials. UCOP will review documents, consult with the campus/medical center staff as needed to understand the proposed project, and identify issues needing clarification or resolution. UCOP Capital Programs staff are available, even before a draft Checklist is ready, to consult regarding on potential issues.

C. Checklist Submittal Review (*Required*)

UCOP strives to review Checklist Submittals and secure necessary endorsements from UCOP senior leadership within 15 working days. The Team Leader will notify campus of incomplete submittals and missing information, indicating that coordination and review will begin once missing materials are provided and confirmed.

If substantial issues arise during the UCOP review process, the campus will be promptly be advised by the Team Leader that the 15-day clock will be paused until the campus can respond with clarification or correction.

Submittal materials are distributed internally to Capital Programs, UC Legal (UCL), and CMF for review. At that time, the campus/medical center is notified of the UCOP team members assigned for review (including the Team Leader), and the end date of 15-day review.

Capital Programs Review: Capital Programs reviews the provided materials to confirm consistency with campus plans (CFP, PhDF, and LRDP), CEQA, and University/Regental Policies. The CEQA review includes materials included in Attachment 1 of the Checklist (e.g. draft environmental document, draft Notice of Determination/Exemption, draft Findings, and draft Mitigation Monitoring and Reporting Program, if applicable). Capital Programs also reviews the draft Chancellor action item. Any edits are returned are in a strikeout/underline format. For public private partnerships, authority and real estate documentation is also reviewed.

UC Legal Review: The campus/medical center should coordinate with their designated UC Legal General Counsel for the review of administrative draft CEQA documents prior to public review and finalization. The campus/medical center is responsible for alerting their designated UC Legal General Counsel of any anticipated community concerns with environmental impacts associated with the project or the environmental review process.

UC Legal's suggestions rests with the campus based on a balancing of the likelihood of legal challenge against delivery delays, and any financial, political, or community relations issues.

CMF Review: CMF reviews the campus Debt Affordability Model and the Summary of Financial Feasibility for any projects requesting external, interim, or standby financing, and those using reserves. CMF reviews this material to confirm that calculations are accurate and assumptions are reasonable, given current and anticipated market conditions and then makes a recommendation to the Executive Vice President – Chief Financial Officer as to whether the project is eligible for approvals using the Certification Checklist.

D. Executive Vice President's Determination

On completion of the Checklist Submittal review, the Team Leader will notify campus whether the Executive Vice President - Chief Financial Officer or UC Legal - Office of the General Counsel has noted issues that may require Regental review.

E. Campus and Medical Center Approval Actions

Upon receipt of the UCOP determination that the project does not require Regental review, the Chancellor may approve the project budget and/or design. The Chancellor may delegate this authority to the Sole Campus Designee and Sole Medical Center Designee (7.1 and 7.2). The campus or medical center finalizes the delegated approval as noted below.

Public notification of pending delegated approval: For projects requiring design approval, post notice on website a minimum of 15 days in advance of the design action. Most budget actions do not require supporting CEQA documentation and can skip this step in the process (budget actions that occur after design approval may require CEQA compliance). Typically the notice is posted on the same website used to provide access to the environmental document during public review.

This notice may be posted during the UCOP 15-day review period of the Checklist Submittal. The environmental document, if applicable, should be made available. The following is sample notice text:

> *"In accordance with established University of California procedures, UC [CAMPUS] Chancellor [NAME] will consider approval of the [PROJECT NAME]; approval is anticipated no sooner than [DATE]. In accordance the California Environmental Quality Act (CEQA) and the University of California guidelines for the implementation of the CEQA, the campus proposes that a [TYPE OF DOCUMENT (EIR, IS/MND, ETC.)] and [MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)—if applicable] be adopted by The Chancellor on [DATE] in support of the proposed [PROJECT NAME]. The purpose of this notice is to advise the public of the proposed approval action of the project."*

Chancellor or Designee Approves Item: Any comments/edits received from UCOP on the draft action item during the 15-day review are incorporated into the final draft that is signed by the Chancellor or designee.

Signed Project Approval Documents: The campus/medical center retains the original documents and emails a copy to the Team Leader within five working days of approval.

CEQA Notices: The campus/medical center center is responsible for filing of all applicable notices pursuant to CEQA, such as Notice of Preparation, Notice of Availability, Notice of Determination and, at its discretion, Notice of Exemption to the State Clearinghouse.

Capital Projects Database: The campus/medical center enters project information into the Capital Projects Database during the quarterly update immediately following the project approval(s). This data is included in the Major Capital Projects Implementation Report.

Notice of Completion: The campus keeps the original Notice of Completion (NOC) and sends a copy to Capital Programs within five working days of filing the NOC.

Post-Project CIBs: Within 60 days after the filing the NOC (or Certificate of Occupancy if there is no NOC) the campus or medical center submits, by entering it as approved into the Capital Projects Database, an updated post-construction CIB showing any "as-disbursed" changes to date to the prior approved CIB.

Final CIBs: After fiscal close of the project, the campus or medical center submits, by entering it as approved into the Capital Projects Database, an updated final CIB showing any "as-disbursed" changes to date to the post-project CIB.

7.5.4 Related Material

Related Sections in Facilities Manual: Capital Project Budget Approvals (7.1), Capital Project Design Approvals (7.2), Capital Project Budget Augmentations and Scope Changes (7.3), Guidelines for Minor Amendments to Physical Design Frameworks (7.4), Reporting for Capital

Projects (7.6), Business Case Analysis (RD2.7), Environmental Impact Classification Form (RD2.1)

Information on California Environmental Quality Act Compliance (5.1)

Information on external financing may be found in the Regents Policy 5300 on External Financing and DA2628, Authority to Approve, Obtain, and Manage External Financing and to Execute External Financing Documents.

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7.6 REPORTING FOR CAPITAL PROJECTS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Capital Planning.

Campus and medical center staff are responsible for ensuring that the capital projects database has current information.

7.6.1 Requirements

Capital projects shall include the following reporting and accountability requirements:

A. Major Capital Projects Implementation Report, reporting the adherence to plans and aggregated performance on specific metrics of Regental and Presidential interest;
B. Capital Projects Database shall, at a minimum, be updated before the end of each fiscal year to include current budget and schedule information;
C. Project close-out capital improvement budgets ("Post-Project CIBs") for projects over $10 million within 60 days of the filing of the Notice of Completion (or Certificate of Occupancy if there is no Notice of Completion) and a final CIB at the fiscal close of the project;
D. Physical environment review, reviewing implementation of the Physical Design Framework through regular visits, and by a self-assessment survey of faculty, students, and staff; and
E. Periodically, an audit on selected projects to confirm the factual validity of information reported and compliance with Regental policies, Presidential policy and delegations as well as direction provided in the Facilities Manual.

7.6.2 Related Material

Related Sections in Facilities Manual: Capital Project Approvals (7.0), Capital Projects Budget Approvals (7.1), Capital Project Design Approvals (7.2), Project Budget Augmentations and Scope Changes (7.3), Certification Checklist Directions (7.5)

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7.7 AUTHORIZATION FOR ACQUISITIONS, DISPOSITIONS, OR GROUND LEASE OF REAL PROPERTY

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Real Estate.

Chancellors, Director - Lawrence Berkeley Laboratory, Executive Vice President - Chief Operating Officer (UCOP), and Vice President - Agriculture and Natural Resources do not have delegated authority for acquisitions, dispositions or ground lease of real property under Regents Policy on Capital Project Matters. This section sets forth the processes that must be followed prior to negotiating the aforementioned transactions.

7.7.1 Request for Assistance Letter

Chancellors, Director-Lawrence Berkeley Laboratory, Executive Vice President-Chief Operating Officer (UCOP), and Vice President-Agriculture and Natural Resources are required to submit a letter to the Executive Director of Capital Programs requesting assignment of Office of the President (UCOP) staff prior to commencing with negotiations for any real property acquisitions, disposition, or ground lease of real property (Authorization Request).

7.7.2 Content of Request Letter

The Authorization Request must include the following information:

A. Programmatic Purpose
Provide a description of the purpose of the transaction, how it serves the University's mission, and the programmatic rationale for the real estate requirement. If the programmatic considerations support basing some or all of the transaction on other than market terms (e.g. , no rent or below market rent for a ground lease), include a justification for this programmatic offset.

B. Project Description
Provide an abstract of the proposed transaction including the fundamental terms, preliminary schedule through approval, parties to the transaction and respective roles, and a description of the property including any improvements with area, use, and condition

information. Provide a discussion of the other properties or transaction alternatives (e.g., on campus vs. off campus, new vs. existing, and lease vs. acquisition) that have been considered and indicate why the selected alternative is preferred. If construction or remodeling is required, a description of the planned work and the estimated cost (however preliminary) should be included. Also, note any special issues or concerns, such as political, environmental, or community relations sensitivities, and any related transactions (e.g., the University leasing back space in a project to be developed on its land pursuant to a ground lease).

C. Funding, Financing and Feasibility
For acquisitions, or ground leases with the University as lessee, provide a summary of the total cost of acquisition (or ground rent) and the estimated cost of any improvements or renovations. Summarize funding sources and University financing required for the project through completion, including preliminary financial feasibility in the one page format accompanying Regents' Items. For dispositions, or ground leases with the University as lessor, provide a description of the property, estimated price, summary of any debt or restrictions applicable to the property and use of proceeds. For dispositions, also indicate why the property is surplus to the University's needs. For ground leases on University land in particular, indicate the proposed use and term and how that use fits within the campus Long Range Development Plan and also specify the preferred form(s) of consideration for the use of University's land.

D. Additional Resources
Provide a description of resources necessary or desired to complete the desired transaction and identification of funding to support the resources or services. This should include legal support through UCL and outside counsel, brokers, financial advisors, third-party consultants and any other specialized assistance.

The content of the request for authorization will vary with the type and complexity of the proposed transaction. UCOP staff members are available to assist in pre-authorization strategic planning, transaction design, and developing information to be included in the Authorization Request.

7.7.3 Timeframe for Submitting Request Letter

The earlier the Authorization Request is submitted, the more opportunity there will be to collaborate on and confirm policy, budget, and financing parameters. Early UCOP involvement will minimize delays resolving fundamental business and policy issues and, when those issues are not resolvable, avoid spending significant time on a form of transaction that is ultimately not feasible and identify workable alternatives. Transactions may undergo significant changes from the conceptual stage through ultimate transaction approval. The benefits of early UCOP involvement noted above, however, far outweigh any duplication of effort that may result from such changes, and in any case, authorization to proceed is required prior to a significant action (e.g., issuance of a letter of intent, Memorandum of Understanding, or Request for Qualifications/Proposals), or the commitment of significant University resources.

7.7.4 Response to Request Letter

Following receipt of the Authorization Request, the Executive Director of Capital Programs will either:
(i) send a letter assigning appropriate UCOP staff, including requesting UCL to assign counsel, to pursue formal negotiations and advance the transaction process through final approval, or
(ii) request additional information and clarifications. In some instances, the Executive Director may also request a meeting with appropriate campus and UCOP staff to review the proposed transaction.

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7.8 REQUIREMENTS TO LEASE, LICENSE, AND GRANTING EASEMENTS OR RIGHTS-OF-WAY UNDER DELEGATED AUTHORITY

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Real Estate.

This section addresses the authority that has been granted to Chancellors, Director - Lawrence Berkeley National Laboratory, Executive Vice President - Chief Operating Officer, and Vice President - Agriculture And Natural Resources for their areas of responsibility under DA2629 and the requirements for related transactions.

B. Transaction Requirements

The license transaction meets all of the following criteria:

i. Does not include Third Party Indemnification;
ii. Is not for purposes of facilitating third party development of projects on campus for gift, sale, or lease to the campus; and
iii. A License Checklist (RD2.9) has been completed and retained in the campus project file, except that a License Checklist need not be completed for license transactions that: (1) have a term of less than one year, (2) include tenant improvements not exceeding $5,000, and (3) have consideration not exceeding $12,000.

7.8.3 Easements and Rights-of-Way

A. Authority

The relevant sections of DA2629 Delegation of Authority – Capital Project Matters are included below for reference. The specific delegation of authority in this table cannot be changed through edit or updates to this section of the Facilities Manual.

DA2629 Reference Number	Transaction Type	Maximum Authority Delegated from the President to Chancellors / Director – LBNL / EVP – COO / VP – ANR in Their Respective Areas of Responsibility
12	Other Real Estate matters	Approve and execute the grant of easements and rights- of-way (including ancillary documents, amendments, and other modifications to easements and rights-of-way), that: (i) are revocable by UC for convenience on notice not to exceed 180 days, or (ii) provide utility services to UC property exclusively, or (iii) comprise no more than 5,000 square feet of UC land and are memorialized by either a (a) UC Standard Form without material modification, or (b) an instrument reviewed by Real Estate Services & Strategies and approved by the UC Legal – Office of the General Counsel as to legal form May be further delegated, with a copy to UCOP Capital Asset Programs Guidance and requirements for the implementation of this authority can be found in the following areas of the Facilities Manual: 2.7.7 Authorization for Acquisitions, Dispositions, or Ground Lease of Real Property 2.7.8 Requirements to Lease, License, and Granting Easements or Rights-of-Way Under Delegated Authority 2.7.9 Reimbursement Agreements and Stipend Agreements Ancillary to Real Property Transaction

B. Transaction Requirements

The easement or right-of-way transaction meets all of the following criteria:

i. Is not a conveyance of a fee interest in real property;
ii. Does not include Third Party Indemnification;
iii. Has a clear and determinable location based on a legal description with a map depicting the area;
iv. A determination has been made by the campus planning office that the easement does not interfere with any existing or future use of campus land;
v. If UC is the grantor, the agreement is in a form approved by UCL and contains language requiring that:
    a. The easement or right-of-way terminate following a period of non-use;
    b. The grantee quitclaims its interest upon termination; and
    c. UC has unilateral right to relocate the easement or right-of-way; and
vi. An Easement Checklist (RD2.10) has been completed and retained in the campus project file.

7.8.4 Ancillary Documents, Amendments, and Other Modifications

Approve and execute ancillary documents, amendments, and other modifications to leases, licenses, easements, and rights-of-way consistent with authority granted under DA2629, including the following:

- Subordination and Non-Disturbance Agreements (SNDAs)
- Estoppel Agreements

7.8.5 Reporting Requirements

For all leases, licenses, easements, and rights-of-way approved and executed pursuant to delegated authority under Regents Policy on Capital Project Matters, the following must be submitted to UCOP Real Estate Services & Strategies (RESS), annually by July 31st: (1) a report (Annual Report) listing each lease, license, easement, and right-of-way agreement approved and executed pursuant to this delegated authority during the preceding fiscal year and (2) an electronic copy of each lease, license, easement, and right-of-way agreement listed on the Annual Report.

7.8.6 Forms

A. Standard Lease Forms

The Standard Forms listed below are approved for use as a standard form (without review by UCL) when the only changes are business terms.
(i) Lease (UC as Landlord)
(ii) Lease (UC as Tenant)

B. Licenses

Because licenses are used in such a wide variety of situations and require the addition of specialized language to tailor the license to each individual use, it is difficult to create a form that will not require UCL review. We have prepared the following minimum license forms:
(i) License (UC as Licensor)
(ii) License (UC as Licensee)
(iii) Facility Use Agreement (UC as Licensee)
Contact RESS for guidance concerning the need for UCL review except for licenses which employ the minimum form without significant modification for the following uses: construction, construction laydown areas, and access over existing streets. RESS may have examples of specialized licenses for various purposes.

C. Easements

Easements frequently convey a permanent interest in Regents' property and frequently involve substantial capital investment by the grantee. The minimum easement form below provides a basic form. UCL review is required for all easements except those using the minimum form, without substantial modification, for utilities to serve a campus and access over existing streets.
(i) Grant of Easement and Agreement

7.8.7 Process for Legal Review

Material changes to UC Standard Form agreements and transactions conducted on non-UC forms require prior review and approval by UCL. RESS will coordinate the process of submission of reviews by UCL and responses. Requests for review should be submitted early in the process to ensure adequate time for review in advance of scheduled date of completion or execution. Turnaround times for UCL are dependent upon workload and staffing.

7.8.8 Descriptions of Lease, License, and Easement

Understanding the differences between a lease of real property, a license, and an easement can help determine which one to use in a specific situation.

A. Lease

A lease is an agreement in which the landlord agrees to give the tenant the exclusive right to occupy real property, usually for a specific term and, in exchange, the tenant agrees to give the landlord some sort of consideration. A lease transfers to the tenant a leasehold interest in the real property and, unless otherwise provided in the lease, a lease is transferable and irrevocable.

B. License

A license gives the permission of the owner to an individual or an entity to use real property for a specific purpose. Unlike a lease, it does not transfer an interest in the real property. It is personal to the licensee and any attempt to transfer the license terminates it. It is (usually) revocable and can be either exclusive or non- exclusive.

A facility use agreement (FUA) is a short form license for very limited use of a facility.

Licenses are sometimes included in other agreements, e.g. a memorandum of understanding. It is highly recommended that a separate license be created whenever a right to use another party's space, usually for a shorter term, is part of a larger relationship. The separate license should be attached as an exhibit to the more general agreement.

C. Easement

An easement, like a license, gives the permission of the owner to use or prevent the use of the owner's real property. However, unlike a license, it transfers to the easement holder an interest in the real property that encumbers the title record. Easements are classified as either appurtenant (benefiting and transferable with a specific piece of real property) or in gross (personal to the grantee). An easement can be transferred. Unless otherwise specified, an easement is presumed to be permanent and non-exclusive.

To summarize:

Characteristics	**LEASE**	**LICENSE**	**EASEMENT**
Agreement between 2 parties	Yes	No*	No*
Conveys an interest in real property	Yes	No	Yes
Revocable	No (usually)	Yes (usually)	No
Transferable	Yes	No	Yes
Exclusive right	Yes	Optional	Optional

** Although both a license and an easement can be unilateral instruments, the University's licenses and easements are usually structured as agreements between the licensor/grantor and the licensee/grantee because the University requires the other party to agree to certain terms limiting or structuring the use, e.g. maintenance, indemnification, and insurance coverage.*

D. Selecting the appropriate form

- If the right to use the property will belong **exclusively** to the user during the term, even as against the property owner, a LEASE will accomplish that goal.
- If the use/occupancy of the property will be **shared** with others during the term, then a LICENSE or an EASEMENT is the proper tool. NOTE: For a LICENSE or EASEMENT to convey the right to exclusive use, it must be specified in the document.

- If the use is to be **long-term** (like the underground installation of fiber optic cable), an EASEMENT is the appropriate form. If the use is to be **short-term** (like a construction lay down area or a film shoot) or for only part of the time during the term, (like use of a classroom Tuesdays and Thursdays, from 9-10 am, for a semester), a LICENSE is most appropriate. If the use is **intermittent**, the FUA would be appropriate in the latter example.
- If an owner wants an agreement that his/her view not be blocked by the use of another parcel, such an agreement should be documented with an EASEMENT.

7.8.9 Further Delegation of Authority

Authority related to Leases, Licenses, and Easements pursuant to DA2629 may be further delegated. The appointment of the delegate shall be in writing. A copy shall be provided to the Executive Director of Capital Programs.

7.8.10 Related Material

Lease/License Checklist (RD2.9)

7.9 REIMBURSEMENT AGREEMENTS AND STIPEND AGREEMENTS ANCILLARY TO REAL PROPERTY TRANSACTIONS

References:

- Regents Policy 8103 on Capital Project Matters
- DA2629, Delegation of Authority - Capital Project Matters

Questions regarding this section should be directed to campus/medical center capital planning staff or the UCOP Director of Real Estate.

This section addresses the authority that has been granted to Chancellors, Director - Lawrence Berkeley National Laboratory, Executive Vice President - Chief Operating Officer, and Vice President - Agriculture And Natural Resources for their areas of responsibility under DA2629 and the requirements for related transactions.

7.9.1 Authority

The relevant sections of DA2629 Delegation of Authority – Capital Project Matters are included below for reference. The specific delegation of authority in this table cannot be changed through edit or updates to this section of the Facilities Manual.

DA2629 Reference Number	**Transaction Type**	**Maximum Authority Delegated from the President to Chancellors / Director – LBNL / EVP – COO / VP – ANR in Their Respective Areas of Responsibility**

10	Reimbursement agreements and stipend agreements ancillary to real property transactions	Approve and execute reimbursement and stipend agreements, where the University assumes an obligation to pay a cost of up to and including $2.5 million May be further delegated where the University assumes an obligation to pay a cost of up to and including $75,000, obligations beyond this amount may not be further delegated Guidance and requirements for the implementation of this authority can be found in the following area of the Facilities Manual: 2.7.9 Reimbursement Agreements and Stipend Agreements Ancillary to Real Property Transaction

7.9.2 Description of Reimbursement and Stipend Agreements

A. Reimbursement Agreements

For the purposes of this authority, “reimbursement agreements” pertain to those agreements where the University is obligated to reimburse costs incurred by a landlord or third-party development partner when the reimbursement of those costs is contingent upon the future execution of a lease, ground lease, partnership agreement, or similar agreement. In these instances, reimbursable costs are typically limited to expenses related to the planning and design of a capital project.

For the purposes of this authority, “reimbursement agreements” are not intended to include the reimbursement of costs incurred by a landlord during the tenancy of the University. For example, if an existing lease agreement allows for the landlord to be reimbursed for minor repairs or alterations to a leased facility, it is not expected that the Chancellor would approve each reimbursement under that lease. However, depending on the nature of the repairs or alterations, other approvals for capital projects could apply.

B. Stipend Agreements

For the purposes of this authority, “stipend agreements” pertain to those agreements where the University is obligated to pay third-party development partners or design and construction contractors for their participation in a competitive selection process. The amount and conditions of the stipend are expected to be agreed upon prior to their participation.

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State-Funded Capital Program

Volume 2, Chapter 8

[In development]

Non-State Capital Program

Volume 2, Chapter 9

[In development]

Volume 3: Design, Design Documents, Instruction, Models

Introduction

The University of California and its Facilities operate an extensive design, construction, and renovation program. The University makes a substantial investment in each capital project and has instituted policies and procedures to guide project development. Project design is a key element in the process. This volume outlines University design policies and procedures and includes design documents.

Purpose of this Facilities Manual Volume

This volume of the University of California Facilities Manual includes design policies, design professional selection policies and procedures, design review policies and procedures, and code compliance procedures for guiding the design of a project. Content of this volume is not intended as a substitute for detailed Facility design procedures. Each Facility is encouraged to develop its own procedures manual that expands on and complements this volume.

CHAPTER 1: PROJECT DESIGN PHASES

This chapter references the applicable sections in the Executive Design Professional Agreement to be used during the design phases of a project, the environmental requirements during schematic design, the value engineering requirements, and the process to establish a project's effective code date upon completing design development.

CHAPTER 2: DESIGN PROFESSIONAL SELECTION

The selection of design professionals is subject to University policy and guidelines on affirmative action and subject to University policy and guidelines on design professional selection. Design professionals must be selected based upon predetermined qualification criteria. Qualification criteria must be reasonable and appropriate for the scope, complexity, and dollar value of the project to which the design professional will be assigned.

CHAPTER 3: DESIGN PROFESSIONAL AGREEMENTS

The University uses three standard types of design professional and professional service agreements for design, consulting, and construction management services: the Executive Design Professional Agreement, the Construction Management Agreement, and the Professional Services Agreement. Certain conditions must be met before design professional agreements are executed.

CHAPTER 4: CODE AND REGULATORY COMPLIANCE

Building codes, standards, federal and state legislation, and federal, state, and local agency regulations affect University projects. The University is its own enforcement agency for all code requirements except those regarding fire code, access compliance, and medical facilities covered

by the Office of Statewide Health Planning and Development. For these code requirements, University projects are subject to plan approval and enforcement authority by three state agencies.

CHAPTER 5: DESIGN REVIEWS AND APPROVALS

University projects require review prior to their entering the formal approval process. Project items to be reviewed include design and cost, site, seismic safety, and environmental impact. In addition to these University approvals, various state, local, and University entities may require their own reviews and approvals for certain projects.

CHAPTER 6: PROJECT RECORDS

Official project file records must be retained after a project has been completed.

Project Design Phases

Volume 3, Chapter 1

INTRODUCTION

This chapter summarizes the design phases of a project, references the applicable sections in the Executive Design Professional Agreement to be used during the design phases of a project, the environmental requirements during schematic design, the value engineering requirements, and the process to establish a project's effective code date upon completing design development. Refer to FM3:3 and the contracts in the Online Repository of Approved Contract Templates when hiring design professionals. Some projects may be designed by in-house staff (see FM1).

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1.1 PREDESIGN PHASES

References:

- Professional Services Agreement

1.1.1 Design Professional Services

In the early project development phases, a Facility may need the services of a design professional for project analyses and feasibility. The Professional Services Agreement is used for these services.

If the same design professional is commissioned for project design, then the advertising, screening, and selection procedures must be followed (see Chapter 2) and an Executive Design Professional Agreement must be executed prior to beginning of Schematic Design Phase.

1.1.2 Project Program

A project program is developed which defines the scope and budget of the project, i.e., the needs and functions of the user (see FM2), and the assignable square footage.

1.1.3 Review of Conceptual Design

After the project program is complete, it is recommended that a predesign conference be held to confirm that all issues have been addressed in the program. All interested parties should participate in the predesign conference.

1.1.4 Preliminary Evaluation

The design professional hired for project analyses and feasibility writes a preliminary evaluation of the project program and the construction budget, each in terms of the other.

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1.2 SCHEMATIC DESIGN

References:

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Article 2.2, Schematic Design Phase).

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Exhibit C, Supplementary Requirements, Section 2.1).

Schematic design is the first phase of basic services for project design. At this stage in a project, the design professional describes the project three-dimensionally. A range of alternative design concepts are explored to define the character of the completed project and an optimum realization of the project program.

1.2.1 Environmental Documents

As part of the schematic design phase, applicable environmental documents must be completed, including consistency with an applicable Long Range Development Plan. (See FM2.5.1 and FM2:3.)

1.2.2 Value Engineering

It is recommended that value engineering begin early, preferably in the program phase of a project. If the total project cost is $5 million or greater, the project must undergo a value engineering review at the end of schematic design phase.

Modifications or changes resulting from value engineering and design review sessions must be incorporated into schematic design documents before University approval is given to proceed to design development phase.

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1.3 DESIGN DEVELOPMENT

References:

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Article 2.3, Design Development Phase).

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Exhibit C, Supplementary Requirements, Section 2.1).

During the design development phase, the project design is further refined. Plan arrangements, specific space accommodations, equipment and furnishings, building design, materials and colors, and complete definitions of all systems serving the project are developed. All design decisions are completed during this phase in order to prepare the subsequent construction documents.

1.3.1 Value Engineering

If the total project cost is $5 million or greater, the project must undergo a value engineering review at the end of design development phase.

Modifications or changes resulting from value engineering and design review sessions must be incorporated into schematic design documents before University approval is given to proceed to construction documents phase.

1.3.2 Design Development Documents and the Effective Code Date

For non-hospital and non-health care facility projects, a Facility submits completed design development documents for plan review to the Designated Campus Fire Marshal. This first submittal is the official "date of record" for a project. The edition of CCR, Title 24, California Building Standards Code, in effect on that date will be applied for the duration of a project (see 4.1 and RD6.4).

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1.4 CONSTRUCTION DOCUMENTS

References:

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Article 2.4 Construction Documents Phase).

- Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement, Exhibit C, Supplementary Requirements, Section 2.3).

Construction document phase consists of preparation of drawings and specifications establishing the requirements for the construction of the project. The construction documents describe the quality, configuration, size, and relationship of all components to be incorporated into the project. Construction documents must be consistent with the project program, the construction budget, and the project schedule.

Design Professional submits construction documents for review by University and others as deemed necessary by University, at 50% completion, 100% completion (as determined by design professional), and for final backcheck after all corrections are made.

If contractibility analysis is required, it is performed on the 100% set of documents. Design professional must incorporate all resulting changes into the 100% documents prior to submitting the final backcheck set.

The construction documents serve as a basis for obtaining bids from contractors and are used by contractors to obtain price quotes from subcontractors. (The preparation of University construction documents is discussed in detail in *Facilities Manual,* Volume 4.) The construction documents are bid in accordance with the procedures in *Facilities Manual,* Volume 5.

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Revised February 12, 2013 (Change No.13-002-P)

Consultant Selection

Volume 3, Chapter 2

INTRODUCTION

The selection of design professionals is subject to University policy and guidelines. State law requires design professionals and specified other consultants to be selected based on the procedures in the Public Contract Code as implemented by University policy.

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2.1 UNIVERSITY GUIDELINES ON EQUAL OPPORTUNITY IN CONTRACTING

The University of California aims to promote the inclusion and participation of Small Business Enterprises (SBEs) and Disabled Veteran Business Enterprises (DVBEs) in design, professional services, and construction contracts for design and construction projects. UC campuses shall make a good faith effort to facilitate the participation of SBE and DVBE firms in competition for this work, thereby fostering an inclusive business community that supports their growth and success.

In conjunction with the 25% SBE/DVBE goal set for the procurement of products and services, the President of the University and Regents established a 25% spending goal for Small Business Enterprise (SBE) and Disabled Veteran Business Enterprise (DVBE) participation in design and construction contracts by 2025.

Under the terms of federal or state funding for certain design and construction work, the University may be required to take special action regarding awards to small, diverse and disadvantaged business enterprises. All such action shall comply with applicable current state and federal law.

In compliance with state and federal law, federal- or state-funded contracts or grants, or UC policy, the University will continue to set goals and timetables for small (SBE), disadvantaged (DBE), women-owned (WBE), and disabled veteran (DVBE) business enterprises; maintain

statistics on utilization of such businesses; and will require certification. In addition, the University will continue to use outreach programs to assure equality of opportunity.

The University is required to produce statistics on its use of small, Disabled Veteran, diverse, and disadvantaged business enterprises annually. Each Facility will input data into-the University's designated contract compliance system, to report spend data of capital projects or purchase orders, including the amount paid to vendors in the design and delivery of projects to a minimum of second subcontractor and subconsultant tier.

The contract compliance system will serve to improve the tracking of Supplier participation in construction and procurement spend, focusing on the second and subsequent tiered contracts (subcontracts). Supplier-tracked spend can be characterized as, but is not limited to, the following: Professional Services, General Contractors, Sub-Contractors, Distributors, Manufacturers, and Service Providers.

Definitions:

Small Business Enterprise (SBE): an independently owned and operated concern certified, or certifiable, as small business by the Federal Small Business Administration (SBA). (Size standards by Standard Industrial Classification codes required by the Federal Acquisition Regulations, Section 19.102, may be found at http://www.sba.gov/content/table-small-business-size-standards.) The eligibility requirements for California contracting purposes is on the Department of General Services website at https://www.dgs.ca.gov/PD/Services/Page-Content/Procurement-Division-Services-List-Folder/Certify-or-Re-apply-as-Small-Business-Disabled-Veteran-Business-Enterprise. The University may rely on written representation by the vendors regarding their status.

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.

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" means exercising the power to make policy decisions. "Operate" means being actively involved in the day-to-day management.

Disadvantaged Business Enterprise (DBE): a business concern that is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as members of a group without regard

to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free private enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged. Business owners who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans) are to be considered socially and economically disadvantaged.

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2.2 PROCEDURES FOR CONSULTANT SELECTION

References:

- **Public Contract Code 10510.4 - 10510.9, "Contracts with Private Architects, Engineering, Environmental, Land Surveying and Construction Project Management Firms."**
- **Public Contract Code 10515 – 10518, "Conflicts of Interest."**
- **Flowchart: Consultant Selection for Services over $100,000**
- Flowchart: Consultant Selection for Services up to $100,000

University policy "Capital Improvement Program Management," revised November 1, 1993, on the use of design professionals states in part:

"University policy is to have design work for major capital improvement projects performed by design professionals unless an exception to have the work performed by Facility personnel is specifically approved by the Chancellor or Vice President Agriculture and Natural Resources."

"Design of all other projects, including minor capital improvement projects, may be performed by Facility personnel, design professionals, or Facility personnel supplemented by consultants. The Lawrence laboratories, because of laboratory requirements, may perform any design work with laboratory personnel."

In considering whether or not to approve an exception to allow Facility personnel to perform design work for a major capital improvement, the Chancellor or Vice President Agriculture and Natural Resources should consider the University requirement that design professionals carry substantial liability insurance. When the University uses its employees to design projects, it does not have recourse to such insurance. In the absence of a contract with a design professional, the University therefore assumes responsibility for the financial consequences of its employee designer's negligence and other performance failures, such as non-timely production of design deliverables, non-compliance with applicable code, or failure to provide timely responses to inquiries from the contractor during construction. Assumption of these risks and their potentially substantial financial consequences may not be appropriate for many University projects.

The Public Contract Code mandates certain procedures, described in more detail in this section, covering the selection of, and contracting with, specified types of consultants, including design

professionals. The following procedures for the selection of consultants apply to all capital improvement projects, including renovation projects, in which the University is involved in the selection of the consultant. The selection process for consultants varies with anticipated consultant contract sum and the type of consultant services. (see RD1.1, Consultant Selection Process). This is now covered in the flowcharts.

2.2.1 Advertising

Facilities shall informally encourage firms that are interested in pursuing contracts with the University for the performance of Covered Services (defined below) and other project-related services to submit to each University location annually a statement of qualifications and performance data. Contact information for firms submitting such statements of qualifications and performance data shall be maintained by each Facility as an applicant pool for use in accordance with section 2.2.2, below.

When Advertising is Required:
A Facility may advertise specially for consultants for any project, regardless of project cost. However, advertising is mandatory for a consultant contract with a sum of fees plus reimbursables (hereinafter referred to as "Contract Sum") reasonably anticipated to be over $100,000 for Covered Services. Covered Services include

- architectural, landscape architectural, engineering and land surveying services;
- environmental services performed in connection with project development and permit processing;
- construction project management services for management and supervision of work performed on University construction projects; and
- real property development services in connection with the development of a developer-owned project on land owned or controlled by the University.

Advertising is also required for any contract for Covered Services, even if the Contract Sum is estimated to be below $100,000, if the type of project or the type of services required was not identified in the annual announcement placed by the University to solicit interested consultants to perform such services (the "Annual Announcement"). Each year an applicant pool is created from firms responding to such Annual Announcement. If the firm is deemed qualified, it is added to the applicant pool. (See section 2.2.2, below.)

Any advertisement is to include the following language to convey the University's policy to ensure equal opportunity in University contracting: "Every effort will be made to ensure that all persons have equal access to contracts and other business opportunities with the University within the limits imposed by law or University policy."

To expedite the design process, a Facility may advertise for design professionals prior to (i) full budget approval or, (ii) approval to expend preliminary plans funds ("P" approval). However, a Facility cannot appoint an Executive Design Professional ("EDP") or execute an Executive Design Professional Agreement ("EDPA") prior to one of these two approvals. The advertisement should cite the status of the project (e.g., if not yet approved, identify it as a

"proposed" project and state that final selection and appointment is contingent upon project approval and funding).

Where to Advertise:

Advertisements must be placed in:

1. The State Contracts Register, **AND**
2. In publications of the respective professional societies and organizations of persons that perform those services.

If the applicable professional societies and organizations do not maintain a statewide publication for this purpose, the Facility shall advertise on the Facility's own website.

If the Facility does not maintain a website for such a purpose, the advertisement shall be placed on the website maintained by Budget and Capital Resources, Office of the President.

In addition to the above requirements, advertisements may be placed in other publications, including newspapers of general circulation.

Advertisements must be posted at least two weeks prior to any deadline for the submittal of documents in response to such advertisements. If the consultant services can be performed by more than one type of covered consultant, the advertisement should be placed in the publication of each applicable society or organization that offers such services.

The advertisement requesting qualifications must include:

1. The type of consultant service required.
2. The title and a brief description of the project.
3. The project's estimated construction cost and gross square footage, (if applicable).
4. The Facility name, directions for obtaining detailed submittal requirements, and contact information for questions.
5. The deadline (date and time) for receipt by Facility of detailed submittals.
6. A statement that each candidate firm will be required to show evidence of its equal employment opportunity policy.

2.2.2 Applicant Pool

Each Facility must maintain a current list of consultants (Applicant Pool). The Applicant Pool will include all consultants that submitted current statements of qualification and performance data to the Facility, including those who submitted in response to the Annual Announcement. Once an Applicant Pool is established, it may be useful to subdivide it by specialized experience, qualifications, and production capability.

For a consulting contract with a contract sum reasonably anticipated to be under $100,000, if the type of project and the type of services required were identified in the Annual Announcement,

the Facility administrator with delegated authority to approve the selection of construction-related consultant services ("Responsible Administrator") may select a consultant from the Applicant Pool and/or from any other source the Responsible Administrator may wish to use. The Facility must preclude favoritism in the selection process and ensure compliance with the University Policy to Ensure Equal Opportunity in Business Contracting. For consultant services in excess of $100,000 but not included in the Covered Services, see section 2.7, below.

2.2.2.1 SHELTERED SBE/DVBE APPLICANT POOL FOR CONSULTING CONTRACTS UNDER $100,000
Sheltered SBE/DVBE Applicant Pool is a program whereby a portion of contracts are designated, before solicitation of qualifications or proposals, for submission from Small Business Enterprises (SBE) and/or Disabled Veteran Business Enterprises (DVBE) The goal of sheltered selection is to provide greater opportunities for such business enterprises in UC capital programs.

Campuses will set aside contracts on which they will utilize a Sheltered Applicant Pool on Professional Contracts. For Professional Consultants, this will apply to selected Contracts under $100,000. SBE and DVBE Consultants can qualify to be part of the Sheltered Applicant pool by replying to the annual announcement and submitting a Consultants Profile Form.

Contracts awarded under the Sheltered Applicant Pool program require 51% of the work to be performed by an SBE or DVBE. SBE/DVBEs complete and submit UC's Confirmation ofCertification form within five (5) days of notification of selection. This performance requirement will be verified on the Report of Subconsultant Information form submitted by the successful proposer. This will again be confirmed against the Final Distribution of Contract Dollars form submitted with project closeout material.

Campuses will have the discretion to seek additional qualifications or proposals from non-SBE/DVBE entities if the bid is not successful, including if the proposals do not meet the project budget, and to re-solicit the services as unsheltered.

2.2.3 Screening Committee

The Screening Committee shall be composed of one or more persons (including an appropriate staff design professional, if the consultant will be a design professional.) All members of the Screening Committee must be familiar with either the technical requirements of the project or the level of professional competence that will be required of the consultant that is selected.

2.2.4 Screening Process

For consulting contracts with a Contract Sum reasonably anticipated to be over $100,000, the Screening Committee shall develop a list of at least three consultants who appear to be the most qualified to provide the services under consideration, selecting from the Applicant Pool and from those firms that responded to the project RFQ following its advertisement. The list shall be submitted for approval to the Responsible Administrator. Once approved, the Responsible Administrator shall forward the list to the Selection Committee.

2.2.5 Selection Committee

For a consulting contract for one or more of the Covered Services with a Contract Sum reasonably anticipated to be over $100,000, a Selection Committee must make its recommendations to the Responsible Administrator from the approved list prepared by the Screening Committee, with consultants added in accordance with sec. 2.2.6, below, if appropriate. The Selection Committee convened must have at least three members, including one member of the Screening Committee, and as many of the following interests, and in such numbers, as is deemed appropriate to the project under consideration: Facility faculty, students, and administrative staff. Members should be selected for their expertise and knowledge of the project requirements.

2.2.6 Selection Process

The Selection Committee must notify the candidate firms on the approved list that they are being considered for selection and that they must respond, in writing, to the Selection Criteria in the Qualification Packet.

Each Facility is responsible for developing its own consultant Qualification Packet that includes appropriate Selection Criteria and a form of Statement of Qualifications (see RD1.1). The Packet's forms must be designed to ensure that responses will provide sufficient information to allow an equitable assessment of the qualifications necessary for the services required. At a minimum, the Qualification Packet must include the following:

Selection Criteria (Attachment A). This is a list of the criteria a Facility uses to review the qualifications of a consultant.

Statement of Qualifications (Attachment B). This form, to be completed by each consultant candidate firm, contains basic information about the firm wishing to do business with the University.
The Qualification Packet must require the consultant to disclose all work performed on any University project in the previous 5 years and whether or not any disputes, claims or litigation arose from such work. The Facility may use the Consultant Experience Form (included in the Selection Criteria) for this purpose. Any Facility considering hiring a consultant who discloses claims or litigation should contact the Office of the President and/or the project manager of the project on which such claims or litigation arose to discuss the underlying facts and circumstances. If a Facility decides to hire a consultant involved in a claim or litigation with the University, such consultant shall be required to agree in writing not to introduce such new hiring as evidence in the pending claim or litigation.

The Selection Committee must review the submitted materials from each consultant on the approved list and may request additional or more current information about a firm and its experience. The Selection Committee must review the qualifications of each consultant being considered on the basis of the Selection Criteria. The Selection Committee may add other consultants to the approved list with the concurrence of the Screening Committee and the Responsible Administrator. All such added consultants must respond to the Selection Criteria

and be evaluated in the same manner as those consultants previously on the approved list. The Selection Committee shall conduct discussions with no fewer than three firms (provided that at least three qualified firms submitted their qualifications) regarding anticipated concepts, the relative utility of alternative methods of approach for furnishing the required services, and such other issues as may be appropriate. Interviews conducted with the consultants on the approved list satisfy the requirement for discussions. The discussions may be conducted as in-person interviews, or may consist of an exchange of oral or written communications. Based on the Responsible Administrator's instructions, the Selection Committee shall present a recommended list of the firms with which it conducted discussions. The list will be in order of ranked qualification based upon the Selection Criteria, and will include no fewer than three of the firms deemed to be the most highly qualified to provide the services required. If the ranked list includes fewer than three firms, or if fewer than three firms submitted qualifications, then the referral must be accompanied by documentation showing the efforts used to generate submissions from additional firms. The Responsible Administrator will review and approve the recommended list or return the list to the Selection Committee with directions for further action.

2.2.7 Conflict of Interest

Participating as a member of a Screening or Selection Committee shall constitute "making or participating in the making of a decision." Requirements governing such decision-making and financial conflict of interest are found in the University's Conflict of Interest Code and UC Finance Bulletin G-39, and shall be observed when acquiring consultant services. Specific prohibitions include rebates, kickbacks, or other unlawful consideration. University employees with a relationship to a person or business entity seeking a contract under these provisions are prohibited from participating in the selection process.

2.2.8 Avoiding Follow-On Contracts

Public Contract Code sec. 10515 et seq. prohibits a consultant who has provided services on a project from bidding for or being awarded another contract to perform related services for the same project.

However, architectural, landscape architectural, engineering, environmental, land surveying, construction project management, or real property development services (defined in 2.2.1 as Covered Services) may qualify for an exception to this ban. The exception to the ban that the statute allows for the Covered Services only applies to the selection of consultants in accordance with the procedures described in this chapter. Facilities must be careful to navigate the statutory requirements if they wish to qualify for such an exception.

As an example, a firm providing architectural services for bridging documents on a design/build delivery method project would be precluded from participating on the design/build team because the selection of a design/build team is governed by contractor selection statutes using a competitive bid process, not the quality based consultant selection process described herein. This same firm would not, however, be precluded from consideration in a separately advertised request for a complete project design, which has no construction competitive bid element. In either case, the Facility must follow the selection process described in this section 2.2

and must comply with the notice requirements in 2.3, below.
(For questions regarding legal restrictions on consultant contracting, contact the Office of the President, Design and Construction Services or your designated UC Legal - OGC Construction Counsel.)

2.2.9 SHELTERED SBE/DVBE DESIGNER POOL FOR EXECUTIVE DESIGN PROFESSIONALS UNDER $100,000
A Sheltered Applicant program is also available for Executive Design Professionals for contracts under $100,000. For the selection process and program rules, see Vol. 3 Ch. 2.2.2.1.

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2.3 CONTRACT NEGOTIATIONS AND APPOINTMENTS

After providing notification to the firm ranked first on the Selection Committee's list ranking the top candidate firms, the Responsible Administrator or his or her designee shall provide written instructions for the negotiations that are to follow, including an instruction to submit a cost proposal for the services required. These instructions shall provide the firm with necessary information that shall allow the negotiations to proceed in an orderly fashion. If the Facility advertised the services required for additional components of the project, but intends to enter into an initial agreement covering only the first phase or component, it must notify the consultant in writing that the negotiations will only address that first phase or component. The Facility should provide an estimate of the time frame for commencing negotiations for any additional agreement covering the remaining services. (see 2.2.8 above)

Negotiations should begin within 14 days after the successful firm has been notified of its selection or upon receipt of the cost proposal if such receipt occurs later. The consultant should be notified if additional time is necessary to begin negotiations. If the Facility estimates that it will be unable to commence negotiations within the required 14 days it must notify the consultant in writing.

Should the Facility be unable to negotiate a satisfactory contract with the firm considered to be the most qualified, at a price the Facility determines to be fair and reasonable, negotiations with that firm should be formally terminated in writing. The Facility should then undertake negotiations with the second most qualified firm, subject to the same requirements and process described above. If the Facility is unable to negotiate a satisfactory contract with the second most qualified firm, the Facility should terminate negotiations and then undertake negotiations with the third most qualified firm.

Should the Facility be unable to negotiate a satisfactory contract with any of the selected firms, it should select additional firms from the pool considered by the Selection Committee, in order of their ranked qualification based upon the Selection Criteria, and continue negotiations in accordance with the procedures herein until an agreement is reached. If no agreement is reached with any of the applicants in the pool considered by the Selection Committee, then the selection process shall begin anew.

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2.4 CONSULTANT INSURANCE REQUIREMENTS

References:

-UC Finance Bulletin, BUS-63 Exhibit D, University of California, Office of the Executive Vice President-Chief Financial Officer, Oakland, CA.

Guidelines for minimum insurance requirements can be found in the latest edition of *Insurance Requirements/Certificates of Insurance* (UC Finance Bulletin, BUS-63, Exhibit D). Levels of insurance are established based on the degree of risk and the extent of the University's exposure in the event of a loss. The insurance limit requirements in BUS-63 Exhibit D are intended as guidelines to assist Facility Risk Managers, in conjunction with Responsible Administrators, to set appropriate limits for each project, once risk has been identified and evaluated. For this reason, it is essential that contract administrators and project managers consult with Facility Risk Managers in setting insurance limits.

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2.5 AGREEMENT EXECUTION

Upon the completion of negotiations and confirmation of appropriate insurance coverage, the Facility and the consultant shall proceed to execute an agreement. The agreement shall be provided to the consultant by the Facility within 45 days after negotiations have been concluded. If the Facility estimates that it will be unable to complete the agreement within the required 45 days it shall notify the consultant. If the consultant fails to execute the Agreement within fourteen days of receipt or withdraws from the process, then the Facility may formally terminate the negotiations with that consultant and undertake negotiations with the second most qualified consultant.

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2.6 PROJECT FILE RECORDS

For each consultant screening and selection process, the following must be preserved in the project file:

- Proof of publication for each public notice.
- The applicant list prepared by the Screening Committee and approved by the Responsible Administrator.
- The consultant Qualification Packet.
- The names of Screening and Selection Committee members.
- The Selection Committee's list in order of ranked qualification based upon the Selection Criteria.
- A copy of the Responsible Administrator's written instructions for negotiation.

- A copy of each appointment letter, if applicable.
- The original executed agreement (see FM3:3).

See the latest UC Finance Bulletins (RMP Series - Records Management and Privacy) and the current Records Retention and Disposition Schedules for information on retention of records.

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2.7 CONSULTANT SERVICES NOT COVERED BY PCC 10510.4 - 10510.9

The Public Contract Code, Sections 10510.4 - 10510.9 requires the University to utilize the specified selection and contracting procedures described above for contracts with consultants for Covered Services (as defined in 2.2.1, above). The Public Contract Code also exempts contracts that comply with these requirements from the follow-on contracting prohibitions of PCC 10515.

The procedures in this Chapter are applicable to all consultants providing Covered Services on projects. Contact Design and Construction Services, Office of the President if consultants need to be retained to provide other than Covered Services and for those whose services are not expected to exceed $100,000 in cost but were not included in the Annual Announcement.

Consultant services that do not fall within the Covered Services and do not follow the procedures described in Public Contract Code, Section 10510.4 et seq., are not exempt from the application of the prohibition against specified contracting practices set forth in PCC 10515. Refer to section 2.2.7, above, for more information.

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2.8 DESIGN PROFESSIONAL APPOINTMENT PROCEDURES

University procedures for design professional appointment apply to executive architects, executive landscape architects, and executive and consulting engineers (structural, civil, mechanical, and electrical). The authority and procedure for appointing executive design professionals (following the selection process described above) is described in 2.9 and 2.10 below. (Note: When the term "executive" is applied to design professionals, the term refers to the primary design professional on a project and the one responsible for the overall design.) An executive design professional shall be retained using an Executive Design Professional Agreement (EDPA) for all phases of project design, including schematic design.

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2.9 AUTHORITY TO APPOINT EXECUTIVE DESIGN PROFESSIONALS

References:

-Regents Policy 8103 on Capital Project Matters

-DA2629, Delegation of Authority - Capital Project Matters

-Standing Orders of The Regents, 100.4(dd), Amendments through May 2018

Standing Order 100.4(dd) provides; "Except as otherwise specifically provided in the Bylaws and Standing Orders, the President is authorized to execute on behalf of the Corporation all contracts and other documents necessary in the exercise of the President's duties…" –Standing Orders of The Regents, 100.4(dd)

The authority delegated to the President in SO 100.4(dd) was redelegated in DA2629 for all projects with approved budgets on property owned by the Regents or on property which will be owned by the Regents upon completion of the project:

(i) to the Executive Vice President-Chief Financial Officer who redelegated it to the Associate Vice President-Capital Programs, Energy and Sustainability; and

(ii) to the Chancellors, Director-Lawrence Berkeley National Laboratory and the Vice President-Agriculture and Natural Resources for projects with a total individual project cost not exceeding $60,000,000, subject to design and design professional requirements set out herein.

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2.10 SUBMITTING A REQUEST FOR AN EXECUTIVE DESIGN PROFESSIONAL APPOINTMENT

A Facility requesting the appointment of an executive design professional for a project in excess of $60,000,000 must submit a letter to the Office of the President, Director of Design and Construction, recommending the appointment of the executive design professional. The letter must include the following components:

1. project name, plant account number, and brief descriptive background;
2. campus contact for related information;
3. copy of the Request for Qualifications;
4. a brief description of the outreach, advertising and selection process related to the project, including the number of Statements of Qualification received and the number of firms shortlisted for interview;
5. name and office location of recommended executive design professional;
6. copy of the recommended firm's completed Consultant Qualification Packet;
7. the negotiated fee for basic services, the project construction cost, and the fee for basic services expressed as a percentage of construction cost (See Executive Design Professional Fee Guidelines available from Design Services, Capital Resources Management, Office of the President);
8. comment on project conditions that justify any fee above the guideline amount;
9. description of any special considerations taken into account during the selection process.

For all projects in excess of $60,000,000, the information required in this section 2.10 must be approved in writing by the Chancellor or other Responsible Administrator with delegated authority under DA2629 as part of any request for appointment of an Executive Design Professional and execution of an Executive Design Professional Agreement.

Approval of the recommendation is contingent on either full budget approval or "P" approval and adherence to University policies and guidelines for the selection of executive design professionals. If an exception to the University guidelines is being requested, the reasons for the exception must be stated in the recommendation letter and the appropriate background materials enclosed.
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Revised May 14, 2025

Design Professional Agreements

Volume 3, Chapter 3

INTRODUCTION

The University uses three standard types of design professional and consultant agreements for design, consulting, and construction management services: the Executive Design Professional Agreement, the Construction Management Agreement, and the Professional Services Agreement. Approved document models for each type of agreement are available (see 3.1 below).

The following conditions must be met before agreements are executed:

1. The design professional has been selected in accordance with the policies and guidelines described in this volume (see FM3:2), and the final selection has been approved.
2. Funds are budgeted and available for the portion of the contractual commitment that becomes effective upon the execution of the agreement.

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3.1 PREAPPROVED AGREEMENTS

UC Legal - Office of the General Counsel approves all contracts, agreements, and other legal documents relating to the business of the University as the "Corporation." The Office of the President have issued the following pre-approved agreements for use by the Facilities:

1. Executive Design Professional Agreement between The Regents of the University of California and the Executive Design Professional (Executive Design Professional Agreement and Blanket Executive Design Professional Agreement)
2. Master Architect Agreement
3. Construction Management Agreement between The Regents of the University of California and the Construction Manager (Construction Management Agreement)
4. Professional Services Agreement between The Regents of the University of California and the Consultant (Professional Services Agreement)

Approved documents models for each type of agreement are located in the Online Repository of Approved Contract Templates.

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3.2 MODIFYING PRE-APPROVED AGREEMENTS

If project conditions require a pre-approved agreement to be modified, use the modification instructions in this chapter, and the Cover Sheet and Instructions (see 3.3 below) and the instructions in the body of the agreements for guidance. When a Facility proposes to use another agreement or to make any substantial changes to a pre-approved agreement, the proposed changes must be reviewed and approved by the Office of the President and UC Legal - Office of the General Counsel. Substantial changes are changes to "core" clauses such as definitions, arbitration, indemnification and insurance, limitations to liability, exclusions, and site observations or inspections. A Facility may modify clauses such as scope of work and additional services.

Facilities should send one copy of the proposed revisions (or a newly proposed agreement) to the Office of the President and one copy to UC Legal - Office of the General Counsel. Changes should be submitted in redline/~~strikeout~~ format. Allow approximately three weeks for the review and approval of Facility proposals.

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3.3 COVER SHEETS AND INSTRUCTIONS

While this chapter provides some information on preparing the individual design professional documents, the Cover Sheets and Instructions in the Contract Templates (see 3.1 above) provide more detailed, step-by-step instructions on completing and modifying the documents.

Each document model in the Contract Template is preceded by its own Cover Sheet and Instructions. Each Cover Sheet begins with a table indicating the following:

- The purpose of the document.
- Cross-references to the *Facilities Manual.*
- A description of the document's contents.
- The information required for document completion.

Below the table are one, two, or three sections, as applicable: “Completion Instructions,” “Modifications and Additions,” and “Comments.”

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3.4 GENERAL PREPARATION INSTRUCTIONS

Most individual documents contain self-explanatory text. Additional text within parentheses may provide completion information or indicate specific words or figures that are to be inserted. Delete informational text from the documents before they are issued.

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3.5 EXECUTIVE DESIGN PROFESSIONAL AGREEMENT

The Executive Design Professional Agreement (or an approved version) is used to contract with executive architects, executive landscape architects, and executive and consulting engineers (structural, civil, mechanical, and electrical). The executive design professional is required to be licensed in the state of California.

3.5.1 Terms in the Executive Design Professional Agreement

The following terms are used for the principal entities in the Executive Design Professional Agreement (including Blanket and CM at Risk):

- University
- University’s Representative
- University’s Designated Administrator
- Executive design professional
- Project architect or engineer (project manager)

University. The term “University” means The Regents of the University of California. The University initiates the project; secures funding for the planning, design, and construction; selects and contracts with the design professional, consultant, contractor, and other professionals, as applicable; and operates and maintains the completed project.

University's Representative. The term “University's Representative” shall mean the person or entity administering the construction contract for the University. The University must always have a University's Representative, who may be the design professional, a University employee, or another entity designated by the University.

University's Designated Administrator. The term “University Designated Administrator” means the administrator who acts on behalf of the University with respect to the agreement.

Executive Architect (or Engineer). When the term “executive” is applied to design professionals, the term refers to the primary design professional on the project, licensed in the state of California, who is both liable and accountable for the overall project design. There may be other design professionals on the project, but they are not responsible for the overall design.

Project Architect (or Engineer). The term “project architect” or “project engineer” means the specific University-approved design professional named in the agreement as the design professional's designated principal or staff member in charge of providing all services required in the agreement.

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3.6 MANAGEMENT AGREEMENT

The Construction Management Agreement (or an approved version) is used to contract with a licensed architect, registered engineer, or licensed general contractor for some or all of the services similar to the following:

- construction oversight,
- project design review and evaluation,
- construction mobilization and supervision,
- bid evaluation,
- project scheduling,
- cost-benefit analysis,
- claims review and negotiation, and/or
- general management and administration of a construction project.

The University uses two methods for contracting with a construction manager; when using the standard Construction Management Agreement, the construction manager does no construction work on the project and either performs services in support of the University’s Representative, or acts as the University’s Representative. When the Construction Management Agreement is used for a CM/Multiple Prime Trade delivery method the Construction Manager acts as the University’s Representative. Do not use either agreement when the consultant is required to perform any construction work on the project. That contract must be competitively bid using the CM at Risk format.

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3.7 PROFESSIONAL SERVICES AGREEMENT

When all other consultant services are required for planning, design, and construction projects, the Professional Services Agreement is used. Examples of this type of work include:

- Land surveys (including boundaries, topography, and utilities);
- Site and foundation investigation based on soils, geology, and hydrology for proposed facilities;
- Seismic studies for existing structures or special analysis of proposed structures;
- Soil samples testing (moisture content, soils type, expansion, bearing capacity);
- Scheduling;
- Planning;
- Programming;
- Model making, independent design review, and rendering;
- Environmental services;
- Construction site inspection of construction materials and laboratory testing of construction materials;
- Cost estimating; and
- Peer review.

The Professional Services Agreement is used as a “blanket agreement” to contract with a consultant for a specific period of time. When the Facility is ready to use the consultant's services, Exhibit A of the agreement, an Authorization to Perform Services is executed. Exhibit A specifies the services to be performed, the compensation, and the time frame in which the services will be performed.

Other than making approved modifications, a Facility may not modify the Professional Services Agreement unless the UC Legal - Office of the General Counsel and the Office of the President have approved a Facility's proposed modifications to the agreement (see 3.2 above).

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Revised May 14, 2025

Code and Regulatory Compliance

Volume 3, Chapter 4

INTRODUCTION

The University is the Authority Having Jurisdiction (AHJ) for matters of code regulations on University projects. The University complies with the Title 24 California Building Standards Code, Parts 1-12 and all amendments (CBC). Each Facility acts as a "local jurisdiction" complete with its own Building Official and local administered code compliance program (similar to

building officials in city or county jurisdictions). The primary Building Official requirements are defined below.

All facilities owned, leased, designed, constructed, altered, or renovated with intent, or future intent, to support the mission of the University are under the jurisdiction and responsibility of the University and local Facility administration. Each Facility shall have a code compliance program to design, approve, construct, alter, renovate, inspect, and maintain its facilities in accordance with all applicable codes and regulations, and University policies. Codes and regulations include the California Building Standards Code as adopted by the University, as well as any applicable federal, state, and local agency regulations and legislation. The code compliance program applies to all activities at the above described facilities that are subject to building codes and other related regulatory compliance, regardless of funding source, party overseeing construction, or the ownership status of the improvements.

This chapter describes codes and regulations that typically apply to University projects, although some projects may have additional special requirements. The Designated Campus Building Official, Lead Designated Campus Fire Marshal, Environmental Health & Safety office, and the funding agency should be consulted to determine whether other codes and regulations may apply. Some projects may require the University to duplicate or share authority with local, state, or federal jurisdictions.

When the University leases property to a separate entity and/or enters into ground leases or public private partnership agreements, the University continues to act as the AHJ with enforcement authority consistent with University mission, policies and obligations to state and federal law. Facilities must identify the Authority Having Jurisdiction in such agreements and contracts. For further information consult with the Office of the President, Real Estate Services & Strategies, and UC Legal - Office of the General Counsel.

Each Facility's program shall include an appointed Campus Building Official (CBO/A), Certified Building Official (CBO), Lead Designated Campus Fire Marshal (Lead DCFM), and Environmental Health & Safety Office. The program shall have effective processes for code and regulatory consultation, plan review, permitting, inspection and final acceptance in accordance with requirements of this volume.

