

Project No. 906270



Construction Documents
for
Student Housing Phase 4
The Summits

University of California, Merced
Merced, California

BID RELEASE 4

VOLUME 1 of 1

Physical Planning Design & Construction
University of California
5200 N. Lake Road
Merced, California 95343

June 8, 2011
Revision 1
LF:COVER-PG

March 18, 2013

CERTIFICATION

Name of Project: HOUSING 4: THE SUMMITS

Bidding Documents Prepared by:

**CONSTRUCTION DOCUMENTS
TABLE OF CONTENTS**

Volume 1 of 1

Cover Page
Construction Documents Table of Contents
Advertisement for Bids
Project Directory
Instructions to Bidders
Supplementary Instructions to Bidders
Information Available to Bidders
 Geotechnical Report
Bid Form
Bid Bond
Preliminary Prime Trade Contractor Schedule
Preliminary Master Project Schedule
Agreement
General Conditions
Supplementary Conditions
Exhibits
Division 1 Specifications
Technical Specifications
Drawings

Division 1 Specifications

Section	01 11 00	Summary of Work
	01 11 30	Scope of Work – Surveying & Layout (For Reference Only)
	01 12 00	Scopes of Work – Prime Trade Contracts
		<u>Bid Release 4:</u>
		.29 Signage
	01 21 00	Allowances – NOT USED
	01 22 00	Unit Prices – NOT USED
	01 23 00	Alternates – NOT USED
	01 25 00	Product Options and Substitutions
	01 26 13	Requests For Information
	01 31 00	Project Coordination
	01 31 19	Project Meetings
	01 31 42	Contractor Schedules
	01 31 45	Contract Schedules
	01 33 23	Shop Drawings, Product Data and Samples
	01 35 00	Special Requirements
	01 35 40	Environmental Mitigation
	01 35 43	Hazardous Materials Procedures
	01 41 00	Regulatory Requirements
	01 42 13	Abbreviation, Symbols, & Definitions
	01 43 39	Mockups
	01 43 40	Exterior Enclosure Performance Requirements
	01 45 00	Quality Control

01 51 00	Temporary Utilities
01 56 00	Temporary Barriers and Enclosures
01 56 39	Tree and Plant Protection
01 57 23	Storm Water Pollution Prevention
01 60 00	Product Requirements
01 71 23	Field Engineering
01 73 23	Supporting from Building Structure
01 73 29	Cutting, Patching, and Matching
01 73 35	Selective Demolition
01 74 19	Site Waste Management Program
01 77 00	Closeout Procedures, Final Cleaning, and Extra Materials
01 78 36	Guarantees, Warranties, Bonds, Service & Maintenance Contracts
01 78 39	Project As-Built Documents
01 79 00	Training
01 81 13	LEED™ Requirements
01 81 13.1	LEED Requirements Score Card
01 91 00	Commissioning
01 92 00	Operating and Maintenance

Technical Specifications

Section 10 14 00 Signage

- .01 Interior Signage Schedule by Door Number
- .02 Interior Signage Schedule by Sign Type

List of Drawings

Sheet #	Sheet Description
1.0	INTERIOR ROOM IDENTIFICATION SIGNS
1.1	SIGN TYPE 1, SIGN TYPE 2, SIGN TYPE 3, AND SIGN TYPE 5
1.2	SIGN TYPE 4 AND SIGN TYPE 6
1.3	SIGN TYPE 7 AND SIGN TYPE 8
1.4	SIGN TYPE 9A, SIGN TYPE 10, SIGN TYPE 12, AND SIGN TYPE 15
1.5	SIGN TYPE 13B, SIGN TYPE 15A, AND SIGN TYPE 16
1.6	SIGN TYPE 18, SIGN TYPE 19, SIGNH TYPE 21 AND SIGN TYPE 22C
2.0	TRIPLE-SIDED ILLUMINATED EXTERIOR BUILDING MONUMENTSIGN
2.0A	TYPOGRAPHY AND SYMBOLS
2.1	HALF DOME ELEVATION, SIDE VIEWS AND BACK SIDE
2.2	HALF DOME TOP VIEW AND DETAILS
3.0	INTERIOR WALL-MOUNTED LEED DISPLAY SIGNS
4.0	EXTERIOR WALL-MOUNTED BUILDING IDENTIFICATION SIGNS
5.0	VINYL LETTERS BUILDING IDENTIFICATION SIGNS
6.0	FLOOR PLANS LEVEL 1 & 2
6.1	FLOOR PLANS LEVEL 3& 4
6.2	FLOOR PLANS LEVEL 5 & ROOF LEVEL

ADVERTISEMENT FOR BIDS

**STUDENT HOUSING PHASE 4- THE SUMMITS
PROJECT NO.: 906270
UNIVERSITY OF CALIFORNIA, MERCED**

Subject to conditions prescribed by the University of California, Merced, sealed bids for a Prime Trade contract are invited for the following work: Student Housing Phase 4 – The Summits.

Description of Work: This project consists of site development, underground utilities and construction of a 110,000 gross square foot Housing Facility consisting of 5 floors made up of Student Activity Space, Dorm Rooms, Study Rooms, Shared Bathrooms, Office Space, a Multi-Purpose Room, Mechanical/Electrical Rooms, and Tutoring Rooms. The site consists of an approximately 2-acre parcel along Ranchers Road on the UC Merced campus, north and northeast of the existing Phase 3 Housing: The Summits. The Cost Estimate for the project is: \$34,000,000.

This Bid Release 4 consists of interior room identification signs; triple sided illuminated exterior building monument; interior wall-mounted LEED display sign; exterior wall-mounted building identification signs; and vinyl letters building identification signs.

BID RELEASE 4:
Bid Date: April 2, 2013
Bid Time: 2:00 p.m.

<u>Prime Trade Package Number/ Description</u>	<u>Budget</u>	<u>Required CA License(s)</u>
01 12 00.29 Signage	\$102,000	C-45

Bidding Documents will be made available to bidders on **Monday, March 18, 2013** on the University's website <http://www.ucmerced.edu/rfp-rfq>. Bid Results will be available on our website at <http://www.ucmerced.edu/rfp-rfq> or by calling (209) 288-4479.

A MANDATORY Pre-Bid Conference will be conducted on **Monday, March 25, 2013**, beginning promptly at 2:00PM. Participants shall meet at Physical Planning, Design and Construction, at 767 E. Yosemite Avenue, Merced, CA 95340. If you need accommodations related to disabilities, please call Jessica Duffy (209) 228-4479 at least 3 working days prior to Pre-Bid Conference/Project Site Visit or Bid Opening.

Requests for clarification or interpretation of the Bidding Documents must be in writing and received by **Tuesday, March 26, 2013 at 4:00 P.M.** Questions received after the above-noted deadline may be answered at the discretion of the University's Representative. Questions may be emailed or faxed to:

Jessica Duffy – University of California, Merced
Fax: (209) 228-4468
Email: jduffy2@ucmerced.edu

Revisions, additions or deletions will be made by written addenda issued by Physical Planning Design & Construction.

STUDENT HOUSING PHASE 4 –THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

PROJECT NO.: 906270

Bids will be received only at:
(Hand & Overnight delivery only)

UNIVERSITY OF CALIFORNIA, MERCED
Physical Planning Design and Construction
767 E Yosemite Ave., Bldg. B, Ste C
Merced CA 95340

Or by US Mail at:

UNIVERSITY OF CALIFORNIA, MERCED
Physical Planning Design and Construction
5200 Lake Rd.
Merced CA 95343

Bids must be received before:

2:00PM
Tuesday, April 2, 2013

There will be a bid security required for this project.

The successful Bidder and its subcontractors will be required to follow the nondiscrimination requirements set forth in the Bidding Documents and to pay prevailing wage rates at the location of the work.

The successful Bidder shall have the appropriate current licenses issued by the State of California Contractors State License Board for the work to be performed

THE UNIVERSITY OF CALIFORNIA IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
University of California, Merced
March 18, 2013

PROJECT DIRECTORY

Project Name: HOUSING 4: THE SUMMITS

Project No: 906270

Location: Physical Planning Design & Construction
University of California
Merced Campus

University: The Regents of the University of California

University's Facility person
acting on behalf of University: Thomas E. Lollini, FAIA
Associate Vice Chancellor Design & Construction

University's Representative is: Gary Knox
Physical Planning Design & Construction
5200 North Lake Road
Merced CA 95343
(209) 228-4404 Fax (209) 228-4300

University's Representative's Consultant: (CM): ProWest Constructors
22710 Palomar Street
Wildomar, CA 92595
Contact: Earl Rush
(951) 678-1038 Fax (951) 678-1083

UCIP Program Administrator: Daniel D. Gick
Aon Risk Insurance Services West, Inc.
199 Fremont Street, 17th Floor
San Francisco, CA 94105
(415) 486-7238 Fax: (415) 486-7026
Email: danielgick@aon.com

Design Professional Consultants: Architect
EHDD
500 Treat Avenue
San Francisco, CA 94110
(415) 285-9193 Fax (415) 285-3866

Address for Stop Notices: Marianna Eastman
University of California
5200 North Lake Road
Merced CA 95343
and
Physical Planning Design & Construction
University of California
5200 North Lake Road
Merced CA 95343

Address for Demand for Arbitration:

Western Case Management Center
6795 N. Palm Avenue, 2nd Floor
Fresno CA 93704

A copy of the Demand for Arbitration must be
sent to:

University of California
Office of the General Counsel
1111 Franklin Street, 8th Floor
Oakland, CA 94607-5200

INSTRUCTIONS TO BIDDERS

(Multiple Prime Trade Contract – With UCIP Coverage)

TABLE OF CONTENTS

ARTICLE 1	DEFINITIONS
ARTICLE 2	BIDDER'S REPRESENTATIONS
ARTICLE 3	BIDDING DOCUMENTS
3.1	COPIES
3.2	INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS
3.3	PRODUCT SUBSTITUTIONS
3.4	SUBCONTRACTORS
3.5	ADDENDA
3.6	BUILDER'S RISK PROPERTY INSURANCE AND UNIVERSITY CONTROLLED INSURANCE PROGRAM
ARTICLE 4	PRE-BID CONFERENCE
ARTICLE 5	BIDDING PROCEDURES
5.1	FORM AND STYLE OF BIDS
5.2	BID SECURITY
5.3	SUBMISSION OF BIDS
5.4	MODIFICATION OR WITHDRAWAL OF BID
ARTICLE 6	CONSIDERATION OF BIDS
6.1	OPENING OF BIDS
6.2	REJECTION OF BIDS
6.3	AWARD
ARTICLE 7	BID PROTEST
7.1	FILING A BID PROTEST
7.2	RESOLUTION OF BID CONTROVERSY

ARTICLE 1

DEFINITIONS

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

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

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

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

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

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

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

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

1.9 The term "Lump Sum Base Bid" means the sum stated in the Bid for which Bidder offers to perform the Work described in the Bidding Documents, but not including unit price items or Alternates.

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

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

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

ARTICLE 2
BIDDER'S REPRESENTATIONS

2.1 Bidder, by making a Bid, represents that:

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

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

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

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

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

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

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

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

2.1.9 Bidder meets the following minimum occupational safety and health qualifications:

- A. Bidder has had no serious and willful violations of Part 1 (commencing with Section 6300) of Division 5 of the Labor Code during the five-year period prior to bid opening.
- B. Bidder has maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.25 for the past three years. (If Bidder has been in business for less than three years, and is not otherwise prohibited from bidding by the terms of other Bid qualification documents, then Bidder must have maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.25 for all years Bidder has been in business.)
- C. Bidder has instituted an injury prevention program pursuant to Section 3201.5 or 6401.7 of the Labor Code.

After contract award, Bidder will verify that each of its Subcontractors at all tiers meet the requirements in 2.1.9 above by furnishing a fully executed "*Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications*" form (Exhibit 1B to the bid documents) prior to each Subcontractor's commencement of Work.

ARTICLE 3
BIDDING DOCUMENTS

3.1 COPIES

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement for Bids for the deposit sum stated therein, if any. If a deposit is required, it will only be refunded if Bidder returns the Bidding Documents in good condition no later than 60 days after the Bid Deadline unless otherwise provided in Supplementary Instructions to Bidders. The cost of replacement of missing or damaged documents may be deducted from the deposit. The Bidder to whom the Contract is awarded may retain the Bidding Documents and will be refunded its deposit.

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

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

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

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

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

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

3.3 PRODUCT SUBSTITUTIONS

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

3.4 SUBCONTRACTORS

3.4.1 Each Bidder shall list in the Bid Form all first-tier Subcontractors that will perform work, labor or render such services as defined in Article 9 of the Bid Form. The Bid Form contains spaces for the following information when listing Subcontractors: (1) portion of the Work; (2) name of Subcontractor; (3) city of Subcontractor's business location. The failure to list, on the Bid Form, any one of the items set forth above will result in the University treating the Bid as if no Subcontractor was listed for that portion of the Work and Bidder will thereby represent to University that Bidder agrees that it is fully qualified to perform that portion of the Work and shall perform that portion of the Work.

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

3.4.3 All Subcontractors of all tiers must meet the following minimum occupational safety and health qualifications:

- A. Each Subcontractor must have had no serious and willful violations of Part 1 (commencing with Section 6300) of Division 5 of the Labor Code during the five-year period prior to bid opening.
- B. Each Subcontractor must have maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.25 for the past three years. (If Subcontractor has been in business for less than three years, then Subcontractor must have maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.25 for all years Subcontractor has been in business.)
- C. Each Subcontractor must have instituted an injury prevention program pursuant to Section 3201.5 or 6401.7 of the Labor Code.

After contract award, Bidder will require each of its Subcontractors at all tiers to furnish the *Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications* form prior to Subcontractor's commencement of Work.

3.5 ADDENDA

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

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

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

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

3.6 BUILDER'S RISK PROPERTY INSURANCE AND UNIVERSITY CONTROLLED INSURANCE PROGRAM

3.6.1 University will provide builder's risk property insurance, with a \$25,000 deductible as required by the General Conditions if the requirements of the Project are not excluded by such coverage. A summary of the provisions of the policy is included as an Exhibit to the Contract. Bidder agrees that the University's provision of builder's risk property insurance containing said provisions meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance.

3.6.2 As further defined and limited by Article 11.1 of the General Conditions:

- .1 The University shall pay for, obtain and maintain a University Controlled Insurance Program (“UCIP”) providing workers’ compensation and employer’s liability insurance coverage, commercial general liability insurance coverage, and excess liability insurance coverage, to persons and entities enrolled in the UCIP, for Work performed on or at the Project site (“UCIP Coverages”). For purposes of the UCIP, Work (as defined in Article 1.1.42 of the General Conditions) that is performed at an off site location will be treated as on site Work, provided that at the time of enrollment, the off site location is identified to the UCIP Administrator and scheduled on the UCIP policies. A summary of the UCIP Coverages is included as an Exhibit to the Contract. The summary descriptions of the UCIP Coverages in the Exhibit, the General Conditions, or elsewhere, are not intended to be complete or to alter or amend any provision of the actual UCIP Coverages. In the event that any provision of this Article, the Contract Documents, or elsewhere, conflicts with the UCIP insurance policies, the provisions of the actual UCIP insurance policies shall govern. The University’s provision of its standard UCIP insurance policies meets the University’s obligation to provide UCIP insurance under the Contract and, in the event of a conflict between the provisions of the policies and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University’s obligation to provide UCIP insurance.
- .2 Parties eligible to participate in the UCIP (generally Contractor and all Subcontractors of all tiers who perform Work at the Project site, unless excluded under General Conditions Article 11.1.5) shall not include in their bids for any Work to be performed at the Project site any projected or actual cost to provide the workers’ compensation and employer’s liability insurance, commercial general liability insurance, and excess liability insurance that is being provided under the UCIP. The University may reduce the Contract Sum by an amount commensurate with any projected or actual costs included contrary to the requirements of this Article 3.6.2.2.
- .3 Notwithstanding the UCIP, Contractor and all Subcontractors are required to provide insurance as set forth in General Conditions Article 11.1.10 (including certificates of insurance evidencing the required coverages).
- .4 Off site Work will not be treated as on site Work under Article 11.1.1 of the General Conditions for subcontractors who do not perform operations at the project site.
- .5 UCIP Workers’ Compensation Insurance will be primary for all covered occurrences within the 50 United States, except that this insurance does not apply in any monopolistic workers’ compensation state.

ARTICLE 4
PRE-BID CONFERENCE

4.1 Bidder may attend the Pre-Bid Conference at which the requirements of the Bidding Documents are reviewed by University, comments and questions are received from Bidders, and a Project site visit is conducted. University requires all Pre-Bid Conference attendees to arrive for the meeting on time.

ARTICLE 5
BIDDING PROCEDURES

5.1 FORM AND STYLE OF BIDS

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

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

5.1.3 Bidder's failure to submit a price for any Alternate or unit price will result in the Bid being considered as nonresponsive. If Alternates are called for and no change in the Lump Sum Base Bid is required, indicate "No Change" by marking the appropriate box.

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

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

5.2 BID SECURITY

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

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

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

5.2.4 Bid Security will be returned after the contract has been awarded. Notwithstanding the preceding, if a Bidder fails or refuses, within 10 days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, the University will retain that Bidder's Bid Security. If the security is in the form of a Bid Bond, the security will be retained until the

University has been appropriately compensated; if the Bid Security is in the form of certified check, the University will negotiate said check and after deducting its damages, return any balance to Bidder.

5.3 SUBMISSION OF BIDS

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

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

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

5.3.4 Oral, telephonic, facsimile, or telegraphic Bids are invalid and will not be accepted.

5.4 MODIFICATION OR WITHDRAWAL OF BID

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

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

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

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

ARTICLE 6
CONSIDERATION OF BIDS

6.1 OPENING OF BIDS

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

6.2 REJECTION OF BIDS

6.2.1 University will have the right to reject all Bids.

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

6.3 AWARD

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

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

6.3.3 University will determine the low Bidder on the basis of the sum of the Lump Sum Base Bid plus all Unit Prices multiplied by their respective Estimated Quantities as stated in the Bid Form, if any, plus the daily rate for Compensable Delay multiplied by the "multiplier" as stated in the Bid Form, plus the amounts of all Alternates to be included in the Contract Sum at the time of award. The Contract Sum will be the sum of the Lump Sum Base Bid and the additive or deductive amounts for all Alternates that University has selected to be included in the Contract Sum as of the time of award.

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

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

- .1 Three originals of the Agreement signed by Bidder.
- .2 Three originals of the Payment Bond required under Article 11 of the General Conditions.

- .3 Three originals of the Performance Bond required under Article 11 of the General Conditions.
- .4 Certificates of Insurance on form provided by University required under Article 11 of the General Conditions.
- .5 Name of, qualifications of, and references for the Superintendent proposed for the Work.
- .6 Names of all Subcontractors, with their addresses, telephone number, facsimile number, contact person, portion of the Work and designation of any Subcontractor as a Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Women-owned Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE) on Report of Subcontractors Information in the form contained in the Exhibits. Evidence, as required by University, of the reliability and responsibility of the proposed Subcontractors such as statements of experience, statements of financial condition, and references.
- .7 Prime Trade Contractor Schedule as required under Article 3 of the General Conditions.
- .8 If Bidder wishes to utilize securities in lieu of retention beginning with the first Application For Payment, Selection of Retention Options and Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention in the form contained in the Exhibits.
- .9 Cost Breakdown as required by Article 9 of the General Conditions.
- .10 Fully executed "Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications" form (Exhibit 1B) completed by Bidder and each listed Subcontractor.

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

6.3.7 If Bidder submits three originals of the signed Agreement and all other items required to be submitted to University within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, and if all such items comply with the requirements of the Bidding Documents and are acceptable to University, University will award the Contract to Bidder by signing the Agreement and returning a signed copy of the Agreement to Bidder.

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

ARTICLE 7
BID PROTEST

7.1 FILING A BID PROTEST

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

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

7.1.2 If a Bid is rejected by the Facility, and such rejection is not in response to a Bid protest, any Bidder, person or entity may dispute that rejection by filing a Bid protest (limited to the rejection) within 3 business days of the rejected Bidder's receipt of the notice of rejection.

7.2 RESOLUTION OF BID CONTROVERSY

7.2.1 Facility will investigate the basis for the Bid protest and analyze the facts. Facility will notify Bidder whose Bid is the subject of the Bid protest of evidence presented in the Bid protest and evidence found as a result of the investigation, and, if deemed appropriate, afford Bidder an opportunity to rebut such evidence, and permit Bidder to present evidence that it should be allowed to perform the Work. If deemed appropriate by Facility, an informal hearing will be held. Facility will issue a written decision within 15 days following receipt of the Bid protest, unless factors beyond Facility's reasonable control prevent such a resolution, in which event such decision will be issued as expeditiously as circumstances reasonably permit. The decision will state the reasons for the action taken by Facility. A copy of the decision will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision. As used in this Article 7, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the lowest responsible and responsive Bidder for the Contract.

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

7.2.3 Bidder who Bid is the subject of the protest, all Bidders affected by the Facility's decision on the protest, and the protestor have the right to appeal to the Construction Review Board if not satisfied with Facility's decision. The appeal must be in writing and shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal. The appeal must be received by the Chair, Construction Review Board, by close of business not later than the 5th 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
Oakland, California 94607
Attention: Assistant Director, Design and Construction Policy

A copy of the appeal shall be sent to all parties involved in the Bid protest and to Facility. An appeal received after close of business is considered received as of the next business day. If the final date for receipt of an appeal falls on a Saturday, Sunday, or University holiday, the appeal will be considered timely only if received by close of business on the following business day.

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

[End]

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1. The Contract Time will be the number of days between the date specified for the commencement of work in the Notice to Proceed and the calendar date specified in the bidding documents for the completion of the entire Project. However, the Contract Time will be no less than the number of days between the latest date specified for the commencement of the Prime Trade Contract in the Preliminary Master Project Schedule and the calendar date specified in the bidding documents for the completion of the entire Project and no more than the number of days between the earliest date specified for the commencement of the Prime Trade Contract in the Preliminary Master Project Schedule and the calendar date specified in the bidding documents for the completion of the entire Project.
2. Requests for clarification or interpretation of the Bidding Documents must be in **writing** and received by **Wednesday, March 7, 2012 at 4:00 P.M.** Questions received after the above-noted deadline may be answered at the discretion of the University's Representative. **Questions may be emailed or faxed to:**

Fran Telechea – University of California, Merced
email: ftelechea@ucmerced.edu
FAX: 209-228-4468

Revisions, additions or deletions will be made by written addenda issued by Physical Planning Design & Construction **only**.

3. A **NON-MANDATORY** Pre-Bid Conference and **NON-MANDATORY** Project Site Visit will be conducted on **Thursday, March 1, 2012** beginning promptly at **11:00 am**. Participants shall meet at the University of California, **Campus 5200 N. Lake Rd** Merced, California, Physical Planning Design & Construction Trailer.

If you need accommodations related to disabilities, please call **Fran Telechea** at **(209) 228-4479** at least 3 working days prior to Pre-Bid Conference/Project Site Visit or Bid Opening.

4. Bids will be received on or before the Bid Deadline and only at:

Overnight delivery or hand delivery only: University of California, Merced
767 E. Yosemite Ave., Bldg. B, Ste. C
Merced California 95340
(209) 228-4479

Or by U.S. Mail at:

University of California, Merced
Physical Planning, Design and Construction
5200 Lake Road
Merced California 95343

5. Bids will be opened at:

Thursday, February 2, 2012
(See advertisement for details)
767 E. Yosemite Ave.
Merced California 95340

6. Contractor will be assessed as liquidated damages the sum of **\$500.00** for each day the Work remains incomplete beyond the expiration of the Contract Time. After Substantial completion, the rate for liquidated damages shall be reduced to the sum of **\$250.00** per day. See Article 5 of the Agreement for detailed requirements.
7. Prequalification requirements are cancelled for Bid Release 3 (Rebid). Bid Release 3 (Rebid) is now open to all bidders. Prequalification requirements for future Bid Releases (if any) to be determined at a later date.

INFORMATION AVAILABLE TO BIDDERS

The following information is made available for the convenience of bidders and is not a part of the Contract. The information is provided subject to the provisions of Article 3 of the General Conditions.

1. State of California, Department of Industrial Relations, Prevailing Wage Determinations for Statewide, Northern California, and Merced County may be found at http://www.dir.ca.gov/DLSR/statistics_research.html
 - A. No special determinations have been received from the Department of Industrial Relations for this project
 - B. 1st publication date of the Advertisement for Bids (Bid Release 3): January 5, 2012.



**UPDATED REPORT:
GEOTECHNICAL ENGINEERING AND
GEOLOGIC HAZARDS INVESTIGATION
PROPOSED STUDENT HOUSING BUILDING
AND MAINTENANCE BUILDING
UNIVERSITY OF CALIFORNIA MERCED**

MERCED, CALIFORNIA

Project Number: C23679.02

For:

Mr. Scott Mommer
Lars Andersen & Associates, Inc.
4694 W. Jacquelyn Avenue
Fresno, California 93722

December 17, 2010
(Revised August 23, 2011)



December 17, 2010 (August 23, 2011)

C23679.02

Mr. Scott Mommer
Lars Andersen & Associates, Inc.
4694 W. Jacquelyn Avenue
Fresno, California 93722

**Subject: Updated Report:
Geotechnical Engineering and Geologic Hazards Investigation
Proposed Student Housing Building and Maintenance Building
University of California, Merced
Merced, California**

Dear Mr. Mommer:

We are pleased to submit this updated geotechnical engineering and geologic hazards investigation report prepared for the proposed multi-story student housing building to be located on the UC Merced Campus, southwest of the intersection of Mammoth Lane and Rancher's Road, Merced County, California. This report includes an updated version of our previous report titled: "*Geotechnical Engineering and Geologic Hazards Investigation, Proposed Student Housing Building and Maintenance Building*," dated December 17, 2010, and revised January 20, 2011. The updated information includes, specifically, 1) the results of additional test borings to assess the potential impacts from a former irrigation ditch which was backfill (location and depth of fill); and 2) recommendations for mat type foundations, which were not proposed by the building engineers at the time of our original investigation.

We recommend that those portions of the plans and specifications that pertain to earthwork, pavements, and foundations be reviewed by Moore Twining Associates, Inc. (Moore Twining) to determine if they are consistent with our recommendations.

In addition, it is recommended that Moore Twining be retained to provide inspection and testing services for the excavation, earthwork, pavement, and foundation phases of construction. These services are necessary to determine if the subsurface conditions are consistent with those used in the analysis and formulation of recommendations for this investigation, and if the construction complies with our recommendations. We would appreciate the opportunity to provide a proposal for this additional service after construction documents are completed. A representative of our firm will contact you in the near future regarding these services.

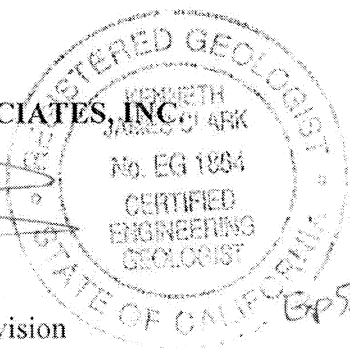
We appreciate the opportunity to be of service to Lars Andersen & Associates, Inc. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience at 559-268-7021.

Sincerely,

MOORE TWINING ASSOCIATES, INC.



Kenneth J. Clark, CEG
Senior Engineering Geologist
Geotechnical Engineering Division



BP 5-31-13

Moore Twining Associates, Inc. (Moore Twining) was authorized by Lars Andersen & Associates, Inc. to conduct this investigation. The purpose of our investigation was to provide geotechnical engineering parameters for use in the design of foundations, slabs-on-grade, and preparation of related construction documents, and to conduct a geologic/seismic hazard assessment of the site.

We understand that the building will be roughly 20,000 square feet in plan dimensions, five (5) stories in height, and the floors will be constructed with concrete decking and will be supported by steel framing systems. Mr. Wong estimated maximum conventional foundation column and continuous footing loads of about 85 kips and 5 kips per lineal foot for the building. As an alternative to conventional foundations, Mr. Wong provided mat foundation loads of 340 pounds per square foot for dead loads and 220 pounds per square foot for live loads. Basements are not anticipated.

Details of the proposed maintenance building were unavailable at the time of this report. Thus, for the purpose of this report, it is assumed that the maintenance building will be a one-story structure constructed with wood frame, steel or CMU walls, with a concrete slab on grade floor and loads of 2 kips per lineal foot for walls and 25 kips for columns.

Appurtenant construction for the housing building and maintenance building is anticipated to include exterior flatwork and underground utilities. Asphaltic concrete pavements are also anticipated at the maintenance building site. A temporary fire access road is proposed to be used during construction.

Grading plans were not available at the time this report was prepared. However, based on the existing site grades, earthwork cuts and fills of up to about 4 feet are expected to achieve level building pad areas and provide positive site drainage.

The housing and maintenance building sites were covered with aggregate base in some areas and asphalt concrete (AC) pavement in others. The near surface soils encountered below these materials in the test borings drilled within the areas of the proposed student housing and maintenance buildings were predominantly fat and lean clays within the upper 15 to 20 feet below site grade (BSG). Below the near surface clay soils, the predominant soil type encountered was lean clay with interbedded layers of silty sand and poorly graded sand extending to the maximum depth explored of 61½ feet BSG.

Based on information obtained as part of this investigation, the former canal extends through the subject site. It is our understanding that there is no available documentation certifying the compaction of the canal backfill. Borings drilled in the area of the former canal encountered fill soils to depths of 3½ to 7½ feet BSG.

In addition to the borings drilled in the backfilled canal area, test borings B-3 through B-7 and B-12 encountered undocumented fill soils in the proposed building areas, extending to depths of about 3 to 6½ feet BSG.

Beneath the aggregate base, the near surface soils encountered in the test borings drilled within the area of the proposed student housing and maintenance buildings were predominantly fat and lean clays within the upper 15 to 20 feet BSG, with interbedded sandy soils generally present below about 8 feet BSG. However, near surface silty sand and/or clayey sand was encountered in boring B-2 (housing unit) between depths of about 6 and 10 feet BSG, and in boring B-7 (maintenance building) between depths of about 3 and 5 feet BSG.

Below the near surface clay soils, the predominant soil encountered was a lean clay with interbedded layers of silty sand and poorly graded sand extending to the maximum depth explored of 61½ feet BSG.

The near surface clay soils tested indicated a medium expansion potential, poor pavement support characteristics and high plasticity characteristics.

Groundwater was not encountered in the test borings drilled at the time of the field explorations on November 26 and 27, 2010, and July 15, 2011.

The results of liquefaction analysis indicate that liquefaction would not impact the project due to the historic groundwater depth greater than 50 feet BSG.

The site is not located in an Alquist-Priolo Earthquake Fault Zone. The potential for ground rupture associated with a known fault is considered low.

From a geotechnical standpoint, the site is suitable for the proposed construction with regard to support of the proposed structures, provided the recommendations contained in this report are followed. The primary geotechnical engineering concerns for design and construction of the proposed project are: 1) the presence of undocumented fill soils associated with the former Yosemite Lateral and former golf course, which appear to occur sporadically throughout the site area, extending to depths of about 3 to 7½ feet BSG; 2) the expansive nature of the near surface clay soils; and 3) the potential for wet, unstable soils to be encountered during earthwork.

Based on the presence of existing undocumented fills, foundations and improvements supported on the undocumented fill would be subject to excessive differential settlement. Accordingly, over-excavation and compaction of all existing fill materials are recommended as part of site preparation for the project. As an alternative to removing all of the fill soils, fills soils could be completely removed from the proposed building areas and over-excavation could be conducted in the proposed landscaped and parking lot areas (including the canal area) to a depth of 3 feet below existing site grade. After the over-excavation, the bottom of the excavation should be scarified and compacted prior to backfilling with engineered fill. Based on the depths of existing fills estimated from our field investigations, deeper fill soils would remain in landscape and parking areas proposed north of the housing building. This alternative approach would present a slightly higher potential for settlement related damage in parking and landscaped areas (cracking flatwork, etc.) than if the deeper fill soils were completely removed.

EXECUTIVE SUMMARY

Page 3 of 3

In order to reduce the potential for excessive heave due to the expansive soils, interior slabs-on-grade should be placed on a minimum of 6 inches of non-recycled Class 2 aggregate base (compacted to a minimum of 95 percent relative compaction) placed over 24 inches of imported, non-expansive engineered fill, over the depth of moisture conditioned, native engineered fill recommended below foundations. Recommendations to mitigate expansive soils are also provided in this report for placing non-expansive fill below exterior slabs.

The results of a soil sample analysis indicate that the near-surface soils exhibit a “moderately corrosive” corrosion potential to buried metal objects.

The analytical results of a soil sample analysis indicate a “negligible” potential for sulfate exposure to concrete.

This executive summary should not be used for design or construction and should be reviewed in conjunction with the attached report.

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION	1
2.0 PURPOSE AND SCOPE OF INVESTIGATION	2
2.1 Purpose	2
2.2 Scope	2
3.0 BACKGROUND INFORMATION	4
3.1 Site Location and Description	4
3.2 Site History	4
3.3 Anticipated Construction	5
3.4 Previous Studies	5
4.0 INVESTIGATIVE PROCEDURES	6
4.1 Field Exploration	6
4.1.1 Site Reconnaissance	6
4.1.2 Drilling Test Borings	6
4.1.3 Soil Sampling	7
4.2 Laboratory Testing	7
5.0 FINDINGS AND RESULTS	8
5.1 Surface and Subsurface Improvements	8
5.2 Soil Profile	8
5.3 Soil Engineering Properties	8
5.4 Groundwater Conditions	9
6.0 GEOLOGIC SETTING	10
7.0 TECTONICS AND SEISMICITY	11
7.1 Foothills Fault System	11
7.2 Great Valley Fault System	12
7.3 Ortigalita Fault	13
7.4 Calaveras Fault	13
7.5 San Andreas Fault	13

TABLE OF CONTENTS

	Page
8.0 EVALUATION	13
8.1 Geologic Hazards	14
8.1.1 Flooding and Dam Inundation	14
8.1.2 Landslides	14
8.1.3 Seiches and Tsunamis	14
8.1.4 Volcanic Activity	14
8.2 Seismic Hazards	15
8.2.1 Groundshaking, Site Class and Seismic Design Parameters	15
8.2.2 Historic Seismic Activity	15
8.2.3 Fault Rupture and Earthquake Fault Zone	16
8.2.4 Liquefaction and Seismic Settlement	19
8.3 Geotechnical Engineering Evaluations	20
8.3.1 Subsurface Conditions	20
8.3.2 Undocumented Fill Soils	20
8.3.3 Expansive Soils	21
8.3.4 Potential for Overly Moist Near Surface Soils	22
8.3.5 Static Settlements and Bearing Capacity of Shallow Foundations	22
8.3.6 Interior Slab-on-Grade Construction	23
8.3.7 Asphaltic Concrete Pavements	23
8.3.8 Corrosion Protection	24
8.3.9 Sulfate Attack of Concrete	24
9.0 CONCLUSIONS	25
10.0 RECOMMENDATIONS	26
10.1 General	26
10.2 Site Grading and Drainage	28
10.3 Site Preparation	29
10.4 Engineered Fill	34
10.5 Foundations - General	37
10.6 Conventional Shallow Spread Foundations	38
10.7 Mat Foundations	40
10.8 Retaining Walls and Site Walls	41
10.9 Frictional Coefficient and Earth Pressures	43
10.10 Interior Concrete Slabs-on-Grade	44
10.11 Exterior Slabs-on-Grade	48
10.12 Asphaltic Concrete (AC) Pavements	49

TABLE OF CONTENTS

	Page
10.13 Temporary fire Access Road	51
10.14 Temporary Excavations	52
10.15 Utility Trenches	53
10.16 Corrosion Protection	56
11.0 DESIGN CONSULTATION	57
12.0 CONSTRUCTION MONITORING	58
13.0 NOTIFICATION AND LIMITATIONS	59

TABLE

Table No. 1 - Summary of Faults Within Approximately 100 miles (160 km) of the Site	16
Table No. 2 - Design Seismic Factors	38
Table No. 3 - AC Pavement Sections	50
Table No. 4 - Minimum Widths for HDPE Pipe with Sand Bedding Initial Backfill	55

APPENDICES

APPENDIX A - Drawings	A-1
-----------------------------	-----

Drawing No. 1 -	Site Location Map
Drawing No. 2 -	Site Plan with Boring Locations
Drawing No. 3 -	Site Plan with Estimated Depths of Fill
Drawing No. 4 -	Location Map of the Former Location of Yosemite Lateral
Drawing No. 5 -	Regional Geologic Map
Drawing No. 6 -	Site Geologic Map
Drawing No. 7 -	Site Geologic Cross Section
Drawing No. 8 -	Historical Earthquake Epicenter Map
Drawing No. 9 -	Map of Faults Relative to Site
Drawing No. 10 -	Conventional Foundation and Slab Preparation Detail
Drawing No. 11 -	Mat Foundation and Slab Preparation Detail

APPENDIX B - Logs of Borings	B-1
------------------------------------	-----

APPENDIX C - Results of Laboratory Tests	C-1
--	-----

APPENDIX D- Specifications for Chemical Treatment of Soil	D-1
---	-----

**GEOTECHNICAL ENGINEERING AND
GEOLOGIC HAZARDS INVESTIGATION
PROPOSED STUDENT HOUSING BUILDING**

**AND MAINTENANCE BUILDING
UNIVERSITY OF CALIFORNIA MERCED**

MERCED, CALIFORNIA

Project Number: C23679.02

1.0 INTRODUCTION

This report presents the results of a geotechnical engineering and geologic hazards investigation for the proposed student housing and maintenance buildings to be located on the UC Merced Campus, southwest of the intersection of Mammoth Lane and Ranchers Road, Merced County, California. Moore Twining Associates, Inc. (Moore Twining) was authorized by a professional services agreement with Lars Andersen & Associates, Inc. to conduct this investigation. This report is an updated version of our previous report titled: "*Geotechnical Engineering and Geologic Hazards Investigation, Proposed Student Housing Building and Maintenance Building,*" dated December 17, 2010 and revised January 20, 2011. The updated information includes, specifically, 1) the results of additional test borings to assess the potential impacts from a former irrigation ditch which was backfill (location and depth of fill); and 2) recommendations for mat type foundations, which were not proposed by the building engineers at the time of our original investigation.

The contents of this report include the purpose of the investigation and the scope of services provided. The site history, previous studies, existing site features, and anticipated construction are discussed. In addition, a description of the investigative procedures used and the subsequent findings obtained are presented. Finally, the report provides an evaluation of the findings, general conclusions, and related recommendations. The report appendices contain the drawings (Appendix A), the logs of borings (Appendix B), the results of laboratory tests (Appendix C), and a specification for chemical treatment of soils (Appendix D).

The Geotechnical Engineering Division of Moore Twining, headquartered in Fresno, California, performed the investigation.

2.0 PURPOSE AND SCOPE OF INVESTIGATION

2.1 Purpose: The purpose of the investigation was to conduct a field exploration and a laboratory testing program, evaluate the data collected during the field exploration and laboratory testing portions of the investigation, and provide the following:

- 2.1.1 Geotechnical parameters for use in design of foundations and slabs-on-grade, and development of lateral resistance;
- 2.1.2 Recommendations for site preparation including placement, conditioning, and compaction of engineered fill soils;
- 2.1.3 Assessment of potential geologic / seismic hazards in accordance with the requirements of the 2010 California Building Code and California Geological Survey – Note 48;
- 2.1.4 Probabilistic maximum considered earthquake spectral response accelerations derived from a site specific ground motion hazard analyses;
- 2.1.5 Conclusions regarding the potential for liquefaction and magnitude of seismic settlement;
- 2.1.6 Recommendations for California Building Code seismic coefficients;
- 2.1.7 Recommendations for temporary excavations and utility trench backfill; and
- 2.1.8 Conclusions regarding soil corrosion potential.

This report is provided specifically for the proposed student housing and maintenance buildings to be located on the UC Merced Campus, adjacent to the intersection of Mammoth Lane and Ranchers Road, Merced County, California.

2.2 Scope: Our proposal dated November 23, 2010, outlined the scope of our services. The actions undertaken during the investigation are summarized as follows.

- 2.2.1 A site plan for the proposed project, dated July 10, 2011, prepared by Stantec, was reviewed.
- 2.2.2 A site development plan for the proposed project, dated September 20, 2010, provided by Lars Andersen & Associates, Inc., was reviewed.
- 2.2.3 A Draft Topographic Survey, revision date July 17, 2010, prepared Lars Andersen & Associates, was reviewed.

- 2.2.4 Floor plan, Scheme 8, dated November 4, 2010, prepared by EHDD Architecture, was reviewed.
- 2.2.5 The Merced, California Quadrangle 7.5 minute topographic map, photorevised 1989, was reviewed.
- 2.2.6 A map titled "Existing Site Topography," provided by Mr. Gareth Beilby, UC Merced, dated August 2, 2002, was reviewed.
- 2.2.7 Merced County Year 2000 General Plan, June 1989, was reviewed.
- 2.2.8 A visual site reconnaissance and a subsurface exploration, including test borings, were conducted.
- 2.2.9 Laboratory tests were conducted to determine selected physical and engineering properties of the subsurface soils.
- 2.2.10 Mr. Scott Mommer, (Lars Andersen & Associates, Inc.), Mr. Larry Wong (GFDS Engineers), Mr. Don Pierce (Merced Irrigation District), Mr. Gareth Beilby (Principal Project Inspector/ Construction Manager, UC Merced), and Mr. Steve Roach (Construction Inspector, UC Merced) were consulted during the investigation.
- 2.2.11 A report titled: "Geotechnical Investigation Report, Proposed Housing Phase 3, University of California, Merced...", dated September 17, 2008, prepared by Kleinfelder, was reviewed.
- 2.2.12 The Geologic Map of California, San Jose Sheet, prepared by the California Division of Mines and Geology, 1966, was reviewed.
- 2.2.13 Historical photographs were reviewed.
- 2.2.14 The data obtained from the investigation were evaluated to develop an understanding of the subsurface soil conditions and engineering properties of the subsurface soils.
- 2.2.15 This report was prepared.

This investigation did not include a floodplain investigation, compaction tests, environmental investigation, or environmental audit.

3.0 BACKGROUND INFORMATION

The site description, history, anticipated construction and previous studies are summarized in the following subsections.

3.1 Site Location and Description: A site location map is presented on Drawing No. 1 in Appendix A. The maintenance building site is located southeast of the intersection of Mammoth Lane and Ranchers Road, roughly 75 feet northeast of the proposed housing building. The proposed maintenance building location was bound to the north by Ranchers Road, to the west by Mammoth Lane, and to the south and east by Valley Terrace student housing.

The Draft Topographic Survey, dated July 17, 2010, indicates that existing ground elevations in the area of the proposed housing building range from about 238 feet above mean sea level (AMSL) in the central portion of the site to about 230 feet AMSL in the southeast portion of the site. The Draft Topographic Survey indicates that existing ground surface elevations in the area of the proposed maintenance building range from about 238 feet AMSL in the north portion of the site to about 234 feet AMSL in the southwest portion of the site.

The approximate site coordinates are 37.364 degrees latitude and -120.430 degrees longitude.

The proposed student housing project location was bound to the north by Ranchers Road, to the east by Mammoth Lane, to the south by Housing Unit 3 and Scholar's Lane beyond, and to the west by Emigrant's Pass road.

Drawing No. 2 (Appendix A) shows a preliminary conceptual layout of the building. We also understand that the building will likely be placed near Ranchers Road, and a courtyard area will be constructed between housing building 4 and housing building 3 to the south. It is our understanding that a site plan for the maintenance building was not available at the time this report was prepared.

At the time of our field investigation in December 2010, the housing and maintenance building sites were being utilized as parking areas and were covered with aggregate base in some areas and asphaltic concrete (AC) pavement in others. In addition, observations of the proposed building sites indicate the presence of numerous underground utilities, including electrical for parking lot lighting.

Existing underground were noted throughout the housing building site and maintenance building site. Overhead electrical lines were noted along the south side of Rancher's Road

3.2 Site History: Based on our review of historic aerial images, prior to development of the present UC Merced campus improvements, the site was previously developed as a golf course. Our review indicates the proposed housing and maintenance building sites are located in the extreme northern portion of the former golf course. The images (dated 1998 and 1999) do not indicate any notable improvements or water features in the area of the sites associated with the golf course; however, a former canal trends through the project site. Based on review of the map titled "Existing Site Topography," dated August 2, 2002, the Yosemite Lateral (canal) was formerly located in the

area of the proposed building sites. The topography map indicates a canal flow elevation of about 233 feet AMSL. Overlay of aerial images dated July 30, 2004 and December 30, 2005 indicates that the canal was backfilled during that period of time, and indicates that the backfilled canal trends across the subject building sites (see Drawing Nos. 2, 3 and 4, Appendix A). Based on discussions with Mr. Gareth Beilby, Principal Project Inspector / Construction Manager, UC Merced, and Mr. Steve Roach, Construction Inspector, UC Merced, the former Yosemite Lateral was about 5 to 6 feet deep, 4 to 5 feet wide at the bottom, about 8 feet wide at the top, and was backfilled by Merced Irrigation District. Mr. Roach indicated that he was not aware of any documentation such as compaction reports, fill certification, etc. regarding the backfilling of the lateral.

3.3 Anticipated Construction: Based on discussions with Mr. Scott Mommer (Lars Andersen & Associates) and Mr. Larry Wong (GFDS Engineers), at the time of preparation of this report, the building was proposed to be roughly 20,000 square feet in plan dimensions, five (5) stories in height, the floors will be constructed with concrete decking and will be supported by steel framing systems. Maximum column and continuous footing loads of about 85 kips and 5 kips per lineal foot, respectively, were assumed for the building. As an alternative to conventional foundations, Mr. Wong provided estimated dead and live uniform loads for the mat foundation of 560 pounds per square foot (340 pounds per square foot for dead loads and 220 pounds per square foot for live loads). Basements are not anticipated.

Details of the proposed maintenance building were unavailable at the time of this report. Thus, for the purpose of this report, it is assumed that the maintenance building will be a one-story structure constructed with wood frame, steel or CMU walls, with a concrete slab on grade floor and loads of 2 kips per lineal foot for walls and 25 kips for columns.

Appurtenant construction for the housing building and maintenance building is anticipated to include exterior flatwork and underground utilities. Asphaltic concrete pavements are also anticipated at the maintenance building site. A temporary fire access road is proposed to be used during construction.

Grading plans were not available at the time this report was prepared. However, based on the existing site grades, earthwork cuts and fills of up to about 4 feet are expected to achieve level building pad areas and provide positive site drainage.

3.4 Previous Studies: A report titled: "Geotechnical Investigation Report, Proposed Housing Phase 3, University of California, Merced...", dated September 17, 2008, prepared by Kleinfelder, was reviewed. This report was prepared for the existing 4-story student housing building located about 50 to 100 feet south of the subject proposed phase 4 building.

The Kleinfelder report indicates loads for the phase 3 building of 3.0 kips per lineal foot and 50 kips for maximum wall and column loads, respectively. The report also indicates: "*The natural soil encountered is comprised generally of laterally discontinuous layers of sandy clay, silt, poorly graded sand and silty sand. These soils are generally over-consolidated sediments with a relative*

consistency of medium dense to very dense for the granular material and medium stiff to hard for the fine-grained material. ... Fill was encountered in Boring B-1. The fill consisted of silty sand to a depth of about 5 feet.... Groundwater was not encountered within the depths explored during the field exploration.....The investigation has indicated moderate to high expansion potential for the clayey soils."

The Kleinfelder report also indicates: "Based on the ground shaking which may be expected at this site, the geologic age, the relative density, soil type, ground water depth and geologic age of the sediments, analysis utilizing Youd (2001) indicates liquefaction, and associated seismically induced settlement, is considered unlikely."

No other previous geotechnical engineering, geological, or environmental studies, conducted in the project area were provided for review during this investigation. If available, these reports should be provided for review and consideration for this project.

4.0 INVESTIGATIVE PROCEDURES

The field exploration and laboratory testing program conducted for this investigation are summarized in the following subsections.

4.1 Field Exploration: The field exploration consisted of a site reconnaissance, drilling test borings, soil sampling, and standard penetration tests.

4.1.1 Site Reconnaissance: The site reconnaissance consisted of walking the site and noting visible surface features. The site reconnaissance was conducted by Mr. Zubair Anwar (staff engineer with Moore Twining) on November 26, 2010. The features noted are described in the Background Information section of this report.

4.1.2 Drilling Test Borings: The depths and locations of the test borings were selected based on the size of the structures, type of construction, depth of influence of foundation loads, and subsurface conditions. A total of six (6) test borings (B-1 through B-6) were drilled on November 26 and 27, 2010, within the area of the proposed housing building to depths of 10 to 61½ feet below site grade (BSG). Boring B-7 was drilled on November 27, 2010, in the area of the proposed maintenance building to a depth of 21½ feet BSG. On July 15, 2011, five (5) additional borings were drilled in the area of the proposed housing building and former Yosemite Canal to depths of 16½ feet BSG, and one (1) additional boring encountered refusal on an unidentified hard object at a depth of 7½ feet BSG.

The test boring locations are shown on Drawing No. 2 in Appendix A.

The test borings were drilled under the direction of a Moore Twining staff engineer, using a truck-mounted CME-75 drill rig equipped with 6⅝-inch outside diameter (O.D.) hollow stem augers. The soils encountered in the test borings were logged. The field soil classification was in accordance with the Unified Soil Classification System and consisted of particle size, color, and other distinguishing features of the soil.

The presence and elevation of free water, if any, in the borings were noted and recorded during drilling and immediately following completion of borings. The boring locations were determined by measuring wheel and pacing. The locations, as described, should be considered accurate to within 10 feet. Elevations of the test borings were not measured as a part of the investigation. However, approximate elevations of the test borings were estimated based on the Draft Topographic Survey and the approximate elevations are included on the test boring logs (Appendix B). The test borings were loosely backfilled with material excavated during the drilling operations; thus, some settlement should be anticipated.

4.1.3 Soil Sampling: Standard penetration tests were conducted, and both disturbed and relatively undisturbed soil samples were obtained.

The standard penetration resistance, N-value, is defined as the number of blows required to drive a standard split-barrel sampler into the soil. The standard split-barrel sampler has a 2-inch O.D. and a 1 $\frac{3}{8}$ -inch inside diameter (I.D.). The sampler is driven by a 140-pound weight free falling 30 inches. The sampler is lowered to the bottom of the bore hole and set by driving it an initial 6 inches. It is then driven an additional 12 inches and the number of blows required to advance the sampler the additional 12 inches is recorded as the N-value.

Relatively undisturbed soil samples for laboratory tests were obtained by pushing or driving a California modified split-barrel ring sampler into the soil. The soil was retained in brass rings with a 2.5-inch O.D. and a 1-inch height. The lower 6-inch portion of the samples were placed in close-fitting, plastic, airtight containers which, in turn, were placed in cushioned boxes for transport to the laboratory.

Soil samples obtained were taken to Moore Twining's laboratory for classification and testing.

4.2 Laboratory Testing: The laboratory testing was programmed to evaluate selected physical and engineering characteristics of the soils underlying the site. The tests were conducted on disturbed and relatively undisturbed samples considered representative of the subsurface material encountered.

The results of laboratory tests are summarized in Appendix C. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

5.0 FINDINGS AND RESULTS

The findings and results of the field exploration and laboratory testing are summarized in the following subsections.

5.1 Surface and Subsurface Improvements: At the time of our field investigations, the housing and maintenance building sites were being utilized as parking areas and were covered with aggregate base in some areas and asphaltic concrete (AC) pavement in others. Based on the results of our borings, the thickness of the base material (where exposed) was about 6 to 9 inches. The AC encountered in two (2) borings drilled on the housing site was 2¼ inches thick at both locations. The AC was underlain with 5 and 14 inches of aggregate base at the two locations. Visual reconnaissance of the proposed building sites indicate the presence of numerous underground utilities, including electrical for parking lot lighting. Overhead power lines were located along the south side of Rancher's Road.

5.2 Soil Profile: Beneath the aggregate base, the near surface soils encountered in the test borings drilled within the area of the proposed student housing and maintenance buildings were predominantly fat and lean clay fill and native soils within the upper 15 to 20 feet BSG, with interbedded sandy soils generally present below about 8 feet BSG. However, near surface silty sand and/or clayey sand was encountered in boring B-2 (housing unit) between depths of about 6 and 10 feet BSG, and in boring B-7 (maintenance building) between depths of about 3 and 5 feet BSG.

Below the near surface clay soils, the predominant soil encountered was a lean clay with interbedded layers of silty sand and poorly graded sand extending to the maximum depth explored of 61½ feet BSG.

Fill soils, predominantly comprising fat clays, were identified below the aggregate base in borings B-3 through B-7, and borings B-9 through B-13, extending to depths of about 3½ to 7½ feet BSG. One test boring encountered refusal on an unidentified hard object at a depth of 7½ feet BSG (boring B-9).

The foregoing is a general summary of the soil conditions encountered in the test borings drilled for this investigation. Detailed descriptions of the soils encountered at each test boring are presented on the logs of borings in Appendix B. The stratification lines shown on the logs represent the approximate boundary between soil types; the actual in-situ transition may be gradual.

5.3 Soil Engineering Properties: The fill soils encountered predominantly comprised fat clays and were described as medium stiff to hard as indicated by standard penetration resistance, N-values, ranging from 6 to 40 blows per foot. The moisture contents of the near surface clayey fill soils ranged from 12 percent to 22 percent. The results of testing of five (5) ring samples indicated dry densities ranging from 93.3 pounds per cubic foot to 118.6 pounds per cubic foot. The results of three (3) Atterberg Limits tests conducted on samples of the fill soils indicated high plasticity characteristics based on liquid limit of 60, 60, and 61 and plasticity indices of 39, 39, and 39, respectively. A sample of the clay fill soils collected from test boring B-5 at depths of about 5 to 6½

feet BSG exhibited high compressibility characteristics as indicated by about 15 percent consolidation under a load of 16 kips per square foot.

The native fat and lean clays in the upper 10 feet BSG were described as medium stiff to hard as indicated by standard penetration resistance, N-values, ranging from 6 to greater than 50 blows per foot. The moisture contents of these native clays ranged from 8 percent to 33 percent. The results of density tests conducted on seven (7) ring samples indicated dry densities ranging from 100.9 and 113.0 pounds per cubic foot. The results of three (3) Atterberg Limits tests conducted on these near surface clay samples indicated high plasticity characteristics based on liquid limits of 57, 58 and 63, and plasticity indices of 36, 37 and 41, respectively. The result of one (1) expansion index (E.I.) test conducted on a sample from boring B-1 at depths of 1 to 4 feet BSG indicated a medium expansion potential (expansion index of 60).

The near surface native clays exhibited moderate compressibility characteristics as indicated by two (2) consolidation tests. The results for samples collected from depths of 3½ to 5 feet BSG and 10 to 11½ feet BSG indicated about 10 and 11.3 percent consolidation under a load of 16 kips per square foot, and 1.1 and 0.5 percent swell, respectively, when saturated at 2 kips per square foot. The results of direct shear testing performed on clay samples collected at depths of 3½ to 5 feet BSG and 10 to 11½ feet BSG indicated angles of internal friction of 16 and 24 degrees, with cohesion values of 140 pounds per square foot and 0 pounds per square foot, respectively.

The deeper silty sand and poorly graded sand layers encountered were medium dense to dense as indicated by standard penetration resistance, N-values, ranging from 18 to 40 blows per foot. The moisture contents of the poorly graded sands tested ranged from 9 to 16 percent by weight.

The results of a chemical test performed on two (2) near surface soil samples collected at boring B-1 between depths of 1 and 4 feet BSG and boring B-7 between depths of 3½ and 5 feet BSG indicated pH values of 7.9 (both samples), and minimum resistivity values of 9,700 ohm-centimeters and 22,000 ohm-centimeters. The results also indicated 0.0048 and 0.0033 percentage by weight concentrations of sulfate and 0.0011 and “none detected” (<0.00060) percentage by weight concentrations of chloride, for the aforementioned samples collected from borings B-1 and B-7, respectively.

5.4 Groundwater Conditions: Groundwater was not encountered in the test borings drilled at the times of our field explorations on November 26 and 27, 2010, to the maximum depth explored of 61½ feet BSG. Groundwater was also not encountered in the test borings drilled at the times of our field explorations on July 15, 2011, to the maximum depth explored of 16½ feet BSG. The Kleinfelder report indicates groundwater was not encountered in the borings drilled for the phase 3 housing building within the depths explored during the field exploration (August 2010).

Maps depicting lines of equal elevation of water in wells for years 1990 to 2006, produced by the Department of Water Resources, were reviewed to evaluate the anticipated fluctuation of the static groundwater level at the site. Groundwater contours are depicted on the maps south of the site, but are terminated about 1 mile south of the site and data is not provided for the site area.

Based on review of the California Department of Water Resources' website, groundwater elevations measured in the water well located closest to the site (well 07S14E03N001M), located in the valley. Due to the distance of the well from the site, the data for that well is not considered applicable to the site.

It is possible that groundwater conditions can change with time due to factors such as nearby canals, active groundwater recharge or pumping, or construction activities. For the purpose of this report an historic high groundwater level of 50 feet was assumed. It should be recognized, that water table elevations fluctuate with time, since they are dependent upon seasonal precipitation, irrigation, land use, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered both during the construction phase and the design life of the project. The evaluation of such factors was beyond the scope of this investigation and report.

6.0 GEOLOGIC SETTING

Merced County is located in the central portion of San Joaquin Valley within the southern portion of the Great Valley geomorphic province of California. The Great Valley province is characterized by a large northwest trending valley bounded by the Sierra Nevada province to the east and south, the Klamath Mountains on the north, the Cascade Range province to the northeast, and the Coastal Range province to the west. The elevation of the valley floor ranges from below sea level to approximately 400 feet above mean sea level (AMSL). Two major rivers, the Sacramento and the San Joaquin, and their tributaries, drain the northern and the southern portions of the province, respectively. The only external drainage from the Great Valley province is into the San Francisco Bay.

Geologically, the San Joaquin Valley is an asymmetric structural trough with a broad, gently inclined, and little deformed eastern flank, and a relatively narrow western flank that changes from a steep homocline in the northern part of the valley to a belt of folds and faults in the southern part of the valley. The trough is filled with Upper Mesozoic and Cenozoic sediments. The thickness of these sediments range from about 1 mile near the City of Selma area to about 2 miles thick near the City of Turlock (Bartow, 1991). In the eastern part of the valley these sediments rest on a westward tilted block of crystalline basement composed of Sierra Nevada plutonic and metamorphic rocks. In the western part of the valley the Upper Mesozoic and Cenozoic sediments overlie Jurassic mafic and ultramafic rocks including ophiolites.

The UC Merced Campus is located on middle and/or lower Pliocene marine sedimentary rocks (Pmlc) on the base of the foothills, about 1 mile north of the Valley floor. The campus elevation of the project site is about 50 feet higher than the valley floor to the south. The Pmlc is described to

include the Mehrten Formation, Orinda Formation, Tassajero Formation, Green Valley Formation, and the Neroly Formation. Based on the soils encountered during our investigation it appears that the subject site is underlain by the brown to gray mudstone unit of the Tassajero Formation. A regional geologic map is presented as Drawing No. 5 in Appendix A. A site geologic map, based on correlation of the regional geologic map with a preconstruction Soil Conservation Service map, is provided as Drawing No. 6 in Appendix A. Geologic cross sections are provided as Drawing No. 7 in Appendix A.

7.0 TECTONICS AND SEISMICITY

The Sierra Nevada and Coast Ranges possess active and potentially active fault zones. Major active faults occur to the east, west, south, and north of the site. The Sierra Nevada/Owens Valley Fault Zones bound the eastern edge of the Sierra Nevada block and comprise a complex of both active and potentially active fault segments. Within the Coast Ranges, the San Andreas Fault Zone, and San Juan faults predominantly accommodate right-lateral strike-slip displacement across the Pacific and North American tectonic plate junction. The convergent, compressional component of plate interaction occurring north of the Transverse Ranges appears to be largely accommodated along the Great Valley Fault Zone. Other potentially active faults also occur in the eastern and central Coast Range. Portions of the Ortigalita-Tesla, Calaveras, Hayward, and Rinconada Faults are considered active or potentially active.

The White Wolf Fault, which forms the northern boundary of the Tehachapi Mountains, exhibits evidence of left-lateral and high angle reverse fault displacement. These displacements have resulted from predominantly compressional tectonics occurring near the westward change in orientation of the strike of the San Andreas Fault Zone ("big bend").

An "active fault" is defined, for the purpose of this evaluation, as a fault that has had displacement within Holocene time (about the last 11,000 years).

A widely accepted definition of potentially active is a fault showing evidence of displacement older than 11,000 years and younger than 1.6 million years (Pleistocene). Faults showing evidence of displacement older than 1.6 million years are usually classified as "inactive."

The following subsections briefly describe the major active or potentially active fault systems and source areas located within approximately 100 miles (160 kilometers) of the site.

7.1 Foothills Fault System: The term "Foothills Fault System" has been used for the major fault zones in the western Sierra Nevada. The Melones and Bear Mountain faults zones are the most important components of this system south of the Consumnes River. The faults of this system generally consist of vertical to steeply east-dipping zones of sheared rock with linear mapped traces. Many of the faults are delineated wholly or in part by lenses of sheared serpentine or schist. The closest segment of the Bear Mountain fault is located about 13 miles (21 kilometers) northeast of the site. The closest segment of the Melones fault is located about 22 miles (35 kilometers) northeast of the site.

Prior to the Oroville earthquake (Magnitude 5.7) of August 1, 1975, the Foothills Fault System was regarded as seismically inactive. This earthquake occurred within the northern extension of the Bear Mountain Fault zone and suggested the possibility of reservoir (Oroville Dam) induced seismicity. Micro-earthquake data and geodetic surveys show that the two main branches of the Foothills Fault System (Bear Mountain and Melones Fault Zones) display active movement, at least in the area between Oroville and Folsom.

7.2 Great Valley Fault System: In the western portion of the San Joaquin Valley, a series of events referred to as the Coalinga Earthquake Sequence was initiated on May 2, 1983 with a 6.7 magnitude earthquake centered in Coalinga. In an event that was probably related, a 5.5 magnitude earthquake was generated near Avenal on August 15, 1985. The main shocks for both earthquakes occurred in close proximity to late-Cenozoic crustal folds and have similar hypocenter depths and fault-plane solutions (California Department of Conservation, Division of Mines and Geology, Special Publications 66). The Great Valley Fault System (GVFS) is a topic of ongoing research which primarily commenced with the Coalinga Earthquake of 1983, attributed to the zone. The GVFS, formerly termed the Coast Range-Sierra Nevada boundary zone and the Coast Range - Central Valley boundary zone, is believed to be a fundamental tectonic boundary between the Coast Range province and Sierran block. Fault plane solutions for the Coalinga Earthquake sequence suggest a northwest strike with either a steep northwest dip or shallow northwest dip (Eaton et al., 1983). Eaton (1985c) proposed that the main Coalinga earthquake as well as the 1985 North Kettleman Hills earthquake (Eaton, 1985b) occurred on a shallow westward dipping thrust fault and slip was induced on northwest and southwest dipping reverse faults in the plate overlying the thrust fault. Namson and Davis (1988) interpreted an approximately 125 mile (200 kilometer) long zone of folds (anticlines and synclines) along the southwest margin of the San Joaquin Valley as an actively developing fold thrust belt. Namson and Davis (1988) attributed the seismically active Coalinga and Kettleman Hills North Dome anticlines to fault-bend folding above a thrust, which does not reach the surface (blind thrust).

The aforementioned fault plane solutions and tectonic interpretations of Namson and Davis are generally consistent with solutions for a number of earthquake events occurring along the GVFS boundary zone between the San Luis Reservoir and Willows, California (Wong et al. 1988). Wong et al. (1988) indicated that geologic evidence suggest that the boundary zone is not a single fault but a complex zone of faulting with the potential of generating large earthquakes (such as the Richter Magnitude 6.7 Coalinga earthquake) over most of its length. Wakabayashi and Smith (1994) postulated that the GVFS may comprise 18 to 25 segments from 12 to 57 kilometers in length, and that the characteristic earthquake for the average length segment may be a magnitude 6.3 to 6.4.

The California Geological Survey (CGS) California Fault Parameter database lists nine (9) Great Valley Fault System segments within approximately 100 miles (160 kilometers) of the site. The individual segments were assigned magnitudes of 6.3 to 6.7, and a slip rate of 1.5 millimeters per year (mm/yr) was used for all segments, as indicated in the CGS database (Cao, 2003). It is estimated that the closest segment (Segment No. 8) lies approximately 36 miles (57 kilometers) west of the site.

7.3 Ortigalita Fault: The Ortigalita Fault is located approximately 43 miles (70 kilometers) west of the site. According to the Merced County General Plan, this fault has not been active in modern times (i.e., no recorded slippage in modern time). However, this fault is indicated as geologically active (showing displacement during Holocene time) on the Fault Map of California (Jennings, 1994) and is included in the CGS Fault database. A magnitude of 6.9 and a slip rate of 1.0 mm/yr were used in the analyses.

7.4 Calaveras Fault: The Calaveras Fault is considered active over a distance of more than 80 miles (128 km) from Danville on the north to Hollister on the south. Tectonic creep also occurs episodically along the fault, mainly from Coyote Lake to Hollister.

Seismic activity along the Calaveras Fault (M6.2) in the vicinity of Morgan Hill has been felt in the central San Joaquin Valley as recently as April 1984.

It is estimated that the Calaveras Fault lies approximately 63 miles (101 kilometers) southwest of the site, including several segments indicated in the CGS database. Several segments are assigned magnitudes of 6.2 to 6.93, with slip rates ranging from 6 to 15 millimeters per year (mm/yr), as indicated in the CGS database (Cao et al., 2003).

7.5 San Andreas Fault: The San Andreas Fault is associated with two of the largest earthquakes that have occurred in California during historic time: the 1857 Fort Tejon earthquake (magnitude 8.3) on the south-central portion of the fault and the 1906 San Francisco earthquake (magnitude 8.3) on the northern portion of the fault. The nearest segment of the San Andreas Fault is located approximately 67 miles (107 kilometers) southwest of the site. Due in part to the length of the fault, approximately 625 miles (1,000 kilometers), various portions of the San Andreas Fault can be characterized by distinctly different seismic behavior related to rupture location, length, and expected repeat time (Wallace, 1970; Allen, 1968; Sieh and Jahns, 1984). Relatively high slip rates of 14 to 34 mm/yr for the individual segments indicate the San Andreas Fault segments contribute more to the probabilistic ground motion estimate than closer, less active faults.

8.0 EVALUATION

This section presents the details of the evaluation to develop conclusions and recommendations for use in the project design and preparation of construction specifications. In addition, our evaluations regarding potential geologic and seismic hazards are presented. The evaluation was based upon the subsurface conditions determined from this investigation and the details provided regarding the proposed construction.

8.1 Geologic Hazards: The potential geologic hazards of flooding, landslides, seiches, tsunamis, and volcanic activity are evaluated in the following subsections.

8.1.1 Flooding and Dam Inundation: Based on the Flood Insurance Rate Maps distributed by the Federal Emergency Management Agency (community panel number 06047C0435G), the proposed site area is in Zone X. Zone X denotes: “Areas determined to be outside the 0.2% annual chance floodplain.”

Based on the Merced County Year 2000 General Plan, the site is not located in the inundation zones of any dams in the vicinity of the site. The Fairfield and Le Grande canals trend across the campus about 900 and 2,000 feet northeast of the site, respectively. The canals are roughly 10 feet higher in elevation than the site. The sides of these canals are constructed with fill soils in the area of the campus. The potential for flooding of the site due to failure of these canals was not evaluated as part of this investigation.

8.1.2 Landslides: The site is not located in an area of potential landslide hazard which has been mapped under the Seismic Hazards Mapping Program being conducted by the California Geological Survey (CGS) or which has been mapped by the Landslide Hazard Map, Map 13 of the Merced County Year 2000 General Plan. Due to the relatively flat relief at the site and surrounding areas, landsliding is not considered a potential hazard to the project.

8.1.3 Seiches and Tsunamis: A seiche is a wave generated by the periodic oscillation of a body of water whose period is a function of the resonant characteristics of the containing basin as controlled by its physical dimensions. These periods generally range from a few minutes to an hour or more. Since no bodies of water are located within about 1/3 mile of the site, and considering the topographic swales located between Yosemite Lake and the site, seiches are not considered a potential hazard at the site.

Tsunamis are waves generated in oceans from seismic activity. Due to the inland location of the site, tsunamis are not considered a potential hazard to the project.

8.1.4 Volcanic Activity: The closest area of Quaternary volcanism is the Mono Lake and Mammoth Mountain area (including Sadler Peak) located approximately 62.4 miles (100 kilometers) east of the site (Jennings, 1994). This area contains cinder cones and volcanic flows dated as young as approximately 100 to 200 years before present (Jennings, 1994). No other areas of volcanism are located within 100 miles (160 kilometers) of the site (Jennings, 1994). Based on the distance of the aforementioned volcanic areas from the site and age of activity, the prospect for lava flows or significant ash falls at the site during the design life of the structures is considered low.

8.2 Seismic Hazards: The potential seismic hazards of groundshaking, ground rupture, liquefaction and seismic settlement are evaluated in the following subsections.