4.1 CODE COMPLIANCE PROGRAM AND ADMINISTRATION

Designated Campus Building Official, Campus Architect (DCBO). The DCBO is a University employee, appointed as the University professional responsible for administering the Facility's architecture, engineering, and construction building program, including the enforcement of the CBC and related University policies. The DCBO is responsible for the administration and management of campus facility design, construction, renovation, and other Facility design and construction related obligations to support effective enforcement of the building program obligations. Additional obligations include, but are not limited to, compliance with applicable accessibility laws and policy, UC Seismic Safety Policy, Sustainable Practices Policy, adhering

to the Long Range Development Plan (FM2:3), the Physical Design Framework (FM2:7.4), and local Facility adopted policies and guidelines (e.g. Gender Inclusive Facilities). The DCBO may also receive delegated authority to procure and enter into contracts for design, construction, and related services. (See FM4, FM5.) The DCBO shall be a licensed architect, registered professional engineer, licensed land surveyor, or certified industry professional with substantial expertise in, and understanding of, the architecture, engineering, and construction industry. The DCBO is the University's AHJ for the Facility. The DCBO may delegate responsibilities to a Certified Building Official, or if meeting the CBC qualifications, the DCBO may satisfy the role of Certified Building Official.

References:

- **California Code of Regulations, Title 24, Part 2, Volume 1, Chapter 1, California Building Code.**
  - **Division I, Section 1.2**
  - **Division II, Section 104**
  - **Appendix A102 Employee Qualifications**

Resources:

- **Health and Safety Code, State of California, Sections 18949.25 - 18949.31**

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4.1.1 Certified Building Official (CBO)

Each Facility shall employ a qualified University employee as a Certified Building Official. The authority of the CBO may not be re-delegated to any person or entity regardless of their qualifications and/or expertise. The Certified Building Official shall establish procedures to perform the responsibilities and duties of "Building Official" defined in the CBC. The Certified Building Official enforces compliance with all applicable local, state, and federal regulations, by appropriate reviews and inspection as required therein. Consistent with California Health and Safety Code, the CBO shall obtain certification from a recognized state, national, or international association within one year of hire. The CBO is responsible for ensuring that all construction projects comply with Title 24, including the administration of the functional building department, interpretation of code requirements, and direction of the code process.

CBOs enforce code compliance for all campus or campus-related projects. CBOs also ensure that fire and life safety requirements are reviewed by a Designated Campus Fire Marshal (DCFM), and that Disabled Access requirements are reviewed by the Division of the State Architect-Access Compliance (DSA-AC) when required. CBOs shall enforce HCAI's "licensed clinic" regulations referred to in the Building Code as "OSHPD 3".

CBOs issue building permits and work closely with the DCFM on the issuance of a Certificate of Occupancy, Beneficial Occupancy, and Temporary Occupancy in accordance with the contract documents and permit requirements, and after verification of code compliance and review by other officials, as appropriate. (See 4.1.4 below)

In the administration of these duties, the CBOs may use in-house staff or consultant plans examiners and construction inspectors. All plans examiners and construction inspectors must meet qualifications and requirements for either performing required inspections or for plan review to verify code compliance with the CBC.

(See RD2.2: State Agencies with Plan Approval Authority over University Projects)

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4.1.1.1 University of California Board of Building Appeals

References and Ancillary Documents

- California Code of Civil Procedure Section 1094.5

- California Code of Civil Procedure Section 1094.6

- RD1.12 Board of Building Appeals (BOA) Application

The University of California has formed a Board of Building Appeals (Board), which has authority to hear and decide appeals of orders, decisions, and determinations made by each Facility Certified Building Official (CBO) relative to the application and interpretation of the California Code of Regulations (CCR) and other pertinent laws or ordinances.

The following sets forth the governing structure of the Board. The Board has also developed specific rules of procedure that are not part of this Facilities Manual. A copy of the Board's procedural rules may be requested from the UCOP Director of Design and Construction.

1. Appointment and Terms

A. The Board of Building Appeals (Board) shall consist of seven (7) standing members appointed by the University of California Office of the President (UCOP) Director of Design and Construction. These members may be members of the Campus Building Official Council (CBOC).
B. Board members shall serve up to a three-year term without compensation. A successor shall be appointed before the expiration of a Board member's term.
C. Board members shall serve no more than three consecutive terms.
D. Board members shall be appointed so that the terms of not more than two members will expire in any year.
E. The Board shall elect a chairperson annually from among its members unless a chairperson is selected by the CBOC.

F. Board members shall be qualified by experience and training to review matters pertaining to applicable building codes and regulations, design and construction of buildings, and fire protection. The Board may consist of the following design professionals or tradespersons experienced in:
i. Civil Engineering
ii. Structural Engineering
iii. Fire Protection Engineering
iv. Architecture
v. Electrical and/or Mechanical Engineering
VI. Accessibility
G. The Council of Campus Fire Marshal (CCFM) Liaison to the CBOC, the UCOP Design & Construction Liaison to CBOC, and one member of the UC Legal Construction Counsel shall be ex-officio members of the Board.
H. If a Board member is an employee of a Facility that is the subject of an appeal, such Board member shall be recused from the entire appeal proceeding.

2. Meetings

A. The Board shall meet as often as necessary for the transaction of its business but not less than once annually.
B. Five Board members shall constitute a quorum, with the affirmative vote of at least a majority of the quorum for any action.

3. Powers and Duties

A. The Board shall have the authority to hear and decide appeals of orders, decisions, or determinations made by the CBO relative to the application and interpretation of the CCR.
B. The Board shall not evaluate appeals that fall under the principal jurisdiction of the Lead Designated Campus Fire Marshal (LDCFM), or the Office of the State Fire Marshal (SFM). In the event the Board is unclear whether an appeal should be referred to the appropriate Fire Marshal (FM), the Chairperson shall, within seven (7) calendar days of receiving the appeal, contact the appropriate FM to resolve the issue of jurisdiction. The CBO will be notified in writing of the FM decision within seven (7) calendar days.
C. The Board shall approve requests for an alternative material, design, or method of construction where the Board finds that the proposed design is satisfactory and complies with the intent of the provisions of the code, and the material, method, or work offered is for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability, and safety.
D. The Board may recommend a new policy to UCOP.
E. The Board shall have no authority to waive requirements of the CCR. The Board shall adopt procedural rules and policies consistent with the law for the conduct of its business.

4. Appeals

A. Any person adversely affected by a determination made by the CBO in administering or enforcing the CCR may appeal the determination to the Board, by filing an application available in the Facility Manual (RD 1.12).
B. An application for appeal shall be based on a claim that the true intent of the CCR or the rules legally adopted thereunder have been incorrectly interpreted, or the provisions of the CCR do not fully apply.
C. The appeal shall be filed with the Board no later than ten (10) calendar days after receipt of written notice of the CBO's determination. Failure to timely request an appeal constitutes a waiver of the hearing and a failure to exhaust administrative remedies.
D. The Board shall schedule a hearing to consider the appeal within ten (10) calendar days from receipt. The Board shall consider relevant evidence presented at the hearing, and may also consult with non-Board experts to assist with rendering a decision.
E. The Board shall document all decisions and findings in writing. The decision of the Board shall be issued within ten (10) calendar days of the hearing. A copy of the decision shall be delivered to the applicant(s) personally or sent electronically with a duplicate copy to the CBO. The date of service shall be considered the same day if delivered personally or electronically.
F. The decision of the Board in granting or denying an appeal shall become final on the date of service. Any appeal of the decision must be filed by the appellant with a court of competent jurisdiction pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6, within thirty (30) calendar days of the service of the decision, otherwise, all objections will have been waived. The filing of such appeal within such time limit shall stay the effective date of the decision of the Board.

4.1.2 Designated Campus Fire Marshal (DCFM)

The University of California has a Memorandum of Understanding (MOU) with the California Department of Forestry and Fire Protection (CAL FIRE) - Office of the State Fire Marshal (OSFM). Through this MOU, the OSFM delegates responsibility for compliance with fire and life safety regulation to Lead Designated Campus Fire Marshals (Lead DCFM) for all University campuses and properties administered or occupied by the University. Each Facility must appoint one University employee as the Lead DCFM. Other qualified University employees may be appointed as Designated Campus Fire Marshals (DCFMs) in support of the Lead DCFM.

The Lead DCFM is responsible for Title 19 and Title 24 responsibilities for fire and life safety and will coordinate with the appropriate OSFM Division Chief regarding various administrative matters, training, quality control, program evaluation, and technical guidance. The Lead DCFM is responsible for oversight of all DCFMs. The Lead DCFM manages and directs plan review, permitting, construction observation, occupancy, and uses related to the fire and life safety at all facilities owned and/or occupied by University students, faculty, staff, and personnel.

The UC Office of the President administers the MOU and oversees the Designated Campus Fire Marshal Program. On behalf of a Facility, UCOP requests OSFM review and approval of Designated Campus Fire Marsh (DCFM) candidates. In accordance with the MOU, OSFM must

provide a final review and determination regarding the acceptability of the candidate's qualifications for recognition as a DCFM or Lead DCFM.

Facilities shall submit projects to the Designated Campus Fire Marshal in lieu of the Office of the State Fire Marshal. Designated Campus Fire Marshals also have the authority to perform "Existing Facility Inspections" and/or Title 19 Inspections.

A DCFM is the responsible enforcement authority for State Fire Marshal regulations, including granting "fire clearance" before a facility may be occupied. Certified Building Officials work closely with the Designated Campus Fire Marshal, jointly issuing permits, Certificates of Occupancy, Beneficial Occupancy, and/or Temporary Occupancy in accordance with the contract documents, permit requirements, the requirements of this Facilities Manual, including verification of code compliance and review by other officials, as appropriate. (See section 4.1.4)

Reference:

- **Health and Safety Code, State of California, section 13146**

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4.1.3 Office of Environmental Health and Safety

to be added

4.1.4 Occupancy and Ancillary Documents

References (and ancillary documents for authority of enforcement):

- **RD2.2 State Agencies with Plan Approval Authority over University Projects**
- **FM5:12.2 Inspection Policy and Responsibility**
- **FM5:17.2 Taking Beneficial Occupancy**
  - **RD3.3 Inspectors' Daily Report**
  - **RD3.7 Certificate of Beneficial Occupancy (pdf)**
  - **RD3.8 Temporary Certificate of Occupancy (pdf)**
  - **RD3.9 Certificate of Occupancy (pdf)**
- **FM5:17.2 Determining Substantial Completion**
  - **Substantial Completion and Contract Closeout Flowchart (pdf)**
- **California Code of Regulations, Title 24, Part 2, Volume 1, Chapter 1, California Building Code**
  - **Division I, Section 1.2**
  - **Division II, Section 104**
  - **Appendix A102 Employee Qualifications**

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4.2 STATE CODES, REGULATIONS, AND AGENCIES

Three state agencies have plan approval authority for code compliance for most University projects: Office of the State Fire Marshal (OSFM) (see 4.1.2) via DCFM, Division of the State Architect- Access Compliance (DSA-AC) (see 4.2.5), Department of Health Care Access and Information (HCAI) (see 4.2.6). Construction documents and supporting data are submitted to these code enforcement agencies for final approval (see RD2.2, State Agencies with Plan Approval Authority) as required. Agency reviews result in document approvals and the necessary permits for funding release (state-funded projects), bidding, and construction. Each Facility is responsible for meeting the code requirements of these agencies and obtaining the necessary project approvals from these agencies.

4.2.1 Effective Code Date

By agreement with the OSFM, the effective code compliance date for a University project is the date of the first submittal of Preliminary Drawings (at the end of the Design Development Phase) to the Designated Campus Fire Marshal (DCFM). The project must be designed, reviewed, and constructed to comply with the edition of the California Building Standards Code (CBC) and all applicable local, state, and federal agency codes and regulations in effect at the time of the first submittal. (FM3:1.3.2)

In the event that Preliminary Drawings are not submitted to the DCFM, the date of submittal of the completed Construction Documents to the DCFM shall be the effective code compliance date.

If requested by the Facility, and if approved by both the Certified Building Official and the Designated Campus Fire Marshal, the newest code edition may be used during the 180-day period prior to the effective date of the new code.

Exception for medical projects: acute care hospital projects, skilled nursing facilities, or intermediate care facilities subject to Department of Health Care Access and Information (HCAI) jurisdiction shall be designed to the latest edition of the California Building Code in effect at the time of filing an application for a permit with HCAI's office. Verify with your Lead DCFM. (Refer to 4.2.6 for further information on HCAI Lead DCFM.)

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4.2.2. California Code of Regulations

All Facility design and construction projects must comply with all applicable state building code requirements and all applicable local, state, and federal agency regulations. Several other titles of the California Code of Regulations (CCR) apply to different aspects of University projects. These titles may include operational or construction provisions. Use of these titles depends on the type of project. They include, but are not limited to, the following:

- California Code of Regulations, Title 8, Industrial Relations (contains requirements for elevators, Cal/OSHA, Construction Safety Orders, and hazardous substances such as asbestos and carcinogens).
- California Code of Regulations, Title 13, Motor Vehicles.- Hazardous Materials Transportation.
- California Code of Regulations, Title 14, Natural Resources.
- California Code of Regulations, Title 17, Public Health - Radiation Safety.
- California Code of Regulations, Title 19, Public Safety (outlines the Office of the State Fire Marshal authority and regulations).
- California Code of Regulations, Title 20, Public Utilities and Energy.
- California Code of Regulations, Title 21, Public Works.
- California Code of Regulations, Title 23, Waters (contains compliance information for water handling and treatment, Underground Storage Tank Regulations, Storm Water Program sets development standards on landscape, paving, roofing and other impervious surface changes).
- California Code of Regulations, Title 24, California Building Standards Codes. (See 4.2.3).
- California Code of Regulations, Title 25, Housing and Community Development. – Modular Buildings (trailers).
- California Code of Regulations, Title 26, Toxics.
- California Code of Regulations, Title 27, Environmental Protection.
- Public Contract Code Division 2. General Provisions Part 1. Administrative Provisions Chapter 3. Formation [3000 - 3505]

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4.2.3 California Building Code

The University has adopted the California Code of Regulations, Title 24, California Building Standards Code, for code compliance. Some codes are based on nationally recognized model codes, while others are California's codes. California adds its requirements, called "amendments," to the model codes. Codes also reference national standards developed by organizations such as the National Fire Protection Association (NFPA), the American Society of Civil Engineers (ASCE), etc.

California Code of Regulations, Title 24, California Building Standards Code, consists of the following parts:

- Part 1 - California Building Standards Administrative Code
- Part 2 - California Building Code
- Part 2.5 - California Residential Building Code
- Part 3 - California Electrical Code
- Part 4 - California Mechanical Code
- Part 5 - California Plumbing Code
- Part 6 - California Energy Code
- *Part 7 – Not Used (Elevator Code is no longer published in Title 24. See Title 8)*

- Part 8 - California Historical Building Code
- Part 9 - California Fire Code
- Part 10 - California Existing Building Code
- Part 11 - California Green Building Standards Code (CALGreen)
- Part 12 - California Reference Standards Code

4.2.4 California Energy Code

The University uses the energy efficiency requirements of Title 24, Part 6, California Energy Code, for its projects. The University Sustainable Practices Policy requires Green Building design and clean energy standards. Responsible design professionals, as selected by the Facility, are required to submit specific certification (as required by the California Energy Code) to the Building Official for inclusion in the permanent project record documents file. Copies of the Title 24 compliance forms for both residential and nonresidential construction are available from the California Energy Commission.

Additional References:

-California Energy Commission-Energy Efficiency Standards.
-Blueprint Newsletter of the California Energy Commission/Energy Efficiency Division's Efficiency Standards Office.

4.2.4.1 Energy Code Updates – Solar and Storage Requirements for New Buildings

Updates to the 2022 Title 24 Energy Code include solar and battery storage requirements for new building construction. Based on the unique site characteristics of many UC campuses, Resource Directory 4.6 established alternative means for complying with the requirements that allow for campus-wide solar and battery storage systems.

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4.2.5 Division of State Architect, Access Compliance

The University is responsible for enforcing compliance with the California accessibility standards. For University projects funded in whole or in part with state funds, the Division of the State Architect (DSA-AC) has plan approval authority for disabled access code compliance. For University projects with no state funding, the Facility may elect to use a Certified Access Specialist (CASp) for plan review in lieu of the DSA-AC. Each Facility is also responsible for compliance with the American Disabilities Act (ADA) (see 4.4.1). DSA-AC does not review for compliance with ADA. Furthermore, State and local officials do not have the authority to enforce the ADA on behalf of the Federal government. (See 4.4.1, see also ADA Certification of State Accessibility Requirements.)

4.2.6 Department of Health Care Access and Information (HCAI)

The Department of Health Care Access and Information (HCAI) performs plan reviews and construction inspection of hospital and acute health care facilities including Acute Care Hospitals, Acute Psychiatric Hospitals, and Skilled Nursing Facilities (excluding certain licensed clinics). See HCAI website.

The Alfred E. Alquist Hospital Facilities Seismic Safety Act (HSSA) passed in 1973, ensures robust construction standards for health care facilities. The HSSA established the Department of Health Care Access and Information (HCAI). HCAI is the Authority Having Jurisdiction for construction and renovations of health care facilities including Acute Care Hospitals, Acute Psychiatric Hospitals, and Skilled Nursing Facilities (excluding certain licensed clinics). These requirements are located in Title 24, of the California Code of Regulations. HCAI′s responsibilities for code compliance are carried out by its Facilities Development Division (FDD). Some of FDD's responsibilities include: establishing building standards, plan review, seismic compliance, post-earthquake evaluations, and construction observations.

Each University medical center has a Memorandum of Understanding (MOU) with HCAI. The MOU authorizes qualified DCFMs to act as HCAI Fire Life and Safety Officers (FLSO) on behalf of the FDD. A University HCAI Lead DCFM manages and directs health facility plan review and construction observation related to the fire and life safety at the University's medical centers. HCAI will serve as the building official for architectural, electrical, mechanical, and structural systems and coordinate with the HCAI Compliance Officer and District Structural Engineer to conduct construction observation along with the HCAI Lead DCFM.

Contact the Lead Designated Campus Fire Marshal to verify whether a Medical Center is enrolled in the program.

4.2.7 California Coastal Commission

Any University project within the boundary of the coastal zone shall be reviewed and approved by the California Coastal Commission. (See California Coastal Commission website.)

4.2.8 Division of Industrial Safety and Health, Elevator Unit

The Elevator Unit of the Division of Industrial Safety and Health reviews the construction or alteration of elevators. Cal/OSHA-ES requirements are located in Title 8, Elevator Safety Orders and other applicable code sections. (See Elevator Unit website.)

4.2.9 Department of General Services

The ***Buy Clean California Act*** *(BCCA)* states the Department of General Services (DGS) is required to establish and publish the maximum acceptable Global Warming Potential (GWP) for specified "eligible materials" incorporated into "eligible projects." The BCCA targets carbon emissions associated with the production of "eligible materials" as defined by the code section. These materials must have a GWP that does not exceed the limits set by DGS. The BCCA defers to the awarding authority to define "eligible projects."

The University construes “eligible projects” as all construction contracts awarded on or after July 1, 2022, and valued at $1,000,000 or more. For these “eligible projects” the contractor shall not install any eligible materials on the project until the contractor submits a facility-specific Environmental Product Declaration (EPD) for that material that meets the GWP requirements. The BCCA allows for certain exemptions (PCC 3503[e]). Further information can be found in Volume 5.

References (and ancillary documents for authority of enforcement):

- Public Contract Code 3500-350
- DGS BCCA Web Page
- BCCA Program Page Link

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4.3 LOCAL JURISDICTIONS

All Facilities owned, leased, designed, constructed, altered, or renovated with intent or future intent to support the mission of the University are under the jurisdiction and responsibility of the University and delegated Facility administration. Some rare exceptions may apply. Consult with UC Legal - Office of General Counsel for exceptions. Both Facility and local fire departments shall review a Facility's emergency access plans. The local agency may analyze road location, configuration, turning radius, width, and location of fire hydrants.

With the exception of emergency access plans, local jurisdictions typically neither review nor approve University Projects, but a Facility may want or need to consult with local jurisdictions in many circumstances, particularly with respect to utilities. Considerations include system impacts, access and right-of-way, easements, utility consumption, and conditions for service. Also, some local fire departments may have delegated authority from the State Fire Marshal for fire and life safety issues. For queries, contact the Lead DCFM. Other common authorities include:

- Water districts
- Sewer (sanitary) districts (may have enforcement authority for wastewater control)
- Electrical power companies
- Natural gas companies
- Telephone companies

When the University leases property to a separate entity, and/or enters into privatized agreements, the University typically continues to act as the Authority Having Jurisdiction (AHJ) with enforcement authority consistent with University policies and obligations to State and Federal Law. Facilities must identify the AHJ in such agreements and contracts. For further information, contact UC Legal - Office of General Counsel or the Office of the President.

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4.3.1 Air Quality Management Districts

Facilities are subject to both the federal and state Clean Air Acts, which are implemented through regional air quality management districts. Each air quality management district's regulations depend upon its clean air plan to address air quality in that district. Each Facility is responsible for meeting the requirements of these districts as they relate to capital improvement projects. See the California Local Air District Directory and section 4.5.2 below and consult with Facility Environmental Health and Safety offices for additional information regarding district regulations which may apply to the project. It is essential that the Facility Environmental Health and Safety Office be contacted to determine all such district regulations that apply to a project.

4.3.2 Storm Water Programs

California Code of Regulations Title 23 Waters. Title 23 established a Storm Water Program setting development standards on all landscape, paving or roofing changes where the original size is increased by 2,500 square feet or more in area for treating stormwater runoff under the Phase II MS4 Permit (Municipal Separate Storm Sewer Systems).

The Phase II MS4 Permit requires the following items for each construction project to be deemed complete for State Water Resource Board reporting:

- Certification Statement from Engineer of record that treatment devices meet MS4 requirements,
- Inspector of Record approval of installation,
- Submittal to the University of Operations and Maintenance Manual for any and all stormwater devices.

Projects should include these requirements in the contract documents as needed.

Project sites greater than one acre are also obligated to file for the Construction General Permit (CGP) in the California State Water Resources Control Board's Storm Water Multiple Application and Report Tracking System (SMARTS) database. (See California State Water Resources Control Board website). Projects that are designing or adding industrial, commercial facilities, or shipping and warehouse operations may be subject to the State Water Board Industrial General Permit.

The SMARTS database provides a platform where dischargers, regulators, and the public can enter, manage, and view stormwater data including permit registration documents, compliance, and monitoring data associated with California's Storm Water General Permits.

Both the Phase II MS4 Permit and Construction General Permit require treatment of stormwater runoff when adding or modifying more than 2,500 square feet of impervious surfaces, including roofing and paving area. Common examples of stormwater treatment include bioswales, landscaping, rain collection/cisterns, tree planting, green roofs, etc. Projects must document these changes using the California State Water Resources Control Board's Post Water Balance Calculator or by similar means. Each Facility maintains requirements for Best Management

Practices (BMP's). Consult with the campus EH&S Office and review the Division One specification.

Each Facility must review the Long Range Development Plan (LRDP) requirements and compare it to MS4 regulations when designing for stormwater treatment. The MS4 permit also requires the Facility to develop legal enforcement standards, which may have some direct involvement and impact to construction and development sites. Engagements with Facility Environmental, Health and Safety offices, agencies, and the public may include various levels of notices, violations, and fines. Consult with campus planning for further assistance with the LRDP.

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4.4 FEDERAL REGULATIONS

Facilities are subject to the Americans with Disabilities Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the regulations pertaining to underground storage tanks. Specific projects may also be subject to numerous other Federal regulations not listed here. It is essential that the Facility Environmental Health and Safety Office be contacted to determine all such regulations that apply to any project.

4.4.1 Americans with Disabilities Act

Each Facility is responsible for compliance with current Americans with Disabilities Act (ADA) requirements.

The Americans with Disabilities Act became law on July 26, 1990. This civil rights law prohibits discrimination against any "qualified individual with a disability." Title II, Subpart A, applies to the University:

"No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity or be subjected to discrimination by any such entity." (See ADA Title II.)

On July 15, 2016, the Department of Justice revised the ADA Title II and Title III regulations to implement the ADA Amendments Act of 2008 that further clarified a public accommodation to provide auxiliary aids and services for people with disabilities effective January 17, 2017.

The University is also required to comply with the accessibility requirements found in California law in Part 2 of the California Building Code.

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4.4.2 Clean Air Act

The Clean Air Act (CAA) regulates stationary and mobile sources of air pollutants through National Ambient Air Quality Standards (NAAQS) and National Emission Standards of Hazardous Air Pollutants (NESHAPs). Major sources of air emissions include combustion equipment, process units, material storage areas, and mobile vehicle fleets.

Title V Operating Permits Program. Title V is a permitting program for all major sources of regulated air pollutants. The definition of a major source depends on a particular air district. Generally, a major source is one that has the potential to emit more than 100 tons per year (tpy) of any criteria pollutant or 10 tpy of any hazardous air pollutant (HAP) or 25 tpy of HAPs in the aggregate. Boiler emissions have placed several facilities into the Title V program. Each local air district administers the Title V Permit Program. For further information, contact the Facility Environmental Health and Safety office.

Protection of Stratospheric Ozone; Refrigerant Recycling. These regulations under the CAA establish a recycling program for ozone-depleting refrigerants recovered during the servicing and disposal of air-conditioning or refrigeration equipment.

Facilities Compliance Guidelines. The Facility is responsible for ensuring that equipment complies with the Clean Air Act requirements and for obtaining necessary permits.

4.4.3 Clean Water Act

Wastewater (40 CFR parts 122 and 403). In general, Facilities discharge campus wastewater into municipal sanitary sewer systems for off-site treatment at local wastewater treatment plants (WWTPs). As "indirect dischargers," Facilities are governed by local wastewater pretreatment standards administered through industrial wastewater discharge permits issued to Facilities by local WWTPs. Local pretreatment standards vary widely depending upon the WWTP's capacity, condition, and effluent discharge limitations.

Facilities Compliance Guidelines. The Facility is responsible for compliance with local wastewater pretreatment standards and permit limitations, including any monitoring and reporting requirements.

Stormwater ("Industrial" facilities [40 CFR Part 122]). Under Phase I stormwater regulations, which are designed to control "non-point source" pollution from stormwater runoff, certain discrete facilities may be required to obtain NPDES stormwater discharge permits. These facilities include landfills, wastewater treatment plants, steam electric power generating facilities (possibly co-gen plants), and Facility bus maintenance facilities. Permit conditions include preparing a site-specific stormwater pollution prevention plan, and monitoring and recordkeeping requirements.

Facilities Compliance Guidelines. The Facility is responsible for obtaining discrete "industrial facility" stormwater discharge permits and complying with all permit conditions and requirements, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) for discrete facilities.

Stormwater (Construction sites >1 acre in size [40 CFR Parts 122-124]). Phase II stormwater regulations require that all Facility construction sites greater than one acre in size obtain a NPDES stormwater discharge permit. Permit conditions include preparing a site-specific stormwater pollution prevention plan, and monitoring and record keeping requirements.

Facilities Compliance Guidelines – The Facility is responsible for obtaining discrete construction site stormwater discharge permits (for all sites larger than one acre) and complying with all permit conditions and requirements including preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of appropriate sediment and erosion controls on each site.

Stormwater (Facility-wide [Phase II regulations 40 CFR Parts 122-124]) - Phase II revisions to previous stormwater regulations require that all state Facilities obtain a stormwater discharge permit covering runoff from the entire Facility. Permit conditions include preparing a site-wide stormwater management plan, and monitoring and recordkeeping requirements.

Facilities Compliance Guidelines – The Facility is responsible for obtaining a Facility-wide stormwater discharge permit including those off-site facilities captured under the regulations. The Facility is responsible for complying with all permit conditions and requirements including preparation of a Facility-wide Stormwater Management Plan (SWMP) and implementation of selected Best Management Practices (BMPs).

Additional References:

- 40 CFR Parts 122-125**, National Pollutant Discharge Elimination System, Permits and Criteria**
- 40 CFR Parts 400-471, **Effluent Guidelines and Standards**

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4.4.4 Hazardous Waste Laws

Resource Conservation and Recovery Act. Resource Conservation and Recovery Act (RCRA) and its counterpart in the California hazardous waste control laws manage the generation, transportation, and disposal of hazardous waste from cradle to grave. Each Facility is regulated as a generator, typically because of chemical usage in laboratories. However, there are other Facility activities that generate hazardous waste such as: transformer oil, janitorial cleaning compounds, vehicle fluids, maintenance materials, print shop inks and dyes, and photography shop developing solutions. The hazardous waste generator permit program is administered by each county's Certified Unified Program Agency (CUPA) under a Memorandum of Agreement with the California Department of Toxic Substances Control. In addition, various federal state, and local regulations apply to the transport, storage, handling, and use of hazardous materials.

Regulations Pertaining to Underground Storage Tanks. Many petroleum products such as gasoline, diesel fuel, waste oil, heating oil, and vehicle fluids are often stored in underground tanks in order to comply with building and fire codes. Federal and state (pdf) regulations require

that all steel underground fuel tanks must be fitted with secondary containment or both interior lining and cathodic protection; all tanks must have tank level monitors, an overfill prevention system, and a spill container; and all underground pressurized piping installed before January 1, 1984 must be retrofitted with secondary containment. The permitting of underground storage tanks is administered by each county's Certified Unified Program Agency (CUPA) under a Memorandum of Agreement with the State Regional Water Quality Control Boards.

Facilities Compliance Guidelines. Each Facility is responsible for compliance with federal and state requirements and obtaining the necessary permits.

Caveat: This chapter sets out some, but not all, of the codes and regulations that might typically be applicable to a Facility project. This list is not exclusive. It is essential that project managers and planners contact the Designated Campus Building Official and the Facility Environmental Health and Safety office to determine all such codes and regulations that apply to any project.

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Revision May 14, 2025

Design Reviews and Approval

Volume 3, Chapter 5

INTRODUCTION

University projects require review prior to their entering the formal approval process. Project items to be reviewed include design and cost, site, seismic safety, and environmental impact. Normally, program and funding approvals occur prior to site, design, and environmental approvals; occasionally, however, these approvals may occur concurrently.

The review and approval processes described below apply to uncomplicated projects. Projects with multiple approvals require additional lead-time because of their complexity and to resolve any difficulties. In addition to these University approvals, various state, local, and University entities may require their own reviews and approvals for certain projects.

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5.1 INDEPENDENT DESIGN AND COST REVIEW

References:

- University policy: "Independent Design and Cost Review of Building Plans" (see FM1:5.1).

The University initiated independent design and cost review of building plans in 1985 in response to concerns about quality management of a rapidly growing Capital Improvement Program. University policy requires independent architectural design review and independent cost estimates of projects. Additionally, projects with a total budgeted cost, including administrative costs, of over $10 million are subject to Regents' design review and approval (see section 5.6 below); projects with a total budgeted cost over $5 million but under $10 million are subject to design review and approval of the Executive Vice President of UC Finance (see section 5.8 below).

5.1.1 Independent Reviewer Selection

Independent reviewers must be appropriately licensed, have no connection with the project being reviewed, and not be University employees (with the exception of qualified faculty members).

5.1.2 Design Review Format

Design review format is left to the discretion of the Chancellor. However, the review is to be performed early in the preparation of design, at appropriate intervals during design, and at the time of design completion.

5.1.3 Cost Review Requirements

Cost review shall be made prior to the submittal of the project for Regents' design approval and shall be incorporated into the design presentation. Cost review should include lifecycle, maintenance, and ongoing regulatory compliance requirements.

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5.2 ENVIRONMENTAL REVIEW AND DOCUMENTATION

Environmental documentation begins during project planning phases, when projects are classified by their probable impact and need for environmental documentation. A Facility must prepare environmental documentation for all projects. A project may fall within the general exemption, may be categorically exempt, or may require an Initial Study to determine the severity of its impacts. The Initial Study identifies areas of environmental concern and is used to assess whether potential impacts are significant and require the preparation of an Environmental

Impact Report (EIR), or if not significant, a Negative Declaration is prepared instead (see FM2.5.2).

If potential impacts are significant, a full EIR is prepared, usually with the assistance of outside consultants; this process includes publication and public review of a draft EIR and a public hearing. The final EIR is then prepared, also with the assistance of outside consultants. The final EIR responds to all comments received in writing and at the public hearing during the review period. The final EIR also proposes measures designed to mitigate significant environmental impacts and a program for monitoring implementation of these mitigation measures. The environmental documentation must be reviewed and approved the relevant decision maker depending on delegated approval authority, prior to design approval (see FM5.6.2).

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5.3 SEISMIC SAFETY AND REVIEW

References:

- University policy: Seismic Safety Policy

- **Guidelines:** UC Seismic Program Guidelines

5.3.1 Seismic Safety Policy

The Seismic Safety Policy is a Presidential Policy listed in Volume 1, Chapter 5 of the UC Facilities Manual.

5.3.2 Seismic Safety Program

Guidance for UC Seismic Safety Policy implementation and compliance are provided in the UC Facilities Manual Resource Directory, RD4.3 – UC Seismic Program Guidelines.

5.4 SITE APPROVAL

References:

- Delegation of authority: "Approval of Siting of Individual Buildings or Projects," DA 0606 (see FM1:4.4).

- Delegation of authority: “Approval of LRDP Amendments and Administration of the California Environmental Quality Act,” DA 2629 (see FM1:4.4).

Chancellors have been delegated the authority to approve the project sites that are in general accordance with an approved Long-Range Development Plan (LRDP). DA 0606

Sites that are not in accordance with the LRDP must be approved by The Regents Committee on Finance and Capital Strategies for project over $10 million (see section 5.6 below). The President (re-delegated to Executive Vice President - UC Finance) is authorized to approve minor LRDP amendments limited to:

i. siting a building project of $10 million or less,
ii. shifting less than 30,000 gross square feet of allocated building space, and/or
iii. changing the land-use boundaries and designations for 4 acres or less of land. (see DA 2629).

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5.5 DESIGN APPROVAL AUTHORITY

The Regents have delegated to the President the authority to approve project design with the following exceptions which require design approval by the Committee on Finance and Capital Strategies:

1. Building projects with a total project cost in excess of $10 million, except when such projects consist of alterations or remodeling where the exterior of the building is not materially changed, buildings or facilities located on agricultural, engineering, or other field stations, and agricultural-related buildings or facilities located in agricultural areas of a campus.
2. Capital improvement projects of any construction cost when, in the judgment of the President, a project merits review and approval by The Regents because of budget matters, fund-raising activities, environmental impacts, community concerns, or other reasons.

The President has delegated to the Executive Vice President - UC Finance the authority to approve the design of projects with a total project cost over $10 million but under $20 million. Approval of the design of projects with a total cost less than $10 million has been delegated to the Chancellors et al. for approval. (see DA 2629)

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5.6 REGENTS' DESIGN APPROVAL

References:

- Guide to the Preparation of Regents' Materials, University of California, Office of the President, Coordination & Review, Oakland, CA, August 1989 (and succeeding editions).

After the independent reviews (design, cost, and seismic) are completed, projects requiring Regents' approval or Executive Vice President's approval may be submitted. This process involves the preparation of an Action Item, the review of the project with the Office of the President, and a presentation to the Regents. The Office of the President is included in the Facility design review to provide an opportunity for University input on design content and review of Regents' policy. Procedures and guidelines for preparing and submitting Action Items are described below; the Office of the President design review and the Regents' presentation process are outlined in Design Matters.

5.6.1 Guidelines for Preparing and Submitting Regents' Action Items

Site, design, and environmental approvals may all be included in one Regents' Action Item. The general procedures for writing and submitting Regents' Action Items are handled by the Regents' Coordinators for the Office of the President. For more information about these procedures, contact the Office of the President.

Prerequisites. Projects lacking official project budget approval, design professional appointment, independent seismic and structural reviews, or proper environmental documentation will not be accepted for design review and approval. Projects requiring Regents' review are also required to have independent design & cost review completed. All prerequisites must be completed prior to submission of the Action Item. Coordinate all exceptions well in advance with the Office of the President.

Format. The format for preparing an Action Item can be found in the OP Capital Planning website and is appropriate for most projects. Discuss exceptions with the Office of the President. A computer file containing the Action Item template and a template for the Project Statistics sheet (see below) is available from the Office of the President. A computer file and a hard-copy version of the Draft Item are both submitted to the Office of the President. The names and telephone numbers of the planner or project manager and the project manager's supervisor are provided on the item in the location on the right-hand block on the "Drafted" line.

Writing Style. The general strategy for writing Action Items is to be brief while including all important information. Remove extra phrases, adjectives, opinions, unrelated facts, and long explanations.

Statistical and Cost Data. Project Statistics sheet figures may be obtained from either the Project Planning Guide budget or the current project estimate; the chosen source must be noted on the sheet. If project estimate figures are used for the statistics sheet, budget figures must be submitted on a separate page.

Because The Regents often review comparable University project costs in detail, it is important to research costs early and to ensure that these are included in the draft Action Item submitted to the Office of the President.

Lead Time. Design and environmental items require a lengthy review. A draft of the Action Item is sent to the Office of the President approximately six (6) weeks prior to the meeting of the

Regents' Committee on Finance and Capital Strategies. The Office of the President reviews the design and environmental portions of a Regents' Action Item. The Office of the President circulates and reviews the design and environmental portions of the Action Item. The schedule for submitting Action Items to the Office of the President is distributed to the Facilities as part of the general preparation for Regents' meetings. The Design Review Calendar is also available on the Office of the President's Planning, Design & Construction website (see Design Matters).

Projects requiring only Executive Vice President's approval also require an Action Item. These should be prepared in the same manner and within the same schedule as a Regents' Action Item. (see section 5.8 below)

OCEAN tool: Regents items for New Construction or Major Renovations are required to submit a copy of the UC Operational Carbon and Energy Assessment for New Construction (OCEAN) tool with Regents items. The tool can be accessed via the UCOP Box folder by UC staff. Preliminary plans approval items should use the P-Phase Report and other items should use the Post P-Phase Report.

5.6.2 Environmental Documentation

The Regents' Action Item states that The Regents have reviewed and considered the environmental document and have certified the EIR or adopted the Negative Declaration document as one of the actions. Within or as an attachment to the item, the Environmental Impact Summary provides the overview of the environmental review process and highlights any significant environmental issues. The Findings are a separate document, reviewed by UC Legal - Office of the General Counsel, which states in detail how each environmental issue was addressed.

5.6.3 Procedures for Submitting Environmental Documents

The Facility sends copies of the final environmental documents to the Office of the President approximately two weeks before the Regents' meeting. These are distributed to The Regents and the Office of the President.

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5.7 OFFICE OF THE PRESIDENT AND REGENTS' PRESENTATION

The design review process consists of a design review meeting with the Office of the President staff approximately two to three weeks before a more formal presentation to the Regents' Finance and Capital Strategies Committee.

5.7.1 Preparation

The Office of the President participates in the Facility design review to provide an opportunity for University input on design content and review of Regents' policy. Informal reviews with the Office of the President Coordinator should be held while the project is in the early design phases.

Three months in advance of the Regents' meeting date, the Office of the President must be notified that a capital improvement project with a total cost of over $10 million will be presented for Regents' approval. This schedule is also applicable for projects requiring Executive Vice President approval.

5.7.2 Office of the President Design Review Meeting

The Office of the President design review meeting is held approximately two to three weeks in advance of the meeting of the Regents' Finance and Capital Strategies Committee. Upon request, a project may be scheduled for design review at an earlier date. The meeting is held at the Office of the President and is attended by Facility staff, the Associate Vice President - Capital Programs, Energy, and Sustainability, and other Capital Programs, Energy, and Sustainability staff, as appropriate. Final presentation materials are not necessary for this meeting; "rough" drawings, a draft PowerPoint presentation, and supporting data are acceptable. The draft Action Item (see section 5.6.1 above) and project cost data, schedule, and efficiency must have been submitted previously.

The following materials should be presented at the meeting:

1. A site map or aerial photograph of the project area
2. Photographs of surrounding areas
3. Land-use plan of the long-range development plan
4. Site plan
5. Floor plans
6. Elevations on all sides
7. Major sections (if required to explain design)
8. Two renderings
9. A color and materials board
10. Regulatory requirements summary (during construction and ongoing maintenance)
11. Design analysis, life-cycle cost analyses, and other support data

The results of the design review meeting, which may include directives or changes, will be sent to the Facility.

This is the only presentation of the project that must be made if the project requires Executive Vice President's approval.

5.7.3 Meeting of the Regents' Finance and Capital Strategies Committee

The meeting of the Regents' Grounds and Building Committee is scheduled before the Regents' Board meeting (see Regents' Item Submission Schedule [pdf]). The meeting is normally held in the Oakland/San Francisco area. However, the meeting location can change and campuses are urged to coordinate with UCOP Design and Construction Services to verify meeting date, time, and location.

This meeting is a public meeting and must be attended by a quorum of the Committee, the Executive Vice President - UC Finance, and the Associate Vice President - Capital Programs, Energy, and Sustainability. The project is presented by senior Facility officials and staff, as appropriate. After a question and answer period, the Committee votes to approve the actions requested. If the project is approved, it may proceed into the next phase of development. Further action by the full Board is not necessary so long as the project does not require adoption of a Long Range Development Plan and the program and funding have been approved.

It is important that the Facility coordinate the presentation with the Office of the President well in advance of this meeting; the Office of the President can provide information on appropriate presentation styles and can determine whether supplemental information, such as budget data or project analysis, is required. In addition to the formal presentation materials, the Facility may arrange to have additional explanatory materials (such as extra slides) available to answer questions. Presentation models are optional and are only used if they are needed to clearly illustrate the project design.

5.8 EXECUTIVE VICE PRESIDENT DESIGN APPROVAL

Design approval authority for projects over $10 million, but under $20 million, has been delegated by the President to the Executive Vice President - UC Finance. (see DA 2629). Once a project has been developed to a sufficient level of detail, (i.e., at the end of Schematic Design) and after all necessary campus design approvals have been obtained, a project may be submitted.

5.8.1 Guidelines for Preparing and Submitting Presidential Action Items

The guidelines for preparing and submitting Presidential Action Items are the same as for the preparation and submittal of Regents' Action Items. Projects require independent seismic review, official project budget approval, design professional appointment, and proper environmental documentation. Although not required, it is recommended that projects also have independent design and cost review.

5.8.2 Environmental Documentation

The guidelines for preparing the environmental documentation for Presidential Action Items are the same as for a Regents Action Item.

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5.9 UC SUSTAINABILITY REQUIREMENTS

5.9.1 Policy on Sustainable Practices

The Policy on Sustainability Practices establishes goals and requirements in 13 areas of sustainable practices, including green building. The policy sets energy-efficiency and LEED standards for new buildings as well as major renovations. Renovation projects that do not constitute a major renovation, as defined by the policy, with an estimated project cost above the

annual California Construction Cost Index (CCCI) threshold also have sustainability requirements. The annual CCCI threshold is published each year on the Sustainability webpage.

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Revised May 14, 2025

Project Records

Volume 3, Chapter 6

INTRODUCTION

Official project file records must be retained after a project has been completed. The contents of a project file are enumerated in 6.1.1 (below).

6.1 RECORD RETENTION

References:

- **University of California, Policies on Records Management and Privacy.**
- **University of California Records Retention Schedule.**
- **Records Retention and Disposition: principles, processes, and guidelines.**

This chapter provides guidance on records retention for University projects. Campuses are encouraged to check for updates regarding the Records Disposition Schedules Manual housed under the Information Technology Services department on the Office of the President website.

Campuses must contact their campus Records Management Coordinators if they have additional questions.

A list of records to be retained for Capital Projects, along with their retention time is available on the University Records Management Disposition Schedule, under Capital Resources Records.

The University retains official project file records for at least 10 years in case a defect is discovered after the project is completed. Certain records used for a structure's operation and maintenance and that are part of an environmental impact investigation and monitoring program must be retained until the Regents no longer own the building and its surrounding property. As-built drawings are vital records and there are special requirements for their protection. Asbestos removal and disposal records must be retained for 50 years.

The project manager must consider record retention when executing an agreement with the design professional. The design professional's project records are maintained for a minimum of five years (preferably longer) after the project is completed. Records to be transferred to the University regarding operations and maintenance should be formatted to Facility requirements. Any special or high-risk portions of the project must be thoroughly documented and follow more stringent record retention requirements.

Some projects may have very long term or other special records retention requirements based on the project funding source, including bonds and grants. Those requirements are set forth in the funding agreement.

6.1.1 Project File Contents

During bidding and construction administration, the following items either issued by the Facility or received from the contractor should be placed in the Facility's project file. (This list is not meant to be all-inclusive.)

1. Bidding documents (as issued for bids)
2. Minutes of pre-bid conference
3. Prequalification or qualification data (if used)
4. Completed Bid Forms
5. Completed Bid Bonds
6. Bid Summary
7. Notice of Selection as Lowest Responsible Bidder
    - Contractor's Statement of Experience and Financial Condition
    - Name and qualifications of superintendent
8. Contract documents (as executed)
    - Agreement
    - General Conditions (in bidding documents)
    - Supplementary Conditions (in bidding documents)
    - Certificates of Insurance
    - Payment Bond
    - Performance Bond
    - Specifications (in bidding documents)
    - List of Drawings (in bidding documents)
    - Drawings (filed separately)
    - Addenda (in bidding documents)
    - List of Subcontractors and List of Changes in Subcontractors Due to Alternates Contained in the Completed Bid Form
    - Regulatory Obligations (including and not limited to geotechnical reports)
9. Contract documents (issued after execution)
    - Notice to Proceed
    - Change orders
    - Field orders
    - Applications for Payment

    - Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention
    - Submittal schedule
    - Executed waivers and release forms
    - Cost proposals
    - Notice of Completion
    - Amendments to the contract
10. List of all subcontractors on the project
11. Contract schedules
12. Telephone conversation notes
13. Correspondence
14. Inspector's Daily Report
15. Quality control inspection reports
16. Minutes of project meetings
17. Shop drawings and product data
18. Material on product substitutions
19. Certificates for Payment
20. Claims (with supporting data)
21. Change requests
22. Photographs
23. Electronic files (in a format acceptable to the University's Representative)
24. Inspection video tapes
25. Certificates of Beneficial Occupancy
26. Certificate of Substantial Completion
27. Guarantees

Revised May 14, 2025

Construction Contracting

Volume 4, Chapter 1

INTRODUCTION

References:

- University policy: "Maintenance and Construction Work."

- Construction Contracting Requirements Summary Table

University policy on new construction states in part:

"It is the policy of the University to accomplish new construction of structures and systems by placing such work under contract in the most economical manner to qualified outside firms, carefully supervising the work thus contracted or, in unusual cases approved by the Chancellor, by hiring employees on a temporary basis for periods not in excess of six months." This chapter describes required modes of contracting, types of construction contracts, types of University construction documents, and the members of the construction team.

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1.1 REQUIRED MODES OF CONTRACTING

References:

- Public Contract Code, State of California, Section 10503

The Public Contract Code requires the University to use one of the following contracting modes for entering into a construction contract:

- Complete plans and specifications (also called "lump-sum")
- Design-and-build (also called "design-build" or "turnkey")
- Construction manager
- Cost-plus-fee
- Other modes (when approved by the Office of the President)

1.1.1 Complete Plans and Specifications Mode

The complete plans and specifications contracting mode (also called the "lump-sum" mode) requires complete plans and specifications setting forth directions in enough detail to enable a contractor to carry them out. The University's Long Form, Brief Form, and Mini Form construction documents(see 1.3) have been written for the complete plans and specifications contracting mode.

1.1.2 Design-and-Build Mode

In the design-and-build contracting mode (also called the "design-build" or "turnkey" mode), the University contracts with a single party that designs and builds the project. Documents for the solicitation of bids under the design-and-build contracting mode include the following:

- A program setting forth the project scope and the size, type, and desired design character of the building and site.
- A set of performance specifications covering the quality of materials, equipment, and workmanship.
- A maximum acceptance cost.
- A method and grading system for evaluating contractor proposals on the basis of a preliminary design, outline specifications, a price, and the financial condition and relevant experience of the contractor and the contractor's design professional.

The University has successfully constructed housing projects and parking structures using the design-and-build contracting mode. Construction documents developed for this mode are available from the Office of the President.

1.1.3 Construction Manager Mode

In the construction manager contracting mode, the University contracts with a firm that provides management services during design and bidding phases and assumes responsibility for the construction work. The construction manager serves as a member of the construction team (see 1.4). Documents for the solicitation of bids under the construction manager contracting mode include the following:

- Prequalification standards
- Outline specifications
- Schematic drawings

These documents must indicate the general scope of the project. They must also designate those fees and other fixed commitments upon which prequalified contractors will be invited to submit competitive bids that will, in turn, serve as the basis of selection. Construction documents developed for this mode are available from the Office of the President.

1.1.4 Cost-Plus-Fee Mode

In the cost-plus-fee contracting mode, the contractor is reimbursed for the actual cost of labor and materials, plus a fee for overhead and profit. Cost-plus-fee contracts are usually used for emergency work or for projects in which the scope of work is uncertain. Documents for the solicitation of bids under the cost-plus-fee contracting mode include the following:

- Prequalification standards
- Outline specifications
- Schematic drawings

These documents must generally describe the scope of the work and a definition of "reimbursable costs" and "nonreimbursable costs." They must also designate the fees and other fixed costs upon which prequalified contractors will be invited to submit quotations that will, in turn, serve as the basis of selection. Construction documents developed for this mode are available from the Office of the President.

1.1.5 Other Contracting Modes

Bids may be solicited under contracting modes other than complete plans and specifications, design-and-build, construction manager, and cost-plus-fee that the University decides are in the best interest of the University. These other modes of contracting may not be used by Facilities unless approval is first obtained from the Office of the President.

The Public Contract Code requires that documents for the solicitation of bids under other contracting modes allow for uniform bid comparison and that the award be made according to published selection standards.

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1.2 TYPES OF CONSTRUCTION CONTRACTS

There are two primary types of construction contracts: single contracts and multiple prime contracts. Variations of these types of contracts involve the participation of a construction manager or project manager.

1.2.1 The Single Contract and Multiple Prime Contracts

The single contract is the most commonly used contract type. Plans and specifications are prepared by the design professional and become part of the bidding documents. A single contractor is then selected by the University to perform the work. The single contract is usually the easiest to administer because of its centralization of responsibility, namely, one owner (the University), one contractor, and one construction contract. The standard Long Form, Brief Form, and Mini Form construction documents in Part II have been prepared for those cases where a single contract is awarded.

With multiple prime contracts, the University divides a project into two or more parts and then enters into a separate contract for each part. The most frequent use of multiple prime contracts is

for phased construction, in which contracts are awarded sequentially for each phase (see 5.4.17). This type of construction is also referred to as the "fast-track" method. Contracts for parts of the project such as site development, site excavation, or foundation work are awarded before the contract for the main structural work is awarded. Multiple prime contracts require careful coordination because several contractors are involved, and no single contractor is responsible for the entire project.

Samples of customized construction documents developed for multiple contracts are available from the Office of the President.

Construction Management. Sometimes, a construction manager (see 1.4.5) is contracted to do limited work on a project or to perform the construction work. Construction management may be used with either single or multiple prime construction contracts, and these contracts may be made with either the University or the construction manager. Contracts involving construction management may also include a guaranteed maximum price, whereby the construction manager guarantees that the construction cost will not exceed a specified amount. The guaranteed maximum price is subject to increase, however, if the project's scope or conditions are changed.

Construction documents developed for construction management projects are available from the Office of the President.

Project Management. Project management extends beyond construction management in that it also may include oversight of the design and, possibly, planning stages of a project. The University has successfully used dedicated project management on large, complicated projects. Projects involving multiple buildings, significant site improvements in high-use areas, or complicated funding require the type of supervision and coordination that a project manager (see 1.4.6) can provide. The added supervision and coordination provided by the project manager should reduce the time required to obtain funds and to design and construct the project.

Construction documents developed for project management are available from the Office of the President.

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1.3 TYPES OF CONSTRUCTION DOCUMENTS

The basic types of standard construction documents used by the University are:

- Long Form
- Brief Form
- Informal Form
- Mini Form
- Design-Build Form
- CM at Risk Form
- Multiple Prime Form
- Job Order Contract Form

- Brief Design Build

The types of construction documents are described in greater detail in Chapter 3. Approved construction document models for each type are located in Part II.

1.3.1 Long Form

The Long Form construction documents must be used by the University for projects with estimated contract sums of over 1 million dollars, and may be used for projects below that threshold.

In general, the Long Form is organized according to the Construction Specifications Institute's Manual of Practice. The Long Form Instructions to Bidders and General Conditions are organized according to recognized construction industry standards and terms.

1.3.2 Brief Form

The Brief Form construction documents may be used by the University for projects with estimated contract sums up to $1 million.

Some Brief Form documents are identical to those in the Long Form; other documents, such as the Brief Form General Conditions, are written specifically for the Brief Form.

1.3.3 Informal Form

The Informal Form construction documents may be used for Competitive Informally Bid Lump Sum Construction Projects that exceed $50,000, but that do not exceed $640,000.

1.3.4 Mini Form

The Mini Form construction documents may be used by the University for projects with estimated contract sums of up to $300,000.

Like the Brief Form, the Mini Form uses some Long Form construction documents, however most of the documents are written specifically for the Mini Form.

1.3.5 Design-Build Form

The Design-Build Form is used by the University for projects constructed under the design-build mode 1.1.2.

1.3.6 CM at Risk Form

The CM at Risk Form is used by the University for projects constructed under the construction manager mode 1.1.3.

1.3.7 Multiple Prime Form

The Multiple Prime Form is used by the University for projects constructed by multiple prime trade contractors.

1.3.8 Job Order Contract (JOC)

The Job Order Contract is used by the University for on-call contractors for efficient delivery of relatively small construction and maintenance projects.

1.3.9 BRIEF DESIGN BUILD

The Brief Design Build Contract is used by the University for projects constructed under the design-build mode 1.1.2 for contracts not to exceed $5,000,000. Unlike traditional Design Build Design work and Construction work are not divided into phases.

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1.4 CONSTRUCTION TEAM

The construction team for University projects consists of four principal entities:

- University
- Contractor
- University's Representative
- Design Professional

In certain cases, the University may also choose to contract with the following parties, which then become members of the construction team:

- Construction Manager
- Project Manager

1.4.1 University

The term "University" in the construction documents refers to The Regents of the University of California. In the *Facilities Manual*, the term "University" has been substituted for "The Regents of the University of California" wherever possible. The University initiates the project; secures funding for planning, design, and construction; selects and contracts with the contractor, design professional, and other professionals, as applicable; and operates and maintains the completed project.

1.4.2 Contractor

The term "contractor" refers to the person or firm responsible for performing the work and is identified as such in the Agreement. The contractor may use subcontractors, and the

subcontractors may use sub-subcontractors to perform parts of the work. However, the Agreement is between the University and the contractor, and the contractor alone is responsible for completing the project.

1.4.3 University's Representative

The term "University's Representative" refers to the person or firm administering the construction contract for the University (see 1.4.1). The University must always have a University's Representative, who may be the design professional or a University employee. The University's Representative is selected according to project requirements.

1.4.4 Design Professional

The design professional is an architect or engineer (person or firm) qualified and duly licensed to perform architectural or engineering services under contract to or employed by the University. The design professional prepares and signs the construction documents and is eligible to serve as the University's Representative.

In most instances, the design professional prepares and helps to assemble the bidding documents (see 2.3). The bidding documents consist of standard documents furnished by the University and drawings and specifications developed by the design professional. Each Facility must provide the design professional with Supplemental Requirements for preparing the construction documents. The Supplementary Requirements are incorporated into the Executive Agreement as Exhibit C (see Contract Templates - Design and Other Consultants).

Consultants. The design professional usually engages consultants as needed to provide the University with the services required in the Executive Agreement. Although the University approves the consultants, it does not have any contractual relationship with them.

1.4.5 Construction Manager

The University may contract with a construction manager that provides input during the design phase and oversight and administration of the bidding and construction phases, or one that assumes responsibility for the construction work (see 1.2.1). In both cases, the construction manager becomes another member of the construction team.

The University uses the following two methods for contracting with a construction manager:

1. When the construction manager is a professional organization and assumes no responsibility for construction work on the project, a contract may be negotiated using the Construction Management Agreement (see Contract Templates - Design and Other Consultants).
2. When the construction manager is a contractor and assumes responsibility for construction work on the project, the contract must be competitively bid using the construction manager mode of contracting (see 1.1.3).

1.4.6 Project Manager

On large, complicated projects, the University has contracted with a project manager that oversees the design, contract administration, inspection, and some planning phases of a project (see 1.2.1). Project managers may serve as the University's Representative (see 1.4.3) during the construction phase. A member of the construction team, the project manager is a professional organization and does not assume responsibility for the construction work. The project manager's contract is negotiated. Sample contracts are available from the Office of the President.

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1.5 METHODS OF DETERMINING, STATING, AND PAYING THE CONTRACT SUM

The University uses the three methods listed below for determining, stating, and paying the contract sum:

- Lump sum
- Cost-plus-fee
- Unit prices

Although the lump sum, cost-plus-fee, and unit prices methods may be used with all three types of construction documents, the standard documents do not contain provisions for the cost-plus-fee method, and additionally, the standard Brief Form does not accommodate unit prices.

Combinations of these methods may be used on a single project or with a single mode of contracting (see 1.1).

1.5.1 Lump Sum Method

The most common and simplest method of determining and stating the contract sum is the lump sum method, in which a single amount is quoted for all of the work. The contractor is paid the contract sum in one or more installments. With the lump sum method, the initial contract sum is determined during bidding, and may be required for budgetary reasons. Using this method, if the amount bid is within the budget, the project proceeds; if the amount bid is over budget, rebidding or other steps must be taken to either augment the budget or bring the bid amount within the budget. In competitive bidding and informal bidding, lump sums are quoted by the bidders; in negotiated contracting, a lump sum is negotiated between the University and the contractor.

1.5.2 Cost-Plus-Fee Method

When the cost-plus-fee method is used to determine the contract sum, the contractor is reimbursed for the actual cost of labor and materials and is paid a fee for overhead and profit (the fee may be a percentage of the labor and materials costs or a fixed amount). With this method, the contract sum is not fully determined until the work is completed (the initial contract sum is the amount of the fixed fee or the percentage due to contractor which will be converted to a

dollar amount after completion of the work). In some cases, the University stipulates a guaranteed maximum sum that cannot be exceeded.

1.5.3 Unit Prices Method

With some projects, the extent of work cannot be fully determined, or the actual quantities of required items cannot be accurately calculated in advance. In these cases, bidders are requested to submit bids based on unit prices.

Unit-price contracts subdivide the work or parts of the work into like items and state approximate quantities for each item. The bidders use these quantities in preparing their bids. A price per unit of measurement (unit price) is quoted for each item. Sums for the extended unit prices are not included in the initial contract sum. As the work is completed, actual quantities are measured, and the contractor is paid according to the contractor's quoted unit prices. The University pays only for the actual quantities of materials used.

Unit prices may or may not be used as a basis of award. Sometimes, unit prices are requested at bid time to add work to a project but are not used as a basis of award.

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(Revised June 8, 2017)

Construction Document Organization

Volume 4, Chapter 2

INTRODUCTION

References:

- Construction Document Organization Table.

The construction documents serve as a means of obtaining bids from contractors and are used by contractors to obtain price quotes from subcontractors. The construction documents define the quantities and qualities of, and relationships among, all materials required to construct a project; they establish the contractual obligations for the University and the contractor, and they define the roles of the construction team members (see 1.4).

Since the construction documents become part of the legal construction contract, it is extremely important to produce complete and accurate documents. When the construction documents are complete, they are subject to regulatory code and legal reviews. Upon completion of reviews and approvals, the construction documents are used to solicit bids in accordance with the procedures described in FM5.

Within the three types of standard University construction documents – the Long Form, the Brief Form, and the Mini Form – individual construction documents are carefully formatted and organized in several ways. Unless specified otherwise, the information in this chapter refers to Long Form construction documents. Approved construction document models for each type are located in Part II.

Additional background material on construction documents and construction contracts may be found in the following publications:

- The Construction Specifications Institute (Alexandria, VA), *Manual of Practice*.
- The American Institute of Architects (Washington, D.C.), *Architect's Handbook of Professional Practice*.
- Various publications of The Associated General Contractors of America (Washington, D.C.).

2.1 CONSTRUCTION DOCUMENT FORMAT

References:

- *Manual of Practice*, Construction Specifications Institute, Alexandria, VA.

- "Uniform Location of Subject Matter and Information in Construction Documents," Engineers' Joint Contract Documents Committee, Document 1910-16, (published and issued jointly by the American Institute of Architects and the Construction Specifications Institute).