8.2.1 Groundshaking, Site Class, and Seismic Design Parameters: For any given earthquake, seismic waves propagate away from the focal point. These seismic waves have a certain maximum acceleration and a predominant period that depends on the nature of the rock and on the fault source mechanism. Away from the focus of the earthquake, the seismic waves begin to attenuate. The way in which the earthquake wave is altered depends to a great degree on source characteristics and to a lesser degree on the travel path.

It is our understanding that the 2010 CBC will be used for structural design. Based on the CBC, the site is classified as a class D site (soil profile type) with standard penetration resistance, N-values averaging between 15 and 50 blows per foot and an average shear wave velocity of between 600 and 1,200 feet per second in the upper 100 feet below site grade.

A table providing the recommended seismic design parameters for the project site is included in the Foundation Recommendations section of this report.

Hazard deaggregation was conducted using the FRISKSP computer program. The results indicate that an earthquake magnitude of 6.9 represents the predominant earthquake magnitude contributing to the Upper Bound Earthquake ground motion for the site.

8.2.2 Historic Seismic Activity: The general area of the site, as the majority of the state, has historically experienced recurring seismic activity. This analysis was performed using a computer program titled EQSEARCH (1989) with updated earthquake database through the year 2005 provided by Mr. Thomas Blake with Computer Services & Software (based on historical earthquake catalogs published by the California Division of Mines and Geology, and supplemental data from Townley and Allen (1939)), and earthquake data from 2005 to 2010 obtained from an on-line earthquake USGS search called "Circular Area Earthquake Search" (http://earthquake.usgs.gov/earthquakes/eqarchives/epic/epic_circ.php).

The results of the search indicate approximately 1,011 historical earthquakes with magnitude 4.0 or greater were recorded from 1900 through 2010 within a 100-mile radius of the site. A map showing the location of the project site with relation to the approximate historical earthquake epicenter locations is presented on Drawing No. 8 in Appendix A.

The peak horizontal ground acceleration that may have occurred at the site from each of the historical earthquakes within the 100-mile search radius was estimated using an attenuation relationship developed by Boore et al. (1997). The search output data includes: latitude, longitude, date, time, depth, Richter Magnitude, computed site acceleration, computed site Modified Mercalli intensity, and the approximate earthquake-to-site distance in miles and kilometers.

The seismic event with the nearest epicenter found during the search occurred in 1954 approximately 22 miles southwest of the site (Magnitude 4.0; estimated peak acceleration at the subject site of 0.036g). The largest magnitude earthquake identified in the search was the Magnitude 7.0 Loma Prieta earthquake that occurred in 1989, approximately 83 miles west-southwest of the site. This earthquake also produced the highest estimated ground acceleration at the site since 1900 (estimated to be about 0.063g).

8.2.3 Fault Rupture and Earthquake Fault Zone: Earthquakes are caused by the sudden displacement of earth along faults with a consequent release of stored strain energy. The fault slippage can often extend to the ground surface where it manifests in abrupt relative ground displacement. Damage resulting directly from fault rupture ground displacement occurs only where structures are located astride the fault traces that move. The project site is not located in an Alquist-Priolo Earthquake Fault Zone.

Active fault locations were estimated relative to the subject site using the fault model portion of the computer program FRISKSP version 4.0 program (Blake, 2002, updated based on Cao et. al., 2003, and local fault sources). The distances from the site to the faults, the fault slip rates and maximum moment magnitude earthquake for each fault or fault segment are listed in Table No. 1. Table No. 1 includes the active and potentially active faults located within approximately 100 miles (160 km) of the site. The fault closest to the site is the Bear Mountain Fault Zone which is located 13 miles (21 kilometers) northeast of the site. Accordingly, the potential for fault rupture at the site is considered low. The approximate locations of the faults relative to the project site are shown on Drawing No. 9 (Appendix A).

TABLE NO. 1
Summary of Faults Within Approximately 100 miles (160 km) of the Site

FAULT NAME [Includes faults and fault segments delineated in the CGS database (Cao et al., 2003)]	Site to Fault Distance (miles / kilometers)	Slip Rate (millimeters per year)	Maximum Moment Magnitude
Bear Mountains Fault Zone (Foothill Fault System 1)	13.4 / 21.4	0.05	6.5
Melones Fault Zone (Foothill Fault System 2)	21.8 / 34.8	0.05	6.5
Melones Fault Zone (Foothill Fault System 3)	29.9 / 47.9	0.05	6.5
Great Valley (Segment 8)	35.7 / 57.1	1.5	6.6
Great Valley (Segment 9)	35.8 / 57.2	1.5	6.6

FAULT NAME [Includes faults and fault segments delineated in the CGS database (Cao et al., 2003)]	Site to Fault Distance (miles / kilometers)	Slip Rate (millimeters per year)	Maximum Moment Magnitude
Great Valley (Segment 7)	40.9 / 65.5	1.5	6.7
Great Valley (Segment 10)	43.3 / 69.2	1.5	6.4
Ortogonalita	43.4 / 69.5	1.0	7.1
Clovis	50.2 / 80.3	0.01	5.5
Great Valley (Segment 11)	51.8 / 82.8	1.5	6.4
Quien Sabe	59.8 / 95.6	1.0	6.4
Great Valley (Segment 12)	61.5 / 98.4	1.5	6.3
Greenville (Southern + Northern)	62.1 / 99.4	2.0	6.94
Greenville (Southern)	62.1 / 99.4	2.0	6.6
Greenville (Flotating)	62.1 / 99.4	2.0	6.2
Calaveras (Central + Northern)	63.0 / 100.8	11.0	6.23
Calaveras (Floating)	63.0 / 100.8	11.0	6.2
Calaveras (Central)	63.0 / 100.8	15.0	6.23
Calaveras (Southern + Central + Northern)	63.0 / 100.8	11.0	6.93
Calaveras (Southern)	63.0 / 100.8	15.0	5.79
Calaveras (Southern + Central)	63.0 / 100.8	15.0	6.36
Calaveras (Southern + Central + Floating)	63.0 / 100.8	15.0	6.2
San Andreas (Creeping)	67.1 / 107.3	34.0	6.2
Zayante-Vergeles	69.6 / 111.4	0.10	7.0
San Andreas (Santa Cruz Mountains + Peninsula)	69.9 / 111.8	17.0	7.92
San Andreas (Santa Cruz Mountains + Peninsula + North Coast + Offshore)	69.9 / 111.8	20.0	7.9
San Andreas (Santa Cruz Mountains + Peninsula + North Coast)	69.9 / 111.8	20.0	7.76
San Andreas (Floating)	69.9 / 111.8	0.06	6.9

FAULT NAME [Includes faults and fault segments delineated in the CGS database (Cao et al., 2003)]	Site to Fault Distance (miles / kilometers)	Slip Rate (millimeters per year)	Maximum Moment Magnitude
San Andreas (Santa Cruz Mountains)	69.9 / 111.8	17.0	7.03
Great Valley (Segment 13)	71.0 / 113.6	1.5	6.5
Greenville (Northern)	71.8 / 114.9	2.0	6.66
Calaveras (Northern)	76.3 / 122.1	6.0	6.78
Monte Vista - Shannon	78.5 / 125.6	0.4	6.7
Hayward (Floating)	78.7 / 125.9	9.0	6.9
Hayward (Southern + Northern)	78.7 / 125.9	9.0	6.91
Hayward (Southern + Northern + Rodgers Creek)	78.7 / 125.9	9.0	7.26
Hayward (Southern)	78.7 / 125.9	9.0	6.67
Mount Diablo Thrust	81.1 / 129.7	2.0	6.65
Hartley Springs	81.4 / 130.2	0.5	6.6
Western Nevada Zone 1	83.0 / 132.8	4.0	7.3
Mono Lake	83.2 / 133.1	2.5	6.6
Robinson Creek	84.8 / 135.7	0.5	6.4
Rinconada	85.3 / 136.5	1.0	7.5
Monson	85.8 / 137.3	0.05	6.0
Great Valley (Segment 14)	86.7 / 138.7	1.5	6.4
San Andreas (Peninsula + North Coast)	87.9 / 140.7	21.0	7.65
San Andreas (Peninsula + North Coast + Offshore)	87.9 / 140.7	22.0	7.83
San Andreas (Peninsula)	87.9 / 140.7	17.0	7.15
Great Valley (Segment 5)	88.3 / 141.2	1.5	6.5
Hilton Creek	88.3 / 141.3	2.5	6.7
Monterey Bay - Tularcitos	92.0 / 147.2	0.5	7.3
Concord/Green Valley (Concord + Green Valley South)	93.9 / 150.2	4.5	6.58

FAULT NAME [Includes faults and fault segments delineated in the CGS database (Cao et al., 2003)]	Site to Fault Distance (miles / kilometers)	Slip Rate (millimeters per year)	Maximum Moment Magnitude
Concord/Green Valley (Floating)	93.9 / 150.2	4.7	6.2
Concord/Green Valley (Concord)	93.9 / 150.2	4.0	6.25
Concord/Green Valley (Concord + Green Valley South + Green Valley North)	93.9 / 150.2	4.7	6.71
Western Nevada Zone 2	94.1 / 150.5	4.0	7.3
Round Valley	94.2 / 150.7	1.0	7.0
San Andreas - Parkfield	94.9 / 151.9	34.0	6.5
Antelope Valley	95.1 / 152.1	0.8	6.7
Genoa (Carson Range Fault Zone)	96.9 / 155.1	2.0	6.9

Note: Seismic ruptures can occur on different fault segments, and on multiple segments as denoted in the fault name column above by the “+” sign. These various potential rupture scenarios are included in the fault/seismicity model used for the probabilistic analyses.

8.2.4 Liquefaction and Seismic Settlement: Liquefaction and seismic settlement are conditions that can occur under seismic shaking from earthquake events. Liquefaction describes a phenomenon in which a saturated, cohesionless soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movements of the soil mass, combined with loss of bearing usually results. Granular, low plasticity soils, shallow groundwater conditions, higher intensity earthquakes, and particularly long duration of ground shaking are the requisite conditions for liquefaction.

The subject site is located in an area that has not been mapped by the California Geological Survey for liquefaction hazards. Groundwater was not encountered during drilling of the test borings to the maximum depth explored, about 61½ feet BSG. Based on historic well records reviewed from the Department of Water Resources, an historic high groundwater depth of 50 feet BSG was used for the liquefaction analysis.

Seismic settlement analysis was conducted based on soil properties revealed by test borings B-1 and B-2 drilled to a depths of 61⅞ and 41½ feet BSG, respectively, and the results of laboratory testing. The analysis was conducted using the computer program LIQUEFYPRO by Civiltech. A design earthquake horizontal ground acceleration of 0.19g (CBC design earthquake) and predominant earthquake magnitude of 6.6 based on hazard deaggregation were used for the liquefaction evaluation. The N-values generated based on the standard penetration test (SPT) results were used to determine the cyclic stress ratio needed to initiate liquefaction. The N-values from the SPT data were relied upon in the evaluations. Soil parameters, such as wet unit weight, N-value, etc. were input for the soil layers encountered throughout the depths explored (see test boring logs, Appendix

B). The results of liquefaction analysis indicate that liquefaction would not impact the project due to the historic groundwater depth greater than 50 feet BSG. The results also indicate that seismic settlement is not anticipated to be a factor for design of the project given that the subsurface soils are predominantly clays and the granular soils (silty sands and poorly graded sands) encountered were medium dense to dense.

8.3 Geotechnical Engineering Evaluations: The data and methodology used to develop conclusions and recommendations for project design and preparation of construction specifications are summarized in the following subsections.

8.3.1 Subsurface Conditions: The primary geotechnical engineering concerns for design and construction of the proposed project are: 1) the presence of undocumented fill soils associated with the former Yosemite Lateral and former golf course, which were encountered to varying depths of between 3 to 7½ feet BSG; 2) the expansive nature of the near surface clay soils; and 3) the potential for wet, unstable soils to be encountered during earthwork.

8.3.2 Undocumented Fill Soils: The results of the additional test borings conducted on July 15, 2011, were generally consistent with the results of our test borings drilled in November 2010 with respect to the depths of fill soils encountered. Based on information obtained as part of this investigation, the former canal appears to be located north of the north side of the proposed housing structure. It is our understanding that there is no available documentation certifying the compaction of the canal backfill. Considering the results of our test borings and discussions with UC Merced personnel, it is likely that the depth of the fill soils in the former canal area extend to about 7½ feet BSG.

In addition to the borings drilled in the backfilled canal area, test borings B-3 through B-7 and B-12 encountered undocumented fill soils in the proposed building areas, extending to depths of about 3 to 6½ feet BSG. Based on the presence of existing undocumented fills, foundations and improvements supported on the undocumented fill would be subject to a potential for excessive differential settlement. Accordingly, over-excavation and compaction of all existing fill materials are recommended as part of site preparation for the project. One of the test borings (B-9) encountered refusal on an unidentified hard object at a depth of 7½ feet BSG. Thus, there is a potential for obstructions and debris to be encountered during excavation work for the project.

Drawing No. 3 shows the estimated depths of fill soils encountered during our field investigations. The plan (horizontal) extent of the undocumented fills requiring removal is not known. However, it appears that the fill soils associated with former site uses occur over a significant portion of the site. This report recommends that an engineer or geologist observe the bottom of the over-excavation grading to confirm removal of the fill materials.

As an alternative to removing all of the fill soils, if a slightly higher potential for settlement related damage in parking and landscaped areas is acceptable, the fill soils could be completely removed from the proposed building pad areas and over-excavation could be conducted in the proposed landscaped and parking lot areas (including the canal area) to a depth of 3 feet below existing site grade. After the over-excavation, the bottom of the excavation should be scarified and compacted prior to backfilling with engineered fill. Based on the depths of existing fills estimated from our field investigations, deeper fill soils would remain in landscape and parking areas proposed north of the housing building.

8.3.3 Expansive Soils: One of the potential geotechnical hazards evaluated is the expansion potential of the near surface soils. Over time, expansive soils will experience cyclic drying and wetting as the dry and wet seasons pass. Expansive soils experience volumetric changes (shrink/swell) as the moisture content of the clayey soils fluctuate. These shrink/swell cycles can impact foundations and lightly loaded slabs-on-grade when not designed for the anticipated expansive soil pressures. Expansive soils cause more damage to structures, particularly light buildings and pavements, than any other natural hazard, including earthquakes and floods (Jones and Holtz, 1973). Expansion potential may not manifest itself until months or years after construction. The potential for damage to slabs-on-grade and foundations supported on expansive soils can be reduced by placing non-expansive fill below slabs-on-grade and extending perimeter foundations or thickened slab edges continuously to a sufficient depth where moisture changes are limited.

In evaluation of the expansive soils potential at the site, expansion index testing was performed on a representative sample of the near surface soils which are anticipated to be within the zone of influence of the planned improvements. The expansion test was performed in accordance with ASTM D4829 and the result is summarized in Appendix C of this report. The result of expansion index test indicated that the near surface soils have a medium expansion potential, with expansion index value 60. In addition, plasticity index testing of the near surface clays indicated high plasticity characteristics.

The referenced September 17, 2008 report prepared by Kleinfelder for Housing Phase 3 included an expansion index test result of 77 for a sample collected at a depth of 1 foot.

Based on the expansion potential and high plasticity of the near surface soils, this report recommends support of slabs-on-grade on an imported, non-expansive fill to reduce the potential for excessive heave of slabs on grade. Chemical treatment (i.e., lime treatment) of the on-site soils could also be evaluated for use as a potential non-expansive fill below the slabs-on-grade. However, laboratory suitability testing, including compressive strength determinations, etc. would be required. In addition to placement of a non-expansive fill below slabs on grade, continuous thickened edges or perimeter foundations should be included in the building design to form a moisture cutoff as recommended in this report.

8.3.4 Potential For Overly Moist Near Surface Soils: The results of laboratory testing indicated moisture contents of most of the near surface clay samples tested ranged from about 18 to 33 percent. Thus, for earthwork activities conducted in periods of the year other than the summer time, the near surface clay soils are anticipated to be above optimum moisture content and the near surface soil will likely need to be aerated or chemically treated during site preparation to permit compaction of these soils as a stable, engineered fill.

General recommendations are included in this report for moisture conditioning and/or aeration of onsite soils for use as engineered fill. A moisture content between two (2) and five (5) percent above optimum moisture content is recommended for the clayey soils to be used as engineered fill. As an alternative to aeration methods, chemical treatment of the soils may be considered to reduce the moisture contents for placement and compaction as engineered fill. Of course, the actual moisture contents and degree of aeration or chemical treatment required to achieve the recommended moisture contents will depend on the time of year the earthwork related phases of the project occur. For example, where earthwork is conducted in the summer months, the addition of water and moisture conditioning of drier surface soils should be anticipated. A specification for chemical treatment of soil for stabilization purposes is included in Appendix D of this report for consideration of treatment of wet, unstable soil conditions. It is recommended contractors anticipate in their bid the need to stabilize the bottom of excavations and dry the existing soils for use as engineered fill. It should be anticipated that stabilization of the bottom of excavations could also be achieved by over-excavation and compaction of aggregate base or placement of a geotextile stabilization material and aggregate base to the depth necessary to achieve a stable, non-yielding condition.

8.3.5 Static Settlements and Bearing Capacity of Shallow Foundations: The potential for excessive total and differential static settlement of foundations and slabs-on-grade was evaluated for the proposed structures. The increases in effective stress to underlying soils which can occur from new foundation loads, placement of fill, withdrawal of groundwater, etc. can cause vertical deformation of the soils, which can result in damage to the overlying structure and improvements. The differential component of the settlement is often the most damaging. In addition, the allowable bearing pressures of the soils supporting the foundations should be evaluated for shear and punching type failure of the soils resulting from the imposed foundation loads.

Based on the subsurface data and laboratory test results obtained as part of this investigation, static settlement was estimated based on the foundation loading provided. The consolidation settlement method was used to estimate foundation settlements. The analyses were conducted using the anticipated maximum building loads indicated in the "Anticipated Construction" section of this report. If maximum loads other than those indicated are anticipated, these loads should be provided to Moore Twining to evaluate the anticipated settlements.

Static settlement analysis indicates the conventional building foundations should be underlain by at least 12 inches of engineering fill soils to reduce the static settlement of foundations to 1 inch total and ½ inch differential. The static settlement estimates are based upon a net allowable soil bearing pressure of 3,000 pounds per square foot, for dead-plus-live loads.

The net allowable soil bearing pressure is the additional contact pressure at the base of the foundations caused by the structure. The weight of the soil backfill and weight of the footing may be neglected. The net allowable soil bearing pressure presented was selected to satisfy both the static settlement criteria and Terzaghi bearing capacity equations for spread foundations.

8.3.6 Interior Slab on Grade Construction: Several issues need to be considered to limit the potential for damage to slabs during construction. These issues include: 1) differential slab movement at interior columns; 2) aggregate base sections below the slabs, and 3) crane and construction equipment loads on the slabs.

The method of interior column construction can potentially damage the overlying slabs. In some cases, the subgrade preparation for the slab is not continuous across the top of spread footings. Often the zone above the top of structural footings is backfilled with concrete during slab placement. This results in a differential slab support condition and increases the potential for shrinkage stresses which often causes cracking around the column foundations. This crack may appear as an outline of the underlying interior column footing at the floor surface. The potential for this type of slab cracking can be reduced by backfilling the zone above the top of the footing and below the bottom of slabs with an approved backfill material and/or an aggregate base section below the floor slab. This procedure will provide more uniform support for the slabs which should reduce the potential for cracking.

In addition, it is recommended to utilize a slab design with at least 6 inches of AB for constructability and design purposes. Also, the improved support characteristics of the AB can be used in the design of the slab sections and the aggregate base can be utilized as a portion of the non-expansive fill recommended below slabs on grade.

8.3.7 Asphaltic Concrete Pavements: Recommendations for asphaltic concrete pavement structural sections are presented in the "Recommendations" section of this report. The thicknesses of the Asphalt Concrete and the underlying aggregate base materials are based upon the amount and type of traffic loads being considered and the Resistance or R-value of the subgrade soils which will support the pavement. The measure of the amount and type of traffic loads are based upon an index of equivalent axle loads (EAL) from loading of heavy trucks called a traffic index (T.I).

The structural sections were designed using the gravel equivalent method in accordance with the California Department of Transportation Highways Design Manual. The structural vehicle loadings were based on typical traffic loadings anticipated for this type of school facility. The analysis was based on a traffic index range from 5.0 to 8.0 at one point increments. These indices are provided as a general guide. The project civil engineer should determine the appropriate traffic index. Moore Twining should be contacted if additional pavement section designs are needed.

The anticipated subgrade soils in the area of the proposed maintenance building are predominantly lean and fat clays. For the purpose of design, an R-value of 5 was assumed to design on-site pavement sections constructed over compacted native subgrade soils.

8.3.8 Corrosion Protection: The risk of corrosion of construction materials relates to the potential for soil-induced chemical reaction. Corrosion is a naturally occurring process whereby the surface of a metallic structure is oxidized or reduced to a corrosion product such as iron oxide (i.e., rust). The metallic surface is attacked through the migration of ions and loses its original strength by the thinning of the member. Corrosion can eventually damage or destroy a metallic object.

Soils make up a complex environment for potential metallic corrosion. The corrosion potential of a soil depends on soil resistivity, texture, acidity, field moisture and chemical concentrations. In order to evaluate the potential for corrosion of metallic objects in contact with the onsite soils, chemical testing of soil samples was performed by Moore Twining as part of this report. The test results are included in Appendix C of this report. Conclusions regarding the corrosion potential of the soil tested are included in the Conclusions section of this report. If piping or concrete are placed in contact with imported soils, these soils should be analyzed to evaluate the corrosion potential of these soils.

If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to provide design parameters. Moore Twining does not provide corrosion engineering services.

8.3.9 Sulfate Attack of Concrete: Degradation of concrete in contact with soils due to sulfate attack involves complex physical and chemical processes. When sulfate attack occurs, these processes can reduce the durability of concrete by altering the chemical and microstructural nature of the cement paste. Sulfate attack is dependent on a variety of conditions including concrete quality, exposure to sulfates in soil/groundwater and environmental factors. The standard practice for geotechnical engineers in evaluation of the soils anticipated to be in contact with concrete is to perform testing to determine the sulfates present in the soils. The test results are then compared with the provisions of ACI 318, section 4.3 to provide guidelines for concrete exposed to sulfate-containing solutions. Common methods used to resist the potential for degradation of concrete due to sulfate attack from soils include, but are not limited to the use of sulfate-resisting cements, air-entrainment and reduced water to cement ratios.

The soil corrosion data should be provided to the manufacturers or suppliers of materials that will be in contact with soils (pipes or ferrous metal objects, etc.) to provide assistance in selecting the protection and materials for the proposed products or materials. If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to provide design parameters.

9.0 CONCLUSIONS

Based on the data collected during the field exploration and laboratory testing program, our geotechnical experience in the vicinity of the project site, and our understanding of the proposed construction, the following general conclusions are presented.

- 9.1 The site is suitable for the proposed construction with regard to support of the proposed foundations and concrete slabs-on-grade, provided the recommendations contained in this report are followed. It should be noted that the recommended design consultation and construction monitoring by Moore Twining are integral to this conclusion.

- 9.2 The housing and maintenance building sites were covered with aggregate base in some areas and asphalt concrete (AC) pavement in others. The near surface soils encountered below these materials in the test borings drilled within the areas of the proposed student housing and maintenance buildings were predominantly fat and lean clays within the upper 15 to 20 feet BSG. Below the near surface clay soils, the predominant soil type encountered was lean clay with interbedded layers of silty sand and poorly graded sand extending to the maximum depth explored of 61½ feet BSG.

- 9.3 Fill soils were encountered in test borings B-3 through B-7 and B-12 drilled in the proposed building areas, extending to depths of about 3 to 6½ feet BSG. In addition, the results of our test borings and discussions with UC Merced personnel, suggest that a former canal trends through the site north of the north side of the proposed building and was backfilled with up to about 7½ feet of undocumented fill. The fill soils are not suitable to support the proposed building, and if fills are left in-place in areas outside the influence of the building the exterior improvements would be subjected to excessive settlements. Thus, this report recommends all of the fill materials, including the entire canal backfill, be over-excavated and compacted as engineered fill. An alternative is also provided for removal of all fill soils from building areas and partial removal of fill soils from landscaped and parking areas. However, this alternative would result in a higher potential for settlement related damage.

- 9.4 The near surface clay soils tested indicated a medium expansion potential and high plasticity characteristics. In order to reduce the potential for excessive heave due to the expansive soils, concrete slabs-on-grade should be placed on a minimum of 6 inches of non-recycled Class 2 aggregate base (compacted to a minimum of 95 percent relative compaction) placed over imported, non-expansive engineered fill.

- 9.5 Groundwater was not encountered in the test borings drilled at the time of the field explorations on November 26 and 27, 2010, and July 15, 2011. For the purpose of this report an historic high groundwater level of 50 feet is assumed for the purpose of design.
- 9.6 The results of liquefaction analysis indicate that liquefaction would not impact the project due to the historic groundwater depth greater than 50 feet BSG. The results also indicate seismic settlement is not anticipated to be a factor for design of the project.
- 9.7 The site is not located in an Alquist-Priolo Earthquake Fault Zone. The potential for ground rupture associated with a known fault is considered low.
- 9.8 A total and differential static settlement of 1 inch and ½ inch, respectively, should be assumed for design of foundations supported on subgrade soils prepared as recommended in this report.
- 9.9 The results of a soil sample analysis indicate that the near-surface soils exhibit a “moderately corrosive” corrosion potential to buried metal objects.
- 9.10 The analytical results of a soil sample analysis indicate a negligible potential for sulfate exposure to concrete. If piping or concrete are placed in contact with deeper soils or engineered fill, these soils should be analyzed to evaluate the corrosion potential of these soils.

10.0 RECOMMENDATIONS

Based on the evaluation of the field and laboratory data and our geotechnical experience in the vicinity of the project, the following recommendations for use in the project design and construction are presented. However, this report should be considered in its entirety. When applying the recommendations for design, the background information, procedures used, findings, evaluation, and conclusions should be considered. The recommended design consultation and observation of construction activities by Moore Twining are integral to the proper application of the recommendations.

10.1 General

- 10.1.1 Moore Twining should be provided the opportunity to review the preliminary and final grading and foundation plans and earthwork specifications before the plans and specifications are released for bidding purposes so that any relevant recommendations can be presented. If proposed foundation loading or planned structures are different from those described in the Anticipated Construction section of this report, the recommendations in this report may

not be appropriate. Moore Twining should be notified and requested to provide supplemental recommendations if changes are planned.

- 10.1.2 A preconstruction meeting including, as a minimum, the owner, general contractor, architect, project inspector, grading subcontractor, civil engineer and Moore Twining is recommended at least one week prior to the start of site clearing. The purpose of the meeting should be to discuss critical project issues, concerns and scheduling.
- 10.1.3 If any city, county, and/or state standards are cited on the plans or specifications, these standards should be in addition to the recommendations in this report.
- 10.1.4 The contractor should be requested to include in the base bid the costs to perform the work required by this report, and the project plans and specifications, whichever is most stringent. After review of the aforementioned documents, the contractor(s) bidding on this project should determine if the data are sufficient for accurate bid purposes. If the data are not sufficient, the contractor should conduct, or retain a qualified geotechnical engineer to conduct, supplemental studies and collect more data as required to prepare accurate bids.
- 10.1.5 The contractor is responsible for protecting existing facilities from damage including but not limited to existing foundations, slabs-on-grade, pavements, utilities, buildings, streets, etc. Any damage shall be repaired by the contractor at no cost to the owner(s).
- 10.1.6 The proposed foundations should not surcharge any existing utilities (if they exist) and associated trench backfill. This can be achieved by deepening the proposed foundations to a depth such that a 2 horizontal to 1 vertical plane from the bottom of the foundations extends below the bottom of the trench backfill. If deepening of the foundations is not possible or desired, existing utilities in conflict with this setback should be relocated (if any) or other methods such as encasement designed.
- 10.1.7 If existing utility lines are to remain in service in the area of the proposed improvements, the soil backfill associated with the utility trenches should be tested to determine if the backfill is properly compacted and capable of supporting the improvements proposed to be constructed in these areas (i.e., pavements, etc.). These areas should be designated on the project civil drawings. In addition, the project civil engineer should determine if the existing utilities are capable of supporting the proposed improvements.

- 10.1.8 Contractors should be aware that overly moist soils are anticipated at the site during and in the periods after the wet season. The samples tested for this report are anticipated to require soil drying such as by aeration or chemical soil treatment. In addition, the wet soils are anticipated to require stabilization such as by placement of a geotextile stabilization fabric and rock and/or chemical treatment for stabilization to achieve a stable subgrade condition. Thus, contractor's should anticipate onsite soils with similar moisture contents as those encountered will require methods such as aeration and/or chemical treatment, etc. to achieve suitable moisture contents for compaction. A specification for Chemical Treatment of Soil is included in Appendix D of this report. The Contractor is responsible to place, condition (i.e., aerate, wet, etc.) and compact engineered fill soils to achieve a stable and non-yielding engineered fill as recommended in this report. In addition, where the bottom of excavations expose soils with high moisture contents, stabilization by methods such as placement of rock and fabric, or chemical treatment should be anticipated to achieve a stable condition for earthwork operations.
- 10.1.9 The Contractor should use appropriate equipment such as low-pressure equipment, steel tracks, etc. to achieve the required over-excavation, compaction and subgrade stabilization to minimize rutting and subgrade instability.
- 10.1.10 It may be possible to consider chemical treatment (i.e., lime treatment) of the on-site soils as an alternative to the use of imported non-expansive fill below slabs on grade to reduce the thickness of the imported, granular non-expansive materials recommended below slabs-on-grade in this report. However, lime suitability testing would need to be conducted in order to determine if the on-site clay soils are suitable for lime treatment for this use. If lime suitability testing is desired, Moore Twining can develop an estimate for conducting lime suitability/mix design testing (i.e., plasticity index, lime optimization testing, compressive strength testing per CTM 373, etc.). The lime suitability/mix design testing typically takes approximately 3 weeks for sample preparation and testing.

10.2 Site Grading and Drainage

- 10.2.1 It is critical to develop and maintain site grades which will drain surface and roof runoff away from foundations, and floor slabs - both during and after construction. Adjacent exterior finished grades which are not covered by pavements or walkways should be sloped a minimum of two (2) percent for a distance of at least ten (10) feet away from the structure, or as necessary to preclude ponding of water adjacent to foundations, whichever is the most stringent. Adjacent exterior grades which are paved should be sloped at least 1 percent away from the foundations.

- 10.2.2 Surface water must not be allowed to pond adjacent to the buildings or structure foundations. To reduce this potential, it is recommended that rain gutters be installed to direct all water from roof drains into closed conduits that are connected to an acceptable discharge area away from the building foundations.
- 10.2.3 Landscape and planter areas should be irrigated using low flow irrigation (such as drip, bubblers or mist type emitters). It is recommended to use plants with low water requirements.
- 10.2.4 It is preferred to limit landscape or planted areas adjacent to the building foundations to reduce moisture infiltration near the foundations. Exterior landscaped areas adjacent to the building and structures, if required, should be sloped to drain in accordance with the recommendations of this report (minimum 2 percent fall away from foundations) to area drains tied to a storm drain system.
- 10.2.5 Trees should be setback from proposed structures at least 10 feet or a distance equal to the anticipated drip line radius of the mature tree. For example, if a tree has an anticipated drip-line diameter of 30 feet, the tree should be planted at least 15 feet away (radius) from proposed or existing buildings.
- 10.2.6 Excessive irrigation must be avoided. Landscape and planter areas should be irrigated using low flow irrigation (such as drip, bubblers or mist type emitters). The use of plants with minimal water requirements are recommended.

10.3 Site Preparation

- 10.3.1 At the time of our field investigation, underground utilities were noted in the project area. If any utilities are encountered below the building pads, they should be removed and the excavations backfilled with engineered fill as part of the site preparation. Existing utility trenches should not be left in place within a zone defined by a line that extends at an inclination of 2 horizontal to 1 vertical downward from the bottom of the new building foundations.
- 10.3.2 All topsoil, vegetation, roots larger than 1/4-inch in diameter, organics, asphaltic concrete pavements (asphaltic concrete and aggregate base material), and debris should be removed from the areas of the proposed improvements. The general depth of stripping in landscape areas should be sufficiently deep to remove the root systems and organic topsoils. The actual depth of stripping should be reviewed by our firm at the time of construction. Deeper stripping may be required in localized areas,

including the base of the fill used to backfill the former canal. Stripping should extend laterally a minimum of 10 feet outside the building perimeters. The organic rich materials will not be suitable for use as engineered fill; however, stripped topsoil may be stockpiled and reused in landscape areas at the discretion of the owner.

- 10.3.3 Trees (if any), existing root systems and soils with organics greater than 3 percent by dry weight in the area of the proposed improvement should be removed in their entirety. Soils disturbed from the tree/root removal should be over-excavated and compacted. Prior to backfill, the bottom of the excavation should be scarified to a depth of 8 inches, moisture conditioned and compacted as engineered fill.
- 10.3.4 All existing surface and subsurface improvements and subsurface structures (if present) should be removed and the excavations backfilled with engineered fill as part of site preparation.
- 10.3.5 Fill soils were encountered in test borings B-3 through B-7 and B-12 drilled in proposed building areas, extending to depths of about 3 to 6½ feet BSG. Fill soils were also encountered in a former canal trending through the site (north of the north side of the proposed building) which was previously backfilled with undocumented fill. Drawing No. 2, 3 and 4 (Appendix A) show the estimated location of the former canal, which may include approximately 7½ feet of fill or more. Drawing No. 3 shows the depths of fill encountered in test borings. All of the fill materials located below or within influence of the new improvements, including the entire canal backfill should be located and completely excavated and replaced with engineered fill. As an alternative, a lesser over-excavation could be conducted for improvements outside the influence of the building foundations as described in section 10.3.9 of this report. However, this would result in a higher potential for settlement related damage to exterior improvements (e.g. pavements, exterior flatwork, etc.). An engineer or geologist with our firm should be contacted to observe and document the removal of all fill soils and confirm the over-excavation extends into competent native soils.

10.3.6 Following the stripping and removal of existing improvements, the over-excavation for the proposed building area(s) should comply with all of the following, whichever requires the deeper over-excavation:

- Over-excavate to remove all undocumented fill soils (fill soils in building areas estimated to extend to depths of 3 to 6½ feet BSG and maybe deeper in some areas - see Drawing No. 3);
- Over-excavate to at least 3 feet below preconstruction site grades;
- Over-excavate to at least 12 inches below improvements (i.e., utilities, etc.) to be removed;
- Over-excavate to the bottom the non-expansive fill required below interior slabs-on-grade (30 inches below the bottom of the interior floor slab and 18 inches below the bottom of mat slabs); and
- Over-excavate to at least 12 inches below the bottom of conventional foundations.

The over-excavation should extend laterally a minimum of five (5) feet beyond the proposed buildings and foundations, or three (3) feet beyond adjacent concrete walkways, whichever is greater. The horizontal limits of over-excavation for the building pads should be shown on the grading plans. If the existing fill soil and depths of over-excavation exceed 6½ feet in the building pad preparation limits, Moore Twining should be notified, and an increase in the minimum horizontal over-excavation limit may be recommended. The non-expansive section below the proposed buildings should extend laterally a minimum of three (3) feet beyond the buildings, and foundations and 3 feet beyond adjacent walkways, whichever is greater. Where exterior slabs, walkways, etc. are located adjacent to, or within three (3) feet of, the building perimeter these slabs should be underlain by the section of aggregate base and underlying imported non-expansive soil recommended under conventional interior slabs. This includes a minimum of 6 inches of non-recycled Class 2 aggregate base (compacted to a minimum of 95 percent relative compaction) placed over 24 inches of imported, granular non-expansive engineered fill over the depth of compacted native engineered fill recommended in the Site Preparation section of this report. The non-expansive section below exterior slabs, walkways, etc., should extend laterally a minimum of three (3) feet beyond the walkways.

10.3.7 The depth of over-excavation for the building pad area should be relatively uniform. In other words, slot cutting below foundations will not be allowed (i.e., over-excavation cannot be limited to footing areas only). Upon approval of the over-excavation limits by Moore Twining based on the survey data provided by the Contractor, the soils at the bottom of the

excavation should be scarified to a minimum depth of 8 inches, moisture conditioned to between two (2) and five (5) percent above optimum moisture content and compacted as engineered fill to a minimum of 90 percent relative compaction and a maximum of 95 percent relative compaction according to ASTM Standard D1557. The engineered fill below conventional interior slabs should consist of 6 inches of imported, non-recycled Class 2 aggregate base over 24 inches of imported, granular, non-expansive engineered fill. The engineered fill directly below mat foundations should consist of 6 inches of imported, non-recycled Class 2 aggregate base over 12 inches of imported, granular, non-expansive engineered fill. Foundation and slab preparation details depicting the building pad preparation using imported non-expansive fill soils are included as Drawing Nos. 10 and 11 in Appendix A.

10.3.8 Following stripping, areas to receive fill outside the building pad preparation limits, pavement areas and exterior slab-on-grade areas outside the building pad preparation limits should be over-excavated to comply with the following, whichever requires the deeper excavation:

- Over-excavate to remove all undocumented fill soils (fill soils estimated to extend to depths of up to 7½ feet BSG and may be deeper in some areas - See Drawing No. 3);
- Over-excavate to at least 12 inches below preconstruction site grades;
- Over-excavate to at least 12 inches below improvements (i.e., utilities, etc.) to be removed;
- Over-excavate to the bottom of the aggregate base section below asphalt concrete pavements; and
- Over-excavate to 12 inches below the bottom of proposed exterior slabs-on-grade.

The zone of over-excavation and compaction (overbuild zone) should extend laterally a minimum of 2 feet outside the perimeter of exterior slabs (slabs outside the building pad preparation limits) and pavements. If imported, granular, non-expansive soils are used for the non-expansive section, the soils at the bottom of the excavation should be scarified to a minimum depth of 8 inches, moisture-conditioned to between two (2) and five (5) percent above optimum moisture content, and compacted as engineered fill to a minimum of 90 percent relative compaction and a maximum of 95 percent relative compaction according to ASTM Standard D1557. Exterior slabs-on-grade outside the building pad preparation limits should be underlain by a minimum of 4 inches of Class 2 aggregate base over 8 inches of imported, non-expansive engineered fill over the compacted engineered fill recommended above.

10.3.9 In the event a higher risk of settlement and maintenance of improvements located outside the building pad preparation area due to settlement of the undocumented fills is acceptable, an over-excavation depth shallower than noted in Section 10.3.8 could be conducted below non-building improvements outside the building pad preparation limits. If this alternative is acceptable, areas to receive fill outside the building pad preparation limits, pavement areas, or exterior slabs-on-grade areas outside the building pad preparation limits could be over-excavated in accordance with the following:

- Over-excavate to at least 3 feet below preconstruction site grades; and
- Over-excavate to at least 12 inches below improvements (i.e., utilities, etc.) to be removed.

Deeper fill soils would remain in landscape and parking areas proposed north of the building pad preparation limits. As indicated, this alternative approach would present a slightly higher potential for settlement related damage in parking and landscaped areas (cracking flatwork, etc.) than if the deeper fill soils were completely removed. The over-excavation should extend laterally a minimum of three (3) feet beyond the edges of concrete walkways and pavements. The soils at the bottom of the excavation should be scarified to a minimum depth of 8 inches, moisture conditioned to between two (2) and five (5) percent above optimum moisture content and compacted as engineered fill to a minimum of 90 percent relative compaction and a maximum of 95 percent relative compaction according to ASTM Standard D1557.

10.3.10 It is recommended that extra care be taken by the Contractor to ensure that the horizontal and vertical extent of the over-excavation and compaction conform to the site preparation recommendations presented in this report. Moore Twining is not responsible for surveying the horizontal or vertical extent of over-excavation and compaction. The Contractor should verify in writing to the owner that the horizontal and vertical over-excavation limits were completed in conformance with the recommendations of this report, the project plans, and the specifications (the most stringent applies) based on surveyed data. It is recommended this verification should be performed by a licensed surveyor including a plan showing the horizontal limits of the over-excavation and cross-sectional profiles showing the vertical extent of the over-excavation for each building pad. The licensed surveyor should indicate in writing that the over-excavation elevation and extent complied with this report. The verification should be provided prior to excavating for the foundations.

- 10.3.11 Soils near the base of the excavations, such as for areas of over-excavation above, are anticipated to be overly moist and unstable (significantly above the optimum moisture content required for proper compaction) and are anticipated to require soil drying and stabilization such as by placement of a geotextile stabilization fabric and rock and/or chemical treatment for stabilization to achieve the required relative compaction. Thus, where moisture processing and compaction of the bottom of the excavation exhibits unstable conditions, provisions such as chemical soil treatment of placement of a geotextile fabric and aggregate base will be required to achieve stable conditions. The Contractor should anticipate “overly moist” soils as related to excavation and placement as engineered fill, site work, utilities, etc. and include stabilization measures such as chemical treatment, or other methods such as geotextile and aggregate base, etc. in their bid.. Specifications for Chemical Treatment are provided in Appendix D of this report, if chemical treatment of the soil is used for stabilization.
- 10.3.12 All fill required to bring the site to final grades should be placed as engineered fill. In addition, all native soils over-excavated should be compacted as engineered fill.
- 10.3.13 The moisture content and density of the compacted soils should be maintained until the placement of the aggregate base, vapor retarder and concrete slabs. If soft or unstable soils are encountered during excavation or compaction operations, our firm should be notified so the soils conditions can be examined and additional recommendations provided to address the pliant areas.
- 10.3.14 The Contractor is responsible for the disposal of concrete, asphaltic concrete, soil, spoils, etc. that must be exported from the site. Individuals, facilities, agencies, etc. may require analytical testing and other assessments of these materials to determine if these materials are acceptable for the intended use by the receiving party. The Contractor is responsible to perform the tests, assessments, etc. to determine the appropriate method of disposal. In addition, the Contractor is responsible for all costs to dispose of these materials in a legal manner.

10.4 Engineered Fill

- 10.4.1 The on-site near surface soils encountered were predominantly fat and lean clay soils. The native soils are not considered suitable for use as engineered fill within the upper 30 inches below new interior conventional floor slabs or concrete walkways next to the building, nor within 18 inches below mat slabs, nor within the upper 12 inches below exterior slabs-on-

grade which are not located adjacent to the building. Engineered fill within the upper 30 inches below interior conventional floor slabs and concrete walks next to the building, 18 inches below mat slabs, and 12 inches below exterior slabs outside the building pad preparation limits should consist of imported, granular fill in accordance with section 10.4.3 of this report. Near surface soils that are free of organics, particles larger than 6 inches in dimension, and debris are considered suitable for use as engineered fill material below the imported, granular fill, provided they are aerated or moisture conditioned in accordance with the recommendations of this report. It should be noted that one test boring encountered refusal on an unidentified hard object at a depth of 7½ feet BSG and obstructions and debris may be encountered during over-excavation which will require removal. If soils other than those considered in this report are encountered, Moore Twining should be notified to provide alternate recommendations.

10.4.2 The compactability of the native soils is dependent upon the moisture contents, subgrade conditions, degree of mixing, type of equipment, as well as other factors. The evaluation of such factors was beyond the scope of this report; therefore, they should be evaluated by the Contractor during preparation of bids and construction of the project.

10.4.3 Imported fill soil should be non-contaminated, non-recycled, non-corrosive and granular in nature and contain enough fine-grained material (binder) to allow cutting “neat” footing trenches with the following acceptance criteria recommended:

Percent Passing 3-Inch Sieve	100
Percent Passing No. 4 Sieve	85 - 100
Percent Passing No. 200 Sieve	15 - 40
Plasticity Index	Less than 15
Expansion Index	Less than 10
Organics	< 3% by weight
Sulfates	< 0.05 % by weight
Min. Resistivity	> 5,000 ohms-cm

10.4.4 Prior to importing fill, the Contractor shall submit test data that demonstrates that the proposed import complies with the recommended criteria for both geotechnical and environmental compliance. Also, prior to being transported to the site, the import material shall be certified by the Contractor and the supplier (to the satisfaction of the Owner) that the soils do not contain any environmental contaminants regulated by local, state or federal agencies having jurisdiction. This certification shall consist of, as a minimum, analytical data specific to the source of the import material in

accordance with the Department of Toxic Substances Control, "Informational Advisory, Clean Imported Fill Material," dated October 2001. The list of constituents to be tested for the fill source shall be submitted to the Owner for review and approval prior to the Contractor testing the fill. After approval of the Contractor's submittal and prior to being transported to the site, the contractor should request Moore Twining test the import fill material for compliance with the above geotechnical criteria. The Contractor shall allow a minimum of seven (7) working days for each import source to be tested for geotechnical compliance in addition to the testing for environmental constituents.

- 10.4.5 Onsite clay soils should be placed in loose lifts approximately 8 inches thick or less, moisture-conditioned or air dried to within two (2) to five (5) percent above optimum moisture content, and compacted to a dry density of at least 90 percent of the maximum dry density but not more than 95 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable. The upper 12 inches of the pavement subgrade soils should be compacted to a minimum of 95 percent relative compaction.
- 10.4.6 Imported, granular engineered fill soils should be placed in loose lifts approximately 8 inches thick or less, moisture-conditioned or air dried to within optimum to three (3) percent above optimum moisture content, and compacted to a dry density of at least 92 percent of the maximum dry density as determined by ASTM Test Method D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable. The upper 12 inches of the pavement subgrade soils should be compacted to a minimum of 95 percent relative compaction.
- 10.4.7 Recycled materials (such as asphaltic concrete or Portland cement concrete) should not be used within 10 feet of any improvement without approval by the Owner and Moore Twining. Contractors should not assume that recycled materials can be used in preparing bids for the project without approval by the owner, and Moore Twining. Recycled materials cannot be used in the proposed building pads.

- 10.4.8 Aggregate base shall comply with State of California Department of Transportation requirements for Caltrans Class 2 aggregate base, with the exception that aggregate base below the buildings should not include recycled asphalt concrete. Aggregate base shall be compacted to a minimum relative compaction of 95 percent. Documentation that the aggregate base to be used for the project meets these requirements (i.e., R-value, gradation, sand equivalent, durability, is free of recycled asphalt concrete, etc.) and should be provided to the Owner, and Moore Twining prior to delivery of the aggregate base to the site. All aggregate base should be compacted to a minimum of 95 percent relative compaction.
- 10.4.9 Open graded gravel and rock material such as ¾-inch crushed rock or ½-inch crushed rock should not be used as backfill including trench backfill. In the event gravel or rock is required by a regulatory agency for use as backfill (Contractor to obtain a letter from the agency stating the requirement for rock and/or gravel as backfill), all open graded materials shall be fully encased in a geotextile filter fabric, such as Mirafi 140N, to prevent migration of fine grained soils into the porous material. Gravel and rock cannot be used without the written approval of Moore Twining. If the contractor elects to use crushed rock (and if approved by Moore Twining), the contractor will be responsible for slurry cut off walls at the locations directed by Moore Twining.

10.5 Foundations- General

- 10.5.1 The foundations should be designed and reinforced for the anticipated differential settlements and for temperature and shrinkage effects. A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the foundations based on: 1) a total static settlement of 1 inch and a differential static settlement of ½ inch in 40 feet between isolated column footings; 2) a total swell of 1 inch; and 3) a differential swell of ½ inch in 40 feet.
- 10.5.2 Foundation excavations or exposed soils should not be left uncovered and allowed to dry such that the moisture content of the soils is less than optimum moisture content, or drying produces cracks in the soils and sloughing. The moisture and density should be maintained until concrete is placed. It should be noted that the contractor should take precautions not to allow the exposed soils to dry, including on weekends and holidays. If dry soils are noted, the contractor should request written recommendations from our firm to properly moisture condition the foundation excavations. In addition, if soft or unstable soils are encountered during excavation operations, our firm should be notified so the soil conditions can be

evaluated and additional recommendations provided to address the pliant areas.

- 10.5.3 The following values presented in Table No. 2 were developed using the Ground Motion Parameter Calculator provided by United States Geological Survey (<http://earthquake.usgs.gov/>) in accordance with the 2010 CBC.

TABLE NO. 2
Design Seismic Factors

Design Seismic Factor	2010 CBC Value
Site Class	D
Spectral Response At Short Period (0.2 Second), S_s	0.511
Spectral Response At 1-Second Period, S_1	0.224
Site Coefficient (based on Spectral Response At Short Period), F_a	1.391
Site Coefficient (based on spectral response at 1-second period) F_v	1.953
Maximum considered earthquake spectral response acceleration for short period, S_{Ms}	0.710
Maximum considered earthquake spectral response acceleration at 1 second, S_{M1}	0.437
Five percent damped design spectral response accelerations for short period, SD_s	0.474
Five percent damped design spectral response accelerations at 1-second period, SD_1	0.291

10.6 Conventional Shallow Spread Foundations

- 10.6.1 Structural loads may be supported on conventional spread or continuous footings placed on compacted engineered fill soils prepared as recommended in the “Site Preparation” section of this report. Spread and continuous footings may be designed for a maximum net allowable soil bearing pressure of 3,000 pounds per square foot for dead-plus-live loads.

This value may be increased by one-third for short duration wind or seismic loads.

- 10.6.2 Interior foundations for the proposed multi-story housing structure should have a minimum depth of 24 inches below the bottom of the interior floor slab. Perimeter footings shall have a minimum depth of 30 inches below the bottom of the interior floor slab or the lowest final adjacent site grade, whichever is deeper. All footings should have a minimum width of 15 inches.
- 10.6.3 Interior foundations for the proposed maintenance building should have a minimum depth of 12 inches below the bottom of the interior floor slab. Perimeter footings shall have a minimum depth of 24 inches below the bottom of the interior floor slab or the lowest final adjacent site grade, whichever is deeper. All footings should have a minimum width of 15 inches.
- 10.6.4 The foundations, or a thickened slab edge with a minimum width of 8 inches extending to the depth recommended for perimeter foundations, should be continuous around the perimeter of all structures to reduce moisture migration beneath the structure. Continuous perimeter foundations or thickened edges should be extended through doorways and/or openings that are not needed for support of loads.
- 10.6.5 Structural loads for miscellaneous, non-building foundations with line loads of less than 1.5 kips per lineal foot (such as retaining walls, sound walls, screen walls, monument signs, etc.) should be evaluated on a case by case basis to develop supplemental recommendations for site preparation and foundation design. In lieu of a case by case evaluation, miscellaneous foundations may be supported on spread or continuous footings extending 24 inches below finished grade and placed on a minimum of 12 inches of engineered fill, or engineered fill extending to the depth to remove existing undocumented fills, whichever is greater. Footings for these improvements may be designed for a maximum allowable soil bearing pressure of 3,000 pounds per square foot for dead-plus-live loads for footings. This value may be increased by one-third for short duration wind or seismic loads. A minimum footing width of 12 inches should be used.

10.7 Mat Foundations

- 10.7.1 The mat slab recommendations are based on the assumed loads provided in the “Anticipated Construction” section of this report. In the event the actual design loads differ from those assumed for the purpose of this report, these loads should be provided to Moore Twining to determine if the recommendations are appropriate.
- 10.7.2 From a geotechnical perspective, the use of mat slabs, or quasi-rigid interconnected grade beam foundations, etc., could also be considered. The foundations should be designed by a California registered civil or structural engineer experienced in seismic design to provide a structurally integrated foundation system which is intended to mitigate the potential impacts of swell described in this report.
- 10.7.3 A structural engineer experienced in foundation design should recommend the thickness, design details and concrete specifications for the foundations based on the settlements indicated in section 10.6 of this report.
- 10.7.4 To address potential for swell (1 inch total and ½ inch differential), mat foundations should be underlain by at least 6 inches of compacted non-recycled Class 2 aggregate base, which is underlain by a minimum of 12 inches of imported non-expansive fill soils, underlain by engineered fill extending to the depths recommended in the “Site Preparation” recommendations section of this report. The thickness of the imported non-expansive fill could be reduced if the slab can be designed to tolerate additional swell (more than 1 inch total and ½ inch differential). In this event, the tolerable swell information should be provided to Moore Twining to evaluate reducing the thickness of non-expansive fill.
- 10.7.5 Mat foundations, consisting of a structurally engineered, nearly uniform thickness reinforced concrete slab-on-grade, may be designed for a maximum net allowable soil bearing pressure of 1,000 pounds per square foot for dead-plus-live loads. The dead load of the mat foundation may be neglected in design. These values may be increased by one-third for short duration wind or seismic loads.
- 10.7.6 A static modulus of subgrade reaction of 80 psi/inch may be used in design of the mat foundation. This value is based on a 1 foot square plate with a maximum load of 1 kip. Thus, the design engineer should apply a modulus of subgrade reaction value which incorporates the footing size effects for design of the mat foundation.

- 10.7.7 A seismic modulus of subgrade reaction of 150 psi/inch may be used in design of the mat foundation. This value is based on a 1 foot square plate with a maximum load of 1.33 kips. Thus, the design engineer should apply a modulus of subgrade reaction value which incorporates the footing size effects for design of the mat foundation.
- 10.7.8 The building mat slab should incorporate perimeter thickened edges that are at least 18 inches below the lowest adjacent finished grade, or 18 inches below the bottom of the slab, whichever is deeper. The thickened edges should be continuous at the perimeter of the structure to reduce moisture migration beneath the structures. The thickened edge should be extended through doorways and/or openings that are not needed for support of loads.

10.8 Retaining Walls and Site Walls

- 10.8.1 Retaining wall plans, if used and when available, should be reviewed by Moore Twining to evaluate the actual backfill materials, proposed construction, drainage conditions, and other design geotechnical parameters.
- 10.8.2 Retaining walls and site walls may be supported on spread or continuous footings placed entirely on at least 12 inches of engineered fill, or engineered fill extending to the depth required to remove all undocumented fill, whichever is greater. The engineered fill should extend a minimum of 3 feet horizontally beyond the limits of the footing. Upon approval of the over-excavation limits by Moore Twining, the soils at the bottom of the excavation should be scarified to a minimum depth of 12 inches, moisture conditioned to within optimum and three (3) percent above optimum moisture content and compacted as engineered fill to a minimum of 92 percent relative compaction. The resulting excavation should be backfilled to finished grade with engineered fill. Footings should have a minimum depth of 12 inches and a minimum width of 12 inches.
- 10.8.3 Retaining wall footings should extend to a minimum depth of 24 inches below the lowest final adjacent site grade. Retaining wall footings may be designed for a maximum allowable soil bearing pressure of 3,000 pounds per square foot for dead-plus-live loads. This value may be increased by one-third for short duration wind or seismic loads.

- 10.8.4 Retaining walls should be constructed with non-expansive, granular free-draining backfill placed within the zone extending from a distance of 1 foot laterally from the bottom of the wall footing at a 1 horizontal to 1 vertical gradient to the surface. The backfill should meet the following requirements. The requirements for granular wall backfill should be detailed on the construction drawings and specifications.

Percent Passing 3-Inch Sieve	100
Percent Passing No. 4 Sieve	85-100
Percent Passing No. 200 Sieve	0-25
Plasticity Index	Less than 10
Minimum internal angle of friction	30 degrees

- 10.8.5 Segmented wall design (mechanically stabilized walls) should be conducted by a California licensed geotechnical engineer familiar with segmented wall design and having successfully designed at least three walls at sites with similar soil conditions. None of the data included in this report should be used for wall design. A design level geotechnical report should be conducted to provide wall design parameters. If the designer uses the data in this report for wall design, the designer assumes the sole risk for this data.
- 10.8.6 Retaining walls may be subject to lateral loading from pressures exerted from the soils, groundwater, slabs-on-grade, and pavement traffic loads, adjacent to the walls. In addition to earth pressures, lateral loads due to slabs-on-grade, footings, or traffic above the base of the walls should be included in design of the walls. The designer should take into consideration the allowable settlements for the improvements to be supported by the retaining wall.
- 10.8.7 Retaining walls should be constructed with a drain system including at least drain pipes surrounded by at least 1.5 cubic feet per lineal foot of Caltrans Class 2 permeable. Drain pipes near the wall to adequately reduce the potential for hydrostatic pressures behind the wall. Drainage should be directed to pipes which gravity drain to closed pipes of the storm drain or subdrain system. Drain pipe outlet invert elevations should be sufficient (a bypass should be constructed if necessary) to preclude hydrostatic surcharge to the wall in the event the storm drain system did not function properly. Clean out and inspection points should be incorporated into the drain system. Drainage should be directed to the site storm drain system. Class 2 permeable material should be compacted to 95 percent relative compaction in accordance with ASTM D1557.

- 10.8.8 The contractor should use light hand operated or walk behind compaction equipment in the zone equal to one wall height behind the wall to reduce the potential for damage to the wall during construction. Heavier compaction equipment could cause loads in excess of design loads which could result in cracking, excessive rotation, or failure of a retaining structure. The contractor is responsible for damage to the wall caused by improper compaction methods behind the wall.
- 10.8.9 If retaining walls are to be finished with dry wall, plaster, decorative stone, etc., waterproofing measures should be applied to moisture proof the exterior of the walls. Waterproofing should also be used if effervescence (discoloration of wall face) is not acceptable. The waterproofing system should be designed by a qualified professional.

10.9 Frictional Coefficient and Earth Pressures

- 10.9.1 Earth pressures provided below are based on level backfill conditions above retaining walls and do not include the effects of surcharges, such as foundation or traffic loads. Moore Twining should be provided with detailed retaining wall plans when available.
- 10.9.2 The bottom surface area of concrete footings or concrete slabs in direct contact with engineered fill can be used to resist lateral loads. An allowable coefficient of friction of 0.30, can be used for design. In areas where slabs are underlain by a synthetic moisture barrier, an allowable coefficient of friction of 0.10, can be used for design.
- 10.9.3 The allowable passive resistance of the native soils and engineered fill may be assumed to be equal to the pressure developed by a fluid with a density of 250 pounds per cubic foot. The upper 6 inches of subgrade in landscape areas should be neglected in determining the total passive resistance.
- 10.9.4 When combining the passive and frictional resistance, a minimum overall factor of safety of 2.0 should be used.
- 10.9.5 The onsite, native soils are not considered suitable for use as backfill of vertical walls, such as retaining walls. Backfill of these features extending within a zone defined by a 1 Horizontal to 1 Vertical plane from the back of the wall foundation to the ground surface should consist of an imported, granular fill meeting the requirements of section 10.6.4 of this report. This requirement should be depicted on the project plans. The active and at-rest pressures of imported, granular backfill placed in accordance with this report, may be assumed to be equal to the pressures developed by a fluid with a density of 45 and 67 pounds per cubic foot, respectively. These pressures assume level ground surface and do not include the surcharge

effects of construction equipment, loads imposed by nearby foundations and roadways and hydrostatic water pressure.

- 10.9.6 The at-rest pressure should be used in determining lateral earth pressures against walls which are not free to deflect. For walls which are free to deflect at least one percent of the wall height at the top, the active earth pressure may be used.
- 10.9.7 The wall designer should determine if seismic increments are required. If seismic increments are required, Moore Twining should be contacted for recommendations for seismic geotechnical design considerations for the retaining structures.
- 10.9.8 The above earth pressures assume that the backfill soils will be drained. Therefore, all retaining walls should incorporate the use of a drainage system to prevent hydrostatic pressures from acting on the walls. Drainage should be directed to perforated pipes running parallel to the walls which can carry drainage from behind the walls to the on-site drainage system. Clean-outs should be incorporated into the design.

10.10 Interior Concrete Slabs-on-Grade

- 10.10.1 The recommendations provided herein are intended for the design of interior, conventional slabs and mat foundations and their proposed uses, which do not include construction traffic (i.e., cranes, concrete trucks, heavy rotating equipment, rock trucks, etc.). The contractor should assess the slab section and determine its adequacy to support any proposed construction traffic.
- 10.10.2 A structural engineer experienced in slab-on-grade design should recommend the thickness, design details and concrete specifications for the proposed slabs-on-grade for the total and differential settlements noted in this report and a total and differential heave of 1 inch and ½ inch, respectively. As a minimum, it is recommended for conventional floor slabs (if used) should be reinforced with number 3 reinforcing bars at 18 inches on center, both ways, or more stringent reinforcement as required by the structural engineer.
- 10.10.3 Interior conventional slabs on grade shall be placed on a minimum of 6 inches of non-recycled Class 2 aggregate base (compacted to a minimum of 95 percent relative compaction) placed over 24 inches of imported, granular non-expansive engineered fill over the depth of compacted native engineered fill recommended in the Site Preparation section of this report.

- 10.10.4 Mat foundation slabs on grade shall be placed on a minimum of 6 inches of non-recycled Class 2 aggregate base (compacted to a minimum of 95 percent relative compaction) placed over 12 inches of imported, granular non-expansive engineered fill over the depth of compacted native engineered fill recommended in the Site Preparation section of this report.
- 10.10.5 The moisture content of the clayey subgrade soils below the imported non-expansive fill should be verified to be between 2 and 5 percent above optimum moisture content prior to placement of the non-expansive fill. In addition, the moisture content of the non-expansive engineered fill below the aggregate base section should be verified to be within optimum to three (3) percent above optimum moisture content prior to placing the aggregate base section, and also within 48 hours of placement of the vapor retarding membrane or the concrete for the slab-on-grade if a vapor retarding membrane is not used. The moisture content of the upper 12 inches of the subgrade soils should be tested and confirmed prior to placement of the base section, vapor retarding membrane or slab-on-grade.
- 10.10.6 The slabs and underlying subgrade should be constructed in accordance with current American Concrete Institute (ACI) standards.
- 10.10.7 ACI recommends that the interior slab-on-grade should be placed directly on a vapor retarder when the potential exists that the underlying subgrade or sand layer could be wet or saturated prior to placement of the slab-on-grade. It is recommended that Stegowrap 15 or equivalent should be used where floor coverings, such as carpet and tile, are anticipated or where moisture could permeate into the interior and create problems. The layer of Stegowrap 15 should overlay a minimum of 6 inches of compacted AB. It should be noted that placing the PCC slab directly on the vapor barrier will increase the potential for cracking and curling; however, ACI recommends the placement of the vapor retarding membrane directly below the slab to reduce the amount vapor emission through the slab-on-grade. Based on discussions with Stego Industries, L.L.C. (telephone 949-493-5460), the Stegowrap can be placed directly on the AB and the concrete can be placed directly on the Stegowrap. It is recommended that the design professional obtain written confirmation from Stego Industries that this product is suitable for the specific project application. It is recommended that the slab be moist cured for a minimum of 7 days to reduce the potential for excessive cracking. The underslab membrane should have a high puncture resistance (minimum of approximately 2,400 grams of puncture resistance), high abrasion resistance, rot resistant, and mildew resistant. It is recommended that the membrane be selected in

accordance with the current ASTM C 755, Standard Practice For Selection of Vapor Retarder For Thermal Insulation and conform to the current ASTM E 154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Waters, or as Ground Cover. It is recommended that the vapor barrier selection and installation conform to the current ACI Manual of Concrete Practice, Guide for Concrete Floor and Slab Construction (302.1R), Addendum, Vapor Retarder Location and current ASTM E 1643, Standard Practice for Installation of Water Vapor Retarders Used In Contact with Earth or Granular Fill Under Concrete Slabs. In addition, it is recommended that the manufacturer of the floor covering and floor covering adhesive be consulted to determine if the manufacturers have additional recommendations regarding the design and construction of the slab-on-grade, testing of the slab-on-grade, slab preparation, application of the adhesive, installation of the floor covering and maintenance requirements. It should be noted that the recommendations presented in this report are not intended to achieve a specific vapor emission rate.

- 10.10.8 The membrane should be installed so that there are no holes or uncovered areas. All seams should be overlapped and sealed with the manufacturer approved tape, continuously at the laps so they are vapor tight. All perimeter edges of the membrane, such as pipe penetrations, interior and exterior footings, joints, etc., should be sealed per manufacturer's recommendations.
- 10.10.9 Tears or punctures that may occur in the membrane should be repaired prior to placement of concrete per the manufacturer's recommendations. Once repaired, the membrane should be inspected by the Contractor and the owner to verify adequate compliance with manufacture's recommendations.
- 10.10.10 The manufacturer's requirements vary regarding the surface and cover material around the placed membrane. Vapor retarding membranes should be installed in accordance with the manufacturers' specifications.
- 10.10.11 The membrane is not required beneath exposed concrete floors provided that moisture intrusion into the structure is permissible for the design life of the structure.
- 10.10.12 Additional measures to reduce moisture migration should be implemented if moisture sensitive floor coverings (such as wood or vinyl) are used. These include: 1) constructing a less pervious concrete floor slab by maintaining a low water-cement ratio (0.52); 2) moist cure the slab for at least 7 days; 3) ensuring that all seams and utility protrusions are sealed with tape to create a "water tight" moisture retarding membrane; 4) placing

concrete walkways or pavements adjacent to the structure; 5) locating lawns, planters and flower beds away from the structure; and 6) providing adequate drainage away from the structure at a minimum two percent slope. In addition, water should not be allowed to pond adjacent to the structure.

- 10.10.13 It should be noted that the placement and compaction of the Class 2 AB, the vapor retarding membrane installation, protection, etc., and the placement, curing, etc. of concrete should be in accordance with the project geotechnical engineering report, applicable ACI requirements, the manufacturer's requirements, the project plans, the project specifications, whichever is most stringent.
- 10.10.14 The Contractor shall test the moisture vapor transmission through the slab, the pH, internal relative humidity, etc., at a frequency and methods as specified by the flooring manufacturer or as required by the plans and specifications, whichever is most stringent. The results of vapor transmission tests, pH tests, internal relative humidity tests, ambient building conditions, etc. should be within floor manufacturer's and adhesive manufacturer's specifications at the time the floor is placed. It is recommended that the floor manufacturer and subcontractor review and approve the test data prior to floor covering installation.
- 10.10.15 To reduce the potential for damaging slabs during construction the following recommendations are presented: 1) design for a differential slab movement of ½ inch relative to interior columns; and 2) provide at least 6 inches of aggregate base below the slabs. In addition, the loaded track and/or pad pressure of any crane which will operate on slabs or pavements should be considered in the design of the slabs and evaluated by the contractor prior to loading the slab. If cranes are proposed to be used, the contractor should provide slab loading information to the slab design engineer to determine if the slab is adequate.
- 10.10.16 Backfill the zone above the top of footings at interior column locations, building perimeters, and below the bottom of slabs with an approved imported, granular backfill and/or an aggregate base section as recommended in this report for the area below interior slabs-on-grade. This procedure should provide more uniform support for the slabs which may reduce the potential for cracking of overlying concrete slabs-on-grade.

10.11 Exterior Slabs-On-Grade

The recommendations for exterior slabs provided below are not intended for use for slabs subjected to vehicular traffic, rather lightly loaded sidewalks, curbs, and planters, etc.

- 10.11.1 Exterior slabs adjacent to the building should be underlain by 6 inches of Class 2 aggregate base over 24 inches of imported, non-expansive engineered fill over the compacted soils prepared as recommended for exterior slabs in the "Site Preparation" subsection of these recommendations. The non-expansive fill soils and subgrade preparation for these slabs adjacent to the building is provided to reduce the potential for differential swell of slabs on grade to occur where interior slabs meet exterior slabs (such as doorways, etc.) resulting from differing subgrade preparation and varying thicknesses of non-expansive fill.
- 10.11.2 Exterior slabs outside the building pad preparation limits should be underlain by 4 inches of Class 2 aggregate base over 8 inches of imported, non-expansive engineered fill over the compacted native soils prepared as recommended for exterior slabs in the "Site Preparation" subsection of these recommendations.
- 10.11.3 Where exterior slabs are planned adjacent to landscape areas, the exterior slabs should include a thickened edge or cutoff extending to a minimum depth of 12 inches below the lowest adjacent ground surface.
- 10.11.4 The moisture content of the prepared exterior slab subgrade below the non-expansive fill to a depth of at least 12 inches should be verified to be between 2 percent above optimum moisture content and 5 percent above optimum prior to placing non-expansive fill, and also within 48 hours of placement of concrete for the slab-on-grade. If necessary to achieve the recommended moisture content, the subgrade soils should be over-excavated, moisture conditioned as necessary and compacted as engineered fill.
- 10.11.5 If the non-expansive subgrade is prepared, and then disturbed by equipment workers, weather or other sources, we recommend that the exposed subgrade to receive slabs be tested to verify adequate compaction. If adequate compaction is not verified, the disturbed non-expansive subgrade should be over-excavated, scarified, and compacted as engineered fill. This condition should be verified prior to installation of plumbing, footing excavation, and construction of the slabs-on-grade.

- 10.11.6 Since exterior sidewalks, curbs, etc. are typically constructed at the end of the construction process, the moisture conditioning conducted during earthwork can revert to natural dry conditions. Placing concrete walks and finish work over dry or slightly moist subgrade should be avoided. It is recommended that the general Contractor notify Moore Twining to conduct in-place moisture and density tests prior to placing aggregate base and concrete flatwork. Written test results indicating passing density and moisture tests should be in the general Contractor's possession prior to placing concrete.
- 10.11.7 If the subgrade is prepared, and then disturbed by equipment workers, weather or other source, we recommend that the exposed subgrade to receive slabs be tested to verify adequate compaction. If adequate compaction is not verified, the disturbed subgrade should be over-excavated, scarified, and compacted to a minimum of 92 percent of the maximum dry density as determined by ASTM Test Method D1557. This condition should be verified prior to installation of plumbing, footing excavation, and construction of the slabs-on-grade.

10.12 Asphaltic Concrete (AC) Pavements

- 10.12.1 AC pavements are anticipated for the maintenance building. Pavement sections should be supported on subgrade soils prepared in accordance with the recommendations under section 10.3 of this report. The upper 12 inches of subgrade below the pavement section should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM D1557. The moisture content of the clayey subgrade should be verified to be between 2 and 5 percent above optimum moisture content prior to placement of the aggregate base.
- 10.12.2 The pavement sections in Table No. 3 are based on an R-value of 5 (compacted native soils). The analysis was based on traffic indices ranging from 5.0 to 8.0 at one point increments. These indices are provided as a general guide. The project civil engineer should determine the appropriate traffic index. Moore Twining should be contacted if additional pavement section designs are needed. It should be noted that if pavements are constructed prior to the building construction, the selected traffic index values may be too low and need to be increased. If the pavements are placed prior to construction, or if more frequent truck traffic is anticipated, the design professional who selected the pavement sections should be contacted to re-evaluate the traffic index values.

**TABLE NO. 3
Conventional Two-Layer Asphaltic Concrete Pavement Sections
for Compacted Native Soils**

Traffic Index	AC Thickness, inches	AB Thickness, inches	Compacted Subgrade (inches)
5.0	2.5	11.0	12
6.0	3.0	13.5	12
7.0	3.5	16.5	12
8.0	4.5	18.5	12

AC - Asphaltic Concrete compacted to at least 95 percent relative compaction

AB - Class 2 Aggregate Base with a minimum R-value of 78 compacted to at least 95 percent relative compaction (ASTM D1557)

Subgrade - Subgrade soils compacted to at least 95 percent relative compaction (ASTM D-1557)

- 10.12.3 The curbs where pavements meet irrigated landscape areas or uncovered open areas should be extended to the bottom of the aggregate base section. This should reduce subgrade moisture from irrigation and runoff from migrating into the base section and reducing the life of the pavements.

- 10.12.4 Prior to placement of asphaltic concrete adjacent to slabs-on-grade, curbs, and gutters, the Contractor shall compact the area immediately adjacent to these features, with equipment that can provide adequate compactive effort to the aggregate base adjacent to the vertical face of the concrete to achieve a dense, non-yielding condition. These compaction operations should be observed by Moore Twining. The moisture content of the subgrade soils should be verified prior to placement of pavements and adjacent slabs-on-grade, curbs and gutters.

- 10.12.5 If the paved areas are to be used during construction, or if the type and frequency of traffic are greater than assumed in design, the pavement sections should be re-evaluated for the anticipated traffic.

- 10.12.6 Pavement section design assumes that proper maintenance, such as sealing and repair of localized distress, will be performed on an as needed basis for longevity and safety.

- 10.12.7 Pavement materials and construction method should conform to Sections 25, 26, and 39 of the State of California Standard Specification Requirements.

- 10.12.8 It is recommended that the base 2 inch thick course of asphaltic concrete consist of a ¾ inch maximum medium gradation. The top course or wear course should consist of a ½ inch maximum medium gradation.
- 10.12.9 Prior to placement of asphaltic concrete adjacent to slabs-on-grade, curbs, gutters, the contractor shall compact the area immediately adjacent to these features with equipment that can provide adequate compactive effort to the aggregate base adjacent to the vertical face of the concrete to achieve a dense, non-yielding condition. These compaction operations should be observed by Moore Twining.
- 10.12.10 The asphaltic-concrete should be compacted to a minimum relative compaction of 95 percent based on the State of California Standard Specifications and Test Methods. In addition, the joint density should be a minimum of 95 percent relative compaction.
- 10.12.11 The asphalt concrete should comply with Type "B" asphalt concrete as described in Section 39 of the State of California Standard Specification Requirements. The Contractor shall provide an asphalt concrete mix design prepared and signed by a California registered civil engineer and approved by Moore Twining prior to construction.

10.13 Temporary Fire Access Road

The thickness of rock required for the non-paved, temporary fire access road was estimated based on using aggregate base rock or ¾ inch crushed gravel (no paving). The design is based fire truck loading, a traffic index of 6, and consideration of Caltrans pavement design methods. Therefore, the design should be considered an approximate design for the non-paved access road. For example, the allowable deflection of the road surface would be greater for the non-paved access road than for an AC paved road and the subgrade moisture under the unpaved road would be subjected to much more fluctuation than a road with a paved and graded surface. If the project engineers determine that the traffic index of 6 is not representative of the anticipated traffic loads, our firm should be contacted to provide alternate recommendations for the access road.

- 10.13.1 Considering the subgrade soil conditions, the potential for wet subgrade soils, and the anticipated construction traffic on the road, a Class 2 aggregate base or crushed rock section of at least 18 inches thick should be used and would be expected to perform well during the construction phase of the project. A geotextile fabric (such as Mirafi 600X), could be

placed below the rock section and would be anticipated to improve the long term performance of the road by limiting infiltration of fines into the rock section.

- 10.13.2 At a minimum, the subgrade to a depth of at least 8 inches below the rock section should be compacted to at least 90 percent relative compaction per ASTM D1557, and final compaction should achieve a smooth surface prior to placement of the rock or baserock. If portions of the road bed are unstable due to high moisture content in soils, these areas should be stabilized prior to placement of rock section. The roadbed should be graded with a crown to enhance drainage away from the access road.
- 10.13.3 Aggregate base should be compacted to a minimum of 95 percent relative compaction and crushed rock should be placed and compacted in layers to a firm, non-yielding condition with vibratory equipment.
- 10.13.4 The capacity of exposed base/gravel pavement sections which are exposed to the elements, including surface water infiltration, runoff, sedimentation, etc. will be reduced due to infiltration of water and fines into the gravel section. This effect should be anticipated to require regular maintenance to maintain serviceability. Maintenance may include, but would not be limited to, removal of accumulated sediment/fines, regrading and compacting the surface of the gravel roads and application of additional gravel to the surface.

10.14 Temporary Excavations

- 10.14.1 It is the responsibility of the contractor to provide safe working conditions with respect to excavation slope stability.
- 10.14.2 Temporary excavations should be constructed in accordance with CAL OSHA requirements. Temporary cut slopes should not be steeper than 1.5:1, horizontal to vertical, and flatter if possible. If excavations cannot meet these criteria, the temporary excavations should be shored.
- 10.14.3 Shoring systems, if used, should be designed by an engineer with experience in designing shoring systems and registered in the State of California.

- 10.14.4 In no case should excavations extend below a 2H to 1V zone below existing utilities, foundations and/or floor slabs which are to remain after construction. Excavations which are required to be advanced below the 2H to 1V envelope should be shored to support the soils, foundations, and slabs.
- 10.14.5 Excavation stability should be monitored by the contractor. Slope gradient estimates provided in this report do not relieve the contractor of the responsibility for excavation safety. In the event that tension cracks or distress to the structure occurs, during or after excavation, the owners and Moore Twining should be notified immediately and the contractor should take appropriate actions to prevent further damage or injury.

10.15 Utility Trenches

- 10.15.1 The recommendations in this report include placement of an imported, non-expansive fill below concrete slabs-on-grade. Where trenches are excavated in areas of non-expansive fill, the excavation and replacement trench backfill should be conducted to re-establish the minimum thickness of imported, non-expansive fill below the concrete slabs on grade as recommended in this report. Where selective stockpiling of trench spoils cannot be achieved without contamination/mixing of the imported and native soils, clean imported granular fill or aggregate base will be required for the final trench backfill to comply with the recommendations of this report.
- 10.15.2 The utility trench subgrade should be prepared by excavation of a neat trench without disturbance to the bottom of the trench. If sidewalls are unstable the contractor shall either slope the excavation to create a stable sidewall or shore the excavation. All trench subgrade soils disturbed during excavation, such as by accidental over-excavation of the trench bottom, or by excavation equipment with cutting teeth, should be compacted to a minimum of 90 percent relative compaction prior to placement of bedding material. The contractor is responsible for notifying Moore Twining when these conditions occur and arrange for Moore Twining to observe and test these areas prior to placement of pipe bedding. The contractor shall use such equipment as necessary to achieve a smooth undisturbed native soil surface at the bottom of the trench with no loose material at the bottom of the trench. The contractor shall either remove all loose soils or compact the loose soils as engineered fill prior to placement of pipe and backfill of the trench.

- 10.15.3 The trench width, type of pipe bedding, the type of initial backfill, and the compaction requirements of bedding and initial backfill material for utility trenches (storm drainage, sewer, water, electrical, gas, cable, phone, irrigation, etc.) should be specified by the project Civil Engineer or applicable design professional in compliance with the manufacturer's requirements, governing agency requirements and this report, whichever is more stringent. The Contractor is responsible for contacting the governing agency and pipe manufacturer to determine the requirements for pipe bedding, pipe zone and final backfill. The Contractor is responsible for notifying the Owner and Moore Twining if the requirements of the agency, manufacturer and this report conflict, the most stringent applies. For flexible polyvinylchloride (PVC) pipes, these requirements should be in accordance with the manufacturer's requirements or ASTM D-2321, whichever is more stringent, assuming a hydraulic gradient exists (gravel, rock, crushed gravel, etc. cannot be used as backfill on the project). The width of the trench should provide a minimum clearance of 8 inches between the sidewalls of the pipe and the trench, or as necessary to provide a trench width that is 12 inches greater than 1.25 times the outside diameter of the pipe, whichever is greater. As a minimum, the pipe bedding should consist of 4 inches of compacted (92 percent relative compaction) select sand with a minimum sand equivalent of 30 and meeting the following requirements: 100 percent passing the 1/4 inch sieve, a minimum of 90 percent passing the No. 4 sieve and not more than 10 percent passing the No. 200 sieve. The haunches and initial backfill (12 inches above the top of pipe) should consist of a select sand meeting these sand equivalent and gradation requirements that is placed in maximum 6-inch thick lifts and compacted to a minimum relative compaction of 92 percent using hand equipment. The final fill (12 inches above the pipe to the surface) should be approved non-expansive or native engineered fill.
- 10.15.4 If ribbed or corrugated HDPE or metal pipes are used on the project, then the backfill should consist of select sand with a minimum sand equivalent of 30, 100 percent passing the 1/4 inch sieve, a minimum of 90 percent passing the No. 4 sieve and not more than 10 percent passing the No. 200 sieve. The sand shall be placed in maximum 6-inch thick lifts, extending to at least 1 foot above the top of pipe, and compacted to a minimum relative compaction of 92 percent using hand equipment. Prior to placement of the pipe, as a minimum, the pipe bedding should consist of 4 inches of compacted (92 percent relative compaction) sand meeting the above sand equivalent and gradation requirements for select sand bedding. The width of the trench should meet the requirements of ASTM D2321-00

listed in Table No. 4 (minimum manufacturer requirements). As an alternative to the trench width recommended above and the use of the select sand bedding, a lesser trench width for HDPE pipes may be used if the trench is backfilled with a 2-sack sand-cement slurry from the bottom of the trench to 1 foot above the top of the pipe.

TABLE NO. 4
Minimum Trench Widths for HDPE Pipe with Select Sand Backfill

Inside Diameter of HDPE Pipe (inches)	Outside Diameter of HDPE Pipe (inches)	Minimum Trench Width (inches) per ASTM D2321
12	14.2	30
18	21.5	39
24	28.4	48
36	41.4	64
48	55	80

- 10.15.5 Crushed gravel and rock for backfill is prohibited. Contractors should assume for the purpose of bid that no rock or gravel can be used for backfill on the project including utility trenches of any kind. In the event an open graded rock is required as backfill by a governing agency, the rock section should be fully encapsulated in an engineering filter fabric such as Mirafi 140N.

- 10.15.6 Trench backfill should be placed in 8 inch lifts or less, moisture conditioned in accordance with the recommendations for engineered fill and compacted to achieve the minimum relative compaction. Lift thickness can be increased if the contractor can demonstrate the minimum compaction requirements can be achieved. The contractor should use appropriate equipment and methods to avoid damage to utilities and/or structures during placement and compaction of the backfill materials.

- 10.15.7 As described in this report, the onsite soils were significantly above the optimum moisture content and special procedures, such as aeration or chemical treatment of the soils should be anticipated to achieve a suitable moisture content for compaction of the onsite soils.

- 10.15.8 Jetting of trench backfill is not allowed to compact the backfill soils.
- 10.15.9 Where utility trenches extend from the exterior to the interior limits of a building, lean concrete should be used as backfill material for a minimum distance of 2 feet laterally on each side of the exterior building line to prevent the trench from acting as a conduit to exterior surface water.
- 10.15.10 Storm drains and/or utility lines should be designed to be watertight. If encountered, leaks should be immediately repaired. Leaking storm drain and/or utility lines could result in trench failure, sloughing and/or soil heave causing damage to surface and subsurface structures, pavements, flatwork, etc. In addition, landscaping irrigation systems should be monitored for leaks. It is recommended that the pipelines be video inspected and pressure tested prior to placement of foundations, slabs-on-grade or pavements to verify that the pipelines are constructed properly and are watertight. The record of the video inspection along with a written description, prepared by the video inspection firm, of the condition of the pipe shall be provided to the Owner for review and approval.
- 10.15.11 The plans should note that backfill for all trenches, including electrical lines, irrigation lines, etc. should be compacted as engineered fill.
- 10.15.12 Utility trenches should not be constructed within a zone defined by a line that extends at an inclination of 2 horizontal to 1 vertical downward from the bottom of building foundations. In addition, existing utility trenches should not be left in place within a zone defined by a line that extends at an inclination of 2 horizontal to 1 vertical downward from the bottom of the new building foundations.

10.16 Corrosion Protection

- 10.16.1 Based on the ASTM Special Technical Publication 741 and the results of analytical testing of two (2) near surface soil samples, the native soils exhibit a “moderately corrosive” corrosion potential. Buried metal objects should be protected in accordance with the manufacturer's recommendations based on a “moderately corrosive” corrosion potential. The evaluation was limited to the effects of soils to metal objects; corrosion due to other potential sources, such as stray currents and groundwater, was not evaluated. If piping or concrete are placed in contact with deeper soils or engineered fill, these soils should be analyzed to evaluate the corrosion potential of these soils.

- 10.16.2 Corrosion of concrete due to sulfate attack is not anticipated based on the results of analytical testing of two (2) near surface soil samples. According to provisions of ACI 318, section 4.3, the sulfate concentrations measured fall in the negligible classification (0.00 to 0.10 percent by weight) for concrete.
- 10.16.3 These soil corrosion data should be provided to the manufacturers or suppliers of materials that will be in contact with soils (pipes or ferrous metal objects, etc.) to provide assistance in selecting the protection and materials for the proposed products or materials. If the manufacturers or suppliers cannot determine if materials are compatible with the soil corrosion conditions, a professional consultant, i.e., a corrosion engineer, with experience in corrosion protection should be consulted to design parameters. Moore Twining is not a corrosion engineer; thus, cannot provide recommendations for mitigation of corrosive soil conditions. It is recommended that a corrosion engineer be consulted for the site specific conditions.

11.0 DESIGN CONSULTATION

- 11.1 Moore Twining should be provided the opportunity to review those portions of the contract drawings and specifications that pertain to earthwork and foundations prior to finalization to determine whether they are consistent with our recommendations. This service is not part of this current contractual agreement.
- 11.2 It is the client's responsibility to provide plans and specification documents for our review prior to their issuance for construction bidding purposes.
- 11.3 If Moore Twining is not afforded the opportunity for review, we assume no liability for the misinterpretation of our conclusions and recommendations. This review is documented by a formal plan/specification review report provided by Moore Twining.

12.0 CONSTRUCTION MONITORING

- 12.1 It is recommended that Moore Twining be retained to observe the excavation, earthwork, and foundation phases of work to determine that the subsurface conditions are compatible with those used in the analysis and design.
- 12.2 Moore Twining can conduct the necessary observation, field-testing services and provide results so that action necessary to remedy indicated deficiencies can be taken in accordance with the plans and specifications. Upon completion of the work, we can provide a written summary of our observations, field testing and conclusions regarding the conformance of the completed work to the intent of the plans and specifications. This service is not, however, part of this current contractual agreement.
- 12.3 Compaction tests should be conducted at a frequency of at least:

Area	Minimum Test Frequency
Mass Fills or Subgrade	1 test per 2,500 square feet per compacted lift
Utility Lines	1 test per 150 feet per compacted lift

The above testing frequencies are suggested rates for tests. Testing frequency should be adjusted by the field technician and the engineer as needed based on continuous earthwork observation considering the methods used for compaction and the soil conditions.

- 12.4 In the event that the earthwork operations for this project are conducted such that the construction sequence is not continuous, (or if construction operations disturb the surface soils) we recommend that the exposed subgrade to receive floor slabs be tested to verify adequate compaction and/or moisture conditioning. If adequate compaction or moisture contents are not verified, the fill soils should be over-excavated, scarified, moisture conditioned and compacted are recommended in the Recommendations of this report.
- 12.5 The construction monitoring is an integral part of this investigation. This phase of the work provides Moore Twining the opportunity to verify the subsurface conditions interpolated from the soil borings and prepare recommendations if the conditions differ from those anticipated.

- 12.6 If Moore Twining is not afforded the opportunity to provide engineering observation and field-testing services during construction activities related to earthwork, foundations, pavements and trenches; then, Moore Twining will not be responsible for compliance of any aspect of the construction with our recommendations or performance of the structures or improvements if the recommendations of this report are not followed. We recommend that if a firm other than Moore Twining is selected to conduct these services that they provide evidence of professional liability insurance of at least \$3,000,000 and review this report. After their review, the firm should, in writing, state that they understand and agree with the conclusions and recommendations of this report and agree to conduct sufficient observations and testing to ensure the construction complies with this report's recommendations. Moore Twining should be notified, in writing, if another firm is selected to conduct observations and field-testing services prior to construction.
- 12.7 Upon the completion of work, a final report should be prepared by a registered Geotechnical engineer. This report is essential to ensure that the recommendations presented are incorporated into the project construction, and to note any deviations from the project plans and specifications.

13.0 NOTIFICATION AND LIMITATIONS

- 13.1 The conclusions and recommendations presented in this report are based on the information provided regarding the proposed construction, and the results of the field and laboratory investigation, combined with interpolation of the subsurface conditions between boring locations.
- 13.2 The nature and extent of subsurface variations between borings may not become evident until construction.
- 13.3 If variations or undesirable conditions are encountered during construction, Moore Twining should be notified promptly so that these conditions can be reviewed and our recommendations reconsidered where necessary. It should be noted that unexpected conditions frequently require additional expenditures for proper construction of the project.
- 13.4 If the proposed construction is relocated or redesigned, or if there is a substantial lapse of time between the submission of our report and the start of work (more than 12 months) at the site, or if conditions have changed due to natural cause or construction operations at or adjacent to the site, the conclusions and recommendations contained in this report should be considered invalid unless the changes are reviewed and our conclusions and recommendations modified or approved in writing.

- 13.5 Changed site conditions, or relocation of proposed structures, may require additional field and laboratory investigations to determine if our conclusions and recommendations are applicable considering the changed conditions or time lapse.
- 13.6 The conclusions and recommendations contained in this report are valid only for the project discussed in “Anticipated Construction.” The use of the information and recommendations contained in this report for structures on this site not discussed herein or for structures on other sites not discussed in “Site Description” is not recommended. The entity or entities that use or cause to use this report or any portion thereof for another structure or site not covered by this report shall hold Moore Twining, its officers and employees harmless from any and all claims and provide Moore Twining’s defense in the event of a claim.
- 13.7 This report is issued with the understanding that it is the responsibility of the client to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, designers, contractors, subcontractors, and other parties having interest in the project so that the steps necessary to carry out these recommendations in the design, construction and maintenance of the project are taken by the appropriate party.
- 13.8 This report presents the results of a geotechnical engineering investigation only and should not be construed as an environmental audit or study.
- 13.9 Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally-accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied.
- 13.10 Reliance on this report by a third party (i.e., that is not a party to our written agreement) is at the party's sole risk. If the project and/or site are purchased by another party, the purchaser must obtain written authorization and sign an agreement with Moore Twining in order to rely upon the information provided in this report for design or construction of the project.

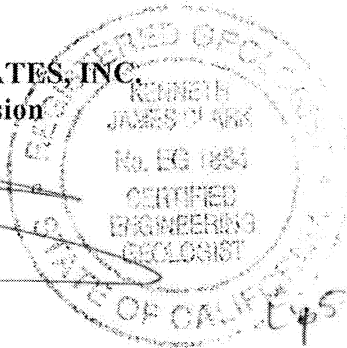
We appreciate the opportunity to be of service to Lars Andersen & Associates. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,

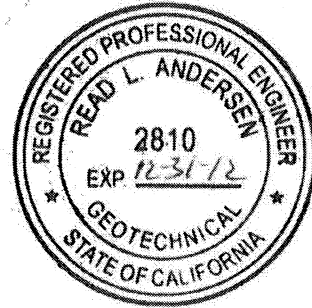
MOORE TWINING ASSOCIATES, INC.
Geotechnical Engineering Division



Kenneth J. Clark, CEG
Certified Engineering Geologist



Read L. Andersen, RGE
Manager



REFERENCES

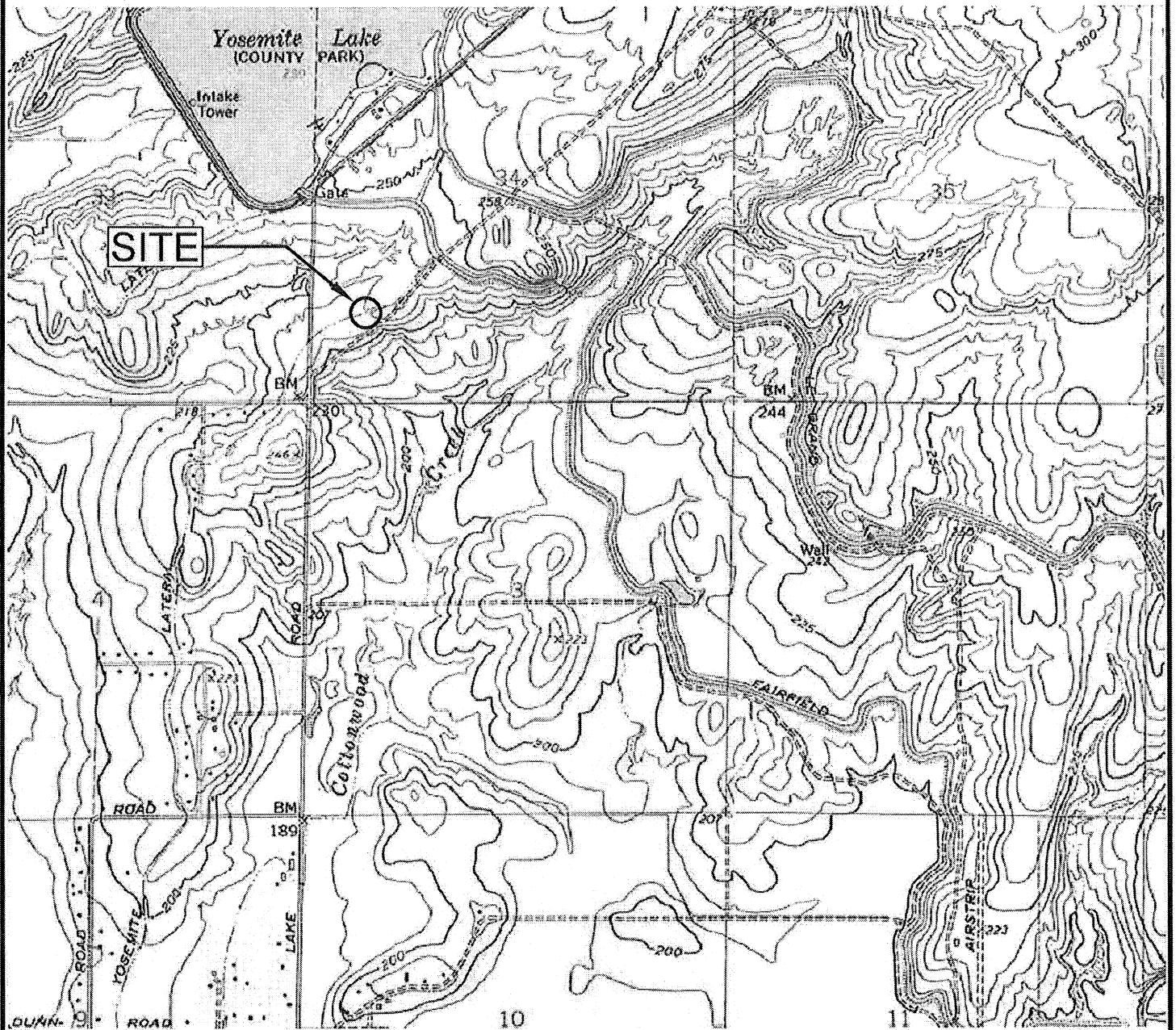
- Allen, C. R. 1968, The Tectonic Environments of Seismically Active and Inactive Areas Along the San Andreas Fault System, in Proceedings Conference on Geologic Problems of San Andreas Fault System, edited by W. R. Dickinson and A. Grant, pp. 1982.
- Bartow, J., A., 1991, The Cenozoic Evolution of the San Joaquin Valley, California, U.S. Geological Survey Professional Paper 1501, pp. 40.
- Blake, T.F., FRISKSP: (2002) a computer program for the Probabilistic analysis of peak acceleration, and response spectra from digitized California faults (Cao, 2003) supplemented with local fault data.
- Blake, T.F., 1993, EQSEARCH V.300b, a computer program for the estimation of peak acceleration from digitized California historical earthquake catalogs, updated through June 2005.
- Boore, D. M., Joyner, W. B., and T. E. Fumal, 1997, Equations for Estimating Horizontal Response Spectra and Peak Acceleration from Western North American earthquakes: A summary of recent work, *Seism. Res. Letters*, v. 68, p. 128-153.
- Cao, T., Bryant, W.A., Rowshandel, B., Branum, D. And Wills, C. J. (June 2003), California Probabilistic Seismic Hazard Maps, prepared by the California Geological Survey.
- Eaton, J. Cockerham, R, and Lester, F., 1983, Study of the May 2, 1983 Coalinga Earthquake and its Aftershocks, based on the United States Geological Survey Seismic Network on Northern California, in Bennett, J. H., and Sherburne, R. W., eds., *The 1983 Coalinga, California Earthquake*, California Division of Mines and Geology, Special Publication 66, pp. 261-273.
- Eaton, J. P., 1985b, The North Kettleman Hills Earthquake of August 4, 1985 and its First Week of Aftershocks - A preliminary Report, Administrative Report, U. S. Geological Survey, Menlo Park, California.
- Eaton, J. P., 1985c, The Regional Seismic Background of the May 2, 1983 Coalinga Earthquake, Mechanics of the May 2, 1985 Coalinga Earthquake, edited by J. Rymer and W. L. Ellsworth, U. S. Geological Survey, Open File Rep. 85-44, 44-60.
- Jennings, C.W., 1994, Fault Activity Map of California and Adjacent Areas: California Division of Mines and Geology, Open File Report 92-03.
- Merced County Year 2000 Merced County Year 2000 General Plan, dated June 1989.
- Namson, J.S. and Davis, T.L., 1988, Seismically Active Fold and Thrust Belt in San Joaquin Valley, Central California, *Geologic Society of America Bulletin*, Vol. 100, pp. 257-273.
- Sieh, K. E. and Jahns, R. H. 1984, Holocene Activity of the San Andreas at Wallace Creek, *Bulletin of the Geological Society of America*, Vol., 95, p. 883-896.

REFERENCES (Continued)

- Townley, S.D., and Allen, M.W., 1939, Descriptive catalog of earthquakes of the Pacific Coast of the United States, 1769 to 1928: Bulletin of the Seismological Society of America, v. 29, p. 1-297.
- Wakabayashi, J. and Smith, D.L. (1994), "Evaluation of Recurrence Intervals, Characteristic Earthquakes, and Slip Rates Associated with Thrusting Along the Coast Ranges-Central Valley Geomorphic Boundary, California." Seismological Society of America; Vol. 84, No. 6, p.1960-1970.
- Wallace, R. E., 1970, Earthquake Recurrence Interval on the San Andreas Fault: Geological Society of America, Bulletin, Vol. 81, pp. 2875-2890.
- Wong, I. G., Ely, R. W., and Kollmann, A. C., July 10, 1988, Contemporary Seismicity and Tectonics of the Northern and Central Coast Ranges-Sierran Block Boundary Zone, California, Journal of Geophysical Research, Volume 93, No. B7, pp. 7813-7833.

APPENDIX A**DRAWINGS**

Drawing No. 1 -	Site Location Map
Drawing No. 2 -	Site Plan with Boring Locations
Drawing No. 3 -	Site Plan with Estimated Depths of Fill
Drawing No. 4 -	Location Map of the Former Location of Yosemite Lateral
Drawing No. 5 -	Regional Geologic Map
Drawing No. 6 -	Site Geologic Map
Drawing No. 7 -	Site Geologic Cross Section
Drawing No. 8 -	Historical Earthquake Epicenter Map
Drawing No. 9 -	Map of Faults Relative to Site
Drawing No. 10 -	Conventional Foundation and Slab Preparation Detail
Drawing No. 11 -	Mat Foundation and Slab Preparation Detail



SOURCE: U.S.G.S. TOPOGRAPHIC MAP, 7 1/2 MINUTE SERIES
 MERCED, CALIFORNIA QUADRANGLE, 1987

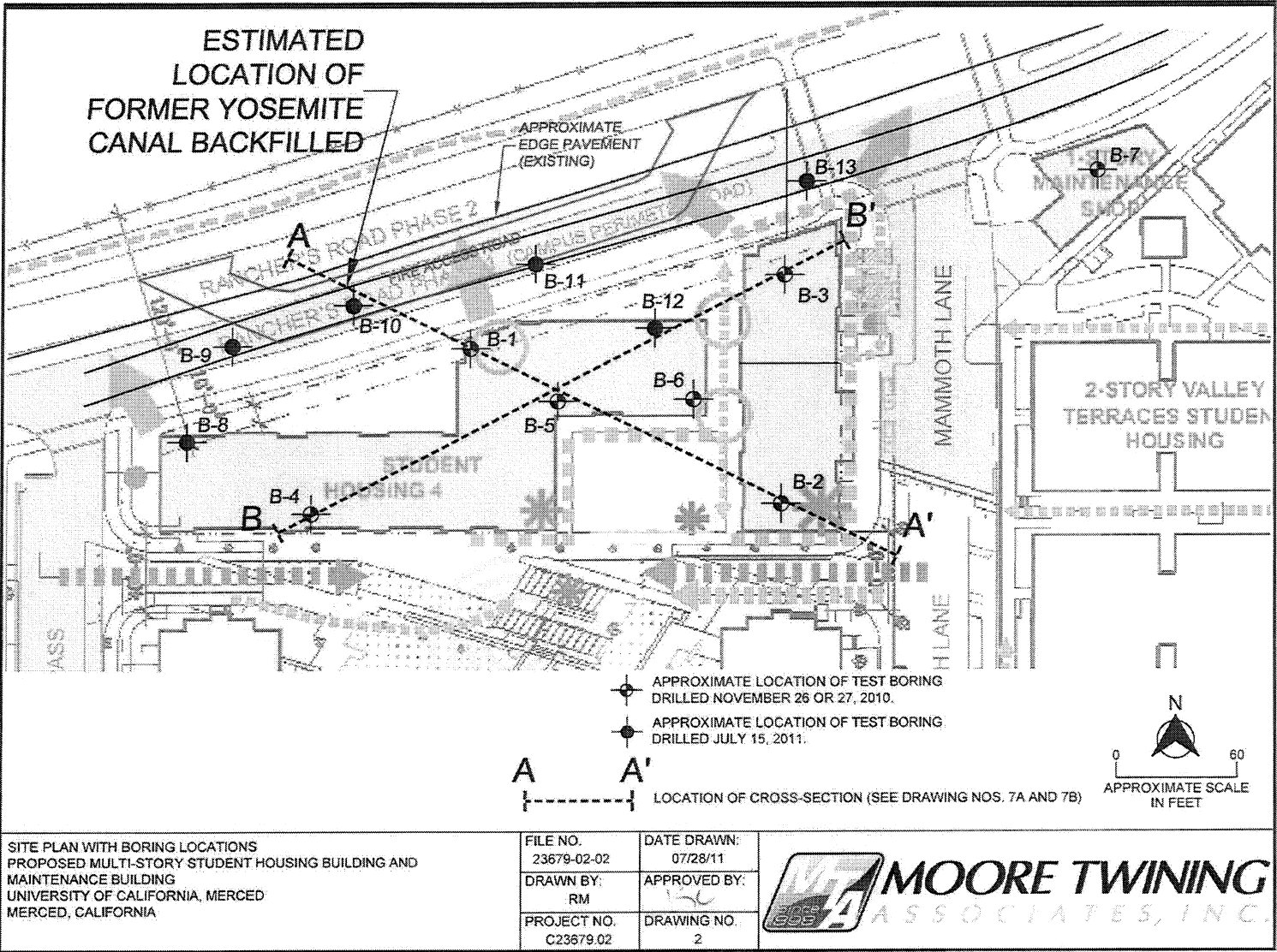


SITE LOCATION MAP
 PROPOSED MULTI-STORY STUDENT HOUSING BUILDING
 AND MAINTENANCE BUILDING
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

FILE NO. 23679-02-01	DATE: 12/16/10
DRAWN BY: RM	APPROVED BY: <i>[Signature]</i>
PROJECT NO. C23679.02	DRAWING NO. 1



**MOORE TWINING
 ASSOCIATES, INC.**

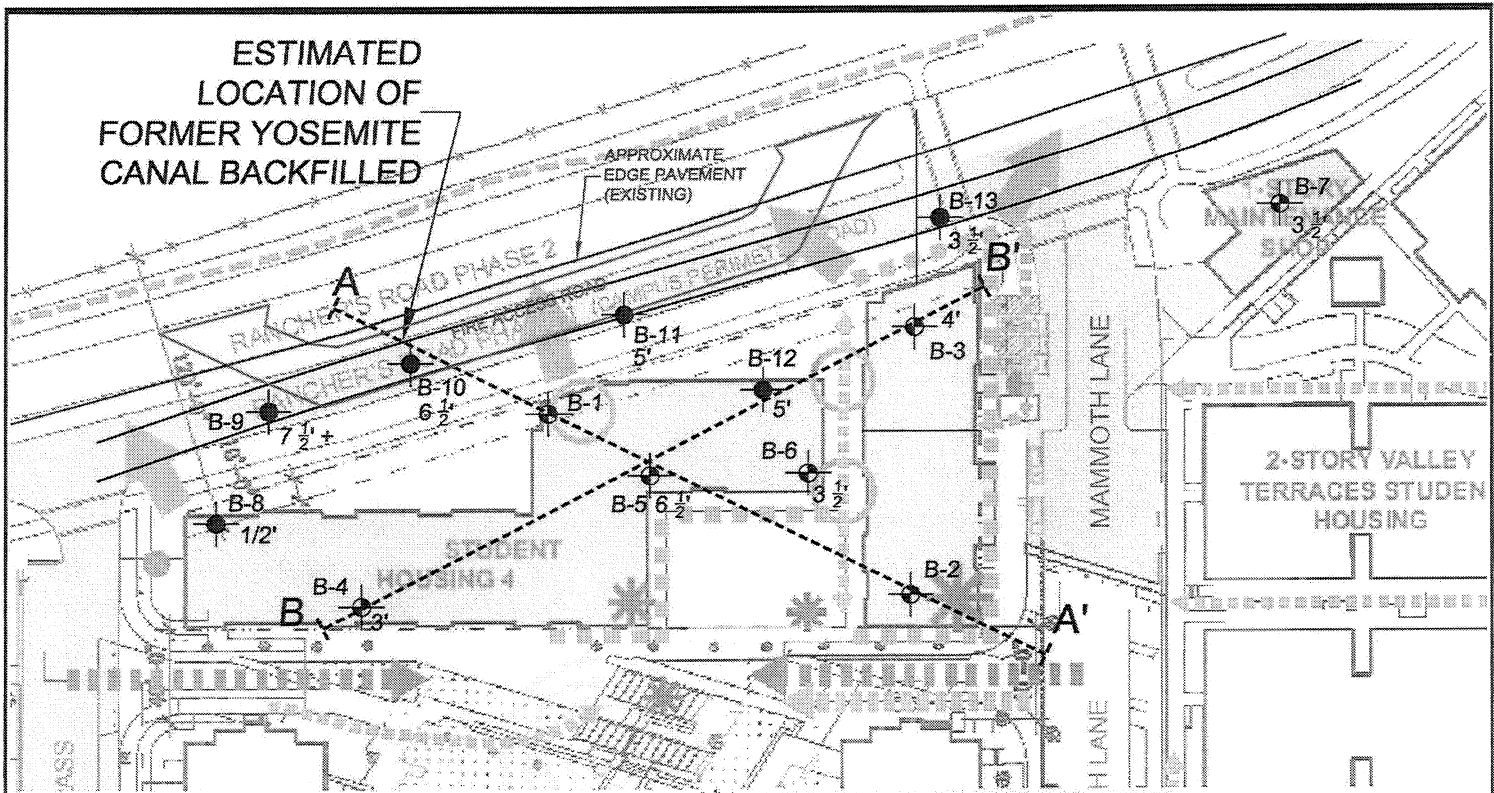


SITE PLAN WITH BORING LOCATIONS
 PROPOSED MULTI-STORY STUDENT HOUSING BUILDING AND
 MAINTENANCE BUILDING
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

FILE NO. 23679-02-02	DATE DRAWN: 07/28/11
DRAWN BY: RM	APPROVED BY:
PROJECT NO. C23679.02	DRAWING NO. 2



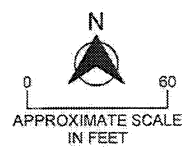
**ESTIMATED
LOCATION OF
FORMER YOSEMITE
CANAL BACKFILLED**



3 1/2' APPROXIMATE LOCATION OF TEST BORING DRILLED
NOVEMBER 26 OR 27, 2010 WITH ESTIMATED DEPTH OF FILL

3 1/2' APPROXIMATE LOCATION OF TEST BORING DRILLED JULY
15, 2011 WITH ESTIMATED DEPTH OF FILL

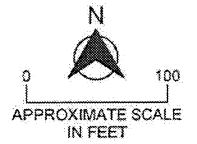
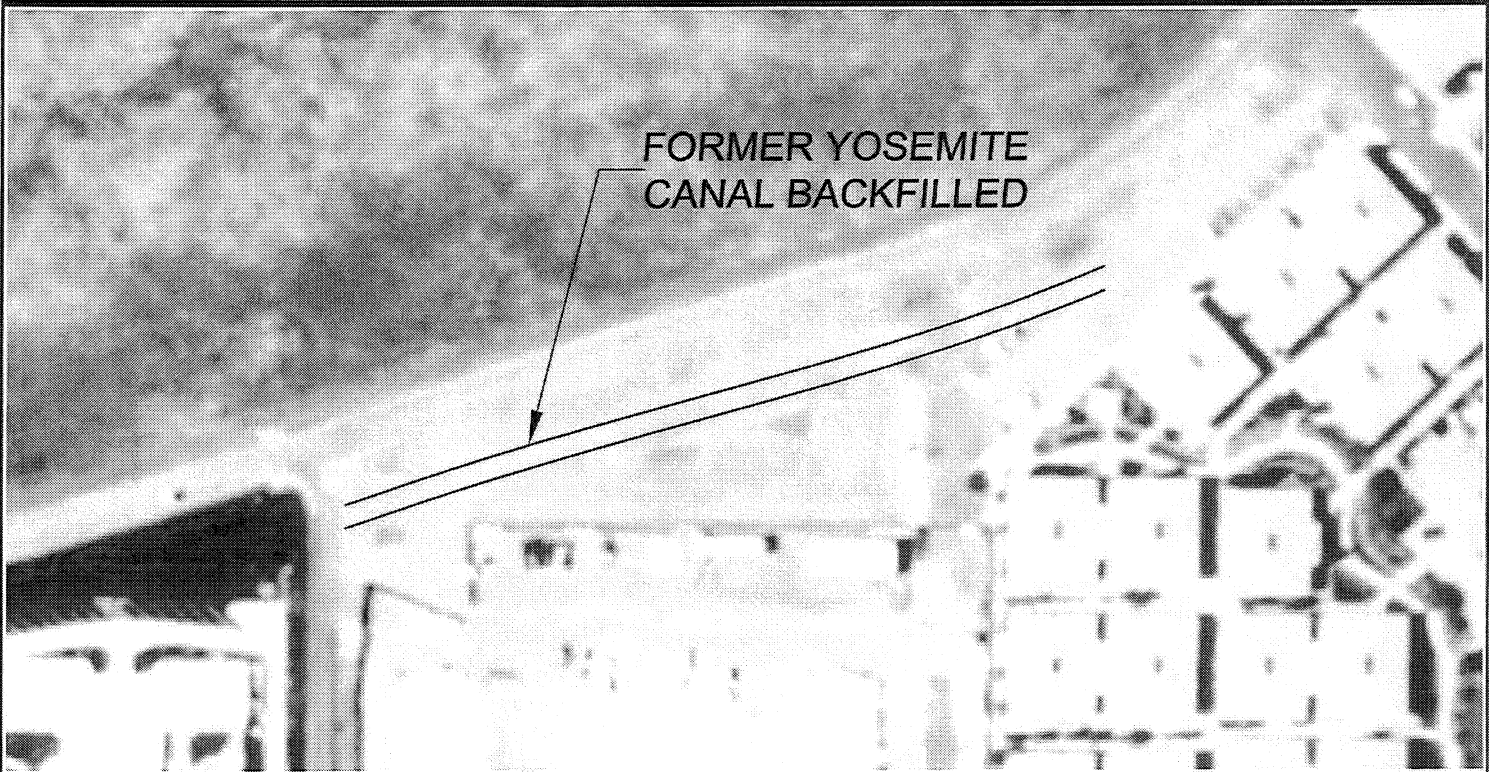
A A' LOCATION OF CROSS-SECTION (SEE DRAWING NOS. 7A AND 7B)




SITE PLAN WITH ESTIMATED DEPTHS OF FILL
PROPOSED MULTI-STORY STUDENT HOUSING BUILDING AND
MAINTENANCE BUILDING
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

FILE NO. 23679-02-02	DATE DRAWN: 07/28/11
DRAWN BY: RM	APPROVED BY: RC
PROJECT NO. C23679.02	DRAWING NO. 3

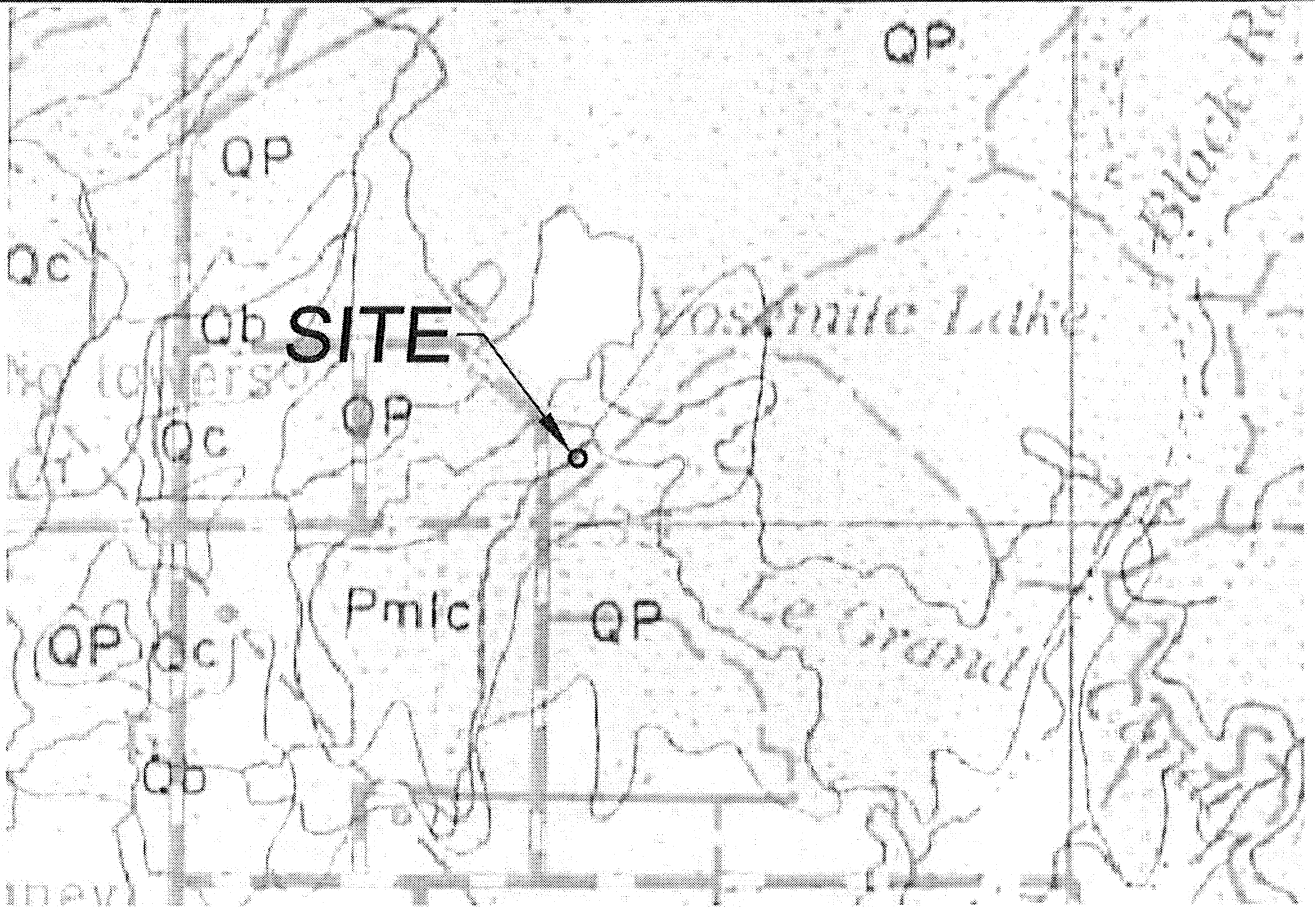




LOCATION MAP OF FORMER LOCATION OF YOSEMITE LATERAL
 PROPOSED MULTI-STORY STUDENT HOUSING BUILDING AND
 MAINTENANCE BUILDING
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

FILE NO. 23679-02-02	DATE DRAWN: 07/28/11
DRAWN BY: RM	APPROVED BY: 
PROJECT NO. C23679.02	DRAWING NO. 4

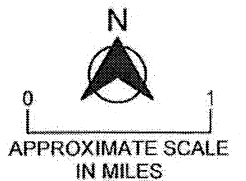




EXPLANATION

SEDIMENTARY AND METASEDIMENTARY ROCKS

CENOZOIC	QUATERNARY	Qc	Dune sand	
		Qd	Alluvium	
		Qec	Stream channel deposits	
		Qf	Fan deposits	
		Qg	Blain deposits	
		Qh	Salt deposits	
		Qi	Quaternary lake deposits	
		Qj	Glacial deposits	
		Qk	Quaternary nonmarine terrace deposits	
		Ql	Pleistocene marine and marine terrace deposits	
	TERTIARY	Pliocene	Qm	Pleistocene nonmarine
			Qn	Plio-Pleistocene nonmarine
			Pl	Undivided Pliocene nonmarine
			Plu	Upper Pliocene nonmarine
			Plm	Upper Pliocene marine
TERTIARY	Pliocene	Plm	Middle and/or lower Pliocene nonmarine	
		Plm	Middle and/or lower Pliocene marine	



SOURCE: GEOLOGIC MAP OF CALIFORNIA, SAN JOSE SHEET, 1966 DIVISION OF MINES AND GEOLOGY

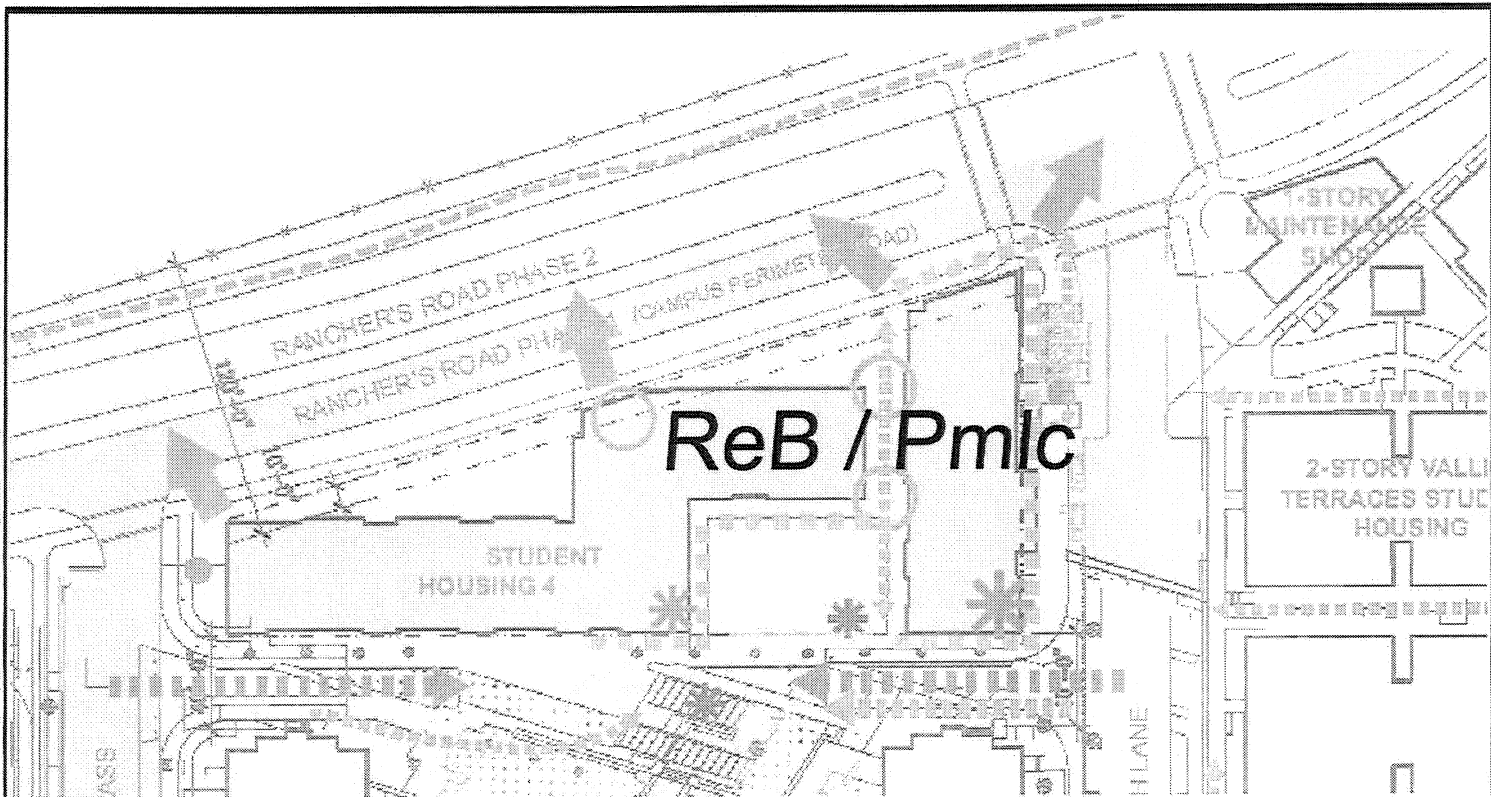
REGIONAL GEOLOGIC MAP
PROPOSED MULTI-STORY STUDENT HOUSING BUILDING
AND MAINTENANCE BUILDING
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

FILE NO.
23679-02-02
DRAWN BY:
RM
PROJECT NO.
C23679.02

DATE DRAWN:
07/28/11
APPROVED BY:
[Signature]
DRAWING NO.
5



MOORE TWING
ASSOCIATES, INC.



NRCS MAP UNIT

ReB - Redding gravelly loam, 0 to 8 percent slopes

GEOLOGIC MAP UNIT

Pmlc - Middle and/or lower pliocene non-marine
Tassajero Formation: brown to gray mudstone



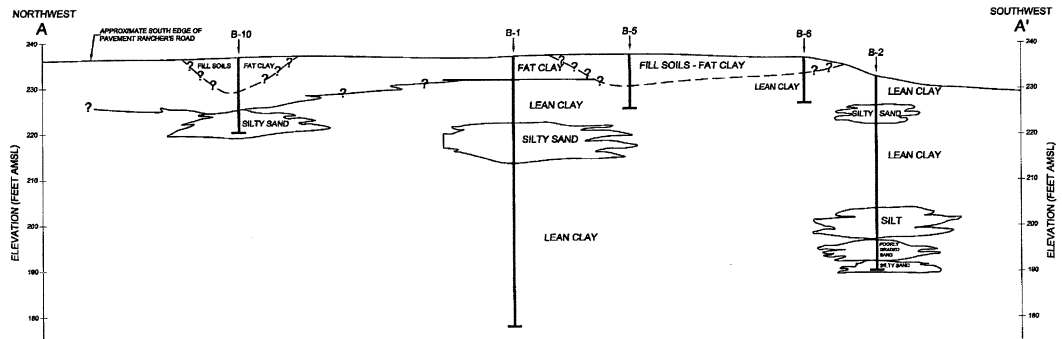
SOURCE: GEOLOGIC MAP OF CALIFORNIA, SAN JOSE SHEET, 1966
DIVISION OF MINES AND GEOLOGY

NRCS WEB SOIL SURVEY MERCED AREA, CA
MARCH 31, 2008

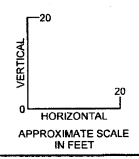
SITE GEOLOGIC MAP
PROPOSED MULTI-STORY STUDENT HOUSING BUILDING AND
MAINTENANCE BUILDING
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

FILE NO. 23679-02-02	DATE DRAWN: 07/28/11
DRAWN BY: RM	APPROVED BY:
PROJECT NO. C23679.02	DRAWING NO. 6

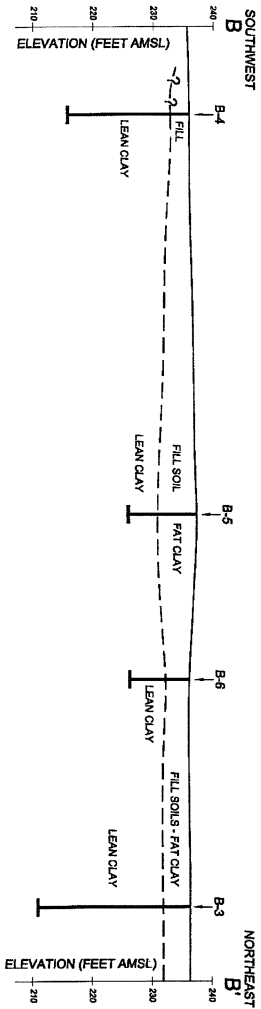




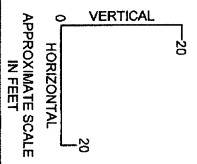
CROSS SECTION A-A'





DATE DRAWN: 07/26/11	APPROVED BY:
FILE NO. 22879-02-02	DRAWN BY: FM
PROJECT NO. C22879.02	DRAWING NO. 7A
SITE GEOLOGIC CROSS SECTION - A-A' PROJECT: UNIVERSITY OF CALIFORNIA STUDENT HOUSING BUILDING AND MAINTENANCE BUILDING UNIVERSITY OF CALIFORNIA, MERCED MERCED, CALIFORNIA	



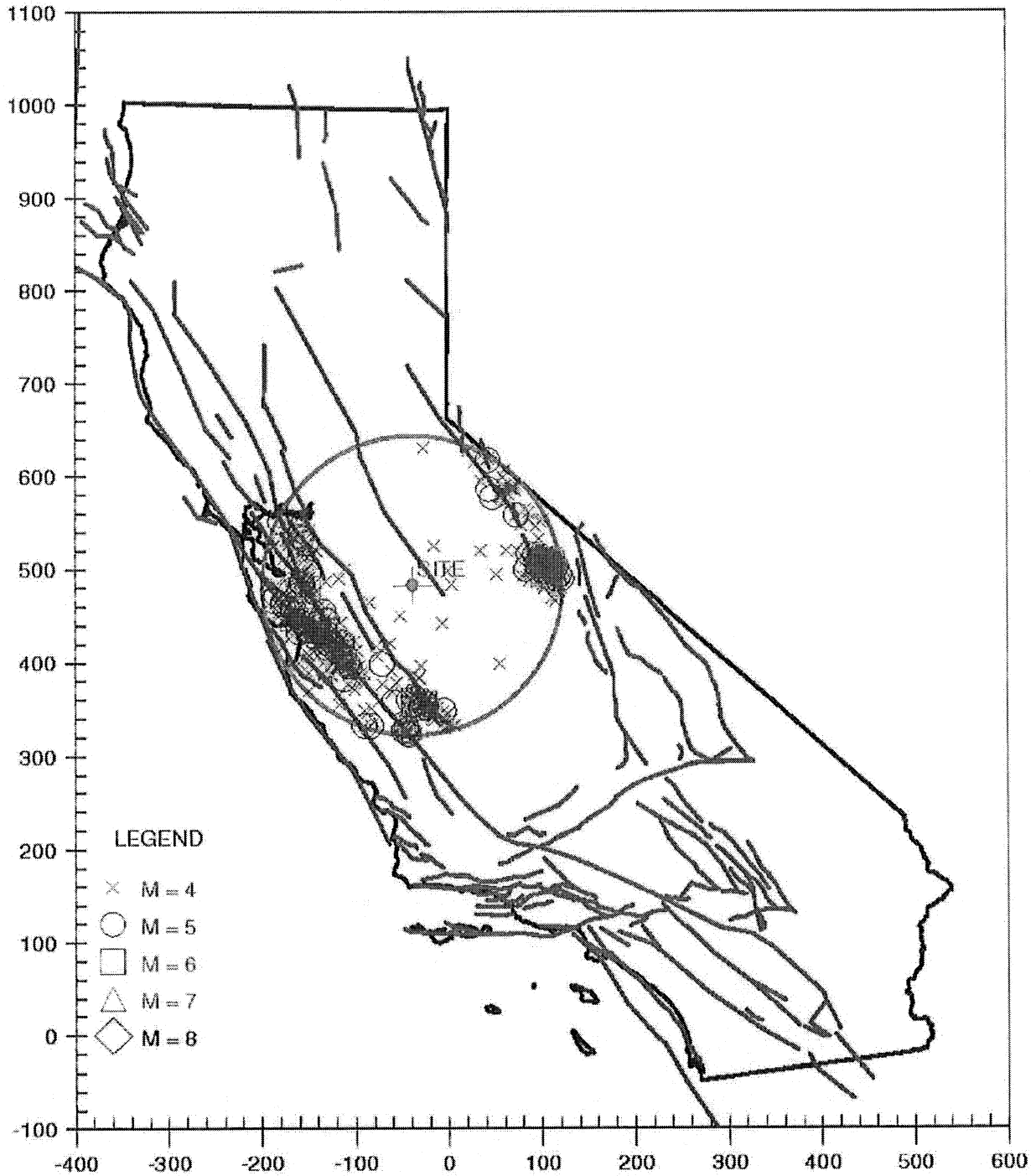
CROSS SECTION B-B'



SITE GEOLOGIC CROSS SECTION - B-B' PROPOSED MULTI-STORY STUDENT HOUSING BUILDING AND MAINTENANCE BUILDING UNIVERSITY OF CALIFORNIA, MERCED MERCED, CALIFORNIA	FILE NO. 23679-02-02	DATE DRAWN: 07/28/11	 MOORE TWING ASSOCIATES, INC.	
	DRAWN BY: RM	APPROVED BY: 		
	PROJECT NO. C23679.02	DRAWING NO. 7B		

EARTHQUAKE EPICENTER MAP

UC MERCED



HISTORICAL EARTHQUAKE EPICENTER MAP
 PROPOSED MULTI-STORY STUDENT HOUSING BUILDING
 AND MAINTENANCE BUILDING
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

FILE NO.
23679-02-02

DRAWN BY:
RM

PROJECT NO.
C23679.02

DATE DRAWN:
07/28/11

APPROVED BY:
[Signature]

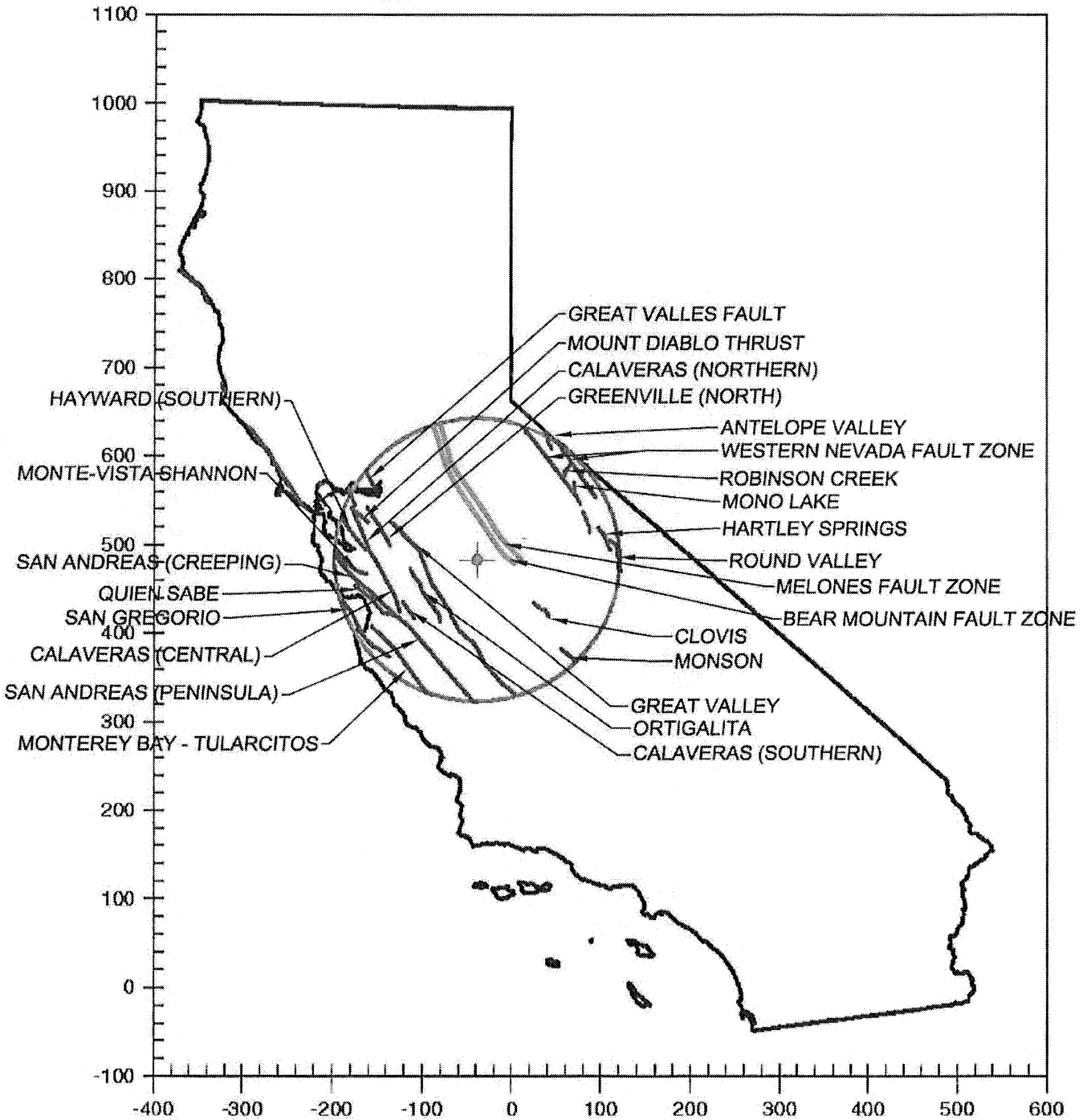
DRAWING NO.
8



**MOORE TWINING
 ASSOCIATES, INC.**

CALIFORNIA FAULT MAP

UC Merced



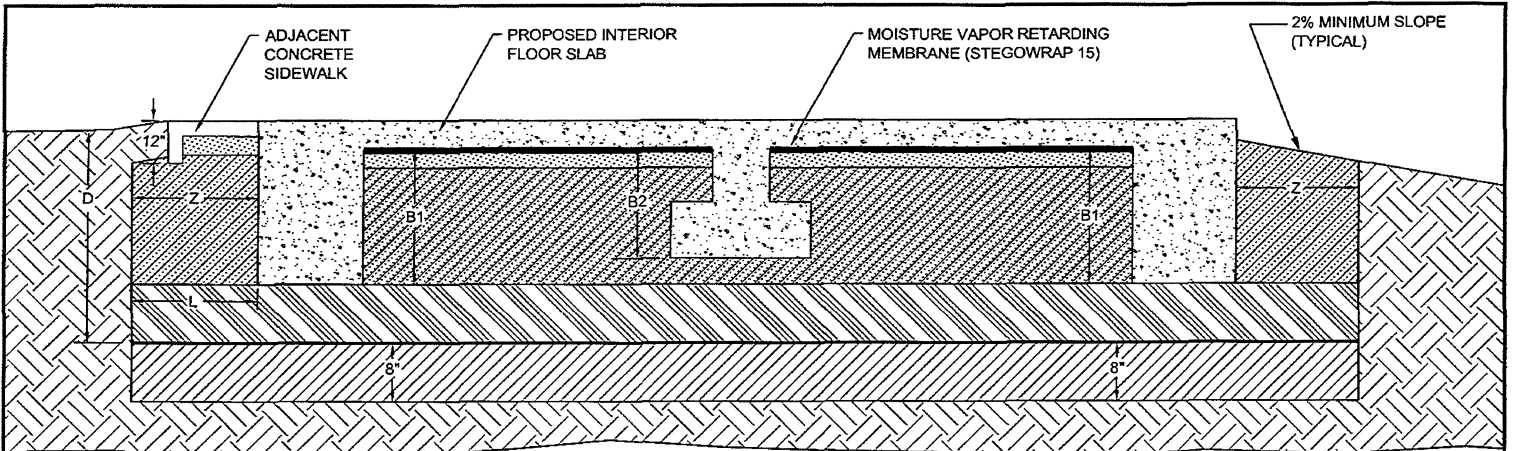
GEOTECHNICAL ENGINEERING AND GEOLOGIC HAZARDS
 INVESTIGATION
 PROPOSED MULTI-STORY STUDENT HOUSING BUILDING
 AND MAINTENANCE BUILDING
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

FILE NO.
 23679-02-02
 DRAWN BY:
 RM
 PROJECT NO.
 C23679.02

DATE DRAWN:
 07/28/11
 APPROVED BY:
pt
 DRAWING NO.
 9



MOORE TWINING
 ASSOCIATES, INC.



THIS DRAWING PRESENTS THE MINIMUM RECOMMENDATIONS FOR ENGINEERED FILL BELOW SPREAD FOUNDATIONS AND SLABS-ON-GRADE.

CONTRACTORS SHOULD NOTE THE NEAR SURFACE SOILS ENCOUNTERED WERE OVERLY MOIST, AND PROVISIONS SUCH AS AERATION OR CHEMICAL TREATMENT SHOULD BE INCLUDED IN THE BID TO ACHIEVE MOISTURE CONTENTS SUITABLE FOR COMPACTION AS ENGINEERED FILL, AS NOTED IN THE REPORT.

NOTE: VERTICAL SIDEWALLS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY; SLOPED SIDEWALLS MAY BE REQUIRED.

B1=MINIMUM EXTERIOR FOOTING DEPTH OF 30 INCHES BELOW THE BOTTOM OF FLOOR SLAB, OR LOWEST ADJACENT GRADE, WHICHEVER IS DEEPER.







B2=MINIMUM INTERIOR FOOTING DEPTH OF 24 INCHES BELOW THE FLOOR SLAB FOR INTERIOR COLUMNS.

D = OVER-EXCAVATION TO AT LEAST 36 INCHES BELOW PRECONSTRUCTION SITE GRADES, TO THE BOTTOM OF THE NON-EXPANSIVE SECTION, TO THE DEPTH REQUIRED TO REMOVE ALL UNDOCUMENTED FILL SOILS (3 TO 6.5 FEET ANTICIPATED - SEE DRAWING NO. 3), AND AT LEAST 12 INCHES BELOW BOTTOM OF FOOTINGS, WHICHEVER PROVIDES THE DEEPER EXCAVATION. FOLLOWING OVER-EXCAVATION, SCARIFY TO A DEPTH OF 8 INCHES, MOISTURE CONDITION TO WITHIN TWO (2) AND FIVE (5) PERCENT OVER OPTIMUM MOISTURE CONTENT AND COMPACT AS ENGINEERED FILL. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, STABILIZATION BY CHEMICAL TREATMENT OR GEOTEXTILE FABRIC AND AB WILL BE REQUIRED.