The Construction Specifications Institute's *Manual of Practice* states in part:

Each [contract] requirement should be stated only one time and in the most logical location. Information in one document should not be repeated in any of the other documents. Each document has a specific purpose and should be used precisely for that purpose. This simplifies the retrieval of information and substantially reduces the possibility of conflicts and discrepancies. Everyone involved with a project benefits from this standardized approach to the placement of information within the construction documents.

The University's standard construction documents have been drafted to meet the above requirements. To the extent feasible, each subject addressed in the construction documents has been stated in only one location, in accordance with the Engineers' Joint Contract Documents Committee's recommendations.

Most construction documents contain *articles, paragraphs,* and *subparagraphs.* Each article title is numbered sequentially. Each article is subdivided into numbered paragraphs, e.g., 3.2, which means "Article 3, Paragraph 2." Each paragraph, in turn, is subdivided into numbered subparagraphs, which have no titles. Subparagraphs are referenced by number, e.g., 3.2.2, which means "Article 3, Paragraph 2, Subparagraph 2." The numbering system continues in this manner with each new level of subparagraph.

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2.2 CORE DOCUMENTS AND NON-CORE DOCUMENTS

The following University construction documents are considered "core" documents and are not to be changed by the Facility:

- Instructions to Bidders
- General Conditions

These documents have been carefully prepared to coordinate and conform with the other construction documents. Additions to or modifications of the Instructions to Bidders and the General Conditions are made by adding articles to or modifying articles in, respectively, the Supplementary Instructions to Bidders or the Supplementary Conditions (see 6.1.2). Such additions or modifications require review and approval by Office of the President and UC Legal - Office of the General Counsel before the documents are issued to bidders.

The remaining construction documents are considered "non-core" documents and require completion by the Facility or the contractor. Completion may consist of filling in blanks, adding standard text, adding new text, or preparing the complete document (see 4).

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2.3 CONTRACT DOCUMENTS

Contract Documents are the Advertisement For Bids, Instructions To Bidders, Supplementary Instructions to Bidders, Bid Form, this Agreement, General Conditions, Supplementary Conditions, Affirmative Action Program, Exhibits, Specifications, List of Drawings, Drawings, Addenda, Notice to Proceed, Change Orders, Notice of Completion (1), Notice of Completion (2), Notice of Completion (3),and all other documents identified in this Agreement of which together form the contract between University and contractor for the work (the "contract"). The contract constitutes the complete agreement between University and contractor and supersedes any previous agreements or understandings.

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Selecting the Type of Construction Documents

Volume 4, Chapter 3

INTRODUCTION

References:

- Construction Document Differences Table

The University uses many types of Construction Documents. Before selecting the type of construction documents, the Facility must determine, at minimum, the following:

- Mode of contracting (see 1.1).
- Type of construction contract (see 1.2).
- Estimated contract sum (see 3.1).
- Method of contractor selection (see 3.2).
- Method of determining the contract sum (see 3.1).

The Long Form, Brief Form, Informal Form, and Mini Form have been developed assuming the conditions listed below:

- The single contract type is used.
- The construction team consists of, at most, the Owner, the contractor, the Owner's Representative, and the design professional (see 1.4).
- The stipulated-sum method of determining the contract sum is used.
- The complete plans and specifications contracting mode is used.

The Long Form, Brief Form, Informal Form and Mini Form have been approved for content by the Office of the President. If project conditions vary from those listed above, the construction documents must be modified (see 5).

In general, the use of a more comprehensive type of construction documents is encouraged whenever it is in the University's best interest to do so. For example, when the construction cost is less than 1 million dollars (thus qualifying for the Brief Form), but the work involves particularly complex time requirements, dangerous work, or special risks, it may be in the University's best interest to use the Long Form, where performance requirements are set forth in a more detailed manner.

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3.1 ESTIMATED CONTRACT SUM

The estimated contract sum is one of several important factors that determine the selection of the type of construction documents to be used.

3.1.1 General Dollar Limitations

The general dollar limitations (based on the estimated contract sum) for using each type of construction documents are as follows:

- Long Form: no dollar limitation
- Brief Form: up to $1 million
- Informal Form: up to $640,000
- Mini Form: up to $300,000
- Brief Design Build: up to $5,000,000

When the estimated contract sum is less than $50,000, negotiated contracting may be used. When the estimated contract sum is not more than $640,000 informal competitive bidding may be used in conjunction with the Informal Form. When the estimated contract sum is over $640,000 formal competitive bidding is required. If a project has an estimated cost in excess of $640,000 and is divided into smaller sub-projects for contracting purposes, each sub-project must be formally competitively bid.

In summary, the Mini Form may be used for projects with estimated contract sums up to $300,000. The Informal Form may be used for projects with estimated contract sums up to $640,000. The Brief Form may be used for projects with estimated contract sums up to $1 million dollars. The Long Form, or other approved documents, must be used for projects with estimated contract sums of $1 million or more. The Brief Design Build may be used for projects with estimated contract sums of up to $5,000,000.

3.1.2 Federally Funded Projects

On projects funded in whole or in part by the federal government, the rules of the funding agency must be reviewed for competitive bidding and public advertising requirements. Federal agencies require competitive bidding with public advertising only on projects with estimated construction costs exceeding $10,000. If the funding agency requires an affirmative action program as a condition for funding, then an affirmative action program that is in compliance with the funding agency's requirement must be included in the bidding documents and the contract documents.

Construction projects at the National Laboratories must comply with the management contracts between the Department of Energy and the University of California. Policies and procedures governing competitive bidding and other construction requirements at the National Laboratories are found in the Laboratory Procurement Policy and Standard Practices Manual. This is published and maintained by the Laboratory Administration Office within the Office of the President. (See Business and Finance Bulletin BUS 43 Part 2, Responsibility and Authority, paragraph I.A.7).

3.1.3 Lowest Informal Bid Exceeds $640,000

If the estimated contract cost is $640,000 or less, informal bidding a may be used to solicit bids. However, if the lowest responsible bid (see FM5:7.1) received from an informal bidding solicitation is more than $640,000, the bid must not be accepted. The project must then be formally competitively bid, including but not limited to advertising, payment and performance bonds and a bid security requirement.

3.1.4 Equipment Purchase and Installation

References:

Regents Policy 5401: "Policy on Procurement of Foreign-made Equipment, Materials, or Supplies Produced by Forced, Convict, or Indentured Labor"

BUS-43 "Materiel Management"

The purchase of material or equipment and its installation shall be handled as separate transactions when possible. If separate transactions are not possible after consideration of time, cost, and supplier requirements; the installation involves the erection, construction, alteration, repair, or improvement of any University structure; and the state of California requires a contractor to have an active, valid license in order to perform the work; then the procurement shall be processed according to procedures set forth in the University Facilities Manual with appropriate provisions included to govern the material or equipment being purchased.

The language of BUS-43, Exhibit C, Appendix A, "Terms and Conditions of Purchase", Article 9 must be set forth in its entirety in every University contract, purchase order and subagreement for the purchase of equipment, materials or supplies.

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3.2 CONTRACTOR SELECTION

Certain rules apply to contractor selection: (See FM5)

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Revised March 21, 2017

Preparing Individual Construction Documents

Volume 4, Chapter 4

INTRODUCTION

This chapter describes the individual construction documents within the approved contract types and gives requirements for document preparation. After selecting the type of construction documents (see 3), use the information in this chapter along with the Cover Sheets and Instructions preceding each document in Part II to prepare the individual documents.

The Long Form, Brief Form, Mini Form, CM at Risk Form, CM/Multiple Prime Form, and Design-Build Form have been approved for content by the Office of the President and for form (legal matters) by UC Legal - Office of the General Counsel. If project conditions require a variation from the approved forms, the construction documents must be modified (see 5)

Please note that all documents referenced below can be found within the Construction Contracts page for each contract Family.

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4.1 COVER SHEETS AND INSTRUCTIONS

While this chapter provides some information on preparing the individual construction documents, the Cover Sheets and Instructions in Part II provide more detailed, step-by-step instructions on completing and modifying the documents.

Each model for each type of construction document in is preceded by its own Cover Sheet and Instructions. Each Cover Sheet begins with a table indicating the following:

- The purpose of the document.
- Cross references to the Facilities Manual.
- A description of the document's contents.
- The document's applicability to a particular form of contract, e.g., Long Form.
- The type of information required for document completion.
- An indication whether the document's use is required or optional.

Below the table are two or three sections, as applicable: "Completion Instructions," "Modifications and Additions," and "Comments."

The Modifications and Additions instructions are listed by subject, e.g., "Phased Construction," and often provide sample text. The subject categories in the Modifications and Additions section match those used in 5.

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4.2 GENERAL PREPARATION INSTRUCTIONS

Most individual construction documents contain self-explanatory text. Additional text within parentheses may provide completion information or indicate specific words or figures that are to be inserted. Informational text should be deleted from the documents before they are issued.

Each document page contains the following identification at the bottom:

- Date of issue
- Revision number
- Page number
- Document title

Most of the construction documents are issued as bound sets, normally 8 1/2 by 11 inches in size; the Drawings are bound separately.

Notarization on behalf of the University is not required for most documents; the Notice of Completion, however, requires notarization of the University's signature but does not require a signature by the contractor. Notarization of the contractor's signature or that of its surety is required on certain other documents.

There is no University policy on charging a deposit when issuing sets of construction documents; this procedure should be determined locally as circumstances dictate.

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4.3 INTRODUCTORY PAGES

The introductory pages of the construction documents identify the project and its location, inform bidders of the person or entity that prepared the bidding documents, and identify the bidding documents in a table of contents.

4.3.1 Cover Page

The Cover Page identifies the project by name and number and identifies the Facility undertaking the project. The bidding documents' issue date is also shown on the Cover Page.

4.3.2 Certification

The Certification page indicates who prepared the bidding documents and is signed and stamped by an architect or engineer registered in California.

4.3.3 Table of Contents

The Table of Contents lists all documents included in the construction documents.

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4.4 BID SOLICITATION

There are three methods of bid solicitation (see 3.2, FM5:5.1, FM5:5.2).

4.4.1 Request for Bid

The Request for Bid is used only with the Mini Form for informal bidding. It is used to solicit bids from selected contractors, and specifies the place of bid submission, the bid deadline, the project name and number, and a description of the work.

4.4.2 Advertisement for Bids

The Public Contract Code, Section 10502, requires The Regents to provide public notice of construction projects to bidders (see FM5:5.1). The Public Contract Code requires the notice to state the time and place for receiving and opening sealed bids, to describe in general terms the work to be done, and to describe the bidding mode. The Advertisement for Bids meets these requirements. When using the Design-Build Form, the comparable document is the Request for Proposals.

4.4.3 Project Directory

The Project Directory provides bidders with contact names, addresses, and telephone numbers of those affiliated with the project.

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4.5 BIDDING REQUIREMENTS

Bidding requirements explain the procedures that bidders must follow to prepare and submit responsive bids (see FM5:7.1).

4.5.1 Instructions to Bidders

The Instructions to Bidders is a core document and, therefore, may not be changed by the Facility. Additions to, or modifications of, the Instructions to Bidders are made in the Supplementary Instructions to Bidders (see 4.5.2). Together with the Supplementary Instructions to Bidders, the Instructions to Bidders explain the procedures that bidders must follow to prepare and submit responsive bids.

Bid Security. Long Form, Instructions to Bidders, Paragraph 5.2, stipulates that bid security in the form of either a Bid Bond (see 4.5.5) or a certified check and in the amount of 10 percent of the lump-sum base bid must be submitted by the contractor along with the bid. Bid security serves as a guarantee of the difference between the amount of any defaulted bid and the larger

amount for which the Facility may procure the work, up to the amount of the required bid security.

The Regents have authorized the President to set requirements for Bid Bonds or other forms of bid security. The President has determined that projects informally bid following requirements of Public Contract Code 10504.5 et seq. and the Facilities Manual, and with estimated contract sums of up to $640,000 do not require a Bid Bond.

Contractor's License. Long Form, Instructions to Bidders, Subparagraph 2.1.4, notifies the bidders of the California Contractor's State License Board requirements. By submitting a bid, each bidder represents that the licensing requirements of that board have been met. If there is doubt about the validity of a bidder's license or if a protest is made regarding a bidder's license, contact the Contractor's State License Board for a determination of whether the bidder's license is both current and appropriate for the work. The board will also rule on any disputes or protests regarding specialty contractors bidding on or performing prime contract work.

Irrevocable Bid Period. Any bid received for the erection, construction, alteration, repair, or improvement of any University structure, building, road, or other improvement shall be irrevocable for a period of days or such other period as the Facility may establish in its bidding documents. Long Form, Instructions to Bidders, Subparagraph 5.4.4, establishes the 60-day period, which is to commence at the date and time specified for the opening of bids. The University may consent to a bid's withdrawal during the 60-day time period for an excusable mistake that meets the conditions listed in FM5:6.2.3. Should the University choose a different irrevocable bid period, the construction documents must be modified (see 5.4.13).

4.5.2 Supplementary Instructions to Bidders

The Supplementary Instructions to Bidders allow the Instructions to Bidders to remain an unchanged core document for each project. Additions to or modifications of the Instructions to Bidders are made in the Supplementary Instructions to Bidders. Together, these documents explain the procedures that bidders must follow to prepare and submit responsive bids (see FM5:7.1).

Every construction contract over $50,000 shall contain in the Supplementary Instructions to Bidders the 1) daily rate of liquidated damages for each day of unexcused delay in achieving Substantial Completion and 2) a reduced rate of liquidated damages for each day of unexcused day in achieving Final Completion unless an exception is authorized in writing by the Office of the President. Such exceptions shall be granted only in extraordinary circumstances and only in the case of a unique project.

4.5.3 Information Available to Bidders

The Information Available to Bidders provides, a list of such items as geotechnical data, and notice of other contracts being performed at or near the project site. This list is adapted by the Facility to suit the project. The Information Available to Bidders must include all documents available that indicate the information the University has concerning the physical conditions at

the site. The bidder may rely on the description of such physical conditions. The Information Available to Bidders must also contain information from the Office of the President Systemwide Procurement website about any vendors with whom the University has negotiated favorable pricing agreements that may be appropriate suppliers of material for the project.

General Contractors or others submitting bids for University construction projects may enter into agreements with these suppliers that utilize the pricing and terms contained in the University-supplier agreements. The University does not represent or warrant that the materials/equipment/services of these suppliers meet the requirements of the University's construction contracts.

Use of such suppliers shall not relieve Contractor from its obligation to meet all contractual requirements in any contracts with the University. The University will not be a party to any agreements with such suppliers and accepts no performance obligations or liability with respect to such agreements.

4.5.4 Bid Form

The Bid Form states the major conditions and undertakings related to the contract, which the bidder acknowledges when submitting the Bid Form. The bid, if accepted, is the basis of the Agreement (see 4.6.1).

Addenda. When addenda modify the Bid Form, the Bid Form must be reissued in its entirety, on paper of a different color. The revision or reissue date must be noted on each sheet of the revised Bid Form. (See 4.6.8 for more information on addenda.)

List of Subcontractors and List of Changes in Subcontractors Due to Alternates. The requirements for listing subcontractors in the Bid Form are provided in the Public Contract Code, Section 4100, which is also known as the Subletting and Subcontracting Fair Practices Act. Although the University is not specifically addressed in the act, The Regents follow these requirements. The Bid Form, Article 9.0, "List of Subcontractors," and Article 10.0, "List of Changes in Subcontractors Due to Alternates," are completed by the bidder when submitting a bid.

Unit Prices. When the design professional is uncertain about quantities required to complete the project, the base bid may contain some, or consist wholly of, unit-price items. Approximate quantities are stated in the Bid Form, Article 5.0. Any lump-sum calculated only for bid comparison purposes is derived by multiplying the unit prices and the estimated quantities provided in the Bid Form. (See 1.5.3 and 5.4.22 for more information on unit prices.)

4.5.5 Bid Bond

The Long Form, Instructions to Bidders, Article 5, and the Brief Form, Instructions to Bidders, Article 5, require that bid security be in the form of either a Bid Bond or a certified check. If a Bid Bond is submitted, the bidder must use the Bid Bond form, and an executed copy of the Bid Bond must accompany the completed Bid Form at the time the bid is submitted. Bid Bonds are

not required for contracts with contract sums of less than $50,000.
The amount of bid security shall not be less than 10 percent of the lump-sum base bid.

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4.6 CONTRACT DOCUMENTS

Contract documents are those construction documents containing legally enforceable requirements that become part of the contract when the Agreement is signed.

4.6.1 Agreement

The Agreement is the controlling legal document in the contract documents; once it is signed (executed), it and all contract documents listed within it become legally binding to the University and the contractor.

Blank spaces in the Agreement are initially left blank when the Agreement is issued as a bidding document. After the lowest responsive and responsible bidder has been selected, the Facility completes a portion of the Agreement and requests that the bidder complete the balance of the Agreement, sign it, and return it along with other documents and information. When the Facility determines that the signed Agreement and other documents are acceptable, the University signs the Agreement (executes the contract) and awards the contract to the bidder. (See FM5:8 for contract execution and award procedures.)

Every construction contract over $50,000 shall contain a provision in the Agreement stipulating that for each day of unexcused delay in achieving Substantial Completion (and after Substantial Completion, for each day unexcused delay in achieving Final Completion, a reduced rate for each day of unexcused delay in achieving Final Completion), the contractor shall pay as pay to The Regents, as liquidated damages, a specified sum of money to be deducted from any payments due or to become due to the contractor unless an exception is authorized in writing by the Office of the President. Such exceptions shall be granted only in extraordinary circumstances and only in the case of a unique project.

4.6.2 General Conditions

The General Conditions is a core document and, therefore, may not be changed by the Facility. Additions to, or modifications of, the General Conditions are made in the Supplementary Conditions after approval by the Office of the President (see 4.6.3). Together with the Supplementary Conditions, the General Conditions spell out in detail the terms and conditions of the contract.

4.6.3 Supplementary Conditions

The Supplementary Conditions allows the General Conditions to remain an unchanged core document for each project. Additions to, or modifications of, the General Conditions are made in

the Supplementary Conditions after approval by the Office of the President. Together, these documents spell out in detail the terms and conditions of the contract.

Every construction contract over $25,000 shall contain in the Supplementary Conditions an estimate of the number of rain days (by year or by month) that will prevent work on the critical path of the project.

4.6.4 Exhibits

The exhibits consist of various documents referenced in the General Conditions. A document is classified as an exhibit when its length or format would disrupt the flow of the General Conditions if it were included in the General Conditions.

Exhibit {#}: Certificate of Insurance. The lowest responsible bidder is required by the General Conditions and the Instructions to Bidders to submit proof of insurance on the Certificate of Insurance form. The following insurance policies and coverages must be furnished by the contractor and made evident on the Certificate of Insurance:

- Comprehensive or commercial form general liability insurance
- Business automobile liability insurance
- Workers' compensation and employer's liability insurance

(See FM5:11.6 for further discussion of insurance requirements.)

Exhibit {#}: Payment Bond. The University requires a Payment Bond covering the faithful performance of the contract, for all projects with estimated contract sums of $25,000 or more.

Exhibit {#}: Performance Bond. The University requires a Performance Bond covering the payment of all contract obligations, on all contracts of $50,000 or more and on all projects valued at less than $50,000 when the Facility uses the Long Form or Brief Form contract. Performance Bonds are not required for Mini Form contracts valued at less than $50,000.

Exhibit {#}: Application for Payment. The Application for Payment, which is prepared by the contractor, begins and ends the monthly payment process (see FM5:15.3).

Exhibit {#}: Selection of Retention Options. Contractor selects method for guaranteeing retention funds on the project.

Exhibit {#}: Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention. The Escrow Agreement (Long Form only) is used after execution of the contract and at the contractor's option to allow the contractor to deposit securities with an escrow agent in lieu of retention or request that the University deposit retention directly with an escrow agent (see FM5:15.5).

Exhibit {#}: Submittal Schedule. The Submittal Schedule, which shows the scheduled versus actual completion dates of submittal events, is completed by the contractor during the construction phase (see FM5:11.3).

Exhibit {#}: Cost Proposal. The Cost Proposal is used to determine the cost of a proposed change order (see FM5:13.2.1). If requested by the University, the Cost Proposal form must be used by the contractor.

Exhibit {#}: Field Order. University may order work to be performed (including changes in the work) without invalidating the Contract by completing a Field Order. A Field Order may be issued by the University, does not require the agreement of the Contractor, and is valid with or without the signature of Contractor (see FM5:13.1).

Exhibit {#}: Change Order. University may order changes in the work without invalidating the Contract by completing a Change Order (see FM5:13.2). In special circumstances, Contractor may request a Change Order (see [II]: Long Form, General Conditions, Paragraph 4.2).

Exhibits {#}, {#} and {#}: Small Business Reporting. These Exhibits are completed and submitted by Contractor to show information for all subcontractors including small and disadvantaged business enterprises. In addition, the Self-Certification Exhibit is completed and submitted by each subcontractor.

Exhibits {#} and {#}: Claim Certifications. These Exhibits must be submitted by Contractor and Subcontractor, respectively, with a Claim.

4.6.5 Specifications

References:

- Specifying Construction Products

The Specifications are written descriptions of the construction materials and processes required to complete the project. Along with the Drawings, the Specifications are prepared by the design professional for inclusion in the bidding documents.

There are 16 Specifications divisions: Division 1, General Requirements, is required for all projects; Divisions 2 through 16 cover specific types of work and are included as applicable. Only Division 1 is included in the standard construction documents; sample Specifications sections for upper Divisions are not included.

The provisions in the Specifications document must be consistent with the terms of the Agreement and the General Conditions. Specifications, Division 1, General Requirements, may *expand on* the requirements covered in the Agreement or the General Conditions; however, any conditions *not covered* in the General Conditions, however, any conditions *not covered* in the General Conditions, or conditions that *modify* the General Conditions, should be placed in the Supplementary Conditions.

General administrative requirements and work-related provisions applying to all of the work should be placed in Specifications, Division 1. Do not repeat these requirements in other Specifications sections instead, reference the Division 1 Section. A discussion on preparing Specifications, Division 1, General Requirements, is provided in the Construction Specifications Institute's *Manual of Practice.*

Any general requirement placed in a section of Specifications, upper Divisions, should apply only to the work of that section and should be an extension of the general requirements described in Specifications, Division 1. Suggested wording for extending Division 1 provisions (in this case, for Section 01010) would be, "In addition to the requirements of Section 01010,..."

Those portions of Specifications, Divisions 2 through 16, containing provisions that are unique to specific work, such as mechanical or electrical work, require particular care in their writing to prevent repetition, omissions, or conflict with the provisions in Division 1. Special coordination is required when, as is frequently the case, different offices prepare separate portions of the Specifications.

Code Requirements. General Conditions, Article 15, states that the contract is governed by California law, which includes the California Code of Regulations and the California Health and Safety Code. Although The Regents are not required to follow all titles of these two codes, The Regents generally follow these regulations as a matter of policy. The codes that the contractor is expected to comply with are listed in Specifications, Division 1, Section 01060, Regulatory Requirements. (See 5.4.7 for document modifications that are required when the contractor must comply with other code requirements.)

Phased Construction. (See 5.4.15 for modification procedures.)

Contract Schedules. Text options for contract schedules in the Long Form and Brief Form are set forth in Specifications, Division 1, Section 01310, Contract Schedules. The Mini Form contract schedule text is standard, so text modifications are not required. The information provided in Section 01310 informs the contractor of the University's expectations during bidding so the contractor may address those expectations in the contract schedule.

The text options regard the type of schedule the Facility may require. The Facility may require the contractor to provide either a critical path method (CPM) schedule or a bar-chart schedule for both the preliminary contract schedule and the contract schedule. The following guidelines may be used in selecting the type of schedule:

1. Consult with the project manager.
2. Follow guidelines provided by the University's Designated\ Administrator.
3. Discuss the type of schedule with the University's Representative administering the contract.
4. If a CPM schedule is selected, confirm that the University's Representative has the required staff to administer and utilize the schedule.
5. A CPM schedule should be selected for projects that:
    - Require completion by a certain date.

    - Have multiple completion times for various portions of the work.
    - Have multiple bid packages.
    - Have a specified sequence of construction.
    - Have subsequent projects relying on the completion of the specified projects.
    - Require complicated scheduling.
6. In addition to CPM, a risk-based schedule (e.g. PERT) should be selected for projects that:
    - Have significant uncertainty.

Any work activities that place constraints upon the contract schedule should be included in the scheduling requirements. Work activities that occur from time to time are presently listed in Section 01310, Subparagraph 2.3.1. Activities to be added to Subparagraph 2.3.1 might include the following:

- Lead time for University-provided equipment.
- Portions of the project site or the building that will not be available to the contractor at all times.
- Limitations on access or project site storage.
- The presence of separate contractors within the limits of the work.
- Access to elevators or similar equipment.

The following are examples of milestone events that are to be listed in Section 01310, Subparagraphs 1.2.3 and 2.2.3:

- Dates of Beneficial Occupancy.
- Dates that certain portions of the project must be completed.
- A completion sequence.

4.6.6 List of Drawings

Drawings are not itemized separately in the Agreement; instead, the Agreement includes the List of Drawings, which is a separate construction document. All of the Drawings must be included in the List of Drawings, and all of the Drawings listed there must be included in the construction documents.

4.6.7 Drawings

The Drawings are the visual complement of the Specifications. The Specifications describe "what" while the Drawings show "how many" and "where." For example, the Specifications might describe the type of sheet metal to be used, while the Drawings show the placement of the sheet metal. In the event of a discrepancy between the Drawings and the Specifications, the Specifications govern.
The Drawings are usually prepared by the design professional. The following are general guidelines for preparing the Drawings:

1. Distinguish between new and existing work.
2. Use general or specific but clear and concise notes to clarify or amplify the Drawings.
3. Clearly note revisions.
4. Clearly delineate alternates, if any.
5. Show the contract limits on the Drawings if the Specifications reference contract limits.
6. Do not include General Conditions or General Requirement items on the drawings.
7. Specified items shown on the drawings must be exactly the same as those listed in the Specifications.

4.6.8 Addenda

Addenda are written text or drawings that modify or interpret the bidding documents including the Drawings and Specifications issued after the bidding documents have been issued to bidders, but before the opening of bids (see RD3.2). (See FM5:5.3 for addenda issuing procedures.)

Addenda That Modify the Bid Form. When addenda modify the Bid Form, the Bid Form must be reissued in its entirety, on paper of a different color. The revision or reissue date must be noted on each sheet of the revised Bid Form.

Addenda That Modify any of the Contract Documents. When addenda modify any Contract Document other than extending the Bid Deadline, see FM5:5.3

4.6.9 Notice to Proceed

The Notice to Proceed, issued after the contract has been executed, signals the start of construction (see FM5:8.9 and RD3.10). If the contractor is notified orally to commence work, the Notice to Proceed must be issued on the next workday, and the oral notification must be confirmed in the Notice to Proceed.

4.6.10 Change Order

The Change Order form is required for making post-award contract modifications that change the scope of work, the contract sum, the contract time, or other contract terms. (See FM5:13.2 for guidance on change order procedures.)

4.6.11 Field Order

The Field Order form is a written instrument, issued by the University, describing a change in the work and estimated adjustments of the contract sum and contract time. A field order may be issued before all terms of the change are fully agreed to by the University and the contractor. (See FM5:13.1 for guidance on field order procedures.)

4.6.12 Notice of Completion

The Notice of Completion establishes the completion of the work. There are three versions of the form (found in all contract families); only one must be completed. The Notice of Completion

must also be filed at the County Recorder's Office. (See FM5:18.5 for Notice of Completion filing procedures). (Note: If the work is not complete but contractor has ceased physical work for a period of at least 60 days, the campus may file a Notice of Cessation of Activities after consultation with UC Legal - Office of General Counsel).

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Revised March 21, 2017

Modifying the Construction Documents

Volume 4, Chapter 5

Please note that all documents referenced below can be found within the Construction Contracts page for each contract Family.

INTRODUCTION

Requirements for modifying or adding to the University's standard construction documents are set forth in this chapter. Use the information in this chapter along with the Cover Sheets and Instructions preceding each document in **Construction Contract templates** to modify the individual documents. Only proposed changes to the core documents (General Conditions and Instructions to Bidders) should be sent for review to the UC Legal and Capital Programs at the Office of the President.

Modifications of the approved construction documents are often required for the following reasons, each of which is described in this chapter:

- Construction documents are improved.
- A contracting mode other than complete plans and specifications is used.
- Special project applications exist.
- Special project circumstances apply.

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5.1 IMPROVEMENTS TO THE CONSTRUCTION DOCUMENTS

The construction documents have been written to address current requirements of typical University construction projects both new construction and alterations. However, the University is committed to the ongoing improvement of its construction documents to meet changing needs that result from matters such as government regulations, legislation, insurance, and user experience. The Office of the President receives and considers proposed document changes from the Facilities; unless changes are considered urgent, all changes for improvement will be made yearly.

5.1.1 Interim Improvements Made by Letter

In the interim period between the switch from the existing *Facilities Manual* to the newly revised *Facilities Manual*, Volumes 1-6, several improvements to the University construction documents have been issued by letter from the Office of the President to the Facilities.

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5.2 DOCUMENT CHANGES RELATED TO CONTRACTING MODE

Choosing a contracting mode other than complete plans and specifications (see 1.1) will require modification of the University's standard construction documents.

5.2.1 Using the Complete Plans and Specifications Mode

Since the standard construction documents have been written for single-contract projects using the complete plans and specifications contracting mode and a stipulated sum basis for payment, no changes are required for this mode of contracting.

5.2.2 Modifications for the Design-and-Build Mode

The design-and-build contracting mode requires changes to the core and non-core documents listed below. For each document, the degree of changes required is also indicated. Samples of these documents are available from the Office of the President. The Office of the President is available to assist the Facility in developing the final documents.

Document	Degree of Changes Required
Table of Contents	Major
Advertisement for Bids	Major
Instructions to Bidders (core document)	Major
Supplementary Instructions to Bidders	Minor
Bid Form	Minor
Agreement	Minor
General Conditions (core document)	Minor
Supplementary Conditions	Minor

Specifications, Division 1, General Requirements	Minor
Specifications, Divisions 2 through 16	Performance specifications used
List of Drawings	Not used
Drawings	Small-sized sheets used
Design Criteria	New document
Program Requirements	New document
Evaluation Procedures	New document
Design-Build Competition	New document

5.2.3 Modifications for the Construction Manager Mode

Two types of contracts can be used with the construction manager contracting mode; both require changes to some core and non-core documents. Among the conditions that determine the type of contract are the following:

- Multiple contracts
- Phased construction
- Cost-plus-fee contract sum
- Guaranteed maximum price

The changes required when construction management is provided by a consultant and when it is provided by a contractor are listed below. For each document listed, the degree of changes required is also indicated. Samples of these documents are available from the Office of the President. The Office of the President is available to assist the Facility in developing the final documents.

Construction Management by Consultant:

Document	**Degree of Changes Required**
Table of Contents	Minor
Advertisement for Bids	Minor
Instructions to Bidders (core document)	Moderate
Supplementary Instructions to Bidders	Minor
Bid Form	Minor
Agreement	Moderate
General Conditions (core document)	Moderate
Supplementary Conditions	Minor
Specifications, Division 1, General Requirements	Moderate

Construction Management by Contractor:

Document	Degree of Changes Required
Table of Contents	Moderate
Advertisement for Bids	Moderate
Instructions to Bidders (core document)	Major
Supplementary Instructions to Bidders	Minor
Bid Form	Major; all work must be competitively bid
Agreement	Moderate
General Conditions (core document)	Major
Supplementary Conditions	Moderate
Specifications, Division 1, General Requirements	Moderate

5.2.4 Modifications for the Cost-Plus-Fee Mode

The cost-plus-fee contracting mode requires changes to the core and non-core documents listed below. For each document, the degree of changes required is also indicated. Samples of these documents are available from the Office of the President. The Office of the President is available to assist the Facility in developing the final documents.

Document	Degree of Changes Required
Advertisement for Bids	Minor
Instructions to Bidders (core document)	Moderate
Supplementary Instructions to Bidders	Minor
Bid Form	Major
Agreement	Minor
General Conditions (core document)	Major
Supplementary Conditions	Minor
Specifications, Division 1, General Requirements	Minor
Specifications, Divisions 2 through 16	Possibly outline specifications
List of Drawings	Possibly schematic drawings

5.2.5 Modifications for Other Contracting Modes

Contracting modes—other than the complete plans and specifications, design-and-build, construction management, and cost-plus-fee modes—have been used by the University. Construction documents for these other contracting modes are usually developed for a special project on a one-time-use basis. The Office of the President keeps a list of projects that have been accomplished using these customized contracting modes along with a set of the documents used for each. The Office of the President is available to assist the Facilities in developing customized construction documents.

Approval by the President is required before other contracting modes are used because permission for their use has not been delegated to the Facilities.

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5.3 SPECIAL PROJECT APPLICATIONS

Special project applications, including special funding, may require changes to both core and non-core documents. Core documents are modified by adding articles to the Supplementary Instructions to Bidders or the Supplementary Conditions. The Office of the President must approve such modifications.

The Office of the President is available to provide the assistance necessary to develop the construction documents. Special project applications should be determined early in the development of the project.

5.3.1 Federally Funded Projects

References:

Public Law 101-136, Section 623. Recipients of federal agency grant funds must follow specific requirements if such funds are to be used to procure goods and services, including construction services, valued at $500,000 or more. Public Law 101-136, Section 623, also known as the Warner Amendment, enacts these requirements and reads as follows:
Section 623. (a) No amount of any grant made by a federal agency shall be used to finance the acquisition of goods or services (including construction services) unless the recipient of the grant agrees, as a condition for the receipt of such a grant, to

- (1) announce in any solicitation for offers to procure such goods or services (including construction services) the amount of federal funds that will be used to finance the acquisition for which such offers are being solicited; and

(2) express the amount announced pursuant to paragraph (1) as being a percentage of the total costs of the planned acquisition.

- (b) The requirements of subsection (a) shall not apply to a procurement for goods or services (including construction services) that has an aggregate value of less than $500,000. Public Law 101-136, Section 623.

For projects using federal grant funds, items (1) and (2) above must be satisfied by adding appropriate language to the Advertisement for Bids.

5.3.2 State Revenue Bond-Financed Projects

Standard Long Form construction documents must be changed in response to the federal Tax Reform Act of 1986 and to adapt the documents to changes made in the state of California's

process of financing state revenue bond-financed projects. The Office of the President has developed a set of construction documents that incorporate the required changes. The file share site containing these documents are available from the Office of the President.

The following Long Form construction documents must be modified for state revenue bond-financed projects:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Bid Form
- Agreement
- General Conditions
- Supplementary Conditions
- Exhibits 2 and 3 (Payment Bonds and Performance Bonds)

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5.4 SPECIAL PROJECT CIRCUMSTANCES

Special project circumstances (presented in this article alphabetically) may require modifications of both core documents and non-core documents. Detailed completion and modification instructions for the circumstances that follow are given on the Cover Sheet and Instructions that immediately precede each construction document model in **Construction Contract templates**.

5.4.1 Allowances

An allowance is an amount established in the contract documents for inclusion in the contract sum to cover the cost of prescribed items not specified in detail, with the provision that any variation between this amount and the final cost, if higher, of the prescribed items, will be made by change order to appropriately adjust the contract sum.

Limit the use of allowances to designs, services, or construction elements—such as creative design, modeling, or sculptural work related to a project—that are not specifiable enough to allow competitive bidding or for a part of the work to be competitively bid after the award of the contract. If an allowance is to be made for parts of the work that will be competitively bid after the award of the contract, contact the Office of the President for the required text to be added to the construction documents.

When allowances are used, the following documents require modification:

- Bid Form
- Specifications

5.4.2 Alternates

Ideally, the total bid price should cover the scope of a complete project without the need for alternate bids. However, if alternates are requested, they should be used with discretion, held to a minimum, carefully prepared to minimize bidder confusion, and coordinated with the Specifications and the Drawings.

Two reasons for requesting alternate bid prices are:

- To adjust the scope of the work so the contract sum will be within the budget.
- To allow a decision to be made between two materials or methods of different values.

Alternates should be all deductive or all additive, as follows:

- Additive used to obtain the maximum work for the available budget. This method assumes that the total bid price received could be below the budget, and that the contract sum could be increased to match the budget figure through the execution of the alternates. However, this method may raise questions from the funding agencies about whether these additions increase the approved scope of work or embellish the project.
- Deductive used as a means to bring the total bid price within the budget.

In addition, the presence of alternates may affect the selection of the lowest responsible bidder (see FM5:7.3.2).

When alternates are used, the following contract documents must be modified (the Mini Form does not utilize alternates):

- Bid Form
- Agreement
- Specifications
- Drawings

Post-Award Alternates. A post-award alternate is an alternate that is exercisable for a stipulated period from the bid deadline or from the date of contract award. This type of alternate is used when the possibility of attaining additional funds at a date after the bid deadline or contract award is known or highly probable. Since the alternate is not exercised until after award of the contract, it is not a basis for the award. The University has successfully used post-award alternates on several projects.

The Bid Form and Agreement already have appropriate text to allow for post-award alternates.

When post-award alternates are used, the following document must be modified (the Brief Form does not utilize alternates):

- Specifications

5.4.3 Asbestos Abatement

When a project involves asbestos abatement, the following document must be modified:

- Specifications

5.4.4 Assignments

In addition to assignments of responsibility to other parties that are developed during construction (see FM5:11.4), assignments are occasionally made part of the bidding documents. This situation occurs when the University awards a separate contract for portions of the work, materials, or equipment before the complete project is bid and later assigns that separate contract to the general contractor for the project. This procedure is really a version of the "fast-track" project delivery method and has been successfully used for structural steel, elevators, and other portions of the work. The separate contract for the structural steel, for example, is awarded before the design is complete. By the time the design is complete and ready to be bid on, the structural steel has been ordered and delivered; no time has been lost waiting for the structural steel.

When assignments are used as described above, the bidding documents for both the separate contract and the general contract must be extensively revised. Modifications to documents for the separate contract inform the bidders that their contract will be assigned to a not-yet-selected general contractor. Modifications to documents for the general contract inform the general contract bidders of the complete, separate contract data.

When assignments are used, the following documents require modification:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Agreement
- Specifications

In addition, depending on the type of Assignment Agreement used, one of the following new documents must be added:

- Assignment of Work Agreement (Separate Contract and Completed Example) - Long Form (see RD1.2)
- Assignment of Materials or Equipment Agreement (Separate Contract) - Long Form (see RD1.3)

5.4.5 Bidder Prequalification

When bidder prequalification is used, the Long Form Advertisement for Bids is replaced by the Advertisement for Contractor Prequalification which generally explains the prequalification process. The Advertisement for Contractor Prequalification informs bidders that prequalification documents (the Prequalification Questionnaire) will be issued to interested bidders, and that bidding documents will be issued only to prequalified bidders. A Prequalification Evaluation form is used by the Facility to evaluate the bidders. Additionally, when prequalification is used,

the following document must be modified (all documents mentioned above can be found on the Construction Contracts page):

- Supplementary Instructions to Bidders

5.4.6 Bidder Qualification

When bidder qualification is used, the following documents must be modified (see FM5:4.4.2):

- Advertisement for Bids
- Supplementary Instructions to Bidders

5.4.7 Code Requirements, Optional

In addition to the codes listed in Specifications, Division 1, Section 01060, Regulatory Requirements, the contractor may be required to comply with additional codes or standards such as the National Electric Code or the Standards of the American Welding Society; in these cases, modify Section 01060 to include the additional codes or standards.

5.4.8 Early Completion Bonus

References:

California Education Code, Section 92050.

The California Education Code allows The Regents to provide for the payment of a bonus to the contractor for early completion of a project. The most practical use of a bonus is to reward the contractor for completing a project before a specified date rather than within the contract time. The specified date might be that required for dormitory occupancy or for opening another revenue-producing facility.

When an early completion bonus is offered, the following documents must be modified:

- Supplementary Instructions to Bidders
- Agreement

A bonus stipulated for early completion is not a prerequisite for an enforceable liquidated damages clause (see FM5:15.6).

5.4.9 Construction Sequence

The construction sequence is usually the responsibility of the contractor and should be shown in the construction schedule, which requires approval by the University's Representative. When the Facility or the design professional requires a special construction sequence, the following document must be modified:

- Specifications

5.4.10 Contractor's Statement of Experience and Financial Condition

Use of the Contractor's Statement of Experience and Financial Condition is optional with Long Form contracts, is not anticipated to be used with the Brief Form, and should not be used with the Mini Form (see FM5:8.5.3).

When the Contractor's Statement is used, it is submitted with the signed Agreement and other documents as required by the Notice of Selection as the Lowest Responsible Bidder, and the following document must be modified:

- Supplementary Instructions to Bidders

5.4.11 Hospital Projects

Hospital projects, both new construction and remodeling, entail special procedures required by hospital administration and by the Department of Health Care Access and Information (HCAI). HCAI is required by state law to enforce building standards related to hospital development (see 6.2.3).

When the work involves new construction or remodeling for hospitals, the following documents must be modified:

- Supplementary Conditions
- Specifications

5.4.12 Incremental Funding of Single Lump-Sum Contracts

Incremental funding allows the University to enter into a contract to have a facility built over a period of years for a fixed total price but limits the University's financial obligation at any one time to the amount of funds currently available and allotted to the contractor. Project funds that are not available when the project is bid become available during subsequent fiscal years or at some other intervals.

The University has used incremental funding on projects because this funding method presents several advantages. Since the project does not have to be divided into multiple contracts awarded in sequential fiscal years, cost savings are realized in design, management, and construction. In addition, shorter completion schedules are usually obtained.

Regents' approval is required for incremental funding because The Regents have not delegated the authority to award projects in excess of appropriated funds.

When a Facility believes that the use of incremental funding may be advantageous, the procedures below should be followed:

1. Determine whether incremental funding is possible. The Office of the President will help the Facility make this determination.
2. Determine whether there are advantages in using incremental funding.
3. Obtain Regents' approval to use incremental funding.
    a. Obtain a sample Regents' agenda item from the Office of the President.
    b. Submit a Regents' agenda item to the Office of the President.
4. Adapt the construction documents for incremental funding. The Office of the President will supply sample documents.

5.4.13 Irrevocable Bid Period, Changing

The Facility may increase or decrease the irrevocable period from the initial 60 days (see 4.5.1). The minimum period would be determined as the time required to process the bidding documents and secure the required approvals. If a time period other than 60 calendar days is used, the following documents must be modified:

- Supplementary Instructions to Bidders
- Bid Form

5.4.14 Daily Rate of Compensation for Compensable Delays

General Conditions, Article 7, provides compensation to the contractor for compensable delays (see FM5:13.5). To be entitled to an adjustment in the contract sum for a compensable delay, the contractor must follow the claims procedures in General Conditions, Articles 4 and 7.

The amount of the daily rate of compensation provided on the Bid Form by the bidder is multiplied by an estimated number of days of compensable delay provided on the Bid Form by the University. That amount is then added to the total bid price to determine the lowest bidder. During performance of the contract, however, the actual number of days of compensable delay determined in accordance with the contract documents is multiplied by the amount of the daily rate of compensation listed in the Agreement to determine the total amount owed to contractor by the University for compensable delay.

5.4.15 Phased Construction and Multiple Liquidated Damages

Phased Construction. Phased construction may be used with a single-contract project (see 1.2) where portions of the contract are completed as the construction proceeds. This type of construction is referred to at the University as "multiple completion times" and is used in situations where certain portions of the work must be completed before the whole project is completed because of special requirements.

When phased construction is used, the following documents must be modified:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Bid Form

- Agreement
- Specifications

Appropriate milestones and work activities should be included in the Specifications to suit the particular project. Assistance in drafting document modifications may be obtained from UC Legal – Office of General Counsel (UCL).

Multiple Liquidated Damages. If portions of the work must be completed at different times (phased construction), multiple liquidated damages may be used to encourage the contractor to complete the work at the required times.

When multiple liquidated damages are used, the following documents must be modified:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Bid Form
- Agreement
- Specifications

5.4.16 Separate Bids and Combined Bids

Occasionally a bidder may be asked to submit separate bids on two or more phases or parts of one project. The Facility may then award a contract to the lowest responsible bidder based on each separate bid or on the combined bid. This bidding method may be used when the budget for the total project combines separate fund sources, for example, federal funds for an addition to a building and non-federal funds for alterations to the same building.

On federally assisted projects, award of the contract may be made to the lowest responsible bidder on the entire work even though this bidder may not be the lowest responsible bidder for the federally assisted portion of the project. However, federal funding will be limited to the lowest responsible bid received on the federally funded portion of the project.

If separate bids and combined bids are used, the following documents must be modified:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Bid Form
- Specifications
- Drawings

5.4.17 Separate Contracts

References:

Long Form, General Conditions (see Part II).

Separate contracts may be used as multiple prime contracts (see 1.2.1) to the University without assignment to a general contractor.

When separate contracts are used, the following documents must be modified:

- Advertisement for Bids
- Supplementary Instructions to Bidders
- Agreement
- Specifications

5.4.18 Soil and Subsurface Conditions

Whenever site work requires the use of soil or subsurface investigation reports, logs of test borings, or similar geotechnical data as references for the contractor, all such geotechnical data must be provided in the Information Available to Bidders. The Information Available to Bidders disclaims all such geotechnical data; however, General Conditions, Paragraph 3.17, Concealed or Unknown Conditions, requires the University to assume responsibility for conditions that vary from the represented data.

5.4.19 Soils Engineer

When the Specifications and the Drawings use the term "soils engineer," or a synonymous term such as "geotechnical engineer" or "soil and foundation engineer," the Drawings should contain language that informs the contractor of the soils engineer's duties but does not describe the soils engineer's duties as being owed to the contractor.

When the Specifications and the Drawings use the term "soils engineer" or a synonymous term, the following document must be modified:

- Specifications Quality Control

5.4.20 Specialty Contractors

References:

Public Contract Code, State of California, Section 3300.

Before the Long Form documents were first issued, a special clause was added to the former Information Available to Bidders regarding when a project could be bid on by a specialty contractor. This special clause is no longer used because its intent is now satisfied by license classifications and codes that the Facility must add to the Advertisement for Bids, as required by the Public Contract Code.

5.4.21 Trenching and Excavating

References:

Labor Code, State of California, Sections 6705 and 6707.

When the work is anticipated to involve trenching or excavating of five feet or more in depth, the following document must be modified:

- Specifications

5.4.22 Unit Prices

When unit prices are used (see 1.5.3), the following documents must be modified:

- Supplementary Instructions to Bidders
- Specifications

Unit prices are not provided for in the Mini Form. If unit prices are to be used in the Mini Form, use appropriate text from the Brief Form.

5.4.23 University Controlled Insurance Program (UCIP)

Follow the more detailed instructions in the UCIP Covered Projects Instructions page. When the University elects to provide insurance coverage of selected construction projects (see UCIP Covered Projects) the following documents must be included in the solicitation package:

- General Conditions for UCIP Projects
- Supplementary Conditions for UCIP Projects
- Instructions to Bidders for UCIP Projects
    - RFP Document for Design-Build UCIP Projects
- Table of Contents
    - UCIP Bid Document
    - UCIP Exhibits
- Exhibits for UCIP Projects:
    - 1a UCIP Coverage Summary
    - 1b UCIP Safety & Health Qualification Form
    - 1c UCIP Insurance Manual
    - 1d UCIP Safety Standards Manual

Downloads for corresponding Word documents are available in the UCIP Homepage section of this website.

5.4.24 Use of Common Site

General Conditions, Article 6, sets forth the University's rights and contractor's responsibilities when a project has different contractors working together on the same project site. When this situation occurs, the Specifications should describe the work of the separate contractors and how

that work relates to the project. With this description, the contractor for the project in question may plan the work and better anticipate problems before they become major obstructions to the progress of the work.

Contractors are sometimes required to share the same site because the contract limits are either adjacent to or near each other. The contractors may have to use the same access or even the same work area.

When use of common site provisions must be made, the following document must be modified:

- Specifications

5.4.25 Volunteer Labor

If any labor for all or a portion of a construction project will be provided by volunteers, all such volunteers must execute a form of Waiver of Liability, Assumption of Risk, and Indemnity Agreement (see RD 1.4). If the volunteer is a minor, the volunteer's adult parent or guardian must also execute the form.

An individual performing work qualifies as a volunteer only under the following circumstances:

1. The work is performed for civic, charitable or humanitarian reasons, without promise, expectation or receipt of any compensation for work performed.
2. The work is offered freely and without pressure or coercion, direct or implied, from an employer.
3. The individual performing services is not otherwise employed for compensation on the same project and is not employed by a contractor that is receiving payment for construction work performed on the same project.

If the individual performing services does not qualify as a volunteer, then the statutes requiring the payment of prevailing wages shall apply. (The statute providing the exemption from prevailing wage requirements for qualified volunteers will expire on December 31, 2016 unless extended.)

If volunteer labor is contemplated on a project, contact construction counsel in UC Legal – Office of General Counsel (UCL) to discuss the unique facts of the situation before asking any volunteers to execute a Waiver form.

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Revised September 1, 2017 (Change # FM 17-006-C)

Construction Documents Review Procedures

Volume 4, Chapter 6

INTRODUCTION

Certain construction documents are subject to internal review and approval by various University units as well as external review and approval by state or federal agencies.

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6.1 UNIVERSITY REVIEWS

Bidding documents no longer require review by the Office of the President or UC Legal – Office of General Counsel (UCL) unless changes are proposed to the Instructions to Bidders or to the General Conditions through use of Supplementary Instructions to Bidders or Supplementary Conditions (see 6.1.2).

6.1.1 Facility Reviews

The construction documents are usually reviewed by one or all of the following Facility units (or their equivalent): facilities management, seismic safety, environmental health and safety, fire marshal, physical plant, telecommunications, energy committee, building advisory committee, crime prevention, campus and community planning, and others as applicable. The facilities management unit usually coordinates all reviews.

The Facility's review of the Drawings and related documents is intended as a check to determine:

- If the work required to prepare the construction documents has been completed.
- If the design solution satisfies University programmatic needs.

Approval by the Facility of the plans, designs, and related documents does not relieve the design professional of responsibility for adequate design.

Facilities Management. The following reviews by the facilities management unit should be made during document development:

- Review of design professional submittals as required by the Executive Design Professional Agreement (see Contract Templates - Design and Other Consultants).
- Review of construction documents for continuity and conformance to the Facilities Manual models (see RD2.3, Construction Documents Review Checklist, and RD2.4, Errors Commonly Made in the Construction Documents).
- Coordination with the Office of the President - of the review of construction documents utilizing modes of contracting other than complete plans and specifications, design-and-build, construction management, and cost-plus-fee (see 5.2).

Seismic Safety. The Facility's consulting structural engineer will review the documents for conformance to University policy on seismic safety.

Environmental Health and Safety. The Facility's Environmental health and safety department will review the documents for conformance to University policy on environmental health and safety.

Fire Marshal. The Facility's Designated Campus Fire Marshal will review the documents for conformance to applicable fire protection regulations and accepted standards.

Physical Plant. Requirements for proper operation and maintenance of plant (see Volume 6) will be reviewed by the physical plant unit.

Telecommunications. Usually, the Facility will have a master plan for telecommunications; the telecommunications unit will review the Drawings and the Specifications for conformance to that plan.

Energy Committee. The energy committee will review the documents for conformance to University policy on energy and water conservation and management.

Building Advisory Committee. Review by a Facility building advisory committee is usually performed during the project's schematic design phase.

Crime Prevention. The crime prevention unit will review the Drawings and other documents for conformance to building security and other requirements of the Facility crime prevention program.

Campus and Community Planning. Input by campus and community planning committees is usually obtained during the project's schematic design phase.

6.1.2 Office of the President and UC Legal – Office of General Counsel (UCL)

Changes to the Instructions to Bidders and General Conditions (the core documents) made by, respectively, Supplementary Instructions to Bidders and Supplementary Conditions require review and approval by the Office of the President and by UC Legal – Office of General Counsel (UCL) before these documents are issued to bidders.

Submit the proposed changes either as Supplementary Conditions or Supplementary Instructions to Bidders in "redline" and "strikeover" to expedite the review and comment period.

(All model documents contained within the Construction Contract Templates page have been approved by the Office of the President for content and by UC Legal – Office of General Counsel (UCL) for legal form.)

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6.2 EXTERNAL REVIEWS

Review and approval of the completed construction documents by various external agencies, including the following, may be required to meet code requirements:

- Division of the State Architect
- Office of the State Fire Marshal
- Department of Health Care Access and Information (HCAI)
- Coastal Commission
- Local air quality management districts
- Other agencies involved with the project

The Facility arranges all meetings with these agencies and pays all necessary application fees.

6.2.1 Division of the State Architect - Access Compliance

References:

-California Code of Regulations, Title 24, Part 1, California Building Standards Administrative Code.

Compliance procedures set forth in the California Code of Regulations require that plans for construction and alteration of state-funded projects be reviewed by the Division of the State Architect/Access Compliance and that the plans be certified to be in compliance to regulations regarding disabled access to public facilities, prior to contract award. Disabled access compliance of non-state funded projects is overseen by the Campus Building Official.

6.2.2 Office of the State Fire Marshal

References:

-Memorandum of Understanding with State Fire Marshal, March 5, 2003.
-California Code of Regulations, Title 19.
-California Code of Regulations, Title 24, Part 9, California Fire Code.
-California Code of Regulations, Title 24, Part 2, California Building Code.

The Designated Campus Fire Marshal conducts plan review and construction inspection of University projects. Approval is required by the Office of the State Fire Marshal for compliance to public safety requirements. The University requires compliance with State Fire Marshal fire safety regulations.

6.2.3 Department of Health Care Access and Information (HCAI)

References:

-Memorandum of Understanding with State Fire Marshal, December 26, 2002. -California Code of Regulations, Title 24, Parts 1 and 2, California Building Standards Code.
-Health and Safety Code, State of California, Section 129675.

The Department of Health Care Access and Information (HCAI), Division of Facilities Development, reviews and approves all acute care, skilled nursing care, and hospital facility projects. “Licensed clinics” are reviewed and approved by the Campus Building Official.

The Health and Safety Code requires HCAI to be responsible for the enforcement of building standards of hospital buildings, including the plan checking and the inspection of the design and details of the architectural, structural, mechanical and electrical systems, and the observation of construction.

6.2.4 Coastal Commission

If projects are within the boundaries of the coastal zone, then the project must be reviewed and approved by the state's Coastal Commission.

6.2.5 Air Quality Management Districts

If projects are within the boundaries of air quality management districts, the project must be reviewed and approved by the appropriate district.

6.2.6 Federal Agencies

National Laboratories. Construction projects at the National Laboratories must comply with the management contracts between the Department of Energy and the University of California. Policies and procedures governing competitive bidding and other construction requirements at the National Laboratories are found in the Laboratory Procurement Policy and Standard Practices Manual. This is published and maintained by the UC National Laboratories within the Office of the President. (See Business and Finance Bulletin BUS 43 Part 2, Responsibility and Authority, paragraph I.A.7).

Other Federally (or Non-State) Financed Projects. Most federal agencies and federal programs require, after receipt of bids, and upon determination by the University of its intention to award a contract, that such intention be referred to the funding agency for approval before contract award.

In each case where a construction contract is proposed to be executed for a federal or non-state-funded project (other than Department of Energy-funded), the Facility must first determine from the terms of the grant or funding agreement whether prior approval of intent to award is required. When prior approval is required, the Facility may be required to submit the following information to the funding agency:

- Affidavit of advertising
- Bid summary (certified by the Facility architect)

- Copy of low bid
- Copy of Bid Bond and power of attorney by surety
- Letter of recommendation for award
- Project budget

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Revised June 21, 2011 (Change No.11-032-D)

Project Quality Management Program

Volume 4, Chapter 7

INTRODUCTION

This chapter sets forth requirements and procedures for establishing the construction phase portion of a Project Quality Management Program. (See FM1:7 for information on establishing a Project Quality Management Program.)

Quality requirements for construction projects are established first by The Regents, next by the President, and then by the Facilities. Quality is measured by conformance to requirements established by facilities management personnel. Project quality is ultimately appraised by the Facility client.

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7.1 PROGRAM GOALS

The goal of the construction phase of the Project Quality Management Program is to ensure that the construction of a project meet the quality requirements established by a Facility. To accomplish this goal, facilities management personnel must perform the following functions for the project team to ensure the desired quality of the constructed project:

1. Establish requirements (see 7.3)
2. Build teamwork (see 7.4)
3. Supply resources (see 7.5)

4. Evaluate performance (see 7.6)

7.1.1 Project Team Members

During the construction phase the project team may consist of the following principal parties and their associates:

1. University
    - Client
    - University's Representative
    - Planning staff
    - Budgeting staff
    - Facilities management staff
    - Facility Fire Marshal
    - Facility police
    - Facility environmental, health, & safety staff
    - Project Manager (University employee)
    - Project Manager (outside professional)
    - Construction Manager (outside professional or University employee)
2. Design Professional
    - Executive design professional
    - Design professional's consultants
    - University design consultants
3. Constructors
    - Construction contractor
    - Subcontractors
    - Project representatives
    - Construction Manager (acting as contractor)

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7.2 PROGRAM SCOPE

During the construction phase a Project Quality Management Program includes the following:

- Quality management planning and implementing policies, procedures, and requirements.
- Quality control ensuring that work is being performed and that work is being checked prior to its acceptance.
- Quality assurance verifying that quality control tasks are being performed.
- Continuous quality improvement continually pursuing improvement in the quality of the construction process.
- Quality costs redoing a construction item even when this increases the item's cost.

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7.3 PROGRAM REQUIREMENTS AND PROCEDURES

The first and most basic step in establishing the construction phase portion of the Project Quality Management Program is to formulate written requirements that specify the roles and responsibilities of project participants. The *Facilities Manual* establishes basic University requirements; additional requirements should be established by the respective Facility or by the project team through a "partnering" effort (see 7.4.1).

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7.4 TEAMWORK

A Project Quality Management Program should not only address technical issues but should also address people-related issues and encourage teamwork. Construction technical issues include checklists, inspections, interdisciplinary plan checks, other reviews, and possibly value engineering. People-related issues include encouraging commitment to the project, building teamwork, defining expectations, and "partnering" (see 7.4.1). Cooperation within the project team should have started early in the project process.

7.4.1 Partnering

In the context of the construction phase portion of a Project Quality Management Program, "partnering" means:

- Defining expectations—of the University, the design professional, and the Contractor's project manager or construction manager.
- Reviewing procedures—assuring that procedures reflect each project team member's expectations.
- Resolving conflicts—reviewing and modifying mechanisms set up early in the project for resolving conflicts and for periodic progress reviews.

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7.5 PROGRAM RESOURCES

At minimum, the Facility should provide the budget, personnel, and time necessary to meet quality requirements for each project phase (see 7.3). This task is accomplished through decisions made by facilities management staff.

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7.6 EVALUATION BY THE PROJECT TEAM

Periodically during active construction and upon completion of the construction phase, members of the project team should evaluate the team's performance as a whole. In evaluating a project for quality, the project team should:

- Define expectations.

- Define problems.
- Determine what is needed to rectify problems.
- Estimate needed resources.
- Determine if the project cost or program needs refining.

Team evaluation will assess team performance in accomplishing project quality goals by considering the team's:

- Effectiveness in relation to established quality requirements.
- Efficiency (staying within budget).
- Timeliness (remaining on schedule).
- Compliance with imposed constraints as stated in policies, procedures, and programs.
- Teamwork.

Evaluations can be made by completing evaluation forms predesigned with questions and data entry requests developed on an objective basis.

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Volume 5: Bidding & Construction Administration

Introduction and Summary

Based on administrative conditions and the estimated contract sum, the University of California uses one of three types of construction documents: the Long Form, the Brief Form, or the Mini Form. This volume of the *Facilities Manual* explains how and when University construction contracts are bid and awarded, and afterwards, how they are administrated. Conditions prerequisite to contract bidding and award are also discussed. (*Facilities Manual*, Volume 4, contains the model construction documents and discusses their selection and preparation.)

For references to particular construction documents, this volume cites the Long Form only; therefore, *Facilities Manual* users should find equivalent passages (when they exist) if another type of construction document is being utilized. (See FM4[II] for tables that list and compare individual construction documents of the Long Form, Brief Form, and Mini Form.)