L = OVER-EXCAVATION TO EXTEND 5 FEET BEYOND BUILDINGS AND FOUNDATIONS, OR 3 FEET BEYOND ADJACENT CONCRETE WALKWAYS, WHICHEVER IS GREATER.

Z = NON-EXPANSIVE SECTION TO EXTEND MINIMUM OF 3 FEET BEYOND FOUNDATIONS, OR 3 FEET BEYOND PERIMETER CURBLINES OR WALKWAYS, WHICHEVER IS GREATER.

SYMBOLS

-  CONCRETE SLAB AND FOOTING
-  6 INCHES OF NON-RECYCLED CLASS 2 AGGREGATE BASE (95% RELATIVE COMPACTION)
-  24 INCHES OF IMPORTED, NON-EXPANSIVE ENGINEERED FILL MATERIAL COMPACTED TO AT LEAST 92 % RELATIVE COMPACTION
-  ON-SITE ENGINEERED FILL
-  SCARIFIED NATIVE SOIL COMPACTED TO AT LEAST 90 % BUT NOT MORE THAN 95% OF THE MAXIMUM DRY DENSITY (ASTM D-1557) AND MOISTURE CONDITIONED TO WITHIN TWO (2) AND FIVE (5) PERCENT OVER OPTIMUM MOISTURE CONTENT
-  NATIVE SOIL

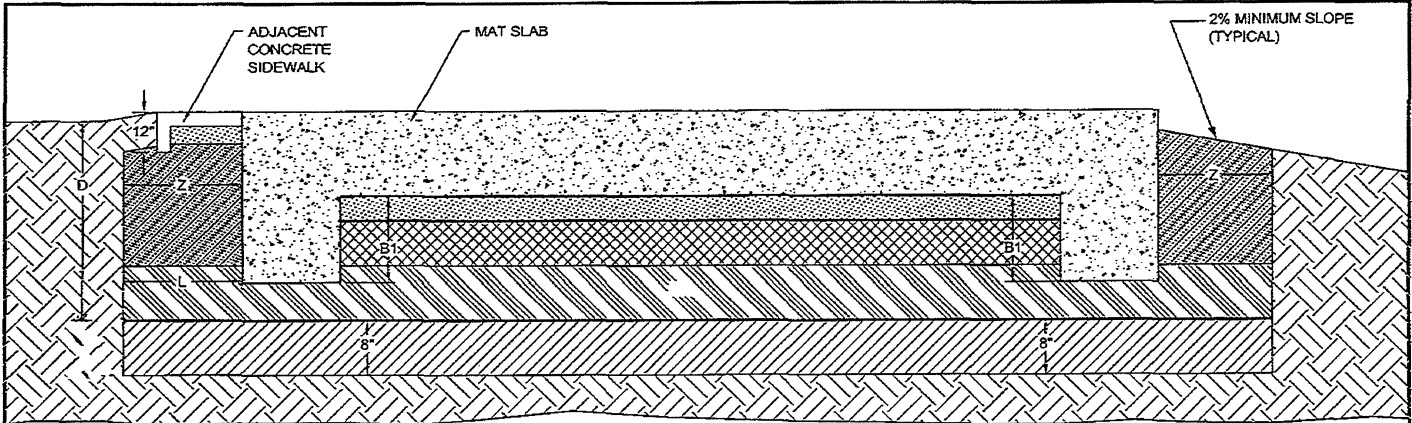
NOT TO SCALE

CONVENTIONAL FOUNDATION AND SLAB PREPARATION DETAIL
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

FILE NO.
23679-02-02
DRAWN BY:
RM
PROJECT NO.
C23679.02

DATE DRAWN:
08/23/11
APPROVED BY:
kc
DRAWING NO.
10





THIS DRAWING PRESENTS THE MINIMUM RECOMMENDATIONS FOR ENGINEERED FILL BELOW MAT FOUNDATIONS.

CONTRACTORS SHOULD NOTE THE NEAR SURFACE SOILS ENCOUNTERED WERE OVERLY MOIST, AND PROVISIONS SUCH AS AERATION OR CHEMICAL TREATMENT SHOULD BE INCLUDED IN THE BID TO ACHIEVE MOISTURE CONTENTS SUITABLE FOR COMPACTION AS ENGINEERED FILL, AS NOTED IN THE REPORT.

NOTE: VERTICAL SIDEWALLS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY; SLOPED SIDEWALLS MAY BE REQUIRED.








B1=MINIMUM 18 INCH THICKENED EDGE

D = OVER-EXCAVATION TO AT LEAST 36 INCHES BELOW PRECONSTRUCTION SITE GRADES, TO THE BOTTOM OF THE NON-EXPANSIVE SECTION, TO THE DEPTH REQUIRED TO REMOVE ALL UNDOCUMENTED FILL SOILS (3 TO 6.5 FEET ANTICIPATED - SEE DRAWING NO. 3), AND AT LEAST 18 INCHES BELOW BOTTOM OF THE MAT SLAB, WHICHEVER PROVIDES THE DEEPER EXCAVATION. FOLLOWING OVER-EXCAVATION, SCARIFY TO A DEPTH OF 8 INCHES, MOISTURE CONDITION TO WITHIN TWO (2) AND FIVE (5) PERCENT OVER OPTIMUM MOISTURE CONTENT AND COMPACT AS ENGINEERED FILL. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, STABILIZATION BY CHEMICAL TREATMENT OR GEOTEXTILE FABRIC AND AB WILL BE REQUIRED.

L = OVER-EXCAVATION TO EXTEND 5 FEET BEYOND BUILDINGS AND FOUNDATIONS, OR 3 FEET BEYOND ADJACENT CONCRETE WALKWAYS, WHICHEVER IS GREATER.


Z = NON-EXPANSIVE SECTION TO EXTEND MINIMUM OF 3 FEET BEYOND FOUNDATIONS, OR 3 FEET BEYOND PERIMETER CURBLINES OR WALKWAYS, WHICHEVER IS GREATER

SYMBOLS

-  CONCRETE SLAB AND FOOTING
-  6 INCHES OF NON-RECYCLED CLASS 2 AGGREGATE BASE (95% RELATIVE COMPACTION)
-  MINIMUM 12 INCH THICKNESS OF IMPORTED, NON-EXPANSIVE ENGINEERED FILL MATERIAL BELOW AGGREGATE BASE, COMPACTED TO AT LEAST 92% RELATIVE COMPACTION
-  MINIMUM 24 INCH THICKNESS OF IMPORTED, NON-EXPANSIVE ENGINEERED FILL MATERIAL BELOW AGGREGATE BASE, COMPACTED TO AT LEAST 92% RELATIVE COMPACTION
-  ON-SITE ENGINEERED FILL
-  SCARIFIED NATIVE SOIL COMPACTED TO AT LEAST 90 % BUT NOT MORE THAN 95% OF THE MAXIMUM DRY DENSITY (ASTM D-1557) AND MOISTURE CONDITIONED TO WITHIN TWO (2) AND FIVE (5) PERCENT OVER OPTIMUM MOISTURE CONTENT
-  NATIVE SOIL

NOT TO SCALE

MAT FOUNDATION AND SLAB PREPARATION DETAIL
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

FILE NO. 23679-02-02	DATE DRAWN: 08/23/11
DRAWN BY: RM	APPROVED BY: 
PROJECT NO. C23679.02	DRAWING NO. 11

 **MOORE TWINING**
ASSOCIATES, INC.

APPENDIX B**LOG OF BORINGS**

This appendix contains the final logs of the test borings. The boring logs represent our interpretation of the contents of the field logs and the results of the field and laboratory tests.

The boring logs and related information depict subsurface conditions only at these locations and at the particular time designated on the logs. Soil conditions at other locations may differ from conditions occurring at these test boring locations. Also, the passage of time may result in changes in the soil conditions at these test boring locations.

In addition, an explanation of the abbreviations used in the preparation of the logs and a description of the Unified Soil Classification System are provided at the end of Appendix B.



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-1

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base			
	9/6 8/6 8/6	CH	FAT CLAY: very stiff, moist, high plastic, reddish brown	PI=37 LL=58 EI=60	16	9
				PI=41 LL=63	PUSH	22
5	4/6 8/6 21/6	CL	LEAN CLAY: very stiff, moist, low plastic, brown, with sand	DD=100.9 pcf	29	33
			increase in sand and silt	No Recovery	PUSH	
	5/6 7/6 9/6				16	
15	9/6 12/6 15/6	SM	SAND, Silty: medium dense, damp, fine to medium, reddish- brown	DD=104.1 pcf	PUSH	11
					27	
25	12/6 15/6 29/6	CL	LEAN CLAY: sandy, hard, moist, medium plastic, brown		44	14

Notes:

Figure Number B-1



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-1

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
30	8/6 9/6 13/6		very stiff		22	21
35	7/6 9/6 13/6			22		
40	5/6 9/6 11/6			20	23	
50	6/6 7/6 9/6			16		
55						

Notes:

Figure Number B-1



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-1

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

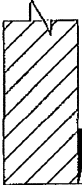
Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
60	 13/6 17/6 27/6		hard, increase in sand content		44	20
			Bottom of boring			
65						
70						
75						
80						
85						

Notes:

Figure Number B-1



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-2

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 233 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		AC	2 1/4 inches AC over 5 inches aggregate base			
	5/6 7/6 9/6	CL	LEAN CLAY: very stiff, moist, medium plastic, brown		16	20
5				DD=113.0 pcf	PUSH	9
	8/6 9/6 13/6	SC SM	CLAYEY SAND: medium dense, moist, fine to medium, brown SAND, Silty: medium dense, moist, fine to medium, brown		22	
10		CL	LEAN CLAY: very stiff, moist medium plastic, brown		25	
	7/6 10/6 15/6					
15					20	
	5/6 8/6 12/6					
20			hard, sandy	DD=107.4 pcf	PUSH	18
	11/6 15/6 23/6				48	
25						

Notes:

Figure Number B-2



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-2

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 233 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
30	6/6 9/6 12/6	ML	SILT, Sandy: very stiff, moist, non-plastic, brown		21	
35	10/6 22/6 18/6	SP	SAND, Poorly Graded: dense damp, medium to coarse, brown to yellow, some gravel		40	
40	11/6 11/6 12/6	SM	SAND, Silty: medium dense, damp, fine to medium, dark brown		23	
45			Bottom of boring			
50						
55						

Notes:

Figure Number B-2



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-3

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base			
	4/6 4/6 5/6	FILL	FAT CLAY: very stiff, moist, high plastic, brown	PI=39 LL=61	9	18
		CH	FAT CLAY: very stiff, moist, high plastic, brown	$\phi=16^\circ$ c=140 psf	PUSH	22
5	5/6 6/6 10/6	CL	LEAN CLAY: very stiff, moist, low plastic, brown, with sand	DD=101.4 pcf	16	
10	6/6 10/6 10/6		with sand, reddish brown		20	
15	6/6 7/6 10/6		medium plastic, decrease in sand		17	
20	4/6 6/6 10/6		brown		16	
25	5/6 5/6 7/6		stiff		12	
			Bottom of boring			

Notes:

Figure Number B-3



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-4

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 26, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 236 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: NE

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		AC	2 1/4 inch AC over 14 inch AB			
	3/6 5/6 7/6	FILL	FAT CLAY: stiff, moist, high plastic, dark brown		12	
		CL	light brown LEAN CLAY: stiff, moist, low plastic, brown		59	
5	15/6 38/6 21/6		hard at 5 feet BSG			
10	7/6 9/6 16/6		stiff, reddish brown	ø = 24° c = 0 psf DD = 98.4 pcf	PUSH 25	22
15						
20	5/6 7/6 11/6				18	
			Bottom of boring			
25						

Notes:

Figure Number B-4



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-5

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 27, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 238 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %	
0		FILL	aggregate base				
		FILL	FAT CLAY: stiff, moist, high plastic, brown, some gravel		14		
				Red-brown		6	
5			CL	LEAN CLAY: medium stiff, moist, low plastic, brown, with sand	-200=85.8% DD=93.3 pcf	PUSH	22
				increase in fine sand		6	
10			Bottom of boring		9		
15							
20							
25							

Notes:

Figure Number B-5



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-6

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 27, 2010

Auger Type: 6 5/8 inch dia. hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base			
		FILL	FAT CLAY: stiff, moist, medium-high plastic, brown, trace gravel		12	
5		CL	LEAN CLAY: very stiff, moist, medium plastic, red-brown		17	
10			hard, sandy, low plastic		31	
			Bottom of boring			
15						
20						
25						

Notes:

Figure Number B-6



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-7

Project: Proposed Housing Building and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: ZA

Drill Type: CME-75

Date: November 27, 2010

Auger Type: 6 5/8 Hollow stem

Elevation: Approx. 237 feet AMSL

Hammer Type: TRIP

Depth to Groundwater: NE

ELEVATION/DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base			
	3/6 5/6 37/6	FILL	SAND, Clayey, dense, moist, medium plastic, fine to medium, red to brown, with gravel		42	12
	1/6 5/6 29/6	SM	SAND, Silty: dense, damp, fine to medium, brown to light brown		34	5
5	25/6 14/6 20/6	CL	LEAN CLAY: very stiff, moist, medium plastic, brown		34	8
10	6/6 7/6 14/6		reddish brown		21	
15	4/6 8/6 10/6				18	
20	7/6 10/6 12/6	SP	SAND, Poorly Graded		22	
			Bottom of boring			
25						

Notes:

Figure Number B-7



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-8

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75

Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 236 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base	PI=36 LL=57		
		CH	FAT CLAY; Moist, medium plasticity, reddish-brown, with fine gravel	DD=101.01 PCF	PUSH	
5			Hard, increase in percent sand		>50	19
		CL	LEAN CLAY; Moist, low plasticity, yellow-brown very stiff		DRIVE	27
10		SC	SAND, Clayey; Medium dense, moist, fine to medium, yellow brown			
15		SM	SAND, Silty; Medium dense, moist, fine to medium, reddish-brown, with trace clay		22	
			Bottom of Boring at 16.5 Feet			
20						
25						

Notes:

Figure Number



Test Boring: B-9

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75

Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 236 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base		19	
		FILL	LEAN CLAY; Very stiff, moist, low plasticity, brown, with sand and fine gravel			
5		FILL	FAT CLAY; reddish-brown, medium plasticity, with some sand and fine gravel With fine to coarse subangular gravel	DD=100.2 pcf	PUSH 40	21
7.5			Encountered drilling refusal at 7.5 feet on an unidentified hard object			
10						
15						
20						
25						

Notes:

Figure Number



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-10

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75

Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 237 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0	17/6 16/6 6/6	FILL	aggregate base		22	5
	2/6 8/6 11/6 3/6 3/6 4/6	FILL	FAT CLAY; Very stiff, damp to moist, medium plasticity, gray-brown, with fine gravel Moist, dark reddish-brown	PI=39 LL=60 DD=106.7 pcf	DRIVE 7	17
5		CH	FAT CLAY; damp to moist, medium plasticity, reddish-brown			
	9/6 16/6 24/6		hard, with silt	DD=105.9 pcf	DRIVE	19
10	9/6 16/6 14/6	SM	SAND, Silty; Dense, moist, fine to coarse, yellow-brown, with trace clay		30	9
15	7/6 13/6 15/6				28	11
			Bottom of Boring at 16.5 Feet			
20						
25						

Notes:

Figure Number



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-11

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75

Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 238 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base			
		FILL	FAT CLAY, Moist, medium plasticity, reddish-brown, with fine gravel	DD=109.9 pcf	DRIVE	14
5		CH	FAT CLAY; medium stiff, moist, medium plasticity, reddish-brown, with fine gravel	PI=39 LL=60	7	
10		CL	LEAN CLAY; Moist, low plasticity, yellow-brown	DD=109.7 pcf	PUSH	17
		SM	SAND, Silty; medium dense, moist, fine, light red brown, fine grained, with clay		26	
15			Manganese staining, trace clay		18	
			Bottom of Boring at 16.5 Feet			

Notes:

Figure Number



Test Boring: B-12

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75

Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 237 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0		FILL	aggregate base	DD=118.6 pcf	PUSH	9
		FILL	FAT CLAY; Stiff, moist, medium plasticity, brown, with fine to coarse gravel			
5		CL	LEAN CLAY; Stiff, damp, low plasticity, light brown to gray	DD=114.9 pcf	DRIVE	10
10		SM	SAND, Silty; damp, light brown, with trace clay Very dense			
15		CL	LEAN CLAY; Very stiff, moist, low plasticity, brown			18
			Bottom of Boring at 16.5 Feet			

Notes:

Figure Number



MOORE TWINING ASSOCIATES, INC.

Test Boring: B-13

Project: Proposed Housing and Maintenance Building, UC Merced

Project Number: C23679.02

Drilled By: AB

Logged By: AR

Drill Type: CME 75














Date: 7/15/2011

Auger Type: 6-5/8" Hollow Stem Auger

Elevation: Approx. 237 AMSL

Hammer Type: 140lb Auto Trip

Depth to Groundwater: N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	Remarks	N-Values blows/ft.	Moisture Content %
0	 12/6	FILL	aggregate base		10	
	 5/6	FILL	FAT CLAY; Stiff, moist, high plasticity, grayish brown			
	 ---	CL	LEAN CLAY; Moist, low plasticity, brown, with fine gravel	DD=100.9 pcf	PUSH	19
5	 2/6				21	
	 11/6					
	 10/6					
	 ---	SM	SAND, Silty; Medium dense, moist, reddish-brown, with trace clay	DD=111.5 pcf	PUSH	16
10	 2/6	CL	LEAN CLAY; Stiff, moist, low to medium plasticity, brown		8	
	 3/6					
	 5/6					
15	 4/6		Reddish-brown		10	
	 4/6					
	 6/6					
			Bottom of Boring at 16.5 Feet			

Notes:

Figure Number

KEY TO SYMBOLS

Symbol Description

Symbol Description

Strata symbols

Soil Samplers



Fill



Standard penetration test



FAT Clay



California Modified split barrel ring sampler



LEAN Clay



Undisturbed thin wall Shelby tube



Silty sand



Asphaltic Concrete



Clayey sand



Silt



Poorly graded sand

Misc. Symbols



Boring continues

Notes:

1. Groundwater was not encountered during drilling of the borings.
2. Test Boring locations were located by pacing or steel tape with reference to the existing site features shown on the topographic map (see Drawing No. 1).
3. These logs are subject to the limitations, conclusions, and recommendations of the geotechnical report.
4. Results of tests conducted on samples recovered are reported on the logs.

5. Abbreviations used are:

DD = Natural dry density (pcf)
 UC = Unconfined compression (psf)
 -4 = Percent passing #4 sieve (%)
 -200 = Percent passing #200 sieve (%)
 SR = Soil resistivity (ohm-cm)
 c = Cohesion (psf)
 psf = pounds per square foot
 N/A = Not applicable

LL = Liquid limit (%)
 PI = Plasticity index (%)
 pH = Soil pH
 SS = Soluble sulfates (%)
 Cl = Soluble chlorides (%)
 pcf = pounds per cubic foot
 N/E = None encountered during drilling

APPENDIX CRESULTS OF LABORATORY TESTS

This appendix contains the individual results of the following tests conducted for the current investigation. Results for tests conducted for previous geotechnical and geologic investigations are provided in the individual reports for those investigations. The results of the moisture content and dry density tests are included on the test boring logs in Appendix B. These data, along with the field observations, were used to prepare the final test boring logs in Appendix B.

Tests:To Determine:

Moisture Content
(ASTM D2216)

Moisture contents representative of field conditions at the time the sample was taken.

Dry Density
(ASTM D2216)

Dry unit weight of sample representative of in-situ or in-place undisturbed condition.

Grain-Size Distribution
(ASTM D422)

Size and distribution of soil particles, i.e., clay, silt, sand, and gravel.

Direct Shear
(ASTM D3080)

Soil shearing strength under varying loads and/or moisture conditions.

Consolidation
(ASTM D2435)

The amount and rate at which a soil sample compresses when loaded, and the influence of saturation on its behavior.

Atterberg Limits
(ASTM D4318)

The consistency and "stickiness", as well as the range of moisture contents within which the material is "workable".

Expansion Index
(ASTM D4829)

Swell potential of soil with increases in moisture content.

Tests:

To Determine:

Sulfate Content
(ASTM D4327)

Percentage of water-soluble sulfate as (SO₄) in soil samples. Used as an indication of the relative degree of sulfate attack on concrete and for selecting the cement type.

Chloride Content
(ASTM D4327)

Percentage of soluble chloride in soil. Used to evaluate the potential attack on encased reinforcing steel.

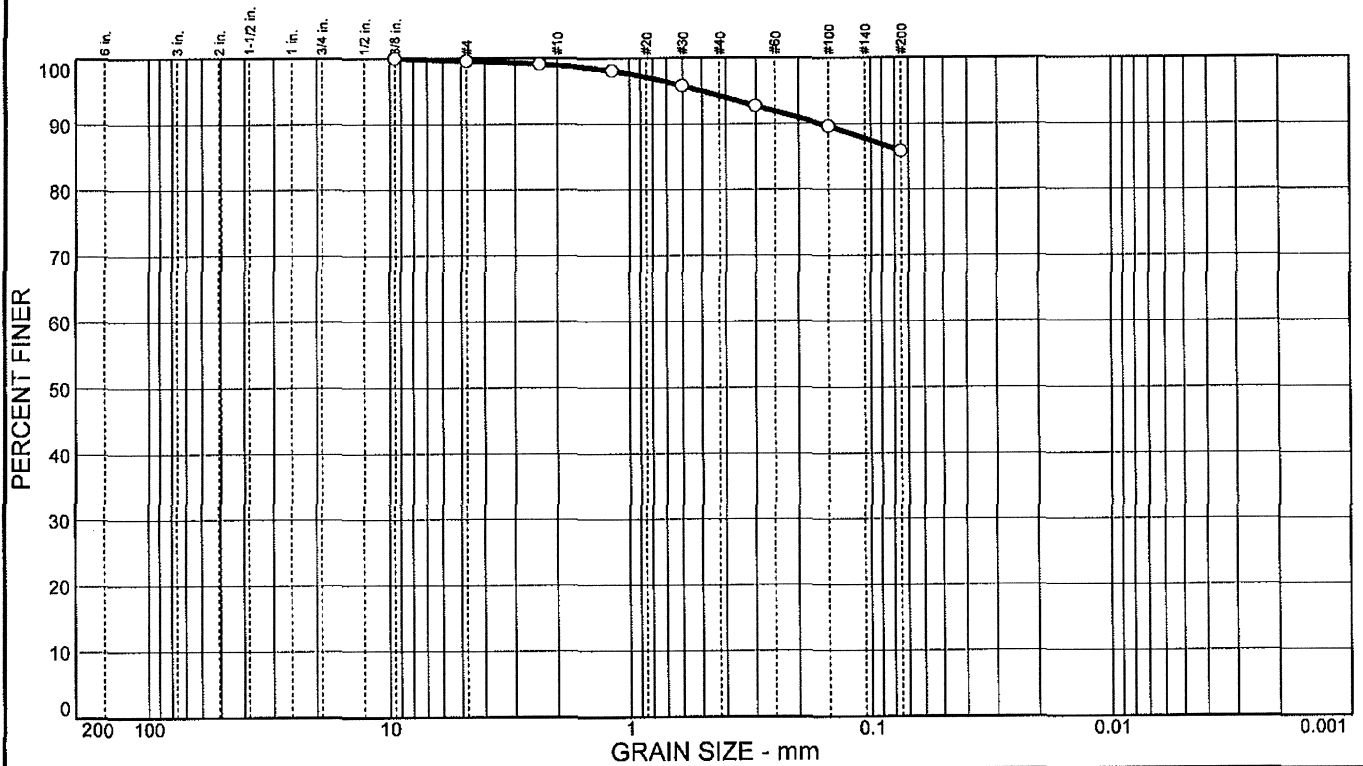
Resistivity
(ASTM D1125)

The potential of the soil to corrode metal.

pH (ASTM D4972)

The acidity or alkalinity of subgrade material.

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.4	0.7	4.7	8.4	85.8	

LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
0									

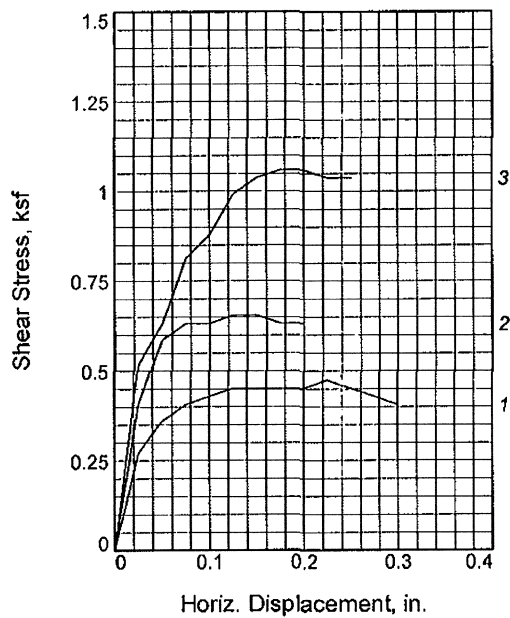
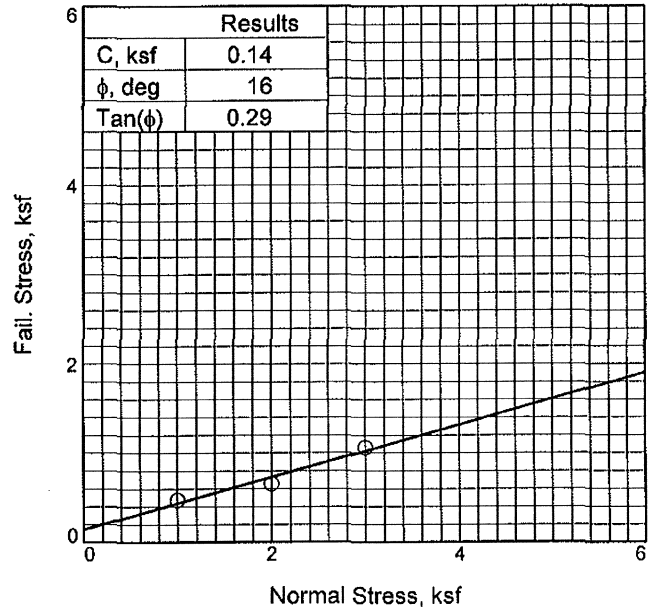
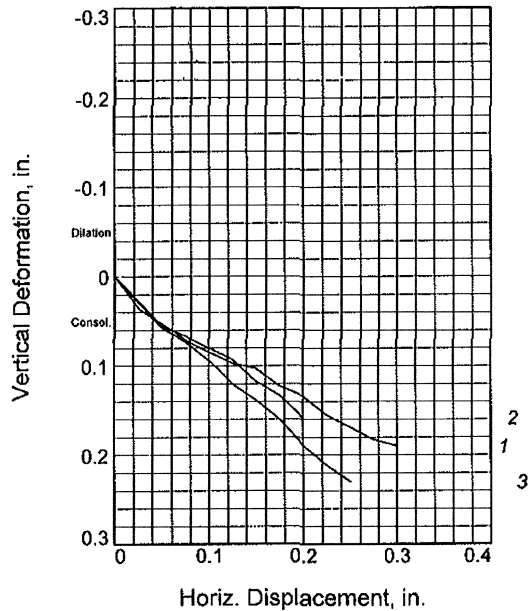
MATERIAL DESCRIPTION	USCS	AASHTO

Project No. C23679.02 **Client:**
Project: Multi Story Student Housing Building #4, UC Merced
Source: **Sample No.:** B-5 **Elev./Depth:** 5-6.5 Feet

Moore Twining Associates, Inc.
Fresno, CA

Remarks:
 ○ F.M.=0.25

Figure



Sample No.	1	2	3	
Initial	Water Content, %	22.2	22.2	21.3
	Dry Density, pcf	98.6	97.0	98.8
	Saturation, %	86.8	83.4	83.7
	Void Ratio	0.6771	0.7057	0.6743
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	26.8	29.2	25.5
	Dry Density, pcf	100.6	100.0	102.8
	Saturation, %	110.0	118.3	110.9
	Void Ratio	0.6447	0.6540	0.6091
	Diameter, in.	2.42	2.42	2.42
	Height, in.	0.98	0.97	0.96
Normal Stress, ksf	1.00	2.00	3.00	
Fail. Stress, ksf	0.47	0.65	1.06	
Displacement, in.	0.23	0.13	0.17	
Ult. Stress, ksf				
Displacement, in.				
Strain at peak, %	9.3	5.2	7.2	

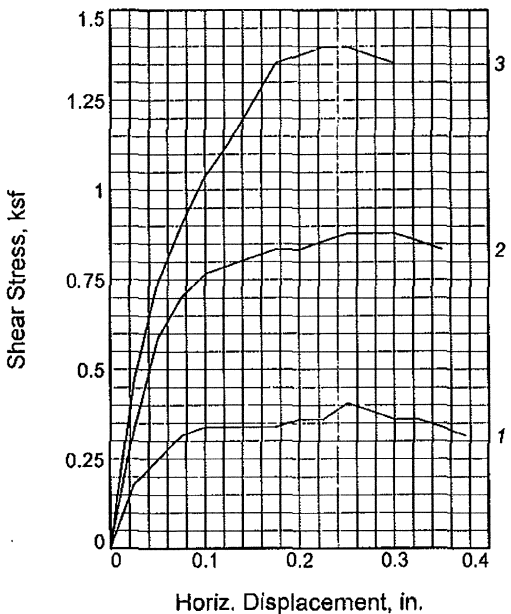
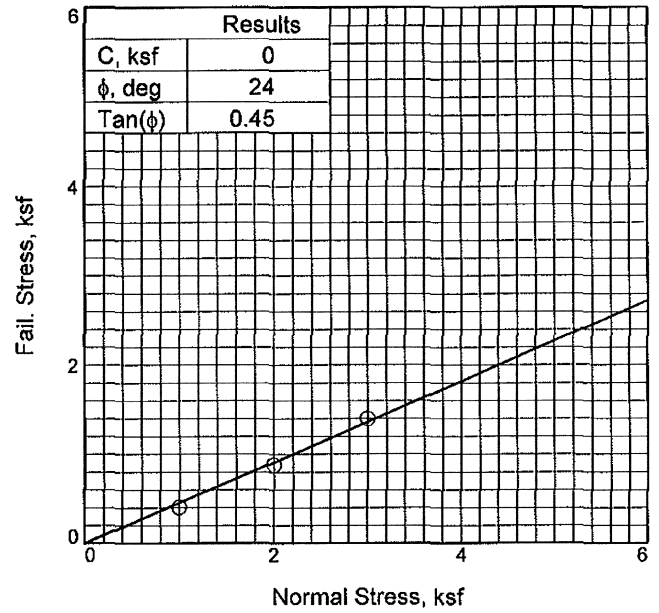
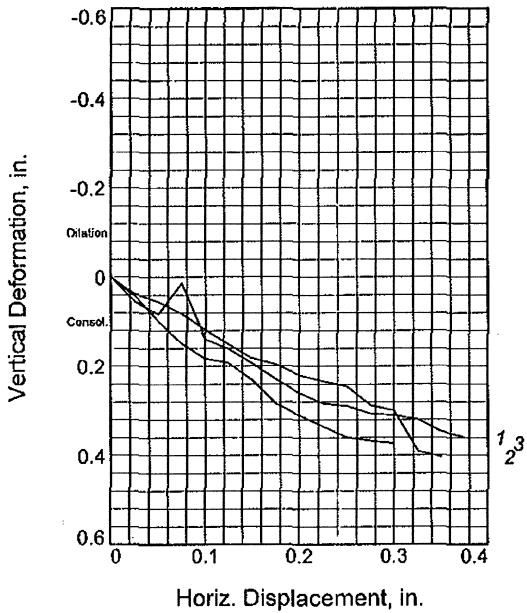
Sample Type:
 Description:
 Assumed Specific Gravity= 2.65
 Remarks:

Client:
 Project: Multi Story Student Housing Building #4, UC Merced
 Sample Number: B-3 Depth: 3.5-5 Feet
 Proj. No.: C23679.02 Date Sampled: 11/26/10

DIRECT SHEAR TEST REPORT

Moore Twining Associates, Inc.

Figure _____



Sample No.	1	2	3	
Initial	Water Content, %	27.2	31.2	22.1
	Dry Density, pcf	92.6	84.9	88.6
	Saturation, %	91.6	87.2	67.7
	Void Ratio	0.7866	0.9487	0.8667
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	28.7	32.3	29.3
	Dry Density, pcf	94.3	89.7	93.5
	Saturation, %	100.8	101.5	100.8
	Void Ratio	0.7548	0.8435	0.7691
	Diameter, in.	2.42	2.42	2.42
	Height, in.	0.98	0.95	0.95
Normal Stress, ksf	1.00	2.00	3.00	
Fail. Stress, ksf	0.41	0.88	1.40	
Displacement, in.	0.25	0.25	0.23	
Ult. Stress, ksf				
Displacement, in.				
Strain at peak, %	10.3	10.3	9.3	

Sample Type:
Description:

Assumed Specific Gravity= 2.65
Remarks:

Figure _____

Client:

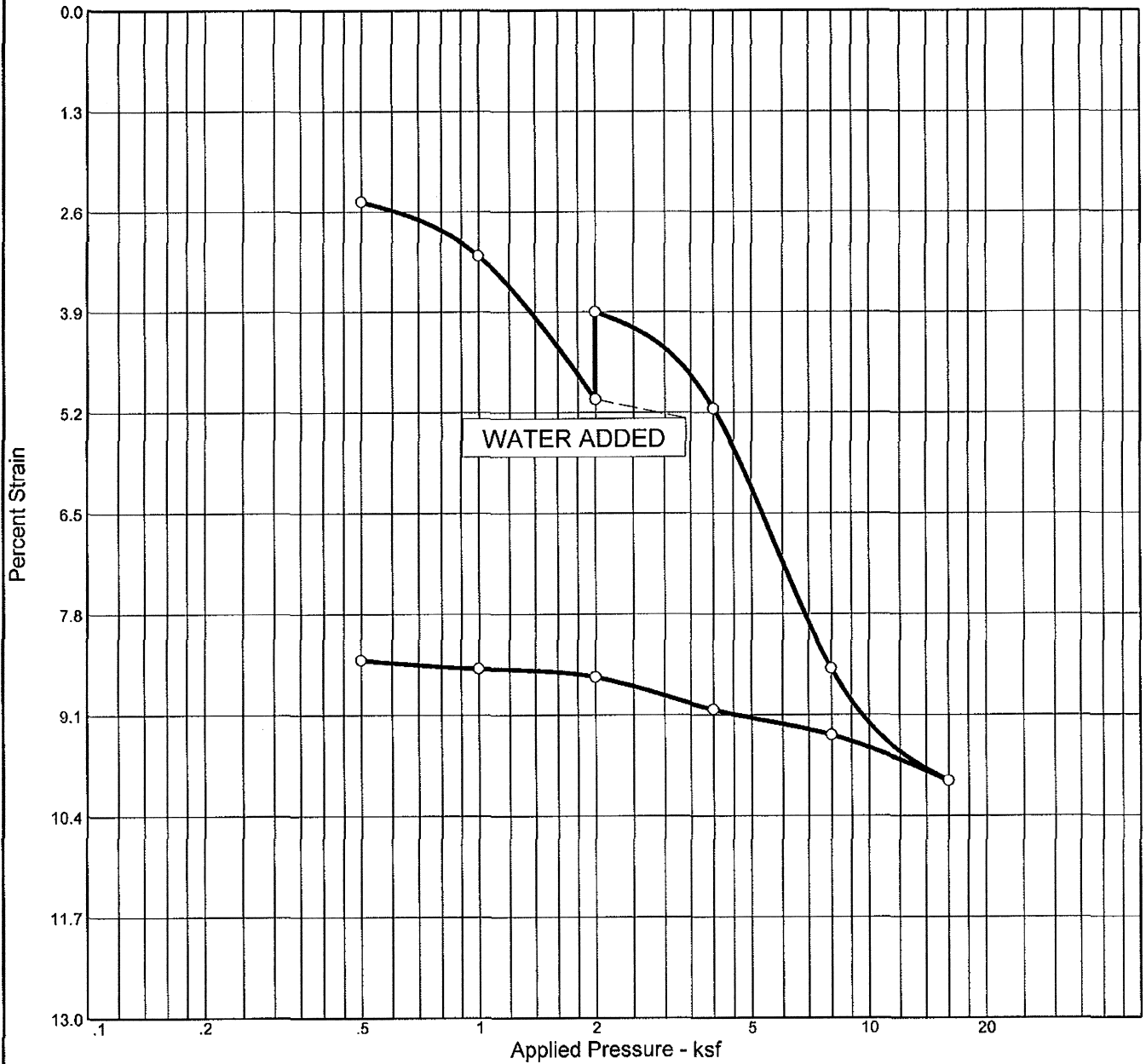
Project: Multi Story Student Housing Building #4, UC Merced

Sample Number: B-4 **Depth:** 10-11.5 Feet

Proj. No.: C23679.02 **Date Sampled:** 11/26/10

DIRECT SHEAR TEST REPORT
Moore Twining Associates, Inc.

CONSOLIDATION TEST REPORT

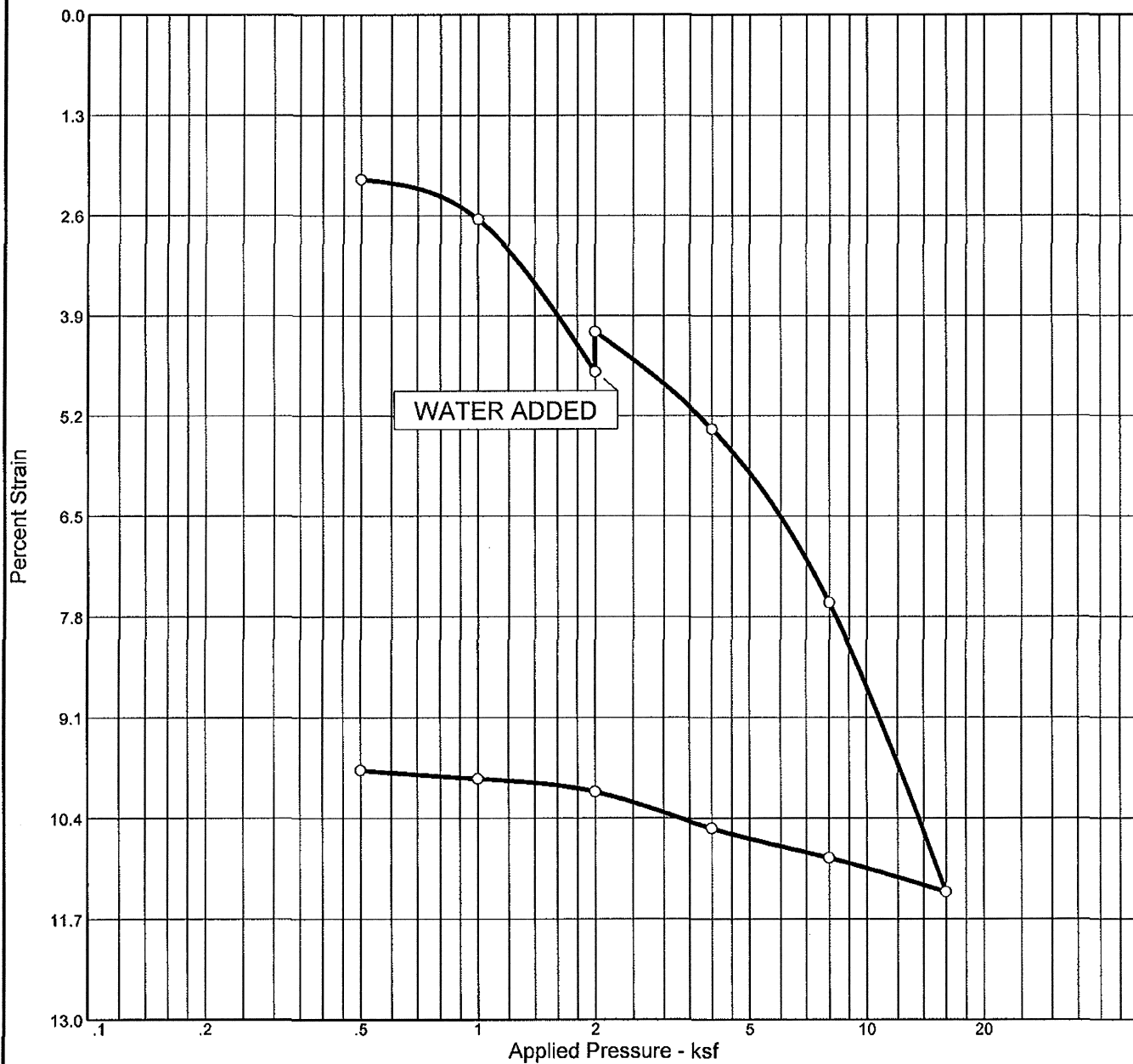


Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P_c (ksf)	C_c	C_s	Swell Press. (ksf)	Swell %	e_o
Sat.	Moist.											
83.3 %	23.1 %	95.3			2.65		0.05	0.07	0.02	3.87	1.1	0.73

MATERIAL DESCRIPTION	USCS	AASHTO

<p>Project No. C23679.02 Client:</p> <p>Project: Multi Story Student Housing Building #4, UC Merced</p> <p>Source: Sample No.: B-1 Elev./Depth: 3.5-5 Feet</p> <p style="text-align: center;">Moore Twining Associates, Inc.</p> <p style="text-align: center;">Fresno, CA</p>	<p>Remarks:</p> <p style="text-align: right; margin-top: 100px;">Figure</p>
---	---

CONSOLIDATION TEST REPORT



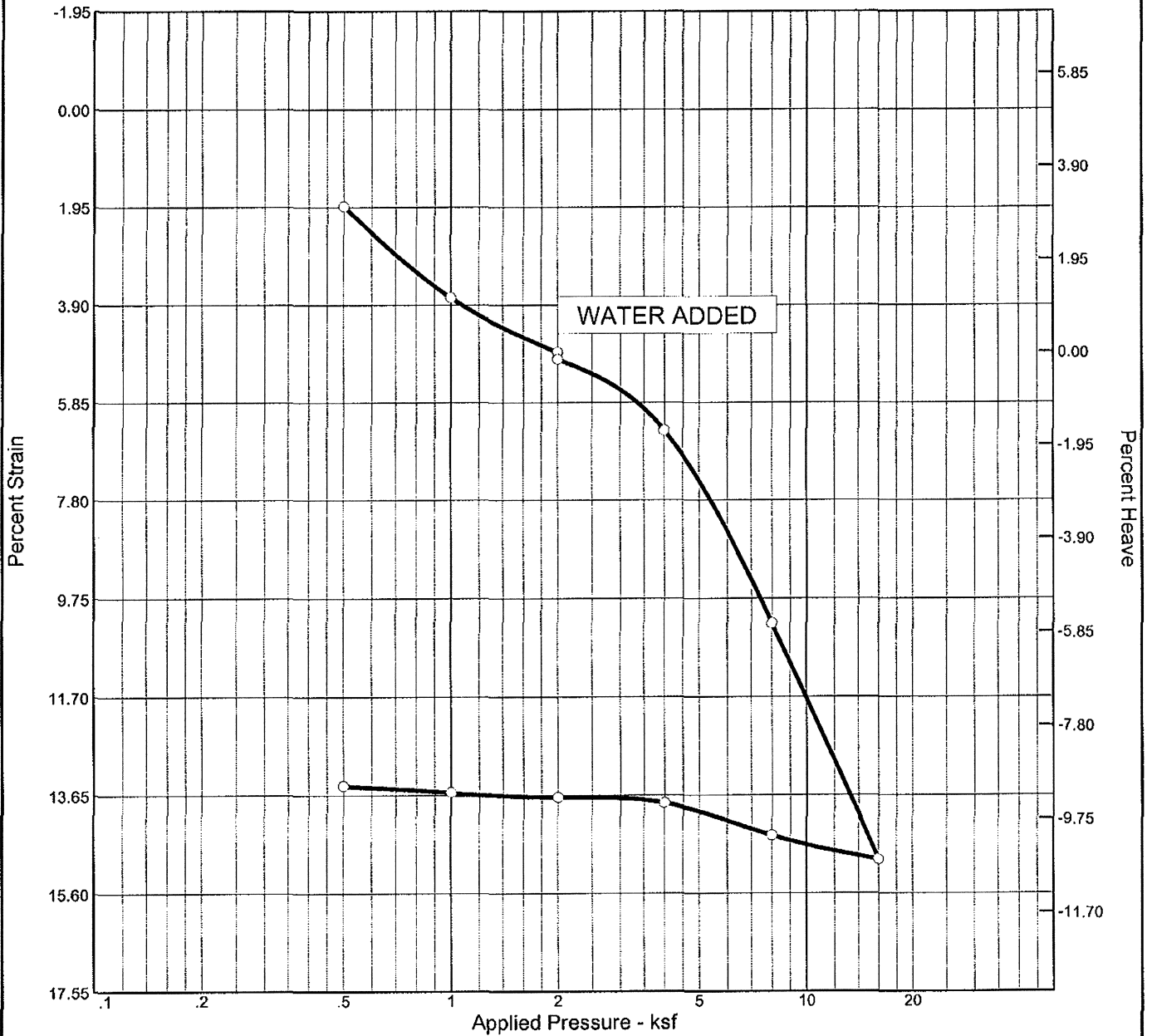
Natural Sat.	Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P _c (ksf)	C _c	C _s	Swell Press. (ksf)	Swell %	e ₀
86.4 %	22.8 %	97.3			2.65		4.23	0.22	0.02	2.75	0.5	0.70

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. C23679.02 Client: Project: Multi Story Student Housing Building #4, UC Merced Source: Sample No.: B-4 Elev./Depth: 10-11.5 Feet	Remarks:
Moore Twining Associates, Inc. Fresno, CA	

Figure

CONSOLIDATION TEST REPORT

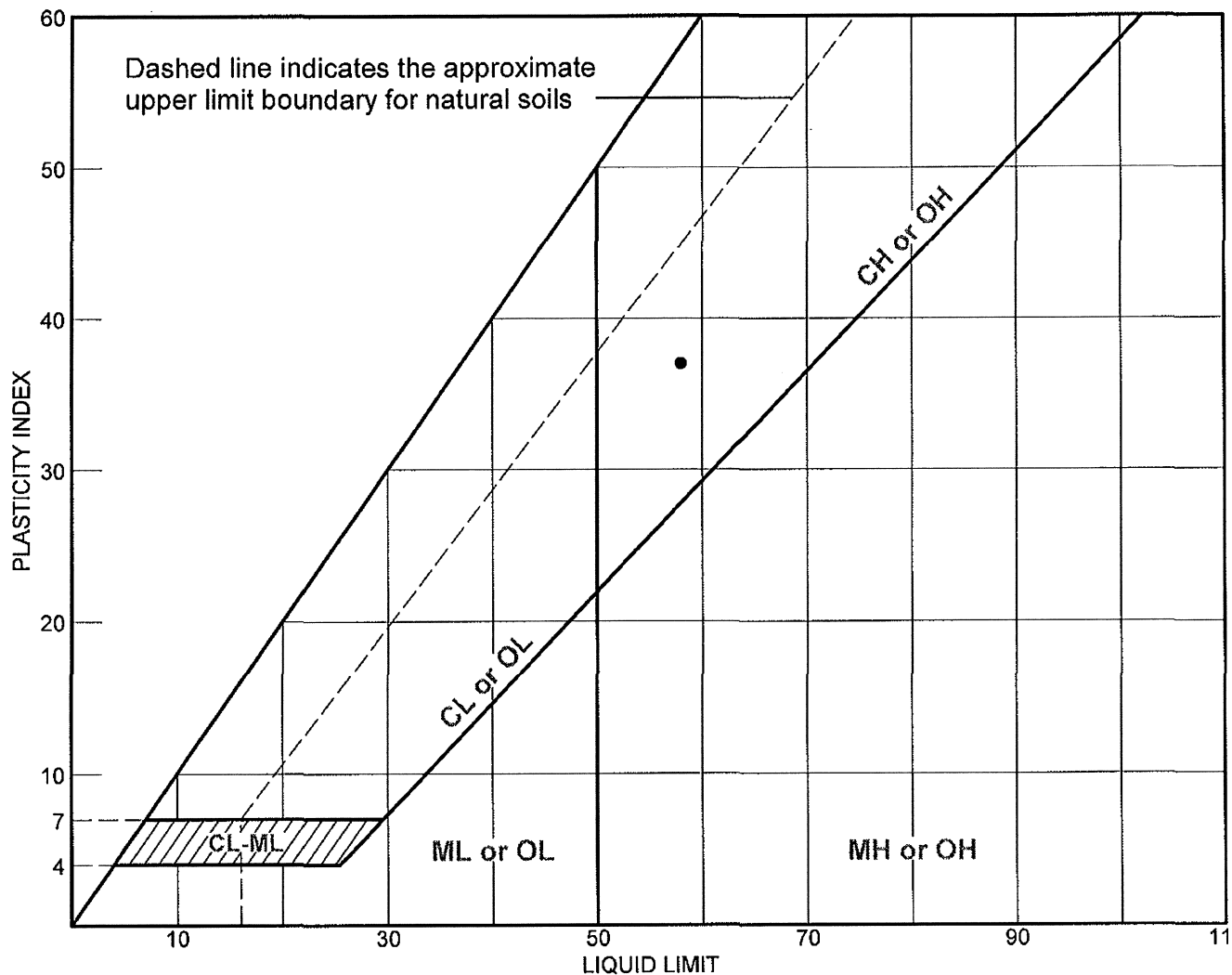


Natural	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P _c (ksf)	C _c	Initial Void Ratio
Saturation	Moisture							
81.4 %	22.7 %	95.1		2.65		4.81	0.27	0.740

MATERIAL DESCRIPTION	USCS	AASHTO

<p>Project No. C23679.02 Client:</p> <p>Project: Multi Story Student Housing Building #4, UC Merced</p> <p>Source: Sample No.: B-5 Elev./Depth: 5-6.5 Feet</p> <p style="text-align: center;">Moore Twining Associates, Inc.</p> <p style="text-align: center;">Fresno, CA</p>	<p>Remarks:</p> <p style="text-align: right;">Figure</p>
---	---

LIQUID AND PLASTIC LIMITS TEST REPORT



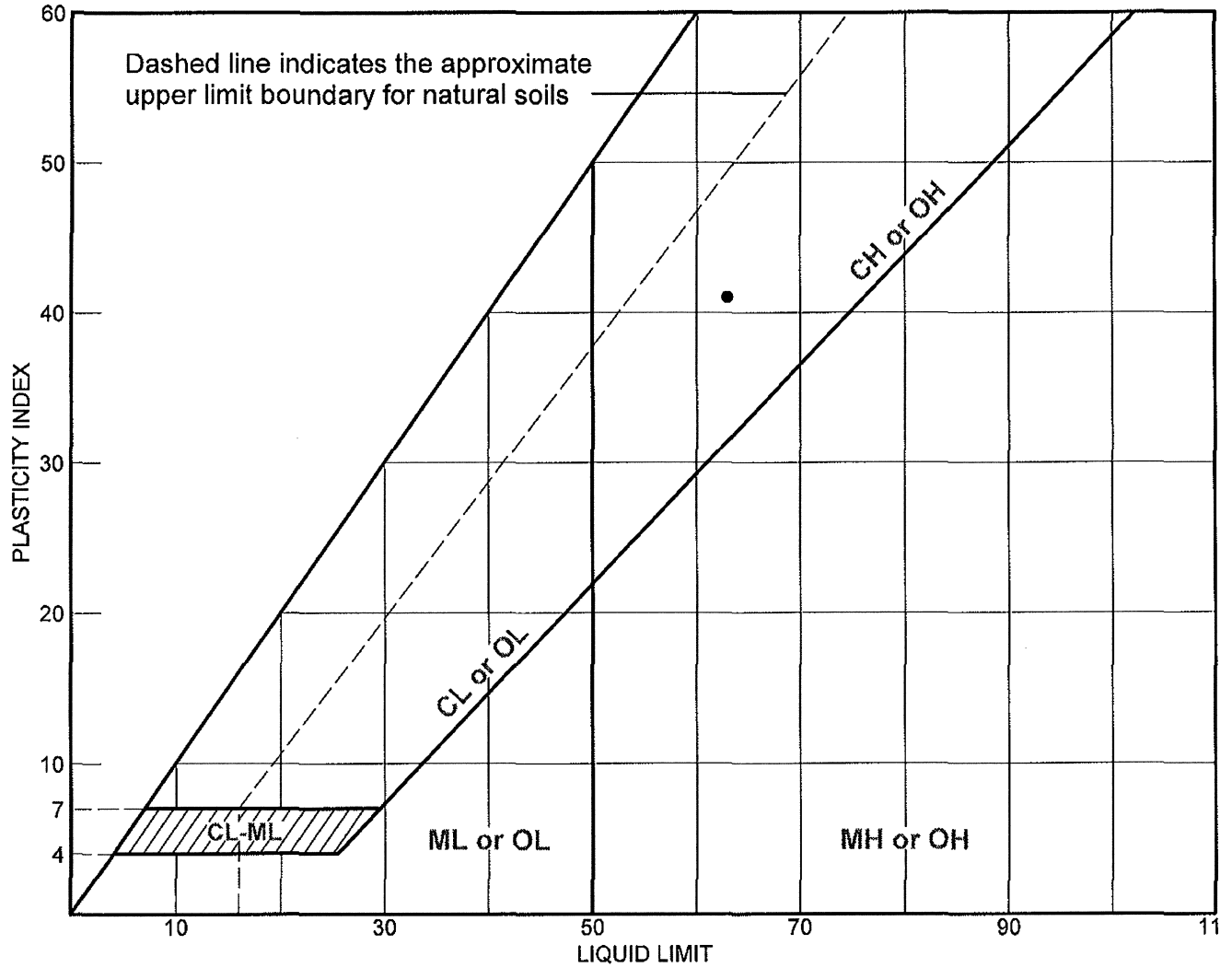
SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•		B-1	1-2.5 Feet		21	58	37	

LIQUID AND PLASTIC LIMITS TEST REPORT
Moore Twining Associates, Inc.
 Fresno, CA

Client:
Project: Multi Story Student Housing Building #4, UC Merced
Project No.: C23679.02

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



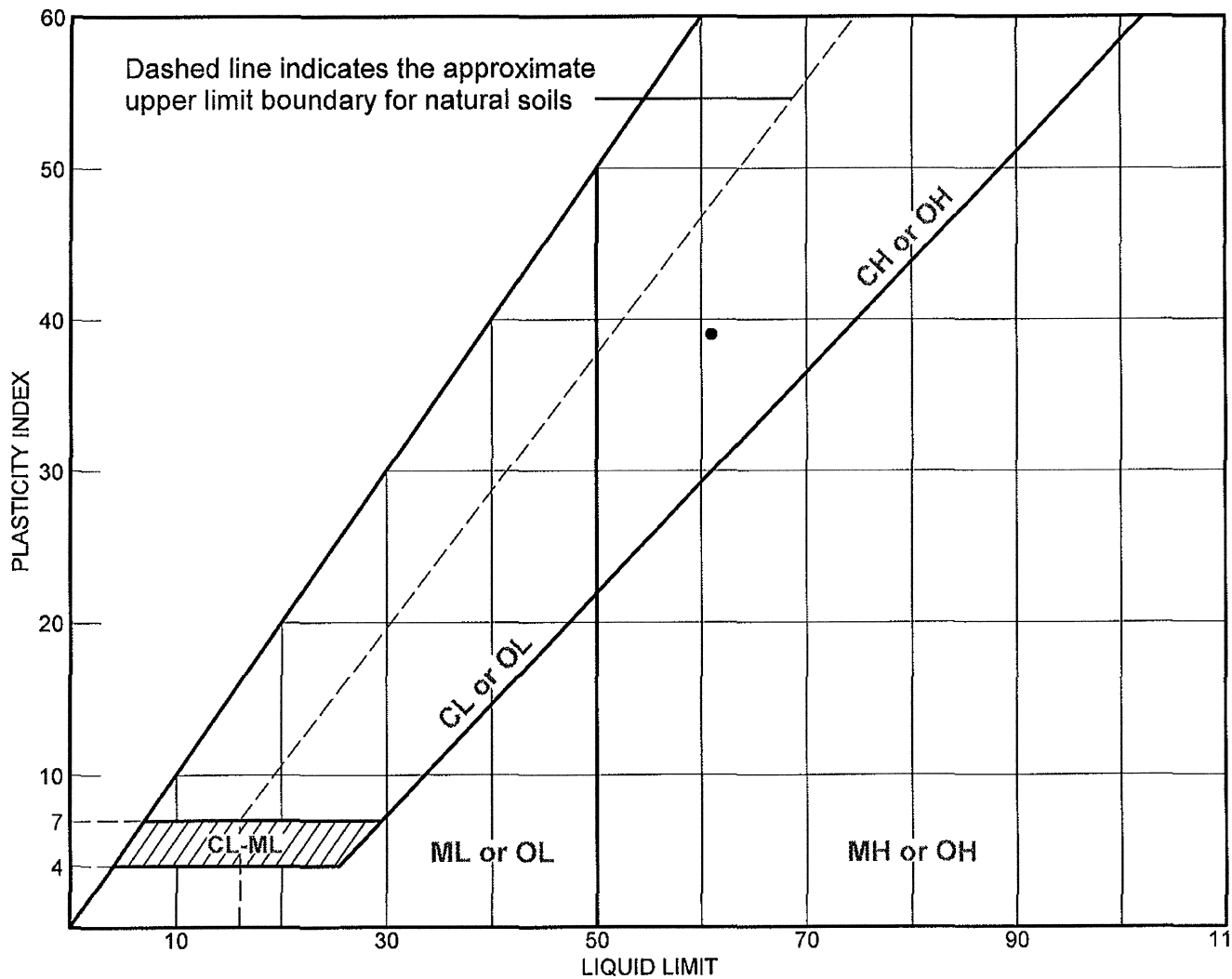
SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•		B-1	3.5-5 Feet		22	63	41	

LIQUID AND PLASTIC LIMITS TEST REPORT
Moore Twining Associates, Inc.
 Fresno, CA

Client:
 Project: Multi Story Student Housing Building #4, UC Merced
 Project No.: C23679.02

Figure

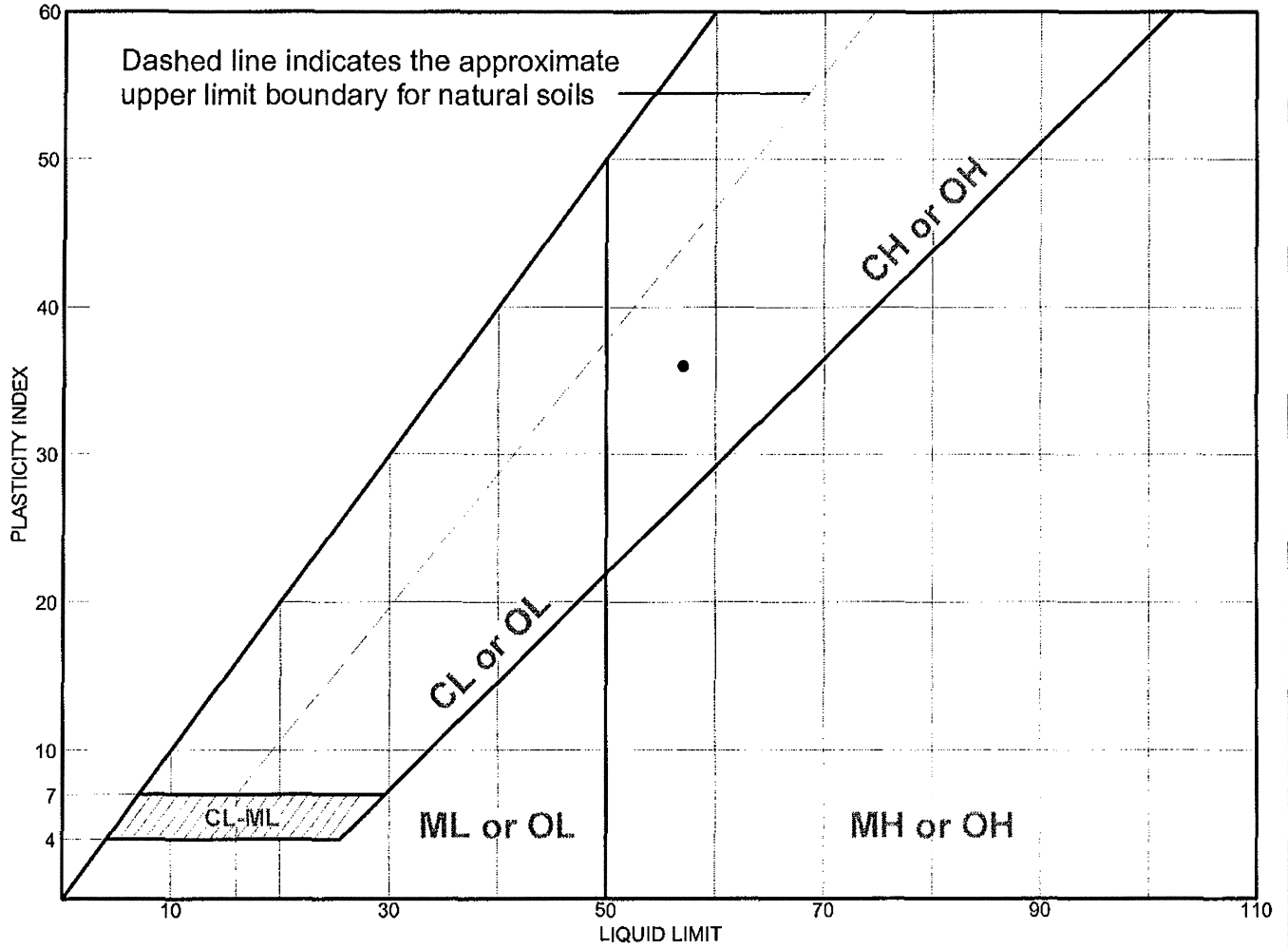
LIQUID AND PLASTIC LIMITS TEST REPORT



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•		B-3	1-2.5 Feet		22	61	39	

LIQUID AND PLASTIC LIMITS TEST REPORT Moore Twining Associates, Inc. Fresno, CA	Client: Project: Multi Story Student Housing Building #4, UC Merced Project No.: C23679.02
Figure	

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	57	21	36			

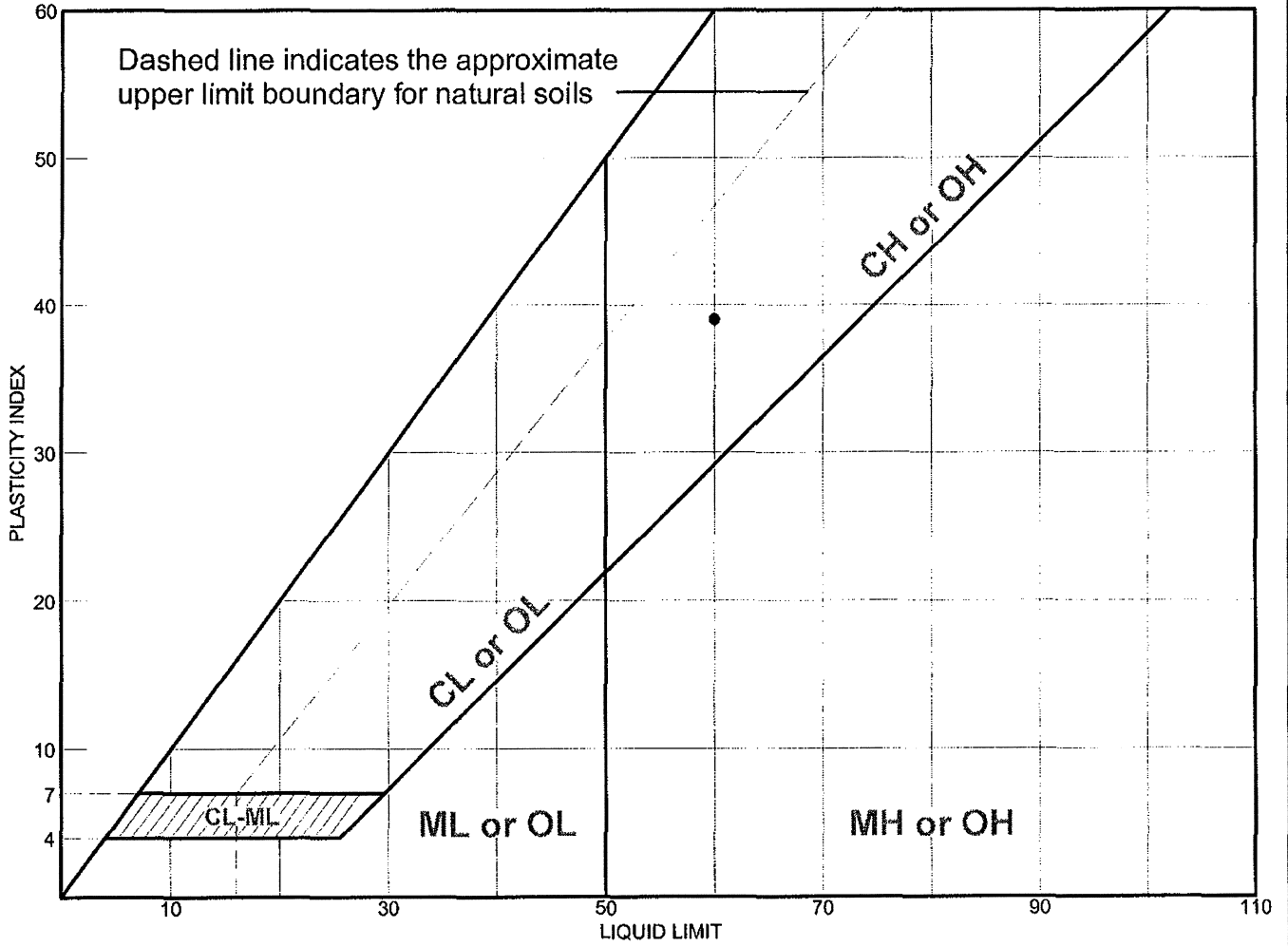
Project No. C23679.02 Client:
Project: Multi Story Student Housing Building #4, UC Merced
● Source: Sample No.: B-8 Elev./Depth: 3.5-5 Feet

Remarks:
●

Moore Twining Associates, Inc.
Fresno, CA

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	60	21	39			

Project No. C23679.02 **Client:**
Project: Multi Story Student Housing Building #4, UC Merced
Source: **Sample No.:** B-10 **Elev./Depth:** 3.5-5 Feet

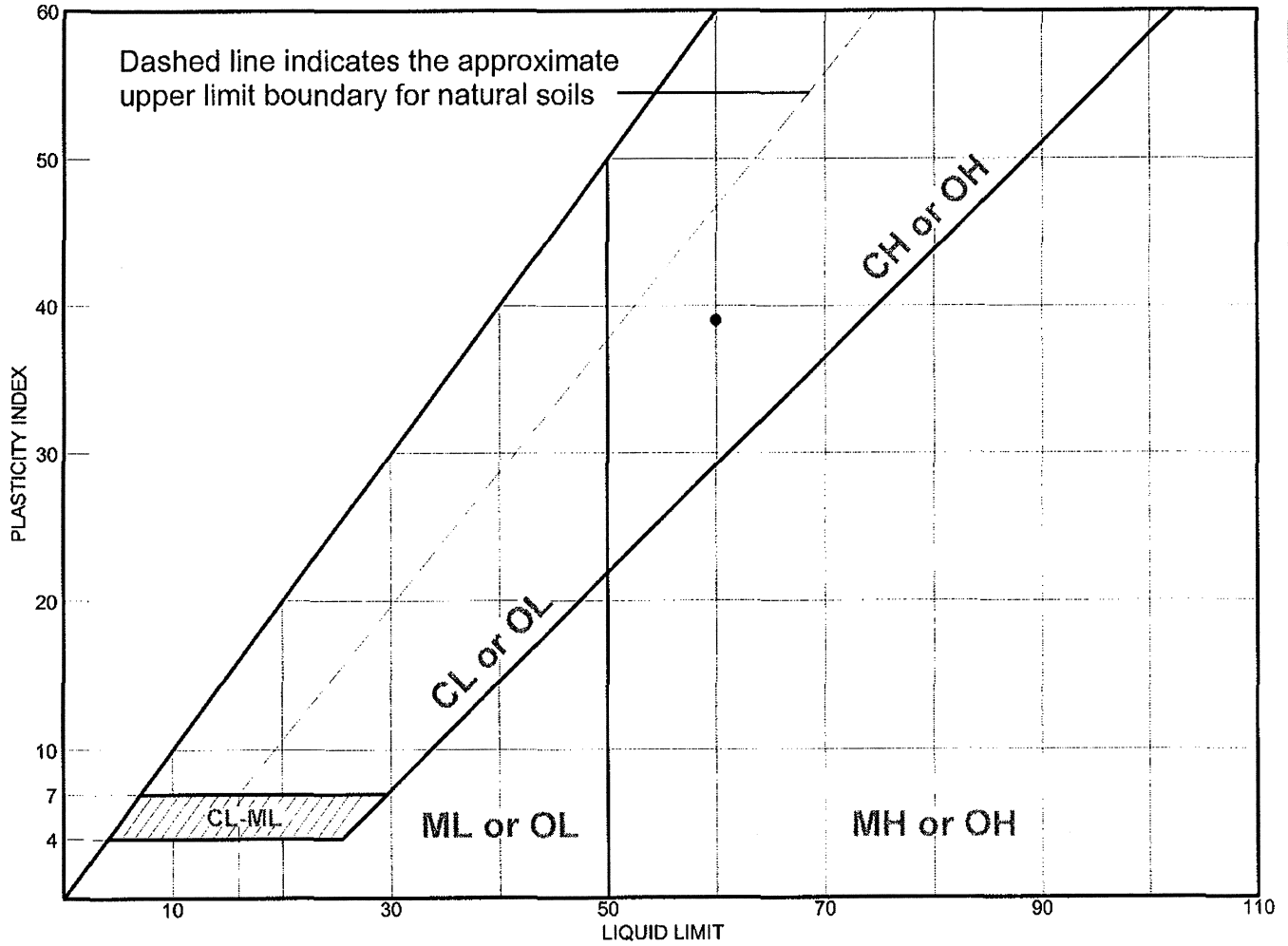
Moore Twining Associates, Inc.
Fresno, CA

Remarks:

●

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	60	21	39			

Project No. C23679.02 Client:

Project: Multi Story Student Housing Building #4, UC Merced

● Source: Sample No.: B-11 Elev./Depth: 5-6.5 Feet

Remarks:

●

Moore Twining Associates, Inc.
Fresno, CA



MOORE TWINING ASSOCIATES, INC.

EXPANSION INDEX TEST, ASTM D4829

MTA PROJECT NAME: Multi Stort Student Housing REPORT DATE: 12/7/2010
Building #4, UC Merced TEST DATE: 12/2/2010
 MTA PROJECT NO.: C23679.02
 SAMPLE I.D.: B-1 @ 1-4 Feet
 SAMPLED BY: ZA
 SAMPLE DATE: 11/26/2010 TESTED BY: TD

% PASSING # 4 SIEVE 100

Initial Moisture Determination:

Pan + Wet Soil Wt., gm 250.0
 Pan + Dry Soil Wt., gm 227.3
 Pan Wt., gm 0.0
 Initial % Moisture Content 10.0

Final Moisture Determination:

Wet Soil Wt., lbs 0.9977
 Dry Soil Wt., lbs 0.8058
 Final % Moisture Content 23.8

Initial Expansion Data:

Ring + Sample Wt., lbs 0.8863
 Ring Wt., lbs 0.0000
 Remolded Wt., lbs 0.8863
 Remolded Wet Density, pcf 121.9
 Remolded Dry Density, pcf 110.8

Final Expansion Data:

Ring + Sample Wt., lbs 0.9977
 Ring Wt., lbs 0.0000
 Remolded Wt., lbs 0.9977
 Remolded Wet Density, pcf 129.5
 Remolded Dry Density, pcf 104.6

Expansion Data:

Initial Gage Reading, in: 0.0500
 Final Gage Reading, in: 0.1096
 Expansion, in: 0.0596
 Expansion Index 60

Initial Volume Final Volume
0.0072722 0.007706

Comments: (Medium Expansion Potential)

Classification of Expansive Soils. (Table No.1 From ASTM D4829)

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High



MOORE TWINING ASSOCIATES, INC.

EXPANSION INDEX TEST, ASTM D4829

MTA PROJECT NAME: Multi Stort Student Housing REPORT DATE: 7/27/2011
Building #4, UC Merced TEST DATE: 7/25/2011
 MTA PROJECT NO.: C23679.02
 SAMPLE I.D.: R-2 @ 0-3 Feet
 SAMPLED BY: AR
 SAMPLE DATE: 7/15/2011 TESTED BY: TD

% PASSING # 4 SIEVE 100

Initial Moisture Determination:

Pan + Wet Soil Wt., gm 250.0
 Pan + Dry Soil Wt., gm 230.8
 Pan Wt., gm 0.0
 Initial % Moisture Content 8.3

Final Moisture Determination:

Wet Soil Wt., lbs 0.9935
 Dry Soil Wt., lbs 0.8546
 Final % Moisture Content 16.3

Initial Expansion Data:

Ring + Sample Wt., lbs 0.9257
 Ring Wt., lbs 0.0000
 Remolded Wt., lbs 0.9257
 Remolded Wet Density, pcf 127.3
 Remolded Dry Density, pcf 117.5

Final Expansion Data:

Ring + Sample Wt., lbs 0.9935
 Ring Wt., lbs 0.0000
 Remolded Wt., lbs 0.9935
 Remolded Wet Density, pcf 131.7
 Remolded Dry Density, pcf 113.3

Expansion Data:

Initial Gage Reading, in: 0.0500
 Final Gage Reading, in: 0.0876
 Expansion, in: 0.0376
 Expansion Index 38

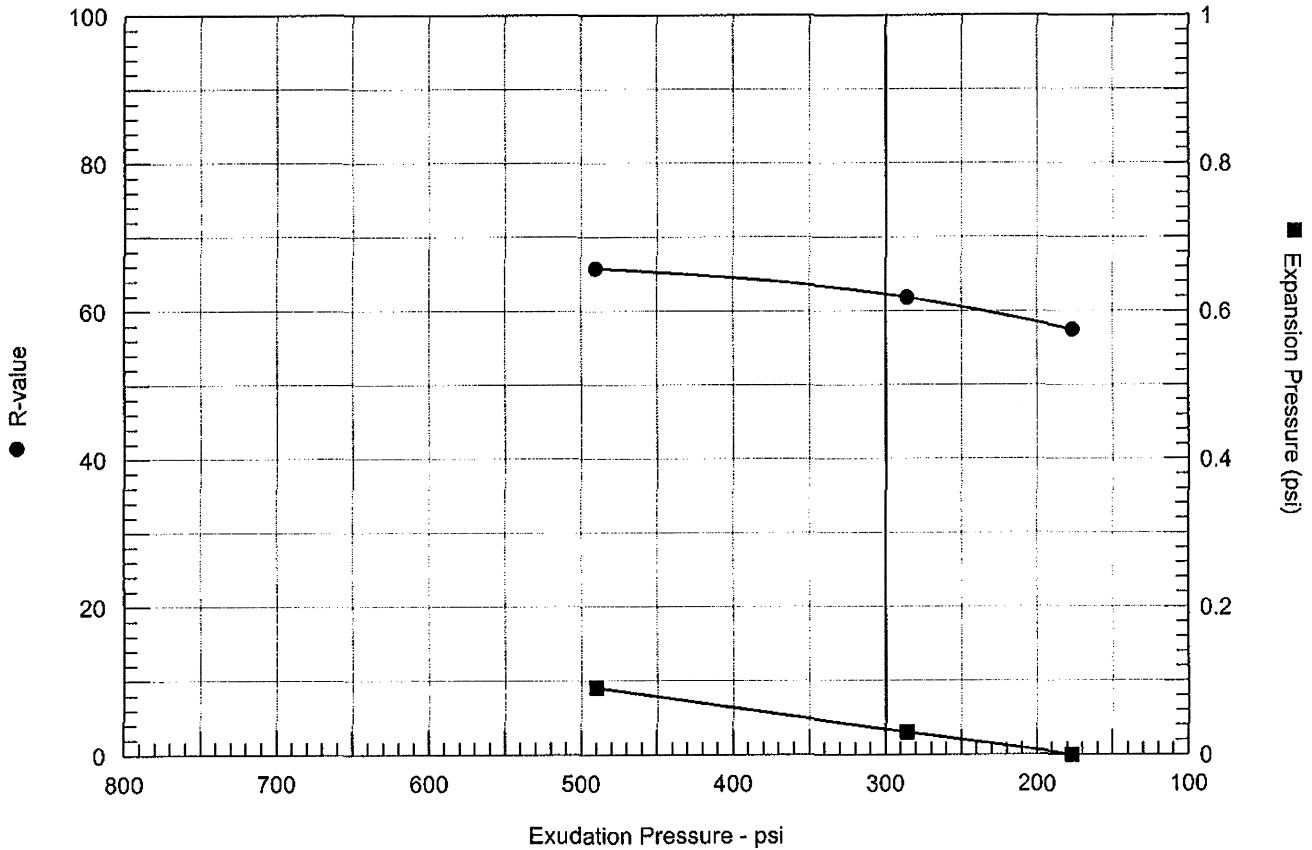
Initial Volume Final Volume
0.0072722 0.007546

Comments: (Low Expansion Potential)

Classification of Expansive Soils. (Table No.1 From ASTM D4829)

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	123.0	10.5	0.09	36	2.50	490	66	66
2	350	121.5	11.5	0.03	40	2.52	286	62	62
3	300	121.2	12.4	0.00	43	2.55	177	57	57

Test Results	Material Description
--------------	----------------------

R-value at 300 psi exudation pressure = 62
 Exp. pressure at 300 psi exudation pressure = 0.03 psi

Project No.: C23679.02
Project: Multi Story Student Housing Building #4, UC Merced
Sample Number: R-2 **Depth:** 0-3 Feet
Date: 7/27/2011

Tested by:
Checked by:
Remarks:

R-VALUE TEST REPORT

Moore Twining Associates, Inc.

Figure _____



2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

California ELAP Certificate# 1371

December 14, 2010

Work Order #: 0K29027

Ken Clark
MTA Geotechnical Division
2527 Fresno Street
Fresno, CA 93721

RE: Student Housing - UC Merced

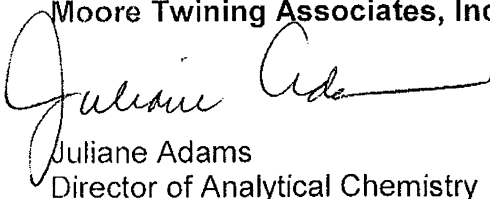
Enclosed are the analytical results for samples received by our laboratory on 11/29/10 . For your reference, these analyses have been assigned laboratory work order number 0K29027.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety. Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.


Juliane Adams
Director of Analytical Chemistry



2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

California ELAP Certificate# 1371

MTA Geotechnical Division 2527 Fresno Street Fresno CA. 93721	Project: Student Housing - UC Merced Project Number: C23679.02 Project Manager: Ken Clark	Reported: 12/14/2010
---	---	-------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 @ 1-4' (Bulk)	0K29027-01	Soil	11/26/10 00:00	11/29/10 13:01
B-7 @ 3.5-5'	0K29027-02	Soil	11/27/10 00:00	11/29/10 13:01

Moore Twining Associates, Inc.
Allen Glover, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain custody document. This analytical report must be reproduced in its entirety.



2527 Fresno Street
 Fresno, CA 93721
 (559) 268-7021 Phone
 (559) 268-0740 Fax

California ELAP Certificate# 1371

MTA Geotechnical Division 2527 Fresno Street Fresno CA. 93721	Project: Student Housing - UC Merced Project Number: C23679.02 Project Manager: Ken Clark	Reported: 12/14/2010
---	---	-------------------------

B-1 @ 1-4' (Bulk)
 0K29027-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Method	Qualifier
Inorganics								
Chloride	11	6.0	mg/kg	T0L0710	12/07/10	12/09/10	ASTM D-4327-84	
Chloride	0.0011	0.00060	% by Weight	[CALC]	12/07/10	12/09/10	ASTM D4327-84	
Sulfate as SO4	0.0048	0.00060	% by Weight	[CALC]	12/07/10	12/09/10	ASTM D4327-84	
pH	7.9	0.30	pH Units	T0L0710	12/07/10	12/09/10	ASTM D4972-89 Mod	
Resistivity	9700		ohms-cm	T0L0710	12/07/10	12/09/10	ASTM D1125-82	
Sulfate as SO4	48	6.0	mg/kg	T0L0710	12/07/10	12/09/10	ASTM D4327-84	

Moore Twining Associates, Inc.
 Allen Glover, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain custody document. This analytical report must be reproduced in its entirety.



2527 Fresno Street
 Fresno, CA 93721
 (559) 268-7021 Phone
 (559) 268-0740 Fax

California ELAP Certificate# 1371

MTA Geotechnical Division 2527 Fresno Street Fresno CA. 93721	Project: Student Housing - UC Merced Project Number: C23679.02 Project Manager: Ken Clark	Reported: 12/14/2010
---	---	-------------------------

B-7 @ 3.5-5'
 OK29027-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Prepared	Analyzed	Method	Qualifier
Inorganics								
Chloride	ND	6.0	mg/kg	T0L0710	12/07/10	12/09/10	ASTM D-4327-84	
Chloride	ND	0.00060	% by Weight	[CALC]	12/07/10	12/09/10	ASTM D4327-84	
Sulfate as SO4	0.0033	0.00060	% by Weight	[CALC]	12/07/10	12/09/10	ASTM D4327-84	
pH	7.9	0.30	pH Units	T0L0710	12/07/10	12/09/10	ATSM D4972-89 Mod	
Resistivity	22000		ohms-cm	T0L0710	12/07/10	12/09/10	ASTM D1125-82	
Sulfate as SO4	33	6.0	mg/kg	T0L0710	12/07/10	12/09/10	ASTM D4327-84	

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference

Quality Control Data Available Upon Request

Moore Twining Associates, Inc.
 Allen Glover, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain custody document. This analytical report must be reproduced in its entirety.

APPENDIX D**SPECIFICATIONS FOR CHEMICAL TREATMENT OF SOIL**

The following specifications are provided for chemical soil treatment for stabilization of wet, unstable excavations and/or for use as a "dry up" for reducing the moisture content of overly moist soils to achieve suitable moisture contents for placement and compaction as engineered fill. Where chemical treatment of the onsite soils is conducted for these purposes, the references to lime in this specification refer to high calcium quicklime. The application rate of the high calcium quicklime (lime) shall be determined by the Contractor (depends on soil moisture conditions at the time of construction). The following specifications shall not be applied for use of a chemically treated soil for non-expansive fill purposes.

Chemical treatment of soil should be conducted in accordance with the specifications, this report and State of California (Caltrans) requirements, whichever is the most stringent.

Subgrade Preparation: Prior to addition of any lime to the soils, the soils shall be free of organics and deleterious material. The presence of organic material in the lime treated soil may adversely affect the impact of the lime treating process and therefore provide less than the desired results. The soils to be treated should be graded if lifts to the proposed elevations. If necessary, the proposed subgrade soils should be scarified to a minimum depth of ten (10) to twelve (12) inches. Lift thickness should be limited to twelve (12) inches.

Application: The actual weight of high calcium quicklime may vary slightly depending on the actual weight of the quicklime and the soil placed in the area to be treated. The anticipated weight of quicklime should be determined prior to application in order to verify application rate and concentration. It is recommended that the spread rate and application rate of the lime be verified both prior to and during application. This can be accomplished using a tarp or temporary hard surface placed beneath the application equipment. The Contractor shall conduct these measurements under the observation of Moore Twining.

Mixing: Immediately after the lime has been applied, the lime shall be thoroughly mixed into the subgrade soils. The lime shall be mixed into the subgrade soils with a minimum number of two (2) passes to ensure a thorough and uniform blending of the lime. Mixing should be performed in two (2) directions (i.e., perpendicular to one another) across the treated subgrade. All of the applied lime shall be mixed into the proposed subgrade soils to the full depth of treatment. Mixing of the lime and soil should result in a homogeneous mixture, free of lumps or clods in excess of one (1) inches across the largest diameter.

Water shall be added to the lime/soil mixture as necessary to maintain and ensure that the resulting mixture possesses a minimum of three (3) percent above the optimum moisture content as determined at the time of lime treatment. Water shall be gradually added to the mixture and thoroughly blended. The resulting moisture content of the lime/soil mixture shall be between two (2) to four (4) percent above the optimum moisture content.

Mixing of the subgrade soils should be performed to the satisfaction of Moore Twining.

Preliminary Curing: Subsequent to completion of the initial mixing process, the lime treated soil shall be allowed to cure for a minimum of one (1) day and a maximum of four (4) days. The treated soil should not be allowed to cure for more than four (4) days prior to the final mixing process. During the preliminary curing, the moisture content in the treated soil should be maintained above optimum moisture in order to avoid cracking or dessication.

Final Mixing and Pulverizing: The lime treated soils should not be allowed to cure in excess of four (4) days. Subsequent to the preliminary curing period, the treated subgrade soils once again should be thoroughly mixed and pulverized to the full depth of treatment. The final mixing and pulverizing process should continue until the treated material entirely passes a one inch sieve, and a minimum of eighty percent of the treated soil passes a No. 4 sieve. Additional water should be gradually and uniformly added at this point in order to insure the resulting treated soil possesses at least one (1) percent above the optimum moisture content.

Compaction and Finishing: Compaction of the treated soil should be performed immediately following the final mixing process. The full depth of the treated soil shall be compacted as engineered fill. It is recommended that the entire surface area of the treated soils be rolled using a rubber tired roller to ensure uniform and consistent compaction.

Final grading and finishing of the proposed subgrade soils should be performed within 24 hours of final compaction activities. Delayed trimming may result in the need for additional processing and lime treatment. The moisture content in the treated soil should be maintained for a minimum of seven (7) days. The treated subgrade should be protected from standing water and excessive traffic until covered. Prior to placement of fill, aggregate base material, etc., the lime treated subgrade should be proofrolled in order to identify any soft or yielding areas. Soft or yielding areas shall be repaired prior to backfilling by the Contractor.

Quality Control: The Contractor shall submit a quality control plan prior to commencement of the lime treatment process. This plan should include but not necessarily be limited to a description of the application methods, a certificate for the high calcium quicklime product indicating the material meets specifications, verification of the spread and application of the lime, verification of the scarification and treatment depth, verification of the resulting lime percentage in the soil and curing procedures.

Quality Assurance: Subsequent to the final compaction and grading activities, the depth of treated soil should be verified using phenolphthalein.

Additional Items to be Considered: It should be noted that lime treatment of the on-site soils will result in an increase in the pH of these soils. The Contractor should address any concerns regarding surface water runoff from the treated soils. In addition, lime treatment of soil will hinder plant growth. As a result, areas to be lime treated should be carefully identified in order to avoid treatment of proposed landscaped areas.

The Contractor should conform with the requirements of the storm water pollution prevention plan (SWPPP). In addition, the lime treatment process should comply with all local, state, and federal regulatory requirements.

Additional Items to be Considered: It should be noted that lime treatment of the on-site soils will result in an increase in the pH of these soils. The Contractor should address any concerns regarding surface water runoff from the treated soils. In addition, lime treatment of soil will hinder plant growth. As a result, areas to be lime treated should be carefully identified in order to avoid treatment of proposed landscaped areas.

The Contractor should conform with the requirements of the storm water pollution prevention plan (SWPPP). In addition, the lime treatment process should comply with all local, state, and federal regulatory requirements.

STUDENT HOUSING PHASE 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

PROJECT NO.: 906270

BID FORM

FOR:

PROJECT NO.: 906270
STUDENT HOUSING PHASE 4: THE SUMMITS

UNIVERSITY OF CALIFORNIA
MERCED CAMPUS, MERCED COUNTY
MERCED, CALIFORNIA

BID TO:

PHYSICAL PLANNING, DESIGN & CONSTRUCTION
UNIVERSITY OF CALIFORNIA, MERCED
767 E. YOSEMITE AVE., SUITE C
MERCED, CALIFORNIA 95340
TELEPHONE: (209) 228-4479

BID FROM:

(Name of Bidder)

(Address)

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

(Telephone Number)

(Date Bid Submitted)

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

1.0 BIDDER'S REPRESENTATIONS

Bidder, represents that a) it, and all Subcontractors, regardless of tier, have the appropriate current and active Contractor's license required by the State of California and the Bidding Documents; b) it has carefully read and examined the Bidding Documents for the proposed Work on this Project; c) it has examined the site of the proposed Work and all Information Available to Bidders; d) it has become familiar with all the conditions related to the proposed Work, including the availability of labor, materials, and equipment. Bidder hereby offers to furnish all labor, materials, equipment, tools, transportation, and services necessary to complete the proposed Work on this Project in accordance with the Contract Documents for the sums quoted. Bidder further agrees that it will not withdraw its Bid within 60 days after the Bid Deadline, and that, if it is selected as the apparent lowest responsive and responsible Bidder, that it will, within 10 days after receipt of notice of selection, sign and deliver to University the Agreement in triplicate and furnish to University all items required by the Bidding Documents. If awarded the Contract, Bidder agrees to schedule and complete the work in accordance with the Master Project Schedule to be developed, maintained and updated by the University's Representative. Bidder agrees to fully comply with the Work within the Contract Time.

2.0 ADDENDA

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

3.0 (NOT USED)

4.0 LUMP SUM BASE BID

\$

--	--

 ,

--	--	--

 ,

--	--	--

 •

--	--

(Place figures in appropriate boxes.)

Bidder includes in the Option Sum – Phase 2, the following allowances:

N/A

5.0 SELECTION OF APPARENT LOW BIDDER

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

6.0 UNIT PRICES – (NOT USED)

7.0 DAILY RATE OF COMPENSATION FOR COMPENSABLE DELAYS

Bidder shall determine and provide below the daily rate of compensation for any Compensable Delay caused by University at any time during the performance of the Work: **(MINIMUM AMOUNT ALLOWED IS \$1.00)**

\$

--	--

 ,

--	--	--

 •

--	--

 X 10 multiplier

(Place figures in appropriate boxes.)

Failure to fill in a dollar figure for the daily rate for Compensable Delay shall render the bid non-responsive.
University will perform the extension of the daily rate times the multiplier.

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

8.0 ALTERNATES (NOT USED)

9.0 LIST OF SUBCONTRACTORS

Bidder will use Subcontractors for the Work: (Yes or No) _____

If yes, provide in the spaces below (a) the name and the location of the place of business of each subcontractor who will perform the work or labor or render service to the prime contractor in or about the construction of the work or improvements, or a subcontractor licensed by the state of California who, under subcontract to the prime contractor, specifically fabricates and installs a portion of the work or improvement according to the detailed drawings contained in the plans and specifications, in an amount in excess of 1/2 of 1 percent to the prime contractor's total bid, (b) the portion of the work which will be done by each subcontractor. The prime contractor shall only list one subcontractor for each such portion as is defined by the prime contractor in its bid.

Work Activity	Subcontractor	
	Name	Location (City)

(Note: Add additional pages if required.)

10.0 LIST OF CHANGES IN SUBCONTRACTORS DUE TO ALTERNATES – N/A

11.0 SCOPE OF WORK

Bidder includes the scope of work as defined in Section 01 21 00.29 - Signage

12.0 BIDDER INFORMATION

TYPE OF ORGANIZATION:

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

If a corporation, corporation is organized under the laws:

STATE OF _____.
(State)

NAME OF PRESIDENT OF THE CORPORATION:

(Insert Name)

NAME OF SECRETARY OF THE CORPORATION:

(Insert Name)

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

PERSONS SIGNING ON BEHALF OF BIDDER:

(Insert Names and Titles)

ALL GENERAL PARTNERS:

(Insert Names)

CALIFORNIA CONTRACTORS LICENSE(S):

(Classification)

(License Number)

(Expiration Date)

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

13.0 REQUIRED COMPLETED ATTACHMENTS

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

1. Bid security in the form of _____.
(Bid Bond or Certified Check)
2. EXHIBIT 1B – DECLARATION OF CONTRACTOR/SUBCONTRACTOR MINIMAL OCCUPATIONAL SAFETY AND HEALTH QUALIFICATIONS

14.0 DECLARATION

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

_____ of _____
(Title) (Name of bidder)

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

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

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

(Signature)

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, hereinafter called THE REGENTS, in the sum of 10% of the Lump Sum Base Bid for payment of which in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT, WHEREAS, Principal has submitted a Bid for the work described as follows:

**BID PACKAGE .29 SIGNAGE
STUDENT HOUSING PHASE 4: THE SUMMITS
PROJECT NO. 906270
UNIVERSITY OF CALIFORNIA, MERCED
MERCED CALIFORNIA**

NOW THEREFORE, if Principal shall not withdraw said Bid within the time period specified after the Bid Deadline, as defined in the Bidding Documents, or within 60 days after the Bid Deadline if no time period be specified, and, if selected as the apparent lowest responsible Bidder, Principal shall, within the time period specified in the Bidding Documents, do the following:

- (1) Enter into a written agreement, in the prescribed form, in accordance with the Bid
- (2) File two bonds with THE REGENTS, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by the Bidding Documents.
- (3) Furnish certificates of insurance and all other items as required by the Bidding Documents.

In the event of the withdrawal of said Bid within the time period specified, or within 60 days if no time period be specified, or the disqualification of said Bid due to failure of Principal to enter into such agreement and furnish such bonds, certificates of insurance, and all other items as required by the Bidding Documents, if Principal shall pay to THE REGENTS an amount equal to the difference, not to exceed the amount hereof, between the amount specified in said Bid and such larger amount for which THE REGENTS procure the required work covered by said Bid, if that latter be in excess of the former, then this obligation shall be null and void, otherwise to remain in full force and effect.

In the event suit is brought upon this bond by THE REGENTS, Surety shall pay reasonable attorneys' fees and costs incurred by THE REGENTS in such suit

IN WITNESS WHEREOF, we have hereunto set our hands this ____ day of _____, 2012.

Principal:	Surety:
_____	_____
(Name of Firm)	(Name of Firm)

By:	By:
_____	_____
Title:	Title:
_____	_____

Address for Notices:

NOTE: The signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing the notarized signature of the appropriate corporate officer must also be included with the Bid Bond. .

AGREEMENT

THIS AGREEMENT is made as of the { } day of { }, 20{ }, between
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (“University”),

whose facility is: University of California
Merced Campus

whose address for notices is: Physical Planning, Design & Construction
University of California
5200 N. Lake Rd.
Merced, California 95343

and Prime Trade Contractor: {Name}

whose address for notices is: {Street Address}
{City, State, Zip}

for the Project: Student Housing Phase 4: The Summits
University of California, Merced
Project No. 906270
University of California
Merced Campus, Merced County
Merced, California

University's Responsible Administrator: Thomas E. Lollini
Associate Vice Chancellor, PPD&C

University's Representative is: Gary Knox

whose address for notices is: Physical Planning, Design & Construction
University of California, Merced
5200 N. Lake Rd.
Merced, California 95343

Contract Documents for the
Work Prepared by: EHDD
500 Treat Avenue
San Francisco, CA 94110

University and Prime Trade Contractor hereby agree as follows:

ARTICLE 1 WORK

Prime Trade Contractor shall provide all work required by the Contract Documents (the "Work"). Prime Trade Contractor agrees to do additional Work arising from changes ordered by the University pursuant to Article 7 of the General Conditions. Prime Trade Contractor shall (1) pay all sales, consumer and other taxes and (2) obtain and pay for any governmental licenses and permits necessary for the work, other than building and utility permits.

ARTICLE 2 CONTRACT DOCUMENTS

"Contract Documents" means the Advertisement For Bids, Instructions To Bidders, Supplementary Instructions to Bidders, Bid Form, this Agreement, General Conditions, Supplementary Conditions, Exhibits, Specifications, List of Drawings, Drawings, Addenda, Notice to Proceed, Change Orders, Contract Amendments, Notice of Completion, and all other documents identified in this Agreement that together form the contract between University and Prime Trade Contractor for the Work (the "Contract"). The Contract constitutes the complete agreement between University and Prime Trade Contractor and supersedes any previous agreements or understandings.

ARTICLE 3 CONTRACT SUM

Subject to the provisions of the Contract Documents, University shall pay to Prime Trade Contractor, for the performance of the Work, \$ _____, the "Contract Sum".

The Contract Sum includes the following Allowances: NONE

The Contract Sum includes the following Alternates accepted by the University: NONE

University reserves the right to accept the following Alternates within 90 days after the date of this Agreement: NONE

Unit prices, if any, are as follows: NONE

ARTICLE 4 CONTRACT TIME

The Contract Time will be the number of days between the date specified for the commencement of work in Notice to Proceed and the calendar date specified in the bidding documents for the completion of the entire Project. However, the Contract Time will be no less than the number of days between the latest date specified for the commencement of the Prime Trade Contract in the Preliminary Master Schedule and the calendar date specified in the bidding documents for the completion of the entire Project and no more than number of days between the earliest date specified for the commencement of the Prime Trade Contract in the Preliminary Master Schedule and the calendar date specified in the bidding documents for the completion of the entire Project.

Prime Trade Contractor shall commence the Work on the date specified in the Notice to Proceed. Prime Trade Contractor shall schedule and execute the Work in accordance with the Master Project Schedule to be developed, maintained and updated by the University Representative. Prime Trade Contractor shall fully complete the Work within Contract Time.

By signing this Agreement, Prime Trade Contractor represents to the University that the Contract Time is reasonable for completion of the work and that Prime Trade Contractor will fully complete the Work within the Contract Time, all in accordance with the Master Project Schedule. Time limits stated in the Contact Documents are of the essence of the Contract.

ARTICLE 5 LIQUIDATED DAMAGES

If Prime Trade Contractor fails to complete the Work within the Contract Time, Prime Trade Contractor shall pay to University, as liquidated damages and not as a penalty, the sum of \$500.00 for each day after the expiration of the Contract Time that the Work remains incomplete. After Substantial Completion, the rate for liquidated damages shall be reduced to the sum of \$250.00 per day. University and Prime Trade Contractor agree that if the Work is not completed within the Contract Time, University's damages would be extremely difficult or impracticable to determine and that the aforesaid amounts are reasonable estimates of and reasonable sums for such damages. University may deduct any liquidated damages due from Prime Trade Contractor from any amounts otherwise due to Prime Trade Contractor under the Contract Documents. This provision shall not limit any right or remedy of University in the event of any other default of Prime Trade Contractor other than failing to complete the Work within the Contract Time.

ARTICLE 6 COMPENSABLE DELAY

If Prime Trade Contractor is entitled to an increase in the Contract Sum as a result of a Compensable Delay, determined pursuant to Articles 7 and 8 of the General Conditions, the Contract Sum will be increased by the sum of \$ {AMOUNT IN FIGURES} per day for each day for which such compensation is payable.

ARTICLE 7 DUE AUTHORIZATION

The person or persons signing this Agreement on behalf of Prime Trade Contractor hereby represent and warrant to University that this Agreement is duly authorized, signed, and delivered by Prime Trade Contractor.

THIS AGREEMENT is entered into by University and CM/Contractor as of the date set forth above.

PRIME TRADE CONTRACTOR:

UNIVERSITY:

The Regents of the University of California

(Name of Firm)

Physical Planning, Design & Construction,
Merced Campus

(Type of Organization)

(Facility)

By:

By:

(Signature)

(Signature)

STUDENT HOUSING PHASE 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA

PROJECT NO.: 906270

(Printed Name)

Thomas E. Lollini

(Printed Name)

(Title)

Associate Vice Chancellor Design & Construction

(Title)

California Contractor's License(s):

(Name of Licensee)

(Classification and License Number)

(Expiration Date)

Employer Identification Number

(EIN NUMBER)

Attach notary acknowledgment for all signatures of Prime Trade Contractor. If signed by other than the sole proprietor, a general partner, or corporate officer attach original notarized Power of Attorney or Corporate Resolution.

GENERAL CONDITIONS

(Multiple Prime Trade Contract – With UCIP Coverage)

TABLE OF CONTENTS

ARTICLE 1 GENERAL PROVISIONS

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

ARTICLE 2 UNIVERSITY

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

ARTICLE 3 PRIME TRADE CONTRACTOR

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

ARTICLE 4 ADMINISTRATION OF THE CONTRACT

- 4.1 Administration of the Contract by University's Representative
- 4.2 Prime Trade Contractor Change Order Requests

- 4.3 Claims
- 4.4 Assertion of Claims
- 4.5 Decision of University's Representative on Claims
- 4.6 Mediation
- 4.7 Arbitration
- 4.8 Waiver

ARTICLE 5 SUBCONTRACTORS

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

ARTICLE 6 CONSTRUCTION BY UNIVERSITY OR BY SEPARATE CONTRACTORS

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

ARTICLE 7 CHANGES IN THE WORK

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

ARTICLE 8 CONTRACT TIME

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

ARTICLE 9 PAYMENTS AND COMPLETION

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

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

- 10.1 Safety Precautions and Programs

- 10.2 Safety of Persons and Property
- 10.3 Emergencies

ARTICLE 11 INSURANCE AND BONDS

- 11.1 University Controlled Insurance Program
- 11.2 Builder's Risk Property Insurance
- 11.3 Performance Bond and Payment Bond

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

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

ARTICLE 13 TERMINATION OR SUSPENSION OF THE CONTRACT

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

ARTICLE 14 STATUTORY AND OTHER REQUIREMENTS

- 14.1 NOT USED
- 14.2 Nondiscrimination
- 14.3 Prevailing Wage Rates
- 14.4 Payroll Records
- 14.5 Apprentices
- 14.6 Work Day

ARTICLE 15 MISCELLANEOUS PROVISIONS

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

ARTICLE 1

GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

1.1.1 APPLICABLE CODE REQUIREMENTS

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

1.1.2 APPLICATION FOR PAYMENT

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

1.1.3 BENEFICIAL OCCUPANCY

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

1.1.4 CERTIFICATE FOR PAYMENT

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

1.1.5 CHANGE ORDER

See Article 7.2 of the General Conditions

1.1.6 CLAIM

See Article 4.3 of the General Conditions.

1.1.7 COMPENSABLE DELAY

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

1.1.8 CONTRACT

The term "Contract" shall have the meaning identified in Article 2 of the Agreement.

1.1.9 CONTRACT DOCUMENTS

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

1.1.10 CONTRACT MILESTONE

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

1.1.11 CONTRACT SUM

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

1.1.12 CONTRACT TIME

The term "Contract Time" means the number of days set forth in the Agreement, as adjusted by Change Order, within which Prime Trade Contractor must achieve full completion of the Work.

1.1.13 COST OF EXTRA WORK

See Article 7.3 of the General Conditions.

1.1.14 DAY

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

1.1.15 DEFECTIVE WORK

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

1.1.16 DRAWINGS

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

1.1.17 EXCUSABLE DELAY

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

1.1.18 EXTRA WORK

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

1.1.19 FIELD ORDER

See Article 7.2 of the General Conditions.

1.1.20 FINAL COMPLETION

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

1.1.21 GUARANTEE TO REPAIR PERIOD

See Article 12.2 of the General Conditions.

1.1.22 MASTER PROJECT SCHEDULE

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

1.1.23 PRIME TRADE CONTRACTOR

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

1.1.24 PRIME TRADE CONTRACTOR FEE

See Article 7.3 of the General Conditions.

1.1.25 PRIME TRADE CONTRACTOR SCHEDULE

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

1.1.26 PROJECT

The term "Project" means the Work of the Contract and all other work, labor, equipment, and materials necessary to accomplish the construction of the improvement of which the Work is a part. The Project will include construction by Separate Contractors.

1.1.27 PROJECT SUBSTANTIAL COMPLETION

The term "Project Substantial Completion" means the stage in the progress of the Project, as determined by University's Representative, when all work of the Project is complete and in accordance with the Contract Documents and Substantial Completion of all Prime Trade Contracts have occurred except only for completion of minor items which do not impair University's ability to occupy and fully utilize all work of the Project for its intended purpose and a Certificate of Occupancy for the Project has been issued by the University's Building Official.

1.1.28 PROJECT TIME

The term "Project Time" means the number of days from the first Notice to Proceed issued to a Prime Trade Contractor to the date for completion of the Project.

1.1.29 SEPARATE CONTRACTOR

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

1.1.30 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

See Article 3.12 of the General Conditions.

1.1.31 SPECIFICATIONS

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

1.1.32 SUBCONTRACTOR

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

1.1.33 SUBSTANTIAL COMPLETION

See Article 9.7 of the General Conditions.

1.1.34 SUPERINTENDENT

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

1.1.35 TIER

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

1.1.36 UNEXCUSABLE DELAY

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

1.1.37 UNILATERAL CHANGE ORDER

See Article 7.2 of the General Conditions.

1.1.38 UNIVERSITY

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

1.1.39 UNIVERSITY BUILDING OFFICIAL

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

1.1.40 UNIVERSITY'S REPRESENTATIVE

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

1.1.41 UNIVERSITY'S RESPONSIBLE ADMINISTRATOR

The term "University's Responsible Administrator" means the person, or his or her authorized designee, who is authorized to sign the Agreement and other applicable contract Documents on behalf of the University.

1.1.42 WORK

The term "Work" means all construction, services, and other requirements of the Contract Documents as modified by Change Order, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided or to be provided by Prime Trade Contractor to fulfill Prime Trade Contractor's obligations. The Work will constitute a part of the Project.

1.2 OWNERSHIP AND USE OF CONTRACT DOCUMENTS

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

1.3 INTERPRETATION

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

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

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

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

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

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

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

ARTICLE 2
UNIVERSITY

2.1 INFORMATION AND SERVICES PROVIDED BY UNIVERSITY

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

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

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

2.2 ACCESS TO PROJECT SITE

2.2.1 University will provide, no later than the earliest start date for the Prime Trade Contractor as shown in the Master Project Schedule, access to the lands and facilities upon which the Work is to be performed, including such access and other lands and facilities designated in the Contract Documents for use by Prime Trade Contractor.

2.3 UNIVERSITY'S RIGHT TO STOP THE WORK

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

2.4 UNIVERSITY'S RIGHT TO CARRY OUT THE WORK

If Prime Trade Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools, and services to maintain the Master Project Schedule, fails to start any activity by its start date as directed by the University Representative which will be no earlier than the early start date nor later than the late start date reflected in the Master Project Schedule, fails to complete any activity by its completion date as directed by the University Representative which will be no earlier than the early completion date nor later than the late completion date as reflected in the Master Project Schedule, or otherwise fails to comply with any material term of the Contract Documents, and, after receipt of written notice from University, fails within 2 days, excluding Saturdays, Sundays and legal holidays, or within such additional time as the University may specify, to correct such failure and thereafter diligently continue to completion, University may, without prejudice to other remedies University may:

- .1 Correct such failure at Prime Trade Contractor's expense. In such case, University will be entitled to deduct from payments then or thereafter due Prime Trade Contractor the cost of correcting such failure, including compensation for the additional services and expenses of University's Representative and University's consultants made necessary thereby. If payments

then or thereafter due Prime Trade Contractor are not sufficient to cover such amounts, Prime Trade Contractor shall pay the additional amount to University.

- .2 Supply additional workers to the Prime Trade Contractor in such quantity and for such period as deemed necessary by the University's Representative, all at the Prime Trade Contractor's expense. In such case, University will be entitled to deduct from payments then or thereafter due Prime Trade Contractor the cost of such additional workers, including compensation for the additional services and expenses of University's Representative and University's consultants made necessary thereby. If payments then or thereafter due Prime Trade Contractor are not sufficient to cover such amounts, Prime Trade Contractor shall pay the additional amount to University.

2.5 UNIVERSITY'S RIGHT TO REPLACE UNIVERSITY'S REPRESENTATIVE

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

2.6 UNIVERSITY'S RIGHT TO ACCELERATE THE WORK

2.6.1 University may direct the acceleration of the Work by Prime Trade Contractor to meet schedule requirements when the Work has been delayed by one or more Separate Contractors and such delay would otherwise give rise to a time extension. The University will compensate the Prime Trade Contractor for the additional costs incurred by such acceleration to the extent that such costs are directly attributable to the acceleration and are incurred through no fault or negligence of the Prime Trade Contractor.

2.6.2 Any acceleration directed by University pursuant to the foregoing provision will be by a Change Order. The University will not be obligated, under any circumstances, to direct such acceleration and may elect, at its option, not to accelerate the Work of the Prime Trade Contractor.

2.6.3 University may accelerate the work of one or more Separate Contractors to meet schedule requirements when the Work of Prime Trade Contractor does not adhere to the Master Project Schedule and said failure to adhere causes, in whole or in part, a delay in the work of such Separate Contractors and if such delay would otherwise give rise to a time extension. The University may reduce the Contract Sum by the amounts incurred due to the acceleration.

ARTICLE 3
PRIME TRADE CONTRACTOR

3.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY PRIME TRADE CONTRACTOR

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

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

3.1.3 If Prime Trade Contractor performs any construction activity which it knows or should know involves an error, inconsistency, or omission referred to in Articles 3.1.1 and 3.1.2 above, without notifying and obtaining the written consent of University's Representative, Prime Trade Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting Defective Work.

3.2 SUPERVISION AND CONSTRUCTION PROCEDURES

3.2.1 Prime Trade Contractor shall supervise, coordinate, and direct the Work using Prime Trade Contractor's best skill and attention. Except as otherwise reserved to the University, Prime Trade Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures, and the coordination of all portions of the Work.

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

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

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

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

3.3 LABOR AND MATERIALS

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

3.4 PRIME TRADE CONTRACTOR'S WARRANTY

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

3.5 TAXES

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

3.6 PERMITS, FEES, AND NOTICES

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

3.7 APPLICABLE CODE REQUIREMENTS

3.7.1 Prime Trade Contractor shall perform the Work in accordance with the following Applicable Code Requirements:

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

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

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

3.7.3 If Prime Trade Contractor performs Work which it knows or should know is contrary to Applicable Code Requirements, without prior notice to University and University's Representative, Prime Trade

Contractor shall be responsible for such Work and any resulting damages including, without limitation, the costs of correcting Defective Work.

3.8 SUPERINTENDENT

3.8.1 Prime Trade Contractor shall employ a competent Superintendent satisfactory to University who shall be in attendance at the Project site at all times during the performance of the Work. Superintendent shall represent Prime Trade Contractor and communications given to and received from Superintendent shall be binding on Prime Trade Contractor.

3.8.2 Failure to maintain a Superintendent on the Project site at all times that Work is in progress shall be considered a material breach of this Contract, entitling University to terminate the Contract or alternatively, issue a stop Work order until the Superintendent is on the Project site. If, by virtue of issuance of said stop Work order, the Project is not completed within the Contract Time, Prime Trade Contractor will be assessed Liquidated Damages in accordance with the Agreement.

3.8.3 The Superintendent approved for the Project must be able to read, write and verbally communicate in English.

3.8.4 The superintendent may not perform the Work of any trade, pick-up materials, or perform any Work not directly related to the supervision and coordination of the Work at the Project site when Work is in progress.

3.9 SCHEDULES REQUIRED OF PRIME TRADE CONTRACTOR

3.9.1 The University's Representative has developed an overall "Preliminary Master Project Schedule" indicating major milestones and construction sequences for the Project, showing the general timing for the work of Prime Trade Contractor. This Preliminary Master Project Schedule is for Bidder information and guidance only, and is not intended to serve as the Master Project Schedule that will be utilized for construction. However, the construction milestones and sequences shall be the basis for the Master Project Schedule, unless the University's Representative modifies them to improve the overall progress and completion by utilizing revised logic and revised schedule.

3.9.2 Using the Prime Trade Contract Schedules submitted by each of the Prime Trade Contractors, the University's Representative will develop and issue the Master Project Schedule showing completion of the Project within the Project Time. University Representative may require additional information from the Prime Trade Contractor during development of the Master Project Schedule.

3.9.3 The University Representative may impose upon the Prime Trade Contractor, in the initial Master Project Schedule, whatever scheduling requirements are deemed appropriate, consistent with the Preliminary Master Project Schedule, and the Prime Trade Contractor shall comply with any such requirements, at no additional cost to University.

3.9.4 The Prime Trade Contractor shall submit updated schedule information to University's Representative within the time limits required by the Specifications and acceptable to University's Representative. The University Representative may, at any time, make reasonable adjustments, at no cost to the University, to the Master Project Schedule so that the Project may be completed within the Contract Time, or if completion within the Contract Time is impracticable, to mitigate damages to the University resulting from late completion of the Project.

3.9.5 The Master Project Schedule shall represent a practical plan to complete the Work so that the entire Project can be fully completed within the Project Time.

3.9.6 The Prime Trade Contractor shall prepare and keep current, to the satisfaction of University's Representative, a Submittal Schedule, in the form contained in the Exhibits, for each submittal, as required by the Specifications, and that are coordinated with the other activities in the Master Project Schedule.

3.9.7 Prime Trade Contractor shall plan, develop, supervise, control, and coordinate the performance of the Work so that its progress and the sequence and timing of Work activities conform to the current Master Project Schedule. Prime Trade Contractor shall continuously obtain from Subcontractors updated information and data about the planning for and progress of the Work and the delivery of equipment, shall coordinate, and monitor the progress of the Work and the delivery of equipment. Prime Trade Contractor shall act as the expeditor of potential and actual delays, interruptions, hindrances, or disruptions for its own forces and those forces of Subcontractors, regardless of tier. Prime Trade Contractor shall cooperate with University's Representative in the development of the Prime Trade Contract Schedule, the Master Project Schedule, and their updates.

University's Representative's acceptance of or its review comments about Prime Trade Contractor Schedule or scheduling data provided by Prime Trade Contractor shall not relieve Prime Trade Contractor of its sole responsibility to plan for, perform, and fully complete its Work within the Contract Time. Acceptance of or review comments about the Prime Trade Contractor Schedule shall not imply the University's agreement with (1) any assumption upon which such Prime Trade Contractor Schedule is based, or (2) any matter underlying or contained in such Prime Trade Contractor Schedule.

Failure of University's Representative to discover errors or omissions in the Prime Trade Contractor Schedules that it has reviewed, or to inform Prime Trade Contractor that Prime Trade Contractor is behind schedule, or to direct or enforce procedures for complying with the Master Project Schedule shall not relieve Prime Trade Contractor from its sole responsibility to perform and complete the Work and shall not be a cause for an adjustment of the Contract Time or the Contract Sum.

3.9.8 The Work may require performance in several areas of the project simultaneously in order to fully complete the Project within the Project Time. As each area becomes available, Prime Trade Contractor shall begin work in those respective areas with additional crews if necessary to avoid a reduction of effort in other areas already under construction.

3.9.9 Subject to University's rights under the Prime Trade Contract or at law, time is of the essence in the Prime Trade Contractor's performance of this Contract. Prime Trade Contractor agrees to promptly commence work when directed by University's Representative.

3.9.10 In addition to any completion dates required under the Prime Trade Contract, the Prime Trade Contractor agrees to perform the work in accordance with University's Representative's Master Project Schedule, including all subsequent modifications to the Master Project Schedule by University's Representative. Prime Trade Contractor agrees to perform the work in a way that will not delay University, University's Representative, or the progress of the Project, all at Prime Trade Contractor's cost and without additional cost or liability to University.

3.9.11 If, at any time during Prime Trade Contractor's performance of the work, the actual progress of the Prime Trade Contractor's Work falls behind the Master Project Schedule, then Prime Trade Contractor agrees to immediately take any steps necessary per University's Representative's sole discretion to improve progress in the Work or the Project. All these steps will be taken at Prime Trade Contractor's cost and without additional cost or liability to the University. If for any reason the Prime Trade Contractor's progress is not in accord with University's Representative's current Master Project Schedule, including remedial schedules, or any dates or intervals required elsewhere by the Prime Trade Contract, University's Representative may require Prime Trade Contractor to increase its labor force, its supervision force, the number of work shifts, overtime, work on weekends and holidays, the equipment on the Project, revise or modify its construction procedures and sequences and any other measures which University's Representative considers necessary, all without

additional cost or liability to University. Neither notice by University's Representative nor the failure to issue notice that Prime Trade Contractor's progress is inadequate shall relieve Prime Trade Contractor from its obligation to achieve the quality of work and rate of progress required by University's Representative.

If University incurs expense or loss or it appears that University may sustain expense or loss due to Prime Trade Contractor's failure to comply with the above provisions, University or University's Representative may either deduct that amount from any progress payment or retention payable to Prime Trade Contractor and/or delay payment of any sums otherwise owing to Prime Trade Contractor until the situation is remedied or adjusted to University's or University's Representative's satisfaction.

3.9.12 The University Representative will schedule and coordinate the activities of the Prime Trade Contractor in accordance with the latest approved Master Project Schedule. The Prime Trade Contractor shall cooperate with the University Representative in the reasonable determinations of scheduling and performing the Prime Trade Contractor's work to avoid conflict, delay in or interference with the Work or other Prime Trade Contractors, or Separate Contractors, regardless of their float shown on the Master Project Schedule.

3.9.13 University's Representative may, at any time, update, supplement or revise its Master Project Schedule and/or require Prime Trade Contractor to suspend, delay or re-sequence its work. Such updates, supplements, revisions, suspensions, delays or re-sequencing shall be without additional cost or liability to University except to the extent they result in Prime Trade Contractor working beyond the Contract Time, through no fault of the Prime Trade Contractor. To the extent such updates, supplements, revisions, suspensions, delays or re-sequencing result in Prime Trade Contractor working beyond the Contract Time, through no fault of the Prime Trade Contractor, the Prime Trade Contract shall be subject to adjustment provided the Prime Trade Contractor complies with the requirements of the Prime Trade Contract for seeking an adjustment, including without limitation, the requirements set forth in Articles 4, 7 and 8 of the General Conditions. Notwithstanding the foregoing, the University may elect to accelerate the work of one or more Separate Contractors to reduce or eliminate the delay and require the Prime Trade Contractor to complete its Work within the Contract Time.

3.10 AS-BUILT DOCUMENTS

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

3.11 DOCUMENTS AND SAMPLES AT PROJECT SITE

3.11.1 Prime Trade Contractor shall maintain the following at the Project site:

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

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

3.12 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

3.12.1 Definitions:

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

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

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

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

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

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

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

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

3.13 USE OF SITE AND CLEAN UP

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

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

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

3.14 CUTTING, FITTING, AND PATCHING

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

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

3.15 ACCESS TO WORK

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

3.16 ROYALTIES AND PATENTS

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

3.17 DIFFERING SITE CONDITIONS

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

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

3.17.2 Prime Trade Contractor shall be entitled to an adjustment to the Contract Sum and/or Contract Time

as the result of extra costs and/or delays resulting from a materially differing site condition, if and only if Prime Trade Contractor fulfills the following conditions:

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

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

3.18 CONCEALED, UNFORESEEN, OR UNKNOWN CONDITIONS OR EVENTS

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

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

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

3.18.2 If Prime Trade Contractor encounters concealed or unknown conditions that differ materially from those anticipated or expected, Prime Trade Contractor shall immediately notify University's Representative in writing such that University's Representative can determine if such conditions require design details which differ from those design details shown in the Contract Documents. Prime Trade Contractor shall be liable to University for any extra costs incurred as the result of Prime Trade Contractor's failure to immediately give such notice.

3.18.3 If concealed or unknown conditions are encountered which require, in the opinion of University's Representative, design details which differ from those design details shown in the Contract Documents and the University's Representative finds that such revised design details will cause an increase or decrease in the cost of, or the time required for performance of the Contract, and if University agrees with the University's Representative's determinations, University will issue a Change Order modifying the Contract Terms to provide for the change in design details and to provide for an adjustment in the Contract Sum and/or Contract Time pursuant to Articles 7 and 8 of the General Conditions.

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

3.19 INFORMATION AVAILABLE TO BIDDERS

3.19.1 Any information provided pursuant to INFORMATION AVAILABLE TO BIDDERS is subject to the following provisions:

- .1 The information is made available for the convenience of Bidders and is not a part of the Contract.

- .2 The Prime Trade Contractor may rely on written descriptions of physical conditions included in the information to the extent such reliance is reasonable.
- .3 Other components of the information, including but not limited to recommendations, may not be relied upon by Prime Trade Contractor. University shall not be responsible for any interpretation of or conclusion drawn from the other components of the information by the Prime Trade Contractor.

3.20 LIABILITY FOR AND REPAIR OF DAMAGED WORK

3.20.1 Prime Trade Contractor shall be liable for any and all damages and losses to the Project (whether by fire, theft, vandalism, earthquake, flood or otherwise) prior to University's acceptance of the Project as fully completed except that Prime Trade Contractor shall not be liable for:

- .1 Losses covered by the builder's risk property insurance provided by University pursuant to Article 11 of the General Conditions, except that the Prime Trade Contractor shall be liable for any deductible(s) and any amounts exceeding policy limits.
- .2 Earthquake, tidal wave, or flood, provided that the loss was not caused in whole or in part by the negligent acts or omissions of Prime Trade Contractor, its officers, agents or employees (including all Subcontractors and suppliers of all tiers). As used herein, "flood" shall have the same meaning as in the builder's risk property insurance.

3.20.2 Prime Trade Contractor shall promptly repair and replace any Work or materials damaged or destroyed for which the Prime Trade Contractor is liable under Article 3.20.1 above.

3.21 INDEMNIFICATION

3.21.1 Prime Trade Contractor shall Indemnify University, University's consultants, University's Representative, University's Representative's consultants, and their respective directors, officers, agents, and employees from and against losses arising out of, resulting from, or relating to the following:

- .1 The failure of Prime Trade Contractor to perform its obligations under the Contract.
- .2 The inaccuracy of any representation or warranty by Prime Trade Contractor given in accordance with or contained in the Contract Documents.
- .3 Any claim of damage or loss by any Subcontractor or Separate Contractor against University arising out of any alleged act or omission of Prime Trade Contractor or any other Subcontractor, or anyone directly or indirectly employed by Prime Trade Contractor or any Subcontractor.

3.21.2 The University shall not be liable or responsible for any accidents, loss, injury (including death) or damages happening or accruing during the term of the performance of the Work herein referred to or in connection therewith, to persons and/or property, and Prime Trade Contractor shall fully indemnify, defend and hold harmless University and protect University from and against the same. In addition to the liability imposed by law upon the Prime Trade Contractor for damage or injury (including death) to persons or property by reason of the negligence of the Prime Trade Contractor, its officers, agents, employees or Subcontractors, which liability is not impaired or otherwise affected hereby, the Prime Trade Contractor shall defend, indemnify, hold harmless, release and forever discharge the University, its officers, employees, and agents from and against and waive any and all responsibility of same for every expense, liability, or payment by reason of any damage or injury (including death) to persons or property suffered or claimed to have been suffered through any negligent act, omission, or willful misconduct of the Prime Trade Contractor, its officers, agents, employees, or any of its Subcontractors, or anyone directly or indirectly employed by either of them or from the condition of the premises or any part of the premises while in control of the Prime Trade Contractor, its officers, agents, employees, or any of its Subcontractors or anyone directly or indirectly employed by either of them, arising out of the performance of the Work called for by this Contract. Prime

Trade Contractor agrees that this indemnity and hold harmless shall apply even in the event of negligence of University, its officers, agents, or employees, regardless of whether such negligence is contributory to any claim, demand, loss, damage, injury, expense, and/or liability; but such indemnity and hold harmless shall not apply in the event of the sole negligence of University, its officers, agents, or employees.

3.21.3 In claims against any person or entity indemnified under this Article 3.21 that are made by an employee of Prime Trade Contractor or any Subcontractor, a person indirectly employed by Prime Trade Contractor or any Subcontractor, or anyone for whose acts Prime Trade Contractor or any Subcontractor may be liable, the indemnification obligation under this Article 3.21 shall not be limited by any limitation on amount or type of damages, compensation, or benefits payable by or for Prime Trade Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

3.21.4 The indemnification obligations under this Article 3.21 shall not be limited by any assertion or finding that the person or entity indemnified is liable by reason of a non-delegable duty.

3.21.5 Prime Trade Contractor shall Indemnify University from and against Losses resulting from any claim of damage made by any Separate Contractor against University arising out of any alleged acts or omissions of Prime Trade Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

3.21.6 Prime Trade Contractor shall Indemnify Separate Contractors from and against Losses arising out of the negligent acts, omissions, or willful misconduct of Prime Trade Contractor, any Subcontractor, anyone directly or indirectly employed by either of them, or anyone for whose acts either of them may be liable.

ARTICLE 4
ADMINISTRATION OF THE CONTRACT

4.1 ADMINISTRATION OF THE CONTRACT BY UNIVERSITY'S REPRESENTATIVE

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

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

4.1.3 Except as otherwise reserved to the University, University's Representative will not have control over, will not be in charge of, and will not be responsible for construction means, methods, techniques, sequences, coordination or procedures, or for safety precautions and programs in connection with the Work, since these are solely Prime Trade Contractor's responsibility.

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

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

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

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

4.1.8 University's Representative will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of performance thereunder by Prime Trade Contractor. Should Prime Trade Contractor discover any conflicts, omissions, or errors in the Contract Documents; have any

questions about the interpretation or clarification of the Contract Documents; question whether Work is within the scope of the Contract Documents; or question that Work required is not sufficiently detailed or explained, then, before proceeding with the Work affected, Prime Trade Contractor shall notify University's Representative in writing and request interpretation, clarification, or furnishing of additional detailed instructions. University's Representative's response to questions and requests for interpretations, clarifications, instructions, or decisions will be made with reasonable promptness. Should Prime Trade Contractor proceed with the Work affected before receipt of a response from University's Representative, any portion of the Work which is not done in accordance with University's Representative's interpretations, clarifications, instructions, or decisions shall be removed or replaced and Prime Trade Contractor shall be responsible for all resultant losses.

4.2 PRIME TRADE CONTRACTOR CHANGE ORDER REQUESTS

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

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

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

4.2.3 Change Order Request:

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

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

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

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

- .1 If Prime Trade Contractor seeks an adjustment of the Contract Sum or other monetary relief, actual cost records for any changed or extra costs (including without limitation, payroll records, material and rental invoices and the like), shall be submitted by the deadline established by the University's Representative, who may require such actual cost records to be submitted and

reviewed, on a daily basis, by the University's Representative and/or representatives of the University's Representative.

- .2 If Prime Trade Contractor seeks an adjustment of the Contract Time, written documentation demonstrating Prime Trade Contractor's entitlement to a time extension under Article 8.4 of the General Conditions, which shall be submitted within 15 days of the date requested.
- .3 If Prime Trade Contractor seeks an adjustment of the Contract Sum or other monetary relief for delay, written documentation demonstrating Prime Trade Contractor's entitlement to such an adjustment under Article 7.3.9 of the General Conditions, which shall be submitted within 15 days of the date requested.
- .4 Any other information requested by the University's Representative for the purpose of evaluating the Change Order Request, which shall be submitted by the deadline established by the University's Representative.

4.2.4 University's Representative will make a decision on a Change Order Request, within a reasonable time, after receipt of a Change Order Request. A final decision is any decision on a Change Order Request which states that it is final. If University's Representative issues a final decision denying a Change Order Request in whole or in part, the Prime Trade Contractor may contest the decision by filing a timely Claim under the procedures specified in Article 4.3 below.

4.2.5 Prime Trade Contractor may file a written demand for a final decision by University's Representative on all or part of any Change Order Request as to which the University's Representative has not previously issued a final decision pursuant to Article 4.2.4 above; such written demand may not be made earlier than the 30th day after submission of the Change Order Request. Within 30 days of receipt of the demand, University's Representative will issue a final decision on the Change Order Request. The University's Representative's failure to issue a decision within the 30-day period shall be treated as the issuance, on the last day of the 30-day period, of a final decision to deny the Change Order Request in its entirety.

4.3 CLAIMS

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

- .1 Claims respecting penalties for forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine.
- .2 Claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from liability for personal injury or death.
- .3 Claims by University, except as set forth in Article 4.7.4 of the General Conditions.
- .4 Claims respecting stop notices.

4.3.2 A Claim arises upon the issuance of a written final decision denying in whole or in part Prime Trade Contractor's Change Order Request pursuant to Article 4.2.4 above.

4.3.3 A Claim must include the following:

- .1 A statement that it is a Claim and a request for a decision pursuant to Article 4.5 of the General Conditions.

- .2 A detailed factual narrative of events fully describing the nature and circumstances giving rise to the Claim, including but not limited to, necessary dates, locations, and items of work affected.
- .3 A certification executed by Prime Trade Contractor, that the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified.
- .4 A certification, executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim, that the subcontractor's portion of the claim is filed in good faith. The certification must be made on the Claim Certification form, included in the Exhibits to the Contract. The language of the Claim Certification form may not be modified. Exhibit.
- .5 A statement demonstrating that a Change Order Request was timely submitted as required by Article 4.2.3 above.
- .6 If a Cost Proposal or declaration was required by Article 4.2.3, a statement demonstrating that the Cost Proposal or the declaration was timely submitted as required by Article 4.2.3.
- .7 A detailed justification for any remedy or relief sought by the Claim, including to the extent applicable, the following:
 - .1 If the Claim involves Extra Work, a detailed cost breakdown of the amounts claimed, including the items specified in Article 7.3.2 of the General Conditions. The cost breakdown must be provided even if the costs claimed have not been incurred when the Claim is submitted. To the extent costs have been incurred when the Claim is submitted, the Claim must include actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that costs claimed have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once a week during any periods costs are incurred. A cost record will be considered current if submitted within 7 days of the date the cost reflected in the record is incurred. At the request of the University's Representative, claimed extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged Extra Work on a daily basis). The cost breakdown must include an itemization of costs for i) labor including names, classifications, regular hours and overtime hours worked, dates worked, and other pertinent information; ii) materials stored or incorporated in the work including invoices, purchase orders, location of materials either stored or incorporated into the work, dates materials were transported to the project or incorporated into the work, and other pertinent information; and iii) itemization of machinery and equipment including make, model, serial number, hours of use, dates of use and equipment rental rates of any rented equipment Contract.
 - .2 If the Claim involves an extension of the Contract Time, written documentation demonstrating the Prime Trade Contractor's entitlement to a time extension under Article 8.4 of the General Conditions, including the specific dates for which a time extension is sought and the specific reasons for entitlement of a time extension. The Master Project Schedule must demonstrate Prime Trade Contractor's entitlement to an adjustment of Contract Time under Article 8.4.
 - .3 If the Claim involves an adjustment of the Contract Sum for delay, written documentation demonstrating the Prime Trade Contractor's entitlement to such an adjustment under Article 7.3.9 of the General Conditions, including but not limited to, a detailed time impact analysis of the Master Project Schedule. The Master Project Schedule must demonstrate Prime Trade Contractor's entitlement to such an adjustment under Article 7.3.9.

4.4 ASSERTION OF CLAIMS

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

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

4.4.3 Prime Trade Contractor shall submit a Claim in writing, together with the supporting data specified in Article 4.3.3 above, to University's Representative as soon as possible but not later than 30 days after the date the claim arises under Article 4.3.2 above.

4.4.4 Strict compliance with the requirements of Articles 4.2, 4.3, and 4.4 of the General Conditions are conditions precedent to Prime Trade Contractor's right to arbitrate or litigate a Claim. Prime Trade Contractor specifically agrees to assert no Claims in arbitration or litigation unless there has been strict compliance with Articles 4.2, 4.3, and 4.4. The failure of Prime Trade Contractor to strictly comply with the requirements of Articles 4.2, 4.3 and 4.4 constitutes a failure by Prime Trade Contractor to exhaust its administrative remedies with the University, thereby denying any court or arbitration panel of jurisdiction to adjudicate the Claim.

4.5 DECISION OF UNIVERSITY'S REPRESENTATIVE ON CLAIMS

4.5.1 University's Representative will timely review Claims submitted by Prime Trade Contractor. If University's Representative determines that additional supporting data are necessary to fully evaluate a Claim, University's Representative will request such additional supporting data in writing. Such data shall be furnished no later than 10 days after the date of such request. University's Representative will render a decision promptly and in any case within 30 days after the later of the receipt of the Claim or the deadline for furnishing such additional supporting data; provided that, if the amount of the Claim is in excess of \$50,000, the aforesaid 30-day period shall be 60 days. Failure of University's Representative to render a decision by the applicable deadline will be deemed a decision denying the Claim on the date of the deadline. The decision of University's Representative will be final and binding unless appealed in accordance with Articles 4.5.2, 4.5.3, and 4.5.4 below.

The University's Representative's decision on a Claim or dispute will include a statement substantially as follows:

"This is a decision under Article 4.5 of the General Conditions of your contract. If you are dissatisfied with the decision, and if you complied with the procedural requirements for asserting claims specified in Article 4 of the General Conditions of your contract, you may have the right to arbitrate or litigate this decision. If you fail to take appropriate action within 30 days of the date of this decision, the decision shall become final and binding and not subject to further appeal."

4.5.2 If either Prime Trade Contractor or University disputes University's Representative's decision on a Claim, such party (the "Disputing Party") must either provide written notice of its election to arbitrate or provide written notice of its election to litigate the Claim within 30 days after the decision of University's Representative or, if no decision has been issued, within 30 days from the date of the applicable deadline in Article 4.5.1 above for University Representative to render a decision.

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

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

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

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

4.6 MEDIATION

4.6.1 The parties may agree to mediate any controversy or Claim arising out of or relating to this Contract.

4.7 ARBITRATION

4.7.1 A demand for arbitration pursuant to Article 4.5 above shall include a copy of the Claim presented to University's Representative pursuant to Article 4.4 above and a copy of the decision of University's Representative pursuant to Article 4.5, if any. The demand shall state the amount in controversy, if any, and state the remedy sought. The demand shall identify the University's Responsible Administrator as the representative of the responding party and the Office of the General Counsel as counsel for the responding party. The demand shall be filed with the AAA and shall not be deemed to have been made until all applicable fees have been paid to the AAA by the demanding party. Copies of the demand and attachments shall be sent to University's Responsible Administrator as the representative of the responding party and the University's Office of General Counsel as attorney for the responding party, at the addresses set forth in the Project Directory, at the time the demand for arbitration is initiated with the AAA.

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

- .1 Civil discovery shall be permitted for the production of documents and taking of depositions. Other discovery may be permitted in the discretion of the arbitrator. All disputes regarding discovery shall be decided by the arbitrator.
- .2 University's Representative and/or University's consultants, shall if required by agreement with University, upon demand by University join in and be bound by the Arbitration. University's Representative and University's consultants will have the same rights in any arbitration proceeding as are afforded by the AAA rules to Prime Trade Contractor and University.
- .3 Prime Trade Contractor's sureties shall be bound by any arbitration award and may join in any arbitration proceeding.
- .4 Except as provided in Articles 4.7.2.2. and 4.7.2.3 above, no Subcontractor or other person shall have a right or obligation to join in or be a party to any arbitration proceeding provided for in this Article 4 either directly, by joinder, by consolidation or actions, by counterclaim or cross claim, or otherwise without the express written consent of University, Prime Trade Contractor, and the joining party.
- .5 If more than one demand for arbitration is made by a party with respect to Claims referred to University's Representative, all such Claims shall be consolidated into a single arbitration unless the parties otherwise agree in writing.
- .6 If total Claims are less than \$50,000, AAA expedited procedures as modified by this Article 4 shall apply. If total Claims are between \$50,000 and \$100,000 they shall be heard by a single arbitrator who shall be an attorney. If total Claims are in excess of \$100,000 and are submitted to arbitration, either by agreement or by failure to elect litigation the controversy shall be heard by a panel of three arbitrators, one of which shall be an attorney.
- .7 No arbitrator shall be appointed and no discovery may be commenced prior to the date of Final Completion unless University and Prime Trade Contractor otherwise agree.
- .8 The exclusive forum for determining arbitrability shall be the Superior Court of the State of California. AAA shall not submit to any arbitrator any matter concerning the arbitrability of the dispute if the arbitrability is contested.
- .9 If the expedited procedures of the AAA are applicable, the AAA shall submit simultaneously to each party an identical list of 7 proposed arbitrators drawn from the National Panel of Commercial Arbitrators, and each party may strike 3 names from the list on a peremptory basis and return the list to AAA within 10 days from the date of receipt.
- .10 Except as provided herein, the arbitration shall be conducted and enforced under California law, including the California Arbitration Act (California Code of Civil Procedure section 1280 and following). The Federal Arbitration Act shall not apply to the arbitration.

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

4.7.4 University may, but is not required, to assert as a counterclaim any matter arising out of the claims asserted by Prime Trade Contractor in the arbitration. University's failure to assert any such counterclaim in

an arbitration shall be without prejudice to the University's right to assert the counterclaim in litigation or other proceeding.

4.8 WAIVER

4.8.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 4, including without limitation the requirements in Articles 4.2, 4.3, 4.4, and 4.5 of the General Conditions in connection with any Claim shall not constitute a waiver of, and shall not preclude the University or University's Representative from enforcing such requirements in connection with any other Claims.

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

ARTICLE 5
SUBCONTRACTORS

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

5.1.1 Unless otherwise stated in the Contract Documents, Prime Trade Contractor shall submit in writing, prior to entering into subcontract agreements, the names and addresses of all Subcontractors proposed for the Work that were not previously listed in Prime Trade Contractor's Bid.

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

5.1.3 In accordance with the Subletting and Subcontracting Fair Practices Act, nothing herein shall be deemed to entitle Prime Trade Contractor, without the approval of University, to substitute other subcontractors for those named in Prime Trade Contractor's List of Subcontractors and List of Changes in Subcontractors Due to Alternates contained in the completed Bid Form; and, except with such approval, no such substitution shall be made.

5.1.4 Except as hereinafter provided, any increase in the cost of the Work resulting from the replacement or substitution of a Subcontractor, as required by University or University's Representative pursuant to Article 5.1.1 above shall be borne solely by Prime Trade Contractor and Prime Trade Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time on account of such replacement or substitution.

5.2 SUBCONTRACTUAL RELATIONS

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

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

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

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

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

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

ARTICLE 6

CONSTRUCTION BY UNIVERSITY OR BY SEPARATE CONTRACTORS

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

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

6.1.2 University will provide coordination of the activities of University's forces and of each Separate Contractor with the Work of Prime Trade Contractor. Prime Trade Contractor shall participate with University and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so.