Purpose of this Facilities Manual volume

This volume of the University of California *Facilities Manual* contains bidding and construction administration policies, procedures, and guidelines. Content of this volume is not intended as a substitute for detailed bidding and contract administration procedures. Each Facility is encouraged to develop its own procedures manual that expands on and complements this volume.

CHAPTER 1: METHODS OF CONTRACTOR SELECTION

State law and Regents' policy require the University to publicly advertise for competitive bid construction contracts valued above $50,000; however, when a contract is valued below that dollar limit, the contract may be awarded by informal bidding or by negotiated contracting. Federally funded projects may entail more restrictive conditions for competitive bidding.

Competitively bid contracts must be awarded to the lowest "responsible" bidder. "Responsibility" refers to a prospective bidder's ability to satisfactorily perform the work.

The requirement of competitive bidding determines the type of construction documents used. The duration of the bidding period is affected by the contracting mode chosen and the type of bidding required.

CHAPTER 2: BIDDING DOCUMENTS

The bidding documents are prepared by the design professional and the Facility during a project's construction documents phase and are assembled by the Facility. The University has approved the use of three types of construction bidding documents: the Long Form, the Brief Form, and the Mini Form. The Office of the President and the Office of the General Counsel

have requested the opportunity to review and approve certain bidding documents before their issuance to bidders.

CHAPTER 3: PREPARING TO SOLICIT BIDS

Before bids can be solicited, basic conditions required by University policies, delegations of authority, and federal and state regulations must be met. These conditions regarding document conformance, availability of funds, and other prerequisites apply to competitive and informal bidding and negotiated contracting.

CHAPTER 4: DETERMINING BIDDER RESPONSIBILITY

A "responsible" bidder is one who is able to satisfactorily perform the work. A contract does not have to be awarded to the lowest bidder if that bidder is not responsible, as determined by the University.

The bid, itself, must also be "responsive"; that is, the form and content of the bid must meet the requirements of the bidding documents. A contract does not have to be awarded to the lowest responsible bidder, if that bidder's bid is nonresponsive.

University procedure is to use (1) standard bidding document requirements, (2) prequalification, (3) qualification, or (4) disqualification to determine the responsibility of a contractor or subcontractor or their intention to bid on University construction contracts.

CHAPTER 5: SOLICITING BIDS

After the conditions prerequisite to bidding have been met, bids may be solicited by using the procedures for competitive bidding or informal bidding. The Instructions to Bidders informs bidders that they must attend a pre-bid conference to familiarize themselves with requirements of the University's Affirmative Action Program and other contract documents.

CHAPTER 6: RECEIVING AND OPENING BIDS

After bids are solicited, they are received and opened by the Facility.

During competitive bidding, bidders must follow strict bid submittal requirements set forth in the Advertisement for Bids and the Instructions to Bidders. The Facility receiving bids must enforce those requirements. A public bid opening conducted by the Facility is one the fundamentals of the competitive bidding process.

As its name indicates, informal bidding is less restrictive than competitive bidding. For example, sealed bids are not required for informal bidding.

Standard procedures for receiving and opening bids have been developed by the University to encourage uniformity among the Facilities.

CHAPTER 7: REVIEWING AND EVALUATING BIDS

After competitive and informal bids have been opened and read, the Facility must review them to determine if they are "responsive." After all bids have been reviewed for responsiveness, the Facility determines the lowest bidder.

Material irregularities in the form or content of a bid affect the bid price or time and give the bidder making the irregularity an advantage or benefit over another bidder. Material irregularities make a bid nonresponsive.

Protests may result from the University's determination that a bid is nonresponsive or from a bidder's claim that another bidder's bid is nonresponsive.

All bids may be rejected if acceptance of the lowest responsible bid is not in the best interest of the University.

CHAPTER 8: EXECUTING AND AWARDING THE CONTRACT

After the lowest responsible bidder has been determined, the bidder is sent the Agreement and other contract documents to execute (sign and return). After the signed documents are returned, the contract is executed by the University, thereby making it valid, and is awarded to the bidder (at this point referred to as the contractor).

Before certain projects can be awarded, concurrent approval by the project funding agency must be obtained.

The Notice to Proceed is a document added to the contract to start construction. The Facility should issue this notice immediately after the contract has been executed unless otherwise stipulated in the bidding documents.

A License for Early Start of Construction allows a contractor to move onto the project site and do preliminary work prior to contract award. This procedure is sometimes desirable and necessary in the interest of time.

CHAPTER 9: BID PROTESTS

Occasionally, a protest will be lodged regarding selection of the lowest bidder or lowest responsible bidder. The required bidder procedures for filing a protest are described in the Instructions to Bidders. The Facility office in charge of issuing the bidding documents must investigate the basis for the protest, hold an informal hearing if deemed appropriate, and issue a written decision within 15 days of receipt of the protest unless factors beyond the University's control prevent such a resolution.

The lowest responsible bidder being protested and the person or entity filing the protest have the right to appeal the Facility's decision regarding the protest to the University's Construction Review Board.

The University is subject to and follows state requirements regarding subcontracting practices. The performance of any portion of the work by a person or firm other than the subcontractor listed in the bid for that portion of the work, without the University's consent, is prohibited. The grounds for consenting to a contractor's request to substitute a subcontractor listed in its bid are strictly limited.

CHAPTER 10: CONTRACTOR SUBSTITUTION DURING THE BIDDING PERIOD

CHAPTER 11: CONTRACT ADMINISTRATION

Contract administration is understood to comprise the duties and responsibilities of the University's Representative during the construction phase of a project, as required by the Executive Design Professional Agreement and the contract documents listed in the construction Agreement.

University policy is to have contract administration performed by either design professionals or by Facility personnel, depending on other administrative conditions.

In addition to the contract administration performed by the University's Representative, the Facility is responsible for administering additional contract duties and responsibilities of the University (The Regents).

Prior to commencement of the work, the University's Representative holds a preconstruction conference to discuss administrative procedures to be followed during performance of the work. The University's Representative is also responsible for reviewing and approving required contractor submittals. During construction, submittals may include the contract schedule, submittal schedule, shop drawings, product data and samples, test reports, and materials and equipment substitution requests. Substitutions which are equal in quality, utility, and appearance to those specified may be accepted, subject to the provisions and procedures specified in the Specifications.

The General Conditions prohibit the contractor and the University from assigning any of their responsibilities under the contract without the written consent of the other party.

The grounds for which the University may consent to a contractor's request to substitute another entity for a listed subcontractor are strictly limited and are based on state Public Contract Code regulations.

The lowest responsible bidder is required to submit, to the University, Certificates of Insurance and bonds required by the General Conditions and Instructions to Bidders.

To prevent the possibility of undervaluation of a building should a loss occur, the Insurance Valuation Form for Property has been developed for submittal to the University Office of Risk Management when alterations, renovations, or additions are made to University-owned buildings or when the University is constructing a new building or acquiring an existing one.

CHAPTER 12: FIELD ADMINISTRATION

Specific persons or entities are assigned the administration of and responsibility for activities at the job site, or "field" level. These activities involve observation, inspection, testing, surveying, progress meetings and project safety.

The Office of Statewide Health Planning and Development is responsible for the enforcement of building standards related to hospital buildings and projects.

CHAPTER 13: CONTRACT MODIFICATIONS

Contract modifications are changes in the work required during construction. The two means of accomplishing these changes are by field order and change order.

The contract time may be extended by the number of days that certain causes or events prevent work from being completed. All time extensions are granted by means of a change order.

CHAPTER 14: PROJECT MONITORING

The extent of needed project monitoring is determined by the Facility. Except for the contract schedule, which is monitored by the University's Representative, project monitoring is mainly performed by the project manager.

The California Labor Code is applicable to certain University construction contracts. The requirements for the payment of prevailing wage rates and the employment of apprentices are defined in the code.

Hospital projects require special monitoring to meet Office of Statewide Health Planning and Development requirements and to meet other hospital-related construction requirements set forth in the Specifications.

CHAPTER 15: CONTRACTOR PAYMENTS

Prior to the first Application for Payment, the contractor is required to submit to the University's Representative a breakdown of all costs that constitute the contract sum. The University will pay the contractor monthly an amount equal to 95 percent of the cost of the work in place; the remaining 5 percent is held as "retention." However, after 50 percent of the work is completed, if University finds that satisfactory progress of the work is being made, University may make any of the remaining progress payments in full.

If the contractor fails to complete the work within the contract time, the contractor is assessed as "liquidated damages" and not as a penalty a sum specified in the Agreement for each day the work remains incomplete beyond the expiration of the contract time.

CHAPTER 16: CLAIMS RESOLUTION

The General Conditions provide procedures for resolving contractor disputes. The University's Representative is required to review change order requests and render a decision on the request. Mediation, arbitration, or litigation may follow this decision. Continuous negotiation is required throughout the dispute process.

CHAPTER 17: BENEFICIAL OCCUPANCY AND SUBSTANTIAL COMPLETION

Certain procedures must be followed when the University wishes to occupy or use part of the work before it is completed. Such occupancy is referred to as "Beneficial Occupancy."

Substantial Completion means that stage in the progress of the work when the University's Representative determines that the work is complete and in accordance with the contract documents except for completion of minor items which do not impair the University from occupying and fully utilizing the work for its intended purpose.

CHAPTER 18: CONTRACT CLOSEOUT

The contractor is required to submit as-built documents to the University's Representative as a condition for final payment and the release of retention. When the University's Representative determines that the record documents are complete, and the design professional has stamped and signed the documents, they are delivered to the Facility. Completed record documents provide a record of the project as it was actually constructed.

The University's Representative is also responsible for receiving operating and maintenance data from the contractor and for collecting required guarantees.

Final Completion is determined to be when the University's Representative finds that the work is fully completed and in accordance with the contract documents. The Facility must file a Notice of Completion within 10 days after Final Completion.

When the work is found to be complete, the contractor makes a final Application for Payment. The University's Representative then issues a final Certificate for Payment constituting final acceptance of the work by the University.

CHAPTER 19: PROJECT CLOSEOUT

When each capital improvement project is completed, and the account containing the project funds is closed out, the project budget is amended as required to show actual costs in each category.

The contractor is required to correct defective work that becomes apparent during the progress of the work or during the Guarantee to Repair Period. The Guarantee to Repair Period is usually a period of one year commencing with the date of Substantial Completion, the date of Beneficial Occupancy, or the date of Final Completion, as applicable. If desired, the Guarantee to Repair Period may be specified for a period of time longer than one year.

The state civil code establishes specific obligations of the contractor to correct defective work, that is, patent and latent defects.

CHAPTER 20: PROJECT QUALITY MANAGEMENT PROGRAM

The goal of the construction phase of the Project Quality Management Program is to ensure that the construction of a project meet the quality requirements established by a Facility. To accomplish this goal, facilities management personnel must perform the following functions for the project team to ensure the desired quality of the constructed project:

- Establish requirements
- Build teamwork
- Supply resources
- Evaluate performance.

Methods of Contractor Selection

Volume 5, Chapter 1

INTRODUCTION

The evaluation and selection of contractors leading to the award of construction contracts is a vital part of the construction process. State law requires the University to publicly advertise for competitive bid certain construction contracts; however, when a contract is valued below the dollar limit established for competitive bidding, the contract may be awarded through an informal competitive bidding process or by negotiated contracting. (Negotiated contracting, a process during which a contractor is selected without competition, is sometimes referred to as "direct selection.")

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1.1 COMPETITIVE BIDDING

STATUTES AND BACKGROUND

Public Contract Code secs. 10500 - 10506 require that University construction contracts in excess of $50,000. be competitively bid, and be awarded to the lowest responsible bidder or, on the refusal or failure of such bidder to execute a tendered contract, be awarded to the second-

lowest responsible bidder or, on that bidder's refusal or failure to execute a tendered contract, be awarded to the third-lowest responsible bidder, unless it is determined that the acceptance of a responsible bid is not in the best interests of the University, in which case all bids shall be rejected.

[Editor's Note: Beginning on January 1, 1978, the California Education Code was amended to impose competitive bidding requirements on The Regents where formerly such bidding was required as a matter of self-imposed Regents' policy. Before the code was amended, The Regents did have the right to negotiate and award sole-source contracts of any dollar amount. The right to negotiate contracts is now restricted by the Public Contract Code, Sections 10500-10506, which superseded the California Education Code in 1984 as the competitive bidding law applicable to the University (see text of Public Contract Code)]

References:

- Constitution of the State of California, Article IX, Section 9.

- Long Form, Instructions to Bidders, Article 6.

- Public Contract Code, State of California, Sections 10500, 10502-10506.

- Bid and Award Process Flow Chart Competitive Bidding.

According to the California Constitution, the University is subject to "competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services."

The requirement for competitive bidding shall not be avoided by splitting a project into smaller units of work or by the use of change orders to authorize substantial additional work (see 3.2.7, Guidelines for Substantial Change Orders.)

The sanctions for not complying with competitive bidding requirements are very strict. Any person or entity may protest the award of a contract at any time during the term of the contract. If the courts find that the competitive requirements were not followed, the University official signing the contract may be fined, imprisoned, or both. In addition, the contractor would be required to refund the amount of money paid to the contractor by the University, even if the Work had been completed and accepted.

The requirement of competitive bidding determines the type of construction documents used (see FM4).

State law requires University projects to be publicly advertised and awarded to the "lowest responsible bidder" in accordance with Public Contract Code §10500. "Responsibility" refers to a prospective bidder's ability to satisfactorily perform the Work. Selection of the lowest responsible bidder does not require an award to the bidder submitting the lowest dollar bid unless that bidder is qualified and thus deemed to have the ability to satisfactorily perform the Work.

Refer to the Public Contract Code and the following sections of the Facilities Manual for detailed advertising requirements.

1.1.1 Formal vs. Informal Competitive Bidding

- Sample Advertising Schedule

The Public Contract Code requires formal competitive bidding for projects with estimated contract sums over $640,000 and permits informal competitive bidding (see 1.2) for projects between $50,000 - $640,000. The University has established procedures for negotiated contracting (see 1.3) for projects under the dollar limit for competitive bidding.
When utilizing ***formal*** competitive bidding, the University (1) advertises for bids in accordance with Public Contract Code§ 10502; (2) receives sealed bids on or before the Bid Deadline; (3) publicly opens all such bids; (4) prepares a Bid Summary of all such bids; and (5) awards the contract to the lowest responsible bidder submitting a responsive bid or rejects all bids.

When utilizing ***informal*** competitive bidding, the University (1) requests bids from at least three qualified bidders on the basis of identical sets of bidding documents issued to the bidders at approximately the same time, (2) prepares a Bid Summary (see 7.3.1) of all bids, and (3) awards the contract to the lowest responsible bidder submitting a responsive bid or rejects all bids. See section 1.2 for procedures

1.1.2 Federally Funded Projects

For projects funded in whole or in part by the federal government, the rules of the funding agency should be reviewed for competitive bidding and public advertising requirements. Normally, federal agencies require competitive bidding with public advertising only for projects with estimated construction costs exceeding $10,000. If federal requirements are more restrictive than “Public Contract Code”, the more restrictive requirements must be followed.

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1.2 INFORMAL COMPETITIVE BIDDING PROCEDURES

- Informal Bidding Chart (pdf)

- Informal Form Contract Templates

Informal Competitive Bidding is a direct bid solicitation to 3 or more contractors able to perform the applicable work. The contract is awarded to the lowest responsible bidder submitting a responsive bid, or all bids are rejected.

While selecting bidders repeated awards to a single contractor must be precluded; an impartial method must be used for selecting contractors who are to receive bid solicitations. Suggested methods include:

1. Regularly solicit bids from all responsible contractors who have expressed interest in receiving informal bids, or
2. Select contractors on a rotating basis from a pool of responsible contractors able to perform such work. "See Sheltered SBE/DVBE Informal and Negotiated Bidding Pool below:"

Identical sets of bidding documents must be issued to all bidders at approximately the same time.

When using Informal Competitive Bidding under Public Contract Code 10504.5 and when construction value exceeds $300,000 but does not exceed $640,000 General Contractors and if using, Mechanical, Electrical and Plumbing subcontractors must be qualified. In order for a Bidder to become "Base Qualified", the Bidder must conform to the requirements of the OP approved template (hereinafter referred to as "Base Qualification Questionnaire"). The Base Qualification Questionnaire may not be modified without approval from UC Legal - Office of the President and Office of General Counsel (UCL). If a Facility wishes to add to the qualification criteria, it may perform a second level of qualification assessment consisting of additional criteria.

The Facility may prequalify contractors in advance, or qualify bidders at the time of bid. A Base Qualified bidder will maintain the Base Qualified status for up to a year from the date of the signed Base Qualification Questionnaire form. The Facility must maintain a pool of qualified contractors. The pool of qualified contractors must be available to all bidders. The Facility must bid to a minimum of three or more qualified contractors who are invited on a rotating basis.

1.2.1 SHELTERED SBE/DVBE INFORMAL AND NEGOTIATED BIDDING POOL:

Sheltered bidding is a program whereby a portion of contracts are designated, before solicitation of informal (competitively bid $50k - $640K) or negotiated (under $50K) bids, for competition from Small Business Enterprises (SBE) and/or Disabled Veteran Business Enterprises (DVBE). The goal of sheltered markets is to provide greater bidding opportunities to small and disabled veteran businesses in UC capital programs. For these contracts, a minimum of three (3) qualified SBE/DVBE firms must be invited to bid.

SBE or DVBE Firms must be registered with the campus as follows:

- For Negotiated Contracts with construction value less than $50,000, when contractors submit a Contractor Profile form they will automatically be entered into the Sheltered SBE/DVBE Bidding Pool.
- For Informal Competitive bidding with construction value less than $300,000, when contractors submit a Contractor Profile form they will automatically be entered into the Sheltered SBE/DVBE Bidding Pool.
- For Informal Competitive Bidding when construction value exceeds $300,000 but does not exceed $640,000, contractors must submit the Base Qualification and they will automatically be entered to the Sheltered SBE/DVBE Bidding Pool.

Contracts awarded under the Sheltered Bidding program require 51% of the work to be performed by an SBE or DVBE that has completed and submitted UC's Confirmation of Certification form. This performance requirement will be verified on the project bid form, and then again with the Final Distribution of Contract Dollars form submitted with project closeout material.

Campuses will have the discretion to rebid the contract outside of the Sheltered Bidding Program if prices are not competitive.

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1.3 NEGOTIATED CONTRACTING

A contract may be negotiated with a contractor if the construction cost of the project does not exceed $50,000. The contract sum is negotiated between the University and the contractor.

For negotiated contracts, the contractors must be selected on a rotating basis from a pool of contractors able to perform the type of project work required. "See Sheltered SBE/DVBE Informal and Negotiated Bidding Pool at Section 1.2 above."

A memorandum stating the conditions warranting such an award, and a justification of the accepted price as being reasonable (such as an independent estimate), must be written by the University's Designated Administrator and placed in the project file.

Examples of further conditions when negotiated contracting might be appropriate include, but are not limited to, the following:

- A contractor is already working near the project site on other work. If this contractor were selected, mobilization costs would be saved, and congestion and coordination problems would be avoided.
- The Work must be performed immediately to protect the health, safety, and welfare of University personnel or the general public.

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1.4 DURATION OF THE BIDDING PERIOD

During a project's design phase, the Facility decides which contracting mode to use (see FM3 and FM4). Both the contracting mode chosen and the type of bidding used will affect the duration of the bidding period. Clients and users should be made aware of the length of the required bidding period.

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1.5 EQUAL OPPORTUNITY POLICY

References:

- University policy: Equal Opportunity in University Business Contracting (see FM1:5.1)
- Public Contract Code, State of California, Sections 10500.5.

It is the policy of The Regents of the University of California consistent with State and Federal law, that race, religion, sex, color, ethnicity, and national origin will not be used as criteria in its business contracting practices. Every effort will be made to ensure that all persons regardless of race, religion, sex, color, ethnicity, and national origin have equal access to contracts and other business opportunities with the University.
University policy: University Business Contracting (see FM1:5.1)

California Public Contract Code Section 10500.5 requests The Regents to adopt policies and procedures to facilitate the participation of small businesses, particularly small disadvantaged business enterprises (DBE), women-owned business enterprises (WBE), and disabled veteran business enterprises (DVBE) in business contracting with the University.

In unison with the 25% SBE/DVBE goal set for the procurement of products and services, the President of the University California and Regents established a 25% goal for Small Business Enterprises (SBE) and Disabled Veteran Business Enterprises (DVBE) participation in design and construction contracts.

1.5.1 Outreach

Each Facility must use a broad range of outreach activities designed to improve the University's access to qualified small businesses, including DBE, WBE, and DVBEs (D/W/DVBEs) and to build goodwill in the community toward the University's construction programs. Existing outreach programs should be continued, and new ones designed as needed. Such activities could include, for example:

1. Publishing a brochure or other instructional material designed to convey information to all small businesses about the University's construction programs; the material should contain a directory of key personnel and information on how to access the University's construction projects.
2. Participating in trade fairs for the purpose of enabling small businesses to demonstrate their abilities.
3. Attending trade fairs and business opportunity events presented by others for the purpose of meeting new small businesses, including DBE, WBE, and DVBEs, and discussing common problems and solutions with other organization's construction staff.
4. Presenting seminars for groups of small businesses, including DBE, WBE, and DVBEs for the purpose of instructing them on how to do business with the University.
5. Meeting small business contractors on an individual basis to understand their capabilities and qualifications.
6. Visiting small business locations for the purpose of inspecting their facilities, understanding their capabilities and prequalifying them as University contractors.

7. Participating in local organizations that support small businesses, including groups oriented toward D/W/DVBEs.

Each University location must designate a coordinator knowledgeable in its facilities contracting systems who will be responsible for

(1) informing small businesses, including DBE, WBE, and DVBEs, of appropriate contracting procedures;

(2) referring them to appropriate project contracting staff;

(3) coordinating outreach activities; and

(4) maintaining statistical records.

In 2022, UCOP led a coordinated effort to increase SBE/DVBE participation by undertaking an extensive outreach and training program. Material from the trainings is available online.

1.5.2 Certification

For purposes of statistical reporting, the University will require businesses to certify their status as SBE, DBE, WBE, or DVBE. The Confirmation of Certification form shall be used to obtain this information for all Contractors, Subcontractors, Designers, and Consultants.

1.5.3 Statistical Records

As a federal contractor, the University is required, periodically, to produce statistics on its utilization of DBE, WBE and DVBEs. Each facility should maintain records, taken from each consultant's or contractor's Self-Certification Form and the Report of Subcontractor Information forms provided by each contractor immediately after award, containing at a minimum:

- Total dollars awarded to all construction contractors.
- Dollars awarded, by category, to SBE, DBE, WBE, and DVBE contractors and subcontractors.
- Dollar awards expressed as a percentage of the total for each business category.

The above annual statistical information shall be submitted to the Office of the President not later than August 15 each year.

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1.6 BEST VALUE CONTRACTOR SELECTION

Public Contract Code Section 10506.4 et seq. in effect January 1, 2012 provides for a program for the Regents of the University of California for projects over one million dollars ($1,000,000) and allows an award to the lowest responsible bidder selected on the basis of the “best value” to

the University, as defined in Section 10506.5. In order to implement this method of selection, the Regents of the University of California has adopted and published the following procedures and required guidelines for evaluating the qualifications of the bidders that ensure that best value contractor selections by each Facility are conducted in a fair and impartial manner. These procedures and guidelines conform to the requirements of Sections 10506.6 and 10506.7 and shall be mandatory for all campuses of the university when using best value selection. These Procedures and Required Guidelines are applicable to Bidder Qualification only. For guidance to all other facets of the Best Value Program consult the Best Value Best Practices Manual and with members of the Office of the President should you have any questions or concerns.

1. Best Value Bidder Selection Process

All bidders shall be pre-qualified for the subject project. Each pre-qualified bidder must submit a Best Value Evaluation Questionnaire, with supporting documentation, verified under penalty of perjury. The bidders shall be evaluated on the five (5) statutory criteria by each member of the Evaluation Committee and on no others to determine their Qualification Points.
The total bid price (Bid$) is divided by the bidder's **average** Qualification Points (QP) resulting in a unit of measurement indicating dollars per quality point ($/QP), Formula: Bid$ /QP = $/QP, also known as the Best Value Score (BVS). The bidder with the lowest BVS is the apparent lowest responsible bidder.
The BVS for each bidder shall be calculated based on the total bid price, including alternates. The maximum qualifications points for any bidder shall be 1000 points. Each campus, as appropriate for the project, shall determine how the total available points should be distributed among the five categories for each bidder evaluated. However, no category shall be assigned less than 150 points without prior approval from the Office of the President.

2. Required Guidelines for Evaluation of Bidder Qualifications

The Best Value selection method can be used for any project with a construction cost over $1,000,000. It does not change the bidding processes in any respect other than those addressed in these Guidelines. This is not a project delivery method. Best Value is an evaluation process of contractors' bids that allows consideration of price and five specific statutory bidder qualification criteria in determining which bid offers the best value to the University. The process compares strengths, weaknesses, risks, performance and price of each bid in accordance with published bidder qualification selection criteria.

When developing the evaluation criteria, in addition to price, bidder qualification factors must include:

1. Demonstrated management competency,
2. Financial condition,
3. Labor compliance,
4. Relevant experience and
5. Safety record.

The criteria must always reflect the requirements of the specific project and shall never be utilized to unfairly disadvantage any prospective bidder. All the allowable bidder qualification criteria identified above must be published in the Best Value Questionnaire and all available point totals and all subcriteria within the five criteria above must be approved in advance by the Office of the President.

The use of the Best Value procedures authorized below is contingent upon conformance with the statutory authority of the Public Contract Code and the specific requirements of these Procedures and Required Guidelines. No modifications to the requirements herein may be made without the prior written concurrence of the Office of the President.

3. Procedures for Evaluation of Bidder Qualifications

All documents listed below can be found on the Facilities Manual Best Value page. For every project using the Best Value selection method, the campus shall submit the following to the Office of the President, Construction Services, for approval:
Prior to Advertising:

1. Proposed **Evaluation Committee Roster** including job title, a very brief description of duties and professional affiliation.
2. **Best Value Questionnaire** with the points allocated to each major category as relevant to the project. The template should be modified to meet the specific needs of the Project.
3. **List of pre-qualified contractors** with criteria used for Prequalification.

After Bid opening and Evaluation Committee Results

1. **Evaluation Committee Roster**.
2. Summary Analysis of all bidders identifying lowest responsible bidder on the **Best Value Score Analysis** (showing the total qualifications score for each bidder along with its bid price and the calculated Best Value Score).
3. Summary of all campus Best Value results to date on the **Best Value Campus Summary**.

Every Facility shall keep a permanent record of all Best Value projects, including all completed copies of the Best Value Score Analysis together with the Questionnaire Scorecard, and shall make the records available to the Office of the President upon request. Every campus shall maintain an updated record of all Best Value projects on the Best Value Campus Summary form. This updated form shall accompany the Best Value Rating Analysis when submitted to the Office of the President for approval. A final copy of the Best Value Campus Summary shall be submitted annually to Construction Services at the Office of the President on or before December 10th.

Each Facility, for every project, shall, at a minimum, collect all of the information contained in the Best Value Campus Summary.

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Revised December 22, 2016 (Change No. 14-015-C)

Bidding Documents

Volume 5, Chapter 2

INTRODUCTION

The bidding documents are prepared by the design professional and the Facility during a project's construction documents phase and are assembled by the Facility.

2.1 BIDDING DOCUMENT TYPES

The University uses many types of construction documents. The construction bidding documents are part of the overall construction documents. All construction document models contained in Facilities Manual, Volume 4, have been approved for legal form by the UC Legal - Office of the General Counsel (UCL).

2.2 BIDDING DOCUMENT REVIEW

Facilities are responsible for reviewing their own bidding documents, regardless of the estimated construction cost. However, proposed changes to the Instructions to Bidders, and the General Conditions must be reviewed by the Office of the President and the Office of the General Counsel. Detailed review procedures are given in FM4.

Revised February 10, 2012 (Change # FM 12-001-C)

Preparing to Solicit Bids

Volume 5, Chapter 3

INTRODUCTION

Before bids can be solicited, basic conditions required by University policies, delegations of authority, and federal and state regulations must be met. These conditions apply to competitive and informal bidding and negotiated contracting. (See Permission to Solicit Bids, RD3.1.)

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3.1 CONDITIONS PREREQUISITE TO BIDDING

References:

- - Small MS4 Statewide General Permit, Order No. 2013-0010DWQ
- - California Coastal Act of 1976.
- - California Code of Regulations, Title 24, California Building Standards Code.
- - Permission to Solicit Bids (see RD3.1).
- - UC CEQA Handbook, Procedural Handbook and Model Approach for Implementing the California Environmental Quality Act (CEQA), University of California, Office of Long-Range Planning, Office of the President, Oakland, CA, May 1991, revised February 1994.
- - University policy: "Equal Opportunity in University Business Contracting" (see FM1:5.1).
- **- University policy: "Seismic Safety" (see FM1:5.1).**

Before soliciting bids for any construction contract, the Facility Designated Administrator must ensure that all of the following conditions are met:

1. The commitment of funds, the scope of construction, and equipment to be acquired conform to the project scope and cost itemization in the current approved Project Planning Guide or conform to the project description in the case of minor capital improvement projects.
2. The bidding documents conform to those in the Facilities Manual or modification to the documents are approved by the Office of the UC Legal - General Council and Office of the President (see 2.2).
3. For state-funded projects, the bidding documents have been approved by the Department of Finance and State Public Works Board, as applicable.
4. Funds are available.
5. The project complies with the most recent version of the "Amended University of California Procedures for Implementation of the California Environmental Quality Act."
6. The documents conform with fire and life safety requirements of the California Building Standard Code.
7. Independent certification is made that the design meets or exceeds energy regulations and standards (see FM6:5.2.1).
8. The project complies with the provisions of the California Coastal Act of 1976, if appropriate.
9. The documents conform with the University's seismic safety policy.
10. Procedures for providing disabled access are followed (see FM3:4.1).

11. Drawings and specifications for licensed hospital facilities are approved and stamped by theDepartment of Health Care Access and Information (HCAI). HCAI approves documents for the design and details of architectural, structural, mechanical, and electrical systems.
12. Drawings and Specifications for state-funded non-hospital related projects are approved and stamped by the Division of the State Architect for disabled access requirements.
13. State review of any required environmental document has been completed.

(See FM3:4 for more information on code compliance in regard to project design and construction.)

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3.2 AVAILABILITY OF FUNDS

Before bids are solicited, the Facility accounting officer must certify that project funds are available in the plant account approved for the project. Signature for certification of fund availability is included on the Pre-Bid Capital Improvement Budget. The source and amount of funds must match the most recently approved Capital Improvement Budget (CIB) for the project. The approval authority for CIBs depends on the fund source and size of the project. Contact the Office of the President to determine authority.

3.2.1 State-Funded Projects

For state-funded projects, funds are frequently transferred from the state to the University in increments. For such projects, formal action by the State Department of Finance to "release" funds to the University and authorize proceeding with work is sufficient basis for signifying availability of funds.

3.2.2 Non-State-Funded Projects

Most non-state-funded projects must have funds physically transferred into the plant account to proceed with solicitation of bids. Exceptions are discussed below.

For externally financed projects, the Chief Investment Officer's Office must notify the Facility that funds are available. Regents' approval of external financing is not sufficient, as it does not mean that funds are immediately available.

Gift pledges (not yet-in-hand) are not an appropriate source of funds for the purposes of bid solicitation. Prior to solicitation of bids for a project with outstanding pledges, the following must occur: (1) The Regents have approved authorization for a standby loan and the Chief Investment Officer's Office has notified the Facility that funds are available, or (2) a cash advance from another lawfully available source is temporarily transferred into the plant account and reimbursed as gifts are received.

Some federally-funded projects require that bidding documents be reviewed by the appropriate federal agency for permission to advertise for bid. Refer to the agency agreement for the specific requirements.

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3.3 CONCURRENT APPROVAL BY FUNDING AGENCY

3.3.1 State-Funded Projects

Capital projects funded by State capital appropriations require the submittal to Office of the President of the final, 100% complete bid documents package with all signatures and approvals by the designated Campus Fire Marshall or Division of the State Architect/Access Compliance. The project as detailed by the documents must be within approved scope, budget and schedule. The Facility submits the completed bid document package, including drawings and specifications, with supporting documentation that includes explanatory cover letter, project description, project Capital Improvement budget, detailed cost estimate, component cost summary, area reconciliation, project schedule, and record of final EIR action (if pertinent) to the Office of the President for review and processing. Any bid alternates must be explicitly identified; alternates may not be bid legally without approval of the individual alternates. Depending on the source of the state funds, these submittals may be approved by the State Department of Finance (DOF) or State Public Works Board (SPWB) (if the project is funded with lease-revenue bonds), or the Office of the President (streamlined projects). The project may be put out to bid upon the availability of funds (construction funds are "committed" by legislative authority at the time of bid, but are released by the state only upon approval to award a contract). See 3.1 for a list of other constraints. If the lowest responsive and responsible bid is within budget, the construction contract may be awarded. Contact Capital Planning at the Office of the President for more detailed and updated information regarding submittal documentation and process or for clarification as necessary.

3.3.2 Lease-Revenue Bond-Funded Projects

Capital construction and capital equipment purchases for projects funded with State lease-revenue bonds (in which the State owns the facility and leases it to the University) require steps in addition to those outlined in 3.3.1 above. Prior to approval of Preliminary Plans, the Facility must first prepare and transmit to the Office of the President a legal description and site survey and these must be approved by SPWB. Bidding may occur prior to when Lease Revenue Bonds (LRBs) are sold, but award can only occur after a successful LRB sale. Prior to obtaining approval of the bid document package submittal, a proposed site lease, facility lease, and equipment lease (if applicable), are prepared by SPWB and its bond counsel, but only after a bond sale is initiated; Regents authorization must be submitted to the SPWB for approval. Regents item requesting authorization to prepare and execute the leases and agreements must be approved prior to awarding a contract.

The Office of the President coordinates and submits the necessary documents, in parallel with the bid document package submittal, to SPWB for review and action. The bid document package

for a lease-revenue bond-funded project must be approved by the DOF. At conclusion of the bidding phase, the Facility reports the bid results and apparent low responsible bidder to the Office of the President for transmittal to the DOF with a request for approval and authorization to award the contract (see 8.2.1). Upon receipt of this authorization and notification that bond proceeds are available, the contract can be awarded and work can proceed.

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3.4 PROJECT FILE MAINTENANCE

The bid document package as submitted to, and approved by the State, must be the same as the bidding documents issued and must become part of the Facility's project file [see FM3:6, and 11.1.3).

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3.5 COMPLIANCE WITH STATE AND FEDERAL LAW OR REGULATION

On projects funded in whole or in part by the federal government, the rules of the funding agency must be reviewed for competitive bidding and public advertising requirements. Normally, federal agencies require competitive bidding with public advertising only on projects with estimated construction costs exceeding $10,000. If federal requirements are more restrictive than University policy, the more restrictive requirements must be followed.

If the funding agency requires an affirmative action program as a condition for funding, then an affirmative action program that is in compliance with the funding agency's requirements must be included in the bidding documents and the contract documents.

3.5.1 American Recovery and Reinvestment Act of 2009 (ARRA)

If the project is funded in whole or in part through the American Recovery and Reinvestment Act of 2009 (ARRA), see following guidelines for compliance:

For all grant-funded construction projects, whether new construction, renovation, maintenance, repair or upgrade, the terms of the grant may add compliance requirements different from those of the University's "typical" project. Federal grants funded as part of ARRA (the American Recovery and Reinvestment Act of 2009) entail a separate set of compliance requirements, some of which vary depending on the funding agency (NIH, DOE, NSF, etc.).

While many ARRA-funded University projects have now been completed, some are still in process and others have not yet gone out to bid. The purpose of these guidelines is to suggest those requirements of ARRA that might otherwise be overlooked so that University staff can determine their applicability to specific projects, obtain more detailed guidance and comply fully with all requirements.

All requirements flow down from the grant recipient to its contractors and subcontractors (collectively "vendors") who receive more than $25,000 in ARRA funds. Longer record retention may be required.

Highlights of key requirements of ARRA include (not an exhaustive list):

Reporting

Quarterly reporting of specific data elements is required on the use of all funds received, including the number of jobs created and/or saved.

CCR Registration

The University and its vendors (its contractors and subcontractors) must all register in the CCR (Central Contractor Registration) database at https://sam.gov/. Each entity needs a DUNS number to register.

Buy American

Unless an exemption applies, the project must use American iron, steel and manufactured goods.

Davis-Bacon Wage Rates

The Davis-Bacon Act requires that workers not be paid less than the applicable wage determination, which may be found at https://sam.gov/. (If California prevailing wage is higher, the higher wage must be paid.) Certified payrolls must be checked for compliance and records must be retained as required. (LCPtracker https://lcptracker.com/or similar software can be helpful.)

Segregated Accounting

ARRA funds must be tracked, accounted for and reported separately from all other project funds.

Waste, Fraud and Abuse

The University and its vendors have an affirmative duty to report false claims and other misconduct.

Whistleblower Protection

The protection extends to employees of the University and its vendors.

Public Information

Information about the use of funds will be posted at https://www.ed.gov/ based on submitted reports.

Information about ARRA requirements must be included in advertisements for bids, bid packages and contract documents. Specific information must be posted at the job site. Failure to comply with the requirements can result in loss of funds.

The laws and regulations encompassed by ARRA are complex. Specific guidance should be obtained from the campus sponsored projects or contracts and grants office, in consultation with the principal investigator of the project and the contract and grants officer with whom he or she has been working.

3.5.2 Prevailing Wage Determination Date

The University requires the payment of prevailing wage on certain construction and maintenance contracts. (See 14.2) For all project delivery methods except CM at Risk, the prevailing wage determination date for the Project is the first date of Project advertisement for bid. In a CM at Risk contract, there are two dates at which the prevailing wage may be set. If there are subcontractor bid packages (including Design Build subcontractors) or any site or construction work in the initial bid advertisement for the CM/Contractor, the determination date for prevailing wage for the entire Project is that of the initial advertisement. If there are no subcontractor bid packages or site or construction work in the initial bid advertisement for CM/Contractor, the determination date for prevailing wage for the entire Project is that of the first subcontractor trade package advertisement.

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Revised October 8, 2019 (Change No. 19-XXX-X)

Determining Bidder Responsibility

Volume 5, Chapter 4

INTRODUCTION

This chapter sets forth University policy regarding bidder "responsibility" and addresses the four methods of determining responsibility:

1. Standard bidding document requirements
2. Prequalification
3. Qualification
4. Disqualification

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4.1 RESPONSIBILITY: ORIGIN AND POLICY

References:

- Public Contract Code, State of California, Sections 10500-10506.

The term "responsible," as applied to bidders, has its origin in Public Contract Code, Section 10501, and in University policy. The code and policy both require that contracts "be awarded to the lowest responsible bidder" (see 1.1). A "responsible" bidder is one who is able to satisfactorily perform the work. A contract does not have to be awarded to the lowest bidder if that bidder is not responsible, as determined by the University.

The bid, itself, must also be "responsive"; that is, the form and content of the bid must meet the requirements of the bidding documents (see 7.1). A contract does not have to be awarded to the lowest responsible bidder, if that bidder's bid is nonresponsive.

University procedure is to use (1) standard bidding document requirements, (2) prequalification, (3) qualification, or (4) disqualification to determine the responsibility of a contractor or subcontractor or their intention to bid on University construction contracts.

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4.2 STANDARD BIDDING DOCUMENT REQUIREMENTS

The application of standard, predetermined responsibility requirements in the bidding documents is the most frequently used method of determining bidder "responsibility." If bidders cannot meet these requirements, they should not submit a bid. Any submitted bid not meeting these responsibility requirements is declared nonresponsive (see 7.1).

The University's construction documents contain the following predetermined responsibility requirements:

1. State of California Contractor's License demonstrates minimum knowledge and experience to perform the work.
2. Bonds verify financial capacity.
3. Insurance shows that an insurance company is willing to assume certain contractor risks.

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4.3 PREQUALIFICATION

Prequalification may be used with any contracting mode (see FM4) and is usually used when the Facility wants required project work to be performed by a contractor who has successfully

completed similar work. For example, the Facility may determine that to successfully complete a project, the contractor needs five years' experience with specific types of equipment and supervisory expertise in handling toxic waste.

The prequalification process will lengthen the bidding period unless prequalification is concluded before the scheduled bidding period.

4.3.1 Prequalification Guidelines

When using prequalification, adhere to the following guidelines:

1. Contractors may be prequalified, at the Facility's discretion, to bid on projects of any value.
2. Use the procedures in 4.3.2 to prequalify contractors.
3. Subcontractors may be prequalified, using the procedures in 4.3.3, on those projects where the experience and performance of subcontractors is determined by the Facility to be critically important to the work.
4. Contractors or subcontractors may be prequalified for bidding on a predetermined value of multiple projects.

4.3.2 Contractor Prequalification Procedures

1. Use the Advertisement for Contractor Prequalification to specify the trade for which prequalification information is being requested. This sample advertisement was developed to be compatible with competitive bidding by including at least the following:
    a. A statement that bidders must be prequalified.
    b. A brief description of the work specifically, the contract type, project type, project size, estimated cost of the work, and major characteristics of construction.
    c. Where and when the Prequalification Questionnaire can be obtained.
    d. Where and when the Prequalification Questionnaire is to be submitted.
2. Modify the Instructions to Bidders to address prequalified contractors by adding an article in the Supplementary Instructions to Bidders.
3. Use the sample Prequalification Questionnaire (available at the UCOP Approved Contract Templates page) to develop a specific questionnaire for the project.

    ---**POINT SYSTEM:** The questionnaire can be used to evaluate the potential Bidder on a point system. The Prequalification Questionnaire and its corresponding Prequalification Evaluation, are structured so the bidder must score a predetermined point total and meet minimum standards for questions within different topics. The points to award, minimum standards, and the number of points needed to prequalify are determined by the Facility.
    --**PASS/FAIL:** The questionnaire can be used to evaluate the potential Bidder on a pass/fail system. The Prequalification Questionnaire and its corresponding Prequalification Evaluation are structured so the bidder must meet minimum standards determined by the Facility. (see comparison of the two systems.)

4. Further develop the Prequalification Questionnaire to be compatible with competitive bidding by including standards so the questionnaire:
    a. Relates reasonably to the performance of the work required by the bidding documents.
    b. Evidences a prospective bidder's ability to satisfactorily perform the work.
    c. Is objective.
    d. Applies uniformly to all prospective bidders.
    e. Is based on past performance.
5. Consider the Topics for Prequalification Questionnaire. These topics are based on a contractor's past performance. Questions within the sample Prequalification Questionnaires in the Resource Directory are examples; topics and questions that are added must be structured so they can be objectively evaluated.
6. If the Prequalification Questionnaire requests information that may be proprietary (such as financials or business methods), add the section number of such information to the list of those responses that will be considered “official information” if marked “confidential”. Should the Facility receive a request under the California Public Records Act (PRA) that may encompass the prequalification process, please contact the Office of the General Counsel or your Facility PRA representative for guidance.
7. Provide in the Prequalification Questionnaire an informal appeal process and hearing process at the Facility level for those prospective bidders who are found to be not prequalified and who object to that determination.
8. Use the sample Prequalification Evaluation, Point System or Pass/Fail, to develop a specific Prequalification Evaluation for the project. These alternate versions correspond to the Prequalification Questionnaires (see procedure 3, above). The Prequalification Evaluation an internal document not issued to prospective qualifiers is used to determine the prequalification status of contractors. Specific Prequalification Evaluation items must correspond to specific Prequalification Questionnaire items.
9. Publicly advertise the Advertisement for Contractor Prequalification.
10. Make the Prequalification Questionnaire available to contractors.
11. Receive Prequalification Questionnaires from contractors no later than a specified time and date, at a designated location, in the same manner used for accepting bids. Allow a minimum of 15 days from the date of issuance for contractors to return completed Prequalification Questionnaires.
12. Select an appropriate prequalification committee to rate each contractor using the Prequalification Evaluations.
13. Notify contractors of their status either prequalified or not eligible to submit a bid for the project.
14. Resolve any appeals from contractors not prequalified. Conduct an informal hearing to allow the contractor to explain the reasons for the appeal. The Facility's decision on the appeal is final. Contractors or subcontractors cannot file a written appeal of the Facility's determination to the Construction Review Board.
15. Make bidding documents available to prequalified contractors. Issue the Announcement to Prequalified Bidders with the bidding documents. On the announcement, list the names of prequalified contractors eligible to submit bids.
16. Take bids from prequalified contractors.
17. Award the contract to the lowest responsible bidder whose bid is responsive (see 4.1).

The Office of the President is available to provide assistance in preparing the Advertisement For Bids From Prequalified Contractors, the Prequalification Questionnaire, the Prequalification Evaluation and the Announcement to Prequalified Bidders.

4.3.3 Subcontractor Prequalification Procedures

1. Follow the contractor prequalification procedures detailed in 4.3.2.
2. State in both the Subcontractor Prequalification Questionnaire and the contractor's bidding documents that contractors may use bids only from those subcontractors who have been prequalified by the Facility for specific portions of the work.
3. Provide a list of prequalified subcontractors in the bidding documents.

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4.4 QUALIFICATION

Bidder qualification is another method of determining bidder "responsibility" (see 4.1) in a limited way by setting forth certain qualification requirements at the time of bid. This method may be used when bidder requirements are not extensive, and time is not available to prequalify bidders.

The qualification method may involve, for example:

- Documents for the design-and-build contracting mode that stipulate limited qualification requirements.
- Lump-sum or cost-plus-fee contracts that require certain contractor experience or expertise. Bidders are informed that they must be able to prove they meet the stipulated requirements.

4.4.1 Qualification Guidelines

1. Use the qualification method when bidder requirements are not extensive and time is not available to prequalify bidders (see 4.3).
2. Use the qualification method to determine responsibility either before bids are accepted or after bids are opened.
3. Use the procedures in 4.4.2 for qualification.

4.4.2 Qualification Procedures

1. Modify the Advertisement for Bids to inform bidders that they must meet certain qualifications set forth in the Supplementary Instructions to Bidders to be allowed to bid or to be eligible for award.
2. Add an article to the Supplementary Instructions to Bidders stating all qualification standards the bidder must meet to be qualified to perform the work. Qualification standards should not be made too complicated and should not be so rigid that no one is

able to bid on the project. Qualification standards may include one or more of the following:
    a. Experience with similar work
    b. Financial ability to complete the work
    c. Safety record
    d. References on completed projects
3. List the forms the bidder is required to complete in the Bid Form, Article 11, "Required Completed Attachments". The completed forms will demonstrate to the Facility whether the bidder meets the required qualification standards. Use applicable portions of the Contractor's Statement of Experience and Financial Condition (see 8.5.3).
4. Advertise publicly for bids using the modified Advertisement for Bids.
5. Continue the qualification process using Method A, B, or C below.
    a. Method A Qualification Determined Before Bids Are Submitted:
        1. Have prospective bidders submit qualification documents in a sealed envelope at the place and time stipulated in the Advertisement for Bids.
        2. Receive qualification documents.
        3. Evaluate qualification documents.
        4. Notify bidders of their qualification status.
        5. Receive bids from qualified bidders at the place and time stipulated in the Advertisement for Bids.
        6. Formally open bids.
    b. Method B Qualification Determined When Bids Are Submitted:
        1. Have bidders submit qualification documents in a sealed envelope clearly labeled, "Qualification Documents," at the place and time stipulated in the Advertisement for Bids.
        2. Have bidders submit bids in a separate sealed envelope clearly labeled, "Sealed Bid for [Project Name and Number]."
        3. Accept qualification packets and sealed bid packets concurrently, at the place and time stipulated in the Advertisement for Bids.
        4. Open and evaluate qualification documents.
        5. Notify bidders of whether they have qualified and whether their bid will be opened.
        6. Do not open bids of bidders not qualified. Return unopened bids to bidders.
        7. Formally open bids of qualified bidders at the place and time stipulated in the Advertisement for Bids.
    c. Method C Qualification Determined When Bids Are Evaluated:
        1. Have bidders submit qualification documents along with (as an attachment to) the Bid Form.
        2. Formally open bids at the place and time stipulated in the Advertisement for Bids.
        3. Announce the (apparent) lowest responsible bidder subject to evaluation of all completed attachments.
        4. Evaluate qualification documents.
        5. Notify bidders of their evaluation status and the final determination of who is the apparent lowest responsible bidder.

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4.5 DISQUALIFICATION

Disqualification is another method of determining bidder "responsibility" (see 4.1). Disqualification may prohibit a contractor from bidding on University projects for a set period of time, whereas prequalification (see 4.3) and qualification (see 4.4) evaluate contractors for bidding on a specific project or on a predetermined value of multiple projects.

A list of contractors that have been debarred and are not eligible to bid on public works projects as a result of violations of Labor Code provisions governing prevailing wage and apprenticeship is available on the DIR website. The Facility can check this list to verify if a potential bidder is eligible.

Inevitably, there will be some defective work, schedule overruns, and disputes about guarantee work on almost all projects. Before a bidder can be disqualified, however, the Facility must establish, in an objective manner, that the bidder's past performance was materially deficient in the area used as the basis for disqualification. Use the guidelines in 4.5.1 and procedures in 4.5.2 to establish an objective basis for disqualification.

4.5.1 Disqualification Guidelines

1. A contractor or subcontractor who has demonstrated performance that is not responsible on current or past University projects may be disqualified, by the Facility, from bidding on current or future University work for a period of three years.
2. The period of disqualification shall be for an indefinite period for a contractor or subcontractor who has demonstrated performance that is not responsible by falsifying any information required during prequalification, qualification, bidding, or required by the contract documents.

4.5.2 Disqualification Procedures

1. Determine whether a contractor or subcontractor has demonstrated performance that is not responsible. The following are considered examples of performance that is not responsible and that may lead to disqualification:
    a. Falsification of any information required during prequalification, qualification, bidding, or required by the contract documents.
    b. Performance of work without the required contractor's license.
    c. Non-observance of safety requirements.
    d. Failure to meet requirements of law in employment.
    e. Failure to meet contractually agreed-to affirmative action commitments.
    f. Use of unlicensed or improperly licensed subcontractors.
    g. Substitution of a subcontractor without the University's written consent.
    h. Failure to submit or adhere to contractually required and agreed-upon schedules.
    i. Conviction of a criminal offense in connection with current or past contracts with any entity.

j. Poor past performance of work on University projects as evidenced by continued use of defective materials, refusal to correct work not in accordance with the contract documents, termination for cause, or repeated failure to provide proper supervision required by the contract documents.
k. Use the Notice of Disqualification (see RD1.8) to notify the contractor or subcontractor of disqualification from bidding University work at any Facility. In the notice, list all specific examples from procedure 1, above, that serve as the basis for the determination that contractor or subcontractor performance is not responsible. Send the notice by a means that provides proof of receipt.
l. Resolve appeals. contractors or subcontractors may file a written appeal of the Facility determination that their performance is not responsible to the Chair, Construction Review Board, with concurrent copy to the responsible Facility administrator where the original decision was made, within 10 calendar days from their receipt of the Notice of Disqualification. If written objections are received during that time period, a hearing must be established for contractors or subcontractors to demonstrate that their performance is responsible.
m. Conduct hearings. The Chair, Construction Review Board, will appoint a hearing officer to preside over the hearing in the manner detailed in the Sample Letter: Hearing on Disqualification. This letter must be sent by the hearing officer to the contractor or subcontractor, to establish a hearing, at least five calendar days before the scheduled hearing date. The decision of the hearing officer is final and not appealable within the University.

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Revised February 24, 2012 (Change No. 12-002-C)

Soliciting Bids

Volume 5, Chapter 5

INTRODUCTION

Bids may be solicited only after the conditions prerequisite to bidding have been met. See Chapter 3[I:3]. This chapter sets forth the general procedures for soliciting of bids. Requirements for formal vs. informal competitive bidding are discussed in 1.1 (negotiated contracting is discussed in 1.3).

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5.1 SOLICITING FORMAL COMPETITIVE BIDS

References: Public Contract Code, State of California, Sections 10500-10506.

The general procedures for soliciting of formal competitive bids are outlined below. (See also RD3.1, Permission to Solicit Bids.)

5.1.1 Advertising for Bids

References:

Long Form, Instructions to Bidders.

Advertisement for Bids. The Advertisement for Bids provides public notice to contractors, subcontractors, and members of the general public about the project. The requirements of the Advertisement for Bids are established by Public Contract Code section 10502 and by University policy. For approved language, see contract documents in Volume 4 of the Facilities Manual. Detailed advertising requirements are provided in Chapter 1. See 1.1.

Bid Deadline. The term "Bid Deadline" means the date and time designated in the Advertisement for Bids as the last date and time for receipt of bids. The "Bid Deadline" may be revised by addenda.

5.1.2 Issuing Bidding Documents

References:

Long Form, Instructions to Bidders.

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

5.1.3 Pre-Bid Conference

References:

Long Form, Instructions to Bidders.

The Instructions to Bidders informs bidders that they must attend a pre-bid conference, in its entirety, to familiarize themselves with contract requirements. Bidders are required to sign an attendance list which is used to determine if bidders have met the attendance requirement. A project site visit (or job-walk) is also a part of the pre-bid conference. At the conference:

- Discuss the contract documents, and highlight major requirements.
- When necessary, review major or unusual conditions of the contract documents.

- Require the bidders to visit the project site with the University's Representative (the person or firm identified in the Agreement).
- Explain the University's Policy to Ensure Equal Opportunity in University Business Contracting (see FM1:5.1).

A bid submitted by a contractor failing to meet the pre-bid conference attendance requirement is considered non responsive (see 4.1), and must be refused or returned unopened to bidder.

If questions that require interpretation by the University's Representative arise at the pre-bid conference, prepare and issue an addendum clarifying the issues (see 5.3).

5.1.4 Modification or Withdrawal of Bids Before the Bid Deadline

References:

Long Form, Instructions to Bidders.

A bidder may modify or withdraw a submitted competitive bid before the bid deadline by giving notice to the office receiving bids, at the place designated for receipt of bids. The notice may be made by any of the methods required for bid submittal set forth in the Instructions to Bidders. A change must be worded so the amount of the original bid is not revealed.

A withdrawn bid may be resubmitted up to the bid deadline, provided the resubmitted bid conforms with the bidding requirements.

5.1.5 Establishment of Procedure for Selection of Alternates

References:

Long Form, Instructions to Bidders.

Facility will conduct the bid opening and evaluation of alternates in accordance with a procedure that either:

1. prescribes, prior to the time of Bid opening, the order in which Alternates will be selected; OR
2. prevents, before the determination of the apparent low Bidder has been made, information that would identify which Bid belongs to which Bidder from being revealed to the representative of the University selecting the Alternates to be used in determining the low Bidder.

If Facility elects option #1, the Facility may reveal identities of the Bidders at the Bid Opening. However, the Facility must prepare the selection procedure prior to Bid Opening and shall place a copy of the procedure in the project files.

If Facility elects option #2, the Facility may NOT reveal which Bid belongs to which Bidder

until the representative of the University selects the Alternates to be used in determining the low Bidder. The Facility will publicly disclose the identity of each Bidder that submitted a Bid and the amount of each such Bid after the determination of the apparent low Bidder has been made. An acceptable process would be to have a contracts administrator open all bids and record pricing information on a summary sheet identifying the bidders by letter e.g. “Bidder A”, “Bidder B”, etc. This summary sheet would be provided to the representative of the University making the decision concerning alternates to be accepted.

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5.2 SOLICITING INFORMAL COMPETITIVE BIDS

References:

Sheltered SBE/DVBE Informal and Negotiated Bidding Pool at Vol. 5, Ch. 1.2.1

Detailed solicitation requirements are provided in Chapter 1. See 1.1. When informal bidding is used, the Facility must preclude favoritism in the bidding process. A list of proposed projects and their bidding times should be available for all interested contractors, and various contractor organizations should be notified of this list. All solicitations for informal bidding must take into account the University Policy to Ensure Equal Opportunity in Business Contracting. Routinely solicit bids from small disadvantaged, women's, and disabled veteran business enterprises.

5.2.1 Withdrawal of Bids Before the Bid Deadline

A bidder may withdraw a submitted informal bid before the bid deadline by giving notice to the office receiving bids, at the place designated for receipt of bids.

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5.3 ADDENDA

References:

Long Form, Instructions to Bidders.

Addenda (see RD3.2) are written text and drawings, if required, that modify or interpret the bidding documents including the Drawings and Specifications issued prior to the bid deadline. Addenda are issued after the bidding documents have been issued to bidders. Response to questions raised at the pre-bid conference or at another time during the bidding period may require the issuance of addenda (see 5.1.3).

Planholders. A planholder is any person or entity who is known by the Facility to have received a complete set of bidding documents ***and*** who has provided a street address for receipt of any written pre-bid communications (e.g. addenda).

Issuing Addenda. Addenda are prepared by the University's Representative and the Facility. Only the Facility office that issued the bidding documents may issue addenda. Addenda are sent to planholders by a means that provides a proof of receipt. In the case of informal bidding, addenda are sent to those who have been sent a Request for Bid.

Issue addenda so they are received by all Planholders at approximately the same time, and are received no later than three business days prior to the bid deadline. An Addendum to change the bid deadline to a later date or to withdraw the solicitation of bids may be sent at any time before the bid deadline.

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Revised December 8, 2014 (Change # FM 14-015-C)

Receiving and Opening Bids

Volume 5, Chapter 6

INTRODUCTION

After bids are solicited, they are received and opened by the Facility. This chapter sets forth requirements for the receipt and opening of formal and informal competitive bids.

6.1 BID DEADLINE

References:

-Long Form, Instructions to Bidders.

According to the Instructions to Bidders, the term "Bid Deadline" means the date and time designated in the Advertisement for Bids as the last date and time for receipt of bids, as may be revised by addenda.

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6.2 RECEIVING FORMAL COMPETITIVE BIDS

References:

- Long Form, Instructions to Bidders.

The Long Form or Brief Form bidding documents are used for competitive bidding (see FM4[II]). Bidders must follow bid submittal requirements set forth in the Advertisement for Bids and the Instructions to Bidders. The Facility receiving bids must enforce those requirements by complying with the standard procedures that follow.

6.2.1 Bid Submittal Requirements

Time. The Advertisement for Bids states that bids will not be received after a certain time (the Bid Deadline).

Place. The place for receiving bids is set forth in the Advertisement for Bids and the Supplementary Instructions to Bidders. Receive bids at no other place.

Sealed Bids. The Advertisement for Bids requires sealed bids. Additionally, the Instructions to Bidders requires bids to be submitted in a sealed envelope properly addressed and endorsed.

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

6.2.2 Facility Procedures

Use the standard procedures below for receiving competitive bids. These procedures have been developed to provide uniformity among the various Facilities and to ensure that bids are properly received.

Preparation. Before receiving bids, have the following items available:

- Positive means of enforcing the Bid Deadline
- Bid tabulation form
- Time and date stamp
- Set of these procedures

Time. Do not receive bids after the Bid Deadline. If a bid is submitted after the Bid Deadline, do not accept it return the unopened bid to the bidder. Enter the bidder's name, the time of the attempted submittal, and the words "Refused-Not timely submitted" on the bid tabulation form.

Place. Receive bids only at the place designated for the receipt of bids. Make certain the place designated is available and staffed for the receipt of bids.

Sealed Bids. Bids must be sealed in an envelope properly addressed and endorsed. Do not accept bids that are not sealed. Note on the bid tabulation form if a bid is improperly addressed or endorsed.

Date and Time Stamp. Date and time stamp bids as they are received. If the stamp does not include the time, write the time next to the date stamp. Place the stamp on the outside of the sealed envelope. If envelope is too bulky to accept date and time stamp, stamp a separate slip of paper and staple it to corner of envelope. If time permits, enter the bidder's name and the time the bid is received on the bid tabulation form. Do not open the bids; accumulate them in one pile. Assemble the bids in alphabetical order.

Announcement. After the Bid Deadline has passed, announce its passing and that no further bids will be received. Also announce when and where bids will be opened. Make sure all the bidders names and bid receipt times are entered on the bid tabulation form. Gather the accumulated bids, check them with the bid tabulation form, and take them to the place of the bid opening.