6.1.3 The Project, of which this Contract is a part, will include other contracts for work to be performed and work to be performed by the University on the same site. By entering into this Contract, Prime Trade Contractor acknowledges that University has the right to enter into such other contracts and to perform work, and that the work of said contracts and University may (i) be in close proximity to and/or performed contemporaneously with the work of this Contract, and (ii) result in delays in or disruptions to Prime Trade Contractor's Work. Prime Trade Contractor further agrees as follows:

- .1 The University shall afford Prime Trade Contractor, Separate Contractors or University forces reasonable opportunity for the introduction and storage of their materials and the execution of their work. Prime Trade Contractor shall properly connect and coordinate its construction and operations with the construction and operations of Separate Contractors and University forces, as required by the Contract Documents.
- .2 Prime Trade Contractor shall cooperate with Separate Contractors and University on the project site and will do nothing to delay, hinder, disrupt, or interfere with the work of Separate Contractors, or University. Prime Trade Contractor shall coordinate its work with the work of any Separate Contractor and agrees to attend any coordination meetings scheduled for this purpose by the University Representative. Any dispute between the Prime Trade Contractor and any Separate Contractor over how the work of the various trades should be coordinated, shall be promptly submitted by Prime Trade Contractor to the University Representative. Prime Trade Contractor agrees to cooperate with the development of, and to be bound by, any reasonable coordination plan directed by University Representative to address the dispute, even if Prime Trade Contractor does not agree with the coordination plan so developed. Prime Trade Contractor agrees that if its work is delayed, hindered, disrupted or interfered with by a Separate Contractor to the extent such delays, hindrances, disruptions, and interferences result in Prime Trade Contractor working beyond the Contract Time, through no fault of the Prime Trade Contractor, the Prime Trade Contract shall be subject to a time extension, but no compensation from the University, provided the Prime Trade Contractor complies with the requirements of the Prime Trade Contract for seeking a time extension, including without limitation, the requirements set forth in Articles 4, 7 and 8 of the General Conditions.
- .3 Prime Trade Contractor agrees that its sole remedy for damage or loss, including delay damages, suffered as a result of actions by a Separate Contractor, other than that specified in Article 6.1.3.2 above, shall be against such Separate Contractor, their officers, agents, employees, consultants, subcontractors and, if available, surety bonds. Prime Trade Contractor further agrees to indemnify University, University Representative, their officers, agents, employees, consultants, or subcontractors for any damage or loss by a Separate Contractor

allegedly caused by with the work of the Prime Trade Contractor or Separate Contractor except as provided in Article 6.1.3.2 above.

6.2 MUTUAL RESPONSIBILITY

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

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

6.3 UNIVERSITY'S RIGHT TO CLEAN UP

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

ARTICLE 7
CHANGES IN THE WORK

7.1 CHANGES

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

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

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

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

7.2 DEFINITIONS

7.2.1 A Change Order is a Contract Document (as shown in the Exhibits) which has been signed by both University and Prime Trade Contractor, and states their agreement upon all of the following:

- .1 A change in the Work, if any.
- .2 The amount of an adjustment of the Contract Sum, if any.
- .3 The amount of an adjustment of the Contract Time, if any.
- .4 A modification to any other Contract term or condition.

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

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

7.3 CHANGE ORDER PROCEDURES

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

- .1 The obligation of Prime Trade Contractor to provide Cost Proposals is not Extra Work, and shall not entitle the Prime Trade Contractor to an adjustment of the Contract Sum or Contract Time.
- .2 The failure of Prime Trade Contractor to timely provide a Cost Proposal pursuant to Article 4.2 and this Article 7.3.1 is a material breach of the Contract. Prime Trade Contractor shall be

responsible for any delay in implementing a change for which Prime Trade Contractor failed to timely provide a Cost Proposal consistent with the requirements of Article 4.2 and this Article 7.3.1.

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

- .1 Straight-time wages or salaries for employees employed at the Project site, or at fabrication sites off the Project site, in the direct performance of the Extra Work.
- .2 Fringe Benefits and Payroll Taxes for employees employed at the Project site, or at fabrication sites off the Project site, in the direct performance of the Extra Work.
- .3 Overtime wages or salaries, specifically authorized in writing by University's Representative, for employees employed at the Project site, or at fabrication sites off the Project site, in the direct performance of the Extra Work.
- .4 Fringe Benefits and Payroll Taxes for overtime Work specifically authorized in writing by University's Representative, for employees employed at the Project site, or at fabrication sites off the Project site, in the direct performance of the Extra Work.
- .5 Costs of materials and consumable items which are furnished and incorporated into the Extra Work, as approved by University's Representative. Such costs shall be charged at the lowest price available to the Prime Trade Contractor but in no event shall such costs exceed competitive costs obtainable from other subcontractors, suppliers, manufacturers, and distributors in the area of the Project site. All discounts, rebates, and refunds and all returns from sale of surplus materials and consumable items shall accrue to University and Prime Trade Contractor shall make provisions so that they may be obtained.
- .6 Sales taxes on the costs of materials and consumable items which are incorporated into and used in the performance of the Extra Work pursuant to Article 7.3.2.5 above.
- .7 Rental charges for necessary machinery and equipment, whether owned or hired, as authorized in writing by University's Representative, exclusive of hand tools, used directly in the performance of the Extra Work. Such rental charges shall not exceed the current Equipment Rental Rates published by the California Department of Transportation for the area in which the work is performed. Such rental rates are found at <http://www.dot.ca.gov/hq/construc/equipmnt.html> . Prime Trade Contractor shall attach a copy of said schedule to the Cost Proposal. The charges for any machinery and equipment shall cease when the use thereof is no longer necessary for the Extra Work.
- .8 Additional costs of royalties and permits due to the performance of the Extra Work.
- .9 The cost for Insurance and Bonds shall not exceed 0.75% of items .1 through .8 above.

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

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

- .1 Superintendent(s)
- .2 Assistant Superintendent(s)

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

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

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

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

- .1 Where the Work involved is covered by Unit Prices contained in the Contract Documents, by application of the Unit prices stated in the Contract Documents to the quantities of the items involved.
- .2 Where Unit Prices are not applicable, a mutually agreed upon lump sum supported by a Cost Proposal pursuant to 7.3.1.
- .3 Where Prime Trade Contractor and University cannot agree upon a lump sum, by Cost of Extra Work plus Prime Trade Contractor Fee applicable to such Extra Work.

7.3.6 As a condition to Prime Trade Contractor's right to an adjustment of the Contract Sum, pursuant to Article 7.3.5.3 above, Prime Trade Contractor must keep daily detailed and accurate records itemizing each element of cost and shall provide substantiating records and documentation, including time cards and

invoices. Such records and documentation shall be submitted to and approved by University's Representative on a daily basis.

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

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

7.3.8 If any one Change involves both Extra Work and Deleted Work in the same portion of the Work, a Prime Trade Contractor fee will not be allowed if the deductive cost exceeds the additive cost. If the additive cost exceeds the deductive cost, a Prime Trade Contractor Fee will be allowed only on the difference between the two amounts.

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

- .1 Condition Number One: The delay results in an extension of the Contract Time pursuant to Article 8.4.1 of the General Conditions.
- .2 Condition Number Two: The delay is caused solely by one or more of the following:
 - .1 An error or omission in the Contract Documents; or
 - .2 The University's decision to change the scope of the Work, where such decision is not the result of any default or misconduct of the Prime Trade Contractor; or
 - .3 The University's decision to suspend the Work, where such decision is not the result of any default or misconduct of the Prime Trade Contractor; or
 - .4 The failure of the University or the University's Representative to timely perform any contract obligation where the failure to so perform is not the result of any default or misconduct of the Prime Trade Contractor; or
 - .5 A materially differing site condition pursuant to Article 3.17 of the General Conditions.
- .3 Condition Number Three: The delay is not concurrent with a delay that is:
 - .1 Critical under Article 8.4.1.2 of the General Conditions; and
 - .2 Caused by an event not listed in Article 7.3.9.2 above.
- .4 Condition Number Four: The delay is not caused, in whole or in part, by an event not listed in Article 7.3.9.2 above.
- .5 Condition Number Five: The delay is not caused, in whole or in part, by the default or misconduct of a Separate Contractor.

7.3.10 For each day of delay that meets all five conditions prescribed in above 7.3.9 the Contract Sum will be adjusted by the daily rate included in the Agreement and specifically identified as the rate to be paid to Prime Trade Contractor for Compensable Delays. Pursuant to Article 9.7.4 of the General Conditions, said daily rate shall not apply to delays occurring after Substantial Completion.

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

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

7.4 FIELD ORDERS

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

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

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

7.5 VARIATION IN QUANTITY OF UNIT PRICE WORK

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

7.6 WAIVER

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

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

ARTICLE 8
CONTRACT TIME

8.1 COMMENCEMENT OF THE WORK

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

8.2 PROGRESS AND COMPLETION

8.2.1 By signing the Agreement:

- .1 Prime Trade Contractor represents to University that the Contract Time is reasonable for performing the Work and that Prime Trade Contractor is able to perform the Work within the Contract Time.
- .2 Prime Trade Contractor represents to the University that the time for completion of the Project as shown in the Preliminary Master Project Schedule is reasonable.
- .3 Prime Trade Contractor agrees that University is purchasing the right to have the Prime Trade Contractor fully mobilized on the site from the earliest date for commencement of the Work shown on the Preliminary Master Project Schedule to the date shown for full completion of the Project as shown in the bidding documents.
- .4 Prime Trade Contractor agrees that the University is purchasing the right to have Prime Trade Contractor work on the Project site shared by the Prime Trade Contractor and Separate Contractors. Prime Trade Contractor recognizes that as a result of working at a shared Project site there will be a loss of productivity and disruption commensurate with a project of the type, size and complexity of the Project. Prime Trade Contractor agrees that the Contract Sum includes full compensation for such loss of productivity and disruption.

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

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

8.3 DELAY

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

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

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

8.4 ADJUSTMENT OF THE CONTRACT TIME FOR DELAY

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

- .1 Condition Number One: At the time that the event causing the delay commences, the Prime Trade Contractor has complied with all Contract requirements for maintaining, submitting, and updating schedule information as required by the Contract Documents.
- .2 Condition Number Two: The delay is critical. A delay is critical if and only to the extent it delays a work activity that cannot be delayed without delaying completion of the entire Project beyond the Contract Time. Under this Article 8.4.1.2, if the Master Project Schedule shows completion of the entire Project before expiration of the Contract Time, a delay is critical if and only to the extent the delay pushes completion of the entire Project to a date that is beyond the Contract Time.
- .3 Condition Number Three: The delay is supported by the Master Project Schedule current at the commencement of the event giving rise to the delay. A delay is supported only to the extent the Master Project Schedule corroborates that it causes a delay to completion of the entire Project beyond the contractually specified date for full completion because of its effect on the operation referred to in Article 8.4.1.2 above. The requirement that a delay be supported will be excused if the event causing the delay commences before approval of the Prime Trade Contractor Schedule, provided that the absence of an approved Prime Trade Contractor Schedule is not due to the Prime Trade Contractor's failure to timely submit an acceptable Prime Trade Contractor Schedule.
- .4 Condition Number Four: Within 7 days of the date the Prime Trade Contractor discovers or reasonably should discover an act, error, omission or unforeseen condition causing the delay, (even if the Prime Trade Contractor has not been delayed when the Prime Trade Contractor discovers or reasonably should discover the act, error, omission or unforeseen condition giving rise to the delay) the Prime Trade Contractor submits both a timely and complete Change Order Request that meets the requirements of Article 4.2 of the General Conditions.
- .5 Condition Number Five: The delay is not caused by:
 - .1 A concealed, unforeseen or unknown condition or event except for a materially differing site condition pursuant to Article 3.17 of the General Conditions; or
 - .2 The financial inability, misconduct or default of the Prime Trade Contractor, a Subcontractor or supplier; or

- .3 The unavailability of materials or parts.
- .6 Condition Number Six: The delay is caused by:
 - .1 Fire; or
 - .2 Strikes, boycotts, or like obstructive actions by labor organizations; or
 - .3 Acts of God (As used herein, "Acts of God" shall include only earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves); or
 - .4 A materially differing site condition pursuant to Article 3.17 of the General Conditions; or
 - .5 An error or omission in the Contract Documents; or
 - .6 The University's decision to change the scope of the Work, where such decision is not the result of any default or misconduct of the Prime Trade Contractor; or
 - .7 The University's decision to suspend the Work, where such decision is not the result of any default or misconduct of the Prime Trade Contractor; or
 - .8 The failure of the University or the University's representative to timely perform any Contract obligation unless such failure is due to Prime Trade Contractor's default or misconduct; or
 - .9 The failure of a Separate Contractor to adhere to the Master Project Schedule; or
 - .10 The failure of a Separate Contractor to timely perform any contract obligation due to its default or misconduct or
 - .11 "Rainy weather," but only for such days of rain that are in excess of the number of days specified in the Supplementary Conditions. In order for a day to be considered a day of rainy weather for the purpose of determining whether Prime Trade Contractor is entitled to an adjustment in Contract Time, both of the following conditions must be met:
 - .1 The day must be a day in which, as a result of rain, no critical path work is performed by Prime Trade Contractor or a Separate Contractor; and
 - .2 The day must be identified in the Master Project Schedule as a scheduled work day.
- .7 Condition Number Seven: Prime Trade Contractor has taken all reasonable measures to avoid and minimize the delay and, notwithstanding such measures, the delay occurred.

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

- .1 When two or more delays (each of which meet all seven conditions prescribed in Article 8.4.1) occur concurrently on the same day, and each such concurrent delay by itself without consideration of the other delays would be critical, then all such concurrent delays shall be considered critical. For the purpose of determining whether and to what extent the Contract Time should be adjusted pursuant to this Article 8.4.2, such concurrent critical delays shall be treated as a single delay for each such day.
- .2 Prime Trade Contractor shall be entitled to a time extension for a day of delay that meets all seven requirements of Article 8.4.1 if the delay is concurrent with a delay that does not meet all seven conditions of Article 8.4.1.

8.5 COMPENSATION FOR DELAY

- 8.5.1 To the maximum extent allowed by law, any adjustment of the Contract Sum as the result of delays shall be limited to the amounts specified in Article 7 of the General Conditions.
- 8.5.2 By signing the Agreement, the parties agree that the University is buying the right to do any or all of the following, which are reasonable and within the contemplation of the parties:
- .1 To order changes in the Work, regardless of the extent and number of changes, including without limitation:
 - .1 Changes to correct errors or omissions, if any, in the Contract Documents.
 - .2 Changes resulting from the University's decision to change the scope of the Work subsequent to execution of the Contract.
 - .3 Changes due to unforeseen conditions.
 - .2 To suspend the Work or any part thereof.
 - .3 To delay the work, including without limitation, delays resulting from the failure of the University or the University's Representative to timely perform any Contract obligation and delays for University's convenience.

8.6 WAIVER

- 8.6.1 A waiver of or failure by University or University's Representative to enforce any requirement in this Article 8, including without limitation the requirements in Article 8.4 above, in connection with any or all past delays shall not constitute a waiver of, and shall not preclude the University or University's Representative from enforcing, such requirements in connection with any present or future delays.
- 8.6.2 Prime Trade Contractor agrees and understands that no oral approval, either express or implied, of any time extension by University or its agents shall be binding upon University unless and until such approval is ratified by execution of a written Change Order.

ARTICLE 9
PAYMENTS AND COMPLETION

9.1 COST BREAKDOWN

9.1.1 Within 10 days after receipt of the Notice of Selection as the apparent lowest responsible Bidder, and with the Agreement, Prime Trade Contractor shall submit to University's Representative a Cost Breakdown of the Contract Sum in the form contained in the Exhibits. The Cost Breakdown shall itemize as separate line items the cost of each Work Activity and all associated costs, including but not limited to warranties, as-built documents, overhead expenses, and the total allowance for profit. Insurance and bonds shall each be listed as separate line items. The total of all line items shall equal the Contract Sum. The Cost Breakdown, when approved by the University's Representative, shall become the basis for determining the cost of Work performed for Prime Trade Contractor's Applications for Payment.

9.2 PROGRESS PAYMENT

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

- .1 Cost of the Work in permanent place as of the date of the Prime Trade Contractor's Application for Payment
- .2 Plus cost of materials not yet incorporated in the Work, subject to Article 9.3.5 below.
- .3 Less amounts previously paid.

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

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

9.3 APPLICATION FOR PAYMENT

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

The Application for Payment shall be prepared as follows:

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

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

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

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

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

9.4 CERTIFICATE FOR PAYMENT

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

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

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

- .1 Defective Work not remedied
- .2 Third-party claims against Prime Trade Contractor or University arising from the acts or omissions of Prime Trade Contractor or Subcontractors
- .3 Stop notices
- .4 Failure of Prime Trade Contractor to make timely payments due Subcontractors for material or labor

- .5 A reasonable doubt that the Work can be completed for the balance of the Contract Sum then unpaid
- .6 Damage to University or Separate Contractor for which Prime Trade Contractor is responsible
- .7 Reasonable evidence that the Work will not be completed within the Contract Time; and that the unpaid balance of the Contract Sum would not be adequate to cover University's damages for the anticipated delay
- .8 Failure of Prime Trade Contractor to maintain and update as-built documents
- .9 Failure of Prime Trade Contractor to submit schedules or their updates as required by the Contract Documents
- .10 Failure to provide conditional or unconditional releases from an Subcontractor or supplier, if such waiver(s) have been requested by University's Representative
- .11 Performance of Work by Prime Trade Contractor without properly processed Shop Drawings
- .12 Anticipated liquidated damages commensurate with the number of days the Prime Trade Contractor fails to complete a critical activity by the date shown on the Master Project Schedule
- .13 Anticipated costs for acceleration under Article 2.6.3 of the General Conditions
- .14 Liquidated damages assessed in accordance with Article 5 of the Agreement
- .15 Failure to provide a Final Distribution of Contract Dollars with final Application for Payment
- .16 Failure of Prime Trade Contractor, any of its Subcontractors, or any person or entity under Prime Trade Contractor, to provide any required insurance information (including submitting completed forms identified in the Insurance Manual)
- .17 Any other failure of Prime Trade Contractor to perform its obligations under the Contract Documents

9.4.4 Subject to the withholding provisions of Article 9.4.3 above, University will pay Prime Trade Contractor the amount set forth in the Certificate For Payment no later than 10 days after the issuance of the Certificate For Payment.

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

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

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

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

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

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

9.6 BENEFICIAL OCCUPANCY

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

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

- .10 Prime Trade Contractor shall not be required to repair damage caused by University in its Beneficial Occupancy.
- .11 Except as provided in this Article 9.6, there shall be no added cost to University due to Beneficial Occupancy.
- .12 Prime Trade Contractor shall continue to maintain all insurance required by the Contract in full force and effect and University shall maintain the Builder's Risk Policy on the entire Project through Final Completion unless otherwise specified in writing on the Certificate of Occupancy.

9.7 SUBSTANTIAL COMPLETION

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

9.7.2 When Prime Trade 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 Prime Trade Contractor a comprehensive list of items to be completed or corrected before establishing Substantial Completion. Prime Trade 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 Prime Trade 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, Prime Trade Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. Prime Trade 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 Prime Trade Contractor.

9.7.3 When University's Representative determines that the Work is substantially complete, University's Representative will prepare a Certificate of Substantial Completion for the Work on University's form as contained in the Exhibits, which, when signed by University, shall establish the date of Substantial Completion.

9.7.4 When University's Representative determines that all work of the Project is substantially complete, University's Representative will arrange for inspection by University's Building Official and other officials, as appropriate, for the purpose of issuing a Certificate of Occupancy. After a Certificate of Occupancy has been issued by the University's Building Official, the University's Representative will prepare a Certificate of Substantial Completion for the Project on University's form as contained in the Exhibits, which, when signed by University, shall establish the date of Project Substantial Completion and the responsibilities of University and Prime Trade Contractor for security, maintenance, utilities, insurance, and damage to the Work.

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

- .1 Are not fully operational (equipment or systems shall not be considered fully operational if they are intended to provide service to any portion of the building which the University has neither Beneficially Occupied nor accepted as Substantially Complete); or
- .2 Are not accepted by the University.

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

9.7.6 The daily rate included in the Agreement and specifically identified as the rate to be paid to Prime Trade Contractor for Compensable Delays shall not apply to any delays occurring after Substantial Completion.

9.8 FINAL COMPLETION, FINAL PAYMENT, AND RELEASE OF RETENTION

9.8.1 Upon receipt of notice from Prime Trade Contractor that the Work is ready for final inspection, University's Representative will make such inspection. Final Completion shall be when University's Representative determines that the Work is fully completed and in accordance with the Contract Documents, including without limitation, satisfaction of all "punch list" items, and determines that a Certificate of Occupancy has been issued by the University's Building Official. University will file a Notice of Completion within 10 days after Final Completion. After receipt of the final Application For Payment, if University's Representative determines that Final Completion has occurred, University's Representative will issue the final Certificate For Payment.

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

- .1 Prime Trade Contractor submits the final Application For Payment and all submittals required in accordance with Article 9.3;
- .2 Prime Trade Contractor submits all guarantees and warranties procured by Prime Trade Contractor from Subcontractors, all operating manuals for equipment installed in the Project, as-built documents, and all other submittals required by the Contract Documents;
- .3 Prime Trade Contractor submits the Final Distribution of Contract Dollars in the form contained in the Exhibits; and
- .4 University's Representative issues the final Certificate For Payment.

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

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

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

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

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

10.2 SAFETY OF PERSONS AND PROPERTY

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

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

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

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

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

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

10.3 EMERGENCIES

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

ARTICLE 11
INSURANCE AND BONDS

11.1 UNIVERSITY CONTROLLED INSURANCE PROGRAM

11.1.1 Overview. Except as limited by the provisions of this Article 11.1, the University shall pay for, obtain and maintain a University Controlled Insurance Program ("UCIP") providing workers' compensation and employer's liability insurance coverage, commercial general liability insurance coverage, and excess liability insurance coverage, to persons and entities enrolled in the UCIP, for Work performed on or at the Project site. Subject to Article 11.1.2, for purposes of the UCIP, Work (as defined in Article 1.1.40) that is performed at an off site location will be treated as on site Work, provided that at the time of enrollment in the UCIP, the off site location is identified to the UCIP Administrator and scheduled on the UCIP policies. Persons and entities eligible for such coverage (see Article 11.1.2), including Prime Trade Contractor and all Subcontractors, unless excluded under Article 11.1.5, will be required to enroll in the UCIP. Once enrolled, the UCIP will provide coverage as defined herein until the earliest of the following: the date on which University makes final payment to Prime Trade Contractor, the date a Notice of Cessation is filed for the Contract, or the date the Contract is terminated pursuant to Article 13. Additionally, all enrolled eligible Contractors and Subcontractors, will be required to obtain their own business automobile liability insurance for all Work (on and off site), as well as their own commercial general liability coverage and workers' compensation and employer's liability insurance for their Work not covered by the UCIP (see Article 11.1.10); Excluded Parties and Eligible Parties who are not enrolled must also obtain business automobile liability insurance, workers' compensation and employer's liability insurance, and commercial general liability insurance for all Work (on and off site) (see Article 11.1.10). The UCIP shall be administered by the UCIP Administrator identified in the Supplementary Conditions. Pursuant to Article 4.1.4, all communications concerning the UCIP shall be through the University Representative except that written communications between the UCIP Administrator, Prime Trade Contractor, Subcontractors, eligible, enrolled and excluded parties are authorized as follows:

- .1 For the purpose of obtaining copies of any UCIP insurance policies, the *UCIP Insurance Manual* and the *UCIP Safety Standards Manual*.
- .2 For the purpose of obtaining any certificates of insurance required by this Article 11.
- .3 For the purpose of verifying that Prime Trade Contractor, Subcontractors, eligible parties, enrolled parties and excluded parties have obtained and maintained any insurance required by this Article 11.
- .4 For the purpose of enrolling any party in the UCIP.

11.1.2 Eligible Parties and Enrolled Parties: Except as provided in Article 11.1.5, each of the following, who will perform any labor at the Project site, are an "Eligible Party:" Prime Trade Contractor, all Subcontractors of all tiers, and such other persons or entities as University may designate, in its sole discretion. Upon receipt of written acknowledgement of enrollment from the UCIP Administrator, an Eligible Party becomes an "Enrolled Party." UCIP coverage for Work performed at an off site location will not be provided to any party that does not perform any labor at the Project site and/or who is not enrolled, and the off site Work of such parties will not be treated as on site Work pursuant to Article 11.1.1.

11.1.3 Except as provided in Article 11.1.2, Enrolled Parties shall not obtain or maintain workers' compensation and employer's liability insurance, commercial general liability insurance, or excess liability insurance for their Work performed at the Project site. Notwithstanding the preceding sentence, Enrolled Parties may obtain, at their own cost:

- .1 Excess liability insurance over and above the UCIP Coverages; and
- .2 Insurance to Cover Prime Trade Contractor's obligations set forth in Article 11.1.9.8

11.1.4 Eligible Parties (unless excluded under Article 11.1.5) shall not include in their bids for any Work to be performed at the Project site any projected or actual cost to provide the workers' compensation and employer's liability insurance, commercial general liability insurance, and excess liability insurance that is being provided under the UCIP. Further, Enrolled Parties (unless excluded under Article 11.1.5) shall not include in any change order request, claim or other request or demand for payment or compensation for Work to be performed, or that was performed, at the Project site any projected or actual cost to provide workers' compensation and employer's liability insurance, commercial general liability insurance, and excess liability insurance that is being provided under the UCIP. The University may reduce the Contract Sum by an amount commensurate with any projected or actual costs included contrary to the requirements of this Article 11.1.4

11.1.5 Excluded Parties and Their Insurance Obligations. The UCIP Coverages do not cover the following "Excluded Parties:"

- .1 Hazardous materials remediation, removal and/or transport companies and their consultants;
- .2 Architects, surveyors, engineers, and soil testing engineers, and their consultants (except for architects, surveyors, engineers and soil testing engineers that are employees of Prime Trade Contractor or Subcontractor);
- .3 Vendors, suppliers, fabricators, material dealers, truckers, haulers, drivers, common carriers and others who do not perform work at the Project site or who merely transport, pick up, deliver, or carry materials, personnel, parts or equipment, or any other items or persons to or from the Project site;
- .4 Subcontractors of all tiers that do not perform any actual labor on the Project site;
- .5 Persons or Entities who are not an Eligible Party who are enrolled in the UCIP; and
- .6 Any other person or entity that the University, acting in its sole discretion, elects to exclude, even if otherwise eligible.

Excluded Parties and Eligible Parties that are not enrolled in the UCIP shall obtain and maintain the insurance coverage specified in Article 11.1.10.

11.1.6 UCIP Insurance Policies Establish the UCIP Coverages. University will provide its standard UCIP insurance coverages, subject to the deductibles, terms and conditions, exclusions, and limitations contained in the provisions of the standard UCIP policies. The UCIP Administrator shall make copies of the UCIP insurance policies available to any Eligible Party or Enrolled Party requesting to review such copies in writing. Pursuant to Civil Code section 2782.96, any Eligible Party or Enrolled Party receiving copies of the policies shall not disclose the policies to third parties other than to the Eligible Party's or Enrolled Party's insurance broker or attorney unless required to do so by law; the Eligible Party's or Enrolled Party's insurance broker or attorney may not disclose the policies to any third party unless required to do so by law. The summary descriptions of the UCIP Coverages in this Article 11, or elsewhere, are not intended to be complete or to alter or amend any provision of the actual UCIP Coverages. In the event that any provision of this Article, the Contract Documents, or elsewhere, conflicts with the UCIP insurance policies, the provisions of the actual UCIP insurance policies shall govern. The University's provision of its standard UCIP insurance policies meets the University's obligation to provide UCIP insurance under the Contract and, in the event of a conflict between the provisions of the policies and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide UCIP insurance.

11.1.7 Summary of UCIP Coverages. UCIP Coverages shall apply only to the Work of each Enrolled Party performed on or at the Project site, and only to Enrolled Parties that are eligible for the UCIP. UCIP coverages shall not apply to ineligible parties, even if they are erroneously enrolled in the UCIP. An Enrolled Party's Work away from the Project site, including product manufacturing, assembly, off-site

fabrication, or otherwise, will not be covered by the UCIP. The UCIP shall provide only the following insurance to eligible and Enrolled Parties (this is only a summary):

.1 Workers' Compensation Insurance: Statutory Limit

This insurance is primary for all covered occurrences within the 50 United States, except that this insurance does not apply in any monopolistic workers' compensation state.

.2 Employer's Liability Insurance:

Bodily Injury by Accident, each accident	\$2,000,000
Bodily Injury by Disease, each employee	\$2,000,000
Bodily Injury by Disease, policy limit	\$2,000,000

This insurance is primary for all occurrences at the Project site.

.3 Commercial General Liability Insurance

ISO Occurrence Form, or its equivalent:

Each Occurrence Limit	\$2,000,000
General Aggregate Limit for all Enrolled Parties	\$4,000,000
Products & Completed Operations Aggregate, all Enrolled Parties	\$4,000,000

Ten (10) Years Products & Completed Operations Extension

This insurance is primary for all occurrences at the Project site.

.4 Excess Liability Insurance

(Over Employer's Liability & General Liability):

Combined Single Limit	\$100,000,000
General Annual Aggregate for all Enrolled Parties	\$100,000,000
Products & Completed Operations Aggregate, all Enrolled Parties	\$100,000,000

Ten (10) Years Products & Completed Operations Extension

Exhibit 1A, entitled *UCIP Coverage Summary*, contains a summary of the policy limits, the term of the policy, and any known exclusions to the coverages described in this Article 11.1.7. Prime Trade Contractor, in the event of a loss, shall be responsible for the amounts set forth in Article 11.1.9 herein.

11.1.8 University's Insurance Obligations.

- .1 University shall pay the costs of premiums for the UCIP coverages.
- .2 University will receive or pay, as the case may be, all adjustments to such costs, whether by way of dividends, retroactive adjustments, return premiums, other moneys due, audits or otherwise. Prime Trade Contractor hereby assigns to University the right to receive all such adjustments, and shall require each of its Subcontractors of every tier to assign to University the right to receive all such adjustments.
- .3 The University's obligation to obtain insurance under the UCIP shall not relieve or limit, or be construed to relieve or limit, Prime Trade Contractor or any of its Subcontractors of any tier of any responsibility, liability, or obligation imposed by the Contract Documents, the UCIP

insurance policies, or by law, including, without limitation, any indemnification obligations which Prime Trade Contractor or any of its Subcontractors have to University.

- .4 University reserves the right at its option, without obligation to do so, to furnish other insurance coverage of various types and limits provided that such coverage is not less than that provided at the time of enrollment.

11.1.9 Prime Trade Contractor's UCIP Obligations.

- .1 Prime Trade Contractor shall require that the terms of this Article 11 be incorporated into all Subcontractor agreements.
- .2 Prime Trade Contractor shall enroll in the UCIP within five (5) days of execution of the Contract (and prior to its commencement of Work at the Project site) and maintain enrollment in the UCIP until the coverage terminates pursuant to Article 11.1.1.
- .3 Prime Trade Contractor shall assure that each of Prime Trade Contractor's eligible Subcontractors of every tier enroll in the UCIP within five (5) days of subcontracting (and prior to the Subcontractor's commencement of Work at the Project site), and maintain enrollment in the UCIP until the coverage terminates pursuant to Article 11.1.1.
- .4 Prime Trade Contractor shall comply with all of the administrative, safety, insurance, and other requirements outlined in this Article, the UCIP Insurance Manual, the UCIP Safety Standards Manual, or elsewhere in the Contract Documents.
- .5 Prime Trade Contractor agrees that the University and the UCIP Administrator are not agents, partners or guarantors of the insurance companies (hereinafter "UCIP Insurer") providing coverage under the UCIP, that neither University nor the UCIP Administrator are responsible for any claims or disputes between or among Prime Trade Contractor, its Subcontractors of any tier, and any UCIP Insurer(s), and that neither University nor UCIP Administrator guarantees the solvency or the availability of limits of any UCIP Insurer(s). Any type of insurance coverage or limits of liability in addition to the UCIP Coverages that Prime Trade Contractor or its Subcontractors of any tier require for its or their own protection, or that is required by applicable laws or regulations, shall be Prime Trade Contractor's or its Subcontractors' sole responsibility and expense.
- .6 Prime Trade Contractor shall cooperate fully with the UCIP Administrator and the UCIP Insurers, as applicable, in its or their administration of the UCIP.
- .7 Prime Trade Contractor shall comply, and require all of its Subcontractors to comply, with UCIP Administrator's instructions for electronically enrolling in the UCIP and for electronically reporting payroll.
- .8 In the event of a Commercial General Liability loss covered by the UCIP, Prime Trade Contractor shall pay to the University an amount as set forth below. Payment pursuant to the preceding sentence shall not in any way limit the liability of Prime Trade Contractor to University or otherwise. The amount to be paid, which is based on the Contract Sum of the Prime Trade Contractor's Contract, at the time of the loss is reported, is as follows:

<u>Contract Sum</u>	<u>Amount to be Paid</u>
\$1,000,000 or Less	\$ 1,000
\$1,000,001 to \$10,000,000	\$ 5,000
\$10,000,001 and Over	\$25,000

11.1.10 Additional Insurance Required from Prime Trade Contractor, Enrolled Parties, Eligible Parties that are not enrolled, and Excluded Parties. Prime Trade Contractor shall, at its expense, purchase and

maintain, and shall require all Enrolled Parties, all Eligible Parties that are not enrolled, and all Excluded Parties, at their expense, to purchase and maintain, the insurance policies and coverages specified in this Article 11.1.10.

.1 Policies and coverages.

- .1 Commercial Form General Liability Insurance covering all Work done by or on behalf of Prime Trade Contractor, all Enrolled Parties, all Eligible Parties that are not enrolled, and all Excluded Parties and providing insurance for bodily injury, wrongful death, personal injury, property damage, and contractual liability. Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limit shall apply separately to Work of Prime Trade Contractor, all Enrolled Parties, all Eligible Parties that are not enrolled, and all Excluded Parties. If the insurance under this Article 11.1.10.1.1 is written on a claims-made form, coverage shall continue for a period of not less than 3 years following the earliest of the following: the Project attains final completion as defined in Article 9.8.1, the date a Notice of Cessation is filed for the Contract, or the date the Contract is terminated pursuant to Article 13. Coverage shall provide for a retroactive date of placement prior to or coinciding with the effective date of this Contract. Commercial Form General Liability Insurance for Enrolled Parties is required only for Work performed off the Project site that has not been disclosed to the UCIP Administrator and scheduled on the UCIP policies. Commercial Form General Liability Insurance for Eligible Parties that are not enrolled, and for Excluded Parties, shall apply to all Work (both on and off the Project site). The limits for all Commercial Form General Liability Insurance shall not be less than the following:

Each Occurrence	\$2,000,000 / \$2,000,000
General Aggregate	\$2,000,000 / \$4,000,000
Products/Completed Operations Aggregate	\$2,000,000 / \$4,000,000
Personal/Advertising Injury Aggregate	\$1,000,000 / \$2,000,000

Ten (10) Years Products/Completed Operations Extension

- .2 Business Automobile Liability Insurance on an "Occurrence" form covering owned, hired, leased, and non-owned automobiles used by or on behalf of Insured and providing insurance for bodily injury and property damage, with a combined single limit of not less than \$1,000,000 bodily injury, \$1,000,000 property damage, and with a \$1,000,000 policy limit. The Business Automobile Liability Insurance shall be provided by Prime Trade Contractor, Enrolled Parties, Eligible Parties that are not enrolled, and Excluded Parties for all on site and off site Work.
- .3 Workers' Compensation and Employer's Liability Insurance as required by Federal and State of California law. Workers' Compensation and Employer's Liability Insurance required by this Section 11.1.10.1.3 shall be provided by Prime Trade Contractor and Enrolled Parties only for Work performed off the Project site that has not been disclosed to the UCIP Administrator and scheduled on the UCIP policies. Workers' Compensation and Employer's Liability Insurance required by this Section 11.1.10.1.3 shall be provided by Eligible Parties that are not enrolled, and Excluded Parties for all on site and off site Work.
- .4 Any additional insurance required by the Supplementary General Conditions.
- .2 Any coverages required under this Article 11.1.10 shall not in any way limit the liability of Prime Trade Contractor, any Enrolled Parties, any Eligible Parties that are not enrolled, or any Excluded Parties.

- .3 Certificates of Insurance, as evidence of their insurance required by these Contract Documents and on the form contained in the Exhibits, and endorsements required by 11.1.10.5 shall be submitted by the Prime Trade Contractor, by each Enrolled Party, by each Eligible Party that is not enrolled, and by each Excluded Party, to the UCIP Administrator. The Certificates of Insurance shall provide for no cancellation or modification of coverage without prior written notice to UCIP Administrator, in accordance with policy provisions.
- .4 In the event any Enrolled Party, any Eligible Party that is not enrolled, or any Excluded Party does not comply with these insurance requirements, University may, at its option, provide insurance coverage to protect University; and the cost of such insurance shall be paid by Prime Trade Contractor and may be deducted from the Contract Sum.
- .5 Insurance as required by Article 11.1.10, shall, by endorsement to the policies, include the following:
 - .1 University, University's officers, agents, employees, consultants, University's Representative, UCIP Administrator and University's Representative's consultants, regardless of whether or not identified in the Contract Documents or to Prime Trade Contractor in writing, will be included as additional insureds for and relating to the Work to be performed by any Enrolled Party, any Eligible Party that is not enrolled, or any Excluded Party. This requirement shall apply to claims, costs, injuries, or damages, but only in proportion to and to the extent such claims, costs, injuries, or damages are caused by or result from the negligent acts or omissions of any Enrolled Party, any Eligible Party that is not enrolled, or any Excluded Party. This requirement shall not apply to Workers' Compensation and Employer's Liability Insurance.
 - .2 A Severability of Interest Clause stating that, "The term 'insured' is hereby used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limits of the insurers' liability."
 - .3 A Cross Liability Clause stating that, "In the event of claims being made under any of the coverages of the policies referred to herein by one or more insureds hereunder for which another insured hereunder may be liable, then the policies shall cover such insureds against whom a claim is made or may be made in the same manner as if separate policies had been issued to each insured hereunder. Nothing contained herein, however, shall operate to increase the insurers' limits of liability as set forth in the insuring agreements."
 - .4 University, University's consultants, University's Representative, UCIP Administrator and University's Representative's consultants will not by reason of their inclusion as insureds incur liability to the insurance carriers for payment of premiums for such insurance.
 - .5 Coverage provided is primary and is not in excess of or contributing with any insurance or self-insurance maintained by University, University's consultants, University's Representative, UCIP Administrator and University's Representative's consultants. This provision, however, shall only apply as per the stipulations of Article 11.1.10.
 - .6 The form and substance of all insurance policies required to be obtained under this Article 11.1.10 shall be subject to approval by University. All policies required by this Article 11.1.10 shall be issued by companies with ratings and financial classifications as specified in the Supplementary Conditions.
 - .7 Prime Trade Contractor shall, by mutual agreement with University, furnish any additional insurance as may be required by University. Prime Trade Contractor shall provide Certificates of Insurance evidencing such additional insurance.

- .8 The Certificate of Insurance shall show (1) all companies affording coverage and (2) the name of the insured exactly in the manner as shown on the Bid Form. The name of the insured must be the name under which the entity is licensed by the State License Board.
 - .9 If any insurance company refuses to use the Certificate of Insurance form as contained in the Exhibits, it must provide a Certificate of Insurance evidencing compliance with this Article and Special Provisions 1 through 4 on the Certificate of Insurance Exhibit by including an endorsement to its Certificate of Insurance form covering Special Provisions 1 through 4 exactly as these provisions appear on the Certificate of Insurance Exhibit.
 - .10 At the request of University, Prime Trade Contractor shall submit to University copies of the policies obtained by Prime Trade Contractor, Enrolled Parties, Eligible Parties that are not enrolled, and Excluded Parties.
- 11.1.11 Prime Trade Contractor's Representations and Warranties to University. Prime Trade Contractor represents and warrants to University, and will require each of its Subcontractors of every tier to represent and warrant to University that:
- .1 All information they submit to University, or to the UCIP Administrator, shall be current, accurate and complete.
 - .2 They have read the UCIP coverage summaries and have had the opportunity to read and analyze copies of the UCIP insurance policies made available by University, and they understand the UCIP Coverages. Any reference or summary in the Agreement, this Article, the Contract Documents, or elsewhere as to amount, nature, type or extent of UCIP Coverages and/or potential applicability to any potential claim or loss is for reference only. Prime Trade Contractor and its Subcontractors of all tiers have not relied upon said references or summaries, but solely upon their own independent review and analysis of the UCIP Coverages in formulating any understanding and/or belief as to amount, nature, type or extent of any UCIP Coverages and/or its potential applicability to any potential claim or loss.
 - .3 The Costs of UCIP Coverages were not included in Prime Trade Contractor's bid or proposal for the Work, the Contract Price/Contract Sum, and will not be included in any change order request, claim, change order or any request for payment for the Work or extra work.
 - .4 Prime Trade Contractor acknowledges that University shall not pay or compensate Prime Trade Contractor or any Subcontractor of any tier, in any manner, for the Costs of UCIP Coverages.
- 11.1.12 University's Election to Modify or Discontinue the UCIP. University may, for any reason, modify the UCIP Coverages, discontinue the UCIP, or request that Prime Trade Contractor or any of its Subcontractors of any tier withdraw from the UCIP upon thirty (30) days written notice. Upon such notice Prime Trade Contractor and/or one or more of its Subcontractors, as specified by University in such notice, shall obtain and thereafter maintain during the performance of the Work, all (or a portion thereof as specified by University) of the UCIP Coverages. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to University's approval. The University shall pay Prime Trade Contractor for the reasonable cost of replacement coverage required by this Article 11.1.12.
- 11.1.13 Waiver of Subrogation. To the extent permitted by law, Prime Trade Contractor waives all rights of recovery by subrogation arising out of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against University, University's Representative, University's Representative's consultants, the UCIP Administrator, its or their officers, agents, or employees, and any other contractor or Subcontractor performing Work or rendering services on behalf of University in connection with the planning, development and construction of the Project. University shall also require that all Prime Trade Contractor maintained insurance policies related to the Work, include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against Prime Trade Contractor together

with the same parties referenced immediately above in this Section 11.1.13. Where permitted by law, Prime Trade Contractor shall require similar written express waivers and insurance clauses from each of its Subcontractors. A waiver of subrogation shall be effective as to any individual or entity even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

11.1.14 Duty of Care. Nothing contained in this Article, the Contract Documents, or elsewhere shall relieve the Prime Trade Contractor or any of its Subcontractors of any tier of their respective obligations to exercise due care in the performance of their duties in connection with the Work, and to complete the Work in strict compliance with the Contract Documents.

11.1.15 Conflicts. In the event of a conflict between the Contract and the provisions of the UCIP insurance policies, the insurance policies shall govern.

11.1.16 Safety. Prime Trade Contractor shall be solely responsible for safety on the project. Prime Trade Contractor shall establish a safety program that, at a minimum, complies with all local, state and Federal safety standards, and any safety standards established by University for the Project.

11.2 BUILDER'S RISK PROPERTY INSURANCE

11.2.1 University will provide its standard builder's risk property insurance, subject to the deductibles, terms and conditions, exclusions, and limitations as contained in the provisions of the policy. A copy of the University's standard builder's risk property insurance policy is available at the University's Facility office. In addition, a summary of the provisions of the policy is included as an Exhibit to the Contract. Prime Trade Contractor agrees that the University's provision of its standard builder's risk property insurance policy meets the University's obligation to provide builder's risk property insurance under the Contract and, in the event of a conflict between the provisions of the policy and any summary or description of the provisions contained herein or otherwise, the provisions of the policy shall control and shall be conclusively presumed to fulfill the University's obligation to provide such insurance. The proceeds under such insurance policies taken out by University insuring the Work and materials will be payable to University and Prime Trade Contractor as their respective interests, from time to time, may appear. Prime Trade Contractor shall be responsible for the deductible amount in the event of a loss. In addition, nothing in this Article 11.2 shall be construed to relieve Prime Trade Contractor of full responsibility for loss of or damage to materials not incorporated in the Work, and for Prime Trade Contractor's tools and equipment used to perform the Work, whether on the Project site or elsewhere, or to relieve Prime Trade Contractor of its responsibilities referred to under this Article 11. Materials incorporated in the Work, as used in this Article 11.2, shall mean materials furnished while in transit to, stored at, or in permanent place at the Project site.

11.2.2 Insurance policies referred to under this Article 11.2 shall:

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

11.2.3 Builder's Risk insurance coverage under this Article 11.2 will end on the earliest of the following:

- .1 Sixty (60) days after the date a Certificate of Occupancy for the entire Project is issued by the University; or
- .2 Sixty (60) days after the date a Certificate of Occupancy for a part of the Project is issued by the University, but coverage will end only for the part of the Project covered by such Certificate of Occupancy ; or

- .3 The date of Final Completion established by the University in any Notice of Completion issued by the University.

11.3 PERFORMANCE BOND AND PAYMENT BOND

11.3.1 Prime Trade Contractor shall furnish bonds covering the faithful performance of the Contract (Performance Bond) and payment of obligations arising thereunder (Payment Bond) on the forms contained in Exhibits 3 and 2.

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

11.3.3 The Payment Bond and Performance Bond shall be in effect on the date the Contract is signed by University.

11.3.4 Prime Trade Contractor shall promptly furnish such additional security as may be required by University to protect its interests and those interests of persons or firms supplying labor or materials to the Work. Prime Trade Contractor shall furnish supplemental Payment and Performance Bonds each in the amount of the current Contract Sum at the request of the University.

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

11.3.6 The premiums for the Payment Bond and Performance Bond shall be paid by Prime Trade Contractor.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

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

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

12.2 CORRECTION OF DEFECTIVE WORK AND GUARANTEE TO REPAIR PERIOD

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

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

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

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

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

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

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

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

ARTICLE 13

TERMINATION OR SUSPENSION OF THE CONTRACT

13.1 TERMINATION BY PRIME TRADE CONTRACTOR

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

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

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

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

13.2 TERMINATION BY UNIVERSITY FOR CAUSE

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

- .1 Prime Trade Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
- .2 Prime Trade Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
- .3 A receiver is appointed to take charge of Prime Trade Contractor's property.
- .4 The commencement or completion of any Work activity is 14 days or more behind the date set forth in the Master Project Schedule for such Work activity, and which results in an Unexcusable Delay.
- .5 Prime Trade Contractor abandons the Work.

13.2.2 Upon the occurrence of any of the following events, University will have the right to terminate the Contract for cause if Prime Trade Contractor fails to promptly commence to cure such default and diligently

prosecute such cure within 5 days after notice from University, or within such longer period of time as is reasonably necessary to complete such cure:

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

13.2.3 Upon any of the occurrences referred to in Articles 13.2.1 and 13.2.2 above, University may, at its election and by notice to Prime Trade Contractor, terminate the Contract and take possession of the Project site and all materials, supplies, equipment, tools, and construction equipment and machinery thereon owned by Prime Trade Contractor; accept the assignment of any or all of the subcontracts; and then complete the Work by any method University may deem expedient. If requested by University, Prime Trade Contractor shall remove any part or all of Prime Trade Contractor's materials, supplies, equipment, tools, and construction equipment and machinery from the Project site within 7 days of such request; and if Prime Trade Contractor fails to do so, University may remove or store, and after 90 days sell, any of the same at Prime Trade Contractor's expense.

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

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

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

13.3 SUSPENSION BY UNIVERSITY FOR CONVENIENCE

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

agreed upon by Prime Trade Contractor and University, University shall either cancel the Suspension Order or delete the Work covered by such Suspension Order by issuing a Change Order.

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

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

13.4 TERMINATION BY UNIVERSITY FOR CONVENIENCE

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

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

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

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

13.4.4 Upon such termination, University shall pay to Prime Trade Contractor the sum of the following:

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

- .5 Plus reasonable demobilization costs.
- .6 Plus reasonable costs of preparing a statement of the aforesaid costs, expenses, and Losses in connection with such termination.

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

ARTICLE 14
STATUTORY AND OTHER REQUIREMENTS

14.1 NOT USED

14.2 NONDISCRIMINATION

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

14.2.2 Prime Trade Contractor shall comply and shall ensure that all Subcontractors comply with Section 12900 through 12996, of the State of California Government Code.

14.2.3 Prime Trade Contractor agrees as follows during the performance of the Work:

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

- Trade Contractor is not a "responsible bidder" as to future contracts for which such Prime Trade Contractor may submit bids or (2) a basis for refusing to accept or consider the bids of Prime Trade Contractor for future contracts.
- .2 University may deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has (1) investigated and determined that Prime Trade Contractor has violated the Fair Employment Practices Act and (2) issued an order under the State of California Government Code Section 12970 or obtained an injunction under Government Code Section 12973.
 - .3 Upon receipt of such written notice from the Fair Employment Practices Commission, University may notify Prime Trade Contractor that, unless it demonstrates to the satisfaction of University within a stated period that the violation has been corrected, Prime Trade Contractor's bids on future projects will not be considered.
 - .4 Prime Trade Contractor agrees that, should University determine that Prime Trade Contractor has not complied with this Article 14.2, Prime Trade Contractor shall forfeit to University, as a penalty, for each day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided in Article 14.3 below for violation of prevailing wage rates. Such penalty amounts may be recovered from Prime Trade Contractor; and University may deduct any such penalty amounts from the Contract Sum.
 - .5 Nothing contained in this Article 14.2 shall be construed in any manner so as to prevent University from pursuing any other remedies that may be available at law.
 - .6 Prime Trade Contractor shall meet the following standards for compliance and provide University with satisfactory evidence of such compliance upon University's request, which shall be evaluated in each case by University:
 - .1 Prime Trade Contractor shall notify its Superintendent and other supervisory personnel of the nondiscrimination requirements of the Contract Documents and their responsibilities thereto.
 - .2 Prime Trade Contractor shall notify all sources of employee referrals (including unions, employment agencies, and the State of California Department of Employment) of the nondiscrimination requirements of the Contract Documents by sending to such sources and by posting the Notice of Equal Employment Opportunity (EEO).
 - .3 Prime Trade Contractor or its representative shall, through all unions with whom it may have agreements, develop agreements that (1) define responsibilities for nondiscrimination in hiring, referrals, upgrading, and training and (2) implement an affirmative nondiscrimination program, in terms of the unions' specific areas of skill and geography, such that qualified minority women, non-minority women, and minority men shall be available and given an equal opportunity for employment.
 - .4 Prime Trade Contractor shall notify University of opposition to the nondiscrimination requirements of the Contract Documents by individuals, firms, or organizations during the term of the Contract.
 - 7 Prime Trade Contractor shall include the provisions of the foregoing Articles 14.2.3.1 through 14.2.3.6 in all subcontracts with Subcontractors, so that such provisions will be binding upon each such Subcontractor.

14.3 PREVAILING WAGE RATES

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

14.3.2 Prime Trade Contractor shall comply and shall ensure that all Subcontractors comply with Sections 1770, 1771, 1772, 1773, 1774, and 1775 of the State of California Labor Code. Compliance with these sections is required by this Contract.

14.3.3 The State of California Department of Industrial Relations has ascertained the general prevailing per diem wage rates in the locality in which the Work is to be performed for each craft, classification, or type of worker required to perform the Work. A copy of the general prevailing per diem wage rates will be on file at University's principal facility office and will be made available to any interested party upon request. Prime Trade Contractor shall post a copy of the general prevailing per diem wage rates at the job site. By this reference, such schedule is made part of the Contract Documents. Prime Trade Contractor shall pay not less than the prevailing wage rates, as specified in the schedule and any amendments thereto, to all workers employed by Prime Trade Contractor in the execution of the Work. Prime Trade Contractor shall cause all subcontracts to include the provision that all Subcontractors shall pay not less than the prevailing rates to all workers employed by such Subcontractors in the execution of the Work. Prime Trade Contractor shall forfeit to University, as a penalty, not more than \$50 for each calendar day or portion thereof for each worker that is paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any portion of the Work done by Prime Trade Contractor or any Subcontractor. The amount of this penalty shall be determined pursuant to applicable law. Such forfeiture amounts may be deducted from the Contract Sum or sought directly from the surety under its Performance Bond if there are insufficient funds remaining in the Contract Sum. Prime Trade Contractor shall also pay to any worker who was paid less than the prevailing wage rate for the work or craft for which the worker was employed for any portion of the Work, for each day, or portion thereof, for which the worker was paid less than the specified prevailing per diem wage rate, an amount equal to the difference between the specified prevailing per diem wage rate and the amount which was paid to the worker. Review of any civil wage and penalty assessment shall be made pursuant to section 17420 of the California Labor Code.

14.4 PAYROLL RECORDS

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

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

- .1 A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or the employee's authorized representative on request.
- .2 A certified copy of all payroll records shall be made available for inspection upon request to University, the State of California Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the State of California Division of Industrial Relations.
- .3 A certified copy of all payroll records shall be made available upon request by the public for inspection or copies thereof made; provided, however, that the request by the public shall be made to either University, the Division of Apprenticeship Standards, or the Division of Labor

Standards Enforcement. The public shall not be given access to such records at the principal offices of Prime Trade Contractor or Subcontractors. Any copy of the records made available for inspection as copies and furnished upon request to the public or any public agency by University shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Prime Trade Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.

14.4.3 Prime Trade Contractor shall file a certified copy of the payroll records with the entity that requested the records within 10 days after receipt of a written request. Prime Trade Contractor shall inform University of the location of such payroll records for the Project, including the street address, city, and county; and Prime Trade Contractor shall, within 5 working days, provide notice of change of location of such records. In the event of noncompliance with the requirements of this Article 14.4 or with the State of California Labor Code Section 1776, Prime Trade Contractor shall have 10 days in which to comply following receipt of notice specifying in what respects Prime Trade Contractor must comply. Should noncompliance still be evident after the 10 day period, Prime Trade Contractor shall forfeit to University, as a penalty, \$25 for each day, or portion thereof, for each worker, until strict compliance is accomplished. Such forfeiture amounts may be deducted from the Contract Sum.

14.5 APPRENTICES

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

14.5.2 Only apprentices, as defined in the State of California Labor Code Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4, Division 3, of the State of California Labor Code, are eligible to be employed by Prime Trade Contractor and Subcontractors as apprentices. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and written apprentice agreements under which the apprentice is training.

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

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

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

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

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

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

14.6 WORK DAY

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

ARTICLE 15
MISCELLANEOUS PROVISIONS

15.1 GOVERNING LAW

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

15.2 SUCCESSORS AND ASSIGNS

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

15.3 RIGHTS AND REMEDIES

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

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

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

15.4 SURVIVAL

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

15.5 COMPLETE AGREEMENT

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

15.6 SEVERABILITY OF PROVISIONS

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

15.7 UNIVERSITY'S RIGHT TO AUDIT

15.7.1 University and entities and agencies designated by University will have access to and the right to audit and the right to copy at University's cost all of Prime Trade Contractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work.

15.7.2 University and entities and agencies designated by University (including the UCIP Administrator and any UCIP insurer) will have access to, and the right to audit and the right to copy at University's cost, Prime Trade Contractor's and all of its Subcontractors' payroll records, books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, and memoranda relating to the Work.

15.7.3 Without limiting the University's rights as set forth in Article 15.7.2, the right to audit and copy shall apply to insurance coverages, insurance cost information, bid estimates, pricing for any cost in the Contract Sum or any subcontracted work, or any information that Prime Trade Contractor or any Subcontractor provides to University, the UCIP Administrator, or the UCIP insurers as part of the UCIP, for the purpose of confirming the accuracy of such information as it relates to insurance and for the purpose of ensuring that the UCIP coverage provided by the University is not duplicated by any contractor provided coverage with such costs being included in any bid, change order, claim or payment applications for the Work (hereinafter "UCIP Coverage Audit."). Any document produced by a Prime Trade Contractor or Subcontractor as part of a UCIP Coverage Audit that Prime Trade Contractor or Subcontractor believes to be a "trade secret" shall be identified as such by marking the document with a "trade secret" notation or stamp on each page of the document, and by submitting the document(s) to the UCIP Administrator in a sealed envelope marked "trade secret." The University will treat any document marked "trade secret" that was obtained for the limited purpose of a UCIP Coverage Audit as confidential and will not disclose it to any third party (other than in connection with conducting and evaluating the UCIP Coverage Audit), except as required by the California Public Records Act. If a request for a document marked "trade secret" obtained through the UCIP Coverage Audit is made pursuant to the California Public Records Act, the University will give notice to the Prime Trade Contractor so that the Prime Trade Contractor or its Subcontractor may, at such entity's own expense, seek to obtain a court order to prevent public disclosure of the UCIP Coverage Audit information.

15.7.4 Prime Trade Contractor and all Subcontractors shall preserve all documents referred to, and all documents containing information referred to, in this Article 15.7 during the performance of the Contract and for a period of at least 3 years after final completion. Prime Trade Contractor shall require its Subcontractors to comply with this Article 15.7.

15.8 NOTICES

15.8.1 Except as otherwise provided, all notices, requests, demands, and other communications to be given under the Contract Documents shall be in writing and shall be transmitted by one of the following methods:

- .1 Personally delivered.
- .2 Sent by facsimile copy where receipt is confirmed.
- .3 Sent by courier where receipt is confirmed.
- .4 Sent by registered or certified mail, postage prepaid, return receipt requested.

15.8.2 Such notices and other communications in Article 15.8.1 above shall be deemed given and received upon actual receipt in the case of all except registered or certified mail; and in the case of registered or certified mail, on the date shown on the return receipt or the date delivery during normal business hours was attempted. Such notices and communications shall be given at the respective street addresses set forth in the Agreement. Such street addresses may be changed by notice given in accordance with this Article 15.8.

15.9 TIME OF THE ESSENCE

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

15.10 MUTUAL DUTY TO MITIGATE

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

[End]

SUPPLEMENTARY CONDITIONS
(Multiple Prime Trade Contract with UCIP)

1. GENERAL CONDITIONS, ARTICLE 8 – CONTRACT TIME

Add the following as new Article 8.4 of the General Conditions:

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

8.4.1.6.11 “Rainy weather”, but only for such days of rain that are in excess of the number of days specified:

October	1 day
November	2 days
December	3 days
January	5 days
February	6 days
March	5 days
April	3 days
May – September	0 days

In order for a day to be considered a “day of rainy weather” for the purpose of determining whether CM/Prime Trade Contractor is entitled to a time extension, all of the following conditions must be met:

.3 the CM/Prime Trade Contractor must have employed all reasonable rain mitigation measures to enable the work to continue on the day; and

.4 all other conditions of Article 8 must be met.

When the total number of rainy weather days within a month does not exceed the number of days specified; the remaining days shall carry forward to the next month of the project. Remaining rain days for the calendar year shall carry forward to the next calendar year through final completion of the project.

2. GENERAL CONDITIONS, ARTICLE 11 - INSURANCE AND BONDS

Add the following language to Article 11.1.1 of the General Conditions:

The UCIP Administrator is Aon Risk Services West, Inc.

Add the following language to Article 11.1.10 of the General Conditions:

11.1.10.1 The insurance required by 11.1.10.1.1 (Commercial Form General Liability Insurance) and 11.1.10.1.2 (Business Automobile Liability Insurance) shall be (i) issued by companies with a Best rating of A- or better, and a financial classification of VII or better (or an equivalent rating by Standard & Poor or Moody's) or (ii) guaranteed, under terms consented to by the University (such consent to not be unreasonably withheld), by companies with a Best rating of A or better, and a financial classification of VII or better (or an equivalent rating by Standard & Poor or Moody's).

The insurance required by 11.1.10.1.3 (Workers' Compensation And Employer's Liability Insurance) shall be issued by companies (i) that have a Best rating of B+ or better, and a financial classification of VII or better (or an equivalent rating by Standard & Poor or Moody's); or (ii) that are acceptable to the University.

BUSINESS AUTO - Combined Single Limit Per Accident \$1,000,000
Covering Transportation and/or Hauling of hazardous materials by amending the pollution exclusion of ISO Form CA 00010 6/92 (or its equivalent) in the following manner:
1. Delete Section a. (1) a.: (Pollution) "being transported or towed away by, or handled for movement into, onto or from the Covered Auto"
2. Delete Section a. (1) b.: "Otherwise in the course of transit by the insured."

[End]

EXHIBITS TABLE OF CONTENTS

Exhibit 1	Certificate of Insurance
Exhibit 1A	UCIP Coverage Summary
Exhibit 1B	Declaration of Contractor / Minimum Occupational Safety and Health Qualifications
Exhibit 1C	UCIP Insurance Manual
Exhibit 1D	UCIP Safety Standards Manual
Exhibit 2	Payment Bond
Exhibit 3	Performance Bond
Exhibit 4	Application for Payment
Exhibit 5A	Selection of Retention Options
Exhibit 5B	Escrow Agreement for Deposit of Securities In Lieu of Retention and Deposit of Retention
Exhibit 6	Submittal Schedule
Exhibit 7	Cost Proposal
Exhibit 8	Field Order
Exhibit 9	Change Order/Contract Amendment
Exhibit 10	Conditional Waiver and Release Upon Progress Payment
Exhibit 10A	Conditional Waiver and Release Upon Final Payment
Exhibit 11	Unconditional Waiver and Release Upon Progress Payment
Exhibit 11A	Unconditional Waiver and Release Upon Final Payment
Exhibit 12	Summary of Builder's Risk Insurance Policy
Exhibit 13A	Report of Subcontractor Information
Exhibit 13B	Final Distribution of Contract Dollars
Exhibit 14	Self-Certification
Exhibit 15	Certificate of Substantial Completion
Exhibit 16	Guarantee/Warranty Form
Exhibit 17	Request for Information
Exhibit 18	Utility Service Interruption/Shut Down Request
Exhibit 19	Storm Water Discharge Permit Form
Exhibit 20	Not Used
Exhibit 21	Not Used
Exhibit 22	Material Substitution Proposal
Exhibit 23	Material Submittal Approval Form
Exhibit 24	Not Used
Exhibit 25	Not used
Exhibit 26	Letter of Instruction
Exhibit 27	General Contractor Claim Certification
Exhibit 28	Subcontractor Claim Certification
Exhibit 30	LEED Submittal Cover

EXHIBIT 1 – CERTIFICATE OF INSURANCE

DATE ISSUED:

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

COVERAGES

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

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

SPECIAL PROVISIONS:

*Special Provision #1 and #2 below do not apply to this coverage.

- THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, ITS OFFICERS, AGENTS, EMPLOYEES, CONSULTANTS, REPRESENTATIVES, AND REPRESENTATIVE'S CONSULTANTS ARE INCLUDED AS ADDITIONAL INSURED BUT ONLY IN CONNECTION WITH **906270 Housing 4: The Summits**
- THIS INSURANCE SHALL BE PRIMARY INSURANCE AS RESPECTS THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, ITS OFFICERS, AGENTS, AND EMPLOYEES. ANY INSURANCE OR SELF-INSURANCE MAINTAINED BY THE REGENTS OF THE UNIVERSITY OF CALIFORNIA SHALL BE EXCESS OF AND NONCONTRIBUTORY WITH THIS INSURANCE.
- THE PROVISIONS UNDER PARAGRAPHS (1&2) OF THIS SECTION, "SPECIAL PROVISIONS", SHALL APPLY TO CLAIMS, COSTS, INJURIES OR DAMAGES BUT ONLY IN PROPORTION TO AND TO THE EXTENT SUCH CLAIMS, COSTS, INJURIES, OR DAMAGES ARE CAUSED BY OR RESULT FROM THE NEGLIGENT ACTS OR OMISSIONS OF THE NAMED INSURED.
- SHOULD ANY OF THE INSURANCE PROGRAMS DESCRIBED HEREIN BE MATERIALLY MODIFIED OR CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL THIRTY (30) DAYS (TEN [10] DAYS FOR NON-PAYMENT OF PREMIUM) WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED BELOW.

CERTIFICATE HOLDER: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA.
 FORWARD TO:
 Physical Planning Design & Construction
 UNIVERSITY OF CALIFORNIA, MERCED
 5200 N. Lake Rd
 Merced, CA 95343

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

AUTHORIZED REPRESENTATIVE

UCIP COVERAGE SUMMARY

**EXHIBIT
1A**

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA MASTER UNIVERSITY CONTROLLED INSURANCE PROGRAM (UCIP)

This Exhibit summarizes the UCIP Commercial General Liability, Umbrella /Excess Liability and Workers' Compensation policies and is not intended to reflect all the terms and conditions or exclusions of such policy as of the effective date of coverage. This document is not an insurance policy and does not amend, alter or extend the coverage afforded by the listed policy. The insurance afforded by the listed policy is subject to all the terms, exclusions and conditions of such policy. The policy is available for review by contacting the UCIP Administrator.

INSURANCE COMPANY: Various

BEST'S RATING: Various

NAMED INSURED / SPONSOR: The Regents of the University of California

COVERAGE:

Commercial General Liability

LIMITS:

\$4,000,000	General Aggregate Limit
\$4,000,000	Products/ Completed Operations Aggregate Limit
\$2,000,000	Personal and Advertising Injury Limit (any one person or organization)
\$2,000,000	Each Occurrence Limit
\$1,000,000	Fire Legal Liability Limit(any one fire)
\$ 5,000	Medical Expense Limit (any one person)

Annual reinstatement of limits applies. However, only one limit applies to the Products/ Completed Operations Extension Endorsement.

EXTENSIONS OF COVERAGE:

- Named Insured Endorsement
- Additional Definitions Endorsement
- Non-Cancelable except for 10 Day Notice for Non-Payment of Premium and 30 Day Notice for Non-Compliance of Safety Recommendations
- Assignment Consent Endorsement
- Amendment to Duties in the Event of Occurrence, Claim or Suit
- Additional Insured Endorsement (where required by Contract)
- Designated Premises Endorsement
- Amendment of Fellow Employee Exclusion
- Waiver of Subrogation Endorsement (where required by Contract)
- Knowledge & Notice of an Occurrence Endorsement
- 10-Year Completed Operations Extension
- Damage to Property Exclusion Modified
- Builder's Risk Endorsement
- Unintentional Errors & Omissions
- Amendment of Expected or Intended Injury Exclusion
- Property Damage to Insured's Work
- Amendment of Other Insurance

KNOWN EXCLUSIONS:

- Expected or Intended Injury
- Contractual Liability
- Liquor Liability
- Workers' Compensation and Similar Laws
- Employer's Liability
- Pollution
- Aircraft, Auto or Watercraft
- Mobile Equipment
- War
- Damage to Property
- Damage to Your Product
- Damage to Your Work
- Damage to Impaired Property or Property Not Physically Injured
- Recall of Products, Work or Impaired Property
- Personal and Advertising Injury
- Electronic Data
- Knowing Violation of Rights of Another
- Material Published with Knowledge of Falsity
- Material Published Prior to Policy Period
- Criminal Acts
- Contractual Liability
- Breach of Contract
- Quality or Performance of Goods – Failure to Conform to Statements
- Wrong Description of Prices
- Infringement of Copyright, Patent, Trademark or Trade Secret
- Insureds in Media and Internet Type Businesses
- Electronic Chatrooms or Bulletin boards
- Unauthorized Use of Another's Name or Product
- Pollution
- Pollution-Related
- War
- Distribution of Material in Violation of Statutes
- Exterior Insulation and Finish Systems
- Employment-Related Practices
- Total Pollution Exclusion with a Building, Cooling and Dehumidifying Equipment and Hostile Fire Exception
- Contractors' Professional Liability
- Nuclear Energy Liability Exclusion Endorsement (broad form)
- Silica or Silica Mixed Dust
- Fungi or Bacteria
- Lead
- Unintentional Errors or Omissions
- Asbestos
- Limited Contractual Liability
- Damage to the Project
- Prior Claims or Continuous Progressively Deteriorating Injury or Damage

Contractor Obligations: See Contract General Conditions, Article 11.1.9.8

<u>Contract Value (Bid Price) @ the Time of Loss Reported</u>	<u>Commercial General Liability Obligation (Contractor Deductibles)</u>
\$1,000,000 or Less	\$ 1,000
\$1,000,001 to \$10,000,000	\$ 5,000
\$10,000,001 and Over	\$25,000

University shall not collect an amount that exceeds the actual costs of the claim.

<u>COVERAGE:</u>	Workers' Compensation and Employer's Liability
<u>TERRITORY:</u>	California
<u>LIMIT OF LIABILITY:</u>	Workers Compensation - Statutory Employer's Liability Limits: \$2,000,000 Each Accident \$2,000,000 Policy Limit \$2,000,000 Each Employee
<u>KNOWN EXCLUSIONS:</u>	<ul style="list-style-type: none"> • Standard statutory exclusions • Terrorism
<u>EXTENSIONS OF COVERAGE:</u>	<ul style="list-style-type: none"> • Voluntary Compensation & Employers Endorsement • Non-Cancelable except for 10 Day Notice for Non-Payment of Premium and 30 Day Notice for Non-Compliance of Safety Recommendations • Additional Definitions Endorsement • Designated Workplace Endorsement • Assignment Consent Endorsement • Waiver of Rights to Recover from Others • Knowledge of Injury Endorsement • Alternate Employer Endorsement • Unintentional Errors & Omissions Endorsement • Longshore and Harbor Workers Coverage Endorsement • Employer's Liability Stop Gap Endorsement
<u>DEDUCTIBLE:</u>	None

COVERAGE:**Umbrella / Excess Liability****LIMITS ARE PLACED****IN LAYERS:**

\$100,000,000 Each Occurrence
\$100,000,000 Annual Aggregate
\$100,000,000 Products / Completed Operations
\$ 250,000 Crisis Response Sublimit
\$ 50,000 Excess Casualty Crisis Fund Limit

DEDUCTIBLE:

None

**EXTENSIONS OF
COVERAGE:**

Following Form to Underlying Coverages except:

- Anti-Stacking Endorsement
- Continuing or Progressive Bodily Injury, Personal Injury or Property Damage Endorsement
- Damage Endorsement
- Named Peril & Time Element
- 10-Year Completed Operations Extension
- Designated Premises

KNOWN EXCLUSIONS:

Following Form to Underlying Coverages except:

- Chromated Copper Arsenate Exclusion
- Automobile Liability Exclusion
- Marine Liability

[End]

EXHIBIT 1B

**DECLARATION OF CONTRACTOR / SUBCONTRACTOR
MINIMUM OCCUPATIONAL SAFETY AND HEALTH QUALIFICATIONS**

CERTIFICATION PURSUANT TO GOVERNMENT CODE SECTION 4420

The minimum occupational safety and health qualifications for each Contractor and Subcontractor are as follows:

- 1) Contractor/Subcontractor has no serious and willful violations of Part 1 (commencing with Section 6300) of Division 5 of the Labor Code during the five (5)-year period prior to execution of this certification.
- 2) Contractor/Subcontractor has maintained a Workers' Compensation Experience Modification Rate (EMR) that averages below 1.25 for the past three years. If Contractor/Subcontractor has been in business for less than three years, then they must have maintained a workers' compensation Experience Modification Rate (EMR) that averages below 1.25 for all years they have been in business.
- 3) Contractor/Subcontractor has instituted an injury prevention program pursuant to Section 3201.5 or 6401.7 of the Labor Code and will provide University with a complete copy upon request.

The undersigned certifies that (1) it meets the minimum occupational safety and health qualifications set forth above and, (2) declares, under penalty of perjury, that the foregoing is true and correct.

Firm Name: _____ [List California license classification(s)]

Firm Address: _____

Printed Name: _____ Title: _____

Signature: _____ Date: _____

This declaration was duly executed on the above listed date at:

_____/_____/_____
Name of City (if within a city) County State

EXHIBIT 1C

The Regents of the University of California
Merced



University Controlled Insurance Program
(UCIP)

Student Housing 4: The Summits



UCIP Insurance Manual

UNIVERSITY CONTROLLED INSURANCE PROGRAM

Insurance Manual

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
1111 Franklin Street, 10th Floor
Oakland, CA. 94607

Table of Contents

1. OVERVIEW	1
UCIP DEFINITIONS	2
ABOUT THIS MANUAL	4
2. UCIP PROJECT DIRECTORY	5
3. UCIP INSURANCE COVERAGE	7
ELIGIBLE PARTIES	7
ENROLLED PARTIES	7
EXCLUDED PARTIES.....	7
EVIDENCE OF COVERAGE.....	8
SUMMARY DESCRIPTION OF UCIP COVERAGES	8
<i>Workers' Compensation and Employers Liability</i>	9
<i>Commercial General Liability</i>	9
<i>Excess Umbrella Liability</i>	9
CONTRACTOR OBLIGATION	10
UCIP TERMINATION OR MODIFICATION	11
4. INSURANCE REQUIRED FROM ALL CONTRACTORS AND SUBCONTRACTORS, INCLUDING EXCLUDED PARTIES	12
WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY.....	13
COMMERCIAL GENERAL LIABILITY/UMBRELLA LIABILITY	13
AUTOMOBILE LIABILITY	14
PROPERTY INSURANCE	14
ADDITIONAL INSURED	14
WAIVER OF SUBROGATION	14
5. CONTRACTOR AND SUBCONTRACTOR RESPONSIBILITIES	15
DECLARATION OF MINIMUM OCCUPATIONAL SAFETY & HEALTH QUALIFICATIONS	16
CONTRACTOR AND SUBCONTRACTOR BIDS	17
ADJUSTMENTS FOR UCIP INSURANCE COSTS	17
CHANGE ORDERS.....	17
ENROLLMENT	18
COVERAGE OF OFF-SITE LOCATIONS	18
SAFETY STANDARDS.....	19
PAYROLL REPORTS	19
INSURANCE COMPANY PAYROLL AUDIT.....	19
CLOSE OUT PROCEDURES	20
6. CLAIM REPORTING PROCEDURES	21
GENERAL PROCEDURES	21
WORKERS' COMPENSATION CLAIMS	22
LIABILITY CLAIMS	25
AUTOMOBILE CLAIMS	26
7. FORMS	27

1. Overview

Welcome to The Regents of the University of California's University Controlled Insurance Program.

The Regents of the University of California has arranged for this Project to be insured under the University Controlled Insurance Program, or "UCIP." The UCIP is a single insurance program that insures the University of California, Enrolled Contractors, Enrolled Subcontractors, and other designated parties for Work performed at the Project Site. Certain Contractors or Subcontractors are excluded from the UCIP. These parties are identified in Section 3 of this Manual.

Coverage under the UCIP includes Workers' Compensation/Employer's Liability, General Liability, and Excess Liability.

The University of California will pay the insurance premiums for the UCIP coverages described in this Insurance Manual. You should notify your insurance broker/insurer(s) of the coverages provided under the UCIP for on-site activities to avoid the duplication of coverage. **Each bidder is required to bid net of all insurance costs for coverages provided by the University of California.**

NOTE:

Insurance coverages and limits provided under the UCIP are limited in scope and are specific to work performed after the inception date of your enrollment into this program. Your insurance representative should review this information. **Any additional coverage you may wish to purchase will be at your option and expense.**

UCIP Definitions

The following definitions shall apply throughout this manual:

TERM	DEFINITION
BID NET OF COST OF UCIP COVERAGES:	A bid submitted by Contractor or Subcontractors to perform Work or a portion of the Work, which is net of the Contractor's or Subcontractors' Cost of UCIP Coverages.
CONTRACT:	The term "Contract" means the written Agreement between the Contractor and Owner as set forth in the Contract Documents.
CONTRACTOR:	The term "Contractor" means the person or firm identified as the Contractor, CM/Contractor, Design Builder, or Prime Trade Contractor in the Agreement, and is referred to throughout the Contract Documents as if singular in number.
COST OF UCIP COVERAGES:	Cost of UCIP Coverages shall mean Contractor's or Subcontractor's projected or actual cost to provide the workers' compensation and employer's liability, commercial general liability insurance, and excess liability insurance being provided under the UCIP. The Cost of UCIP Coverages includes insurance premiums, related taxes and assessments, markup on the insurance premiums, and losses retained through the use of a self-funded program, self-insured retention, or deductible program. The cost of insurance must include expected losses within any retained risk.
ELIGIBLE PARTIES:	See page 7.
ENROLLED PARTIES:	See page 7.
EXCLUDED PARTIES:	See page 7.
OWNER:	The Regents of the University of California, also referred to as the University of California
PROJECT:	The term "Project" means the Work of the Contract and all other work, labor, equipment, and materials necessary to accomplish the construction of the improvement of which the Work is a part.

OVERVIEW

SUBCONTRACTOR:	The term “Subcontractor” means a person or firm that has a contract with Contractor or with a Subcontractor to perform a portion of the Work. Unless otherwise specifically provided, the term Subcontractor includes Subcontractors of all tiers.
UCIP ADMINISTRATOR:	The entity hired by the University of California to administer the UCIP. The UCIP Administrator is: Aon Risk Insurance Services West, Inc. 199 Fremont Street, Suite 1500 San Francisco, California 94105
UCIP COVERAGES:	The insurance coverages provided under the UCIP, as set forth in the UCIP Policies, and as summarized in this Insurance Manual.
UCIP INSURER:	Any of the insurance companies providing insurance under the UCIP.
UCIP POLICIES:	The insurance policies issued by a UCIP Insurer for the UCIP.
UCIP:	The University of California’s University Controlled Insurance Program.
WORK:	The term “Work” means all construction, services, and other requirements of the Contract Documents as modified by Change Order, whether completed or partially completed, and includes all labor, materials, equipment, tools, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work will constitute a part of the Project.

Enrollment in the UCIP is mandatory for all Eligible Parties. **In addition to the insurance provided under the UCIP**, Enrolled Parties shall obtain and maintain, and shall require each of their Subcontractors of all tiers to obtain and maintain, the insurance coverage specified in Section 4. Excluded Parties and parties no longer enrolled in, or covered by, the UCIP shall obtain and maintain, and require each of their Subcontractors to obtain and maintain, the insurance coverage specified in Section 4.

About This Manual

This Insurance Manual has been prepared by Aon, the UCIP Administrator, and the University. The Insurance Manual is designed to provide an overview of the UCIP and identify, define and assign responsibilities for the administration of the UCIP.

This Insurance Manual may be updated as necessary during the course of construction to reflect any changes in State Rules and/or Regulation or Procedures that may become applicable. Said revisions shall replace all previous versions. Copies of any revised Insurance Manual shall be distributed by the UCIP Administrator.

What This Manual Does

This Manual:

- Sets forth the responsibilities of the various parties involved in the Project, including the insurance-related obligations of Contractors and Subcontractors, whether or not enrolled in the UCIP
- Describes the general structure of the UCIP
- Provides a *basic* description of UCIP coverages
- Describes audit and administrative procedures
- Provides answers to basic questions about the UCIP

What this Manual Does Not Do

This Manual does not:

- Provide complete information about coverages
- Amend, modify or change the policy
- Provide coverage interpretations or answer specific claims questions

Refer questions concerning the UCIP, its administration, insurance coverages, or claims to the appropriate party identified in the Project Directory. The Directory immediately follows this introduction.

DISCLAIMER:

The information in this Manual is intended to outline the UCIP Program. If any conflict exists between this Manual and the UCIP insurance policies or Contracts between the University of California and the Contractor or their Subcontractors, the insurance policies or Contracts will govern.

2. UCIP Project Directory

The following list includes key personnel involved in the program

UCIP Administrator

Aon Risk Insurance Services West, Inc.

199 Fremont Street, 17th Floor
San Francisco, CA. 94105

Phone: (415) 486-7500

Fax: (415) 486-7022

Sr. Program Administrator

Scott Brama

Phone: (415) 486-7238

Email: scott.brama@aon.com

Program Manager

Josh Schultz

Phone: (415) 486-7236

Email: josh.schultz@aon.com

Regional Safety Director

Scott Maxey

Phone: (213) 996-1545

Email: scott.maxey@aon.com

Project Safety Consultant

TBD

Phone: TBD

Email: TBD

General Contractor / Construction Manager

ProWest PCM, Inc.

22710 Palomar Street
Wildomar, CA 92595

Phone: (951) 678-1038

Fax: (951) 678-1034

Contracts Manager/Administrator

Dale E. Williams

Phone: (209) 628-0768

Email: dewilliams@prowestpcm.com

Project Manager

Dale E. Williams

Phone: (209) 628-0768

Email: dewilliams@prowestpcm.com

Project Superintendent

Steve Wolff

Phone: (209) 628-0479

Email: swolff@prowestpcm.com

Project Safety Manager

Steve Wolff

Phone: (209) 628-0479

Email: swolff@prowestpcm.com

University

The University of California – Merced

767 E. Yosemite Ave. Ste. C
Merced, CA 95348

Project Manager

Brad Verma

Phone: (209) 228-4479

Email: bverma@ucmerced.edu

On-Site Coordinator / Construction Analyst

Fran Telechea

Phone: (209) 228-4453

Email: ftelechea@ucmerced.edu

Director of Risk Management – Campus

TBD

Phone: TBD

Email: TBD

Insurance Programs Manager – OP

Cindy Low

Phone: (510) 987-9828

Email: cynthia.low@ucop.edu

Director of Risk Management – OP

Grace Crickette

Phone: (510) 987-9820

Email: grace.crickette@ucop.edu

UCIP Insurer

Zurich in North America

560 Mission Street, Suite 2300
San Francisco, CA 94105

Regional Safety Manager

Doug Stohlman

Phone: (916) 765-1507

Email: doug.stohlman@zurichna.com

Adjuster WC – Medical Only

Marilyn Carpenter

Phone: (916) 636-0789

Email: marilyn.carpenter@zurichna.com

Lost Time Examiner – Tier II

Terry Woodcock

Phone: (916) 636-8600

Email: terri.woodcock@zurichna.com

Lost Time WC Handler – Tier III

Ana Maria Murphy

Phone: (818) 227-1732

Email: ana.maria.murphy@zurichna.com

WC Team Manager

Michelle Abram-Hogan

Phone: (818) 227-1781

Email: michell.abram-hogan@zurichna.com

3. UCIP Insurance Coverage

This section provides a brief description of UCIP Coverages. You must refer to the actual policies for details concerning coverage, exclusions and limitations.

Eligible Parties

Unless excluded (see below), each of the following who will perform any labor at the Project site (labor may be performed either by the party or by a Subcontractor to a party) are an “Eligible Party:” Contractor, all Subcontractors of all tiers, and such other persons or entities as University may designate, in its sole discretion.

Enrolled Parties

Enrolled Parties are named insureds on the UCIP policies. Enrolled Parties include:

- ↪ The University of California, and The University of California’s Representative;
- ↪ A Contractor that is eligible for and enrolls in the UCIP;
- ↪ Subcontractors who are eligible for, and enroll in the UCIP,
- ↪ Any other Eligible Party that enrolls in the UCIP.

Parties named as additional insureds include other parties that the University of California is required under contract to add as additional insureds. These parties are also referred to as insureds.

Excluded Parties

“Excluded Parties” are:

1. Hazardous materials remediation, removal and/or transport companies and their consultants;
2. Architects, surveyors, engineers, and soil testing engineers, and their consultants (except for architects, surveyors, engineers and soil testing engineers that are employees of Contractor or Subcontractor).

3. Vendors, suppliers, fabricators, material dealers, truckers, haulers, drivers, common carriers and others who do not perform work at the Project site or who merely transport, pick up, deliver, or carry materials, personnel, parts or equipment, or any other items or persons to or from the Project site;
4. Subcontractors of all tiers that do not perform any actual labor on the Project site with their own forces or through a Subcontractor;
5. Persons or Entities who are not an Eligible Party who are enrolled in the UCIP; and
6. Any other person or entity that the University, acting in its sole discretion, elects to exclude, even if otherwise eligible.

Excluded Parties are not eligible to enroll in the UCIP. The UCIP does not provide any coverage to an Excluded Party. All Excluded Parties, and any party no longer enrolled in, or covered by, the UCIP shall obtain and maintain, and shall require each of their subcontractors of any tier to obtain and maintain, the insurance coverage specified in Section 4.

Evidence of Coverage

The UCIP Administrator will provide upon enrollment a Certificate of Insurance evidencing workers' compensation, general liability, and excess liability coverage to each Enrolled Party, each of whom will then be a named insured on the UCIP policies. A **Certificate of Insurance** is a document providing evidence of coverage for a particular insurance policy or policies. Other documentation including claim reporting forms, posting notices, etc., will be furnished to each Enrolled Party.

Each Contractor will receive a copy of the workers' compensation policy, and copies of the remaining UCIP insurance policies will be available for your review upon a written request to the UCIP Administrator.

Summary Description of UCIP Coverages

This summary is not an insurance policy and is not intended to amend, alter, or extend the coverage afforded by the UCIP Policies. The coverage provided under the UCIP Policies is governed by the terms, conditions, exclusions, and limitations of the UCIP Policies. The following descriptions provide a summary of the insurance coverages provided under the UCIP:

Workers' Compensation and Employers Liability

State: California

LIMITS OF LIABILITY

Part One - Workers' Compensation:	Statutory
Part Two - Employer's Liability:	
Bodily Injury by Accident, each accident	\$2,000,000
Bodily Injury by Disease, each employee	\$2,000,000
Bodily Injury by Disease, policy limit	\$2,000,000

A single General Liability Policy will be issued covering all insureds.

Commercial General Liability

Per Project Limits
Shared by All Insureds

General Aggregate	\$4,000,000
Products/Completed Operations Aggregate	\$4,000,000
Bodily Injury & Property Damage—Each Occurrence	\$2,000,000
Personal/Advertising Injury—Each Occurrence	\$2,000,000
Fire Damage Legal Liability	\$1,000,000
Medical Expense	\$5,000

Contractor and Subcontractors of all Tiers Will Be Responsible for a General Liability Obligation Per Occurrence for any Claim Due To CM/Contractor or Subcontractor's Negligence as Shown In Its Contract Language For Any Third Party Damages/Injuries Caused By The CM/Contractor Or Its Subcontractors. The Specific Amount of This Obligation Is Based On Contract Value.

- Products & Completed Operations Extension is 10 Years
- This insurance will **NOT** provide coverage for products liability to any insured party, vendor, supplier, off-site fabricator, material dealer or other party for any product manufactured, assembled or otherwise worked upon away from the Project Site.
- **The policy contains exclusions.** Some of these exclusions are: Real & Personal Property in the care, custody or control of the insured; Asbestos; Lead; EFIS; Discrimination & Wrongful Termination; ERISA; Architects & Engineers Errors & Omissions; Owned & Non-Owned Aircraft, Watercraft, Pollution and Automobile Liability; Nuclear Broad Form Liability, and other exclusions referred to in Exhibit 1A, the UCIP Coverage Summary.

Excess Umbrella Liability

Per Project Limits
Shared by All Insureds

Each Occurrence Limit	\$100,000,000
Annual General Aggregate Limit	\$100,000,000

- The Policies follow form (provisions, coverage, exclusions, etc.) of underlying Commercial General Liability and Employer's Liability policy wording.
- University of California reserves the right to supply additional limits upon final review.

Contractor Obligation

In the event of a Commercial General Liability loss covered by the UCIP, Contractor shall pay to the University an amount as set forth below. Payment pursuant to the preceding sentence shall not in any way limit the liability of Contractor to University or otherwise. The amount to be paid, which is based on the Contract Sum of the Contractor's Contract at the time of the loss is reported, is as follows:

<u>Contract Sum</u>	<u>Amount to be Paid</u>
\$1,000,000 or Less	\$1,000
\$1,000,001 to \$10,000,000	\$5,000
\$10,000,001 and Over	\$25,000

NOTE:

Insurance coverage and limits described in this Section are limited in scope and are specific to Work performed at the Project Site and after the inception date of your enrollment into this Program. Your insurance representative should review this information. **Any additional coverage you may wish to purchase will be at your option and expense.**

Coverage of Off-site Locations

Work (as defined in the General Conditions) that is performed at an off site location, which is not specified in the General Conditions, will be treated as on site Work provided that at the time of enrollment in the UCIP the off site location is identified to the UCIP Administrator and scheduled on the UCIP policies. Contact the UCIP Administrator in order to schedule an off site location with the UCIP; allow thirty (30) days to schedule the off site location on the UCIP policies.

NOTE:

Contractor and Subcontractors are advised to arrange their own insurance for Contractor or Subcontractors owned or leased equipment and materials not intended for inclusion in the Project. The UCIP will not cover Contractor or Subcontractor's property.

UCIP Termination or Modification

University may, for any reason, modify the UCIP Coverages, discontinue the UCIP, or request that Contractor or any of its Subcontractors of any tier withdraw from the UCIP upon thirty (30) days written notice. Upon such notice Contractor and/or one or more of its Subcontractors, as specified by University in such notice, shall obtain and thereafter maintain during the performance of the Work, all (or a portion thereof as specified by University) of the UCIP Coverages. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to University's approval. The University shall pay Contractor for the reasonable cost of replacement coverage approved by the University.

4. Insurance Required From All Contractors and Subcontractors, Including Excluded Parties

Enrolled Contractor and Enrolled Subcontractors are required to maintain insurance coverages to protect against losses that occur away from the Project Site or that are otherwise not insured by the UCIP.

Contractors and Subcontractors are required to maintain insurance coverage that protects the University of California from liability for claims for damages. These liabilities may arise from the Contractor's and Subcontractors' operations performed off the Project Site at locations that have not been disclosed to the UCIP Administrator and scheduled on the UCIP policies, from activities not insured by the UCIP or from operations performed by Excluded Parties. There are two types of Contractors and Subcontractors: Enrolled Contractors and Subcontractors and Excluded Contractors and Subcontractors.

Enrolled Contractor and Subcontractors are to provide evidence of Workers' Compensation and General Liability Insurance for *off-site activities* and Automobile Liability Insurance for both *on-site and off-site activities* via a Certificate(s) of Insurance with additional insured endorsements as per the insurance specifications in the Contract.

Excluded Subcontractors must provide evidence of Workers' Compensation, General Liability, Auto Liability Insurance, and for other insurance as required by scope of work (i.e. Hazardous Remediation Pollution Liability), if any, for all activities including **both** *on-site* and *off-site* activities via a Certificate(s) of Insurance with additional insured endorsements as per the insurance specifications in the Contract.

Subcontractors must submit verification of insurance in the form of a Certificate of Insurance on a standard ACORD 25 form. They must provide a Certificate of

See Section 7
for sample Certificate of
Insurance.

INSURANCE REQUIRED

Insurance to the UCIP Administrator prior to mobilization on site, and within ten (10) days of any renewal, change or replacement of coverage. A sample of an acceptable Certificate of Insurance is provided in Section 7.

Please note the requirement for thirty (30) days notice of cancellation, (except 10 days for non-payment of premium), modification or material change. The additional insured endorsements shall state that the coverage provided to the additional insureds is primary and non-contributing with respect to any other insurance available to the additional insureds.

Certificate of Insurance

- 5 days prior to mobilization and within ten (10) days of renewal, change or replacement of coverage, Contractor and Subcontractor will submit to the University of California a Certificate of Insurance evidencing the coverage and limits as specified in this section.
- A 30-day notice of cancellation provision, waiver of subrogation and additional insured status is required on all Certificates.

Pursuant to the Instructions to Bidders, Contractor shall provide its certificates of insurance to University within 10 days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder. All other parties shall provide, prior to mobilization, their certificates of insurance directly to the UCIP Administrator.

The limits of liability shown for the insurance required of the Contractor and Subcontractors are minimum limits only and do not restrict the liability imposed on the Contractor and Subcontractors for Work performed under their Contract. Limits required below can be provided by a combination of primary and umbrella/excess liability insurance. If umbrella/excess liability coverages are to be provided, such policies shall be follow form (provisions, coverage, exclusions, etc.) of underlying Commercial General Liability, Employer’s Liability and Automobile Liability policy wording.

Eligible

Contractors shall provide evidence of workers’ compensation insurance for off-site activities.

Excluded

Contractors shall provide evidence of workers’ compensation applicable to on and off-site project.

Workers’ Compensation and Employer’s Liability

Part One - Workers’ Compensation:

Statutory Limit

Part Two - Employer’s Liability:

Annual Limits

Bodily Injury by Accident, each accident	\$1,000,000
Bodily Injury by Disease, each employee	\$1,000,000
Bodily Injury by Disease, policy limit	\$1,000,000

Commercial General Liability/Umbrella Liability

Eligible

Contractors shall provide evidence of general liability insurance for off-site activities.

Excluded

Contractors shall provide evidence of general liability insurance applicable to on and off-site projects and must add the University of California and other parties as additional insureds to their policy.

Limits of Liability

Enrolled / Excluded

General Aggregate	\$2,000,000 / \$4,000,000
Products/Completed Operations Aggregate	\$2,000,000 / \$4,000,000
Personal/Advertising Injury Aggregate	\$1,000,000 / \$2,000,000
Each Occurrence Limit	\$2,000,000 / \$2,000,000

Coverage must be on an Occurrence Form and it must apply to bodily injury and

property damage for operations (including explosion, collapse and underground coverage), independent Contractor or Subcontractor, products and completed operations.

Automobile Liability
Contractor and
Subcontractors shall provide
evidence of automobile
liability. The UCIP does not
cover automobile liability.

Automobile Liability

A Commercial Business Auto Policy which covers all owned, hired and non-owned automobiles, trucks and trailers with coverage limits not less than **\$1,000,000**. **This can be a combination of the Automobile Liability and Excess Policy**, each accident for bodily injury and property damage on-site and off-site.

Property Insurance

Contractor and Subcontractors are advised to arrange their own insurance for owned and leased equipment (not to be permanently installed or incorporated into the Project), whether such equipment is located at a Project Site or “in transit”. Contractor and Subcontractors are solely responsible for any loss or damage to their personal property including Contractor and Subcontractor tools and equipment, temporary structures (including construction trailers), whether owned, used, leased or rented by the Contractor and Subcontractor. Contractor and Subcontractors are also responsible for any loss or damage to property or materials created or provided under the Contract until the property or materials arrives at the Project Site.

Additional Insureds

With exception to Workers’ Compensation and Employer’s Liability insurance, the following shall be included as additional insureds as required by contract: The University of California, its officers, employees, related entities, representatives and Authorized Representatives. Refer to the sample Certificate of Insurance provided with this Insurance Manual. The list of additional insureds may be updated at any time due to contractual requirements of the University of California.

Waiver of Subrogation

Contractor and Subcontractors of all tiers waive subrogation as set forth in Section 11.1.13 of the General Conditions.

5. Contractor and Subcontractor Responsibilities

Throughout the course of the Project, Contractor and Subcontractors will be responsible for reporting and maintaining certain records as outlined in this section. Additionally, Subcontractors will be required to provide a completed Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications prior to commencement of Work by the Subcontractor.

The Contractor and Subcontractors are required to cooperate with the University of California and its UCIP Administrator in all aspects of UCIP implementation and administration. Responsibilities include the following:

- Contractor and all Subcontractors must enroll in the UCIP, if eligible, prior to mobilization. Prime Contractor has the responsibility to ensure that all eligible Subcontractors are enrolled prior to the Subcontractor's commencement of Work.
- Contractor and Subcontractors must provide copies of their current Workers' Compensation, General Liability and Excess Liability rate and declaration pages, deductible endorsements and any other required documentation. See **Adjustments for UCIP Insurance Costs**.
- Contractor and Subcontractors must provide timely evidence of required insurance to the UCIP Administrator, prior to mobilization and upon renewal, modification or material change of insurance.
- Contractor and Subcontractors must include UCIP provisions in all contracts with Subcontractors.
- Contractor must provide each Subcontractor with a copy of the UCIP Insurance Manual. The UCIP Insurance Manual may be updated during the course of construction to reflect any changes in state rules and/or regulations or procedures that may be necessary, and said revisions shall replace all previous versions. Copies of any revised Insurance Manual shall be distributed by the UCIP Administrator.
- Contractor must notify the UCIP Administrator of all subcontracts, including lower tier subcontracts.

CONTRACTOR AND SUBCONTRACTOR
RESPONSIBILITIES

- Contractor and Subcontractors must maintain and electronically report monthly payroll records.
- Contractor and Subcontractors must cooperate with the UCIP Administrator's requests for information.
- Contractor shall be responsible for monitoring and ensuring that its Subcontractors of all tiers comply with the requirement for providing Certificates of Insurance.
- Contractor and Subcontractors must notify the UCIP Administrator immediately of any insurance cancellation, modification, material change or non-renewal of required insurance.
- Subcontractors are required to provide work status reports to the Contractor following an injury sustained at the Project Site.
- Provide Medical Provider Network (MPN) packet to all employees working at the project site. See Section 6 for more information.

Declaration of Minimum Occupational Safety & Health Qualifications

Prior to commencement of Work by a Subcontractor, the Subcontractor must provide to the UCIP Administrator the completed *Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications* form demonstrating that the Subcontractor meets the following minimum occupational safety and health qualifications:

- A. The Subcontractor must have had no serious and willful violations of Part 1 (commencing with Section 6300) of Division 5 of the Labor Code during the five-year period prior to bid opening.
- B. The Subcontractor must have maintained a Workers' Compensation Experience Modification Rate (EMR) that averages below 1.25 for the past five years. (If Subcontractor has been in business for less than five years, then Subcontractor must have maintained a Workers' Compensation Experience Modification Rate (EMR) that averages below 1.25 for all years Subcontractor has been in business.)
- C. The Subcontractor must have instituted an injury prevention program pursuant to Section 3201.5 or 6401.7 of the Labor Code.

A Subcontractor will not be allowed to Work on the Project until it submits the completed *Declaration of Contractor or Subcontractor Minimum Occupational Safety and Health Qualifications* form.

Contractor and Subcontractor Bids

See Section 7 for forms that can help identify your insurance costs.

See Section 2 for information on contacting the UCIP Administrator.

The University of California shall pay all premiums for the UCIP. Each Bidder is required to submit bids for the Project that are net of Contractor's and Subcontractors' Cost of UCIP Coverages. The section below, "Adjustments for UCIP Insurance Costs," describes the procedure for identifying the Costs of UCIP Coverages when bidding so these costs can be removed from the bid price. Section 7 of this Insurance Manual contains worksheets that can be used to estimate your insurance costs, and those of your Subcontractors, for the coverages provided under the UCIP.

Adjustments for UCIP Insurance Costs

Each Eligible Contractor and Subcontractor is required to **exclude** from their bid the cost of the insurance that is provided under the UCIP.

To aid the Contractor and its Subcontractors in determining the cost of insurance to remove from the bid, the Insurance Cost Worksheet form (Aon Form-1a) and Insurance Cost Summary form (Aon Form-2) are provided in Section 7. A separate Aon Form-1a is required from the Contractor and each Subcontractor.

Each Enrolled Contractor and Enrolled Subcontractor will be required to submit the insurance documentation listed below. Documentation will include the following pages from the Workers' Compensation, General Liability and Excess Liability policies:

- Declarations or information page
- Rate page(s) – rates must reflect first dollar coverage; no composite rates or corporate allocations based on deductible/retention programs
- Deductible endorsements, if applicable
- Verification of experience modification (Workers' Compensation only)
- 3 Years of loss history from the insurance carrier, and including self-paid losses, for entities that retain losses through deductible, self-insured, or high retention programs in the amount of \$5,000 or more

Change Orders

Change orders will be priced by the Enrolled Contractor and Subcontractors to **exclude** the cost of insurance provided under the UCIP.

Contractor and Subcontractors are responsible for ensuring that their Subcontractors of all tiers also remove the Cost of UCIP Coverages from their Bid and Change Orders.

UCIP Administrator will assist the Contractor and Subcontractors in verification of Subcontractors' insurance reduction calculations.

Enrollment

See Section 7 for
sample UCIP forms.

Enrolled Contractor shall provide details about its Subcontractors to the UCIP Administrator in order to enroll them in the UCIP. The Contractor and Subcontractors must complete and submit the Enrollment Application (Aon Form-3). This form can be found in Section 7. The Enrollment Application must be completed and submitted to the UCIP Administrator and accepted prior to commencing work On Site to obtain coverage under the UCIP.

Enrolled Contractor and enrolled Subcontractors will receive a Confirmation Letter and UCIP Certificate of Insurance. A **Confirmation Letter** is a letter issued by the UCIP Administrator that confirms acceptance of the applicant into the UCIP. These documents will clearly identify the effective dates of the UCIP coverages for the Contract. A separate Workers' Compensation policy will be issued and sent to each enrolled Contractor and Subcontractor. A Claims Kit will be provided to each Enrolled Contractor and Subcontractors with the Confirmation Letter.

Should an enrolled Contractor or Subcontractor perform work under several Contracts, an Enrollment Application must be completed for each contract. A separate Confirmation Letter and Certificate of Insurance confirming acceptance of the applicant's enrollment into the UCIP will be issued for each Contract.

NOTE:

Enrollment into the UCIP is required, but **not** automatic. All Eligible Contractors and all Eligible Subcontractors **MUST** complete the enrollment forms and participate in the enrollment process to obtain UCIP coverage. Access to the Project Site will not be permitted until Enrollment into the UCIP is complete.

Coverage of Off-site Locations

Work (as defined in the General Conditions) that is performed at an off site location, which is not specified in the General Conditions, will be treated as on site Work provided that at the time of enrollment in the UCIP the off site location is identified to the UCIP Administrator and scheduled on the UCIP policies. Contact the UCIP Administrator in order to schedule an off site location with the UCIP; allow thirty (30) days to schedule the off site location on the UCIP policies.

Safety Standards

Safety Standards establish minimum standards for Contractor safety programs. Safety Standards are provided to all participants during the bidding process.

Each Contractor and Subcontractor is required to have a written safety program and to provide a designated safety representative who is on site when any Work is in progress. Minimum standards for Contractor and Subcontractor safety programs are outlined in the University of California's Safety Standards Manual.

A Drug Test Program has been implemented for this project for “post accident” and “for probable cause.” The financial burden associated with these tests will be the responsibility of the employer of the affected worker(s).

The designated occupational clinic for the UCIP projects will administer the drug test at their facility. Please see the clinic address in the Claims Section.

An employer representative will transport all injured workers (**for non-emergency cases ONLY**) to the designated occupational clinic facility for treatment.

Please see the contract documents or Contractor’s Drug Test Program for more details.

Payroll Reports

Enrolled Parties must submit monthly payroll reports to the UCIP Administrator identifying man-hours and payroll for all work performed at the Project Site by Contract and by Workers’ Compensation Classification Codes.

Enrolled Parties shall submit payroll reports prior to the 10th of the following month through the online AonWrap Web Portal or by using the On-site Payroll Report (Aon Form-4) provided in Section 7. Contact the UCIP Administrator for a User ID and Password to report payroll online if you do not receive this information during the Enrollment process. The monthly man-hour and payroll reports should include supervisory and clerical personnel on-site and cover all Work performed at or emanating directly from the Project Site.

Payroll for overtime should be included only at the normal hourly rate (**DO NOT INCLUDE EXTRA WAGES OR PREMIUM PORTION OF OVERTIME PAY WHEN CALCULATING ONSITE REPORTABLE PAYROLL**). Overtime means those hours in excess of 8 hours worked each day, 40 hours in any week or on Saturdays, Sundays, or holidays, but only when there is an increase in the hourly rate to work such hours.

Insurance Company Payroll Audit

Each Enrolled Party is required to maintain payroll records for each Contract. Such records will allocate the payroll by Workers’ Compensation classification(s) and exclude the excess or premium paid for overtime (i.e., only the straight time wage rate will apply

to overtime hours worked). Furthermore, such records will limit the payroll for Executive Officers and Partners/Sole Proprietors to the limitations as stated in the state manual rules.

It is important that you properly classify payrolls, as these are reported to the rating bureau for promulgation of future Experience Modification Ratings for your firm. All Enrolled Parties shall make available their books, vouchers, contracts, documents, and records, of any and all kinds, to the UCIP insurance carrier(s) auditors or the University's representatives. Availability of records must be for a reasonable time during the policy period, any extension, or during a final audit period as required by the insurance policies.

Close Out Procedures

Enrolled Parties must submit the Notice of Work Completion form (Aon Form-5) when all Work at the Project Site is complete and they no longer have workers on site. The completed Notice of Work Completion form will signal the final payroll report and initiate the audit of payroll by the UCIP Insurer. A copy of the Notice of Work Completion form with instructions on the proper method for completion is found in Section 7.

Failure to fill out the Notice of Work Completion and report all Payrolls in a timely manner may result in the University of California withholding issuance of final payment and release of retention pursuant to Article 9 of the General Conditions.

6. Claim Reporting Procedures

This section describes basic procedures for reporting various types of claims including Workers' Compensation, liability, and damage to the project.

General Procedures

All Parties involved with the Project shall report all injuries, occupational-related illnesses, or property damage to the Safety Manager immediately. Contractor, Subcontractors, and any other party involved with the Project will instruct employees and other personnel to report, in writing, within 24 hours *all* accidents and occurrences resulting in bodily injury or property damage to the Safety Manager.

GC/CM Safety Manager:	Steve Wolff
Cell Phone:	209-628-0479
E-mail:	swolff@prowestpcm.com

UCIP Safety Manager:	TBD
Cell Phone:	TBD
Email:	TBD

Media Inquiries

Make no statements to the media. Refer all questions from the media to the Communications Office at the University of California location where the project is located.

Investigation Assistance

Contractor and all Subcontractors will report the claim promptly and assist in the investigation of any accident or occurrence involving injury to persons or damage to property. Contractor and all Subcontractors will cooperate with the companies involved

in adjusting any claim by securing and giving evidence and obtaining the participation and attendance of witnesses required for the investigation and defense of any claim or suit.

Workers' Compensation Claims

Claims Kits will be available to all Contractors. It will include details about claim reporting and is intended for use at the Project Site.

The main responsibility for all Parties is to first see that the injured worker receives immediate medical care. The designated medical facilities for Enrolled Party employees injured on this Project are:

Non-Emergency Injuries	Emergency & After Hours Injuries
Pinnacle Healthcare Occupational Health Clinic	Mercy Medical Center Merced Hospital
285 Mercey Springs Rd., Ste. A	333 Mercy Ave.
Los Banos, Ca 93635	Merced, CA 95340
Phone: 209-829-0444 Hours: 8:30 a.m. to 6:30 p.m. M – F Saturday: 9 a.m. to 3 p.m. Closed Sundays & Holidays	Phone: 209-564-5000 24 Hours & Emergency Services

Driving directions to the facilities listed above are included in Section 7. Injuries occurring after hours or on weekends and holidays will be treated at the designated hospital listed above. For emergency treatment, the paramedics will determine the best emergency facility available for treatment.

All Parties involved with the Project shall report all injuries or occupational-related illnesses to the Safety Manager as soon as possible. Enrolled Party personnel will follow these procedures if an employee sustains bodily injury or an occupational-related illness while working at the Project Site:

1. Injured Workers should report to the Contractor job-site offices for injury assessment. Where medical treatment is required beyond the scope of First-Aid that can be administered on-site, the injured Worker will be referred to the designated Occupational Health Clinic or Hospital. The injured worker or accompanying supervisor should secure a **Treatment Authorization Form** from Contractor if they do not already have this form.
2. Contact the designated medical facility to advise them that an injured Worker will be arriving. Present the **Treatment Authorization Form** found in Section 7 of this manual to the clinic or hospital upon registration to identify the injured Worker as a UCIP participant working at a UCIP Project site.

Claims Monitoring
CM/Contractor will participate in monitoring Workers Compensation claims for Subcontractors.

Contractor and Subcontractors must designate a representative at the site to escort an injured Worker to the medical facility. This individual is to remain with the injured employee at the medical facility while he/she is being treated. The treating physician will provide a **Work Status Form** stating whether or not the injured employee can return to work, a list of restrictions, if any, and the estimated length of time the injured worker must be on modified duty.

Copies of the Work Status Form should be provided to the Employee, Employer, and the Contractor Safety Manager. If the **Work Status Form** is not submitted to the Contractor, the Contractor will request a copy from the injured Worker's employer.

3. As soon as possible, and within 24 hours of notice of injury sustained at the Project Site, the employer of an injured worker shall do the following:
 - Provide employee Workers' Compensation Claim Form (DWC-1)
 - Conduct a **Supervisor's Accident Investigation**
 - Fill out Employee and Employer sections of the DWC-1 and send it in to the insurance company when filing the claim
 - Prepare the Employer's Report of Occupational Injury or Illness (Form 5020)
 - **Report the Claim in one of the following ways:**

Call Zurich at: 1-800-987-3373

Fax Zurich at: 1-877-962-2567

Email Zurich at: USZ_CareCenter@Zurichna.com

Upload via Website at: www.zurichna.com
Click on 'Claims'
Under 'Report a Claim'
Click on 'ZNA Online Claims'

When an employer reports the claim through one of the above methods, Zurich, the UCIP insurance company, will fill out the Employer's Report of Occupational Injury or Illness (Form 5020) and send a completed copy to the State and back to the employer. This satisfies the employer's requirement to provide the Report of Injury to the State Industrial Relations Division. The UCIP Insurance Company will also send a Claims Acknowledgement to the reporting employer with the assigned Claim Number and the Claim Adjuster contact information, as it becomes available.

4. Cooperate with the Claims Adjuster and keep Contractor informed of the current Work Status of the injured Worker.

Drug Test Program

A Drug Test Program has been implemented for this project for “post accident” and “for probable cause.” The provisions of the Drug Test Program will meet or exceed the Contractor’s corporate program. The financial burden associated with these tests will be the responsibility of the employer of the affected worker(s).

Modified Duty / Early Return to Work Policy

The University of California has implemented a Modified Duty/Early Return to Work program. The purpose of this program is to keep injured workers gainfully employed during recovery. Modified duty benefits the injured worker as well as the contractor.

This policy establishes basic guidelines for an Early Return to Work (transitional duty) work assignment for injured workers. Each Employer shall have a written Early Return to Work Program that shall be implemented on this project unless specifically prohibited by the terms of a Collective Bargaining Agreement. Please see the UCIP Safety Standards Manual, page 27, for more information relating to Early Return to Work.

Contractor or Subcontractors are responsible for notifying the Occupational Safety and Health Administration (Cal-OSHA) when one or more of their employees are seriously injured.

A detailed incident report must be completed and turned in to the UCIP Safety Manager and Contractor’s Safety Manager within twenty-four (24) hours of the accident/incident. The Employer will forward any additional documentation to the insurance carrier and to the UCIP Administrator.

Each Employer will be required to attend all claims meetings and participate in the management of claims for their employees.

When additional information is requested by the insurance carrier, the Employer is required to cooperate with the assigned claims adjuster:

Medical Provider Network (MPN)

Contractor and Subcontractors working on a UCIP Project will utilize the Medical

Provider Network (MPN) program for industrial injuries. This program is a benefit to the employer as it allows for more effective medical control for the life of the claim and may reduce many of the Workers' Compensation costs associated with each claim. The MPN contains an extensive number of occupational medicine facilities and other medical providers from which the injured worker is obligated by law to select if (1) the employer (Contractor/Subcontractor) has properly fulfilled its responsibilities and (2) the injured worker has not pre-designated his own personal physician.

MPN packets will be distributed to all enrolled participants by the UCIP Administrator at the time of their enrollment approval. These packets must be distributed to all employees who will work at the Project Site. The Contractor will also include the notification packets in their safety orientation to all employees attending the orientation.

Liability Claims

Report all Liability claims to the UCIP Administrator.

Incidents or accidents at or around the Project Site, or at a designated off-site location that has been added to the UCIP policies (see definition of *Project Site* on page 2), resulting in damage to property of others (other than your own work product), or personal injury or death to a member of the public, must be reported immediately to the designated Project and Safety Managers. Follows these Procedures in the event of such and incident or accident:

1. Take appropriate emergency measures to prevent additional injury or damage, including contacting the police or fire authorities, as required by law.
2. Report the incident and all subsequent inquiries or correspondence about an insured loss or claim, including a summons or other legal documents, to the Safety Manager.
3. **Report the Claim in one of the following ways:**

Call Zurich at: 1-800-987-3373

Fax Zurich at: 1-877-962-2567

Email Zurich at: USZ_CareCenter@Zurichna.com

Upload via Website at: www.zurichna.com
Click on 'Claims'
Under 'Report a Claim'
Click on 'ZNA Online Claims'

Claims Monitoring
 CM/Contractor will participate in monitoring Workers Compensation claims for Subcontractors.

Automobile Claims

No insurance coverage is provided for automobile accidents under the UCIP. It is the sole responsibility of Contractor and Subcontractors to report accidents/claims involving their automobiles to their own insurers.

Report all Auto claims to your insurance carrier and the UCIP Administrator.

However, all accidents occurring in or around the Project Site must be reported to the designated Project and Safety Representatives. (See Section 2 for contact information). The accident will be investigated to determine any liability arising out of the project construction activities that could result in future claims (i.e., due to the conditions of the roads, etc.). Contractor and Subcontractors shall cooperate in the investigation of all automobile accidents.

7. Forms

This section contains the forms needed for enrolling into the UCIP, reporting payroll and overall administration of the UCIP.

This section contains the following forms:

Notice of Subcontract Award

Aon Form-1 Insurance Cost Worksheet

Aon Form-2 Insurance Cost Summary

Aon Form-3 Enrollment Application

Aon Form-4 On-Site Payroll Report

Aon Form-5 Notice of Work Completion

Exhibit 1 Sample Certificate of Insurance (Acord 25)

Exhibit 2 Sample Additional Insured Endorsement – General Liability

Exhibit 3 Sample Additional Insured Endorsement – Auto

Treatment Authorization Form

Designated Medical Clinic/Hospital Driving Directions

Form 5020 (CA) – Employer's Report of Occupational Injury or Illness

Form DWC-1 – Workers' Compensation Claim Form

Notice of Occurrence – Liability (Acord 3)

For assistance completing these forms, please contact the UCIP

Administrator:

Scott Brama

Aon Risk Solutions

199 Fremont Street, Suite 1500

San Francisco, CA 94105

Phone – (866) 418-8247

Fax – (415) 486-7022

Email – scott.brama@aon.com



Notice of Subcontract Award

Today's Date _____

To: Scott Brama
Email: Scott.Brama@aon.com
Fax #: 415-486-7022
Phone #: 415-486-7566

From:
Email:
Fax #:
Phone #:

The subcontractor named below will be issued a contract to perform work on the following:

Project: _____

Contract Number: _____ Contract Value: \$ _____

- Check here if the subcontractor is to be enrolled in the UCIP
 Check here if the subcontractor is to be excluded from the UCIP
 Check here if the subcontractor will be an excluded prime tier fabricator with eligible (enrolled) sub-tier erector/installer

1. Name of subcontractor:	
2. Subcontractor address:	
3. Subcontractor contact person:	
4. Subcontractor phone number:	
5. Subcontractor fax number:	
6. Subcontractor email address:	
7. General description of work:	
8. Date of award:	
9. Anticipated on-site start date:	
10. Anticipated completion date:	

Notes –

1. Please attach the subcontractor's *Declaration of Minimum Occupational Safety & Health Qualifications Form* (Exhibit 1b).
2. If available, please attach the subcontractor's certificate of insurance evidencing required coverage.



INSURANCE COST WORKSHEET
(Fixed Price Type Contracts)
Numbers reference attached instructions

The University of California - Merced
Housing 4: The Summits
UCIP Project

A. Contractor Information: Federal ID # or Soc. Sec. #: 1

▼ Business Information (headquarters)	▼ Contact Information (address questions to..)
--	---

Company Name & dba: 2 Contact Name & Title: 3
 Address: _____
 City, State, Zip Code: _____
 Telephone: _____
 Fax: _____
 E.mail Address: _____

B. Bid Information: Bid Package No.: 1

Description of Work: 2

Proposed Contract Price \$: 3 Are you Submitting a bid to **The University of California**: 5 Yes No

Amount of Self Performed Work \$: 4 If No, identify to whom: 6

C. Workers Compensation Insurance Information for Work Described Above: ^(a) (attach a separate sheet if necessary)

a State	b Class Code	c Description	d Rate <i>(per \$100 payroll)</i>	e Man-hours	f Payroll	g WC Premium <i>(Payroll * Rate / 100)</i>																		
1																								
Totals					<u>2</u>	<u>3</u>	<u>4</u>																	
Identify the Amount of Your Claim Retention <u>5</u>			Your Company's Workers Compensation Experience Modifier: <u>6</u>																					
Employers Liability Rate: <u>8</u>			Modified Premium (line C4 x C6): <u>7</u>																					
			Employers Liability Premium: <u>9</u>																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:100%;">10 Modification & Discount Premium Factors</th> <th style="width:10%;">11 Rate</th> <th style="width:10%;">12 Amount</th> </tr> <tr> <td>Mod 1: _____</td> <td>+ OR - _____</td> <td>_____</td> </tr> <tr> <td>Mod 2: _____</td> <td>+ OR - _____</td> <td>_____</td> </tr> <tr> <td>Mod 3: _____</td> <td>+ OR - _____</td> <td>_____</td> </tr> <tr> <td>Mod 4: _____</td> <td>+ OR - _____</td> <td>_____</td> </tr> <tr> <td>Mod 5: _____</td> <td>+ OR - _____</td> <td>_____</td> </tr> </table>			10 Modification & Discount Premium Factors	11 Rate	12 Amount	Mod 1: _____	+ OR - _____	_____	Mod 2: _____	+ OR - _____	_____	Mod 3: _____	+ OR - _____	_____	Mod 4: _____	+ OR - _____	_____	Mod 5: _____	+ OR - _____	_____				
10 Modification & Discount Premium Factors	11 Rate	12 Amount																						
Mod 1: _____	+ OR - _____	_____																						
Mod 2: _____	+ OR - _____	_____																						
Mod 3: _____	+ OR - _____	_____																						
Mod 4: _____	+ OR - _____	_____																						
Mod 5: _____	+ OR - _____	_____																						
Total Modification Amount (Total of all amounts entered in column C12):						<u>13</u>																		
Total Workers Compensation Premium (line C7 + C9 + C13):						<u>14</u>																		

D. General Liability: ^(a) Rate: 1 2 Based On: 3 Rate factor: 4 Identify the Amount of Your Claim Retention: _____

Total Payroll (C3) Per 100
 Contract Price (B3) Per 1,000
 Other _____

GL Premium (D2 x D1 ÷ D3): 5

Excess/Umb Liab: ^(a) Rate: 6 7 Based On: 8 Rate factor: _____

Total Payroll (C3) Per 100
 Contract Price (B3) Per 1,000
 Other _____

Excess/Umb Premium (D7 x D6 ÷ D8): 9

E. Builder's Risk/Installation Floater: ⁽¹⁾ Rate: 1 2 Rate factor Per 100 Builder's Risk/Installation Floater Premium (B3 x E1 ÷ E2): 3
 Per 1,000

F. Other Insurance Premiums: ⁽¹⁾ (Enter total premium costs identified on page 2) 1

G. Totals Total of all Insurance Premiums (Total of lines C14 + D5 + D9 + E3 + F1): 1

Overhead & Profit on Insurance Prem. %: 2 15% O/H & Profit Amount (G1 x G2): 3

Total Initial Insurance Cost (Total of lines G1 + G3): 4

Contractor's Initial Insurance Cost Rate (Line G4 divided by total payroll in line C3 x 100): 5

H. Signature Block : I verify the information presented above and attachments are correct:

Name: _____ Date: _____
 (please print)

Title: _____ Signature: _____

Completion of this form is a required part of your bid and must accompany your bid documents. Complete a separate form for each contractor, known subcontractor(s) and trades not currently awarded to a subcontractor. Duplicate this form as needed.

- (a) Please provide copies of the following documents to support your insurance cost calculations:
- | | |
|---|---|
| <input checked="" type="checkbox"/> Schedule of Values | <input checked="" type="checkbox"/> General Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Workers Compensation declaration and rate pages | <input checked="" type="checkbox"/> Umbrella/Excess Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Experience Modification worksheet | <input checked="" type="checkbox"/> 5 years actual loss experience for each line of coverage in which Contractor retains more than \$5,000. |

Complete a separate form for each contractor, known subcontractor and trade not currently awarded to a subcontractor. Duplicate this form as needed. Completion of this form is a required part of your bid and must accompany your bid documents.

A. Contractor Information

- 1 Enter your company's Federal ID number. This number can be found on filings made to the federal government such as your tax return.
- 2 Enter your company's name, mailing address and phone/fax number for your company's main office location in the space provided below.
- 3 Enter the name of the person Aon should contact if questions arise. Include the mailing address, phone/fax and e.mail address if different than A-2

B. Bid Information

- 1 Enter the Bid Package Number, Contract Number or Purchase Order Number that was included in The University of California's originating documentation.
- 2 Provide a brief description of the work you will be performing at the project site.
- 3 Identify the total amount of your bid. Include both labor and material.
- 4 Identify the amount of work that you anticipate will be self-performed. Include both labor and material.
- 5 Check the appropriate box that identifies if you contract directly with The University of California or are a subcontractor.
- 6 If you are a Subcontractor, identify the entity with whom you are under contract.

C. Workers Compensation Insurance Information *(Duplicate or attach additional sheets if necessary. You may create an electronic version of this document if all requested information is included):*

- 1 a Enter the two letter abbreviation for the state in which the work will be performed.
- b Enter each Workers Compensation class code that applies to your work identified in B2. *(Most states use a 4 digit Number)*
- c Enter the Workers Compensation class code description that applies to each class code identified in C1b.
- d Enter the Workers Compensation rate that applies to the specified class code.
- e Enter the estimated Man-hours required to complete the described work for each Workers Compensation class code.
- f Enter the estimated Payroll required to complete your work. Use only unburdened payroll and exclude the premium portion of any overtime pay.
- g Calculate the WC Premium by multiplying the Payroll (C1f) by the Rate (C1d) and dividing the result by 100. Repeat this calculation for each WC class code.
- 2 Total the estimated Man-hours for each class code. Be sure to include information from additional pages if used.
- 3 Total the estimated Payroll for each class code. Be sure to include information from additional pages if used.
- 4 Total the Workers Compensation Rate for each class code. Be sure to include information from additional pages if used.
- 5 Enter the amount of the Claim Retention / Deductible your company has on their existing Workers Compensation.
- 6 Enter your WC Experience Modifier. This information can be located on your Workers Compensation policy or on your NCCI Bureau Rating Sheet.
- 7 Calculate the Modified Premium by multiplying the WC Premium (C4) by the Experience Modifier (C6).
- 8 Enter your Employer's Liability Insurance Rate. This information can be found in your Workers Compensation policy.
- 9 Calculate your Employer's Liability Premium by multiplying the Modified Premium (C7) by the Employer's Liab. Rate (C8).
- 10 Identify the Modifiers that apply to your Workers Compensation Premium. This information can be located on your Workers Compensation Policy.
- 11 Enter the Rate for each identified Modifier. The information can be located on your Workers Compensation Policy
- 12 Calculate the Modified Premium Factor Amount by multiplying the Modified Premium (C7) by the Modified Premium Rate (C11) and dividing by 100. Be sure to identify if the Modification factor is an addition or reduction to your premium.
- 13 Total the Modified Premium Amounts by adding the numbers in column C12.
- 14 Calculate the Total Workers Compensation Premium by adding the Modified Premium (C7) to the Employer's Liab Premium (C9) and adding the Premium Modifications (C12).

D. General Liability & Umbrella/Excess Liability Insurance

- 1 Enter the General Liability Rate. This number can be found on your General Liability Policy
- 2 Identify the base the General Liability Rate applies to. If the base is other than Payroll or Revenue, enter the amount and the description in the space provided.
- 3 Identify the General Liability Rate factor by marking the box.
- 4 Identify the amount of your Claim Retention.
- 5 Calculate the General Liability Premium by multiplying the Bases (D2) by the Rate (D1) and dividing by the factor (D3).
- 6 Enter the Excess/Umbr Liability Rate. This number can be found on your Excess/Umbr Liability Policy
- 7 Identify the base the Excess/Umbr Liab. Rate applies to. If the base is other than Payroll or Revenue, enter the amount and description in the space provided.
- 8 Identify the Excess/Umbr Liability Rate factor by marking the box.
- 9 Calculate the Excess/Umbr Liability Premium by multiplying the Bases (D7) by the Rate (D6) and dividing by the factor (100 or 1,000).

E. Builder's Risk/Installation Floater

- 1 Enter the Builder's Risk/Installation Floater Rate. Locate this information on your Property Policy or Builder's Risk Policy.
- 2 Identify the base factor that it applies to (100 or 1,000).
- 3 Calculate the Premium by multiplying the Proposed Contract Price (B3) by the Rate (E1) and dividing it by the Factor (E2).

F. Other Insurance Premiums

- 1 For each of the Insurance Lines of Coverage identified below, Identify the Rate, Base and Factor. Calculate the Premium by multiplying the Base x Rate ÷ Factor. Total the Other Insurance Premiums in the space provided and carry that amount to the front page.

Line of Coverage	Rate	Base	Factor	Premium	Total Premium
Coverage A					

G. Totals

- 1 Calculate the Total of all Insurance Premium by adding Workers Compensation (C14), General Liability (D5), Excess/Umbr Liability (D9), Builder's Risk/Installation Floater (E3), and Other Insurance Premiums (F1).
- 2 Identify the Overhead & Profit Percentage that was applied to this project during the tabulation of the Proposed Contract Price.
- 3 Calculate the Overhead & Profit Amount by Multiplying the Total of all Insurance Costs (G1) by the Overhead & Profit Percentage (G2).
- 4 Calculate the Total Initial Insurance Cost by adding the Overhead & Profit Amount (G3) with the Total of all Insurance Premium (G1)
- 5 Calculate your rate by Dividing the Total Initial Insurance Cost (G4) by the Estimated Payroll (C3) and multiplying by 100.

H. Signature Block: This form must be signed by a representative of your company with the authority to Verify the information is correct.

Note: Please provide copies of the following documents as part of your submittal:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Schedule of Values | <input checked="" type="checkbox"/> General Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Workers Compensation declaration and rate pages | <input checked="" type="checkbox"/> Umbrella/Excess Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Experience Modification worksheet | <input checked="" type="checkbox"/> 5 years actual loss experience for each line of coverage in which Contractor retains more than \$5,000. |

A. Bid Information

1 Name of Prime Contractor: _____ 2 Bid or Purchase Order No.: _____
3 Proposed Contract Cost \$: _____

B. Aon Form-1a Summary

Contracting Parties & Trades		Proposed Subcontract Amount	Estimated Man-hours	Estimated Payroll	Initial Insurance Cost
Aon Form-1a Reference No.		B3 (Form-1a Ref.)	C2 (Form-1a Ref.)	C3 (Form-1a Ref.)	G4 (Form-1a Ref.)
Prime Contractor : (Attach the Aon Form-1a)		1			3
Your Known Subcontractors (Attach a Separate Aon Form-1a from each)	4	5	6	7	8
List Additional Trades NOT yet assigned to a subcontractor (attach an Aon Form -1a)	9 List by Trade or Function	10	11	12	13

C. Total for Contract: (Total all Column Entries) 1 2 3 4

D. Composite Insurance Cost Rate for Contract: (Line C4 ÷ C3 x100) 1

E. Signature Block: I verify the information presented above and attachments are correct:
Name: _____ Date: _____
(please print)
Title: _____ Signature: _____

Completion of this form is a required part of your bid and must accompany your bid documents. Duplicate this form as needed. An Aon Form-1a must be attached for each line entry made on this form. In addition, the following documentation must accompany each Aon Form-1a.

- Schedule of Values
- Workers Compensation declaration and rate pages
- Experience Modification worksheet
- General Liability declaration and rate pages
- Umbrella/Excess Liability declaration and rate pages
- 5 years actual loss experience for each line of coverage in which Contractor retains more than \$5,000.

This form is to be used by a Prime Contractor to summarize subcontract activity. This form may also be used by Subcontracts that must summarize sub subcontract activity of any tier. Submit this form with your Bid Documents.

A. Bid Information

- 1 Enter the Name of the Contractor whose activity is being summarized. For purposes of these instructions they will be called a Prime Contractor regardless of the fact that they may not hold a contract directly with [The University of California](#).
- 2 Enter the Bid Package Number, Contract Number or Purchase Order Number. This number accompanied [The University of California's](#) original documentation.
- 3 Enter the Amount you have proposed as the Contract Price.

B. Aon Form-1a Summary *(Information will either be found on the Contractor's Aon Form-1a or in situations where the subcontract uses additional tiers of subcontractors, the information will be found on an Aon Form-2 that summarizes their activity with their subcontracted activity.)*

	Aon Form-1a Reference No.	Aon Form-2 Reference No
1 For the Prime Contractor enter the Estimated Man-hours	C2	
2 For the Prime Contractor enter the Estimated Payroll	C3	
3 For the Prime Contractor enter the Total Initial Insurance Cost	G4	
4 For each Subcontractor, enter the firm's Name	A2	A1
5 For each Subcontractor, enter the Proposed Contract Cost	B3	A3
6 For each Subcontractor, enter the Estimated Man-hours	C2	C2
7 For each Subcontractor, enter the Estimated Payroll	C3	C3
8 For each Subcontractor, enter the Total Initial Insurance Cost	G4	C4
9 For the Activity that has <i>not</i> been assigned to a Subcontractor, enter the Trade or Functional Description	A2	
10 For the Activity that has <i>not</i> been assigned to a Subcontractor, enter the Estimated Contract Amount	B3	
11 For the Activity that has <i>not</i> been assigned to a Subcontractor, enter the Estimated Man-hours	C2	
12 For the Activity that has <i>not</i> been assigned to a Subcontractor, enter the Estimated Payroll	C3	
13 For the Activity that has <i>not</i> been assigned to a Subcontractor, enter the Estimated Initial Insurance Credit	G4	

C. Total Estimates for Contract

- 1 Total the Proposed Subcontract Amount for the identified activity.
- 2 Total the Estimated Man-hours for the identified activity.
- 3 Total the Estimated Payroll for the identified activity.
- 4 Total the Initial Insurance Cost for the identified activity.

D. Composite Insurance Cost Rate for Contract

- 1 Calculate the Composite Rate for the Contract by dividing the Total Initial Insurance Cost (C4) by the Total Estimated Payroll (C3) and multiplying by 100.

E. Signature Block: This form must be signed by a representative of your company knowledgeable of its accuracy.

Completion of this form is a required part of your bid and must accompany your bid documents. Duplicate this form as needed. An Aon Form-1a must be attached for each line entry made on this form. In addition, the following documentation must accompany each Aon Form-1a.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Schedule of Values | <input checked="" type="checkbox"/> General Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Workers Compensation declaration and rate pages | <input checked="" type="checkbox"/> Umbrella/Excess Liability declaration and rate pages |
| <input checked="" type="checkbox"/> Experience Modification worksheet | <input checked="" type="checkbox"/> 5 years actual loss experience for each line of coverage in which Contractor retains more the \$5,000. |

Examine your current Workers Compensation and General Liability Policies or contact your Insurance Agent to assist you with completing this form. *** NOTICE *** Enrollment is not automatic and requires the satisfactory completion of the Aon Form-1a or Form-1b, Form-2 and Form-3. In addition, submit a Certificate of Insurance providing evidence of your *off-site* coverage. Please refer to the Insurance Manual for coverage requirements.

A. Contractor Information: Federal ID # or Soc. Sec. #: _____¹

▼ Business Information (headquarters)	▼ Contact Information (address questions to..)
Company Name & dba: _____ ² Contact Name & Title: _____ Address: _____ City, State Zip Code: _____ Telephone: _____ Fax: _____ Email Address: _____	_____ ³ _____ _____ _____ _____ _____

Indicate your Organization's Structure: ⁴ Corporation Partnership S-Corporation
 Joint Venture Sole Proprietor Other _____

B. Contract Information: Contract No.: _____¹

Date Contract Awarded: _____²

Description of Work: _____³

Proposed Contract Price \$: _____⁴ Are you Submitting a bid to The University of California: ⁶ Yes No

Amount of Self Performed Work \$: _____⁵ If No, identify to whom: _____⁷

Start Date: _____⁸ Actual Estimated Completion Date: _____⁹ Actual Estimated

C. Contacts: (Complete if Applicable)

Position	1 Name & Title	2 Phone	3 Fax	4 Email address
Project Mngr:				
Res. Engineer:				
Insurance:				
Contract Admin:				
Payroll:				
Claims:				
Safety Rep:				

Provide Location of payroll records if different than Corporate address: _____⁵ Phone: _____
 City, State, Zip Code: _____ Fax: _____

D. Workers Compensation Insurance Information for Work Described Above: (attach a separate sheet if necessary)

a State	b Class Code	c Description	d Man-hours	e Payroll
1				
Totals			²	³

E. Provide your current Off-Site Workers Compensation Information: (for each state you will perform work in)

Applicable State	Risk ID Number	Rating Bureau	Anniversary Rating Date
1	2	3	4

Your WC Insurance Carrier: _____⁵

Policy #: _____⁶ Effective Date: _____⁷ Expiration Date: _____⁸

F. Subcontract Information: List all Subcontractors that will be working for you on this project (complete the information in the following table). Use additional paper if necessary:

1 Subcontractor	2 Subcontract \$	3 Contact Person	4 Address	5 Phone & Fax No	6 Estimated Start Date

G. Enrollment Questions: Answer each question. Use additional paper if necessary.

- 1 Will you have any off-site location(s) 100% dedicated to this project? Yes No If yes, please provide address:

- 2 Please check if: Any aircraft used on this project Any watercraft used on this project
- 3 Please indicate if labor from the following sources will be used: Employee Leasing Firm Temporary Labor Agency
- 4 _____
- 5 _____
- 6 _____
- 7 _____

H. WARRANTY APPLICABLE TO PROGRAM INSURANCE COVERAGE

- 1 Premiums for this Program are the responsibility of *The Regents of the University of California* and I agree any and all return of premium, dividends, discounts, or other adjustments to any Program policy(ies) is assigned, transferred and set over absolutely to *The Regents of the University of California*. This assignment applies to the Program policy(ies) as now written or as subsequently modified, rewritten or replaced. Rights of Cancellation for all Program insurance policy(ies) arranged by *The Regents of the University of California* are assigned to *The Regents of the University of California*.
- 2 I will pay the cost of premium(s) for non-Program insurance coverage, specified in the Contract Documents.
- 3 I authorized the release of all claim information for all insurance policies under this Program.
- 4 It is my responsibility to notify my insurance carrier(s) that I am enrolling in this Program.
- 5 I have omitted from my bid the insurance costs for the coverage provided by *The Regents of the University of California*.
- 6 The statements in this insurance application are true to the best of my knowledge.

I. Signature Block : I verify the information presented above and attachments are correct:

Name: _____ Date: _____
 (please print)
 Title: _____ Signature: _____

Fax or Mail to: **Scott Brama**
Aon Risk Insurance Services West, Inc.
199 Fremont Street, Suite 1500
San Francisco, CA 94105

Phone: (415) 486-7566
 Fax: (415) 486-7022
 Scott.brama@aon.com

This form must be completed and submitted by each successful Contractor and Subcontractor of any tier prior to Site mobilization for each contract awarded. The Contractor and Subcontractor will submit the completed form to Aon Risk Services. Upon receipt of this form, Aon will issue to the Contractor or Subcontractor a Certificate of Insurance evidencing coverage in the Controlled Insurance Program. The completed Certificate of Insurance and Workers Compensation insurance policy will be mailed to the Enrolled party.

A. Contractor Information

- 1 Enter your company's Federal ID number. This number can be found on filings made to the federal government such as your tax return.
- 2 Enter your company's name, mailing address and phone/fax number for your company's primary office location.
- 3 Enter the name of the person Aon should contact if questions arise. Include mailing address, phone/fax and e.mail address, if different than A2.
- 4 Identify your company's legal structure by checking the box that applies. If the correct legal structure is not specifically listed, please check the "Other" box and specify in the space provided.

B. Contract Information

- 1 Enter the Contract Number or Purchase Order Number that was included in [The University of California's](#) originating documentation.
- 2 Supply the Date this Contract was awarded to your organization.
- 3 Provide a brief description of the work you will be performing at the project site.
- 4 Identify the total amount of your contract. Include both labor and material.
- 5 Identify the amount of work that you anticipate will be self-performed. Include both labor and material.
- 6 Check the appropriate box that identifies if you contract directly with [The University of California](#) or are a Subcontractor.
- 7 If you are a Subcontractor, identify the entity with whom you are under contract.
- 8 Enter the Date you anticipate starting work and then mark whether the date provided is actual or estimated.
- 9 Enter the Date you anticipate completing the described work and then mark whether the date provided is actual or estimated.

C. Contacts *(Requested Contact information is for specific functions. It is possible to have a single person fulfill multiple responsibilities.)*

- 1 Identify the name of the person and their title for each function. These individuals should be located, if at all possible, on-site.
- 2 Provide the phone number for each person identified above.
- 3 Provide the fax number for each person identified above.
- 4 Provide the e.mail address for each person identified above, if applicable.
- 5 Identify the physical location where your payroll records are retained. Provide the Address, City, State, Zip Code, Telephone, Fax Number and E.mail Address of the person responsible for maintaining the payroll information.

D. Workers Compensation Information *(Duplicate or attach additional sheets if necessary. You may create an electronic version of this document if all requested information is included.)*

- 1 a Enter the two letter abbreviation for the state in which the work will be performed.
- b Enter each Workers Compensation class code that applies to the work identified in B2. (Most states use a 4 digit Number)
- c Enter the Workers Compensation class code description that applies to the work identified in D1b.
- d Enter the estimated Man-hours required to complete the described work by Workers Compensation class code.
- e Enter the estimated Payroll required to complete the described work for each Workers Compensation class code. Use only unburdened payroll and exclude the premium portions of any overtime pay.
- 2 Total all estimated Man-hours for each class code. Be sure to include information from additional pages if used.
- 3 Total all estimated Payroll for each class code. Be sure to include information from additional pages if used.

E. Current Off-Site Workers Compensation Information *(Information relates to your corporation's existing coverage; identify each modification factor that applies.)*

- 1 Enter the State that the Modification Information applies to.
- 2 Enter your Bureau File Number also referred to as your Risk Identification Number. This number can also be found on your Modification worksheets.
- 3 Enter the Bureau Rating Agency. In most states this is NCCI.
- 4 Provide your Company's Anniversary Rating Date. Information can be located on your bureau's WC Experience Modification worksheets.
- 5 Identify your insurance carrier for Workers Compensation Coverage.
- 6 Provide your Workers Compensation Policy Number.
- 7 Provide the effective date of your Workers Compensation policy.
- 8 Provide the expiration date of your Workers Compensation policy.