6.2.3 Modification or Withdrawal of Bids After the Bid Deadline

References:

-University policy: "Irrevocable Bids" (see FM1:5.1).

Competitive bids may not be modified, withdrawn, or canceled after the Bid Deadline unless the University consents to this action. Consent may be made during a period of 60 days or other period stipulated in the bidding documents if the bid contains an excusable mistake, and the following conditions are met:

1. Written notice of the mistake, specifying in detail how the mistake occurred, is received within five working days after the opening of bids.
2. The mistake makes the bid materially different from what the bidder intended it to be.
3. The mistake was made in filling out the bid and is not due to an error in judgment, carelessness in inspecting the site of the work, or carelessness in reading the Drawings or Specifications.

If a bidder asks to withdraw a bid, immediately ask to examine the bidder's documentation to determine the nature of the mistake, how it occurred, and the dollar amount involved. If this documentation substantiates the bidder's claim, summarize the findings in writing and send copies to the Office of the UC Legal - General Counsel and Office of the President. If there is a question as to the legitimacy of the claim, refer the information to General Counsel to confirm that the legal conditions for consenting to the withdrawal of the bid have been met.

If the bidder's request is informal, request it be immediately confirmed in writing and that the written notice specify in detail how the mistake occurred. Evaluation of the bidder's supporting documentation and, if necessary, referral to General Counsel should be accomplished promptly.

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6.3 OPENING FORMAL COMPETITIVE BIDS

References:

-Long Form, Instructions to Bidders.

A public bid opening conducted by the Facility is one the fundamentals of the competitive bidding process. The bid opening process starts after the receipt of bids and concludes when the bids are collected for further evaluation.

The Long Form or Brief Form bidding documents are used for competitive bidding (see FM4[II]). The Instructions to Bidders states that bids will be opened publicly.

Time and Place. The Facility states the bid opening time and place in the Advertisement for Bids and Supplementary Instructions to Bidders.

6.3.1 Facility Procedures

Before opening competitive bids, make certain the place designated for the bid opening is ready and available. The place should be furnished with seats or chairs for the bidders, and tables and chairs for the persons opening and recording the bids.

To encourage uniformity among the various Facilities, and to ensure that bids are properly opened, the University has developed the basic procedures below for opening competitive bids. Other procedures may be added. The person opening bids must be familiar with the bid opening procedures and must ensure that they are accurately followed.

Bid Form Check-Off List. Use the Bid Form Check-Off List (see, RD2.6) while performing the bid opening. This list is intended to help verify that all items and information required by the Bid Form accompany each bid. The required items are listed on the check-off list as they appear in the Bid Form.

Procedures at Bid Opening. The following procedures start when bids have been received, and the bidders have assembled in the place designated for opening bids:

1. Announce that the Bid Deadline has passed, that the opening time has arrived, and that bids will be opened.
2. Review the bid opening procedures with the bidders.
3. Arrange the bids for opening [I].
4. Open the bid [II].
5. Have an assistant record the required information on a bid tabulation form [III].
6. Note the presence of required items.
7. Note any irregularities, if deemed appropriate.
8. Note any missing items, if deemed appropriate.
9. Repeat above steps 4-8 until all bids have been opened, and all information is recorded on the bid tabulation. Announce apparent lowest bidder [IV].
10. Post the bid tabulation in a location accessible to all bidders [V].
11. Make the bids available for inspection and remain present while the bids are being inspected [VI].

12. Note any bidder concerns for later resolution. Inform the protestors that a formal protest must be filed in writing within three business days. Specify the latest time for receipt of protests (i.e. 5 pm on third business day after bid opening [VII]).
13. Ask the bidders if they have any questions on the bid opening procedure.
14. Announce that the bid opening procedure is completed, thank the bidders for submitting their bids, and state the bids will be taken under advisement.

If bids include Alternates and Facility elects to use "blind" bids (see 5.1.5), the following footnotes apply:

[I] The order used to open bids shall not identify bidders. Do NOT arrange in alphabetical order. Instead, arrange bids in a random order (e.g. order of receipt).
[II] Do NOT read aloud the actual names of the bidders. Instead, assign a letter such as “Bidder A”, “Bidder B”, etc..
[III] The bid tabulation excludes the actual names (and other identifying information) of the bidders.
[IV] Do NOT announce the apparent lowest bidder. The apparent lowest bidder will be determined after the Alternates are selected by the representative of the University selecting the Alternates to be used in determining the apparent lowest Bidder (see FM5:5.1.5).
[V] It will be necessary to revise and re-post the bid tabulation (sometime after step 14) to identify the actual names of the bidders *after* the representative of the University has selected the Alternates to be used in determining the apparent lowest Bidder.
[VI] The representative of the University selecting the Alternates to be used in determining the apparent lowest Bidder may not inspect the bids and should normally not be present during bid opening.
[VII] The protest period generally ends on the 3rd business day after the date of posting in a public place of bid results that identify the actual names of the bidders.

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6.4 RECEIVING INFORMAL COMPETITIVE BIDS

References:

- Mini Form, Instructions to Bidders.

The Informal Form bidding documents are typically used when informal bidding is deemed appropriate although a Long Form, Brief Form, or Mini Form may be used instead (see Vol 5, Chapter 2 for more detail). Bidders must follow the submittal requirements set forth in the Request for Bids. The Facility receiving bids must enforce those requirements, outlined below.

6.4.1 Bid Submittal Requirements

Time. The Request for Bids states that bids are to be submitted on or before a certain time (the Bid Deadline).

Place. The place for receiving bids is also set forth in the Request for Bids.

Bid Type. Sealed bids are not required for informal bidding.

6.4.2 Facility Procedures

Use the standard procedures below for receiving informal bids. These procedures have been developed to promote uniformity among the various Facilities and to ensure that bids are properly received.

Preparation. Before receiving bids, have the following items available:

- Positive means of enforcing the Bid Deadline
- Bid tabulation form
- Time and date stamp
- Set of these procedures

Time. Do not receive bids after the Bid Deadline. If a bid is submitted after the deadline, do not accept it return the bid to the bidder. Enter the bidder's name, the time of the submittal, and the words "Refused-not timely submitted" on the bid tabulation form.

Place. Receive bids only at the place designated for the receipt of bids. Make certain the place designated is available and staffed for the receipt of bids.

Date and Time Stamp. Date and time stamp bids as they are received. If the stamp does not include the time, write the time next to the date stamp. Place the stamp on the bid, and enter the bidder's name, the time the bid is received, and the bid delivery method on the bid tabulation form. Do not open the bids; accumulate them in one pile.

Gathering Bids. After the Bid Deadline has passed, gather the accumulated bids, check them with the bid tabulation form, and take them to the place of the bid opening.

6.4.3 Withdrawal of Bids After the Bid Deadline

Informal bids may be withdrawn prior to the Bid Deadline by the person or firm submitting the bid. After the bid results are posted, competitive bids may not be modified, withdrawn, or canceled unless the University consents to this action similar to formal competitive bidding. For more information, see 6.2.3 above.

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6.5 OPENING INFORMAL COMPETITIVE BIDS

References:

- Informal Form, Instructions to Bidders.

Informal bidding requires specific bid opening procedures, but unlike formal competitive bidding, a public opening is not required. See Volume 5, Chapter 1.

6.5.1 Facility Procedures

To encourage uniformity among the various Facilities, the University has developed the basic bid opening procedures below for informal bidding. Other procedures may be added. The person opening bids must be familiar with the bid opening procedures and must ensure that they are accurately followed.

Bid Form Check-Off List. Use the Bid Form Check-Off List for informal competitive bidding (see RD2.5) while performing the bid opening. This list is intended to help verify that all items and information required by the Bid Form accompany each bid. The required items are listed on the check-off list as they appear in the Bid Form.

Procedures at "informal" Bid Opening. Since the informal bid opening is not conducted in public, bid opening preparations required for formal competitive bidding are not necessary. The following procedures start when the bids have been received:

1. Record required information for each bid on a bid tabulation form.
2. Note the presence of required items.
3. Note any irregularities.
4. Note any missing items.
5. Repeat the above steps until all bids have been opened, and all information is recorded on the bid tabulation [I].
6. Post the bid tabulation in a location accessible to all bidders [II].
7. Make the bids available for inspection. If a bidder requests to inspect bids, remain present while the bids are being inspected.
8. Review and resolve any questions asked by the bidders.

When using Informal Competitive Bidding under Public Contract Code 10504.5 and when construction value exceeds $300,000 but does not exceed $640,000 within 3 days after award to the lowest responsible bidder Facility shall posting on its website:
1. Name of project
2. Name of the winning contractor AND
3. Amount of award

If bids include Alternates and Facility elects to use "blind bids" (see 5.1.5), the following footnotes apply:

[I] The bid tabulation excludes the actual names (and other identifying information) of the bidders to the representative of the University selecting the Alternates to be used in determining the apparent lowest Bidder.
[II] The representative of the University should select the Alternates to be used in determining the apparent lowest Bidder *prior to* posting bid results. Otherwise, it will be necessary to revise and re-post the bid tabulation to identify the actual names of the bidders.

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Revised December 8, 2014 (Change No. FM 14-015-C)

Reviewing and Evaluating Bids

Volume 5, Chapter 7

INTRODUCTION

After competitive bids have been opened and read, and informal bids have been tabulated, the Facility must review them to determine if they are "responsive" (see 7.1). After all bids have been reviewed for responsiveness, the Facility determines the apparent lowest bidder.

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7.1 RESPONSIVE AND NONRESPONSIVE BIDS

Construction contracts must be awarded to the lowest "responsible" bidder (see 4.1).
The *responsibility of the bidder* should be distinguished from the responsiveness of the bid: bidder responsibility relates to the bidder's ability to satisfactorily perform the work whereas responsiveness of the bid relates to the form of the bid. A responsive bid is one that materially complies with the form or content requirements of the bidding documents. Material irregularities in a bid may not be waived and make it nonresponsive (see 7.1.1).

The Bid Form Check-Off List is designed to assist the Facility in determining if a bid is responsive (see 6.3.1 and 6.5.1).

Bidder Notification. If a bid is determined to be nonresponsive, give written notice to the bidder stating that the bid is nonresponsive, with the reasons therefore, and will not be considered for award.

7.1.1 Bid Irregularities

References:

- Long Form, Instructions to Bidders.

Examples of bid irregularities include but are not limited to the following:

- Incomplete submittals
- Unsigned bids
- Nonrequired attachments or related documents
- Qualifications made to the bid
- Stipulations made on the Bid Form
- Discrepancies
- Submittals on unauthorized forms
- Late or mishandled bids
- Claimed mistakes

The Instructions to Bidders allows the University to waive *nonmaterial* irregularities in a bid. Generally, nonmaterial irregularities are those that substantially comply with the bid requirements and do not affect the bid price, time, or conditions.

Material irregularities in the form or content of a bid affect the bid price or time and give the bidder making the irregularity an advantage or benefit over another bidder. Material irregularities may not be waived.

Refer bid irregularities to the UC Legal - Office of the General Counsel. General Counsel will determine if the irregularity can be waived.

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7.2 BID PROTESTS

Protests may result from the University's determination that a bid is nonresponsive or from a bidder's claim that another bidder's bid is nonresponsive. In either event, follow the procedures for resolving a bidder protest (see 9.1).

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7.3 EVALUATING BIDS

After all bids have been reviewed for responsiveness (see 7.1), the Facility prepares a Bid Summary to determine the lowest bidder (see 7.3.1). A Bid Summary is prepared for both competitive and informal bids.

7.3.1 Preparing the Bid Summary

References:

Long Form, Instructions to Bidders.

The Bid Summary (see RD1.7) is used to document the determination of the lowest bidder and is used along with contract execution and award procedures. All items in the Bid Summary are tabulated from data contained in the Bid Form.

Enter amounts on the Bid Summary for the "Lump-Sum Base Bid," "Unit Prices," "Compensation for Delay," and "Alternates."

7.3.2 Alternates

References:

- Long Form, Instructions to Bidders.

As defined in the Instructions to Bidders, the term "alternate" means a proposed change in the work, as described in the bidding documents, which, if accepted, may result in a change to either the contract sum, contract time, or both.

The University has the right to accept alternates in any order or combination, unless otherwise specifically provided in the bidding documents, and to determine the lowest bidder on the basis of the sum of the "Lump-Sum Base Bid," "Unit Prices," "Compensation for Delay," and "Accepted Alternates."

7.3.3 Separate Bids and Combined Bids

If the Bid Form requests separate bids for two or more portions of the work, and a combined bid for all portions, follow the award requirements stated in the Supplementary Instructions to Bidders. The Facility may have the option to award contracts for each separate bid, or the Facility may be required to award a contract to the low combined bid.

7.4 DETERMINING THE LOWEST RESPONSIBLE BIDDER

The lowest responsible bidder is determined by considering all of the following:

1. Bidder responsibility (see 4.1).
2. The sum of the "Lump-Sum Base Bid," "Unit Prices," "Compensation for Delay," and "Accepted Alternates," taken from entries made on the Bid Form and compiled in the Bid Summary (see 7.3.1).
3. Other items required by the bidding documents.

However, if one or more bids is equal to the lowest bid, and at least one of those bidders is a Small Business (SBE), or a Disabled Veteran Business Enterprise (DVBE), the contract shall be awarded to the SBE or DVBE entity. If there is more than one SBE or DVBE entity, then the contract shall be awarded by virtue of a lottery amongst those entities. If none of the bids tied for lowest bid is an SBE or DVBE entity, then the contract shall be awarded by lottery to one of the lowest bidders.

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7.5 REJECTION OF ALL BIDS

References:

- Long Form, Instructions to Bidders.

All bids may be rejected if acceptance of the lowest responsible bid is not in the best interest of the University. For example, all bids may be rejected if the lowest responsible bid were in excess of the University's Construction Budget.

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Revised February 12, 2013 (Change No. FM 13-001-C)

Executing and Awarding the Contract

Volume 5, Chapter 8

INTRODUCTION

After the apparent lowest responsible bidder for competitive and informal bids has been determined, and approval has been received to award the contract, the bidder is sent the Agreement and other contract documents to execute (sign and return). After the signed documents are returned, and a preaward conference determines that all required submittals are acceptable, the contract is executed by the University, thereby making it valid, and is awarded to the bidder (at this point referred to as the contractor). (See RD1.11, Recommendation for Award of Contract.)

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8.1 CONDITIONS PREREQUISITE TO CONTRACT EXECUTION AND AWARD

University Facilities have been delegated authority by the President to execute and award construction contracts where such contracts are within appropriated funds, and provided that all of the following conditions have been met:

1. The contractor has been chosen by competitive bidding, when required, and the contract will be awarded to the lowest responsible bidder submitting a responsive bid.
2. The contract documents conform to the documents used in the bidding.
3. Protests or disputes involving bidding or award of the contract are resolved (see 9.1).
4. UC Legal - Office of the General Counsel has approved the legal form of the contract documents.
5. The commitment of funds, the scope of construction, and equipment to be acquired conform to the project scope and cost itemization in the current approved Project Planning Guide or conform to the project description in the case of minor capital improvement projects.
6. Funds are available.
7. Concurrence by a federal or other funding agency is attained in the contract award (see 8.2).
8. Execution and award of the contract does not invalidate or jeopardize any pending or intended application for funding (primarily from federal sources) of related construction or equipment (see 8.3).
9. No post-bid-opening, pre-award negotiations with the lowest responsible bidder have been conducted for the purpose of awarding a contract in an amount, scope, or time of completion different from that contained in the final bidding documents.
10. State review of any required environmental document has been completed.
11. All required contract documents have been received and determined to be acceptable.

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8.2 CONCURRENT APPROVAL OF AWARD BY FUNDING AGENCY

8.2.1 State-Funded Projects

Capital projects that are funded with state revenue bonds require the submittal of the Bid Summary and other supporting documents to the Office of the President for review and processing to State Public Works Board (SPWB) for the approval of the award of the construction contract. Other supporting documentation includes (1) a cover letter describing the bid relative to the range of bids, deductive alternates to be accepted in order to maintain the project budget, and any other significant information; (2) a new Capital Improvement Budget (Base 1) based on the bid amount; (3) a construction drawdown schedule; and (4) an updated project schedule. Upon receiving approval by the SPWB to award the construction contract, the Office of the President will inform the Facility that they may award the construction contract and transfer the construction funds from the unallocated balances to the plant expenditure ledger (see 3.3.2).

8.2.2 Projects Under Department of Energy Contracts

Construction projects at the National Laboratories must comply with the management contracts between the Department of Energy and the University of California. Policies and procedures governing competitive bidding and other construction requirements at the National Laboratories are found in the Laboratory Procurement Policy and Standard Practices Manual. This is published and maintained by the Laboratory Administration Office within the Office of the President. (See Business and Finance Bulletin BUS 43 Part 2, Responsibility and Authority, paragraph I.A.7).

8.2.3 Federally or Non-State-Funded Projects

Some federal agencies and programs require that after receipt of bids, and upon University determination of its intent to award a contract, such intention be referred to the agency or program for approval before award.

When a construction contract is proposed to be executed for a federally or non-state-funded project (other than a contract that must be done in compliance with the management contracts between the Department of Energy and the University of California), a determination must be made from the terms of the grant or funding agreement whether prior approval of the intent to award is required and what information must be submitted to the funding agency. The following may be required:

1. Affidavit of advertising
2. Bid Summary
3. Copy of low bid
4. Copy of Bid Bond and power of attorney by surety
5. Letter of recommendation for award
6. Construction project budget

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8.3 FUNDING OF RELATED CONSTRUCTION OR EQUIPMENT

Occasionally, funding for a portion of a project may be sought as a grant from federal or other sources on a matching basis where the condition to qualify for the matching portion may be that construction shall not have started prior to a specified date. The Notice to Proceed date should not be prior to the date specified in the matching fund Agreement.

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8.4 NOTIFYING THE LOWEST RESPONSIBLE BIDDER

References:

- Long Form, Instructions to Bidders, Paragraph 5.2 and Article 6.

After the Facility determines who the lowest responsible bidder is, and all conditions prerequisite to contract award have been met, the Facility completes and sends the Notice of Selection as the Apparent Lowest Responsible Bidder (see RD1.9) and other University forms by messenger or overnight delivery. The notice informs the apparent lowest responsible bidder that the following items must be submitted within 10 days after receipt of the notice:

1. Signed Agreement in triplicate. (Date the Agreement 10 days from date Notice of Selection is to be received by contractor.)
2. Three originals of the Payment Bond. (Notary acknowledgement for Surety.)
3. Three originals of the Performance Bond. (Notary acknowledgement for Surety.)
4. Optional University of California Business Information Form, used to self-certify as DBE, WBE, DVBE for statistical reporting purpose only.
5. Certificates of Insurance, along with Enrollment Application for coverage under the University Controlled Insurance Program (UCIP), if applicable.
6. Name, qualifications, and references for superintendent proposed for the contract work.
7. Names of all subcontractors, with evidence of reliability and responsibility.
8. Preliminary Contract Schedule.
9. Selection of Retention Options and Escrow Agreement.
10. Other documents as stipulated in the Instructions to Bidders, Article 6.

If the 10 day time period for submission is extended, make the extension in writing with a new date for submission.

Both the Notice of Selection and the Instructions to Bidders inform the apparent lowest responsible bidder that if the above items are not submitted by the date specified, the Facility may disqualify the bidder, the Bid Security may be forfeited, and the contract may be awarded to another contractor. If the items are not submitted as required, notify the bidder in writing that the Notice of Selection is no longer valid, and send another Notice of Selection to the next apparent lowest responsible bidder who submitted a responsive bid. The University may continue this process until a bidder is selected.

8.4.1 Forfeiture of Bid Bond

If the apparent lowest responsible bidder refuses to sign the Agreement (defaults on contract), the Facility may demand payment from the low bidder's surety company. When this situation occurs, contact UC Legal - Office of the General Counsel for appropriate language to include in the "demand letter" to the surety.

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8.5 REQUIRED BIDDER SUBMITTALS

Before executing the contract, the Facility must obtain the signed Agreement from the lowest responsible bidder, as well as required items listed in the Notice of Selection (see 8.4).

8.5.1 Performance and Payment Bonds

References:

- Long Form, General Conditions, Paragraph 11.4.
- Long Form, Supplementary Conditions.
- University policy: "Bonding Requirements for Construction Contracts" (see FM1:5).

The selected bidder must furnish a Performance Bond for the amount of the contract sum, covering the faithful performance of the contract, and a Payment Bond for the payment of all obligations arising thereunder. The bonds may be secured through the bidder's usual sources if the surety companies chosen meet the requirements of the General Conditions and Supplementary Conditions.

Verify that the surety company issuing the bond is an "admitted insurer", either by printing out information from the website of the Department of Insurance http://www.insurance.ca.gov/docs/index.html confirming the surety is an admitted surety insurer and attaching it to the bond or obtaining a certificate from the county clerk that confirms the surety is an admitted insurer and attaching it to the bond.

A Performance Bond is required for all Long Form and Brief Form construction contracts even if the lowest responsive bid is less than $50,000. A Payment Bond is not required for Brief Form contracts less than $25,000.

Form of Bonds. The bonds must be on the forms provided in the bidding documents and must be dated on or before the date of the Agreement. A certified and current copy of the power of attorney of the attorney-in-fact who executes the bonds on behalf of the surety must be affixed to the bonds.

Signatures. Surety signature must be notarized.

8.5.2 Certificates of Insurance

The selected bidder is required to furnish completed Certificates of Insurance on the form provided in the contract documents (for appropriate coverage and limits see BUS-63, Exhibit D). If the Project is covered by the University Controlled Insurance Program (UCIP), the selected bidder also must complete and submit the Enrollment Application (Form-3 attached to the *UCIP Insurance Manual* included in the bidding documents).

8.5.3 Contractor's Statement of Experience and Financial Condition

Use of the Contractor's Statement of Experience and Financial Condition is optional with Long Form contracts, is not anticipated to be used with the Brief Form, and should not be used with the Mini Form. When the Contractor's Statement is required, it must be submitted with the bid or a current accurate statement must have been previously submitted to the Facility where the bid was submitted. The statement must be for the most recent calendar year or contractor's fiscal year. If required in the Prequalification documents, the statement must be included for evaluation. (See 4.3.2.)

Determining Bidder Responsibility by Qualification. Should the contract documents stipulate that special minimum experience is required, the Contractor's Statement is a vehicle to set forth the contractor's compliance with the qualification procedure (see 4.4.2).

Determining Bidder Responsibility by Evaluation of the Statement. Bonding by an approved surety is, in most instances, evidence of a prospective contractor's experience and financial ability. However, bidders do not always submit a Bid Bond with their bid. Bidding documents allow the bidder to submit a certified check in lieu of a Bid Bond. The Contractor's Statement should be reviewed by the administrator who will make the award determination, to evaluate the bidder's responsibility (anticipated capability to satisfactorily complete the project).

A Bid Bond is not always an accurate reflection of a contractor's experience and financial status. The Contractor's Statement may be used to determine bidder responsibility if the administrator has reasons to question the bidder's financial capability despite the submittal of a Bid Bond.

To check experience, referenced owners of listed projects may be contacted to determine the quality and timeliness of previous work. Other University Facilities may be contacted for their experience with the prospective contractor. If the contractor's record is found to be poor, the contractor may be declared nonresponsible (see 4.1).

A contractor's maximum dollar construction volume currently in process should not exceed (a) four times the net worth listed on line 23 of the statement or (b) 10 times the working capital (current assets less current liabilities). If the contractor's maximum dollar construction exceeds either ratio, contact the bidder's banker, identified on statement. Ask the banker to state the amount of credit available to the contractor for the project to be awarded. If the contractor's maximum dollar construction exceeds either ratio above after adjustment for additional credit available, notify the bidder of a proposed determination of nonresponsibility. Follow the disqualification procedure (see 4.5), but state that the duration of the disqualification is to be only as long as the contractor's financial condition remains inadequate (modify the reference to a disqualification for one year). Consult UC Legal - Office of the General Counsel before making this determination.

Prequalifying Bidders. The Contractor's Statement can also be used in prequalifying bidders (see 4.3).

Disqualifying Bidders. If material data in the Contractor's Statement is determined to be false, the bidder may be disqualified (see 4.5). Refer questions regarding the materiality of data to General Counsel before initiating the disqualification procedure.

Awarding the Contract to Another Bidder. If on the basis of the information contained in the Contractor's Statement the Facility determines that the bidder is not financially or otherwise qualified to perform the contract, the Facility may disqualify the bidder and award the contract to another bidder.

Accountant's Report. If this required report is not provided with the completed Contractor's Statement, or if there are substantial modifications or qualifications in the report, the bid may be

nonresponsive. Refer questions about modifications or qualifications to UC Legal - Office of the General Counsel.

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8.6 EXECUTING THE CONTRACT

After the bidder-signed Agreement and other required bidder submittals are found acceptable, the contract must be executed by the person delegated the authority to execute University construction contracts. All the conditions for execution and award (see 8.1) must be verified before the contract is executed.

8.6.1 Corporate Seal and Attest

The Secretary of The Regents does not presently require a construction contract to bear the corporate seal of The Regents, nor must the signature by the person executing the contract be attested by the Secretary. The seal and attest may be occasionally required by the other party to the contract or by an approving agency to the contract. When so required, submit the executed documents directly to the Secretary.

8.6.2 Digital Signatures

Digital signatures may be used in lieu of manual signatures provided they conform with the requirements set forth in this provision, California Code of Regulations ("CCR") Sections 22000 through 22005 and Government Code Section 16.5. A digital signature is defined as an electronic identifier, created by a computer, intended by the party using it to have the same force and effect as the use of a manual signature.

If a Facility chooses to accept digital signatures, the signature shall have the same force and effect as the use of a manual signature if the form of the signature has the following attributes:
1. It is unique to the person using it;
2. It is capable of verification;
3. It is under the sole control of the person using it;
4. It is linked to data in such a manner that if the data are changed, the digital signature is invalidated; and
5. It conforms to regulations adopted by the Secretary of State.
See Cal. Gov't Code § 16.5; 2 C.C.R. 22002.

Prior to the acceptance of a digital signature, the Facility must adhere to the following requirements:
1. The Facility shall ensure that the level of security used to identify the signer of a document is sufficient for the transaction being conducted.
2. The Facility shall ensure that the level of security used to transmit the signature is sufficient for the transaction being conducted.
3. If a certificate is a required component of a digital signature transaction, the Facility shall

ensure that the certificate format used by the signer is sufficient for the security and interoperability needs of the public entity. See C.C.R 22002

Digital signatures must be created by public key cryptography (“PKC”) or signature dynamics. See C.C.R. 22003

Special consideration must be given to documents requiring public notarization. Bid bonds, payment bonds, and performance bonds cannot be accepted in a digital format.

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8.7 AWARDING THE CONTRACT

After the contract has been executed, award the contract by sending the signed Agreement and other contract documents to the lowest responsible bidder, at this point known as the "contractor." Award the contract prior to the expiration of the bid bond. If the contract cannot be awarded prior to the expiration of the bid bond, request the contractor give written assurance that it will hold its bid good for the necessary additional days needed to award the contract.

8.7.1 Document Maintenance Before Award

A conformed set of the contract documents must be sent to the contractor with the executed Agreement. The conformed set includes all of the items listed in the Agreement. Additional conformed sets to be sent include an Executive Design Professional copy, a copy for the University's Designated Administrator (the individual who will act as University with respect to the Executive Design Professional Agreement), and a record set to the Facility's project file. Additional conformed sets may be required by the Facility.

8.7.2 Custody of Construction Documents

The Secretary of The Regents is the custodian of official records and documents. According to the Secretary, the University's official copy of construction documents and change orders may be retained in the office of, and under the control of, the responsible official at each Facility. This arrangement should be continued and should not be changed without approval by the Secretary.

8.7.3 Reporting the Award to the Office of the President

Capital Project Activity. Capital Project Activity is a system of recording, on a quarterly basis, changes to the budget or schedule of capital projects. The Facility provides to the Office of the President updated information each quarter. It is entered into the computer, collected into an annual system-wide report, and presented to The Regents. The Office of the President verifies the accuracy of the Facility data for conformance with Project Planning Guide (PPG) Approval, Augmentation, and Completion.

Historical Data Base. The Historical Data Base collects historical data for the University's construction experience for facilities over $5 million. The data includes project description,

original budget, bid information, schedule, construction contractor, Facility contact, legal information, and contract dates.

This data base helps the University establish a basis for estimating the cost of new projects and facilitates an exchange of experience between Facilities.

Quarterly Report. For state-funded projects, the Office of the President tracks and reports to State Public Works Board the dollars appropriated, dollars augmented, dollars reverted, and percent completion for each project.

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8.8 EARLY START OF CONSTRUCTION

An "early start" allows a contractor to move onto the project site and do preliminary work prior to contract award. This procedure is sometimes desirable and necessary in the interest of time.

A contractor engaged in preliminary work on a site with the knowledge or acquiescence of the University is an invitee of the University. Subcontractors and their employees who provide labor or furnish materials on the site are invitees of the contractor.

The University has an affirmative duty to exercise ordinary care to keep the premises in a reasonably safe condition for invitees. The University may be chargeable for the negligence of an independent contractor employed to construct the work. An invitee may recover damages from the University for personal injuries or losses of property sustained on the premises if those injuries or losses are caused by the negligent conduct of independent contractors or the dangerous physical conditions of the premises.

When in the best interest of the University, an early start may be permitted provided that:

1. A License for Early Start of Construction (see RD1.10) is executed by both the University and contractor.
2. The contractor furnishes to the University evidence of compliance with all insurance requirements of the contract.
3. All conditions prerequisite to the award have been met (see 8.1).
4. There is no legal restraint or unresolved bid protest (see 9.1).

Chancellors, Laboratory Directors, and members of President's Administrative Council have the authority to execute the License for Early Start of Construction. Authority may be delegated to a lower level at the Facility.

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8.9 NOTICE TO PROCEED

The Notice to Proceed (see RD3.10) is a document added to the contract to start construction. The Facility will issue this notice immediately after the contract has been executed unless a delayed start has been stipulated in the contract documents. The notice instructs the contractor to start work on a specified date and states the number of days available to complete the work and the projected completion date.

If the contractor is notified orally to commence work, the Notice to Proceed shall be issued on the next work day. Confirm the oral notification in the notice. Send the notice by a means that provides proof of receipt.

The Division of Labor Standards Enforcement requires that a copy of the Notice to Proceed be included with the required extract (see DAS PWC-100 Online Application). The surety company also requires a copy of the Notice to Proceed, a copy of the Agreement, and one copy of each of the Payment and Performance Bond.

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8.10 RECORDING THE CONTRACT DOCUMENTS

Recording the contract documents at the County Recorder's Office is not required. The Notice of Completion, however, must be recorded (see 18.5).

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Revised July 8, 2011 (Change No. FM 11-035-C)

Bid Protests

Volume 5, Chapter 9

INTRODUCTION

This chapter addresses how to handle bid protests that arise during the competitive bidding period.

9.1 BID PROTESTS

References:

- Long Form, Instructions to Bidders.

A bid protest may be lodged against the lowest bidder, against the next lowest bidder if the Facility rejects the lowest bid, or against the selection of the lowest responsible bidder. The

required bidder procedures for filing a protest are described in the Instructions to Bidders (see Construction Contract Templates Page). This section describes University procedures for resolving bid protests. (See Bid Protest Procedures Flow Chart.)
The University will complete its internal bid protest procedures before award of the contract.

9.1.1 Filing a Bid Protest

Any person or entity may file a protest related to the selection of a bidder by the University for the award of a contract. The protest must state the specific reasons and facts upon which the protest is based and must be in writing and received by the Facility office issuing the bidding documents, not later than 5:00 pm on the 3rd business day following:

If the Bid does NOT include Alternates: the date of the bid opening.

If the Bid does include Alternates: the date the bid results identifying the actual names of the bidders are posted in a public place.

9.1.2 Facility Review of the Protest

The Facility office in charge of issuing the bidding documents must investigate the basis for the protest, analyze the facts, hold an informal hearing if deemed appropriate, and issue a written decision within 15 days of receipt of the protest unless factors beyond the Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The Facility's decision must state the reasons for the action taken by the University. A copy of the decision shall be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision.

Use the following guidelines for making the decision and writing the decision letter:

1. Verify that statements in the decision letter agree with language in the bidding documents. Repeat the language verbatim, do not paraphrase. Include a reference where found in the Bidding Documents.
2. Assign responsibility for the decision to the Facility administrator responsible for the project. Consult UC Legal - Office of the General Counsel to help make the decision. Do not attribute the decision to the General Counsel (or anyone else).
3. Inform protesters that they have a right to appeal the decision or if the decision upholds the protest. This information requirement is generally satisfied if the Instructions to Bidders is referenced (or, for Design Build, if the RFP is referenced).
4. Send the letter by a means that provides proof of receipt.
5. Include the reasons for the action taken by the University for the denial or upholding of the protest or the rejection of bids.
6. Copy General Counsel, the Chair of the University's Construction Review Board, and the other bidder or bidders.

(See RD1.6 Sample Letter: Bid Protest Decision. Caution: The situations for bid protest decisions vary considerably; adapt this sample letter to the situation at hand.)

9.1.3 Construction Review Board Appeal

For informally bid projects Facility's decision is final and not appealable within the University.

For all other projects:

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

Chair, Construction Review Board
University of California
Office of the President
1111 Franklin Street, 7th Floor
Oakland, CA 94607-5200
Attention: Director, Design & Construction Services

And, by email to:

constructionreviewboard@ucop.edu

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

The Facility must determine the date on which a protestor receives the Facility's written decision on a bid protest because the time within which a bid protest appeal may be filed is measured from that date of receipt. The Facility should contact the protestor to confirm receipt of the decision or send the decision in a manner that will provide confirmation of delivery. (Section 7.2.3)

Hearing on the Appeal.

The Chair of the Construction Review Board will review the Facility's decision and the appeal, and issue a written decision, or if appropriate, appoint a Hearing Officer to conduct a hearing and issue a written decision. If a hearing is held, the hearing shall be held not later than the 10th day following the appointment of the Hearing Officer unless the Hearing Officer for good cause determines otherwise. The written decision of the Chair or Hearing Officer will state the basis of the decision, and the decision will be final and not subject to any further appeal to University.

The Chair or Hearing Officer may consult with the UC Legal - Office of the General Counsel on the decision as to legal form.

Revised March 28, 2013 (Change No. FM 13-003-C)

Contractor Substitution During the Bidding Period

Volume 5, Chapter 10

INTRODUCTION

This chapter addresses how to handle subcontractor substitution situations that arise ***during*** the competitive bidding period.

10.1 SUBSTITUTION OF SUBCONTRACTORS DURING THE BIDDING PERIOD

References:

- Public Contract Code, State of California, Section 4100 et seq., Subletting and Subcontracting Fair Practices Act.

- Substitution Procedures for Clerical Error Flowchart

The University is subject to and follows the requirements of the Subletting and Subcontracting Fair Practices Act (the act):

1. The act prohibits the performance of any work for which a subcontractor was listed by any other person or firm (including the contractor) without the consent of the awarding authority (the University).
2. The act provides for substitution of subcontractors, but limits the situations (grounds) when the awarding authority may consent to a contractor's request to substitute a subcontractor not listed in its bid.
3. The act also establishes procedures for the awarding authority to consent to substitute subcontractors.

The Public Contract Code lists seven grounds for which the University may consent to substitute another entity for a listed subcontractor. Only one of the grounds applies during the bidding process: "When the Prime Contractor demonstrates to the awarding authority, or its duly authorized officer, subject to further provisions set forth in Public Contract Code, Section 4107.5, that the name of the subcontractor was listed as a result of an inadvertent clerical error."

10.1.1 Procedures Applicable to Substitution for Clerical Error

(For substitution requests **not** resulting from clerical error, see 11.5.2.)

When a substitution request is due to an inadvertent clerical error, resolve the request before awarding the contract. If there is any question regarding a claim of clerical error, send the questions and pertinent background data to UC Legal - Office of the General Counsel for advice. Then, review the required contractor procedures stated herein with the contractor.

In order to assert an effective claim of inadvertent clerical error in the listing of a subcontractor, the contractor must, within two working days after the time of the prime bid opening, give written notice of the claimed error to the University and give copies of that notice to the subcontractor claimed to have been listed in error and the intended subcontractor who had submitted bid to the prime contractor prior to bid opening.

Any listed subcontractor who has been notified of the request to substitute by the contractor is allowed six working days from the time of the prime bid opening within which to submit, to the University and to the prime contractor, written objections to the prime contractor's claim of inadvertent clerical error. Failure of the listed subcontractor to file written notice within the six working days is primary evidence of the listed subcontractor's agreement that an inadvertent clerical error was made.

To have the claim of inadvertent clerical error considered by the University, the prime contractor and the intended subcontractor must also, within eight working days from the time of the prime bid opening, submit to the University affidavits (along with such additional evidence as they may wish) affirming that an inadvertent clerical error was in fact made.

Listed Subcontractor Agrees With the Error. If the prime contractor, the listed subcontractor, and the intended subcontractor have submitted timely affidavits, no public hearing is required.

Listed Subcontractor Fails to Make a Written Objection. If timely affidavits are filed by the prime contractor and intended subcontractor, but the listed subcontractor does not submit within six working days written objection to the contractor's claim of inadvertent clerical error, no public hearing is required.

Listed Subcontractor Objects to the Clerical Error. If timely affidavits are filed by the contractor and the intended subcontractor, but the listed subcontractor has, within six working days from the time of the bid opening, submitted to the University and to the contractor written objection to the contractor's claim of inadvertent clerical error, a public hearing must be held. Request a hearing officer to hold a public hearing.

Public Hearing. To set up a public hearing, request a hearing officer from the Office of the President. Make the request in writing, or if the request is made by telephone, follow up with a written request, and attach a copy of all related correspondence. Send a copy of the request and attachments to General Counsel.

The hearing officer working with General Counsel, the Office of the President, and the Facility gives written notice of the public hearing, by a means that provides proof of receipt, to the last

known street address of the listed subcontractor, at least five working days before the date of the scheduled hearing. The hearing officer sends copies of the hearing notice to the contractor, the intended subcontractor, and to General Counsel.

The Facility must consent to the substitution after the public hearing if:

1. The hearing officer determines that an inadvertent clerical error has been made. The determination shall be based on the facts contained in the declarations submitted under penalty of perjury by all three parties and supported by testimony under oath and subject to cross-examination; and
2. The intended subcontractor is acceptable, that is, considered "responsible" (see 4.1, by the University and, if applicable, by the University's Representative. (See RD3.5, Consent to Substitution of Subcontractors.)

10.1.2 Consent Does Not Change the Contract

The Facility should inform the contractor that a consent to substitution or consent to the contractor's performance of the listed work does not entitle the contractor to any increase in the contract sum or an extension of the contract time.

Revised June 21, 2011 (Change No. FM 11-032-D)

Contract Administration

Volume 5, Chapter 11

INTRODUCTION

This chapter discusses administration of the construction contract during the construction phase of a project.

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11.1 CONTRACT ADMINISTRATION RESPONSIBILITY AND POLICY

References:

- University policy: "Capital Improvement Program Management" (see FM1:5.1).

The duties and responsibilities of the University's Representative may include construction contract administration during the construction phase of a project.
University policy is to have contract administration and the role of University's Representative performed by either design professionals or by Facility personnel. (see FM1:5.1). If construction contract administration is performed by the design professional, the services to be performed are described in the Executive Design Professional Agreement and the construction contract documents. If construction contract administration is performed by Facility personnel, outside consultants may be used to provide support services to the University's Representative.

11.1.1 The University and the University's Representative

References:

- Long Form, General Conditions.

In University construction documents, "University" is a contract term meaning The Regents of the University of California. In the *Facilities Manual*, the more common term "University" has been substituted for "The Regents of the University of California" wherever possible.
The name of the University's Representative is identified in the construction contract documents and may be the design professional or a University employee. The term "University's Representative" is used in the construction contract documents even if the "design professional", as that term is referred to in University policy, is fulfilling the role of the University's Representative.

11.1.2 Facility Responsibilities

In addition to the contract administration performed by the University's Representative, the Facility is responsible for administering additional contract duties and responsibilities of the University (The Regents) required by the construction Agreement and the Executive Agreement. The Facility must also administer all University and Facility policies and procedures related to the project. These additional duties and responsibilities of the University are usually administered by University's Designated Administrator who is generally a University employee.

11.1.3 Keeping a Project File

During contract administration, all contract documents, forms, correspondence, and other related records must become part of the Facility's project file (see FM3:6.1).

11.1.4 Administration of Projects Funded by Federal Grants

During contract administration of projects funded by federal grants, the Facility may be required to comply with specific terms and conditions of the grants, especially in the areas of affirmative action, project reports, reviews, payment of Davis-Bacon wages instead of California prevailing wages.

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11.2 PRECONSTRUCTION CONFERENCE (KICK-OFF)

References:

- Long Form, Specifications.

Prior to commencement of the work, the University's Representative holds a preconstruction conference to discuss administrative procedures to be followed during performance of the work. Items typically discussed at the conference include the construction documents, the schedule, communications, submittals, change orders, use of the site, special project requirements, required guarantees, and payment procedures. The following parties are required to attend the preconstruction conference:

- University
- University's Representative
- University's consultants (including the design professional)
- Project Manager
- Fire Marshal
- Police Department
- Environmental Health and Safety
- Contractor
- Contractor's superintendent
- Major subcontractors
- Other parties the University's Representative or University deems appropriate, i.e. Fire Marshal,
- Parking Services, Facilities Management.

Specific project requirements will determine what is discussed and who should attend.

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11.3 SUBMITTALS

References:

- Long Form, General Conditions.

- Long Form, Specifications.

Submittals are those items submitted by the contractor to the University's Representative as required by the contract documents. During construction, submittals may include but are not limited to the following:

- Contract schedule

- Written plans
- Shop drawings, product data, and samples
- Test reports
- Materials and equipment substitution requests
- Certifications
- Mix designs
- Calculations
- Qualifications of installers

The University's Representative is responsible for reviewing and approving submittals, and for maintaining a file of approved submittals.
Before completion of the work, additional submittals are made by the contractor to the University's Representative. These submittals include the following:

- As-built documents
- Maintenance contracts
- Guarantees
- Operating and maintenance data

11.3.1 Schedules

References:

- Long Form, General Conditions.

- Long Form, Specifications.

Two schedules are required by the contract documents: the preliminary contract schedule and the contract schedule. Each is prepared by the contractor and submitted to the University's Representative. If other schedules are deemed necessary, list these schedules in Specifications, Section 01310.

Preliminary Contract Schedule. The preliminary contract schedule graphically shows how the contractor has planned the work activities of the project. The contractor is required to submit this schedule with the signed Agreement. Within 7 days after receipt, the University's Representative reviews the preliminary contract schedule for content. If the schedule is acceptable it is so noted and returned to the contractor for use until the contract schedule is due. If the schedule is not acceptable, the University's Representative makes review comments and returns the schedule to the contractor for appropriate adjustments. Once the preliminary schedule is accepted, the contractor uses it as the basis in developing the contract schedule.

Contract Schedule. The contract schedule graphically shows each work activity, the start and finish time for each activity, the interrelationship of all work activities, and the critical path activities. This schedule is used by the contractor to coordinate the work of subcontractors. It is also used by the University's Representative and University to determine the progress of the work and to determine monthly progress payments. Payment of progress payments is dependent

upon University's Representatives' acceptance of the Contract Schedule. Requirements for the contract schedule are specified in Section 01310. Additional requirements may be added such as cost and manpower loading. The University's Representative also uses the accepted contract schedule to judge the validity of the contractor's claims of delays (see 13.4)
The contract schedule is required to be updated to show actual conditions (see 14.1) including the following:

- The as-built condition of all completed and in-progress work activities.
- All agreed-upon changes and all changes from change orders and field orders.
- Agreed-upon modifications to the methods of accomplishing the work.

The original contract schedule depicts the intent (as-planned) schedule. The updated contract schedule shows both the actual (as-built) and the intent (as-planned) schedule.
The University's Representative is not responsible for approving the contract schedule but must determine its acceptability and determine if the contractor is using the schedule to coordinate the work. The University's Representative is responsible for approving the updated contract schedule.

11.3.2 Shop Drawings

References:

- Long Form, General Conditions.

- Long Form, Specifications.

Shop drawings are drawings, diagrams, schedules, and other data specially prepared for the work by the contractor or a subcontractor to illustrate some portion of the work. Shop drawings are submitted by the contractor to the University's Representative for review and are used in actual construction by the construction team. The contractor is responsible for ensuring that all parts of the work are fabricated and installed correctly and as approved. The University's Representative reviews shop drawings to ensure their conformance with the contract documents.

Submittal Process:

1. Contractor or subcontractor prepares shop drawings (subcontractor submits them to the contractor).
2. Contractor reviews and approves shop drawings for conformance with the contract documents and submits them to the University's Representative.
3. If the University's Representative is the design professional, the University's Representative reviews and stamps the shop drawings. The stamp shows whether the shop drawings are to be revised and resubmitted or if they are acceptable. If the University's Representative is not the design professional, the University's Representative transmits the shop drawings to the design professional for review and acceptance.

During construction, the University's Representative maintains a file containing all approved shop drawings. At the completion of the work, the Facility receives this file from the University's Representative.

11.3.3 Product Data and Samples

References:

- Long Form, General Conditions.

- Long Form, Specifications.

Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the contractor to illustrate or describe materials or equipment for some portion of the work.

Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the work will be judged.

Product data and samples are prepared by the contractor or subcontractor as a package and include technical data from manufacturers and other information proving that specified items meet the requirements of the contract documents. The submittal process for product data and samples is the same as that for shop drawings (see 11.3.2). During construction, the University's Representative maintains a file containing a list of all approved product data and samples. At the completion of the work, the Facility receives this file, along with actual product data and samples, from the University's Representative.

11.3.4 Test Reports

References:

- Long Form, Specifications.

Test reports are written documents prepared by testing laboratories reporting on examinations performed on materials used in the construction (see 12.3). The testing laboratory submits test reports to the University's Representative.

11.3.5 Requests for Substitution of Materials and Equipment

References:

- Long Form, Specifications.

The required standards of quality, utility, and appearance of materials and equipment are established by the use of specific manufacturers' names, catalog numbers, specific brands, or

trade names. Substitutions which are equal in quality, utility, and appearance to those specified may be accepted, subject to the provisions and procedures specified in the Specifications.

11.3.6 Buy Clean California (BCCA) Submittal Requirements: Environmental Product Declarations (EPDs) and Product Category Rules (PCRs)

References:

- **Public Contract Code §3500-3505**
- **DGS BCCA Web Page**
- **Glossary**
- **BCCA Program Page Link**

An *Environmental Product Declaration (EPD)* is a document that reports a product's environmental impact over its life cycle.

The University requires that a facility-specific EPD be submitted to the facility for each eligible material to be used for each eligible project. The University construes "eligible projects" as all construction contracts awarded on or after July 1, 2022, and valued at $1,000,000 or more.

The eligible materials are:

- structural steel (hot-rolled sections, hollow structural sections, and plate)
- concrete reinforcing steel
- flat glass
- mineral wool board insulation

EPDs should align with and use the current ***Product Category Rule (PCR)*** for the specified eligible material. A PCR is a set of rules, requirements and guidelines used to develop an EPD for a product group. See the **Buy Clean California Act Program** for more detailed information.

EXEMPTIONS:

An exemption is a waiver of the Buy Clean California requirement for submittal of an EPD on an eligible material (PCC 3503). The waiver must be based on one of the following circumstances:

- Requiring an EPD would be technically infeasible
- Requiring an EPD would result in a significant increase in project cost
- Requiring an EPD would cause a significant time delay
- Requiring an EPD would result in a one source for the eligible material
- Emergency

The complete definitions of these exemptions are located **here**.

If the Facility intends to claim an exemption, they must:

1. Identify the exemption as listed in the UC Exemption list **here** and
2. Fill out the BCCA Exemption form. Forms provided by UCOP per BCCA Submission Process.

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11.4 ASSIGNMENTS

References:

- Long Form, General Conditions.

The General Conditions prevent the contractor and the University from assigning any of their responsibilities under the contract without the written consent of the other party.
However, the General Conditions require the contractor to assign its interest in first-tier subcontracts to the University, for performance of any part of the work. If the contractor is suspended or terminated, the University may accept assignment of any of these subcontracts and complete the work. At the time of suspension or termination, the University must notify the contractor in writing indicating which subcontracts will be accepted for assignment.

Any decisions concerning assignment are made by the University's Designated Administrator (see definition in Executive Agreement, Design and Consultant Contract Templates). The University's Designated Administrator (1) prepares a document that designates the subcontracts to be assigned and gives consent to the assignment, and (2) obtains the Facility's accounting office report for the project. Both documents must be submitted to the UC Legal - Office of the General Counsel (UCL) for approval prior to execution of the consent document. See Accounting Manual Chapter P-415-6, Section V, Assignment Procedures.

After the consent document is executed, a copy of the original signed document must be submitted to the Facility's accounting office to alert that office that there will be a change in disbursement of funds for completed work. Place the original consent document in the project file and send copies to each subcontractor whose subcontract is accepted for assignment.

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11.5 SUBSTITUTION OF SUBCONTRACTORS AFTER CONTRACT AWARD

References:

- Long Form, General Conditions.

- Public Contract Code, State of California, Section 4100 et seq., Subletting and Subcontracting Fair Practices Act.

The University is subject to and follows the requirements of the Subletting and Subcontracting Fair Practices Act (the act):

- The act prohibits the performance of any work by other than the listed subcontractor (including the contractor) without the consent of the awarding authority (the University).
- The act provides for substitution of subcontractors, but limits the situations (grounds) when the awarding authority may consent to a contractor's request to substitute a subcontractor not listed in its bid (see 11.5.1).
- The act also establishes procedures for the awarding authority to consent to substitute subcontractors.

The Instructions to Bidders requires each bidder to submit a list of first-tier subcontractors (those that have a direct contract with the contractor) who will provide labor, equipment, or materials valued at more than one-half of one percent of the bidder's lump-sum base bid.

11.5.1 Authorized Grounds for Consenting to a Contractor's Request for Substitution

The grounds for which the University may consent to substitute another entity for a listed subcontractor are those in Public Contract Code 4107 which are currently as follows:

1. When the subcontractor listed in the bid, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract for the scope of work specified in the subcontractor's bid and at the price specified in the subcontractor's bid, when that written contract, based upon the general terms, conditions, and drawings and specifications for the project involved or the terms of that subcontractor's written bid, is presented to the subcontractor by the contractor.
2. When the listed subcontractor becomes bankrupt or insolvent.
3. When the listed subcontractor fails or refuses to perform his or her subcontract.
4. When the listed subcontractor fails or refuses to meet the bond requirements of the contractor as set forth in Public Contract Code, Section 4108. Section 4108 states, in part, that the subcontractor must be prepared to submit a Performance and Payment Bond (or bonds) if so requested by the contractor to whom it has submitted a bid.
5. When the prime contractor demonstrates to the awarding authority, or its duly authorized officer, subject to further provisions set forth in Public Contract Code, Section 4107.5 that the name of the subcontractor was listed as a result of an inadvertent clerical error (see 10).
6. When the listed subcontractor is not licensed pursuant to the contractor's License Law.
7. When the awarding authority, or its duly authorized officer, determines that the work performed by the listed subcontractor is substantially unsatisfactory and is not in substantial accordance with plans and specifications, or that the subcontractor is substantially delaying or disrupting the progress of the work.
8. When the listed subcontractor is ineligible to work on a public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code.
9. When the awarding authority determines that a listed subcontractor is not a responsible contractor.

11.5.2 Procedures for Substitution Requests on Grounds Other Than a Clerical Error

(For substitution requests resulting from clerical error, see 9.2.1.)
When a contractor's request for substitution or request to perform work for a listed subcontractor is received, the Facility must give the listed subcontractor prompt, written notice of the contractor's request to substitute and the reason for this request (see RD3.4, Notice of Substitution). Although additional subjects can be added to the notification letter, the following requirements must be met:

1. The notification letter shall be sent to the listed subcontractor by certified or registered mail to the last known street address of the listed subcontractor.
2. A description of the scope of the work to be performed by the proposed substitute subcontractor shall be included in the notification letter.
3. A copy of the contractor's request for permission to substitute or remove a listed subcontractor shall be enclosed with the notification letter.
4. The notification letter shall advise the listed subcontractor that it has five working days from the date of receipt of the notice to submit written objections to the substitution, to the Facility office issuing the letter.

The listed subcontractor's failure to file written objections within five working days is deemed to constitute the listed subcontractor's consent to the substitution.
The contractor's request may be consented to using the Consent to Substitution of Subcontractors (see RD3.5) if (1) the listed subcontractor consents either expressly in writing or by not objecting within five working days, and (2) the proposed substitute subcontractor or the contractor (if the contractor proposed to do the work) is acceptable, that is, considered "responsible" (see 4.1), by the University and University's Representative.

If Facility consents to substitution of subcontractor, then contractor is sent Indemnity Agreement (see RD3.5, Substitution of Subcontractors Indemnity Agreement).

Public Hearing. If the listed subcontractor files timely written objections, the Facility must request a hearing officer from the Chair, Construction Review Board. Make the request in writing or, if the request is made by telephone, follow up the telephone request in writing. Attach a copy of all related correspondence to the written request.

The hearing officer working with General Counsel; the Chair, Construction Review Board; and the Facility gives written notice of the hearing, by a means that provides proof of receipt, to the contractor and the listed subcontractor, at least five working days before the date of the scheduled hearing.

Based on evidence and testimony offered at the hearing, written findings are issued on whether the stated justification for the substitution is an authorized ground and has been substantiated. If an authorized ground is found to have been substantiated, the Facility must consent to the substitution request provided that the proposed substitute subcontractor or the contractor (if the contractor proposed to do the work) is acceptable, that is, considered "responsible," by the University and University's Representative.

If a listed subcontractor has been prequalified, the University shall require that the substitute subcontractor also have been prequalified.

11.5.3 Consent Does Not Change the Contract

The Facility must inform the contractor that a consent to substitution or consent to the contractor's performance of the listed work does not entitle the contractor to an increase in the contract sum or an extension of contract time.

11.5.4 Failure to Specify a Subcontractor

If the contractor fails to specify a subcontractor or specifies more than one subcontractor for the same portion of the work, and that portion exceeds one-half of one percent of the contractor's lump-sum base bid, the contractor must perform that portion of the work as set forth in Public Contract Code, Section 4106.

Exception to this regulation is permitted in cases of public emergency or necessity, and then only after a finding reduced to writing is issued as a public record of the University setting forth the facts constituting the emergency or necessity (Public Contract Code, Section 4109). In these cases, the Facility must contact the UC Legal - Office of the General Counsel by telephone, e-mail, or facsimile, and General Counsel will determine if an emergency or necessity exists.

Another exception to this regulation is permitted for change orders (Public Contract Code, Section 4107[c]). An unlisted subcontractor may be used for change order work if that subcontractor is acceptable to the University and, if applicable, to the University's Representative.

11.5.5 Penalty for Violating Fair Practices Act Provisions

A contractor violating any provisions of the Subletting and Subcontracting Fair Practices Act defaults under its contract with the University, and the University may exercise the option, at its own discretion, of (1) canceling the contract or (2) assessing the contractor a penalty in an amount of not more than 10 percent of the amount of the subcontract involved. The contractor is entitled to a public hearing (see 11.5.2) and five days' prior written notice of the time and place of the hearing before the University can determine which sanction, if any, to impose (Public Contract Code, Section 4110).

If the Facility discovers that work is being performed by someone other than the subcontractor listed in the bid, the Facility must notify the contractor, in writing, of any planned penalty for this violation. In the notification letter, the Facility must inform the contractor of entitlement to a public hearing if the contractor objects to the planned penalty within five working days of receipt of the notification letter. If the contractor does not object to the planned penalty, no hearing is required. If the contractor does object, the Facility must request a hearing officer from the Chair, Construction Review Board.

Occasionally, a violation is discovered during the substitution request process. In these cases, the Facility requests in writing that the hearing officer inform the contractor that penalties will be considered during the hearing. The hearing officer's findings may include a statement that the contractor has violated the provisions of the Subletting and Subcontracting Fair Practices Act, and that the Facility may impose a penalty at its discretion.

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11.6 INSURANCE AND BONDS

References:

- Long Form, General Conditions.

- Long Form, Supplementary Conditions.

- Long Form, Instructions to Bidders.

- Business and Finance Bulletin, BUS-63 Exhibit D, University of California, Office of the Executive Vice President-Chief Financial Officer, Oakland, CA.

The lowest responsible bidder is required to submit, to the University, Certificates of Insurance and bonds required by the General Conditions and Instructions to Bidders. The certificates are part of a package of documents required to be submitted within ten days after the bidder's receipt of the Notice of Selection as Apparent Lowest Responsible Bidder. The certificates must be prepared on the forms required by the University.

The following insurance policies, coverages, and bonds must be furnished by the contractor:

- Payment Bond
- Performance Bond
- Comprehensive or commercial form general liability insurance
- Business automobile liability insurance
- Workers' compensation and employer's liability insurance

11.6.1 Payment Bond

The Payment Bond secures the payment of claims initiated by subcontractors, laborers, mechanics, material suppliers, and other persons, as provided by civil law. Three original bonds are executed. One original is for the contractor, one original is for the Surety, and one is for the University.

11.6.2 Performance Bond

The Performance Bond guarantees that the project will be completed if the contractor is unable to fulfill the requirements of the contract documents. Three original bonds are executed. One

original is for the contractor, one is for the Surety, and one is for the University.

The Facility must contact the UC Legal - Office of the General Counsel if the contractor is unable to complete the contract.

11.6.3 Liability Insurance

Comprehensive or commercial form general liability insurance, business automobile liability insurance, workers' compensation, and employer's liability insurance protect the contractor, University, University employees and consultants, and the University's Representative from claims resulting from accidents and injuries related to the construction of the project.

The Facility's Project Manager records in detail the events leading up to an accident, the conditions at the time of the accident, and a complete description of the accident, damage, and injuries. This report must be submitted to the Facility's risk management office.

11.6.4 Builder's Risk Insurance and Loss Reporting

References:
- Analysis of University of California's Master Builder's Risk Program,September 29, 2011
- Builder's Risk Insurance Instructions
- Builder's Risk Frequently Asked Questions
- Builder's Risk Claim/Loss Notice form
- Long Form, General Conditions

For contracts valued at $300,000 or more, Builder's Risk insurance, excluding earthquake and flood insurance, is provided by the University. The contractor is responsible for any deductible. Once the contractor has been selected for the project, the Facility is responsible for completing the Builder's Risk Insurance Application form. The application must be filed before the Notice to Proceed is issued. **All Builders Risk related forms and templates are now available online at the UCOP Risk Services - Construction Liability & Insurance: Resources website**.

Builder's Risk coverage terminates on the date of Final Completion in the Notice of Completion filed by the University when the construction of the project is complete. (Coverage terminates for a Job Order on the date of Final Completion in the Inspection Acceptance issued by the University, and for all Job Orders on the date of Final Completion in the Notice of Completion for the entire project covered by the JOC contract). Since the date of completion of construction is assumed to be the date initially entered on the application for coverage, it is essential that project managers keep their campus contract administrator, UC Risk Services and the University's insurance broker regularly informed of the status of construction, especially toward the end of the project. Submission of the Request to Extend or Terminate Builder's Risk Insurance at least 10 days prior to the date of termination on the certificate of insurance will prevent an accidental lapse of coverage if construction is not completed by the originally anticipated date and will stop the accrual of premiums if the project is completed early.
A Facility will need to provide evidence of completion of construction when requesting cancellation of Builder's Risk insurance for a project.

For additional information related to Builder's Risk insurance please visit the Construction Liability and Insurance page of the Risk Services website.

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Revised August 29, 2018

Field Administration

Volume 5, Chapter 12

INTRODUCTION

This chapter addresses the administration of and responsibility for activities at the job site, or "field" level. These activities include observation, inspection, testing, and surveying during the construction process. Also discussed are progress meetings, other meetings, and the responsibility for safety in the field.

12.1 FIELD OBSERVATION

References:

- Long Form, Specifications.

Field observation, a duty of the University's Representative, is performed to observe tests and inspections, or to make acceptances required by the contract documents.

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12.2 INSPECTION POLICY AND RESPONSIBILITY

References:

- Long Form, Specifications.
- University policy: "Capital Improvement Program Management" (see FM1:5.1).
- Responsibilities of the Inspector

Inspection differs from field observation in that inspection is detailed examination of the work.

Inspection Policy. University policy states that the Facility determines responsibility for inspection.

Responsibilities of the Inspector. The responsibilities and limitations of inspectors (including special inspectors) are set forth in Division 1 of the Specifications, and in Responsibilities of the Inspector. One of the inspector's duties is to prepare a daily report; the suggested content and format of this report is shown in RD3.3, Inspector's Daily Report.

- If a consultant design professional or another consultant serves as the University's Representative, then that party may, if required by the Executive Agreement (see FM3[II]), provide inspection services.
- If the University's Representative is a Facility employee, then the Facility is responsible for providing inspection services. The Facility may use inspectors from its staff or an inspection agency.

12.2.1 Allocating Inspection Responsibility

Each party to the contract (University, design professional, contractor, construction manager, etc.) shall have clearly defined responsibilities; overlapping responsibilities among these parties must be kept to a minimum.

Overlapping responsibilities may result when the Facility allocates inspection responsibility. When a consultant design professional performs contract administration, and the Facility performs inspection, the design professional supervises, directs, and controls the performance of a Facility employee. Inspection responsibility must be assigned during development of agreements for the design professional, construction manager, and project manager. Specifications, Division 1, specifies the roles and responsibilities of inspectors.

12.2.2 Basic Inspection Staff

The Facility is responsible for determining its necessary inspection staff level. Whether inspection is performed by the Facility or by a consultant, the basic inspection staff provides the Facility with adequate personnel to perform inspection and coordination of inspection of the work. The inspection staff is required to provide daily inspection for each project and to ensure that special inspections are performed as specified in the contract documents.

Guidelines for Establishing the Inspection Staff. Factors to be used by the Facility for establishing the basic inspection staff are:

- Magnitude of hospital work.
- Magnitude of Capital Improvement Program.
- Complexity of the Capital Improvement Program directly related to the complexity of instruction and research programs and the resultant complexity of space.
- Size, diversity, and complexity of the Facility.

- Inspection agency availability.
- Current Facility staff capability.

12.2.3 Geotechnical Engineering and Inspection

Geotechnical Engineer Employed by a Consultant Design Professional. The design professional may employ a geotechnical engineer for:

- Design recommendations and similar professional engineering services.
- Special inspection, field analyses, and test report analyses if during construction the consultant design professional is responsible for inspection.

For such services, the geotechnical engineer is under the direction of and reports to the University's Representative.

The University will pay for inspection services as additional services unless such services are included in the Executive Agreement as Basic Services. Design recommendations and similar professional engineering services are part of the design professional's basic services.

Geotechnical Engineer Employed by the Facility. The Facility may employ a geotechnical engineer for soils investigation, design recommendations and for inspection during construction when the Facility is responsible for inspection services. Use the Professional Services Agreement.

The geotechnical engineer may inspect subsurface conditions, document the contractor's performance for payment purposes, and monitor the quality of excavation, grading, and compaction. The geotechnical engineer's reports are given to the University Representative, with copies to the University. The geotechnical engineer may not direct the contractor, nor approve or disapprove the contractor's work.

The geotechnical engineer must not design foundation changes or recommend details of such changes to the consultant design professional as part of the performance of the consulting agreement with the University.

12.2.4 Hospital Safety Standards and Inspection

References:

- California Code of Regulations, Title 24, California Building Standards Code, all applicable parts.
- California Code of Regulations, Title 24, Part 1, Building Standards Administrative Code, Chapters 6 & 7.
- California Code of Regulations, Title 22, Division 7, Chapter 1, Sections 90001 - 97772.
- Health and Safety Code, Sections 129675 - 130070, known as the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983.
(To access the above Health and Safety Code reference, please go to the Table of Contents

for the California Health & Safety Code)
- Long Form, Specifications.

The Health and Safety Code requires the Department of Heath Care Access and Information (HCAI) to be responsible for the enforcement of building standards related to hospital buildings. This includes plan checking and inspection of the design and details of architectural, structural, mechanical, plumbing, and electrical systems, and the observation of construction.

The Facility must meet the requirements of the Hospital Seismic Safety Act and make the necessary arrangements for inspections with HCAI.

HCAI requirements include:

- HCAI designation of the inspector. The Facility must submit the inspector's name and qualifications to HCAI for approval.
- Submittal of a quarterly verified report by the inspector to HCAI. This report must also be submitted by the design professional, the design professional's consultants listed in the Project Directory, and the contractor.
- HCAI issuance of a special HCAI Building Permit. The University or University's Representative completes and submits the permit.
- Submittal of a Licensed Contractor's Declaration. The University's Representative has the contractor complete the declaration form and forwards the form to HCAI.
- Submittal of special Change Order Approval forms. The University's Representative completes the forms and obtains signatures of the design professional, structural engineer, general contractor, and University. The University's Representative must then obtain HCAI approval before making the changes.
- Deferred approval of certain items for structural calculations and design prepared by contractor. These items are usually specified by performance specifications and are therefore not reviewed and approved by HCAI during the design submittals. The University's Representative makes these submittals for the contractor. The Specifications may require contractor to submit to HCAI and obtain necessary approvals on contractor designed portions of the work.

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12.3 TESTING

References:

- Long Form, Specifications.

Services of a Materials Testing Laboratory. Materials furnished under construction contracts are subject to inspection and testing by a materials testing laboratory for compliance with contract requirements. All such inspections and tests of materials are made in accordance with applicable American Society of Testing and Materials standards or other procedures set forth in the Specifications.

Payments for Testing. Specifications, Section 01400, states that the University pays for all tests and inspections made by the University's testing laboratory, and the contractor pays for all tests and inspections made by the contractor's testing laboratory. The Specifications must clearly indicate whose testing laboratory will perform the testing and inspection. Exceptions to this requirement would include additional testing services provided by the University for reasons listed below under "Additional Testing."

Testing and Inspection Services by the University. In general, the University as required by the Specifications and with advice from the design professional provides testing and inspection services by a materials testing laboratory during the construction phase. Such services are performed under the Professional Services Agreement (see FM3[II]).

Laboratories submit all testing and inspection reports directly to the University's Representative. The University's Representative distributes copies to the University, University's consultants, and the contractor. The University's Representative judges the acceptability of all reports including methods used, results, and content.

Additional Testing. Specifications Section 01400, Article 4, states that if additional testing and inspection costs occur because the work or materials fail to meet contract requirements, then all costs for additional tests and inspections relating to an occurrence that is determined to be the contractor's responsibility shall be deducted from the contract sum by change order.

Testing and Inspection Services by the Contractor. Certain classes of materials testing and inspection may be provided by the contractor. Such cases are limited to quality control testing in manufacturing plants (including reinforcing and structural steel, concrete, and manufactured items) and certain field testing such as performance testing of mechanical and electrical systems.

Testing provided by the contractor is performed by manufacturers, testing agencies, or the contractor's field forces as appropriate. The Specifications must clearly indicate tests to be provided by the contractor. If testing is the responsibility of the contractor, means, methods, results and report contents must be specified in each applicable technical section of the Specifications. The University's Representative judges the acceptability of all testing performed on behalf of the contractor.

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12.4 SURVEYING

References:

- Long Form, General Conditions.

University Responsibilities. The University is responsible for hiring a surveyor to establish the horizontal and vertical controls, as shown on the project site plan. Additionally, the University's Representative may request the University to make available a survey describing the known physical characteristics, boundaries, easements, and utility locations of the project site.

Contractor Responsibilities. The contractor is required to take field measurements and carefully compare the contract documents with such field measurements. Individual Specifications sections may also require the contractor to make special surveys, for example, to check the vertical alignment of a steel frame.

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12.5 PROJECT PROGRESS MEETINGS

References:

- Long Form, Specifications.

Project progress meetings are held to discuss and resolve issues concerning contractor's Application for Payment, Submittals, field problems, construction schedule and other items as appropriate to the Project. The University's Representative organizes and conducts project progress meetings.

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12.6 RESPONSIBILITY FOR SAFETY

References:

- Long Form, General Conditions. - Long Form, Specifications.

The contractor is solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the contract. The contractor must take necessary precautions for safety and provide protection to prevent damage, injury, or loss to the following:

- Persons involved in the work or who may be affected by the work.
- The working place and materials and equipment to be incorporated therein.
- Other property at the project site and adjoining property.

Specifications, Section 01060, requires the contractor to comply with Federal Occupational Safety and Health Administration regulations and the California Health and Safety Code.

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Change No. 12-005-D (Revised May 22, 2012)

Contract Modifications

Volume 5, Chapter 13

INTRODUCTION

Contract modifications are changes in the work required during construction. This chapter discusses the means of accomplishing these changes:

- Field orders
- Change orders

Guidelines for approving substantial change orders and granting time extensions are also given.

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13.1 FIELD ORDERS

References:

- Long Form, General Conditions.

If a change in the work must be accomplished before the University and contractor agree upon all terms of the change, a field order describing the change in the work scope and estimated contract sum and contract time adjustments, if applicable, may be issued by the University with or without the contractor's agreement.

Field orders are used only when (1) emergency conditions exist where life or property are endangered, (2) the extent of the work cannot be determined due to unknown conditions, or (3) a delay in proceeding with the work would affect the critical path and cause a delay to the entire Project. Field orders are not to be issued when the scope of the work and an estimated cost can be determined. A Change order or a directed change order must be used instead.

The contractor is required to promptly proceed with a field order. If the contractor does not agree with the order and does not sign it, the University's Representative must adjust the contract sum and contract time based upon back-up documentation provided by the contractor to justify actual costs and time, if applicable. A field order contains a statement that it shall be superseded by a change order that includes the actual adjustments, if any, to the contract sum and the contract time, as well as the change in the scope of the work.

13.1.1 Payment for Work Directed by a Field Order

References:

- Long Form, General Conditions.

When a contractor is directed by a field order to perform work, payment is made for the actual cost of the extra work plus a contractor fee in accordance with General Conditions, Subparagraph 7.3.5.4; however, payment cannot be made until a change order is issued incorporating that field order.

Field orders must be incorporated into change orders at the earliest possible time in order not to delay payment to the contractor. When the extra work on a field order extends over a lengthy period of time—more than one month the Facility converts the field order by issuing a "not to exceed price" change order. This special type of change order will allow the contractor to be paid for actual costs with the normal monthly progress payments.

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13.2 CHANGE ORDERS

References:

- Long Form, General Conditions.

A change order is a post-award modification to the contract. A change order may revise, add to, or delete previous requirements of the work, adjust the contract sum, or adjust the contract time.

By signing a change order, the contractor agrees to the cost and time, if applicable, of the contract modification; however, the University has the right to order changes in the work by issuing a field order (see 13.1). Change orders are not to be used in pre-award negotiations to negotiate a change in the scope of work, contract sum, or contract time. Change orders may not be executed until the contract has been signed by the University and contractor.

Expected market rate for worker's compensation (WC) on a Change Order (CO) can be calculated using the following formula:

Expected Rate = Current approved WCIRB (Workers Compensation Insurance Bureau of California) base rate by class code X contractor's EMR (Experience Modification Rate) X 1.1.

WCIRB publishes approved rates by class code for all trades twice a year; these rates can be obtained from Campus Risk Management. EMR for a contractor can be verified at www.compline.com, for a fee. Alternatively, a campus may request the Compline EMR report from a contractor with their Change Order Request.

To expedite payment to the contractor, a directed change order may be issued by University without contractor's signature.

13.2.1 Cost Proposals

References:

- Long Form, General Conditions.

Before a change order can be prepared, the cost of the change must be determined. Four methods are used to determine the cost:

- Unit prices listed in the construction Agreement.
- Agreed-upon unit prices.
- Agreed-upon lump sum supported by a Cost Proposal.
- Actual cost plus a contractor fee.

When requested by the University, the Cost Proposal form, or an approved version thereof, must be used by the contractor. Instructions for the contractor are included on the form. The contractor's fee, which includes overhead and profit, is defined in the Cost Proposal and in General Conditions, Subparagraph 7.3.4. The University's Representative is required to review and recommend the submitted proposal.

Agreed-Upon Lump Sum Supported by a Cost Proposal. General Conditions, Subparagraph 7.3.5.3, authorizes compensation for extra work by a lump sum agreed upon by the University and the contractor. The lump sum proposed must be determined to be fair and reasonable. Require the contractor to provide an estimate with detailed backup using the Cost Proposal contained in the Exhibits.

Actual Cost Plus Contractor Fee. General Conditions, Subparagraph 7.3.5.4, authorizes compensation for extra work based on actual cost plus a contractor fee. The contractor is paid for the actual time spent by the contractor's employees and subcontractors and the materials they actually used. In addition, the contractor is paid for overhead and profit. The contractor is required to keep daily records of its actual costs, and submit them on a weekly basis for approval by the University's Representative.

This compensation method is used when the University and the contractor cannot agree on payment based on unit prices or a lump sum. In these cases, the University orders the work to be performed by issuing a field order (see 13.1). The field order must stipulate a "not-to-exceed price."

Unit Prices. General Conditions, Subparagraphs 7.3.5.1 and .2, authorize compensation for extra work based on unit prices stated in the construction documents or agreed-upon by the University and the contractor. This compensation method is used when the cost of a procedure can be estimated, but the quantity cannot be determined prior to beginning work. For example, if the contractor is required to perform excavation for a building foundation, the contractor may be required to excavate until the soil encountered is of specific physical properties. In this case, the contractor knows the cost of removing a unit of soil, but does not know how much soil will be removed before the excavation operation is considered complete.

The unit-price method of costing is usually anticipated before the project goes out to bid. Unit price amounts are usually stated in the Bid Form; however, unit prices may also be agreed upon during construction. The contractor's overhead and profit are included in unit-price figures.

13.2.2 Change Order Execution

After the Facility Project Manager reviews and recommends the change order, and the accounting office verifies sufficient funds are available, and the University's Representative recommends the change order, it is sent to the contractor for acceptance. After receipt of the signed change order from the contractor, the Facility approves the change order. Executed change orders are then distributed to all signature parties. The original and all backup is placed in the project file. (See 13.2.10 for restrictions on executing certain change orders.)

13.2.3 Change Orders and Beneficial Occupancy

References:

- Long Form, General Conditions.

According to General Conditions, Paragraph 9.6, the University may occupy and use part or all of the project prior to its completion. If this "Beneficial Occupancy" is taken, a Certificate of Beneficial Occupancy is required (see 17.1).

13.2.4 Change Orders and the Notice of Completion

Change orders may be issued to adjust the contract time or contract sum after the Notice of Completion (see 18.5) is filed. Such change orders must not change the scope of the work because the Notice of Completion represents that all work is complete. Work includes receipt of as-built documents, guarantees, manuals, and all required submittals.

13.2.5 Contractor Disapproval of Change Orders

References:

- Long Form, General Conditions.

The contractor may not agree with the content of a change order and, therefore, may refuse to sign the order. The Facility may issue a directed change order without contractor's signature when the Facility determines it is in it's best interest for the contractor to receive an adjustment of the contract sum or the contract time, as Facility believes to be properly due contractor, even though no agreement has been reached between the contractor and the Facility.

Promptly reject any attempted qualification the contractor adds to its agreement to the terms of a prepared change order on the face of the change order or in an accompanying letter. In unusual circumstances, General Counsel will provide language for accepting a qualified change order.

13.2.6 Substantial Changes to the Work After Contract Award

Substantial changes to the work may be required after contract award. If such changes are known during bidding—and their design is complete – use alternates that are exercisable for a stipulated period of time after award (see 13.2.9). If the design of the substantial change is not final and cannot be bid as an alternate, the substantial change may be accomplished as a change order only if the conditions of [II]:3.2.7, below, are met.

13.2.7 Guidelines for Substantial Change Orders

Additive Change Orders
If the cost of a change in the scope of work to be accomplished by a change order or series of change orders exceeds $100,000, or if the proposed changes in design are not incidental to the scope of the work as bid, the work may not be performed by change order unless it can be convincingly demonstrated that no advantage would be gained by conducting an advertised bid for the work. Breaking down an addition to the work such that it falls below the $100,000 for the purpose of avoiding the substantial change analysis is not acceptable. Also, note that changes to the work known after the bid date but prior to award are generally not acceptable because of the appearance of a non-competitive bid process. Changes made to Design-Build, Unit Price, Cost Plus and CM at Risk contracts have particular exceptions to the $100,000 threshold.

It is the Facility's responsibility to document the rationale for a substantial change order. The written justification for the substantial change order shall identify the primary factors supporting the decision to proceed by change order. In addition to the primary factors, all of the following factors also must be considered in the written justification to determine if a change order is justified.

- COST – Will competitive bidding save money? To what extent will site conditions, storage, limited accessibility, etc. restrict interest of bidders for new work if the new work is bid as a separate project and thereby increase cost?
- REWORK – To what extent will rework be necessary to coordinate with new work? Will competitive bidding of new work affect the University's ability to obtain correction of deficiencies in specialty work or integrated systems due to a division of responsibilities?
- INCIDENTAL – Is the new work incidental to existing work? A change order is inappropriate if there is a significant difference in function or in the programmatic features or additions to the as-bid design.
- SCHEDULE – To what extent will competitive bidding of the new work affect the existing/current schedule? To what extent will competitive bidding of the new work affect use of the completed space if the new work is competitively bid either during the performance of the existing contract or later?

Additive Change Orders to Design-Build, Unit Price and Cost Plus contracts
Change orders exceeding $100,000 to Design-Build, Unit Price and Cost Plus contracts are expected as a matter of course to assign detailed scope and costs to the contractor. These change orders typically involve scope clarifications and cost accounting; they do not increase the total

cost of the contemplated contract as bid. Such a change order is substantial but is automatically justified if the scopes of the work and the cost have already been appropriately competitively bid through the contractor selection process or otherwise. The Facility must document the change in the Project File, noting that it is a function of the delivery method and is within the contemplated cost and scope. However, if the change alters the programmatic scope or the total contemplated cost or if the change is not incidental to the scope of the work as bid, then the change is substantial and is not automatically justified. The factors listed above must be used to determine if proceeding with the change as a Change Order is justified.

Additive Amendments/Change Orders to CM at Risk contracts

- Prior to award of bid package: Bid-packages (in phase 2) for CM at Risk contracts most commonly exceed $100,000 and are executed as Amendments and not Change Orders. This is a matter of course when assigning detailed scope, schedule and costs of the bid-packages to the contractor. The Amendments are substantial and justified because the work is competitively bid by the CM Contractor following University competitive bidding rules and procedures. The contractor's fee to assume responsibility and risk of this work is included in the CM at Risk contract.

- After award of bid package: However, if a substantial change associated with a particular scope of work of a bid package is proposed after award of the contract for that bid package, the change must be evaluated as any typical change order would be, and the factors listed above must be used to determine if proceeding with the change as a Change Order is justified.

- Increase in the CM's fee: At any time, an increase of $100,000 or more in the CM's fee is a Substantial Change and must be justified in accordance with the requirements of this section 3.2.7 to be implemented as a change order. The use of an independent design professional, cost consultant, construction scheduler, or contractor may be appropriate to document the justifications for proceeding with a substantial scope change by change order. A proposed additive substantial change order and the adequacy of the justification for using a change order instead of competitively bidding the work may be discussed with the Office of the President and UC Legal - Office of the General Counsel.
  It is the responsibility of the facility to maintain a written record as part of the contract file of the facts and conditions which justify the determination that the change order is justifiable in accordance with the factors above.

Deductive Changes. A proposed change order that will delete substantial portions of the work does not require justification as to competitive bidding but does require review as a change to the scope of work (see section 3.2.8 below).

Delay Cost Considerations. The possibility of contractor claims for reimbursement of indirect costs (e.g, extended overhead and loss of efficiency) because of the impact of a proposed change order on the work is evaluated by the Facility. Such an evaluation is especially pertinent if the cumulative value of contract sum adjustments exceeds or will exceed 5 percent of the original

contract sum, or if the project is already significantly behind schedule, and completion would be further delayed by the proposed change order.

A change order which extends the contract time, when the contractor is already subject to Liquidated Damages due to delay in completion of the project, will forfeit the University's right to collect Liquidated Damages based upon the original contract time (see 13.4.1).

13.2.8 Change Orders Changing the Scope of Work

Certain steps must be taken prior to approving a change order which changes the formal scope of work for a capital project. A "change to the scope of work" is defined as any change that alters the programmatic capability or requirements as delineated in the project's approval document (e.g., Project Planning Guide, state-approved Preliminary Plans or Working Drawings).

Scope of Work Changes. Examples of changes to the scope of work include (1) significant changes to assignable or gross square feet, (2) number of housing units or classroom seats to be provided, and (3) functional capacity (e.g., sewer, electrical, or mechanical). Examples of what are not considered changes to the scope of work include (1) "technical" changes (e.g., unforeseen site conditions, errors in existing as-builts that require additions or revisions to work); and (2) requests for information from the contractor which require changes to the contract documents. Questions concerning scope changes should be addressed to the Office of the President for clarification.

State-Funded Projects. Change orders that change the scope of work are not permitted for state-funded Major Capital Improvement projects unless authority has been granted by the state, as coordinated through the Office of the President. For state-funded Minor Capital Improvement projects, the project description should be revised and forwarded to the Office of the President for approval.

Non-State-Funded Projects. For non-state-funded projects, the appropriate approval body must be notified. In the case of Chancellor-approved Minor and Major Capital Improvements, a Facility approval process should be in place. For both Regents and Office of the President approved projects, the change in scope must be forwarded to the Office of the President for information required and approval.

In all cases, should the most recently approved Capital Improvement Budget require a budget augmentation due to the change order, the appropriate budget augmentation request procedure must be followed (see FM3).

13.2.9 Change Orders for Post-Award Alternates

Post-award alternates are alternates that the University may accept after award of the contract (see 17.3.2). Alternates are listed in the Agreement by number, price, and time required for acceptance. The alternate's scope of work must be described in Specifications, Section 01100.

Post-award alternates are accepted and added to the contract by change order. Contractual conditions are not changed. Track the time limits for accepting post-award alternates, as listed in the Agreement. If a time limit expires, the contractor is not obliged to accept the change order.

Alternates which do not stipulate a delayed time for acceptance may not be incorporated by change order.

13.2.10 Authority Needed to Negotiate and Execute Change Orders

The Facility may negotiate and execute a change order if the cost of the change is within appropriated funds and if the conditions below are met. If the new contract sum, including the cost of the change order, is in excess of appropriated funds, contact the Office of the President to obtain specific authorization by Resolution of The Regents.

- Before a change order is issued that changes the exterior appearance of a building design previously approved by The Regents, the proposed exterior changes must be submitted to The Regents for approval.
- Approval from the Office of the President is required when a change order alters the scope of a major capital improvement project or the description of a minor capital improvement project (see 13.2.8).

13.2.11 Contingency Use

Use

Contingency (line 9 of the Capital Improvement Budget) is a reserved portion of the project budget intended to cover unforeseen costs that arise during the construction phase. The contingency is used to address change orders and is based on the total construction (hard) costs—Site Clearance (line 0), Building (line 1), Exterior Utilities (line 2), and Site Development (line 4)—as well as the complexity of the project. Contingency funds are not intended to cover cost overruns resulting from poor planning, estimation errors, or avoidable delays.

A construction contingency is included in the budget so the project can proceed with minimal interruption due to modest cost overruns or non-scope changes. Typical contingency uses include addressing inconsistencies in soils or foundation conditions, unknown building conditions, or potential delays during construction. Generally, the project manager has the authority to approve the use of contingency funds.

Guidelines

Contingency should be used in a transparent manner, with clear documentation and approval protocols. The use of contingency funds must be supported by project documentation such as change orders. The following cost items should be considered in the construction contingency (line 9):

- Potential inconsistencies in soils or foundation conditions

- Unknown conditions in existing buildings
- Potential for delay during construction
- Other contingency considerations based on project complexity and risk factors

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13.3 MODIFICATION OF CONTRACTUAL CONDITIONS

When a modification of contractual conditions is desired as distinguished from a change in work scope, contract sum, or contract time the modification is made by change order. Refer such change orders to UC Legal - Office of the General Counsel for approval.

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13.4 TIME EXTENSIONS RESULTING FROM DELAYS

References:

- Long Form, General Conditions.
- Long Form, Specifications, Section 01310.

The contract time may be extended by the number of calendar days that certain causes or events prevent work from being completed. All time extensions are granted by means of a change order (see 13.2). Space is provided for stating the adjustment of contract time, if any, on the Change Order form.

General Conditions, Article 8, authorizes the granting of an extension of time for delays in completion if six conditions are met.

To be eligible for a time extension for delay, the contractor must submit a Change Order Request (see Long Form, General Conditions, Article 4) to the University's Representative within 3 working days from the date on which a delay begins. The University's Representative is required to determine whether the cause or event identified in the request will prevent the project from being completed by the completion date (as adjusted) and, if so, the number of calendar days that the contract time is extended.

Time extensions may need to be granted for delays to completion resulting from ordered changes in the work.

Allowable Delays. Delays caused by conditions beyond the contractor's control and without the fault or negligence of the contractor may entitle the contractor to an extension of contract time. These delays are:

- Fire.
- Strikes, boycotts, or like obstructive actions by employees or labor organizations.
- Acts of God.

- A man-made unforeseen site condition.
- An error or omission in the contract documents.
- The University's change of scope of the work.
- The University's decision to suspend the work.
- The failure of University or University's Representative to timely perform any contract obligation.

Non-Allowable Delays. Delays of the completion of the work beyond the expiration of the contract time and resulting from causes other than those listed under "Allowable Delays," above, or "Compensable Delays," below result from causes under control of the contractor. Non-allowable delays are:

- A naturally occurring unforeseen site condition.
- The financial inability, misconduct, or default of the contractor, a subcontractor, or supplier.
- The unavailability of materials or parts.

Compensable Delays. Compensable delays are events caused by the negligence or acts of the University, its employees, or of the University's Representative. These delays may entitle the contractor to an adjustment of the contract time and the contract sum. Examples of compensable delays include, but are not limited to, the following:

- Change in the scope of the work.
- Errors or omissions in the contract documents.
- Lack of timely direction, problem resolution, or approvals by the University's Representative.
- Stopping the work for University's convenience.

Compensation for delays is limited to adjustments to the contract sum as determined by General Conditions, Article 7.

13.4.1 Guidelines For Granting Time Extensions Resulting From Delays

References:

- Long Form, General Conditions.

In general, a delay is an occurrence that stops or detains the work for a period of time. Some delays adversely affect work completion, and an extension of the contract time may be granted. Other delays either do not affect work performance, do not prevent timely completion, or may be the responsibility of the contractor, and a time extension must not be granted (see 13.4).

The University's Representative is designated as the initial interpreter of the contract documents. The University's Representative, therefore, determines whether a timely request for a time extension has been made and, if so, whether there has been cause for delay. The University's

Representative then determines if a time extension may be granted and the length of the extension.

Use the following guidelines to evaluate proposed time extensions:

1. To be eligible for a time extension, the contractor must submit to the University's Representative a written change order request for a stipulated time extension within 3 working days of the beginning of a delay. If the University's Representative approves the contractor's request, a change order that adjusts the contract time is issued.
2. Any extension of time relieves the contractor from the assessment of liquidated damages for the period of the time extension (see 15.6).
3. To be eligible for a time extension under General Conditions, Article 8, the contractor must meet the six conditions listed in General Conditions, Subparagraph 8.4.1. These conditions are:
    a. When the event causing the delay commences, the contractor has complied with all the contract requirements.
    b. The delay is critical.
    c. The delay is supported by the contract schedule.
    d. The contractor submits a change order request within 3 working days of the date the contractor discovers the cause of the delay.
    e. The delay is not caused by any of the three causes listed in 13.4, "Non-Allowable Delays."
    f. The delay is caused by one or more of the eight causes listed in 13.4, "Allowable Delays."
4. If two or more events occur at the same time and delay the work, the contractor may be entitled to a time extension unless the contractor is responsible for all the events. If a delay that is the contractor's responsibility occurs concurrently with a delay that is the University's responsibility or that is not the responsibility of either party a time extension may be granted to the extent of the duration of the excusable delay. A time extension granted for concurrent delays cannot be computed consecutively in any case.
5. If strikes, boycotts, or like obstructive actions not caused by any act or conduct of the contractor delay a work activity on the critical path schedule, a time extension may be granted. The fact that a trade strikes during the course of work is not an automatic ground for a time extension. For example, if elevator workers go on strike for 30 days during the middle of a two-year project, but the strike does not affect a work activity on the critical path schedule, a time extension is not to be granted.
6. A shortage or delayed delivery of materials is not an authorized ground for a time extension unless the shortage or delay was caused or contributed to by the University.
7. The contractor may be granted a time extension if a change in the scope of the work adversely affects a work activity on the critical path schedule of the contractor.
8. The contractor may be granted a time extension if Beneficial Occupancy (see 17.1) adversely affects a work activity on the critical path schedule or prevents the completion of the work as scheduled.
9. The contractor may be granted a time extension if the work of another contractor, under separate contract with the University, adversely affects a work activity on the critical path schedule of the contractor.

10. If a work activity on the critical path schedule is delayed by a denial of site access, lack of timely approvals or the like, the contractor may be granted a time extension for the period of effect of such a delay. Delays caused by the contractor or subcontractors cannot be the basis for a time extension.
11. The contractor may be granted a time extension if a work activity on the critical path schedule is delayed by errors or omissions in the contract documents or by lack of timely direction, problem resolution, or approval by the University's Representative.
12. Minor field changes, instructions, or clarifications cannot be the basis for a time extension unless the change extends the critical path past the completion date.
13. The contractor may be granted a time extension if alternates quoted in the bid form are exercised after the contract is awarded, and such alternates include adjustments of the contract time.

Document the effective date and length of a delay to prevent the possible overlapping of time extensions from various causes. Effective dates of time extensions granted are extremely important information in the event that disputes arise about alleged delays or the timely completion of the work. Grant an extension of time for only the period of effect of a delay, and if two delays occur on the same date, grant only one calendar day of time extension.

Arriving at a New Completion Date. The contract time is based on calendar days. General Conditions, Article 14, implies that the work normally be performed only on weekdays. The total number of days required to complete the work is therefore determined by estimating the number of workdays (weekdays) and then by adding intervening Saturdays, Sundays, and holidays.

The completion date would then be determined by adding those calendar days to the previous completion date. For example, if the original contract time is 365 days, and the scope of the work was increased by change order that took the contractor six working days to perform, the time extension granted would be for eight days, and the new completion date would be determined by adding those eight days to the previous completion date.

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13.5 TIME EXTENSIONS RESULTING FROM FACTORS OTHER THAN DELAYS

References:

- Long Form, General Conditions.

General Conditions, Paragraph 7.2, provides for adjustments in the contract time for work covered by a change order (see 13.2).

A time extension may result from a claim made by the contractor as stated in General Conditions, Paragraph 4.3. The University's Representative makes decisions on such claims, and a time extension may be granted as a result of the University's Representative's interpretations or decisions required by the provisions of General Conditions, Paragraphs 4.4 and 4.5.

Either the contractor or the University may appeal the University's Representative's decision on a claim. The appeal may go to mediation, arbitration, or litigation (see 16). The arbitrator or court may award a time extension, or may increase or decrease given time extensions.

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Revised October 5, 2012 (Change # FM 12-013-P)

Project Monitoring

Volume 5, Chapter 14

INTRODUCTION

The dictionary defines "monitoring" as (1) checking systematically or scrutinizing for the purpose of collecting specified categories of data, and (2) keeping watch over; supervising.

The above meanings apply to project monitoring of University construction projects. The extent of needed project monitoring is determined by the Facility. Except for the contract schedule, which is monitored by the University's Representative, project monitoring is mainly performed by the Project Manager.

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14.1 MONITORING THE CONTRACT SCHEDULE

References:

- Long Form, General Conditions.

- Long Form, Specifications.

Specifications, Section 01310, requires the contract schedule to be updated monthly by the contractor; therefore, the contract schedule becomes a tool to monitor the progress of the work. By looking at an approved updated contract schedule, the University's Representative can determine the approximate state of completion of each portion of the work.

Another important use of the contract schedule is for analyzing the validity of delay claims (see 13.5). General Conditions, Paragraph 8.4, provides for extension of contract time for delays in progress of the work. A current updated contract schedule allows the University's Representative to determine if a delay is in an activity that will actually delay the completion of the project.

The contract schedule is also used to compare the actual construction time to contract time, and the schedule is used for evaluating the percentage of completed work activities when the Facility processes the contractor's monthly Application for Payment (see 15.3).

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14.2 WAGE GUIDELINES AND STATUTORY REQUIREMENTS

References:

- California Labor Code, Sections 1771 through 1775, 1776, 1777, 1777.1, 1777.5, 1777.7, and 3077.
- California Code of Regulations, Title 8, Chapter 8, Subchapter 4 - Sections 16423, 16433, 16450 and Subchapter 4.5 – Sections 16450-16455
- Long Form, General Conditions and Supplementary Conditions, Article 14.

The University applies provisions of the California Labor Code to certain University construction and maintenance contracts pursuant to the Guidelines below. Two items in the code, "Prevailing Wage Rates" and "Apprentices," are set forth in General Conditions and the Supplementary Conditions, Article 14.

14.2.1 Prevailing Wage Rates and Fair Wage

References:

- "University of California Guidelines for Payment of Prevailing Wage Rates on Construction and Maintenance Contracts," December 9, 1993.

Guidelines for the Payment of Prevailing Wage Rates on Construction and Maintenance Contracts. The requirements for payment of prevailing wage rates on construction and maintenance contracts for public works projects are defined by Section 1720 et seq. of the California Labor Code. The University, in certain situations, must require the payment of prevailing wage rates on construction and maintenance contracts. The University also requires the payment of prevailing wage rates in some other situations where an exemption from the prevailing wage requirements could be claimed. These guidelines set forth when the University will require the payment of prevailing wage rates.

The following guidelines apply to all construction and maintenance contracts exceeding $1,000 located in the state, and involving the University:

1. The University will require payment of prevailing wage rates by contractors and subcontractors on construction and maintenance contracts:
    a. Contracted for using University contract documents, or any other contract documents, and for which any portion of the funds are furnished by the state.
    b. Paid for with funds not furnished by the state and contracted for using University contract documents.
    c. Contracted for without using University contract documents; but the University owns the underlying land and the University is the manager of the project.
    d. The University will be a lessee using more than 50 percent of the assignable square feet of the project in which the construction will be performed regardless of the source of funds, land ownership, or contract documents used.
2. The University will not require payment of prevailing wage rates by contractors and subcontractors on construction or maintenance contracts undertaken by developers on Facility land or on property of The Regents, including inclusion area land, where the project cannot, in the sole determination of the responsible University administrator, be constructed economically or practically if the payment of prevailing wages is required, and where either of the following conditions exist:
    a. The cost will be paid entirely by non-state funds furnished principally by students, faculty, staff, hospital patients, outside corporations, or donors or where the construction or maintenance contract is funded by loans which will be repaid by any of the above.
    b. The project is built for sale or lease to students, faculty, or staff without any funds being furnished by the state.
3. Upon an appropriate showing of exceptional need, the University's Executive-Chief Financial Officer may authorize an exception to the prevailing wage requirements of these guidelines that permits a construction or maintenance project to proceed without the payment of prevailing wages.
4. As used herein, a contract will be considered a construction contract only if its performance requires a license under California's Contractor's License Law.

Requirements When the University Must Pay or Agrees to Pay Prevailing Wage Rates. Wage rates are made a part of the contract by reference to a wage scale in the General Conditions. A copy of the current wage schedule is to be kept on file and available for inspection in the Facility's facilities management office.

The director of the California Department of Industrial Relations (DIR) is responsible for determining the general prevailing wage rate of per diem wages ("wage rates"). Each Facility must research the appropriate prevailing wage rates by contacting the DIR and/or referring to the DIR website. For additional information regarding the appropriate prevailing wage determination for a UC project, see 3.5.2.

Monitoring of Prevailing Wage Rates. The University is not required to monitor the contractor's payment of prevailing wage rates, except during projects funded in whole or in part by bonds issued by the State of California, as described below. The monitoring process is usually performed by labor unions or others. However, if the University requires the payment of

prevailing wage rates, random checks must be made to determine if the contractor is meeting the contract requirements.

If a complaint is received regarding contractor noncompliance with prevailing wage rates, review the contractor's certified copy of the payroll records (see 14.2.2).

Projects Funded by State-issued Bonds. The University is required to monitor and enforce compliance with prevailing wage laws on all projects funded in whole or in part with bonds issued by the State of California where the contract is awarded after January 1, 2012. The University will operate a systemwide Labor Compliance Program (LCP) for all affected projects at all locations. Every Facility must have a designated Labor Compliance Officer who is knowledgeable about the LCP requirements. Any Facility that would like assistance in performing the tasks required by the LCP can request such assistance from another Facility with more experience and/or a larger staff. The University will be required to inform contractors and subcontractors of the labor compliance requirements at a pre-job conference, review certified payrolls at least monthly and audit where necessary, verify proper posting of job site notices and conduct job site interviews, among other activities. The University's approved Labor Compliance Program document is at the Office of the President website. The DIR website provides further information. Special language found within the University approved contract templates must be added to the Supplementary Conditions of any contract for a project where labor compliance monitoring is required. The University is required to withhold payments to contractors when an underpayment of wages is noted and when payroll records are late or incomplete.

The contractor forfeits to the University a penalty for each calendar day or portion thereof, for each worker that is paid less than the specified rates. The amount of this forfeiture is determined by the Labor Commissioner. The contractor also pays to each worker an amount equal to the difference between the specified rate and the amount that was paid to the worker.

UC Fair Wage. Minimum wage for direct and service contract employees of the University of California will be raised to $15 by October 1, 2017. More information is provided on the University of California website.

Projects Funded by Inflation Reduction Act (2022): Projects pursuing Inflation Reduction Act (IRA) funding such as 179D or Investment Tax Credit (ITC) must pay both Federal and State Prevailing wage. Contract modification language must be added to any contract pursuing this funding and can be found here. Payroll records demonstrating compliance must be submitted through LCP Tracker.

14.2.2 Payroll Records

The contractor and all subcontractors must keep an accurate payroll record, showing each person's name, address, and Social Security number or classification; straight-time and overtime hours worked each day and week; and the actual hourly wages paid to each journeymen, apprentice, worker, or other employee employed in connection with the work. These payroll

records must be certified and submitted electronically to the University using designated software at such times as directed. In addition:

- A certified copy of an employee's payroll record must be made available for inspection or furnished to such employee or the employee's authorized representative on request.
- A certified copy of all payroll records must be made available for inspection upon request by the University, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
- A certified copy of all payroll records must be made available upon request to the public for inspection, or copies thereof made, provided that the request by the public is made to either the University, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public cannot be given access to such records at the principal offices of the contractor or subcontractors. Any copy of records made available for inspection to the public must 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 the contractor or subcontractors awarded the contract or performing the work must not be marked or obliterated.

The contractor must file a certified copy of the payroll records with the entity that requested the records within 10 days after receipt of a written request. The contractor informs the University of the location of such project payroll records, including the street address, city, and county, and shall, within five working days, provide a notice of change of location and address of such records.

In the event of contractor noncompliance with the requirements of the General Conditions or with Labor Code, Section 1776, regarding the submission or inspection of payroll records, the contractor has 10 days in which to comply following receipt of written notice specifying what is required of the contractor. Should noncompliance still be evident after the 10-day period, the contractor forfeits a monetary penalty for each calendar day, or portion thereof, for each worker, until strict compliance is accomplished.

Violations With Intent To Defraud and Willful Violations. Labor Code, Section 1777.1, addresses violations with intent to defraud and willful violations. The Labor Commissioner determines such violations and will direct the University on what action to take. Section 1777.1 states:

a. Whenever any contractor or subcontractor performing a public works project pursuant to this chapter is found by the Labor Commissioner to be in violation of this chapter with intent to defraud, except Section 1777.5, the contractor or subcontractor or any firm, corporation, partnership, or association in which the contractor or subcontractor has a substantial interest shall be ineligible to bid on or to receive any public works contract for a period of not less than one year or more than three years. The period of debarment shall run from the date the determination of the violation is made by the Labor Commissioner.
b. Whenever any contractor or subcontractor performing a public works project pursuant to this chapter is found by the Labor Commissioner to be in willful violation of this chapter, except Section 1777.5, the contractor or subcontractor or any firm, corporation,

partnership, or association in which the contractor or subcontractor has a substantial interest shall be ineligible to bid on or to receive any public works contract for a period up to three years for each second and subsequent violation occurring within three years of a separate and previous willful violation of this chapter. These periods of debarment shall run from the date the determination of the violation is made by the Labor Commissioner.

c. Any determination by the Labor Commissioner shall be made after a full investigation by the Labor Commissioner and a fair and impartial hearing and reasonable notice.
d. A willful violation occurs when the contractor or subcontractor knew or reasonably should have known of his or her obligations under the public works law and deliberately fails or refuses to comply with its provisions.
e. The Labor Commissioner shall promulgate rules and regulations for the administration and enforcement of this section, the definition of terms, and appropriate penalties.
- California Labor Code, Section 1777.1.

A list of contractors that have been debarred and are not eligible to bid on public works projects as a result of violations of Labor Code provisions governing prevailing wage and apprenticeship is available on the DIR website. The Facility can check this list to verify if a potential bidder is eligible.

14.2.3 Employment of Apprentices

Only apprentices as defined in Section 3077 of the California Labor Code who are in training under apprenticeship standards and written apprentice agreements under Chapter 4, Division 3, of the Labor Code are eligible to be employed by the contractor and subcontractors as apprentices. The employment and training of each apprentice must be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which the apprentice is training.

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

When the contractor or subcontractors employ workers in any apprenticeship craft or trade for the work, the contractor or subcontractors apply to the joint apprenticeship committee administrating the apprenticeship standards of the craft or trade, in the area of the site of the work, for a certificate approving the contractor or subcontractors under the apprenticeship standards for the employment and training of apprentices.

The committee issues a certificate fixing the number of apprentices or the ratio of apprentices to journeymen employed in the craft or trade for the work. The ratio cannot exceed that stipulated in the apprenticeship standards under which the joint apprenticeship committee operates, but in no case the ratio be less than one hour of apprentice labor for each five hours of journeymen labor, except as permitted by law.

The contractor or subcontractors, upon the issuance of the approval certificate in each such craft or trade, employs the number of apprentices in the ratio of apprentice labor hours to journeymen

labor hours fixed in the certificate, or the contractor or subcontractors must present an exemption certificate issued by the Division of Apprenticeship Standards.

If the contractor or subcontractors employ journeymen or apprentices in any apprenticeship craft or trade in the area of the site of the work, and there exists a fund for allaying the cost of the apprenticeship program in that trade or craft, and other contractors in the area of the site of the work are contributing to that fund, the contractor must also contribute to the fund.

The contractor violates the construction contract if the contractor willfully fails to comply with General Conditions, Paragraph 14.5. Nothing contained in General Condition, Paragraph 14.5, prohibits or prevents the hiring by the contractor or subcontractors of journeymen-trainees who may receive on-the-job training to enable them to achieve journeymen status in any craft or trade under standards other than those set forth for apprentices.

Required Notification. Labor Code, Section 1773.3, "Notifications of Award of Public Works Contract and of Discrepancy in Apprentices Journeymen Ratio," states:

An awarding agency whose public works contract falls within the jurisdiction of Section 1777.5 shall, within five days of the award, send a copy of the award to the Division of Apprenticeship Standards. When specifically requested by a local joint apprenticeship committee, the Division shall notify the local joint apprenticeship committee regarding all such awards applicable to the joint apprenticeship committee making the request. Within five days of a finding of any discrepancy regarding the ratio of apprentices to journeymen, pursuant to the certified fixed number of apprentices to journeymen, the awarding agency shall notify the Division of Apprenticeship Standards.

- California Labor Code, Section 1773.3.

On contracts to which Labor Code, Section 1777.5, applies (see 14.2.1), the University is required to file a notice with the director of the Division of Apprenticeship Standards within five days of contract award. The division supplies Form PWC 100 for filing this notice electronically or by mail.

Exemptions From Apprenticeship Standards. California Labor Code, Section 1777.5, lists the categories of contractors exempted from apprenticeship standards. Section 1777.5 states, "This section shall not apply to contracts of general contractors involving less than thirty thousand dollars ($30,000) or 20 working days or to contracts of specialty contractors not bidding for work through a general or prime contractor involving less than two thousand dollars ($2,000) or fewer than five working days."

Penalties For Noncompliance With Apprenticeship Standards. Labor Code, Section 1777.7, provides for the following penalties in instances of noncompliance with established apprenticeship standards:

A contractor who willfully fails to comply with certain provisions regarding the employment of apprentices is denied the right to bid on public works contracts for a period of one year.

The University, under specified circumstances, is required to withhold from contract progress payments (see 15.2) due or to become due, the sum of $5,000 until released on the order of the Administrator of Apprenticeship, or until completion of the contract.

Monitoring Contractor Compliance. The Facility monitors applicable contracts for contractor compliance with General Conditions, Paragraph 14.5. The Facility sets up administrative procedures to make certain the contractor is complying with the contract apprenticeship requirements.

The requirements of apprenticeship standards are explained at the pre-bid conference.

Projects Funded by Inflation Reduction Act (2022): Projects pursuing Inflation Reduction Act (IRA) funding such as 179D or Investment Tax Credit (ITC) must comply with both Federal and State Apprenticeship requirements. Contract modification language must be added to any contract pursuing this funding and can be found here. Payroll records demonstrating compliance must be submitted through LCPTracker.

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14.3 HOSPITAL REQUIREMENTS

References:

- Health and Safety Code, Part 7, Chapter 1, Health Facilities, commencing with Section 129675,
known as the Alfred E. Alquist Hospital Seismic Safety Act of 1983 (Alquist Act).
- SB 1953 (Chapter 740, 1994), chaptered into statute in Sections 130000 through 130070 of the Alfred E. Alquist Hospital Facilities Seismic Safety Act
(To access the above references, please go to the California Health & Safety Code)
- Long Form, Specifications.

Hospital projects require special monitoring to meet Department of Health Care Access and Information (HCAI) requirements and to meet other hospital-related construction requirements set forth in the Specifications.

14.3.1 HCAI Requirements

Hospital safety standards and inspection requirements are set forth in 12.2.4. Facilities management personnel must monitor the fulfillment of these requirements to make certain the project does not fall behind schedule because of Department of Health Care Access and Information (HCAI) reviews and approvals. All contacts with HCAI shall be made by facilities management personnel; therefore, items required to be submitted by the inspector, design professional, or contractor, shall be processed with HCAI by the Facility's facilities management office.

14.3.2 Special Additional Hospital Requirements

The Facility must monitor the contractor's compliance with special hospital requirements set forth in the Specifications such as:

Infection control.

Sign protection.

Work hours.

Protective covers.

Daily cleanup.

Barricades.

Advance notices for shutdowns.

Observation of construction by the University's Representative.

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14.4 Risk Monitoring

Projects are expected to monitor issues that may pose risks to schedule, budget, or quality. The project team should track risks and regularly assess them. Potential actions to mitigate risks should also be tracked, and potential triggers for instigating responses should be identified. Specific tracking tools may include a Project Risk Register, containing information about risk probability, impact, and events that would lead to the risk becoming an actual threat to a project.

A Risk Report should be developed that contains identified risk, potential responses, risk lead responders who would take control of implementing a risk response plan.

Mitigating actions should be considered before a risk becomes real. In some cases, a minimal cost or effort could be enough to mitigate a risk before it truly develops. In other cases, the cost of mitigation may be substantial, and a trigger should be identified where the risk becomes great enough to enact the mitigating measure.

University of California Risk Report								
<insert location name here>								
Risk Register:			**Project Name:**			**Date Updated:**		
Item Number	**Risk Name**	**Risk Details**	**Date Identified**	**Potential Impact of Risk**	**Probability of Occurring**	**Potential Trigger of Response**	**Potential Response**	**Lead for Response Plan**
1	SAMPLE ITEM *Electrical switchgear lead time*	*Lead time for procurement of switchgear may exceed estimates*	*2/14/2025*	*Potential Schedule Delay*	*25%*	*Confirmation from the manufacturer that the lead time will exceed 20 weeks. Update call scheduled for 2/21/2025*	*Advance review of shop drawings - add to critical items list*	*University Project Manager*
2								
3								
4								
5								

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Revised March 31, 2025

Contractor Payments

Volume 5, Chapter 15

INTRODUCTION

The Facility is responsible for making prompt payments to the contractor for work performed. This chapter discusses payments from application by the contractor to actual payment by the Facility after consideration of retention, stop notices, and liquidated damages.

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15.1 COST BREAKDOWN

References:

- Long Form, General Conditions.

Within 10 days after receipt of the Notice of Selection as the Apparent Lowest Responsible Bidder, the contractor is required to submit to the University a breakdown of all costs that constitute the contract sum. This cost breakdown must 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 Cost Breakdown form is Schedule 1 of the contractor's Application for Payment, which is submitted monthly.

The costs listed for each activity on the Cost Breakdown form do not change during the course of construction; they are the basis for determining the amount due the contractor each month. Each work activity is compared to the percentage of completion for that line item. The sum of those amounts, minus the amount previously paid, minus retention (see 15.5) and other deductions, equals the amount due.

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15.2 PROGRESS PAYMENTS

References:

- Long Form, General Conditions.

The University will pay the contractor monthly an amount equal to 95 percent of the cost of the work in place; the remaining 5 percent is held as retention (see 15.5).

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15.3 APPLICATION FOR PAYMENT

References:

- Long Form, General Conditions.

The contractor starts the monthly payment process by preparing an Application for Payment on the University-approved form (see Exhibits, FM4[II]). The contractor must itemize the application using the Cost Breakdown submitted with the construction Agreement (see 15.1), as modified by fully executed change orders. The University's Representative participates in the preparation of the application by holding a monthly progress payment meeting where agreement is reached on the percentage of work completed.

When the work is found to be complete, the contractor makes a final Application for Payment (see 18.6).

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15.4 CERTIFICATE FOR PAYMENT

References:

- Long Form, General Conditions.

The Certificate for Payment (see RD3.6) is a document prepared by the University's Representative that authorizes payment to the contractor. The University's Representative must certify that the application is correct and must check the accuracy of the following:

Percentage of work complete for each line item. Arithmetic for the entire form including the cost breakdown of the contract sum (see 15.1).

The University's Representative must also verify that the items listed in General Conditions, Subparagraph 9.4.2, have been accounted for in the preparation of the certificate. The certificate is prepared on the University-approved form and submitted to the appropriate Facility office for signature and processing.

The University's Representative must be made aware that time restrictions are specified in General Conditions, Subparagraph 9.4.1, to ensure that the payment is processed in a timely manner.

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15.5 RETENTION

References:

- Long Form, General Conditions.

Retention of a portion of the cost of work in place is held by the University as leverage to assure that the work is completed and also as protection should the contractor fail to pay subcontractors or suppliers. Retention differs from the withholding of funds due to incomplete or defective work or other similar conditions listed in General Conditions, Subparagraph 9.4.2.

15.5.1 Normal Retention

University withholds 5 percent of the monthly progress payment due the contractor and retains those funds in the construction account, or an escrow account as noted below.

15.5.2 Securities In Lieu of Retention and Deposit of Retention Into Escrow

References:

- Long Form, General Conditions.

Instead of withholding a percentage of the contractor's progress payment, the contractor may deposit into an escrow account securities in the amount of required retention. If the contractor chooses this procedure, the contractor is required to comply with the requirements of General Conditions, Paragraph 9.5, and the Escrow Agreement (see Exhibits, FM4[II]). The terms of the Escrow Agreement may not be changed without approval of the Office of the President and UC Legal - Office of the General Counsel.

A letter of credit is not appropriate collateral and cannot be accepted as an item of security to deposit in lieu of retention.

At the request and expense of the contractor, the University will deposit retention held in the normal manner (see 15.5.1) directly with an escrow agent. The contractor may direct the investment of such deposited retention into interest-bearing accounts or securities. The contractor and its surety shall be at the risk of failure of the bank selected.
(See RD1.9, Flow Chart: Deposit of Securities in Lieu of Retention and Deposit of Retention Into Escrow.)

15.5.3 Release of Retention

References:

- Long Form, General Conditions.

The final Certificate for Payment (see 18.6) is used to detail the amount of retention to be released with the contractor's final payment.

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15.6 LIQUIDATED DAMAGES

References:

- Long Form, Agreement.

- Long Form, General Conditions.

- Long Form, Supplementary Instructions to Bidders.

- University policy: "Liquidated Damages for Construction Contracts".

- Guidelines for Liquidated Damages in Construction Contracts.

If the contractor fails to complete the work within the contract time, the contractor is assessed as "liquidated damages" and not as a penalty a sum specified in the Agreement for each day the work remains incomplete beyond the expiration of the contract time. After Substantial Completion the rate will be reduced to the figure specified in the Agreement. Liquidated damages are assessed by making a deduction on the Certificate for Payment (see 15.4). The amount deducted is itemized on the certificate. Liquidated damages may be automatically withheld from the progress payment for each day the project is beyond the contract time.

The following procedures should be used for assessing liquidated damages:

1. Inform the contractor during payment determination that liquidated damages will be assessed (a letter is not required).
2. Reduce the amount of payment certified by deducting liquidated damages on the Certificate for Payment.
3. Assess the liquidated damages through the Facility's accounting office. This office will pay the reduced amount on the Certificate for Payment.

A change order is not required to change the contract sum because the mechanics for assessing liquidated damages are already established in the Agreement and the General Conditions.

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Revised May 22, 2012 (Change No. FM 12-005 -D)

Claims Resolution

Volume 5, Chapter 16

INTRODUCTION

The General Conditions provide procedures for resolving contractor disputes. The University's Representative is required to review change order requests and render a decision on the request. Mediation, arbitration, or litigation may follow this decision. Continuous negotiation is required throughout the dispute process.

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16.1 CONTRACTOR CLAIMS

References:

- Long Form, General Conditions, Articles 4.3 to 4.5.

A claim is a written demand or assertion by the contractor seeking 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 the University and contractor regarding the contract documents or the performance of the work.

A false claim is defined in the California Government Code sections 12650 et seq. A representative of the University shall not assert that a contractor has made a false claim without first consulting with the UC Legal - Office of the General Counsel to ascertain the accuracy of such assertion. Any assertion that a contractor has made a false claim must be made in good faith and shall be made only after the aforementioned consultation with General Counsel.

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16.2 CONDITIONS FOR MAKING A CLAIM

References:

- Long Form, General Conditions, Article 4.2.

Before asserting a claim, the contractor must submit a Change Order Request.

16.2.1 Change Order Requests

The contractor submits a Change Order Request if contractor asserts it is entitled to an adjustment of the contract sum or contract time, or other monetary relief, as a result of (1) extra work; or (2) materially differing site conditions; or (3) delays to final completion.

The University's Representative makes a final decision on change order requests.

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16.3 NEGOTIATION

References:

- Long Form, General Conditions, Article 4.

Negotiation is the first step toward and probably the best method of resolving most claims. Successful negotiation results in a resolution that is agreeable to both the contractor and the University; therefore, the University's Representative does not have to make a decision that could be later disputed (see 16.3.1 below), and administrative and other costs associated with mediation, arbitration, or litigation are saved. Negotiation may also be used after a decision on the claim is made by the University's Representative.

16.3.1 Decision on Claims

References:

- Long Form, General Conditions, Article 4.5.

If negotiation is unsuccessful, the University's Representative issues a decision on a contractor's claim. Failure of the University's Representative to render a decision within a specified time period is deemed a denial of the claim.

Either the University or the contractor may dispute the decision of the University's Representative, and may elect arbitration (see 16.5 below) or litigation (see 16.6 below).

At any time after the decision by the University's Representative, the University and the contractor may resolve their differences using negotiation or mediation (see 16.4 below).

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16.4 MEDIATION

References:

- Long Form, General Conditions, Article 4.6.

Mediation is a voluntary procedure that may be used where both parties agree to use a facilitator to assist them reach a settlement.

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16.5 ARBITRATION

References:

- Long Form, General Conditions, Article 4.4, 4.5 and 4.8.

Arbitration is mandatory procedure for claims resolution unless the aggregate of unresolved claims is $100,000 or more, and is governed by rules of the American Arbitration Association, as modified by the General Conditions. The arbitrator is chosen by mutual agreement between the University and contractor, and a formal hearing the claim is conducted. The arbitrator issues a decision which is binding on the parties and is generally not subject to appeal. To initiate arbitration, the disputing party must submit a written demand for arbitration to the American Arbitration Association.

If either party to the contract has given a timely notice of election to arbitrate, that party may demand arbitration of the decision made by the University's Representative (see 16.3.1 above), including instances when mediation is terminated (see 16.4 above), within the time limits specified in the General Conditions.

If a demand for arbitration is made on a claim or the aggregate of unresolved claims is $100,000 or more, either of the parties may elect to litigate (see 6.6 below).

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16.6 LITIGATION

References:

- Long Form, General Conditions, Paragraphs 4.4 and 4.5.

If either party to the contract has given a timely notice of election to litigate, either party may litigate a claim or the aggregate of unresolved claims totaling $100,000 or more.

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Revised June 21, 2011 (Change No. FM 11-032-D)

Beneficial Occupancy and Substantial Completion

Volume 5, Chapter 17

INTRODUCTION

This chapter addresses procedures to follow when the University wishes to occupy or use part of the work before it is completed (Beneficial Occupancy), or when the contractor requests to be relieved of certain responsibilities because the work is mostly completed (Substantial Completion).

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17.1 TAKING BENEFICIAL OCCUPANCY

References:

- Long Form, General Conditions.

Beneficial Occupancy is the term used to describe the procedure when the University occupies or makes use of any part of the work prior to Substantial Completion (see 17.2) or, if no Notice of Substantial Completion has been issued, then Final Completion (see 18.4). The presence of the University at the project site may cause disruption of the contractor's activities; therefore, Beneficial Occupancy is subject to conditions set forth in the General Conditions.

The University is not required to take Beneficial Occupancy and may wait for Final Completion to occupy and use the site. However, if the University decides to occupy any portion of the project space prior to Substantial Completion or, if no Notice if Substantial Completion has been issued, then Final Completion, the University is required to issue a Certificate of Beneficial Occupancy (see RD3.7). A Certificate of Beneficial Occupancy shall not be issued without concurrence of the Designated Campus Fire Marshal and the Certified Building Official if Beneficial Occupancy will occur prior to Substantial Completion.

Coverage under University's Builder's Risk insurance will end on the date of Final Completion recited in the Notice of Completion filed by University, not on Beneficial Occupancy or Substantial Completion. (Additional information about the termination of Builder's Risk coverage is described in sections 11.6.4 and 17.3 below).

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17.2 DETERMINING SUBSTANTIAL COMPLETION

References:

- Long Form, Exhibit, Certificate of Substantial Completion.

- Substantial Completion and Contract Closeout Flowchart.

Substantial Completion means that stage in the progress of the work, as determined by the 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 the University's ability to occupy and fully utilizing the work for its intended purpose.

A Certificate of Substantial Completion shall not be issued until after a Certificate of Occupancy (see RD3.9) is issued by the Certified Building Official, unless in case of Beneficial Occupancy (see section 17.1 above), all work is in place, all required agency approvals have been received, and all systems and equipment are fully functioning. Minor items (punch list) shall include only patching, repair or replacement, and clean-up. Examples of acceptable punch list items include replacement of light switches, touch-up painting, repair of scratches on walls or floors, replacement of locks which do not function properly, replacement of filters or light bulbs, and other similar items.

The University and contractor agree that items to be finished after issuance of the Certificate of Substantial Completion can be accomplished while the University fully occupies and utilizes the facility for its intended purpose. University may accept responsibility for utilities, security, and maintenance upon the issuance of the Certificate of Substantial Completion.

If 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, and 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. University's Representative will make an inspection to determine whether the Work is substantially complete. If University's Representative's inspection discloses any item, whether or not included on the list, which must be completed or corrected before Substantial Completion, contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. Contractor shall then submit a request for another inspection by University's Representative to determine Substantial Completion. Costs for additional inspection by University's Representative shall be deducted from any monies due and payable to Contractor.

When University's Representative determines that the Work is substantially complete, University's Representative will arrange for inspection by the Designated Campus Fire Marshal, the Certified Building Official, and other officials (e.g., those from Environmental Health and Safety), as appropriate, for the purpose of issuing a Certificate of Occupancy. After a Certificate of Occupancy has been issued by the Certified Building Official the University's Representative will prepare a Certificate of Substantial Completion on University's form, 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 Construction Work.

The Building Official shall not issue a Certificate of Occupancy without the concurrence of the Designated Campus Fire Marshal (see RD3.8). All work must be completed in compliance with building codes and the contract documents.

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17.3 ENDING BUILDER'S RISK INSURANCE

Builder's risk insurance coverage terminates on the date of Final Completion in the Notice of Completion filed by the University when the construction of the project is complete. (Coverage terminates for a Job Order on the date of Final Completion in the Inspection Acceptance issued by the University, and for all Job Orders on the date of Final Completion in the Notice of Completion for the entire project covered by the JOC contract). If construction of the project is complete at the time of Beneficial Occupancy or Certificate of Occupancy but the Notice of Completion will not be filed contemporaneously, project managers must so inform their campus contract administrator, UC Risk Services, and the University's insurance broker to determine whether or not termination of Builder's Risk Insurance coverage is appropriate. Submission of the Request to Extend or Terminate Builder's Risk Insurance at least 10 days prior to the date of termination on the certificate of insurance will prevent an accidental lapse of coverage if construction is not completed by the originally anticipated date and will stop the accrual of premiums if the project is completed early.

A Facility will need to provide evidence of completion of construction when requesting cancellation of Builder's Risk insurance for a project.

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17.4 REDUCING LIQUIDATED DAMAGES AFTER SUBSTANTIAL COMPLETION

References:

- Long Form, General Conditions.

The University, at its discretion, may reduce the per-diem charge for liquidated damages (see 15.6) assessed for delays (see 13.4) that occur after the date of Substantial Completion.

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Revised August 29, 2018

Contract Closeout

Volume 5, Chapter 18

- 18.7 STOP NOTICES

INTRODUCTION

The University standard contract documents have been developed to provide University Facilities with necessary forms, data, and procedures to complete a project. This chapter reviews the procedures required to complete the construction project.

(See Substantial Completion and Contract Closeout flowchart.)

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18.1 AS-BUILT DOCUMENTS

References: - Long Form, General Conditions.

As-built documents are copies of the Drawings, Specifications, and all other contract documents that have been updated by the contractor to reflect changes that occurred since these documents were issued to bidders. Changes could have been made by addendum, field order, change order, or by the contractor's actual construction. The contractor is responsible for ensuring that all changes are documented on the as-built copy of the contract documents kept at the project site.

The contractor is required to deliver the as-built documents to the University's Representative as a condition for final payment and the release of retention (see 18.6). The design professional, who may also be the University's Representative, is required to complete the record documents, stamp and sign the documents and deliver them to the University.

Completed record documents provide a record of the project as it was actually constructed.

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18.2 OPERATING AND MAINTENANCE DATA

The University's Representative is responsible for receiving operating and maintenance data from the contractor and for ensuring that the data are complete. When complete, the operating and maintenance data are delivered by the University's Representative to the Facility.

Operating and maintenance data are information about the equipment incorporated in the project. Data should include the following:

- Identification of equipment installed.
- Maintenance procedures for each system and each equipment item.
- Spare parts lists indicating where parts may be obtained. Included should be the parts firm's name, address, telephone number, and the name of a contact person.
- Installer name, address, telephone number, and the name of a contact person.

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18.3 GUARANTEES

References: - Long Form, General Conditions.
- Long Form, Specifications, Section 01740.

General Conditions, Paragraph 12.2, requires the contractor to correct defective work that becomes apparent during the progress of the work or during the Guarantee to Repair Period. The Guarantee to Repair Period is a period of one year commencing with the date of Beneficial Occupancy, the date of Substantial Completion, or the date of Final Completion, as applicable. A Guarantee to Repair Period longer than one year may be specified. Note that this Repair Period does not limit subsequent claims for patent and latent defects. Contact the UC Legal - Office of the General Counsel for post-guarantee period defective work issues.

18.3.1 Special Guarantees

Frequently, the Guarantee to Repair Period for selected items is desired for a period of time longer than one year. In these cases, the Guarantee form included in Specifications, Section 01740, must be used. The University's Representative must check each section of the Specifications to determine if an individual section requires a special guarantee to be submitted. The University's Representative is responsible for assembling and supplying all special guarantees to the Facility.

18.4 FINAL COMPLETION

References: - Long Form, General Conditions.

The University's Representative performs a final inspection upon receipt of written notice from the contractor that the work is ready for final inspection and acceptance.

Final Completion shall be when the University's Representative accepts the work as fully completed and in accordance with the contract documents and that a Certificate of Occupancy has been issued by the University's Building Official. The Facility must file a Notice of Completion (see 18.5) within 15 days after the date of Final Completion. The date of Final Completion is entered on the Notice of Completion.

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18.5 NOTICE OF COMPLETION

References:

- Long Form, General Conditions.

- California Civil Code sections 9200-9208, 9356.

The Facility must file a Notice of Completion for contracts over $25,000 according to the following procedures and stipulations:

Where to File. Record the Notice of Completion at the County Recorder's Office for the county in which the project is located, and place within the Project file.

Form to Use. A Notice of Completion form with three versions depending on University's role (owner or lessee) is part of each contract family; only one must be filed and should be used as appropriate for the chosen delivery method.

Select the correct version of the Notice of Completion based on the following project scenario:

- University owns the land and the improvements.(typical)
- University is less than fee owner (e.g., lease).
- University owns land but not improvements.

Time for Filing. Record the Notice of Completion within 15 days after Final Completion (see 18.4). If the Notice of Completion cannot be recorded within 15 days after Final Completion, it should not be recorded. It must, however, still be placed in the Project file and forwarded to the contractor to comply with various requirements in the General Conditions.

Completed Work. The filed Notice of Completion signifies that the work has been completed according to the terms of the contract.

Completion Includes All Work. All work includes final cleaning (see 17.2), punch list items, operating manuals, as-built documents, warranties, guarantees, and work added by change order. The person signing the Notice of Completion is responsible for determining that the work has actually been completed. The facts stated in the Notice of Completion are declared to be true and correct under penalty of perjury by the person executing the document on behalf of the University.

The contractor has no obligation to complete work after a Notice of Completion has been filed. If work required by the contract documents is performed after a Notice of Completion has been filed, the notice is invalid, leaving the Facility vulnerable, since work has been certified as received and warranty or guarantee periods have started. If the Facility wishes to file a Notice of Completion before all of the work of the contract has been completed, then the Facility must execute a deductive change order to exclude the incomplete work from the contract.

Outstanding Claims. Resolution of outstanding claims is not a condition of contract completion. File the Notice of Completion within 15 days after Final Completion even if outstanding claims are not yet resolved.

Stop Payment Notices. Filing the Notice of Completion or Notice of Cessation within 15 days of final completion starts the 30-day stop payment notice period. If the Notice of Completion or

Cessation is not filed within 15 days of Final Completion, the stop payment notice period is extended 60 days for a total of 90 days from the date of acceptance (Final Completion).

Effective July 1, 2012, the University is required to provide stop payment notice claimants with the date of acceptance (Final Completion) of the Project or the recordation of the Notice of Completion or Notice of Cessation. The Project Manager must inform the Campus Plant Accountant of the status of acceptance (Final Completion) and of recordation of the Notice of Completion or Notice of Cessation within fifteen (15) days of acceptance (Final Completion) of the Project.

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18.6 FINAL PAYMENT AND RELEASE OF RETENTION

References: - Long Form, General Conditions.

When the work is found to be complete, the contractor makes a final Application for Payment (see 15.3). The University's Representative then issues a final Certificate for Payment (see 15.4) constituting final acceptance of the work by the University.

Final payment and any remaining retention (see 15.5.3) becomes due after the contractor submits the following to the University's Representative:

- Final Application for Payment and all required submittals.
- Conditional releases from contractor and subcontractors entitled to receive any portion of the final payment (see Exhibits, FM4[II]). (optional)
- As-built documents (see 18.1).
- All operating and maintenance data for equipment installed in the project (see 18.2).
- All guarantees (see 19.3) and warranties from the contractor, from subcontractors, and from suppliers.
- All other submittals required by the contract documents.

The final payment shall be paid not more than 10 days after University's Representative issues the final Certificate for Payment. Retention shall be released 35 days after the Notice of Completion is recorded (see 18.5).

Acceptance of final payment by the contractor constitutes a waiver of all claims except those previously made in writing and identified by the contractor as unsettled at the time of final Application for Payment.

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18.7 STOP PAYMENT NOTICES

References: - Long Form, General Conditions.
- University of California Policy AM-P-415-6, "Plant Accounting: Stop Payment Notices, Prevailing Wage Claims, Assignments, and Liens."

A stop payment notice is a legal notice submitted to the University by a construction subcontractor, supplier, manufacturer, distributor, or another party to withhold amounts due the contractor in an amount sufficient to satisfy stop payment claims regarding labor and materials furnished to the contractor for the work.

Stop payment notices are processed by the Facility's accounting office, and stop payment notice procedures are given in the University of California Accounting Manual. Stop payment notices received by the Facility must be sent in a timely fashion to the Facility's accounting office. The Facility withholds funds equal to 125 percent of the stop payment notice amount. The bidding documents must specify the office name and address where stop payment notices and preliminary notices are to be received for the project. This information is to be included in the Project Directory.

Procedures for Stop Payment Notices with regard to plant accounting are available in the plant accounting policy document.

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Revision August 31, 2018 (FM Change # 18-006-P)

Project Closeout

Volume 5, Chapter 19

INTRODUCTION

This chapter addresses procedures required by the Facility that extend beyond the requirements of the construction contract.

19.1 FINAL BUDGET

When each capital improvement project is completed, and the account containing the project funds is closed out, the project budget is amended as required to show actual costs in each category.

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19.2 CLOSEOUT OF PROJECTS FUNDED BY FEDERAL GRANTS

Post-Grant Administration. Contact the applicable grant agency or agencies to verify that all reviews and approvals have been completed.

Post-Construction Space Audit. Contact the applicable federal grant agency to ensure that all post-construction space audits have been completed.

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19.3 CORRECTION OF DEFECTIVE WORK

The state civil code establishes specific obligations of the contractor to correct defective work, that is, patent and latent defects (see 19.3.1).

19.3.1 Patent and Latent Defects

References:

- California Code of Civil Procedure, Sections 337.1 and 337.15.

A patent defect is a defect that is known or observable during the course of construction and before Final Completion (see 18.4). A latent defect is a defect that is not visible or active during the course of construction or before Final Completion.

The California Code of Civil Procedure contains statutes of limitations on patent and latent defects. For patent defects, the University has the right to recover damages up to four years after the defect is discovered. For latent defects, the University has the right to recover damages up to 10 years after the date of Final Completion.

19.3.2 Reporting Defects and Deficiencies

Defects and deficiencies are sometimes discovered by Facility operation and maintenance personnel during the Guarantee to Repair Period or within the statutes of limitations for correcting defects (see 19.3.1). Defects and deficiencies must be reported to the UC Legal - Office of the General Counsel as outlined in FM6:4.9. (The procedures for reporting defects and deficiencies are contained in FM6:4.9.1 because the project is turned over to the Facility's operation and maintenance department upon Final Completion.)

19.3.3 Personal Injury Caused by Inadequate Design or Poor Construction

Defects or deficiencies in the work may result from inadequate design or poor construction. The statutes of limitations discussed in 19.3.1 apply to property damage but not to personal injury. There is no statute of limitations for personal injury damage. For example, if a wall collapses 20

years after the wall is completed, and the reason for the collapse is found to be inadequate design, the design professional is still liable for any personal injury caused.

19.3.4 Post Construction Meeting

During the eleventh month following substantial completion or final completion, University conducts a walk through for the purpose of detecting deficiencies and reviewing guarantees, warranties, bonds, and service and maintenance contracts. A list of all deficiencies noted must be issued to the contractor along with instructions to make corrections as required and in accordance with the terms of the General Conditions of the construction contract.

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Project Quality Management Program

Volume 5, Chapter 20

INTRODUCTION

This chapter sets forth requirements and procedures for establishing the construction phase portion of a Project Quality Management Program. (See FM1:7 for information on establishing a Project Quality Management Program.)

Quality requirements for construction projects are established first by The Regents, next by the President, and then by the Facilities. Quality is measured by conformance to requirements established by facilities management personnel. Project quality is ultimately appraised by the Facility client.

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20.1 PROGRAM GOALS

The goal of the construction phase of the Project Quality Management Program is to ensure that the construction of a project meet the quality requirements established by a Facility. To accomplish this goal, facilities management personnel must perform the following functions for the project team to ensure the desired quality of the constructed project:

- Establish requirements (see 20.3)

- Build teamwork (see 20.4)
- Supply resources (see 20.5)
- Evaluate performance (see 20.6)

20.1.1 Project Team Members

During the pre-design and construction phase the project team should consist of the following principal parties and their associates:

1. University
    - Client
    - University's Representative
    - Planning staff
    - Budgeting staff
    - Facilities management staff
    - Facility Fire Marshal
    - Facility police
    - Facility environmental, health, & safety staff
    - Project Manager (University employee)
    - Project Manager (outside professional)
    - Construction Manager (outside professional or University employee)
2. Design Professional
    - Executive design professional
    - Design professional's consultants
    - University design consultants
3. Constructors
    - Construction contractor
    - Subcontractors
    - Project representatives
    - Construction Manager (acting as contractor)

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20.2 PROGRAM SCOPE

During the construction phase a Project Quality Management Program includes the following:

- Quality management planning and implementing policies, procedures, and requirements.
- Quality control ensuring that work is being performed and that work is being checked prior to its acceptance.
- Quality assurance verifying that quality control tasks are being performed.
- Continuous quality improvement continually pursuing improvement in the quality of the construction process.
- Quality costs redoing a construction item even when this increases the item's cost.

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20.3 PROGRAM REQUIREMENTS AND PROCEDURES

The first and most basic step in establishing the construction phase portion of the Project Quality Management Program is to formulate written requirements that specify the roles and responsibilities of project participants. The Facilities Manual establishes basic University requirements; additional requirements should be established by the respective Facility or by the project team through a "partnering" effort (see 20.4.1).

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20.4 TEAMWORK

A Project Quality Management Program should not only address technical issues, but should also address people-related issues and encourage teamwork. Construction technical issues include checklists, inspections, interdisciplinary plan checks, other reviews, and possibly value engineering. People-related issues include encouraging commitment to the project, building teamwork, defining expectations, and "partnering" (see 20.4.1). Cooperation within the project team should have started early in the project process.

20.4.1 Partnering

In the context of the construction phase portion of a Project Quality Management Program, "partnering" means:

- Defining expectations of the University, the design professional, and the Contractor's project manager or construction manager.
- Reviewing procedures ensuring that procedures reflect each project team member's expectations.
- Resolving conflicts reviewing and modifying mechanisms set up early in the project for resolving conflicts and for periodic progress reviews.

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20.5 PROGRAM RESOURCES

At minimum, the Facility should provide the budget, personnel, and time necessary to meet quality requirements for each project phase (see 20.3). This task is accomplished through decisions made by facilities management staff.

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20.6 EVALUATION BY THE PROJECT TEAM

Periodically during active construction and upon completion of the construction phase, members of the project team should evaluate the team's performance as a whole. In evaluating a project for quality, the project team should:

- Define expectations.
- Define problems.
- Determine what is needed to rectify problems.
- Estimate needed resources.
- Determine if the project cost or program needs refining.

Team evaluation will assess team performance in accomplishing project quality goals by considering the team's:

- Effectiveness in relation to established quality requirements.
- Efficiency (staying within budget).
- Timeliness (remaining on schedule).
- Compliance with imposed constraints as stated in policies, procedures, and programs.
- Teamwork.

Evaluations can be made by completing evaluation forms predesigned with questions and data entry requests developed on an objective basis.

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Operation and Maintenance

Volume 6, Chapter 1

INTRODUCTION

After setting forth the goals of operation and maintenance of plant (OMP), this chapter addresses the components of operation, the University of California's policy on maintenance, and the different types of maintenance.

1.1 OMP PROGRAM GOALS

The inclusion of the following goals should help a Facility formulate a successful operation and maintenance of plant (OMP) program:

1. Perform maintenance on a periodic basis.
2. Provide functional facilities that (a) meet the University's requirements; (b) have an environmentally acceptable atmosphere for students, faculty, and staff; and (c) ensure the health and safety of all personnel.
3. Identify potential problems early within the context of the planned maintenance system so that corrective action may be planned, included in the budget cycle, and completed in a timely manner.
4. Establish a capital asset replacement "deferred maintenance" list by using the policy and procedures of the Facility Audit and Inspection Program (see **2.1**).
5. Follow an orderly program so that administrative costs are minimized and the workload for personnel is maintained at a relatively constant level.
6. Conserve energy and resources by ensuring maximum operating efficiency of energy-consuming equipment and systems.
7. Maintain credible relations with users by providing well-maintained facilities and information on planned maintenance activities.
8. Identify and implement possible improvements that will reduce costs, improve service, and result in more efficient operation.
9. Establish data collection systems that create supervisory and management control reports with uniform reporting formats and achieve continual feedback of information among departments through communications and manuals.
10. Institute systems for reporting historical data and operating statistics and maintain trend lines and indices of operating effectiveness.

1.1.1 Environmental Health and Safety References:

Current University policy as of 2005 can be found at the following link:

University Policy on Management of Health, Safety and the Environment (pdf)

1.1.2 Health Care Accreditation Requirements:

The five University teaching hospitals must comply with the standards of The Joint Commission (TJC) the standards of this commission address aspects of operation and maintenance.

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1.2 OPERATION

Facilities operation is the provision of day-to-day services required to operate the University's buildings and grounds. The University of California's expectation is that each campus will operate its Facilities in the most efficient manner to provide timely, effective, and economical plant operation in support of the University of California's mission of teaching, research, and public service. Examples of facilities operation are: the locking and unlocking of doors, custodial services, and the ongoing provision of utilities services to a building.

See: About UC

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1.3 MAINTENANCE

1.3.1 General

Facilities maintenance is the normally funded ongoing program for the upkeep and preservation of buildings, equipment, roads, grounds, and utilities required to maintain a Facility in a condition adequate to support the University's mission.

Maintenance in this normal program includes the planned, preventive, emergency, as well as the unplanned or reactive maintenance required to provide a safe, healthful, and secure environment. Each type of maintenance (see 1.4 below) is utilized by the different OMP functions (see 1.5 below) to complete their tasks. The University of California defers certain capital asset replacement work due to budget constraints. This maintenance work constitutes a deferred maintenance backlog.

1.3.2 Definitions

Maintenance: Maintenance is the upkeep of property, machinery, systems, and facilities, including buildings, utility infrastructure, roads, and grounds. Maintenance consists of those activities necessary to keep facilities and systems operational and in good working order. It consists of the preservation, but not the improvement, of buildings and grounds, other real property improvements and their components. Maintenance may include replacement of

components of equipment or building systems (roof, flooring, HVAC, etc.) if replacement is performed:

1. on a routine or recurring basis,
2. to bring the equipment or building system back to its fully functional state,
3. to ensure the equipment or building system retains its functionality for its anticipated useful life.

Subject to the above limitations, replacement of a component of a building system (for preservation, not improvement) is a form of maintenance when the replacement component is a duplicate, i.e., replacement-in-kind, or, if not, the replacement item is an upgrade because a duplicate component is obsolete or is no longer reasonably available. When the replacement is undertaken for the purpose of upgrading a system, it is not maintenance.

System:

"A regularly interacting or interdependent group of items forming a unified whole". Systems related to the University of California facilities are specifically defined in the Facility Audit and Inspection Program *Examples of facilities systems would be an HVAC system comprised of circulating pumps, fan coil units, etc. or an electrical system comprised of fixtures, service panels, etc* .

Component:

A component is "a constituent part" of a system

Examples of facility components would be a thermostat which is a component of an HVAC control system, or flashing which is a component of a roofing system.

If the work associated with replacement of a system's component(s) is greater than 50% of the replacement value of its system, such work should be considered a system replacement and for the purposes of this article, shall be considered repair and beyond the scope of maintenance. In addition, if the value of the work associated with replacement of component(s) exceeds current University of California Minor Capital Project limits, the Facility shall obtain Office of the President concurrence prior to proceeding with the work on the basis of maintenance work as defined in this Chapter.

See: Facility Manual Glossary: "Minor Capital Improvement Project"

See: ICAMP

Repair:

Repair means to restore property, machinery, systems, and facilities, including buildings, roads, and grounds and their components to working order and may require the submission of plans; the submission of calculations; construction inspection requirements; and other data to ensure

compliance with the California Building Code; and/or requires a change to the stamped plans, specifications, reports or documents used for its construction. Repair does not include any matter that could reasonably be characterized as maintenance.

Specialized Research Equipment:

Equipment and/or system that as a practical matter is so unique or specialized that it requires technical expertise that is not commonly commercially available. The erection, construction, alteration, repair, or improvement related to such equipment/system would need to be performed by in-house labor with the requisite technical experience and knowledge to provide reliable functional equipment/systems.

Construction:

Construction consists of moving, demolishing, altering, upgrading, renovating, installing, or building a structure, facility, or system according to a plan or by a definite process. Construction consists of the application of any of these techniques to physical plant facilities such as structures, utilities, excavations, landscaping, site improvements, drainage systems, and roads; and additions, deletions, or modifications of such facilities. All painting, regardless of whether exterior or interior painting of new or existing structures, is a form of construction. Upgrading or replacing a building system in its entirety when it has exceeded its useful life is generally construction, not maintenance.

Project:

As defined in the Public Contract Code, a project includes the erection, construction, alteration, repair, or improvement of any University of California structure, building, road, or other improvement that will exceed in cost, including labor and materials, a total of fifty thousand dollars ($50,000). If a project falls within the statutory definition, the project must be competitively bid.

See: CA Public Contract Code Sections 10500-10506

Infrastructure and utility system. Any system controlled and maintained by the University of California that services or is available to service multiple University of California structures, buildings, or improvements. An example of a system included in this definition would be the domestic water system; an example of a system not included could be a phone system maintained by an outside provider.

Maintenance Management. Maintenance management is the systematic and effective management of a maintenance activity in which sound applications are made of the three basic elements of management: organization, measurement, and control.

1.3.3 Exceptions to Competitive Bidding

Unless a project meets the requirements of the exceptions below, all projects must be competitively bid. Chapter 2.1 of the California Public Contract Code specifically outlines contracting policy for the University. University of California contracting policies and procedures are found in all sections of that chapter and must be clearly understood and followed, including remedies and penalties for noncompliance. "Any officer or employee of the University of California who corruptly performs any official act under this chapter to the injury of the University of California is guilty of a felony." (See CA Public Contract Code Sections 10520-10526)

See: Volume 4 of the Facilities Manual for University of California contracting policies and procedure

1. Specialized Equipment:

If a project is for "the erection, construction, alteration, repair, or improvement of experimental, diagnostic, or specialized research equipment" (Section 10505(a)(2) of Public Contract Code) , the University of California may elect to perform the project with University of California employees. Such work must require specialized knowledge and skills not readily available by contract. The use of this exception requires that the equipment installed must become a permanent part of the structure, that any ancillary construction work to be performed by University of California employees must be performed at the same time as the equipment installation and must be required in order to make the equipment functional or maintain its functionality.

***For example**, if installation of specialized research equipment requires alterations to room walls and flooring, it would permissible to repaint the entire room and replace all flooring in the room as part of the installation; it would not be permissible to repaint or replace flooring in an adjacent hallway or rooms not altered by the installation of the equipment.*

Note that the exception is limited for any painting work by the provisions of paragraph 3c below.

Under circumstances where the ancillary construction work does not meet these requirements, such work **must not** be accomplished using University of California employees unless it falls under the exceptions stated in paragraphs 2 or 3 below. See: Section 10505 (2) of Public Contract Code

2. Emergency Repair:

If a project is required immediately and is necessary to protect the public health, safety, and welfare as the result of an emergency due to an act of God, earthquake, flood, storm, fire, landslide, public disturbance, vandalism, or failure that causes damage, then such work may be done on a time and materials basis, by contract based upon informal bids, by University of California employees, by day labor, or by a combination thereof. For this exception to apply, it is necessary for the facts to support the immediate need for repairs to protect public health, safety and welfare.

*An example of an emergency **not** covered by this exception would be vandalism causing extensive damage to landscaping where the damage does not present an immediate safety hazard and the cost of the work is in excess of $50,000. The work would be necessary as the result of "vandalism" but would not meet the test of "necessary to protect public health, safety, and welfare". The work would, in this example, be subject to the bidding requirements in the Public Contract Code.*

3. Projects under $50,000

a) University of California employees may perform a construction project when the value of all labor and materials does not exceed $50,000. [This limitation does not apply to maintenance work.] A construction project may not be split in order to utilize this exception, e.g., performing $40,000 of work with University of California employees and issuing a contract or purchase order to a contractor for the remaining $40,000 of an $80,000 construction project. However, individual projects need not be combined into a single project. *As an example, the planned repaving of a street is a single construction project even though it may consist of repaving several separate sections of that street. In contrast, the repaving of separate sections of that same street accomplished at different times in response to program planning, funding requirements, or unexpected events, would each be a separate construction project.*

b) University of California employees, subject to the $50,000 limitation, may perform work on Infrastructure and Utility Systems necessary to support other construction projects or construction work; for example work required prior to and during the performance of a competitively bid project, e.g., rerouting and shutdowns of utilities and final connection of the project to the existing Infrastructure and Utility Systems. The coordinated work of multiple construction projects is not considered a single project; similarly, multiple discrete Infrastructure and Utility Systems requirements performed to support the same competitively bid project are each subject to the $50,000 limitation. *An example of multiple discrete Infrastructure and Utility Systems requirements would be a $40,000 requirement to realign the domestic water supply for the new structure and a $40,000 requirement to perform shutdowns and final connection of electrical supply. Each of these discrete requirements could be performed by University of California employees.*

c) Projects for the painting or repainting of a structure, building, road, or improvement of any kind may not be performed with University of California employees if the value of the painting or repainting project exceeds twenty-five thousand dollars ($25,000). (See CA Public Contract Code Section 10505b) Such projects must be performed by outside contractors. Projects may not be split to avoid these constraints, *for example, performing $20,000 of painting work with University of California employees and issuing a contract or purchase order to a contractor for the remaining $20,000 of a $40,000 project.*

4. Maintenance Work:

Work that is solely maintenance, as defined above, may be performed by either University of California employees or under contract. If performed under contract, maintenance work is subject to non-construction competitive bidding requirements for contracts costing $50,000 or

more, regardless of the form of contract. Work that involves the painting or repainting of a structure, building, road, or improvement of any kind cannot be defined as solely maintenance, as painting of any kind is considered construction.

The Regents of the University of California may perform projects with University of Californa employees if the value of the work to be performed does not exceed $50,000. However, the University of California may not use University of California employees if the scope of the work is painting or repainting and exceeds $25,000.

It is important to understand the distinction between maintenance and repair as it relates to the California Public Contract Code.

Example of the difference between maintenance and repair:

a) A driver of a car loses control and hits an exterior air conditioning unit located on a slab adjacent to a University of California building. The unit is totally destroyed and the replacement cost inclusive of materials is $75,000. Under the definitions above, the replacement of the unit would be maintenance, not repair.

b) The driver of a car loses control and hits an exterior support column of a University building. Inspection reveals that there is damage to the structure of the building. The work, which would need plans and specifications, required to ensure the structural integrity of the building would be repair.

University facilities shall establish written policies and procedures to ensure the implementation of the correct distinction between maintenance and repair. As a minimum, these procedures must include approvals necessary when determining that a specific requirement in excess of $50,000 for work on property, machinery, systems, and facilities, including buildings, utility infrastructure, roads, and grounds is maintenance if there is any indication that the work could be categorized as repair.

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1.4 TYPES OF MAINTENANCE

In order to provide a safe, healthful, and secure environment, the University requires the use of four types of maintenance: planned, preventive, unplanned/reactive, and emergency. Each type of maintenance is utilized by the various OMP functions (see 1.5 below) to complete their tasks.

1.4.1 Planned Maintenance

Planned maintenance, also referred to as "programmed" or "scheduled" maintenance, is the upkeep of property, machinery, and facilities, including buildings, utility systems, roads, and grounds. Planned maintenance is often characterized by its routine or recurring nature. The University’s expectation is that each campus will maintain its physical facilities so that they are functional and in a condition adequate to meet the University's mission. Substantial efficiencies

result from using planned and scheduled maintenance rather than unplanned/reactive maintenance.

1.4.2 Preventive Maintenance

Preventive maintenance is that portion of the overall maintenance program that provides the periodic inspection, adjustment, minor repair, lubrication, reporting, and data recording necessary to minimize building equipment and utility system breakdown and maximize system and equipment efficiency.

Preventive maintenance:

- Utilizes planned services, inspections, adjustments, and replacements designed to ensure maximum utilization of equipment at minimum cost.
- Is a program in which wear, tear, and change are anticipated, and continuous corrective action is taken to ensure peak efficiency and minimum deterioration.
- Includes cleaning, adjustment, lubrication, minor repair, and parts replacement.

All are performed on scheduled frequencies in accordance with written maintenance instructions.

Preventive Maintenance Program procedures are designed to fulfill the needs of the Facility. The purpose of the program is to produce cost savings by:

- Reducing the downtime of critical systems and equipment.
- Extending the life of facilities and equipment.
- Improving equipment reliability.
- Ensuring proper equipment operation.
- Improving the overall appearance of facilities.

1.4.3 Unplanned or Reactive Maintenance

Unplanned/reactive maintenance is the unplanned response to maintenance requests which do not have emergency status. In general a facilities organization should plan and schedule as much of its maintenance activities as possible. Work that is scheduled and planned is done much more efficiently than that done by reactive maintenance.

1.4.4 Emergency Maintenance

The University has defined emergency maintenance as the repair or replacement of Facility components and equipment requiring immediate attention because the functioning of a critical system is impaired or because health, safety, or security of life is endangered. Emergency maintenance supersedes all other categories of maintenance. For the purpose of determining whether emergency maintenance falls within the exception to competitive bidding requirements, refer to 1.3.3 above.

1.4.5 Predictive Maintenance

Predictive maintenance uses techniques designed to assess asset condition to determine when asset maintenance should be performed. The main promise of predictive maintenance is to allow convenient scheduling of corrective maintenance and to prevent unexpected equipment failures.

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1.5 OMP ELEMENTS

References:

OMP Elements are aggregations of tasks required to perform each type of maintenance and operation. Basic operation and maintenance tasks are common to all Facilities although they vary in their topography, climate, structure, organization, management, historical background, and effectiveness of past maintenance. The following paragraphs (under **1.5**) describe the various elements required to keep Facilities functioning properly. The nine elements and their relationship to the various types of maintenance and operation in the normal maintenance and operation program are described below.

1.5.1 Plant Administration

Plant Administration includes the administration, supervision, and the analytical and technical support needed for the operation and maintenance of plant (see **Chapter 4**). The facility audit and inspection program is an important component of Plant Administration.

1.5.2 Building Maintenance (and Operation)

Building Maintenance includes the operation of building equipment and control systems. Building Maintenance also includes: (1) ordinary recurring maintenance and repair of buildings and equipment, and (2) maintenance, repair, and replacement of building components and equipment. "Equipment" includes building operating equipment and built-in equipment.

1.5.3 Grounds Maintenance

Grounds Maintenance includes maintenance of grounds and outdoor facilities such as lawns, trees, shrubs, roads, bridges, sidewalks, fences, signs, street lighting, storm drains, irrigation systems, outdoor parking, and outdoor athletic facilities.

1.5.4 Custodial Services

Custodial Services (sometimes called "Building Services" or "Janitorial Services") includes general cleaning, restroom sanitizing, indoor rodent and insect control, sweeping, mopping, trash removal, and window cleaning for buildings. .

1.5.5 Utilities Operation and Maintenance

Utilities Operation includes (1) the continuous operation of Central Plant and central control systems; (2) distribution of electricity, water, gas, and oil; (3) production and distribution of steam, chilled water, compressed air, and treated water; and (4) utility planning, budgeting, analysis, and conservation. Utilities Maintenance is the upkeep, repair, and replacement of Central Plant equipment and utility distribution and collection systems to the perimeter of buildings.

1.5.6 Refuse Disposal

Refuse Disposal includes the disposal of dry and wet trash, waste, plant trimmings, and turf clippings, whether hauled by Facility employees or by contractors. Refuse Disposal tasks are usually performed on a scheduled basis (or on request) by Grounds Maintenance or Custodial Services or are contracted for, but this OMP function remains a separate program element for budget purposes.

Refuse Disposal and Policy on Sustainable Practices: *As part of its Policy on Sustainable Practices the University has adopted the following waste diversion goals:*

- *25% per capita from FY2015/16 levels by 2025*
- *50% per capita from FY2015/16 levels by 2030*
- *Divert 90% of municipal solid waste from the landfill.*

See: UC Policy on Sustainable Practices: Section 'F': Zero Waste

Hazardous Waste Disposal. *Refuse Disposal does not include the task of hazardous waste disposal. Hazardous waste disposal is the responsibility of the Facility office of Environmental Health and Safety although that office may contract the OMP department to handle hazardous waste. Hazardous waste includes infectious and toxic waste, chemicals, and radioactive elements that cannot be handled by regular refuse disposal procedures.*

1.5.7 Plant Service

Plant Service is an optional OMP function that sets up an account to recharge users for funds expended by OMP on services performed by the other functions for work included or not included in the Operating Budget. The purpose of Plant Service is to provide a uniform and consistent method to collect and account for costs of all OMP functions through recharges (See: **Section 4.2.2 "Recharging of Facilities Services to Non-OMP supported functions")**

1.5.8 Fire Departments

The Fire Departments function includes the operation and maintenance of campus fire departments and their equipment. Only two campuses at this time, Davis and Santa Cruz, operate fire departments and also have mutual aid agreements with the adjacent or surrounding community. The Campuses that do not have fire departments are provided fire protection services by the adjacent or surrounding community. The operation and maintenance of fire

detection and suppression systems and equipment is part of the Building Maintenance, Grounds Maintenance, or Utilities Operation and Maintenance functions.

1.5.9 Executive Housing

The operation and maintenance of executive housing is performed by Building Maintenance, Utilities Operation and Maintenance, Grounds Maintenance, and Custodial Services. Because Executive Housing is a program element in the OMP budget (see **3.2.2**), it is kept as a separate function.

See: OMP Functions Diagrammed

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Deferred Maintenance Program

Volume 6, Chapter 2

INTRODUCTION

This chapter specifies the inspection program and systems required to identify and track deferred maintenance and capital renewal needs.

Deferred maintenance is asset replacement that was not performed when it should have been or was scheduled to be and which, therefore is put off or delayed for a future period. The University inspects, tracks, and estimates the cost of deferred maintenance.

Capital renewal is based upon the fact that, over time buildings and infrastructure typically use up their intended design life and through that deterioration lose a portion of their functionality to the University's Mission. Normally these are larger projects and involve whole system replacement or renewal.

Identified deferred maintenance items are cataloged, prioritized and tracked in the University's Integrated Capital Asset Management Program (ICAMP).

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2.1 FACILITY AUDIT AND INSPECTION PROGRAM

The purpose of the Facility Audit and Inspection Program is to identify, quantify (provide budget estimates), and prioritize deferred maintenance projects and capital renewal and replacement projects according to the urgency of need and significance to the University's mission, (Project Categorization Flow Chart).

2.1.1 Facility Inspection and Project Identification

Physically inspect facilities to identify deferred maintenance and capital renewal needs and/or projects. The following facility infrastructure components should be inspected.

See: ICAMP (Login and password are available through Office of the President)

See: Below Vol. 6 Sec. 2.1.6 for additional information on ICAMP.

A. ROOFING

- Membrane, single ply, built-up, or shingle roofing
- Sheet metal flashing
- Rigid insulation at roof
- Roof hatches
- Skylights
- Applied membranes at roofs and decks

B. BUILDING EXTERIORS, DOORS, WINDOWS (HARD)

- Prestressed concrete, brick or cinderblock exteriors
- Exterior doors and door hardware
- Exterior windows, frames, glass and glazing
- Caulking and sealant
- Brick pointing
- Railings
- Windows
- Doors
- Walls

C. ELEVATORS AND CONVEYING SYSTEMS

- Elevators, escalators, and dumbwaiters
- Cables
- Control Systems
- Pneumatic tubes
- Any vertical, motorized transportation (both hydraulic and traction)

D. HVAC - EQUIPMENT / CONTROLS

- Exchangers and circulating pumps
- Fan coil units
- Condensing units
- Exhaust and ventilation units
- Direct Digital Controls, Energy Management Systems
- Pneumatic, temperature controls
- Ventilating and air conditioning
- Heat exchangers and vacuum pumps.

E. HVAC - DISTRIBUTION SYSTEMS

- Ductwork
- Grilles, diffusers
- Piping
- Insulation
- Storage tanks, etc.

F. ELECTRICAL EQUIPMENT

- Building transformers, service panels and fuses
- Emergency power within the building
- Light fixtures and controls Power receptacles
- Emergency lighting and generators
- Motors

G. PLUMBING FIXTURES

- Water closets, lavatories, service sinks, drinking fountains and showers
- Laboratory sinks, eye washes, showers, and fixtures
- Water heaters
- Floor and roof drains
- Condensate drain piping

H. FIRE PROTECTION SYSTEMS

- Fire sprinkler systems
- Gas or Halon systems
- Fire alarm detection devices, horns, strobes, heat detectors, pull stations
- Fire actuated doors.

I. BUILT-IN EQUIPMENT & SPECIALTIES

- Casework and shelving, bench tops
- Chalk boards, marker boards and tackable wall surfaces
- Operable partitions
- Fume hoods

- Laboratory, medical equipment, etc.
- Autoclaves, glassware washers
- Cold rooms, dark room equipment

J. INTERIOR FINISHES: WALLS, FLOORS, DOORS

- Vinyl wall covering
- Interior doors and hardware
- Carpet and resilient flooring

K. PAINTING - PUBLIC AREAS

- Public Areas includes hallways, public restrooms, lobbies, classrooms, stairwells, entryways, etc.

L. FOUNDATIONS

- Basement excavation and disposal of excavated material
- Temporary or permanent shoring for support of excavation at below-grade structure
- Concrete piles, piers, footings, grade beams, caissons

M. VERTICAL ELEMENTS

- All columns and pilasters
- All exterior wall framing including plaster, gypsum board and insulation
- Applied fire proofing
- Stairs with at least one-story height
- Foundations (including below grade waterproofing)

N. HORIZONTAL ELEMENTS

- Grade and non-grade floors
- Beams, girders, trusses, joists and decking
- Concrete topping slabs
- All roof and ceiling framing
- Applied fire proofing
- Ceiling insulation

O. INTERIOR PARTITIONS

- Interior wall framing including gypsum wall board
- Insulation
- Non-wear finishes such as gypsum board, acoustical tiles, plaster
- Soffits and ceramic tile
- Interior windows, glass and glazing

P. PLUMBING ROUGH-IN

- Sanitary sewer waste and vent piping
- Domestic and industrial water supply
- Air, gas and vacuum piping
- All building service piping within 5 feet of building
- Backflow preventers
- Medical and research gas distribution and storage systems

Q. ELECTRICAL - ROUGH-IN

- Conduit and wire

R. SITE PREPARATION

- (Category not used)

S. SITE DEVELOPMENT - SOFTSCAPE

- Landscaping
- Irrigation
- Landscaping
- Irrigation lines sprinkler heads, valves

T. SITE DEVELOPMENT - HARDSCAPE

- Concrete sidewalks, curbs, gutters and paving
- Asphalt paving and parking
- Fencing and gates
- Site furniture, art, signage
- Roads, walkways, paths
- Outdoor furniture
- Exterior lighting

U. SITE UTILITIES - EQUIPMENT

- Site main switchboards and switchgear
- Site transformers
- Electric substations
- Storm sewer piping and fittings
- Storm or sewer lift stations
- Site pumps and generators
- Local chillers and boilers
- Rooftop AC and heating units
- Window units
- Furnaces

- High-voltage distribution systems
- Underground conduit
- Substation switchgear
- Tanks and pumps
- Natural gas distribution system
- Central heating and cooling plant equipment (including boilers, chillers, cooling towers, compressors, and surface condensers)

V. SITE UTILITIES - DISTRIBUTION

- Electrical conduit, wire, manholes, pull boxes to within 5' of the building
- Storm, sewer, gas and water lines to within 5' of the building
- Chilled water and steam supply and return piping to within 5' of the building
- Communication systems conduit and pull boxes to within 5' of the building
- Storage areas for potentially hazardous work materials

Note that inspection costs of the Facility Audit and Inspection Program are not allowable as a deferred maintenance item. Include these inspection costs under Plant Administration (Chapter 4)**.** The costs of work, including construction inspection, designing, scheduling, and advertising are allowable deferred maintenance or capital renewal items.

2.1.2 Prioritization

Prioritize each identified project according to the following criteria:

Priority 1: Currently Critical. These are needs and/or projects which significantly impact the mission of the University and require immediate action to return a facility to normal operation, stop accelerated deterioration, or correct a cited safety hazard, especially those conditions which potentially impact an entire Campus or pose a significant risk to health and safety .

Examples of such conditions would be:

Campus impact: A Campus-wide chilled water system is in imminent danger of failing. Failure would make all buildings non-functional, essentially bringing an entire campus down.

Health and Safety Impact: Previously undiscovered dry rot has compromised structural beams. The building can not be safely used without immediate repair.

Priority 2: Potentially Critical. These needs and/or projects will become critical within a year if not corrected expeditiously. Situations in this category include intermittent interruptions, rapid deterioration, and potential safety hazards. The significance of these conditions to the mission of the University should be a factor.

Priority 3: Necessary, Not Yet Critical. These needs and/or projects include conditions requiring reasonably prompt attention to preclude predictable deterioration or potential downtime and the

associated damage or higher costs if deferred further. Conditions which do not significantly impact the mission of the University should be placed in this category.

Although determining a need and/or project priority can be a subjective process, the impact upon the University's mission and the potential for failure should be determinative in prioritizing deferred maintenance and capital renewal needs.

2.1.3 Further Project Categorization

Upon completing the two-step Facility Audit and Inspection Program procedure, categorize projects as deferred maintenance or capital renewal and replacement following the Project Categorization Flow Chart.

2.1.4 Deferred Maintenance Projects

As a general rule, the scope of deferred maintenance projects should be limited to a specific work item or set of integrally related work items in (1) a single building, or group of buildings (2) a clearly identifiable component of a grounds area, or (3) a utilities system. The project should be accomplished under a single contract or work order.

For administrative simplification, no deferred maintenance project should be smaller than $5,000. Fund projects under $5,000 from regular maintenance funds. For planning, budgeting, and implementing purposes, similar work items of small value may be aggregated to make a reasonably sized project if the items are of equal priority and are intended to be accomplished within the fiscal year. However, major work items in individual buildings, separately identifiable grounds areas, or utilities systems are considered separate projects and are not to be aggregated.

2.1.5 Capital Renewal

Capital renewal is the upgrading or replacement of facilities, major building systems, and supportive infrastructures. Capital renewal recognizes the debilitating effect of the aging process on facilities, major building systems, and supportive infrastructures. Projects in this category address the physical deterioration aspect of long-term use, the need for overall facility renewal due to technological obsolescence, the replacement of building systems which have become functionally inadequate, and the upgrading of supportive infrastructures which are no longer capable of adequately performing their function.

Capital renewal projects should be processed for inclusion in the Capital Improvement Program.

2.1.6 ICAMP

ICAMP, referenced in Section 2.1.1, "deconstructs" state funded campus buildings into systems, subsystems. Asset replacement needs ("opportunities") are identified via inspection and tracked in ICAMP. Additionally, each system is assigned a life cycle and a unit renewal cost based on

the expected life cycle for that subsystem, and components. Capital renewal needs are addressed separately from the directly identified asset replacement needs ("opportunities") by identifying and valuing assets that have exceeded their anticipated life cycle. All space data in ICAMP is extracted directly from the University's official space inventory maintained in the EFA database.

Using accepted facilities life cycle analysis, ICAMP models life cycle deterioration of building systems and the Capital Assets of which they are comprised.

When building systems are renewed and replaced (such as the complete replacement or renewal of a building HVAC system), ICAMP needs to be updated to reflect these capital investments.

See: ICAMP (Login and password are available through Office of the President).

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2.2 DEFERRED MAINTENANCE FUNDING SOURCES

2.2.1 State Funds

At the current time there are no state funds specifically dedicated to deferred maintenance, special repairs, or capital renewal.

Renewal projects may be submitted for approval and funding under the "State Capital Improvements" program

2.2.2 Non-State Funds

2.2.2.1 External Financing:

External Financing for deferred maintenance and capital renewal may be available for eligible Campuses. Repayment of this financing is through the Campus's share of Federal Indirect Cost Recovery.

2.2.2.1 Auxiliary Enterprises:

Auxiliary enterprises and equivalent non-state-supported units are responsible for funding the operation and maintenance of facilities or portions of facilities they use. These units are also responsible for funding the maintenance (including deferred maintenance) of roads, grounds, and utility service systems outside their facilities but used exclusively or almost exclusively to serve their facilities. Funds from the unit's operating income or reserves, or other appropriate non-state sources, should be used to pay for deferred maintenance.

Capital renewal funding guidelines for Auxiliary Enterprises are found in:

UC Finance Bulletin A-59, (Costing and Working Capital for Auxiliary and Service Enterprises)

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2.3 DEFERRED MAINTENANCE FUNDING GUIDELINES

Deferred maintenance projects should be of a size and complexity to allow a lien on the project within 12 months from the date funds are appropriated. A valid lien is when funds are encumbered by awarding a contract or writing a requisition to have specific work performed by the OMP department.

As a general rule, include all phases of a project's scope (design, administration, and construction) for funding in a given year. Under exceptional circumstances, projects with lengthy design work or unusual construction scheduling may have design work budgeted one year and construction, the next.

Funding of one project segment does not commit funding of any other project segment in either the same or subsequent years. Deferred maintenance projects can be initiated and funded with planned or preventive maintenance funds, particularly if emergency action is required.

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2.4 REQUIRED DEFERRED MAINTENANCE LISTS

As funding becomes available the Office of the President will issue instructions for submitting Deferred Maintenance or Capital Renewal projects.

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Budget Preparation

Volume 6, Chapter 3

INTRODUCTION

This section outlines OMP funding sources, requests for changes in workload, and the uses of OMP funds. The University of California’s General Fund is the source of OMP funding for all State eligible space. Approximately 50% of University space is non-state eligible. OMP funds can not be used to fund maintenance in these areas.

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3.1 OMP FUNDING SOURCES

3.1.1 State Funding

The State of California provides most of the OMP funds for state eligible space. These funds are allocated to the campuses on a square foot basis as part of the General fund, and are then incorporated into the overall Campus Operating Budget.

3.1.2 Federal Grant Funding

A portion of all Federal grants goes to pay indirect costs, including facilities services such as purchased utilities, maintenance, janitorial services, etc. The indirect cost, or overhead, rate is negotiated annually by the Campus based upon each Campus' past expense history.

Approximately 20% of this of overhead is taken "off the top" to reimburse the University and the Campus for the costs of administering the grant.

Of the remaining amount, 45% goes directly to the Campus in the form of the "University Opportunity Fund". Chancellors have discretion in the allocation of these funds for high priority campus needs.

The remaining 55% of the indirect cost recovery amount from federal awards is used to help fund the University's "General Fund Budget." The "General Fund" is made up of funds of State General Fund appropriations and income from federal indirect cost recovery and is incorporated into the overall Campus Operating Budget.

The component of Operation and Maintenance is calculated on average as approximately 10%-15% of total grant expenses. .

See: FAQ about Indirect Cost Rates

See: UCOP Contract and Grant Manual -- Chapter 8 -- Indirect Cost

See: Campus Primer on Indirect Costs

3.1.3 Indirect Cost Recovery from, State, Private, and Local Government Awards

For entirely State funded grants, indirect cost recovery goes directly to the General Fund. When the primary source is non-state, other policies apply.

See: Contract and Grant Manual Ch. 8 Section 8-820

All funds recovered as indirect cost receipts from private and local government contracts and grants, except for recovered indirect costs from private clinical trial agreements, are placed in the President's Education Fund. The Education Fund is used primarily for the support of high priority educational programs.

3.1.4 Garamendi Funding

The construction of some research buildings is entirely or partially funded by State issued bonds called Garamendi Bonds. Maintenance and utilities in these buildings are not funded from the General Fund. Debt Service and maintenance for these buildings is paid directly from indirect grant cost recovery funds.

See: Contract and Grant Manual Sec. 8-811 "Garamendi Projects Funding"

3.1.5 Recharges

Auxiliary programs, such as hospitals, housing and dining facilities, University Extension, student fee funded space, student centers, recreational facilities, are self supporting and ineligible for state support.

Specific Information about which programs are eligible for state OMP support, and which are ineligible is found in the "Corporate Equipment, Facilities, and Asset (EFA)" database. The cost of facilities services to these programs is recharged to the program.

Recharge rates for facilities services are set by the Campus in accordance with University Policy. Recharge rates must reflect the actual cost of the services provided.

See: Corporate Equipment, Facilities, and Assets System (EFA)

See: UCOP Recharge Guidelines

See: UC Finance Bulletin Direct Costing Procedures - A-47

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3.2 OPERATION AND MAINTENANCE OF PLANT WORKLOAD

3.2.1 Workload adjustments are based upon annual changes to the accumulated State Maintained building area.

State funding for OMP is based upon eligible occupied square footage. Each year the University asks for an update from the Campus Budget offices reporting on any changes to either the eligibility or occupied area of State Maintained space.

See: University of California Capital Planning: Guidelines for Preparing New Workload Request

See: University of California Budget Office: Current Year and Past Years University Budgets

3.2.2 OMP Workload Categories:

OMP funding within state eligible space funds the following workload areas or program elements:

- Plant Administration
- Building Maintenance (and Operation)
- Grounds Maintenance
- Custodial Services
- Utilities Operation and Maintenance
- Refuse Disposal
- Plant Service
- Fire Departments
- Executive Housing
- Purchased Utilities

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Plant Administration

Volume 6, Chapter 4

INTRODUCTION

In addition to providing personnel to administer the operation and maintenance of plant, the Plant Administration function provides various other services. Areas addressed in this chapter are: contracting for services, maintenance, and repair; providing work control; OMP and recharge accounting; providing data management; keeping a facilities inventory; maintaining OMP's relationship with other units; supplying required reports; and providing emergency planning and response.

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4.1 CONTRACT ADMINISTRATION

Contracts are required for all work other than that done by University staff. It is the responsibility of Plant Administration to provide guidance and insure compliance with University Policy in the administration of contracts. The following are the types of work likely to be needed for Operation of Maintenance and Plant.

4.1.1 Services

Services should be considered procuring labor performed by another party that may or may not produce a tangible commodity. Service work includes custodial work, window washing, rubbish and waste removal, security guards, transportation, software development, clothing rental, laundry, tests and analysis, film processing, and equipment repair. Such services may be contracted by using a standard purchase order form.

See: Materials Management Policy: Business and Finance Bulletin

Contracting for services which displaces University staff needs to be evaluated thoroughlNational Incident Management System guidelines before proceeding. Any contract over $100,000 must have Presidential Approval. The following is from the University's **Guidelines on Contracting for Services**.

"In any consideration to contract out services where University staff would be displaced, the University will support and approve the contracting out of University work only when the decision is consistent with protecting the core teaching, research, service, and patient care functions of the individual campus or medical center; is in response to a demonstrated, sound business need; and minimizes to the extent possible the impact on University staff. Such decisions are intended to be consistent with the objectives of maintaining the University's good relationships with the local business community and the quality of the work environment. Because consideration must be given both to the requirements and circumstances of the services involved and the overall benefit to the campus, these decisions are made by the Chancellor or designated Vice Chancellor, with review by the Office of the President as appropriate "

See: UCOP -- UC Presidential Policies: "University Guidelines on Contracting for Services"

If services are contracted, the form of contract depends on the type of work but is usually a standard purchase order form that includes Supplement 2

See: UC Facilities Manual Volume 4 "Construction Contracting & Construction Documents"

4.1.2 Design and Construction Services

Design and Construction Services are services that require design professionals such as architects and engineers who evaluate conditions, and, in the case of repair, provide design.

The selection of design professionals is subject to University policy and guidelines. State law requires design professionals and other consultants to be selected based on the procedures in the Public Contract Code as implemented by University policy. Guidance in contracting for Design and Construction Services is found in Volume 3 of the Facilities Manual.

See: UC Facilities Manual, Volume 3 "Design"

See: Public Contract Code Sections 10510.4-10510.9

4.1.3 Maintenance

Some maintenance activities may be contracted for by using a standard purchase order form or may be contracted for using the appropriate contract document.

Contracting for maintenance is not subject to the same competitive bidding requirements as required for repair. It is important to keep in mind the meaning of maintenance and the distinction between maintenance and repair as defined in **Section 1.3.2.**

4.1.4 Repair

Repair is considered a project as defined in the Public Contract Code -- "As used in this article, 'project' includes the erection, construction, alteration, repair, or improvement of any University of California structure, building, road, or other improvement that will exceed in cost, including labor and materials, a total of fifty thousand dollars ($50,000)."

See: Section 10500 et seq. California Public Contract Code

As such it is subject to all of the requirements for Public Bidding in Chapter 2.1 ("University of California Competitive Bidding") of the California Public Contract Code.

Assuming a project involves repair, alteration, or a work of improvement and is over $50,000 and thus must be contracted, the form of contract is typically a standard construction contract form (e.g. Mini Form, Brief Form, or Long Form) Contracting guidelines are provided in Volume 4 of the Facilities Manual.

See: Section 10505 California Public Contract Code

See: Facilities Manual, Volume 4

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4.2 WORK CONTROL

General

Work Control as described in this section is the processing and managing of OMP related work and resources (See Chapter 3 for explanation of OMP funding). When work is done for activities which are not OMP supportable such work must be recharged to the program requesting and authorizing such work. Work Control is a task category of the OMP function, Plant Administration (See RD 1.2)

Eligible and ineligible programs and the space which they occupy are listed in the EFA database:

See: IR&C - Corporate Equipment, Facilities, and Assets System (EFA)

It is not the purpose of this Manual to specify the appropriate system for the purpose of work control. In general work control is aided and tracked by a Computerized Maintenance Management System (CMMS). Such work order systems should be able to:

- Track work order costs including labor, material, and contracts
- Interface with Campus financial systems
- Provide on-line work order entry and work order cost information for Campus clients
- Schedule preventive maintenance
- Provide tools for job scheduling and tracking

4.2.1 Restrictions on Use of General Funds:

In addition to the restrictions above, OMP funds are also restricted by the Legislature as to the size of an OMP funded work. Currently, no more than $100,000 of OMP funds may be encumbered for preliminary plans, working drawings, or construction or alteration of a state facility unless the Director of UC Finance determines that the proposed alteration is critical and that it is necessary to proceed. In addition no OMP funded alteration may exceed $400,000.

These limits are included in the Supplementary Budget Bill and may change from year to year. Contact Office of the President for current limits.

4.2.2 Recharging of Facilities Services to Non-OMP supported functions

An essential component of work control is making sure that costs are allocated to the appropriate accounts. Work that is not supportable by OMP needs to be charged to the department or other campus entity authorizing the work. Such recharges may be done through a work order or through a fund transfer.

- An example of a recharge work order would be when a non OMP funded program requests a locksmith to change keying.
- An example of a fund transfer would be when a non OMP funded program enters into an agreement with the OMP facilities to perform custodial services for a period of time. Such a fund transfer would need to be documented by a signed agreement or Memorandum of Understanding.

Typically a Computerized Maintenance Management System will have the ability to interface with the Campus accounting system to properly record and charge costs. Labor and material rates need to include indirect costs. Physical Plant or Facilities Departments submit these costs annually to the appropriate Campus Committee to arrive at an approved recharge rate.

See: UCOP Recharge Guidelines

See: UC Finance Bulletin A-47

4.2.3 OMP Accounting

As a component of the General Fund, OMP funds can be appropriately allocated to the OMP categories corresponding to the OMP elements described in Chapter 1, Section 1.5

- Plant Administration
- Building Maintenance (and Operation)
- Grounds Maintenance
- Custodial Services
- Utilities Operation and Maintenance
- Refuse Disposal
- Purchased Utilities
- Fire Departments (where applicable)
- Executive Housing (where applicable)

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4.3 DATA MANAGEMENT

References:

Effective data management is important to the success of a Facility's OMP program. Three suggested OMP data management goals are:

1. Establish data collection systems to develop:
    - Uniform reporting formats.
    - Supervisory and management control reports.
    - Continual feedback of information between departments through communications and manuals.
    - Easy, preferably web-based, campus user interface.
2. Institute systems for reporting historical data and operating statistics.
3. Maintain trend lines and indices of operating effectiveness.

4.3.1 Corporate Equipment, Facilities, and Assets System (EFA)

EFA is an information system that provides planning and management data on the existing physical plant. Specifically, EFA provides information on buildings, and rooms within buildings. EFA also serves as the Facility's official record of existing space. EFA is the source for information on OMP eligibility.

Each campus maintains and updates its own inventory. Once each year, campuses provide their inventory to the Office of the President where the data are merged into the Corporate Equipment Facilities and Assets System. This system enables the Office of the President to perform tasks such as developing capital budget proposals, analyzing space needs, and reporting to the state on facilities for the entire University.

See: Corporate Equipment, Facilities, and Assets System (EFA) for information about and instructions for reporting data.

Ultimate oversight of the EFA database is provided by the Information, Resources and Communications Joint Oversight Group (IR&C - Joint Operations Group).

Laboratories also maintain their own separate inventory systems, but these systems are not a part of the Corporate Equipment Facilities and Assets System.

The applications of EFA data have expanded in recent years. In the past, data was used mainly to support capital outlay programming and space utilization analysis. The following list indicates the expanding scope of inventory data applications:

- Space assignment and control.
- Program OMP eligibility
- Construction project planning and management.
- Projections of future space needs.
- Space utilization analysis.
- Development and maintenance of space allocations and utilization standards.
- Equipment budgeting standards
- Operating budget workload measures
- Scheduling of maintenance, alterations, and custodial services.
- Insurance and risk management.
- Determination of the building use component of the indirect cost rate. External reporting, audits, and contractual accountability requirements (federal, state, and regional).
- Provides building information to be used by the FIRM database

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4.4 OMP'S RELATIONSHIP WITH OTHER UNITS

Operation and maintenance of plant (OMP) is a program that has a special relationship with other University departments, organizations, and services. An example of a special relationship is the role of physical plant and facilities units have in project design and subsequent construction. To be effective, OMP needs to work cooperatively and efficiently with the Campus Design and Construction Unit.

OMP's Plant Administration function handles most contact with the following units, for the items specified after each unit (not all units and associated items are listed):

Campus Accounting Office: Cost accounting, recharges

Campus Budget Office: Inventories, space accountability.

Campus Committees: Development of recharge rates, Campus environment issues, accessibility issues, and other issues as needed

Campus Auxiliaries: Non state-eligible programs, such as Housing, Dining, and other auxiliaries that make use of facilities services on a recharge basis

Campus Planning: Space requirements, environmental impact statements and reports.

Capital Planning: Special Repairs, Capital Improvement Projects.

Environmental Health and Safety: Workplace safety, hazardous waste handling and disposal, emergency planning and response, EPA compliance

Capital Projects: Design, value engineering, construction, post-construction warranties and guarantees, project support such as shutdowns, etc.

General Counsel. Construction defects and deficiencies report (see Volume 4 Section 9 of Facilities Manual).

Materiel Management: Selection of goods and materials, contracting for services.

Office of the President: Policies and procedures, various reports (see Volume 4 Section 8 of Facilities Manual).

Personnel: Employee relations, job descriptions, labor relations.

University Relations: Campus community functions, athletic events.

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4.5 REPORTS OF DEFECTS AND DEFICIENCIES

References:

- "Recovery for Construction and Design Deficiencies in University Buildings," University of California, UC Legal - Office of General Counsel (UCL), letter to chancellors and laboratory directors, Berkeley, CA, April 17, 1975.

The information in this article applies to defects and deficiencies associated with all facilities owned by or under the control of the University which the University has constructed or modified.

The purpose of this section is to encourage timely reporting of defects or deficiencies and to provide guidance in determining responsibility for design and construction defects or deficiencies.

In order to maximize the University's chances of recovery when contractors or architects refuse to accept responsibility for defects, *General Counsel should be contacted early, before action is taken to correct the defect. If the defects are not reported, or reports are delayed, then the chances for recovery are lessened.*

Two factors account for the majority of delays or failures to report defects or deficiencies to Counsel:

1. Problems are observed but are not recognized as being serious and therefore are not reported. In some cases, remedial work is undertaken which alters conditions and compromises legal recovery efforts.
2. Defects are observed and are recognized as being serious but are not reported because of the erroneous assumption that the University has no further rights since the guarantee period or statute of limitations period has expired.

4.5.1 Guidelines for Reporting Defects and Deficiencies

Initial Evaluation. Discuss defects and deficiencies among staff, and as soon as possible, contact General Counsel for advice. The following steps should then be taken:

- Using technically competent Facility personnel or outside experts, evaluate the seriousness of the defect.
- Have the UC Legal - General Counsel (UCL) prepare suitable demand letters.

Note that some defects present an emergency situation where remedial measures must be accomplished immediately. The Facility administrator must decide how to proceed to protect life and property; however, if recovery is to be effected, the procedures listed in this section should be followed as closely as possible.

Responsibility Refusal by Design Professional or Contractor. If a building deficiency is determined to be serious, and neither the design professional nor the contractor accepts responsibility for its correction, General Counsel should be contacted and provided with an adequate background statement of the problem.

The objective of the background information is to get an overview of the problem early enough to maximize the effective alternatives available. An adequate background statement includes the following information:

1. A brief description of the nature and scope of the deficiency.
2. A concise summary of the design history of the problem: i.e., the specific program given to the design professional, whether any design recommendations for the deficient areas were vetoed for budget or other reasons, what the construction documents required, what the contractor installed, the extent of the design professional's approval of shop drawing submittals, substitution requests, and field changes, and the installation made.
3. A copy of all specification provisions and pertinent drawings applicable to the deficiency (including any applicable general or special guarantee provision) and a brief explanation in layman's terms of technical portions of the construction documents transmitted.
4. A concise statement of the construction history of the defect including the approximate time of installation, when the deficiency first developed, a brief outline summary of any pertinent correspondence, job meetings, minutes, and inspector's reports bearing on the

problem (with full copies of such documents attached), the date of project acceptance, and the duration of any guarantee applicable to the deficiency.
5. A description of the extent of any corrective action attempted indicating what it was, who recommended it, who performed it, and when.
6. A description of the present condition of the deficiency.
7. A description and statement of estimated cost for corrections which will probably be required.
8. An expression of Facility opinion as to the responsibility for and cause of the defect coupled with a brief statement of the facts supporting that conclusion.

Expressing Opinion on Responsible Cause. The initial expression of opinion as to who is responsible for a defect or deficiency should be made by Facility personnel if they have the technical competence. In cases when employment of an outside expert is necessary to augment Facility capabilities, General Counsel should have an advance opportunity to evaluate the potential forensic ability of such an expert. If such an expert is not retained by or at the request of Counsel, the expert's report on the problem probably cannot be kept confidential in the event of litigation, and the expert may be subject to being deposed as a witness.

Preservation and Documentation of Evidence. If litigation is a possibility, evidence of building defects or deficiencies must be preserved or documented and safeguarded. If not, there should be no expectation of recovery of damages by a lawsuit. Preserve and document evidence by:

- Retaining defective material.
- Taking photographs.
- Having a competent person examine the defect and express a technical opinion as to its cause.
- Retaining relevant correspondence and documents.

Confidentiality of Evidence. Parties to a lawsuit have broad rights to examine the files of their opponents. Most communications including memoranda to file which are not sent from a University employee to University Counsel may be inspected and used as evidence to oppose the University's case. To prevent this evidence from being revealed to the University's detriment, follow these guidelines:

- Take care not to make any damaging admissions or reveal any weaknesses in the potential case.
- Evaluation of the University's prospects for recovery in potential litigation **shall** be made only by General Counsel.
- With the exception of item 8, above, avoid writing memoranda which contain admissions that may be against the University's interest, which include allocation of responsibility or explanations of or reasons for defects or deficiencies, or which comment on consultants' reports. When such memoranda are necessary, draft copies **shall** be sent to General Counsel for comment and for transmittal at Counsel's option.

4.5.2 Preventing Building Deficiencies

If design professionals and contractors whose past performance is unsatisfactory are excluded from participating on University projects, then an effort will have been made "up front" to prevent defects and deficiencies.

The deficient past performance of a design professional should be considered when selecting a design professional (see FM, Volume 3). Unsatisfactory past performance of contractors should be considered when bid documents are issued (see FM, Volume 5).

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4.6 EMERGENCY PREPAREDNESS

References:

• Office of the President "Policy on Safeguards, Security, and Emergency Management," 2006

• California Office of Emergency Services (OES) SEMS/NIMS Integration

• Federal Emergency Management Agency (FEMA) National Incident Management System Guidelines

• National Fire Protection Association (NFPA), 1600 Standard on Disaster/Emergency Management and Business Continuity Programs

• Emergency Preparedness & Evacuation Checklist (RD2.11)

This section discusses earthquake hazards, but emergency management principles apply to all types of natural, human-caused, or technological disasters and emergencies.

After a major earthquake, a Facility must plan for the disruptions of utilities, communications and essential services such as power, water, sewer, telecommunications and transportation networks, fire and medical services, and food supplies and services. Facilities should also anticipate building structural and non-structural damage, hazardous materials spills, fires, and the need to provide emergency medical care as well as mass care and shelter. Facilities must assume that no outside assistance will be available for at least 72 hours. Local emergency response agencies that would normally respond may not be available because of overwhelming demands. Conversely, a Facility may be a focal point where emergency responders from outside agencies, volunteers, and the general public spontaneously converge.

Effective Facility emergency preparedness programs will reduce risk and losses, including protecting lives, property, and the environment; minimizing class and research disruption; facilitating efficient coordination with local, state, and federal emergency response agencies; and maximize disaster recovery financial aid.

4.6.1 Emergency Preparedness Program

The University has voluntarily adopted the National Standard on Disaster/Emergency Management and Business Continuity Programs (NFPA 1600/ANSI, 2004) as our systemwide programmatic guidance and benchmarking standard for Facility emergency preparedness programs. This collaboratively developed and widely adopted National Standard encompasses mitigation, preparedness, response, and recovery. In California, the SEMS/ICS emergency management structure is mandated to direct, control, and coordinate response and recovery operations as described in Section 4.6.2. The National Standard establishes the following seventeen (17) general program elements:

1. Program Policy & Administration

- Executive policy including enabling authority
- Program goals and objectives
- Program budget and project schedule/milestones

2. Program Coordinator/Manager

- Designated/appointed by campus and authorized to administer and maintain program

3. Program Management

- Advisory committee or other program review and support mechanism
- Establish performance objectives for all program elements

4. Compliance with UC/State laws/requirements/policies

- Program shall comply with UC procedures/policies/requirements
- Program shall comply with State laws/regulations (SEMS – see 4.6.2))

5. Hazard Identification & Risk Assessment

- Identify hazards and likelihood occurrence on campus
- Identify vulnerability of campus to various hazards
- Hazards shall include both natural and human-caused events
- Conduct impact analysis to determine adverse campus impacts on health and safety; continuity of operations; facilities and infrastructure; financial liabilities; etc.

6. Hazard Mitigation

- Develop and implement campus wide strategy to eliminate/mitigate hazards
- Base strategy on Hazard Vulnerability Assessment (HVA); program assessment; operational experience; and cost-benefit analysis
- Mitigation shall consider building standards; mitigating structures at risk; hazard avoidance/removal/elimination/reduction/modification/segregation/controls; protective systems/equipment; warning and communication procedures; redundancy or duplication of essential personnel/systems/equipment/operations.

Each Facility shall implement a non-structural seismic hazard reduction program to identity and abate hazards .

7. Resource Management

- Establish objectives consistent with overall program goals and campus hazards
- Consider personnel, equipment, training, expertise, facilities, funding, materials and the time frames within which they will be needed
- Consider response time, capability/quantity, limitations, costs, and liabilities associated with using the required resources
- Identify resource capability shortfalls and steps necessary to remedy shortfalls
- Maintain current inventory of internal/external resources
- Address management of voluntary donations

8. Mutual Aid Agreements

- Need for mutual aid shall be determined and agreements established as needed
- Agreements shall be referenced in the appropriate program plan

9. Program Plans

- Strategic Plan – program mission, goals, objectives as it relates to policy
- Emergency Operations Plan – assign responsibility for specified actions
- Mitigation Plan – establish interim and long-term actions
- Recovery Plan – based on short and long-term priorities, processes, vital resources, and acceptable time frames for restoring facilities, infrastructure, and teaching/research programs
- Continuity Plan – identify critical and time-sensitive functions/processes that must be maintained, and personnel/procedures required to maintain them

10. Direction, Control & Coordination

- Capability to direct, control, and coordinate response/recovery operations
- Use SEMS/ICS emergency management system for emergency operations and response, and resource management (see 4.6.2)
- Establish applicable procedures/policies for coordinating response, continuity, and recovery activities with appropriate authorities and resources

11. Communications & Warning Systems

- Establish and regularly test communications systems/procedures
- Develop and maintain notification/alerting capability
- Develop and periodically test campus wide emergency alerting system
- Address communications needs/capabilities to support response/recovery plans
- Address inter-operability of multiple emergency response agencies

12. Standard Operating Procedures (SOPs)

- Develop, coordinate, and implement operational procedures to support program
- Address health & safety and protection of property and environment
- Emergency response and recovery procedures for identified hazards
- Situation status and damage/resource needs assessment procedures
- Procedures for initiating recovery and mitigation activities during response
- Procedures for succession of executive management
- Procedures for emergency animal care
- Procedures for utility shutdowns and emergency backup power supplies
- Procedures for hazardous materials and radiological hazard control

13. Emergency Operations Center (EOC) & Logistics

- Primary and alternate EOCs shall be equipped, tested, and maintained
- Establish logistical capability and procedures to handle personnel, resources, materials, and facilities procured or donated

14. Responder Training

- Implement training/education curriculum to create awareness and enhance skills required to implement and maintain program
- Identify frequency and scope of training and maintain training records
- Emergency response personnel shall be trained in SEMS/ICS

15. Exercises, Evaluations & Corrective Actions

- Periodically evaluate program objectives, plans, procedures, and capabilities
- Design annual exercises to test essential or inter-related elements or entire plan(s)
- Ensure that corrective action is taken on any identified deficiency

16. Crisis Communications & Public Information

- Procedures to disseminate and respond to requests for info (both internal and external including the media)
- Establish and maintain disaster/emergency public information capability including media contact; info handling system and method to coordinate and clear info for release; pre-scripted info bulletins; special needs populations; and evacuation or shelter-in-place guidelines
- Implement public awareness program for identified hazards

17. Emergency Financial Support

- Develop financial and administrative procedures to support emergency response/recovery
- Establish procedures to expedite fiscal decisions in accordance with proper authorizations and accounting

- Define finance responsibilities/authorities; procurement procedures; payroll; and accounting system to track and document costs

4.6.2 Standardized Emergency Management System (SEMS)

State law requires all state and local agencies (including the University) to use the Standardized Emergency Management System (SEMS). SEMS is an emergency management organizational structure used by all emergency response agencies statewide to coordinate response to multi-jurisdictional or multi-agency incidents. The intent of SEMS is to improve the coordination of state and local emergency response throughout the state, and to facilitate the flow of information and the rapid mobilization, deployment, and tracking of state and local resources. SEMS also integrates all of the requirements of the National Incident Management System (NIMS).

*All Facilities **shall** incorporate the major elements of SEMS into their emergency plans and operations.* By incorporating SEMS, each Facility will use the same basic emergency response organizational structure and terminology as all other city, county, and state agencies. This will facilitate smooth communication and coordination with outside agencies for response, resource allocation, and recovery at each Facility during and after a major emergency incident. State disaster assistance programs also require the use of SEMS in order for each Facility to be eligible for full reimbursement of costs related to response.

In order to incorporate SEMS at each Facility, the following are required:

- Adapt the Incident Command System (ICS) to the existing Facility organizational structure. ICS is a standardized yet flexible emergency response organizational structure that forms the basis for the entire SEMS concept.
- Establish local interagency agreements as necessary. These are public safety mutual aid agreements for law enforcement, fire, and emergency medical services. The agreement could include memorandums of understanding (MOUs) with the American Red Cross for mass care and shelter assistance, or with amateur radio organizations for emergency communications support.
- Provide appropriate training to senior executives and those employees involved in emergency response and recovery as identified in the Facility emergency plan. Staff that **shall** be trained for response and recovery include lead staff responsible for the physical plant, construction, environmental health & safety, police and fire, telecommunications and information systems, health services, housing and dining, and material management.

4.6.3 Facility Mutual Assistance

The University's facilities and operations are highly specialized, and therefore require highly skilled and trained personnel to deal with emergency response and recovery operations. For this reason, it may be preferable to call upon internal University resources for assistance, rather than outside agencies or contractors.

Each Facility **shall** be authorized to enter into formal or informal agreements with other University Facilities to share personnel, services, equipment, and supplies during a declared state

of emergency, or under other extraordinary conditions or circumstances as required immediately to avert, alleviate, or repair damage to University Facilities, or to maintain the orderly operation of the Facility. A Facility requesting assistance **shall** exhaust its own resources, or face imminent depletion of its own resources, before calling upon another Facility for assistance. Each Facility **shall** provide assistance to other University Facilities to the extent operationally possible, based upon the availability and status of its own resources. A Facility requesting assistance **shall** be responsible for all direct costs incurred by other University Facilities that are related to providing that assistance.

4.6.4 Emergency Preparedness and Evacuation Checklist

Systemwide guidelines and checklists have been developed to aid locations in identifying gaps in their building emergency plans in incorporating the needs of individuals with disabilities. ***See Resource Directory 2.11, UC Emergency Preparedness and Evacuation Checklist***.

The designated facility representative is tasked with informing the University of California Office of the President (UCOP) of their campus's status by submitting a completed checklist. The verification of campus programs will take place every quarter to ensure conformance with the checklist elements. Once conformance is achieved, this verification will occur annually. **The responsible representative should be selected, and the first checklist completed by June 30, 2024**.

Questions regarding this systemwide guidance should be directed to Capital Programs Executive Director, **Lauren Friedman at lauren.friedman@ucop.edu.** Questions on local evacuation procedures should be directed to your location's Emergency Management Office.

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Energy and Water Conservation and Management

Volume 6, Chapter 5

References:

- Policy on Sustainable Practices

5.1 CONSERVATION STANDARDS AND GUIDELINES

The following standards and guidelines support the University's policy on energy and water conservation and management in facilities operation. Some specific standards are not applicable to smaller Facilities (See "Policy on Sustainable Practices" above).

*Application of the standards and guidelines **shall** not involve any measure that will violate applicable laws, be hazardous to health or safety, cause significant impairment of the instructional or research effort, or result in an unreasonable minimum standard of comfort.*

5.1.1 Facilities Management Guidelines for Sustainability

References:

- Title 24, Part 6, of the California Code of Regulations

Maintain an inventory of major buildings and systems to:

1. Assess current performance of earlier-instituted operation and maintenance conservation practices, or begin such efforts where opportunities exist.
2. Assess possibilities for modifications to existing systems to reduce energy and water use.
3. Develop a priority list for capital improvements to achieve energy and water efficiency improvements and to integrate the possible projects into the Capital Improvement Program for the Facility.
4. Use life cycle cost analysis, per sustainability requirements referenced above, within guidelines required by the state, to assess the feasibility of capital investments to achieve energy and water conservation.
5. Design new buildings to outperform California Code of Regulations (CCR), Title 20, "Energy Building Regulations," and Title 24, "Energy Conservation Standards" by the amount specified in Sustainability Policy. (See: California Energy Commission Requirements)
6. Require design professionals to have independent certification that their designs meet requirements of item 5 above. Participation in the Savings By Design Program (utility incentive program for new construction) will be deemed independent certification.
7. Assess any proposed new or replacement equipment/installation pursuant to item 4 above. New replacement equipment should be more efficient than existing. Utilize available utility or other incentive programs in implementing this.
8. Plan new buildings and systems to utilize water-conserving fixtures and features; for example, prohibit "once-through" water cooling systems and continuous-flow operations for intermittent demand. Consider installation of parallel piping systems for use of reclaimed water for nonpotable applications.
9. Coordinate water conservation efforts at each location with local agencies supplying water to the University.
10. Avoid landscape design or plant replacement that requires excessive water use.

5.1.2 Operational Guidelines

1. Implement system operation and maintenance on the basis of "least total cost," considering both labor and energy costs, and as required by Policy on Sustainable Practices.
2. Reduce running time of energy-consuming equipment through:

    - Equipment shutdown when not required (no continuous operation or idling when there is no demand).
    - Building use scheduling both on a daily and longer-period basis (e.g., vacations and between quarters).
    - Programs for selective load shedding of power in event of excessive peak usage.
    - Programs for reduced speed, for long periods, of various types of electric loads which can tolerate reduced-speed operation with only minor effect on the user (demand control).
3. Adjust lighting levels to no more than illumination requirements of CCR, Title 24, power use recommendations. Use group relamping programs where feasible.
4. Buildings designed under the Policy on Sustainable Practices should be operated according to their original design intent. Optimize heating, ventilating, and air conditioning (HVAC) systems (through modification by way of Capital Improvement Projects where necessary).
    - Within the interiors of buildings, temperatures between 68 degrees and 78 degrees Fahrenheit are considered to provide a reasonable standard of comfort. Thermostats should be set at 78 degrees in the Summer and 68 degrees in the Winter. These limits will not apply in areas where other temperature limitations are required by law or where special use of an area demands other limits. For additional reference see: ASHRAE Thermal Comfort Standards (Publication Ordering Information) and State Administrative Manual 05-14 Procedures for Energy Management in State Buildings
    - Modify or adjust HVAC systems to avoid simultaneous use of heating and cooling energy use in the same zone or space wherever possible, or minimize such simultaneous energy use within system limitations by resetting the system operating limits.
    - Optimize boiler and chiller plant (or equivalent) operation for best utilization of facility components and for achievement of maximum practical operating efficiency. Achieve optimum use of outside air or maximum practical energy recovery from exhaust air where 100 percent outside air is required for building ventilation.
    - Minimize the rate of air circulation within constraints of applicable laws, regulations, codes, or other necessary limitations.
5. Suggest that personnel minimize individual automobile use through car pooling and use of public transportation.
6. Use water from on-site sources such as springs or wells where possible within environmental constraints.
7. Install flow control devices such as low-flow shower heads and flush valves.
8. Balance systems using once-through water to minimize flow rates, and operate these systems only when required. This guideline applies to landscape irrigation and mechanical equipment systems.
9. Recycle waste water when ease of conversion and code requirements allow; for example, modify once-through cooling systems to recirculate rather than discharge cooling water.
10. Purchase equipment such as lasers, compressors, and vacuum pumps that do not require once-through water cooling systems.

11. Develop and use reclaimed waste water for irrigation. Consider off-campus reclaimed water supplies, where available, for this purpose.
12. Have operating contingency plans at each Facility to curtail operation in the event of limitation of boiler fuel, electricity, or water supply. Base these operating contingency plans on the concept of progressive interruption to accommodate different levels of energy or water supply curtailment. Review and update contingency plans annually.
13. Follow procedures adopted by the University from the governor's *Executive Orders* and California Department of General Services *Management Memos*.

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5.2 ENERGY AND WATER USE REPORTS

In order to comply with the Policy on Sustainable Practices reporting requirements, each campus is required to submit an annual energy and water use and conservation report to the Office of the President, Facilities Administration

Prepare the report on a fiscal-year basis according to the template supplied by Office of the President. Submit the report by October 1 to the Office of the President.

Report Template: The template is limited to basic elements necessary for auditing the conservation program and use of purchased utilities. In addition to these instructions, reports may include any additional pertinent information such as heating or cooling degree days, student programs, and explanatory material.

Template may be accessed at: The Policy on Sustainable Practices web page

Reporting Guidelines:

1. Each campus should include all facilities under its administrative responsibility, not limited to state supported space.
2. Usage Subdivision:
    - Report gross and net (state-supported) utility usage per Energy Template. Gross figures must be compatible with usage reported in the California Climate Registry.
    - Optionally, usage may be subdivided further into more specific classifications.
    - Separate satellite facility usage may be separately identified and reported. When separately reported, indicate whether such usage is also included in the campus usage being reported.
3. Excluded Usage:
    - Do not report automotive, airplane, or other vehicle fuel usage.
    - Do not report agricultural water usage.
4. Use usage units provided on Report Template.

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5.3 ALTERNATE FUEL PROVISION

5.3.1 Campus Contingency Planning

Recognizing the criticality of University Programs, Campuses are encouraged to isolate themselves from interruption of service through the combined use of on-site fuel storage and fuel contracts. Campuses are encouraged to use a 14 day horizon for planning purposes. Specific planning provisions will be determined by the criticality of a Program, and its dependence upon fuel or electricity.

5.3.2 Hospital facilities requirements

For general acute care hospitals “the on-premise fuel supply shall be sufficient for not less than 24 hours full demand operation.” “For acute care hospital facilities required to meet NPC-5, the on premise fuel supply shall be sufficient for not less than 72 hours full demand operations” (*2004 California Electrical Code Article 700 – Emergency Systems*)

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5.4 UTILITY REGULATORY AGENCIES

This article contains procedures for the active participation by University staff or other administrative units acting on behalf of the University in official, on-the-record presentations during proceedings of the California Public Utilities Commission (CPUC) and equivalent regulatory activities of other governmental utilities agencies.

Adherence to the these procedures will ensure that (1) necessary legal and other services are provided to University participants before and during presentations to the CPUC and equivalent agencies, and (2) appearances and presentations by Facility or other administrative unit representatives will be consistent with University policies and interests regarding the particular regulatory matter.

Also addressed here are procedures to follow when a Facility is charged capital fees for receiving utility services.

5.4.1 California Public Utilities Commission (CPUC)

References:

"Public Utilities Commission, Rules of Practice and Procedure," California Code of Regulations, Title 20, Chapter 1.

The California Public Utilities Commission (CPUC) is a constitutionally created, quasi-judicial body having jurisdiction over matters concerning the operations of and rates charged by investor owned utilities companies that serve the public throughout the state.

The University's provision of natural gas, electricity, and telecommunications services is subject to CPUC decisions affecting these services. Customarily, the CPUC holds hearings under rules governing admission of testimony and rights of parties to take testimony from interested parties as part of its decision-making process. Such testimony may be a major influence in shaping the commission's final decisions. Other governmental agencies such as municipal utilities conduct regulatory proceedings in a similar manner.

Because of the continuing importance of utility services and costs, the University must be involved in such proceedings to protect its interests. Cases may involve a single Facility or administrative unit or may involve the entire University system. Independent or uncoordinated participation by University representatives may compromise the University's interests and subsequent University options for appeals or other actions in these regulatory matters.

CPUC Hearing Participation.

Request assistance from the General Counsel of the Regents for participation in CPUC or equivalent proceedings. In advance of the proceeding, have responsible staff communicate with General Counsel and with the department in the Office of the President responsible for Facilities operations or telecommunications. This will allow sufficient time for review, comment, and preparation of appropriate legal advice or a presentation for the proceeding.

Coordinate response with General Counsel and the Office of the President to any invitation from a serving utility agency, company, or the CPUC. Also notify those offices in advance of any self-initiated proposals by a Facility to participate in any regulatory proceeding. Avoid official University representation that might become a matter of record without such coordination.

Coordination with the above offices is not necessary for routine informational communications with the CPUC or equivalent agencies or for nonparticipating spectator attendance at proceedings. "Routine" communications might include determining hearing dates and requesting copies of decisions.

Each Facility or administrative unit should have a coordinator for CPUC (or regulatory agency) matters.

5.4.2 Capital Fees for Utility Services

Prior to 1986 the University was effectively isolated from the imposition of capital fees assessed by public utility entities. Such fees are typically identified as “Capital Facilities Fee”, “Capacity Charge”, “Demand Charge”, or “Standby Charge”.

After 1986, and until 2006, utilities were able to charge such fees to the University, with some limitations.

Assembly Bill 2951, effective January 1, 2007, authorizes public entities providing utility services to charge the University just like any other of its customers. Such fees “should not exceed the reasonable cost of providing the public utility service”

If there are questions about the appropriateness of any public utility fee charged to a Campus, they should be directed to Office of the President, Facilities Management.

See: Assembly Bill 2951 – chaptered 9/30/2006.

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Real Property Matters

Volume 6, Chapter 6

INTRODUCTION

OMP personnel are frequently involved in real property matters that require coordination with Real Estate Services Group (RESG), the UC Legal - Office of General Counsel (UCL) and/or other units of the Office of the President. This chapter addresses procedures to follow for real property matters involving OMP.

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6.1 DUE DILIGENCE FOR PROPERTY TRANSFERS

Prior to acquiring real property to be used for University purposes whether by purchase or ground lease (as lessee), substantial due diligence is required to determine the property's suitability for the University's intended use and the extent of any liability associated with taking title to or possession of the property. RESG assesses property title and value and, working with UCL, negotiates contractual terms to permit a thorough due diligence review of all other aspects of the property. All due diligence other than title and valuation is performed by or under the direction of the campus.

The nature and extent of due diligence performed is a function of the type of property and intended use. For example, vacant land for development requires analyses of such items as boundaries, terrain, soils, water table, access, and infrastructure availability; whereas an existing building to be acquired for use as-is requires analyses of such items as building structure and condition, fire life safety systems, ADA, mold, operating systems and existing leases and operating agreements. Checklists for due diligence that may be applicable to a real property acquisition and sale by the University are available at: FA - RESG - Leasing & Licensing Resources

Regardless of property type and intended use, however, an environmental due diligence site assessment is required to be conducted to determine the presence of hazardous materials or

hazardous waste whenever the University plans to acquire or ground lease real property. Similar analysis may also be required prior to sale of real property. These assessments are necessary to determine and limit University liability.

6.1.1 Environmental Site Assessment Process and Requirements

Regardless of property type and intended use, an environmental site assessment must be conducted to determine the presence of hazardous materials or hazardous waste whenever the University acquires or ground leases real property. Such analysis may also be required prior to sales of real property. These assessments are necessary to determine and limit University liability.

Environmental site assessment is a three-phased process:

- Phase 1: Preliminary Site Assessment
- Phase 2: Site Characterization
- Phase 3: Site Remediation (Cleanup)

(See 6.1.2 through 6.1.4 for an outline of this phased process. For more detailed information on the due diligence process for real property acquisitions, contact RESG.)

Environmental site assessment is conducted by Environmental Health and Safety personnel or qualified outside environmental consultants. The assessment determines the likelihood of on-site hazardous material contamination of existing buildings, soils, or ground water and identifies sources of the possible contamination. Actual sampling of building materials and residues, soils, or ground water may be required.

Hazardous materials may be found in a variety of forms on real properties. Building materials or components are sometimes considered hazardous: for example, asbestos, transformers and capacitors containing polychlorinated biphenyls (PCBs), lead paint, and ureaformaldehyde foam insulation. In addition, soils or ground water at the site may be contaminated by improper disposal of hazardous materials or by leaking underground storage tanks.

OMP personnel should assist environmental assessors in the due diligence site assessment process when the University purchases or ground leases facility-related real property, or sells University-owned real property.

Prior to sale of existing University facilities, OMP personnel can assist environmental site assessors by:

- Providing site history and past and present uses and operations.
- Indicating whether regulatory permits exist for the site.
- Explaining the site layout and facilities.
- Indicating locations of waste and waste water storage, disposal, or conveyance facilities.
- Providing general information about existing buildings and building components.
- Providing copies of inventory, inspection, and other records required by law during the

- University's use of the property.

6.1.2 Phase 1: Preliminary Site Assessment (PSA)

Standard components of Phase 1 are to:

- Identify past and present site use.
- Assess off-site hazards posed by past and present uses of surrounding properties.
- Determine site environmental characteristics and setting.
- Assess hazardous material and hazardous waste generation, storage, handling, and disposal practices.
- Inspect structures for asbestos, PCBs, or any other potential hazards.
- Develop conclusions about potential problems, and develop recommendations for any further action. Available investigative tools for performing the assessment include the following:

Records Review. Review the records below for site history and use, hazardous materials and hazardous waste storage and disposal permits, reported releases or known contaminated sites, violations or other regulatory agency actions, and building permits:

- Local (city/county) building records, assessor's records, permits, and regulatory records.
- Local (city/county) historical property records. • Local utility district records (waste water).
- State regulatory agency records (water, air, hazardous materials, and waste).
- Federal Environmental Protection Agency records.
- University records (if existing property).

OMP personnel must make available to environmental assessors all available records pertaining to hazardous materials and hazardous waste use, generation, storage, or disposal.

Site Inspection. Site inspection is performed by environmental assessors to identify land uses, activities, and characteristics that could impair the environmental condition or value of the real property. Site-specific characteristics that could indicate potential for such impairment include:

- Underground storage tanks.
- Drums or other chemical storage and handling areas.
- On-site waste water systems.
- Sumps and storm drains.
- Wells.
- Surface water or waste water impoundments.
- Soil or pavement stains or discoloration.
- Noxious or chemical odors.
- Maintenance or shop areas.
- Electrical transformers.
- Piles of waste or trash.
- Dead, dying, or unhealthy vegetation.

- Obvious signs of spillage or residues in buildings or on property.

OMP personnel must inform environmental assessors if any of the above characteristics are known to exist.

Interviews. For sales of University real property, environmental assessors will conduct interviews of OMP personnel to obtain information about the current and past uses of the site, regulatory agency permits or site violations, site layout information, waste and waste water information, building information, and other site-specific characteristics. OMP personnel must disclose any knowledge of these areas to the environmental assessor.

6.1.3 Phase 2: Site Characterization

During Phase 2 of the environmental due diligence site assessment process, consultants take actual samples of site soils, ground water, and building components, if necessary. Materials of concern include asbestos, PCBs, lead paint, and ureaformaldehyde foam insulation. Sampling is performed to ascertain the presence or absence of hazardous materials and to determine the need for further site assessment or remediation (cleanup).

6.1.4 Phase 3: Remediation (Cleanup)

During this phase, consultants perform detailed site sampling (characterization) and formulate remedial action alternatives or plans. Consultants may also need to perform a formal health risk assessment.

Another approach to describing the process to be followed in conducting an environmental site assessment for property to be acquired is found at:

http://www.ucop.edu/risk-services/loss-prevention-control/environmental-due-diligence-program/index.html

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6.2 UNDISTURBED USE OF SITE

References:

University Policy: "Construction of Buildings or Other Facilities" (see FM1:5**).**

On occasion, construction of University buildings or other facilities has been proposed without assurance that The Regents would enjoy undisturbed use of the site for the entire estimated life of the proposed improvement. The following University policy applies to such situations:

No building or other improvement shall be constructed, nor shall the preparation for such projects proceed beyond the completion of preliminary plans unless The Regents' interest in the

proposed site, including any necessary access thereto, is such as to assure the University of the undisturbed use and enjoyment of the site for the entire estimated life of the improvement.

Generally, this requirement is satisfied if The Regents hold title to the proposed site in fee simple, but even then, consideration must be given to the existence of any conditions which, if not complied with, may cause The Regents to become divested of ownership. In addition, the impact of easements or licenses on the University's undisturbed enjoyment of the site must be evaluated [see 6.3]. [If no title insurance is held, a preliminary title report should be requested from RESG.]

Conversely, if the estimated life of a building or other improvement is comparatively short, the requirement of prospective undisturbed enjoyment may be satisfied even though The Regents do not hold title to the site in fee simple. For example, a permanent improvement to premises occupied by the University as lessee may be proper if the value to the University of the use of the improvement over the term of the lease will be equal to or in excess of its cost (in other words, the University is able to fully amortize its investment).

In any case, where there is any uncertainty as to whether The Regents' interest in a site is adequate to assure the University of undisturbed use and enjoyment for the estimated life of the building or other improvement, the matter should be referred to RESG, and as needed UCL, prior to proceeding beyond the completion of preliminary plans and pursuing the acquisition. As part of complying with this policy, an opportunities and constraints map of the proposed acquisition property reflecting all of the relevant due diligence findings that bear on developing the property should be prepared.

University Policy: "Construction of Buildings or Other Facilities."

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6.3 LICENSES, EASEMENTS, AND RIGHTS-OF-WAY

The authority to negotiate all campus space leases, licenses, easements, and rights-of-way has been delegated to the Chancellors by the President (see FM1:4) and the authority to approve and execute some of these transaction documents depending on value, scale and duration has also been delegated. The campus real estate office is responsible for such negotiations. A chart of delegated authority for various transactions is found at: https://www.ucop.edu/real-estate-services/transaction-processes/index.html

6.3.1 Leases

Additional information on leasing practice is located at:

Facilities Administration - University of California Office of the President

and the specific campus delegation for leasing is found at: DA2140

6.3.2 Licenses

Additional information on licensing practice, distinguishing a license from leases and easements, is located at:

When to use a lease, license or easement

and the specific campus delegation for licensing is found at: DA 2118

6.3.3 Easements and Rights of Way

Additional information on and models for easements and rights of way practice is located at:

http://www.ucop.edu/real-estate-services/_files/documents/leasing/easementguidelines08_28_06.pdf

and the specific campus delegation for easements and rights of way is found at:

https://policy.ucop.edu/_files/da/da2629.pdf

6.3.4 Rights-of-Way

[To be included in a future *Facilities Manual* revision.]

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June 2, 2008 (Change No. 08-095-P)

Glossary of Facilities Manual Terms

INTRODUCTION

This glossary contains terms that have special meaning within the context of the *Facilities Manual* (FM). Terms (in boldface italics) are presented below in preferred FM text style regarding capitalization, punctuation, and spelling. It should be noted, however, that similar terms, when appearing as part of a definitions list within a legal contract or agreement, are often given different treatments and meanings. In the event of a conflict between contract or agreement terms and these glossary terms, those residing in the contract or agreement being utilized take precedence.

TERMS AND DEFINITIONS

A - B | C | D - F | G - L | M - O | P - R | S | T - Z

A-B

actual cost. The cost of the work based on payment to the contractor for the actual time spent by the contractor's employees and subcontractors and the materials actually used.

addenda. Written or graphic instruments prepared by the design professional (sometimes in conjunction with the University) and issued by the University prior to the date for receipt of bids. Addenda modify or interpret the bidding documents through additions, deletions, or corrections.

Agreement (construction). The contract between the University and the contractor for construction of a project.

agricultural field station. A Facility administered by the University's Division of Agriculture and Natural Resources. Agricultural field stations are located throughout California.

alternate. A proposed change in the work, as described in a bid, which, if accepted, may result in a change to either the contract sum, contract time, or both.

annual announcement. An advertisement issued by the Office of the President listing, for each calendar year, the types of projects and types of consultant contracts with fees of $100,000 or less anticipated during the year. The advertisement will be published per the advertising requirements in 2.2.1.

Application for Payment. The contractor's written request for payment. The Application for Payment itemizes the cost of the work in permanent place, as approved by the University's Representative, that has been completed in accordance with the contract documents.

arbitration. A method of settling claims or disputes between parties to a contract, whereby an arbitrator or a panel of arbitrators selected for specialized knowledge in the field in question hears evidence and renders a decision.

auxiliary enterprise. A non-instructional University support service funded by fees and user charges provided primarily to students, faculty, and staff. State funds are not used to support auxiliary enterprises. Auxiliary enterprises include the following:

- Student and faculty rental housing
- Parking facilities
- Student centers and bookstores
- Child care facilities
- Dining facilities associated with housing
- Recreation centers

base bid. The sum stated in a bid, as the base for which the bidder offers to perform the work described in the bidding documents, to which work may be added, or from which work may be deleted for sums stated in alternates.

Beneficial Occupancy. A stage in the work when the University reserves the right, at its option and convenience, to occupy or otherwise use all or any part of the work prior to Substantial Completion or Final Completion upon 10 days' notice to the Contractor.

bid. A complete and properly signed offer to do the work for the sums stipulated therein, submitted in accordance with the bidding documents.

bidding documents. Documents given to bidders to enable them to prepare a bid. Bidding documents consist of the Cover Page, Certification, Table of Contents, Advertisement for Bids or Request for Bid, Project Directory, Instructions to Bidders, Supplementary Instructions to Bidders, Information Available to Bidders, Bid Form, Bid Bond, Agreement, General Conditions, Supplementary Conditions, Exhibits, Specifications, List of Drawings, Drawings, and Addenda.

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C

California Code of Regulations (CCR). The publication known before January 1, 1988, as the California Administrative Code that is the official compilation of the adoption, amendment, or repeal of state agency regulations (many of which are applicable to University projects).

California Public Utilities Commission (CPUC). The commission with jurisdiction over matters concerning the operations of, and rates charged by, private utilities companies that serve the public throughout the state. The University's use of natural gas, electricity, and telecommunications services is subject to CPUC decisions affecting these services.

California State Contracts Register. On-line electronic publication of the California Department of General Services that lists services and construction contracts.

Capital Financial Plan (CFP). The Ten-Year Capital Financial Plan identifies proposed capital projects, public private partnerships, and acquisition of real property for each campus and medical center.

Capital Improvement Budget. The budget form, prepared for each capital improvement project, that itemizes estimated costs for each construction element (also called the project budget).

Capital Improvement Program (CIP). The University's project-by-project implementation of the master academic plans and long-range development plans at its Facilities.

capital improvement project. Land or real property, construction, or capital equipment for construction included as a project in the Capital Improvement Program.

Capital Renewal and Replacement. The University program for upgrading or replacing facilities, major building systems, and supportive infrastructures beyond the funding limitations of OMP or deferred maintenance as a project in the Capital Improvement Program.

Certificate for Payment. A written instrument issued by the University's Representative upon receipt of a contractor's Application for Payment. The Certificate for Payment is issued to the University and authorizes payment to the contractor for the amount the University's Representative determines to be properly due.

change order. A post-award modification to a construction contract. A change order may clarify, revise, add to, or delete previous requirements of the work, adjust the contract sum, or adjust the contract time.

claim. A written demand or assertion by a contractor seeking 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, or determination of other disputes or matters in question between the University and contractor regarding the contract documents or the performance of the work.

compensable delay. A delay in the completion of the work beyond the expiration date of the contract time and caused by the gross negligence or willful acts of the University, its employees, or the University's Representative. Compensable delays may entitle the contractor to an adjustment of the contract time and the contract sum.

construction. The act, art, or business of moving, demolishing, installing, or building a structure, facility, or system according to a plan or by a definite process. Construction consists of the application of any of these techniques to physical plant facilities such as structures, utilities, excavations, landscaping, site improvements, drainage systems and roads, and additions, deletions, or modifications of such facilities. All painting, regardless of whether exterior or interior painting of either new or existing structures is a form of construction.

construction contract. The executed Agreement between the contractor (or contractors) and the University that sets forth the work required to construct a project, the contract time, liquidated damages, the contract sum, and the contract documents.

construction cost. The actual cost to the University for the construction portion of the total project cost. Construction cost is a line item in the project's Capital Improvement Budget. In the final project budget, the construction cost is the final, adjusted contract sum.

construction documents. All of the written and graphic documents prepared or assembled by the design professional for communicating the project design and contract administration. Construction documents include both the bidding and contract documents.

construction manager. The person or firm responsible for coordinating and managing all or part of the construction process, including the design and bidding phases, as a member of the construction team consisting of University personnel, the design professional, and the contractor. Services are provided by a licensed architect, registered engineer, or licensed general contractor and may include construction project design review and evaluation, construction mobilization and supervision, bid evaluation, project scheduling, cost-benefit analysis, claims review and negotiation, and general management and administration of a construction project. The Construction Manager may act as the University's Representative.

consultant. A person or firm engaged to render professional services to the University. Services may include, but are not limited to, architectural, landscape architectural, engineering, environmental, land surveying services, and real property development services.

consulting architect. An architect hired by the Facility to assist with general design standards and design reviews.

contract. (See construction contract.)

contract administration. The duties and responsibilities during the construction phase of a project as set forth in the design professional agreement and in the construction documents' General Conditions. The person or firm responsible for contract administration is listed in the construction Agreement.

contract documents. Documents containing the legally enforceable requirements that become part of the construction contract when the Agreement is signed. Contract documents consist of the Agreement, General Conditions, Supplementary Conditions, Exhibits, Specifications, List of Drawings, Drawings, Addenda, Certificates of Insurance, Payment Bond, Performance Bond, List of Subcontractors, List of Changes in Subcontractors Due to Alternates, Notice to Proceed, various contract modifications, Notice of Completion, and all other documents identified in the Agreement.

contract schedule. The schedule that graphically shows each project work activity, the start and finish times required for each activity, and the interrelationships between all work activities. This schedule is made and used by the contractor to coordinate the work of the subcontractors.

contract sum. The amount of compensation stated in the Agreement for the performance of the work. The contract sum may be adjusted only by change order.

contract time. The number of days set forth in the Agreement within which full completion of the work must be achieved. The contract time may be adjusted only by change order.

contractor. The person or firm responsible for performing the work and identified as such in the Agreement.

core (and non-core) construction documents. The Instructions to Bidders and the General Conditions are considered core University construction documents and are not to be changed by the Facilities. These documents have been carefully prepared to coordinate and conform with the other construction documents. The remaining construction documents are considered non-core documents and require completion by the Facility or the contractor.

***critical path*.** The optimum sequence of work activities which, if delayed or extended, will delay the scheduled completion of one or more of the milestones specified in the contract schedule, the scheduled completion of the work, or both.

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D-F

day. The term day, as used in the bidding and contract documents, means calendar day, unless otherwise specified.

default. The failure to fulfill a condition of the contract documents.

delivery method. A term used to describe the process by which a capital improvement project proceeds from concept, through design and construction, to occupancy. Delivery methods include the following:

- Conventional (design-bid-build)
- CM at Risk
- CM/Multiple Prime Trade
- Design-build
- Turnkey
- Lease-back
- Other (These include joint ventures, leasing, tenant improvements, and purchase of developer-owned projects.)

design. The various services required to produce drawings and other documents that fix and describe the size and character of an entire project; the architectural concept of a building as represented by site plans, floor plans, elevations, renderings, and other drawings.

design development. A project design phase in which all design decisions need to be completed. The design professional further develops the schematic design and architectural detailing and ensures that basic technical issues are resolved and are capable of technical description. Plan arrangements, specific space accommodations, equipment and furnishings, building design, materials and colors, and complete definitions of systems serving the project are developed.

design development documents. These documents record all decisions made by the design team prior to preparation of the construction documents, and they include architectural documents, engineered systems documents, and supporting data. The design development documents are formally presented to and approved by the University, thus completing the design development phase.

design professional. An architect, landscape architect or engineer (civil, structural, mechanical, and electrical), (person or firm) qualified and duly licensed to perform architectural or engineering services under contract to or employed by the University. The design professional prepares and signs the construction documents.

Detailed Project Program (DPP). A document describing a project in detail; an explanation of how and why a project is being developed that provides the designers with a Facility's standard architectural and engineering criteria, and shows how the project meets the University's and Facility's goals. The DPP may be prepared by a planning department, by a design professional, or by another consultant.

Disabled Veterans Business Enterprise (DVBE). an independently owned and operated concern certified as a DVBE Services (OSDS) by the California Department of General Services Office of Small Business or other accepted certifying agency as listed here. https://www. https://ucop.edu/sbe-dvbe-certifications

easement. An easement, like a license, gives the permission of the owner to use or prevent the use of the owner's real property. However, unlike a license, it transfers to the easement holder an interest in the real property that encumbers the title record. Easements are classified as either appurtenant (benefiting and transferable with a specific piece of real property) or in gross (personal to the grantee). An easement can be transferred. Unless otherwise specified, an easement is presumed to be permanent and non-exclusive.

electronic publication. A website or other electronic communication accessible to all members of a professional society or organization. In order to be included within this definition, an electronic publication of a professional society or organization must maintain a frequency of publication, in the case of a method other than a website, (e.g., e-mail communication), of not less than every two weeks or in the case of a website, must updated not less than every two weeks.

Environmental Impact Report (EIR). A Facility-prepared report that documents in detail the probable environmental impact of a proposed project. The EIR process includes publication and public review of a draft report. The final EIR incorporates responses to all comments received

during the review period and also proposes measures designed to mitigate significant environmental impacts and a program for monitoring mitigation measures.

Environmental Product Declaration (EPD). An Environmental Product Declaration (EPD) is a document that reports a product's environmental impact over its life cycle.

Environmental services. Services performed in connection with project development and permit processing in order to comply with federal and state environmental laws including the processing and awarding of claims pursuant to Chapter 6.75 (commencing with Section 25299.10) of Division 20 of the Health and Safety Code.

excusable delay. A delay in the completion of the work caused by conditions beyond the contractor's control and without the fault or negligence of the contractor. Excusable delays may entitle the contractor to an extension of contract time, but shall not entitle the contractor to any adjustment of the contract sum.

executive. When the term "executive" is applied to design professionals, the term refers to the primary design professional on the project, licensed in the state of California, who is both liable and accountable for the overall project design. There may be other design professionals on the project, but they are not responsible for the overall design.

facility. A building, structure, site or ground improvement, or other item built or installed to serve the University's mission of providing academic, scientific, and public service. (See also Facility.)

Facility. A University of California campus, laboratory, unit of the Division of Agriculture and Natural Resources, or the location of any other administrative unit. (See also facility.)

Facility Audit and Inspection Program. A University program to inspect facilities in order to identify, prioritize, and categorize projects as deferred maintenance, Capital Renewal and Replacement, or Special Repairs.

field observation. A duty of the University's Representative to observe tests and inspections and to make acceptances required by the contract documents.

Field Order. A written instrument, issued by the University's Representative to, to provide instruction to a contractor when time required for preparation and execution of a formal Change Order would result in delay or stoppage of this work. A Field Order does not constitute a change in work or time unless stated. It must include a description of work and may include estimated adjustments of the contract sum and contract time. A Field Order may be issued before all terms of the change are fully agreed to by the University and the contractor but is not to be issued when the scope of the work and an estimated cost can be determined. A duly authorized Change Order shall replace a Field Order as soon as possible and shall bear appropriate reference to the Field Order.

field station. An experimental University Facility administered by a campus, laboratory, or other administrative unit.

Final Completion. That time when the work is fully completed and in accordance with the contract documents, as determined by the University's Representative.

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G-L

General Funds. Funds in the budget for current operations and support from the state or from University sources.

geotechnical engineer. A person or firm that analyzes and inspects excavations, grading, compaction of soils, and the soil itself.

hazardous substances. Materials identified by the California Department of Industrial Relations as potential safety and health hazards.

hazardous waste. Waste products including infectious and toxic waste, chemicals, and radioactive elements that cannot be handled through regular refuse disposal procedures due to the hazardous nature of these waste products.

hearing officer. The person appointed by the Chair of the University's Construction Review Board to conduct an informal hearing and to make a decision on a request for subcontractor substitution, a bid protest, or a contractor disqualification.

Initial Study. A study prepared by the Facility during a project's planning phase that classifies the project's probable environmental impact. The Initial Study identifies areas of environmental concern and assesses whether potential impacts are sufficient to require the preparation of an Environmental Impact Report. If no significant impacts exist, a Negative Declaration is prepared instead.

inspection. Detailed evaluation of the work, which includes a field report documenting site conditions, work performed by the Contractor, work performed by University staff, and/or work performed by others in accordance with the approved contract specifications, construction documents, RFI's, field orders, change orders, and building code requirements.

inspection agency. A duly licensed person or firm specializing in construction inspections.

latent defect. A defect that is not visible or active during the course of construction or before Final Completion.

lease. A lease is an agreement in which the landlord agrees to give the tenant the exclusive right to occupy real property, usually for a specific term and, in exchange, the tenant agrees to give the

landlord some sort of consideration. A lease transfers to the tenant a leasehold interest in the real property and, unless otherwise provided in the lease, a lease is transferable and irrevocable.

letter of instruction. Written instruction, issued by the University's Representative, that interprets or clarifies the contract documents without changing the scope of work or adjusting the contract sum or contract time and that is consistent with the intent of the contract documents.

license. A license gives the permission of the owner to an individual or an entity to use real property for a specific purpose. Unlike a lease, it does not transfer an interest in the real property. It is personal to the licensee and any attempt to transfer the license terminates it. It is (usually) revocable and can be either exclusive or non- exclusive.

liquidated damages. A fixed sum that is specified in the Agreement and which the contractor is assessed as a measure of damages that the University will suffer for each day the work remains incomplete beyond the expiration of the contract time.

long-range development plan (LRDP). A broad, comprehensive plan expressing policy as approved by The Regents on proposed future physical planning and development of a University Facility or its outlying areas.

lump-sum cost. A stipulated dollar amount for a project determined by including all work-related costs such as labor, materials, equipment rental, supervision, overhead, and profit.

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M-O

maintenance. The ongoing upkeep of buildings, equipment, roads, grounds, and utilities required to keep a Facility in a condition adequate to support the University's academic, scientific, and public service functions.

maintenance, deferred. Maintenance, repair, and replacement work delayed from previous operating budget cycles due to a lack of funds.

maintenance, emergency. The repair or replacement of facility components or equipment requiring immediate attention because the functioning of a critical system is impaired or because health, safety, or security of life is endangered. Emergency maintenance supersedes all other categories of maintenance.

maintenance, planned. The upkeep of property, machinery, and facilities including buildings, utility systems, roads, and grounds. Planned maintenance is usually characterized by its routine or recurring nature. Its purpose is to keep facilities functional. (Planned maintenance is also called programmed or scheduled maintenance.)

maintenance, preventive. The periodic inspection, adjusting, minor repair, lubricating, reporting, and data recording necessary to minimize building equipment and utility system breakdowns and to maximize system and equipment efficiency.

Maintenance Workload Budgeting Standards. Common workload measures and standards of performance applied to the tasks of OMP functions. The standards, which suggest the estimated hours per year required to complete preventive maintenance and to perform repair and replacement at various Facilities, are intended to be used primarily for budgeting purposes to determine resource requirements for OMP functions.

major capital improvement project (for non-state projects). New construction, substantial alterations, extensions, or improvements to existing structures with an estimated cost in excess of $1 million. *For projects with State money, the campus capital planning department should be contacted since the dollar threshold is adjusted biennially.*

mediation. A process that provides for the intervention of an acceptable and impartial third party who assists and persuades contesting parties to reach a mutually acceptable settlement of their differences through an appropriate means of reconciliation, interpretation, clarification, suggestion, and advice.

minor capital improvement project (for non-state projects). New construction, substantial alterations, extensions, or improvements to existing structures with an estimated cost not to exceed $1 million. *For projects with State money, the campus capital planning department should be contacted since the dollar threshold is adjusted biennially.*

Negative Declaration. A Facility-prepared document stating that a proposed project has no probable significant environmental impact.

non-core construction documents. (See core (and non-core) construction documents.)

Notice of Completion. A notice filed by the University that signifies that the work, including punch list(s) and code violations, has been completed in accordance with the terms of the contract.

observation. (See field observation.)

OCEAN. The UC Operational Carbon and Energy Assessment for New Construction (OCEAN) tool for proposed new buildings and major renovations forecast annual and lifetime utility costs and operational carbon emissions. Results are integrated into the capital approvals process in Regents and Certification Checklist items. More information can be found in Volume: 3 Chapter 5.6.1.

OMP. Operation and maintenance of plant.

OMP functions. Aggregations of the basic tasks required to perform Facility operations and maintenance (also called operational elements).

operating budget. A proposed plan of expenditure needed to operate the University for a fiscal period, excluding proposed expenditures for capital improvement projects.

operation. The methods used to carry out utility distribution, building locking and unlocking, transportation activities, energy conversion and conservation, and other support systems that are vital to the satisfactory functioning of the plant.

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P-R

patent defect. A defect that is known or observable during the course of construction and before Final Completion.

phased work. For all approvals and delegations in Chapter 7 only, phased work includes, but is not limited to: using the same contractor to perform similar modifications on multiple buildings, performing multiple projects over a period of years on the same building, constructing multiple buildings in a complex or separating work into several projects. In such cases, separate projects or phases will be considered part of the same budget. Also see: project budget.

Physical Design Framework (PhDF). The Physical Design Framework identifies planning principles and objectives for design of the physical environment; how the PhDF relates to the Long Range Development Plan; and how objectives will be integrated into project planning and design. Also see: *Long Range Development Plan*.

plant. The tools, machinery, buildings, grounds, and equipment of a University Facility (also called the physical plant).

Plant Service. An optional OMP function that sets up an account to recharge users for funds expended by OMP on services performed by the other functions, for work included or not included in the operating budget. The purpose of Plant Service is to provide a uniform and consistent method of collecting and accounting for costs of all OMP functions through recharges.

prevailing wage rates. A set hourly rate of pay in the locality where the work is to be performed, for each craft required to perform the work. Prevailing wage rates are determined by the Director of the California Department of Industrial Relations. The prevailing wage rates are usually based on rates specified in regional collective bargaining agreements.

Product Category Rule (PCR). A Product Category Rule (PCR) is a set of rules, requirements, and guidelines used to develop an EPD for a product group.

product data. Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the contractor to illustrate or describe materials or equipment for some portion of the work.

programming. The process for defining project needs; programming includes cataloging the spaces and equipment needed, defining functional relationships, and identifying building systems requirements.

project. The erection, construction, alteration, repair, or improvement of any structure, building, road, or other improvement.

project budget. For all approvals and delegations in Chapter 7 only, total project budget shall be defined as all costs of the project including administrative, design, construction, interest accrued during construction, and where applicable equipment costs as well as acquisition cost of land or other real property. Also see: *phased work*.

project file. A Facility file containing the bidding documents, contract documents, forms, correspondence, and all other record items related to a project.

project manager. A duly licensed person or firm specializing in managing the design, contract administration, and inspection of projects.

Project Planning Guide (PPG). A narrative and statistical document that systematically justifies and describes a proposed capital improvement project. The PPG establishes the scope and purpose of the project in relation to the Facility's academic plan.

project program. A document setting forth project requirements, constraints, and design objectives including space requirements and relationships, needed flexibility and expandability, special equipment and systems, and site requirements.

project representative. The design professional's or Facility's representative at the project site who assists in the administration of the construction contract.

punch list. A list of items to be completed or corrected by the contractor before Substantial Completion can be established. The punch list is issued and prepared by the University's Representative and includes lists from Field Inspectors, the Design Professional, and facilities staff.

quality management. A program established to achieve the level of quality agreed to by the eventual users of, and those responsible for, a University project.

record documents. Copies of the Drawings, Specifications, and all other contract documents that reflect the changes that have occurred since these documents were issued to bidders.

Regents' Funds. Funds for current non-budgeted operations, capital improvement projects, or other non-budgeted purposes, provided by The Regents of the University of California, from various sources. Regents' Funds include the following:

- Endowments
- Gifts

- Laboratory management fees from the U.S. Department of Energy
- Contracts and grants overhead
- Investments

replacement. Substituting systems or components no longer usable or adequate with items of the same kind.

responsible. The term responsible, as applied to bidders, means a bidder who is able to satisfactorily perform the work, as determined by the University.

responsive. The term responsive, as applied to a bid, means that the form and content of the bid meets the University requirements set forth in the bidding documents.

retention. A portion of the cost of the work in place withheld by the University from the contractor's progress payments.

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S

samples. Physical examples that illustrate materials, equipment, or workmanship, and that establish standards by which the work will be judged.

schematic design. The first phase of a project's design process; preparation, by the design professional, of drawings and other documents illustrating the scale and relationship of project components.

schematic design documents. Documents typically including drawings, outline specifications, calculations, a cost estimate, sketches, and a color rendering or model used to illustrate the schematic design of a project.

scope. The scope of project is what will be constructed or acquired. Scope encompasses physical characteristics and if integral to these characteristics, the intended program use.

Sheltered Applicant Pool. Sheltered Applicant Pool is a program whereby a portion of design or professional service contracts under $100,000 are designated for Invitations for Proposals from Small Business Enterprise (SBE) and/or Disabled Veteran Business Enterprise (DVBE) firms. The goal of sheltered markets is to provide greater opportunities for small and disabled veteran design and professional services businesses.

Sheltered Bidding. Sheltered bidding is a program whereby a portion of contracts are designated, before solicitation of informal (competitively bid $50k - $640K) or negotiated (under $50K) bids, for competition between Small Business Enterprise (SBE) and/or Disabled Veteran Business Enterprise (DVBE) contractors. The goal of sheltered markets is to provide greater bidding opportunities to small and disabled veteran businesses in the University’s construction projects.

shop drawings. Drawings, diagrams, schedules, and other data specifically prepared for the work, by the contractor or a subcontractor, to illustrate some portion of the work.

Small Business Enterprise (SBE). an independently owned and operated concern certified as a small business by the California Department of General Services Office of Small Business or other accepted certifying agency as listed here. https://ucop.edu/sbe-dvbe-certifications

Sole Campus Capital Designee. The official who is vested with the responsibility for the campus's capital program and is a direct report of the Chancellor. The appointment of the Sole Designee shall be in writing. A copy shall be provided to the Executive Director of Capital Assets Strategies and Director of Capital Markets Finance. Also see: *Sole Campus Medical Center Designee*.

Sole Medical Center Capital Designee. The official who is vested with the responsibility for the medical center's capital program and is an Officer of the Medical Center. The appointment of the Sole Designee shall be in writing. A copy shall be provided to the Executive Director of Capital Assets Strategies and Director of Capital Markets Finance. Also see: *Sole Campus Capital Designee*.

special inspection agency. A duly licensed person or firm specializing in specialty inspections including materials testing in order to ensure compliance with California Building Code, Chapter 17 Special Inspections and the approved construction documents. See also CBC, Part 2, Volume 1 for definitions on continuous special inspection and periodic special inspection.

Special Repairs. Large-scale deferred maintenance projects or a group of similar deferred maintenance projects that are combined into one project. Special Repairs are coordinated through the Capital Improvement Program but are funded through the operating budget.

specifications. Written descriptions of the materials and processes for construction included in the construction documents. Specifications describe the technical requirements for construction.

stop notice. A legal notice submitted to the University by a construction subcontractor, supplier, manufacturer, distributor, or another party to withhold unexpended funds held by the University to satisfy claims regarding labor and materials furnished to the contractor for the work.

subcontractor. A person or firm that has a contract with the contractor.

submittals. Items submitted by the contractor to the University's Representative. Submittals include the contract schedule, submittal schedule, shop drawings, product data, samples, record documents, guarantees, and operating and maintenance data.

submittal schedule. A contractor-prepared schedule that directs contractor and subcontractor submissions of shop drawings, product data, samples, and other required items. This schedule includes the date the University's Representative should first receive submittals, the date by which the University's Representative is to approve submittals, and the date approved documents are to be returned to the contractor.

Substantial Completion. That stage in the progress of the work when the University's Representative determines that the work is complete and in accordance with the contract documents except for completion of minor items that do not impair the University from occupying and fully utilizing the work for its intended purpose.

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T-Z

testing laboratory. A certified laboratory retained to perform testing services required by the contract documents.

unexcusable delay. A delay in the completion of the work beyond the expiration of the contract time and resulting from causes under the control of the contractor.

unit price. An amount stated in a bid or later agreed upon as a price per unit of measurement for materials, equipment, services, or a portion of the work, as described in the bidding documents.

University. This word, when capitalized, means The Regents of the University of California.

University's Representative. The person or firm designated in the contract documents to serve as the official representative of the University in connection with a project and to perform contract administration.

value engineering. A process used to review a project's design to ensure that it provides the best use of available project funds (also called value management).

Work. Construction and services required by the contract documents, as amended by contract modifications, whether completed or partially completed, including all labor, materials, equipment, tools, and services provided or to be provided by the contractor to fulfill the contractor's obligations. The work may constitute the whole or part of the project.

Work Control. The processing and managing of work orders and regularly scheduled work. Work Control is a task category in the OMP function, Plant Administration.

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