F. Subcontractor Information *(Provide the following information for each Subcontractor that will be performing work at the project site. Use additional sheets, if necessary.)*

- 1 Identify the name of the Subcontracting firm.
- 2 Provide the estimated value of the subcontracted activity.
- 3 Provide a contact name, preferably the project manager, for the Subcontractor.
- 4 Provide the mailing address for the Subcontractor.
- 5 Provide the phone number for the Subcontractor.
- 6 Provide the date the Subcontractor is scheduled to begin work.

G. Enrollment Questions

- 1 Determine if you will have any locations, off-site, that will be 100% dedicated to this project. Include material/supply storage as a possible location. Mark the appropriate box (yes/no). If you answer yes – provide the address of each location you identified as 100% dedicated.
- 2 Mark the box or boxes that apply. Contemplate only work performed under this contract.
- 3 Mark the box or boxes that apply. Employee Leasing Firm are those firms that supply the labor force for your company *(You direct the activities of the Leasing Company's employees)*. Temporary Labor Firms supplement your labor force.

H. Warranty Statements:

- 1-6 Read each Warranty statement thoroughly. If you have questions regarding any of these statements, contact the Aon administrator identified on page 2.

I. Signature Block: This form must be signed by a representative of your company knowledgeable of its accuracy.

Forward the completed Enrollment Application to the Aon administrator identified at the bottom of page 2 of this form. The administrator prior to the start of your work on-site must receive this form.

Complete a Separate Form for Each Contract with **The University of California**.
Your report is due to the Aon Insurance Administrator, identified below, no later than the 10th day of the succeeding month.
Complete this report even though no work was performed; enter zero (0) for the Reportable Payroll.
Delay in providing this report may result in payments being withheld.

A. Report Identification

Period Beginning: ¹ _____ Period Ending: ² _____ Year: ³ _____
 Contractor: ⁴ _____
 Under Contract with: ⁵ _____
 Contract #: ⁶ _____ UCIP Project

B. Activity Report

a State	b Workers Compensation Class Code	c Work Description	d Man-Hours	e Gross Payroll	f Reportable Payroll *
1					
TOTALS:			²	³	⁴

* Do not include premium (excess) overtime wages, use straight time wage rates only.

C. Additional Data Requirements :

1. _____
2. _____
3. _____

D. Signature Block : I verify the information presented above and attachments are correct:

Name: _____ Date: _____
 (please print)
 Title: _____ Signature: _____

CHECK IF THIS IS YOUR LAST PAYROLL REPORT. COMPLETE AN AON FORM-5 "NOTICE OF WORK COMPLETION" AND INCLUDE WITH THIS PAYROLL REPORT.

Note: Information can be submitted on-line at www.aonwrap.aon.com. Please contact your Administration Staff to obtain a user ID and Password.

Fax or Mail to: **Scott Brama**
Aon Risk Insurance Services West, Inc.
 199 Fremont Street, Suite 1500
 San Francisco, CA 94105

Phone: (415) 486-7566
 Fax: (415) 486-7022
 Scott.brama@aon.com

The Contractor and every Subcontractor of any tier performing work at the Project Site for each Contract awarded must complete this form each month. The Contractor/Subcontractor must attach the completed report to their monthly pay request in order to receive interim payment. Contractors will be responsible for the submission of this form by their Subcontractors. Aon Risk Services can forward a supply of these forms to your company upon request.

A. Report Identification

- 1 Fill in the month and day for the beginning of the period you are reporting on.
- 2 Fill in the month and day for the ending of the period you are reporting on.
- 3 Fill in the year that applies to the reporting period.
- 4 Enter the name of your firm.
- 5 If you are a Subcontractor, identify the name of the firm you are contracted to. If you are a Prime Contractor enter N/A
- 6 Provide your Contract Number

B. Activity Report

- 1 For each Workers Compensation Class Code that applies to work performed during the reporting period, provide the following information:
 - a Identify the state in which the work was performed.
 - b Identify the Workers Compensation Class Code that applies to the work performed during the period. (Most states use a four digit No.)
 - c Provide a brief description of the work by class code.
 - d Identify the number of Man-hours worked by your employees for each applicable class code.
 - e Provide the Gross Payroll paid to your employees. This should include overtime pay and vacation pay.
 - f Determine the Reportable Payroll. Reportable Payroll does not include the premium portion of any overtime pay (i.e. 45 hours X \$10.00/hr = 450.00 *do not include the premium overtime pay of \$5.00 for the 5 hours of overtime*)
- 2 Total the Man-hours provided on the payroll report.
- 3 Total the Gross Payroll provided.
- 4 Total the Reportable Payroll.

c. Additional Data Requirements: If questions are listed in this section of the form, they are unique to this project. Please refer to the Insurance Manual.

d. Signature Block: This form must be signed by a representative of your company with the authority to Verify the information is correct.

Note: Information can be submitted on-line at www.aonwrap.aon.com. Please contact your Administration Staff to obtain a User ID and Password.

A. General Information

Contractor Name: 1 _____
 Under contract With: 2 _____
 Contract #: 3 _____ UCIP Project
 Description of Work: Performed: 4 _____
 Date Work Completed: 5 _____
 Date this Contract Completed: 6 _____
 Final Contract Value: 7 _____

B. Work Completion

The following Subcontractors have completed their Work at the Project Site:
 (Add attachment if more space is needed)

a Subcontractor's Name	b Contract Number	c Description of Work	d Date Completed
1			

Location of your payroll records (Receipt of this form will initiate the payroll audit process):

Address: 2 _____
 City, State, Zip Code: _____
 Contact/Phone #: _____

C. Signature Block

The undersigned acknowledges request for termination of Coverage under the OCIP as of the date indicated above for the specified Contract. Should we return to the work Site, we will be working under our own insurance program and must provide *The University of California* with a Certificate of Insurance showing our own Coverage as detailed in our contract.

Signed by: 1 _____
 Name & Title _____ Date _____
 Approved by: 2 _____
 Construction Manager (Name & Title) _____ Date _____

This form will be completed and returned to the UCIP Administrator by the contractor or Subcontractor whenever work is completed for each Contract or Subcontract. This form will initiate the final payroll audit process for the Contractor/Subcontractor identified in item 1. Final Payments and Release of Retainage will not occur until all payroll work is complete and finalized.

A. General Information

- 1 Provide the name of the Contractor completing their work.
- 2 Provide the name of the entity your contract is with ([The University of California](#) or Parent Contractor)
- 3 Enter the contract number for the work being completed.
- 4 Provide a brief description of the work being completed.
- 5 Provide the Date the Work was completed.
- 6 Provide the Date the Contract was completed, if other than work completion date.
- 7 Document final contract value (original contract amount plus change orders, purchase orders or work orders)

B. Work Completion

- 1a Enter the name of each Subcontractor that performed work for you that has also completed their work.
- b Enter Subcontractors Contract Number.
- c Provide a brief description of their work.
- d Provide the Date they completed their work.
- 2 Identify the physical location of where your payroll records are retained. Provide the Address, City, State, Zip Code, Contact Name and Telephone Number of the person responsible for maintaining the payroll information for audit purposes.

C. Signature Block

- 1 This form must be signed by a representative of your company with the authority to Verify that the information is correct.
- 2 Have this form approved by the Construction Manager for the Project Site.

Exhibit 1 – Sample Certificate of Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
01/11/2011

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

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

PRODUCER Insurance Broker/Agent Name & Address	CONTACT NAME:	Broker Name	
	PHONE (A/C, No, Ext):	Broker Phone	FAX (A/C, No): Broker Fax
	E-MAIL ADDRESS:	Broker Email Address	
	INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED Contractor / Subcontractor Name & Address	INSURER A:	Carrier Name	
	INSURER B:	Carrier Name	
	INSURER C:	Carrier Name	
	INSURER D:	Carrier Name	
	INSURER E:		
	INSURER F:		

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

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	X	X	Policy Number	Date	Date	Each Occurrence \$2,000,000 General Aggregate \$2,000,000 Products - Comp Op Agg \$2,000,000 Personal & Adv. Injury \$1,000,000 Damage to Rented Prem. \$50,000 Medical Expense \$5,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED <input checked="" type="checkbox"/> AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS	X	X	Policy Number	Date	Date	Combined Single Limit \$1,000,000
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	X	X	Policy Number	Date	Date	Each Occurrence \$2,000,000 Aggregate \$2,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below		X	Policy Number	Date	Date	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER E.L. Each Accident \$1,000,000 E.L. Disease - Each Employee \$1,000,000 E.L. Disease - Policy Limit \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
 General Contractor/Construction Manager, The University of California, the UCIP Administrator, and each of their consultants, respective officers, agents, and employees are added as additional insured, per endorsements equivalent to ISO form 20 10 (11/85) for General Liability and Automobile Liability per Endorsement # _____. Coverage is primary and non-contributory as respects off-site coverage. Waiver of Subrogation is included for General Liability and Workers Compensation. **General Liability and Workers' Compensation Coverages apply off-site only.**

CERTIFICATE HOLDER	CANCELLATION
The Regents of the University of California c/o Aon Risk Insurance Services West, Inc, Attn: UCIP Administrator 199 Fremont Street, Suite 1500 San Francisco, CA 94105	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE

Exhibit 2 – Sample Additional Insured Endorsement – General Liability

POLICY NUMBER: XXXXXXXXXXXXX
CONTRACTOR NAME

COMMERCIAL GENERAL LIABILITY

Sample

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED — OWNERS, LESSEES OR
CONTRACTORS (FORM B)**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

TBD (General Contractor), the University of California, the University's consultant and its consultants, the UCIP Administrator, and each of their respective officers, agents, and employees

(If no entry appears above, information required to complete this endorsement will be shown in the declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.

PRIMARY INSURANCE: This insurance will be primary for the additional insured but only with respect to liability arising out of your work for that additional insured by or for your.

NOTE: This policy to include a WAIVER OF SUBROGATION.

Exhibit 3 – Sample Additional Insured Endorsement – Auto

POLICY NUMBER XXXXXXX
CONTRACTOR NAME

COMMERCIAL AUTO

Sample

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

- BUSINESS AUTO COVERAGE FORM
- GARAGE COVERAGE FORM
- TRUCKERS COVERAGE FORM
- BUSINESS AUTO PHYSICAL DAMAGE COVERAGE FORM

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Endorsement effective	
Named Insured	Countersigned by

(Authorized Representative)

SCHEDULE

Who is an insured is changed to include as an "insured" the named insured listed below.

Insurance Company:

Additional Insured: **TBD – (General Contractor), the University of California, the University's consultant and its consultants, the UCIP Administrator, and each of their respective officers, agents, and employees**

Address:

Description of operations/vehicle **As respects to all operations performed for or on behalf of the Additional Insured**

PRIMARY INSURANCE: This insurance will be primary for the additional insured but only with respect to liability arising out of your work for that additional insured by or for your.

NOTE: This policy to include a WAIVER OF SUBROGATION.

UCIP Tower 1
UC Merced – Housing 4: The Summits

TREATMENT AUTHORIZATION FORM

Please present this form to the clinic receptionist

Pinnacle Healthcare
Address: 285 Mercey Springs Rd., Ste. A, Los Banos, CA 93635
Office Hours: 8:30 am – 6:30 pm Monday – Friday & Saturday 9 am – 3 pm
(see below for after hours or emergencies facility information)
Phone: (209) 829-0444

Employer: _____	WC Policy# 10-009-WC4581719	Insurance
	Company: Zurich NA	
Contact Person: _____	Contact Phone: _____	
Employee: _____	Date of Injury: _____	

Authorization for Work Injury Treatment

Drug Screen

Non-DOT Quick Test

Reason: *Post Accident* *Reasonable Suspicion*

Comments: _____

DIRECTIONS TO CLINIC:

- Start our going West on Scholars Ln.
- Turn Left onto N. Lake Rd.
- Turn slight Right onto E. Bellevue Rd.
- Turn Left onto G St.
- Turn Right onto W. 16th St./CA 99
- Take the 1st Left onto Martin Luther King Jr. Wy
- MLK Jr Wy becomes S CA 59
- Merge onto CA-152 W. towards Los Banos
- Turn Right onto S. Mercey Springs Rd./CA 165
- End 285 Mercey Springs Rd.

ATTENTION

Zurich Billing Information:
Zurich North American Insurance
1400 American Lane
Schaumburg, IL 60196

EMERGENCY & AFTER HOURS INJURIES
Referred by on-site management personnel.
Mercy Medical Center Merced
333 Mercy Ave., Merced, CA 95340
Hours: 24 Hours & Emergency Services

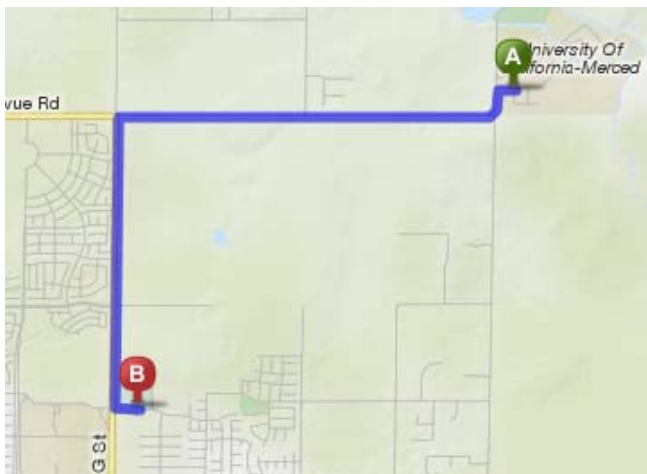
Clinic
Pinnacle HealthCare – Los Banos
285 Mercey Springs Rd., Ste A, Los Banos, Ca 93635
(209) 829-0445
Hrs: M-F 8:30am – 6:30pm
Sat. 9am – 3pm



DIRECTIONS FROM PROJECT SITE

- Start our going West on Scholars Ln.
- Turn Left onto N. Lake Rd.
- Turn slight Right onto E. Bellevue Rd.
- Turn Left onto G St.
- Turn Right onto W. 16th St./CA 99
- Take the 1st Left onto Martin Luther King Jr. Wy
- MLK Jr Wy becomes S CA 59
- Merge onto CA-152 W. towards Los Banos
- Turn Right onto S. Mercey Springs Rd./CA 165
- End 285 Mercey Springs Rd.

After 6:30 PM/Before 8:30 AM - Urgent Care / Hospital
Mercy Medical Center Merced
333 Mercy Ave., Merced, CA 95340
(209) 564-5000
24 HOURS



DIRECTIONS FROM PROJECT SITE

- Start our going West on Scholars Ln
- Turn Left onto N. Lake Rd
- Turn slight Right onto E. Bellevue Rd
- Turn Left onto G St.
- Turn Left onto Mercy Ave.
- End 333 Mercy Ave

State of California EMPLOYER'S REPORT OF OCCUPATIONAL INJURY OR ILLNESS		Please complete in triplicate (type if possible) Mail two copies to: INSURER – Zurich North America Insurance Telephone Reporting- 877-928-4351		OSHA CASE NO.		
				FATALITY <input type="checkbox"/>		
Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers compensation benefits or payments is guilty of a felony.		California law requires employers to report within five days of knowledge every occupational injury or illness which results in lost time beyond the date of the incident OR requires medical treatment beyond first aid. If an employee subsequently dies as a result of a previously reported injury or illness, the employer must file within five days of knowledge an amended report indicating death. In addition, every serious injury, illness, or death must be reported immediately by telephone or telegraph to the nearest office of the California Division of Occupational Safety and Health.				
EMPLOYER	1. FIRM NAME		1a. Policy Number		Please do not use this column CASE NUMBER OWNERSHIP	
	2. MAILING ADDRESS: (Number, Street, City, Zip)		2a. Phone Number			
	3. LOCATION if different from Mailing Address (Number, Street, City and Zip)		3a. Location Code			
	4. NATURE OF BUSINESS; e.g., Painting contractor, wholesale grocer, sawmill, hotel, etc.		5. State unemployment insurance acct.no		INDUSTRY	
	6. TYPE OF EMPLOYER: <input type="checkbox"/> Private <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> City <input type="checkbox"/> School District <input type="checkbox"/> Other Gov't, Specify: _____					
	INJURY	7. DATE OF INJURY / ONSET OF ILLNESS (mm/dd/yy)		8. TIME INJURY/ILLNESS OCCURRED _____ AM _____ PM		10. IF EMPLOYEE DIED, DATE OF DEATH (mm/dd/yy)
9. TIME EMPLOYEE BEGAN WORK _____ AM _____ PM		11. UNABLE TO WORK FOR AT LEAST ONE FULL DAY AFTER DATE OF INJURY? <input type="checkbox"/> Yes <input type="checkbox"/> No		12. DATE LAST WORKED (mm/dd/yy)		
13. DATE RETURNED TO WORK (mm/dd/yy)		14. IF STILL OFF WORK, CHECK THIS BOX: <input type="checkbox"/>		16. PAID FULL DAYS WAGES FOR DATE OF INJURY OR LAST DAY WORKED? <input type="checkbox"/> Yes <input type="checkbox"/> No		
15. SALARY BEING CONTINUED? <input type="checkbox"/> Yes <input type="checkbox"/> No		17. DATE OF EMPLOYER'S KNOWLEDGE /NOTICE OF INJURY/ILLNESS (mm/dd/yy)		18. DATE EMPLOYEE WAS PROVIDED CLAIM FORM (mm/dd/yy)		
19. SPECIFIC INJURY/ILLNESS AND PART OF BODY AFFECTED, MEDICAL DIAGNOSIS if available, e.g., Second degree burns on right arm, tendonitis on left elbow, lead poisoning					AGE	
20. LOCATION WHERE EVENT OR EXPOSURE OCCURRED (Number, Street, City, Zip)		20a. COUNTY		21. ON EMPLOYER'S PREMISES? <input type="checkbox"/> Yes <input type="checkbox"/> No		
22. DEPARTMENT WHERE EVENT OR EXPOSURE OCCURRED, e.g., Shipping department, machine shop.		23. Other Workers injured or ill in this event? <input type="checkbox"/> Yes <input type="checkbox"/> No		DAILY HOURS		
24. EQUIPMENT, MATERIALS AND CHEMICALS THE EMPLOYEE WAS USING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Acetylene, welding torch, farm tractor, scaffold					DAYS PER WEEK	
25. SPECIFIC ACTIVITY THE EMPLOYEE WAS PERFORMING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Welding seams of metal forms, loading boxes onto truck.					WEEKLY HOURS	
26. HOW INJURY/ILLNESS OCCURRED. DESCRIBE SEQUENCE OF EVENTS. SPECIFY OBJECT OR EXPOSURE WHICH DIRECTLY PRODUCED THE INJURY/ILLNESS, e.g., Worker stepped back to inspect work and slipped on scrap material. As he fell, he brushed against fresh weld, and burned right hand. USE SEPARATE SHEET IF NECESSARY					WEEKLY WAGE	
27. Name and address of physician (number, street, city, zip)					27a. Phone Number	
28. Hospitalized as an inpatient overnight? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes then, name and address of hospital (number, street, city, zip)					28a. Phone Number	
					29. Employee treated in emergency room? <input type="checkbox"/> Yes <input type="checkbox"/> No	
ATTENTION This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. See CCR Title 8 14300.29 (b)(6)-(10) & 14300.35(b)(2)(E)2. Note: Shaded boxes indicate confidential employee information as listed in CCR Title 8 14300.35(b)(2)(E)2.					SOURCE	
30. EMPLOYEE NAME		31. SOCIAL SECURITY NUMBER		32. DATE OF BIRTH (mm/dd/yy)		
33. HOME ADDRESS (Number, Street, City, Zip)				33a. PHONE NUMBER		
34. SEX <input type="checkbox"/> Male <input type="checkbox"/> Female		35. OCCUPATION (Regular job title, NO initials, abbreviations or numbers)		36. DATE OF HIRE (mm/dd/yy)		
37. EMPLOYEE USUALLY WORKS _____ hours per day, _____ days per week, _____ total weekly hours		37a. EMPLOYMENT STATUS <input type="checkbox"/> regular, full-time <input type="checkbox"/> part-time <input type="checkbox"/> temporary <input type="checkbox"/> seasonal		37b. UNDER WHAT CLASS CODE OF YOUR POLICY WHERE WAGES ASSIGNED		
38. GROSS WAGES/SALARY \$ _____ per _____		39. OTHER PAYMENTS NOT REPORTED AS WAGES/SALARY (e.g. tips, meals, overtime, bonuses, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No		EXTENT OF INJURY		
Completed By (type or print)		Signature & Title		Date (mm/dd/yy)		

* Confidential information may be disclosed only to the employee, former employee, or their personal representative (CCR Title 8 14300.36), to others for the purpose of processing a workers' compensation or other insurance claim; and under certain circumstances to a public health or law enforcement agency or to a consultant hired by the employer (CCR Title 8 14300.30). CCR Title 8 14300.40 requires provision upon request to certain state and federal workplace safety agencies.

Workers' Compensation Claim Form (DWC 1) & Notice of Potential Eligibility *Formulario de Reclamo de Compensación de Trabajadores (DWC 1) y Notificación de Posible Elegibilidad*



If you are injured or become ill, either physically or mentally, because of your job, including injuries resulting from a workplace crime, you may be entitled to workers' compensation benefits. Attached is the form for filing a workers' compensation claim with your employer. **You should read all of the information below.** Keep this sheet and all other papers for your records. You may be eligible for some or all of the benefits listed depending on the nature of your claim. If required you will be notified by the claims administrator, who is responsible for handling your claim, about your eligibility for benefits.

To file a claim, complete the "Employee" section of the form, keep one copy and give the rest to your employer. Your employer will then complete the "Employer" section, give you a dated copy, keep one copy and send one to the claims administrator. Benefits can't start until the claims administrator knows of the injury, so complete the form as soon as possible.

Medical Care: Your claims administrator will pay all reasonable and necessary medical care for your work injury or illness. Medical benefits may include treatment by a doctor, hospital services, physical therapy, lab tests, x-rays, and medicines. Your claims administrator will pay the costs directly so you should never see a bill. There is a limit on some medical services.

The Primary Treating Physician (PTP) is the doctor with the overall responsibility for treatment of your injury or illness. Generally your employer selects the PTP you will see for the first 30 days, however, in specified conditions, you may be treated by your predesignated doctor or medical group. If a doctor says you still need treatment after 30 days, you may be able to switch to the doctor of your choice. Different rules apply if your employer is using a Health Care Organization (HCO) or a Medical Provider Network (MPN). A MPN is a selected network of health care providers to provide treatment to workers injured on the job. You should receive information from your employer if you are covered by an HCO or a MPN. Contact your employer for more information. If your employer has not put up a poster describing your rights to workers' compensation, you may choose your own doctor immediately.

Within one working day after you file a claim form, your employer shall authorize the provision of all treatment, consistent with the applicable treating guidelines, for the alleged injury and shall continue to be liable for up to \$10,000 in treatment until the claim is accepted or rejected.

Disclosure of Medical Records: After you make a claim for workers' compensation benefits, your medical records will not have the same level of privacy that you usually expect. If you don't agree to voluntarily release medical records, a workers' compensation judge may decide what records will be released. If you request privacy, the judge may "seal" (keep private) certain medical records.

Payment for Temporary Disability (Lost Wages): If you can't work while you are recovering from a job injury or illness, for most injuries you will receive temporary disability payments for a limited period of time. These payments may change or stop when your doctor says you are able to return to work. These benefits are tax-free. Temporary disability payments are two-thirds of your average weekly pay, within minimums and maximums set by state law. Payments are not made for the first three days you are off the job unless you are hospitalized overnight or cannot work for more than 14 days.

Return to Work: To help you to return to work as soon as possible, you should actively communicate with your treating doctor, claims administrator, and employer about the kinds of work you can do while recovering. They may coordinate efforts to return you to modified duty or other work that is medically appropriate. This modified or other duty may

Si Ud. se lesiona o se enferma, ya sea físicamente o mentalmente, debido a su trabajo, incluyendo lesiones que resulten de un crimen en el lugar de trabajo, es posible que Ud. tenga derecho a beneficios de compensación de trabajadores. Se adjunta el formulario para presentar un reclamo de compensación de trabajadores con su empleador. **Ud. debe leer toda la información a continuación.** Guarde esta hoja y todos los demás documentos para sus archivos. Es posible que usted reúna los requisitos para todos los beneficios, o parte de éstos, que se enumeran, dependiendo de la índole de su reclamo. Si se requiere, el administrador de reclamos, quien es responsable por el manejo de su reclamo, le notificará sobre su elegibilidad para beneficios.

Para presentar un reclamo, llene la sección del formulario designada para el "Empleado," guarde una copia, y déle el resto a su empleador. Entonces, su empleador completará la sección designada para el "Empleador," le dará a Ud. una copia fechada, guardará una copia, y enviará una al administrador de reclamos. Los beneficios no pueden comenzar hasta, que el administrador de reclamos se entere de la lesión, así que complete el formulario lo antes posible.

Atención Médica: Su administrador de reclamos pagará toda la atención médica razonable y necesaria, para su lesión o enfermedad relacionada con el trabajo. Es posible que los beneficios médicos incluyan el tratamiento por parte de un médico, los servicios de hospital, la terapia física, los análisis de laboratorio y las medicinas. Su administrador de reclamos pagará directamente los costos, de manera que usted nunca verá un cobro. Hay un límite para ciertos servicios médicos.

El Médico Primario que le Atiende-Primary Treating Physician PTP es el médico con la responsabilidad total para tratar su lesión o enfermedad. Generalmente, su empleador selecciona al PTP que Ud. verá durante los primeros 30 días. Sin embargo, en condiciones específicas, es posible que usted pueda ser tratado por su médico o grupo médico previamente designado. Si el doctor dice que usted aún necesita tratamiento después de 30 días, es posible que Ud. pueda cambiar al médico de su preferencia. Hay reglas diferentes que se aplican cuando su empleador usa una Organización de Cuidado Médico (HCO) o una Red de Proveedores Médicos (MPN). Una MPN es una red de proveedores de asistencia médica seleccionados para dar tratamiento a los trabajadores lesionados en el trabajo. Usted debe recibir información de su empleador si su tratamiento es cubierto por una HCO o una MPN. Hable con su empleador para más información. Si su empleador no ha colocado un cartel describiendo sus derechos para la compensación de trabajadores, Ud. puede seleccionar a su propio médico inmediatamente.

Dentro de un día después de que Ud. Presente un formulario de reclamo, su empleador autorizará todo tratamiento médico de acuerdo con las pautas de tratamiento aplicables a la presunta lesión y será responsable por \$10,000 en tratamiento hasta que el reclamo sea aceptado o rechazado.

Divulgación de Expedientes Médicos: Después de que Ud. presente un reclamo para beneficios de compensación de trabajadores, sus expedientes médicos no tendrán el mismo nivel de privacidad que usted normalmente espera. Si Ud. no está de acuerdo en divulgar voluntariamente los expedientes médicos, un juez de compensación de trabajadores posiblemente decida qué expedientes se revelarán. Si Ud. solicita privacidad, es posible que el juez "selle" (mantenga privados) ciertos expedientes médicos.

Pago por Incapacidad Temporal (Sueldos Perdidos): Si Ud. no puede trabajar, mientras se está recuperando de una lesión o enfermedad relacionada con el trabajo, Ud. recibirá pagos por incapacidad temporal para la mayoría de las lesiones por un periodo limitado. Es posible que estos pagos cambien o paren, cuando su médico diga que Ud. está en condiciones de regresar a trabajar. Estos beneficios son libres de impuestos. Los pagos

Workers' Compensation Claim Form (DWC 1) & Notice of Potential Eligibility
Formulario de Reclamo de Compensación de Trabajadores (DWC 1) y Notificación de Posible Elegibilidad



be temporary or may be extended depending on the nature of your injury or illness.

Payment for Permanent Disability: If a doctor says your injury or illness results in a permanent disability, you may receive additional payments. The amount will depend on the type of injury, your age, occupation, and date of injury.

Supplemental Job Displacement Benefit (SJDB): If you were injured after 1/1/04 and you have a permanent disability that prevents you from returning to work within 60 days after your temporary disability ends, and your employer does not offer modified or alternative work, you may qualify for a nontransferable voucher payable to a school for retraining and/or skill enhancement. If you qualify, the claims administrator will pay the costs up to the maximum set by state law based on your percentage of permanent disability.

Death Benefits: If the injury or illness causes death, payments may be made to relatives or household members who were financially dependent on the deceased worker.

It is illegal for your employer to punish or fire you for having a job injury or illness, for filing a claim, or testifying in another person's workers' compensation case (Labor Code 132a). If proven, you may receive lost wages, job reinstatement, increased benefits, and costs and expenses up to limits set by the state.

You have the right to disagree with decisions affecting your claim. If you have a disagreement, contact your claims administrator first to see if you can resolve it. If you are not receiving benefits, you may be able to get State Disability Insurance (SDI) benefits. Call State Employment Development Department at (800) 480-3287.

You can obtain free information from an information and assistance officer of the State Division of Workers' Compensation (DWC), or you can hear recorded information and a list of local offices by calling (800) 736-7401. You may also go to the DWC website at www.dwc.ca.gov.

You can consult with an attorney. Most attorneys offer one free consultation. If you decide to hire an attorney, his or her fee will be taken out of some of your benefits. For names of workers' compensation attorneys, call the State Bar of California at (415) 538-2120 or go to their web site at www.californiaspecialist.org.

por incapacidad temporal son dos tercios de su pago semanal promedio, con cantidades mínimas y máximas establecidas por las leyes estatales. Los pagos no se hacen durante los primeros tres días en que Ud. no trabaje, a menos que Ud. sea hospitalizado una noche o no pueda trabajar durante más de 14 días.

Regreso al Trabajo: Para ayudarlo a regresar a trabajar lo antes posible, Ud. debe comunicarse de manera activa con el médico que le atiende, el administrador de reclamos y el empleador, con respecto a las clases de trabajo que Ud. puede hacer mientras se recupera. Es posible que ellos coordinen esfuerzos para regresarle a un trabajo modificado, o a otro trabajo, que sea apropiado desde el punto de vista médico. Este trabajo modificado u otro trabajo podría ser temporal o podría extenderse dependiendo de la índole de su lesión o enfermedad.

Pago por Incapacidad Permanente: Si el doctor dice que su lesión o enfermedad resulta en una incapacidad permanente, es posible que Ud. reciba pagos adicionales. La cantidad dependerá de la clase de lesión, su edad, su ocupación y la fecha de la lesión.

Beneficio Suplementario por Desplazamiento de Trabajo: Si Ud. Se lesionó después del 1/1/04 y tiene una incapacidad permanente que le impide regresar al trabajo dentro de 60 días después de que los pagos por incapacidad temporal terminen, y su empleador no ofrece un trabajo modificado o alternativo, es posible que usted reúna los requisitos para recibir un vale no-transferible pagadero a una escuela para recibir un nuevo entrenamiento y/o mejorar su habilidad. Si Ud. reúne los requisitos, el administrador de reclamos pagará los gastos hasta un máximo establecido por las leyes estatales basado en su porcentaje de incapacidad permanente.

Beneficios por Muerte: Si la lesión o enfermedad causa la muerte, es posible que los pagos se hagan a los parientes o a las personas que viven en el hogar y que dependían económicamente del trabajador difunto.

Es ilegal que su empleador le castigue o despidas, por sufrir una lesión o enfermedad en el trabajo, por presentar un reclamo o por testificar en el caso de compensación de trabajadores de otra persona. (El Código Laboral sección 132a.) De ser probado, usted puede recibir pagos por pérdida de sueldos, reposición del trabajo, aumento de beneficios y gastos hasta los límites establecidos por el estado.

Ud. tiene derecho a no estar de acuerdo con las decisiones que afecten su reclamo. Si Ud. tiene un desacuerdo, primero comuníquese con su administrador de reclamos para ver si usted puede resolverlo. Si usted no está recibiendo beneficios, es posible que Ud. pueda obtener beneficios del Seguro Estatal de Incapacidad (SDI). Llame al Departamento Estatal del Desarrollo del Empleo (EDD) al (800) 480-3287.

Ud. puede obtener información gratis, de un oficial de información y asistencia, de la División Estatal de Compensación de Trabajadores (*Division of Workers' Compensation - DWC*) o puede escuchar información grabada, así como una lista de oficinas locales llamando al (800) 736-7401. Ud. también puede consultar con la página Web de la DWC en www.dwc.ca.gov.

Ud. puede consultar con un abogado. La mayoría de los abogados ofrecen una consulta gratis. Si Ud. decide contratar a un abogado, los honorarios serán tomados de algunos de sus beneficios. Para obtener nombres de abogados de compensación de trabajadores, llame a la Asociación Estatal de Abogados de California (*State Bar*) al (415) 538-2120, ó consulte con la página Web en www.californiaspecialist.org.



WORKERS' COMPENSATION CLAIM FORM (DWC 1)

PETITION DEL EMPLEADO PARA DE COMPENSACIÓN DEL TRABAJADOR (DWC 1)

Employee: Complete the "Employee" section and give the form to your employer. Keep a copy and mark it "Employee's Temporary Receipt" until you receive the signed and dated copy from your employer. You may call the Division of Workers' Compensation and hear recorded information at (800) 736-7401. An explanation of workers' compensation benefits is included as the cover sheet of this form.

You should also have received a pamphlet from your employer describing workers' compensation benefits and the procedures to obtain them.

Empleado: Complete la sección "Empleado" y entregue la forma a su empleador. Quédese con la copia designada "Recibo Temporal del Empleado" hasta que Ud. reciba la copia firmada y fechada de su empleador. Ud. puede llamar a la División de Compensación al Trabajador al (800) 736-7401 para oír información gravada. En la hoja cubierta de esta forma esta la explicación de los beneficios de compensación al trabajador.

Ud. también debería haber recibido de su empleador un folleto describiendo los beneficios de compensación al trabajador lesionado y los procedimientos para obtenerlos.

Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony.

Toda aquella persona que a propósito haga o cause que se produzca cualquier declaración o representación material falsa o fraudulenta con el fin de obtener o negar beneficios o pagos de compensación a trabajadores lesionados es culpable de un crimen mayor "felonía".

Employee—complete this section and see note above Empleado—complete esta sección y note la notación arriba.

1. Name. *Nombre.* _____ Today's Date. *Fecha de Hoy.* _____
2. Home Address. *Dirección Residencial.* _____
3. City. *Ciudad.* _____ State. *Estado.* _____ Zip. *Código Postal.* _____
4. Date of Injury. *Fecha de la lesión (accidente).* _____ Time of Injury. *Hora en que ocurrió.* _____ a.m. _____ p.m.
5. Address and description of where injury happened. *Dirección/lugar dónde ocurrió el accidente.* _____
6. Describe injury and part of body affected. *Describe la lesión y parte del cuerpo afectada.* _____
7. Social Security Number. *Número de Seguro Social del Empleado.* _____
8. Signature of employee. *Firma del empleado.* _____

Employer—complete this section and see note below. Empleador—complete esta sección y note la notación abajo.

9. Name of employer. *Nombre del empleador.* _____
10. Address. *Dirección.* _____
11. Date employer first knew of injury. *Fecha en que el empleador supo por primera vez de la lesión o accidente.* _____
12. Date claim form was provided to employee. *Fecha en que se le entregó al empleado la petición.* _____
13. Date employer received claim form. *Fecha en que el empleado devolvió la petición al empleador.* _____
14. Name and address of insurance carrier or adjusting agency. *Nombre y dirección de la compañía de seguros o agencia administradora de seguros.* _____
15. Insurance Policy Number. *El número de la póliza de Seguro.* _____
16. Signature of employer representative. *Firma del representante del empleador.* _____
17. Title. *Título.* _____ 18. Telephone. *Teléfono.* _____

Employer: You are required to date this form and provide copies to your insurer or claims administrator and to the employee, dependent or representative who filed the claim within one working day of receipt of the form from the employee.

Empleador: Se requiere que Ud. feche esta forma y que provéa copias a su compañía de seguros, administrador de reclamos, o dependiente/representante de reclamos y al empleado que hayan presentado esta petición dentro del plazo de un día hábil desde el momento de haber sido recibida la forma del empleado.

SIGNING THIS FORM IS NOT AN ADMISSION OF LIABILITY

EL FIRMAR ESTA FORMA NO SIGNIFICA ADMISION DE RESPONSABILIDAD

Employer copy/Copia del Empleador Employee copy/ Copia del Empleado

Claims Administrator/Administrador de Reclamos Temporary Receipt/Recibo del Empleado



GENERAL LIABILITY NOTICE OF OCCURRENCE / CLAIM

DATE (MM/DD/YYYY)

AGENCY	INSURED LOCATION CODE	DATE OF LOSS AND TIME		AM	
	CARRIER	PM			
	POLICY NUMBER		NAIC CODE		
CONTACT NAME:					
PHONE (A/C. No. Ext):					
FAX (A/C. No):					
E-MAIL ADDRESS:					
CODE:					SUBCODE:
AGENCY CUSTOMER ID:					

INSURED

NAME OF INSURED (First, Middle, Last)		INSURED'S MAILING ADDRESS		
DATE OF BIRTH	SOCIAL SECURITY # OR FEIN			
PRIMARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	PRIMARY E-MAIL ADDRESS:		
		SECONDARY E-MAIL ADDRESS:		

CONTACT

CONTACT INSURED				
NAME OF CONTACT (First, Middle, Last)		CONTACT'S MAILING ADDRESS		
PRIMARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL			
WHEN TO CONTACT		PRIMARY E-MAIL ADDRESS:		
		SECONDARY E-MAIL ADDRESS:		

OCCURRENCE

LOCATION OF OCCURRENCE	POLICE OR FIRE DEPARTMENT CONTACTED
STREET:	
CITY, STATE, ZIP:	REPORT NUMBER
COUNTRY:	
DESCRIPTION OF OCCURRENCE (Attach additional sheets if more space is required)	

TYPE OF LIABILITY

PREMISES: INSURED IS <input type="checkbox"/> OWNER <input type="checkbox"/> TENANT <input type="checkbox"/>	TYPE OF PREMISES
OWNER'S NAME & ADDRESS (If not insured)	PRIMARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
	SECONDARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
	PRIMARY E-MAIL ADDRESS:
	SECONDARY E-MAIL ADDRESS:
PRODUCTS: INSURED IS <input type="checkbox"/> MANUFACTURER <input type="checkbox"/> VENDOR <input type="checkbox"/>	TYPE OF PRODUCT
MANUFACTURER'S NAME & ADDRESS (If not insured)	PRIMARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
	SECONDARY PHONE # <input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
	PRIMARY E-MAIL ADDRESS:
	SECONDARY E-MAIL ADDRESS:
WHERE CAN PRODUCT BE SEEN?	

INJURED/PROPERTY DAMAGED

AGENCY CUSTOMER ID: _____

NAME & ADDRESS (Injured/Owner)			EMPLOYER'S NAME & ADDRESS		
PRIMARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	PRIMARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
PRIMARY E-MAIL ADDRESS:			PRIMARY E-MAIL ADDRESS:		
SECONDARY E-MAIL ADDRESS:			SECONDARY E-MAIL ADDRESS:		
AGE	SEX	OCCUPATION			
WHERE TAKEN			DESCRIBE INJURY		
WHERE TAKEN			WHAT WAS INJURED DOING?		
DESCRIBE PROPERTY (Type, model, etc.)		ESTIMATE AMOUNT	WHERE CAN PROPERTY BE SEEN?		

WITNESSES

NAME AND ADDRESS	PRIMARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
PRIMARY E-MAIL ADDRESS:				
SECONDARY E-MAIL ADDRESS:				
NAME AND ADDRESS	PRIMARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
PRIMARY E-MAIL ADDRESS:				
SECONDARY E-MAIL ADDRESS:				
NAME AND ADDRESS	PRIMARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL	SECONDARY PHONE #	<input type="checkbox"/> HOME <input type="checkbox"/> BUS <input type="checkbox"/> CELL
PRIMARY E-MAIL ADDRESS:				
SECONDARY E-MAIL ADDRESS:				

REMARKS

REPORTED BY

REPORTED TO

Applicable in Alaska

A person who knowingly and with intent to injure, defraud, or deceive an insurance company files a claim containing false, incomplete, or misleading information may be prosecuted under state law.

Applicable in Arizona

For your protection, Arizona law requires the following statement to appear on this form. Any person who knowingly presents a false or fraudulent claim for payment of a loss is subject to criminal and civil penalties.

Applicable in Arkansas, Delaware, District of Columbia, Kentucky, Louisiana, Maine, Michigan, New Jersey, New Mexico, New York, North Dakota, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, Washington and West Virginia

Any person who knowingly and with intent to defraud any insurance company or another person, files a statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact, material thereto, commits a fraudulent insurance act, which is a crime, subject to criminal prosecution and [NY: substantial] civil penalties. In DC, LA, ME, TN, VA and WA, insurance benefits may also be denied.

Applicable in California

For your protection, California law requires the following to appear on this form: Any person who knowingly presents a false or fraudulent claim for payment of a loss is guilty of a crime and may be subject to fines and confinement in state prison.

Applicable in Colorado

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policy holder or claimant for the purpose of defrauding or attempting to defraud the policy holder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within the Department of Regulatory Agencies.

Applicable in Florida and Idaho

Any person who knowingly and with the intent to injure, defraud, or deceive any insurance company files a statement of claim containing any false, incomplete or misleading information is guilty of a felony.*

* In Florida - Third Degree Felony

Applicable in Hawaii

For your protection, Hawaii law requires you to be informed that presenting a fraudulent claim for payment of a loss or benefit is a crime punishable by fines or imprisonment, or both.

Applicable in Indiana

A person who knowingly and with intent to defraud an insurer files a statement of claim containing any false, incomplete, or misleading information commits a felony.

Applicable in Minnesota

A person who files a claim with intent to defraud or helps commit a fraud against an insurer is guilty of a crime.

Applicable in Nevada

Pursuant to NRS 686A.291, any person who knowingly and willfully files a statement of claim that contains any false, incomplete or misleading information concerning a material fact is guilty of a felony.

Applicable in New Hampshire

Any person who, with purpose to injure, defraud or deceive any insurance company, files a statement of claim containing any false, incomplete or misleading information is subject to prosecution and punishment for insurance fraud, as provided in RSA 638:20.

Applicable in Ohio

Any person who, with intent to defraud or knowing that he/she is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement is guilty of insurance fraud.

Applicable in Oklahoma

WARNING: Any person who knowingly and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds of an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

ADDENDUM TO INSURANCE MANUAL

The University of California



CAPITAL DEVELOPMENT PROGRAM UNIVERSITY CONTROLLED INSURANCE PROGRAM (UCIP)



UCIP SAFETY STANDARDS MANUAL

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
I. INTRODUCTION AND BASIC ELEMENTS.....	5
SAFETY PHILOSOPHY.....	5
PROGRAM OBJECTIVES.....	5
PROJECT EXECUTIVE SAFETY OVERSIGHT COMMITTEE.....	6
CONFLICT BETWEEN CODES AND SAFETY STANDARDS.....	6
DEFINITIONS.....	7
ACRONYMS.....	9
GENERAL EMERGENCY PROCEDURES:.....	10
JOB SITE EMERGENCIES (FIRE, INCIDENTS, & MEDICAL EMERGENCIES).....	10
FIRE.....	10
MEDICAL EMERGENCY.....	10
PROJECT CONDUCT AND SITE SECURITY INFORMATION.....	11
EMPLOYEE CONDUCT.....	11
NEWS MEDIA AND CONTRACTOR CONDUCT.....	11
CONSTRUCTION VEHICLE PARKING.....	11
IDENTIFICATION.....	11
ASSIGNED WORK AREA.....	11
II. RESPONSIBILITIES.....	12
SAFETY RESPONSIBILITIES.....	12
SUBCONTRACTOR SAFETY RESPONSIBILITIES.....	12
PROJECT SAFETY PERSONAL ROLES AND RESPONSIBILITIES.....	12
DEFINITIONS.....	12
CONTRACTOR SAFETY MANAGER (CSM) REQUIREMENTS.....	13
SUBCONTRACTOR SAFETY MANAGER (SSM) REQUIREMENTS.....	14
CONTRACTOR AND SUBCONTRACTOR SAFETY MANAGER (CSM/SSM) QUALIFICATIONS.....	14
CONTRACTOR AND SUBCONTRACTOR SAFETY REPRESENTATIVES (CSR/SSR) REQUIREMENTS.....	14
CONTRACTOR AND SUBCONTRACTOR SAFETY REPRESENTATIVES (CSM/SSM) QUALIFICATIONS.....	15
CONTRACTOR'S SAFETY MANAGER / REPRESENTATIVE RESPONSIBILITIES.....	15
CONTRACTOR'S OVERALL RESPONSIBILITIES.....	16
SITE-SPECIFIC SAFETY PROGRAM (SSSP).....	16
PROJECT SAFETY COMMITTEE.....	19
PROJECT PLANNING AND PROJECT MEETINGS.....	19
JOB SAFETY ANALYSIS.....	20
CONTRACT PROGRESS MEETINGS.....	21
INCIDENT REVIEW MEETINGS.....	22
PRE-SHIFT CREW MEETINGS (PRODUCTION and SAFETY).....	24
UCIP SAFETY RESPONSIBILITIES.....	24
REPORTS AND FORMS.....	25
CONTRACTOR/SUBCONTRACTOR SAFETY NON-COMPLIANCE.....	25
SUBSTANCE ABUSE PREVENTION POLICY.....	26
RETURN TO WORK PROGRAM.....	27
III. FORMS, REPORTS AND DISTRIBUTION INSTRUCTIONS.....	29
Loss Control Survey Form (SAF-1).....	30
Environmental Health & Safety Investigation Report (SAF-3).....	32
Near-Miss Incident Report (SAF-4).....	34
Monthly Non-Compliance Item Summary (SAF-10).....	37
IV. CONTRACTOR SAFETY STANDARDS.....	38
AIR TESTING EQUIPMENT.....	38
ASBESTOS.....	39

BARRICADES.....	39
Fencing.....	39
BURNING, WELDING AND HOT WORK.....	40
Hot Work.....	40
CLOTHING / PROFESSIONAL Demeanor.....	41
Clothing.....	41
Shoes.....	41
Professional Demeanor.....	41
COMPRESSED GAS CYLINDERS, GAS CUTTING AND WELDING.....	41
CONCRETE AND MASONRY CONSTRUCTION.....	42
Concrete Construction.....	42
Cutting, Grinding and Profiling.....	43
CONFINED SPACE ENTRY.....	43
CONNECTIONS TO UTILITIES.....	44
CRANES, BOOM TRUCKS AND RIGGING.....	44
Rigging, Slings and Hooks.....	46
CRITICAL LIFTS (CRANES, BOOM TRUCKS, DERRICKS, ETC.).....	47
DEMOLITION.....	47
ELECTRICAL.....	48
ELEVATING WORK PLATFORMS AND AERIAL DEVICES.....	49
Aerial Devices.....	49
Elevating Work Platforms.....	49
EMERGENCY ACTION / EVACUATION PLAN.....	50
Contents.....	50
Emergency Contact List.....	50
ENVIRONMENTAL CONTROLS.....	50
EQUIPMENT/TOOLS.....	51
EXCAVATIONS.....	52
FALL PROTECTION.....	52
Training and Retraining.....	53
Methods of Fall Protection.....	53
Positioning Device Systems.....	54
Personal Fall Restraint.....	54
FIRE PROTECTION AND PREVENTION.....	54
FIRST AID.....	55
FLAMMABLES AND COMBUSTIBLES.....	56
FORKLIFTS (INDUSTRIAL TRUCKS AND TRACTORS).....	56
HAZARD COMMUNICATION.....	57
HEATERS, PORTABLE.....	58
HEAVY EQUIPMENT/MATERIAL HANDLING AND EARTHMOVING EQUIPMENT.....	58
HORIZONTAL BORING / PIPE JACKING.....	60
HOUSEKEEPING.....	60
LADDERS.....	61
Extension Ladders.....	61
Step Ladders.....	62
LEAD.....	62
LIQUIDS - CORROSIVE ACIDS AND CAUSTICS.....	62
LOCKOUT - TAGOUT / CONTROL OF HAZARDOUS ENERGY.....	62
LOCATING UNDERGROUND UTILITIES BEFORE EXCAVATING.....	63
MOTOR VEHICLES.....	63
ORIENTATION.....	64
OVERHEAD UTILITIES.....	65
PERMITS.....	65
PERSONAL PROTECTIVE EQUIPMENT.....	65
POSTING REQUIREMENTS.....	67

POWDER-ACTUATED TOOLS 67
PUBLIC PROTECTION PLAN 68
 Considerations 68
 Components 68
SANITATION 68
SCAFFOLDS 69
STEEL ERECTION 70
TAR AND MELTING POTS 71
WARNING SIGNS 72
WORK ZONE TRAFFIC CONTROL 72
 Flagging Operations 73
 Plate Bridging 73
V. APPENDICES 74
 A. Advance Planning Suggestions for Construction Work 74
 B. Personal Fall Arrest System Guidelines 76
 C. Sample Pre-Planning Matrix 80
 D. Activity Hazard Analysis (“AHA”) 81
 E. Severe Weather Guidelines 83
 F. Model Contractor/Subcontractor Safety Plan (CSSP) 85
 G. Risk Mitigation Three-Week Look-Ahead Form 92
 H. Root Cause Analysis Chart 93
 I. Incident Investigation Data Form 104

I. INTRODUCTION AND BASIC ELEMENTS

SAFETY PHILOSOPHY

The University of California (UC) is dedicated to the principle that a safe project is a successful and profitable project for all of our Construction Programs and our Contractors. We are committed to the safety of our project workers, the surrounding community, and the environment.

Safety is viewed as an integral component of the construction process, the other key components being production and quality. However, safety is a primary component of the success of this project.

The Contractor shall be responsible for initiating, maintaining, supervising, and enforcing all safety precautions and programs in connection with the performance of the contract. Their employees and their subcontractors share in that responsibility as well. All project workers are expected to work safely and to contribute to the safety of others. In fact, this is an important condition of employment for everyone working on any UC project governed by the University-Controlled Insurance Program (UCIP).

Incident prevention contributes to the Contractor's well being by avoiding injury or illness to the Contractor and its' Subcontractor's employees, improving productivity, contributing to quality, and reducing costs. The community also benefits directly from incident prevention efforts when potential damage to the environment or members of the community is effectively managed.

To say that all incidents can be prevented is a realistic goal, not just a theoretical objective. It is achievable, in part by eliminating sources of hazards and unsafe acts, and also by incorporating measures such as safety representative controls, project leadership accountability, proper training, safe operating procedures and personal protective equipment to meet this goal.

In order for all UC UCIP Construction Program Employers to understand this Safety Philosophy and to meet its expectations, both general and specific training is required. That training is the responsibility of every level of supervision for each employer. Safety training and the prevention of incidents are logical and appropriate parts of how we expect the operations of each Contractor and Subcontractor to be conducted.

PROGRAM OBJECTIVES

The construction safety standards ("Safety Standards") contained in this Manual have been designed to establish the minimum standards for which the Contractor's and each Employer's Site-Specific Safety Program must meet or exceed.

The Safety Standards contained in this document were developed as minimum guidelines to assist the Employer in the elimination or reduction of hazards and risk associated with the construction project. These minimum guidelines also assist the Employer's efforts to prevent incidents, ensure the safety of the general public, reduce worker injuries, prevent damage to property, promote efficiency, and effect savings by reduction of unplanned business interruption.

The University, its authorized representatives, and the UCIP Administrator will neither assume nor relieve any Employer of their direct responsibility for the safety and health of their Employees, the protection of visitors and the public, or the protection of equipment and property.

The University, through its UCIP Administrator and Safety Staff, will actively participate in making these Safety Standards effective by monitoring the efforts of the Contractor and Subcontractors in their performing the following tasks:

1. Providing a safe and healthy environment for site Employees during construction. Examples of this task include:
 - 1.1. New hire safety orientations.
 - 1.2. Toolbox/tailgate safety meetings.
 - 1.3. Safety training, i.e., hazard communication, trenching shoring, confined space, lockout/tagout, respiratory protection and respirator fit testing, etc.
 - 1.4. Mandatory personal protective equipment (PPE) programs.
 - 1.5. Injury reporting and record keeping maintaining up-to-date incident experience and trend analysis.
 - 1.6. Using Incident investigation information to correct deficiencies and eliminate additional losses.
 - 1.7. Implementing appropriate and effective Safety Management Systems
2. Using safety planning, such as Job Safety Analysis and Pre-Planning, as a tool to eliminate workplace injuries and property damage.
3. Conducting safety audits/inspections to *identify, prioritize, and correct* non-compliance conditions.
4. Protecting public and private property adjacent to all construction site work zones.
5. Informing the Authorized Representative and UCIP Safety Staff of any visit from a regulatory agency such as OSHA, EPA or SCAQMD.
6. Educating and training Employees by implementing their respective safety programs.

PROJECT EXECUTIVE SAFETY OVERSIGHT COMMITTEE

An Executive Safety Oversight Committee to oversee and monitor project safety at an executive level for all projects wrapped into the UCIP will be developed as needed. This committee will, at a minimum, be comprised of executive representatives from UC Risk Management, University Safety, the Construction Managers, the Authorized Representative(s), UCIP Safety and the Contractors. Others may be added to this Committee or requested to attend meetings of this Committee at the discretion of the Committee leadership.

CONFLICT BETWEEN CODES AND SAFETY STANDARDS

1. In the case of conflict between codes, Safety Standards, reference standards, drawings and other Contract Documents, the most stringent requirements shall govern.
2. Conflicts shall be brought to the attention of the Authorized Representative. UC reserves the right to issue a final determination for conflicts.
3. The Contractor shall bid for the most stringent requirements.

DEFINITIONS

The following titles and acronyms may not reflect the actual titles and acronyms in use by all entities on this project and do not have any force or effect beyond their use in the Safety Standards. Due to such differences in nomenclature among Owners and Contractors, the following are used throughout the UCIP Safety Standards Manual to establish the functional framework for the UCIP Safety Program.

Aon Risk Services (ARS). The party responsible for brokering and administering the UCIP Insurance Program and developing and monitoring compliance with the Safety Standards.

Authorized Person. (In reference to an employee's assignment) Selected by the employer for that purpose.

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

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

Contractor's Project Manager (CPM). The senior on-site management person for the Contractor with responsibility for execution of the contract, including compliance with the Safety Standards. In some cases, the actual on-site representative may be a Superintendent or a Foreman. In such cases, this is the applicable person when the CPM is referenced. The CPM is responsible for the ongoing implementation and enforcement of the Contractor's Site-Specific Safety Program.

Contractor's Project Superintendent (CPS). The senior on-site Superintendent for the Contractor with responsibility for execution of the contract, including compliance with the Safety Standards. In some cases, the actual on-site representative may be an Assistant Superintendent or a Foreman. In such cases, this is the applicable person when the CPS is referenced. The CPS is responsible for and accountable for the ongoing implementation and enforcement of the Contractor's Site-Specific Safety Program.

Contractor's Safety Manager (CSM). Contractor Employee dedicated to the responsibility of implementing the Contractor's Safety Program and/or Injury and Illness Prevention Program, including ongoing identification and correction of hazards.

Contractor's Safety Representative (CSR). Contractor Employee assigned the responsibility of implementing the Contractor's Safety program and/or Injury and Illness Prevention Program, including ongoing identification and correction of hazards.

Employee. Person employed by an Employer as defined by this section.

Employer. Firm or entity that has Employees working on site and is enrolled in the UCIP program. The term Employer includes the Contractor and Subcontractors of all tiers. For the purposes of the Safety Standards, vendors, suppliers, and service providers on the project for the furtherance of the project are covered by this definition and are subject to the provisions of the Safety Standards even though they are not covered by the UCIP.

OSHA. OSHA as used in the context of these Safety Standards refers to the State or Federal agency with jurisdiction over workplace occupational safety and health at the project site.

Owner. University of California

Owner's Authorized Representative. The Owner's Employee or agent with overall responsibility for the project and/or UCIP.

Qualified Person, Attendant or Operator. A person designated by the employer who by possession of a recognized degree, certificate, or professional standing, or who, by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Site-Specific Safety Program (SSSP). The Employer's Site-Specific Safety Program prepared in accordance with the requirements of this document and the Contract.

Subcontractor. Firm or other entity awarded work by a Contractor on a particular construction project. Subcontractor as used herein shall apply to all tiers of Subcontractors, as well as vendors and service providers performing work for the benefit of the Contractor. For the purposes of the Safety Standards, vendors, suppliers, and service providers on the project for the furtherance of the project are covered by this definition and are subject to the provisions of the Safety Standards even though they may not be enrolled in the UCIP.

Subcontractor's Project Manager (SPM). The senior on-site management person for the Subcontractor with responsibility for execution of the contract, including compliance with the Safety Standards. In some cases, the actual on-site representative may be a Superintendent or a Foreman. In such cases, this is the applicable person when the SPM is referenced. The SPM is responsible for and accountable for the ongoing implementation and enforcement of the Subcontractor's Site-Specific Safety Program.

Subcontractor's Project Superintendent (SPS). The senior on-site management person for the Subcontractor with responsibility for execution of the contract, including compliance with the Safety Standards. In some cases, the actual on-site representative may be an Assistant Superintendent or a Foreman. In such cases, this is the applicable person when the SPS is referenced. The SPS is responsible for and accountable for the ongoing implementation and enforcement of the Subcontractor's Site-Specific Safety Program.

Subcontractor Safety Representative (SSR). Subcontractor Employee assigned the responsibility of implementing the Contractor's Injury and Illness Prevention Program, including ongoing identification and correction of hazards.

UCIP Safety. Aon, Insurance Carrier, or University Risk Management representative(s) responsible for monitoring, evaluating and coordinating the Contractor's safety, health, and environmental compliance.

University Controlled Insurance Program (UCIP). Owner's (UC) wrap-up insurance program which provides insurance coverage for eligible and enrolled owner's representatives, Contractors, and Subcontractors of any tier, working on the UC UCIP project sites. The Owner identifies program participants.

ACRONYMS

Following is a list of acronyms used in this document.

ACM	Asbestos Containing Material
AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
ARS	Aon Risk Services
CDL	Commercial Drivers License
CPM	Contractor's Project Manager
CPR	Cardio Pulmonary Resuscitation
CPS	Contractor's Project Superintendent
CSM	Contractor's Safety Manager
CSR	Contractor's Safety Representative
EPA	Environmental Protection Agency
GWW	Gross Vehicle Weight
HEPA	High Efficiency Particulate Air
JHA	Job Hazard Analysis
LBP	Lead Based Paint
LEL	Lower Explosive Limit
MSDS	Material Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices
NFPA	National Fire Protection Association
NOTAM	Notice to Airmen
OCIP	Owner-Controlled Insurance Program
OSHA	Cal/OSHA and/or Federal OSHA (refer to context)
PACM	Presumed Asbestos Containing Material
PPE	Personal Protective Equipment
SPM	Subcontractor's Project Manager
SPS	Subcontractor's Project Superintendent
SSR	Subcontractor's Safety Representative
SSSP	Site-Specific Safety Program
UL	Underwriters Laboratories ®
UCIP	University-Controlled Insurance program
USDOT	United States Department of Transportation
WATCH	Work Area Traffic Control Handbook

GENERAL EMERGENCY PROCEDURES:

JOB SITE EMERGENCIES (FIRE, INCIDENTS, & MEDICAL EMERGENCIES)

1. All job site emergencies must be reported immediately to the Contractor (if applicable), Authorized Representative and UCIP Safety.
2. Job Site Emergency Telephone Numbers shall be posted on the job site bulletin board.
3. A local street map clearly identifying the project and active entrances shall be maintained and posted on the job site bulletin board by the Emergency Telephone Numbers.
4. A sufficient number of Employees shall be trained in First Aid and CPR to provide for adequate coverage of the project.
5. In the event that there are no hard-wire ("land line") telephones available at the project site, the Employer shall identify and post an alternate number (in addition to 911) to be used to contact emergency service providers via cell phone. This is necessary, as dialing 911 on a cell phone does not always provide a direct connection to local Emergency Services.

FIRE

1. Call 911 or the Local Fire Department/Agency
 - 1.1. At minimum, provide the building, floor and area of the incident.
2. In case of fire in any building:
 - 2.1. Evacuate the immediate area, and
 - 2.2. Activate the fire alarm system (if available), and
 - 2.3. Call the Fire Department.
3. For fire outside of buildings:
 - 3.1. Evacuate the immediate area, and
 - 3.2. Call the Fire Department.
4. Call the Authorized Representative and UCIP Safety.

MEDICAL EMERGENCY

1. Call 911 or the local Emergency Medical Services.
2. Call or report the job site emergency immediately to the Contractor.
3. Render first aid promptly to the injured Employee.
4. The preferred provider for serious traumatic injuries is: Consult the Job Site Posting Notice
5. The designated provider for non-life threatening or minor injuries requiring medical treatment is: Consult the Job Site Posting Notice
6. Call the Authorized Representative and UCIP Safety.

PROJECT CONDUCT AND SITE SECURITY INFORMATION

EMPLOYEE CONDUCT

1. All project workers must maintain professional behavior at all times. Horseplay, fighting, sexual harassment, possession or use of alcohol and/or unauthorized drugs, possession of firearms, gambling, unsafe conduct, and destructive or abusive behavior are not allowed and will result in disciplinary action, up to and including immediate removal of the worker and/or the worker(s) from the site.

NEWS MEDIA AND CONTRACTOR CONDUCT

1. Employers and their employees shall refer questions from news media personnel (radio, television, newspaper) to the Authorized Representative.
2. Project accidents/incidents resulting in news media coverage (radio, television, newspaper) shall be immediately reported to the Authorized Representative.

CONSTRUCTION VEHICLE PARKING

1. Park in authorized areas only. Do not block or obstruct intersections, fire lanes and fire hydrants, traffic lanes, driveways or parking lot entrances. Offending vehicles may be towed without notice at the vehicle owner's expense.
2. Private vehicles are not permitted on the project except in authorized and designated parking areas.

IDENTIFICATION

1. Contractor and Subcontractor Employees shall obtain and wear at all times while on the project a valid UC-issued photo identification badge.
2. All Contractor Employee hard hats must display the Contractor's name and or logo.
3. Contractor equipment and vehicles entering and/or working at the site must have the company name/identification clearly displayed on the vehicle as required by the Special Conditions.

ASSIGNED WORK AREA

1. Contractors and Subcontractors are confined to their assigned work areas.
2. Wandering throughout the site is strictly prohibited.

II. RESPONSIBILITIES

SAFETY RESPONSIBILITIES

The Contractor shall be responsible for initiating, maintaining, supervising, and enforcing all safety precautions and programs in connection with the performance of the Contract for the on-site safety of their Employees and Subcontractors performing work for the benefit of this project. This includes responsibilities for vendors, delivery and transportation services, and service providers at the project location.

Each Employer shall be responsible for initiating, maintaining, supervising, and enforcing all safety precautions and programs in connection with the performance of the contract for the safety of its Employees, its Subcontractors, the public, and the work site in general.

The Employer shall comply with all applicable provisions of Federal, State, and local laws, ordinances, codes and regulations affecting safety and health, including but not limited to the OSHA Act, and OSHA Standards.

Each Contractor and Subcontractor shall comply with the most stringent of the following:

1. Applicable State OSHA Standards and Safety Orders or Federal OSHA Standards (Code of Federal Regulations, Title 29),
2. The Contractor's Site-Specific Safety Program,
3. Applicable consensus standards, including ANSI, NFPA, etc.,
4. The Safety Standards contained in this Manual.

The Contractor must have full-time safety coverage for all construction activities associated with the UCIP project at any time the project has a total of more than 100 field workers on any particular project.

SUBCONTRACTOR SAFETY RESPONSIBILITIES

Subcontractors are responsible for initiating, maintaining, supervising and enforcing the safety requirements outlined by Safety Standards and the Contractor's Site-Specific Safety Program, even though the requirements may be above and beyond the Subcontractor's own safety policies and federal and state OSHA requirements.

PROJECT SAFETY PERSONAL ROLES AND RESPONSIBILITIES

DEFINITIONS

Alternate Contractor Safety Manager (ACSM): Individual meeting the same requirements of the CSM that assumes the role of the CSM on a temporary basis.

Alternate Contractor Safety Representative (ACSR): Individual meeting the same requirements of the CSR that assumes the role of the CSR on a temporary basis.

Alternate Subcontractor Safety Manager (ASSM): Individual meeting the same requirements of the SSM that assumes the role of the SSM on a temporary basis.

Contractor Safety Manager (CSM): Each Contractor shall have a CSM assigned to the project full time to carry out the duties described in this document. Notwithstanding the preceding sentence, a CSM is not required for projects with less than 100 field workers on site for each and every day of field work.

Contractor Safety Representative (CSR): Contractor Employee assigned safety responsibilities for shift work and distinct work locations as required. The CSR reports to the CSM. Additional SSR personnel shall cover shift work and distinct work locations as required. The Contractor can delegate the CSR duties to an on-site Field Supervisor. CSR responsibilities cannot be delegated to an office or staff Employee.

Subcontractor Safety Manager (SSM): Each Subcontractor shall have an SSM assigned to the project full time. The SSM has the same responsibilities for safety for the Subcontractors that the CSM has for the Contractor. The SSM must be available on-site during the period of any subcontractor construction activities. Notwithstanding the preceding sentences, an SSM is not required for projects with less than 100 field workers working for or under the Subcontractor on site for each and every day of field work.

Subcontractor Safety Representative (SSR): Contractor Employee assigned safety responsibilities for shift work and distinct work locations as required. Each subcontractor must have a designated SSR for the project at all time when subcontractor construction work is being performed. Additional SSR personnel shall cover shift work and distinct work locations as required. The Subcontractor can delegate the SSR duties to an on-site Field Supervisor. SSR responsibilities cannot be delegated to an office or staff Employee.

CONTRACTOR SAFETY MANAGER (CSM) REQUIREMENTS

1. The CSM shall be identified in writing to the UC Authorized Representative prior to the commencement of work.
2. The Contractor shall submit the resume of the CSM candidate to the UC Authorized Representative and OCIP Safety for review, prior to the start of on-site work.
3. UC reserves the right to direct the removal and replacement of the CSM and/or SSM if necessary.
4. A CSM shall be present at all times when work is taking place.
 - 4.1. If the Contractor has multiple distinct work locations within the scope of the OCIP, each location shall have a CSM or CSR present when work is taking place.
5. An Alternate Contractor Safety Manager (ACSM) or Contractor Safety Representative (CSR) meeting the same qualifications as the CSM shall be present when the CSM is not present at the project. The ACSM shall hold the same responsibilities as the CSM. ACSM duties may be assumed by a similarly qualified project Supervisor.
 - 5.1. The Contractor shall notify UC Authorized Representative in writing when the CSM will not be present on the project. This notification shall include the name of the ACSM.
6. The Contractor shall maintain a list of all Subcontractor Safety Managers and all Contractor and Subcontractor Safety Representatives. This list shall be available for review upon request.
7. The Contractor will be required to maintain a list of all "competent persons" for technical aspects for regulatory compliance.

SUBCONTRACTOR SAFETY MANAGER (SSM) REQUIREMENTS

1. A Subcontractor will have an approved SSM when subcontractor workforce is 50 or more subcontractor workers.
2. The SSM shall be identified in writing to the Contractor before their workforce is expected to be at or above 50 workers under their contract.
3. The subcontractor shall submit the resume of the SSM candidate to the Contractor Safety Manager for approval before their workforce is 50 or more workers under their contract.
4. The Contractor and UC reserve the right to direct the removal and replacement of the SSM if necessary.
5. A SSM shall be present at all times when work is taking place when 50 or more workers are engaged in construction activities.
6. An Alternate Subcontractor Safety Manager (ASSM) meeting the same qualifications as the SSM shall be present when the SSM is not present at the project. The ASSM shall hold the same responsibilities as the SSM. ASSM duties may be assumed by a similarly qualified project Supervisor.
7. The Subcontractor shall notify the Contractor in writing when the SSM will not be present on the project. This notification shall include the name of the ASSM.

CONTRACTOR AND SUBCONTRACTOR SAFETY MANAGER (CSM/SSM) QUALIFICATIONS

1. The CSM and SSM shall have a minimum of three (3) to five (5) years of qualified project safety experience on large, similar type construction projects that is representative of the planned construction activities.
2. Evidence of completing either the OSHA 10 or 30 Hour Construction Outreach Training within the last three years.
3. Current First Aid and CPR training from a provider recognized by OSHA.
4. Ability to stop work in the event of workplace hazards until corrective actions have been implemented.
5. Understanding of the applicable Federal and Cal-OSHA regulations.
6. Capable of conducting detail incident investigations.
7. Communicate effectively with the field staff and project leadership on relevant safety issues.

CONTRACTOR AND SUBCONTRACTOR SAFTY REPRESENTATIVES (CSR/SSR) REQUIREMENTS

1. Each Subcontractor must have a designated Subcontractor Safety Representative (SSR) who is assigned the responsibilities for managing all safety aspects associated with their subcontractor.
2. Contractors are required to have a qualified Contractor Safety Representatives (CSR) to assure adequate coverage on distinct and isolated work locations.

3. The CSR and SSRs must be approved by the Contractor Safety Manager based on their experience and qualification to administer and manage safety programs.
4. CSR and CSR will be accountable to the Contractor Safety Manager for all safety-related issues.
5. The Contractor and UC reserve the right to direct the removal and replacement of a CSR or SSR if necessary.
6. Safety Representatives will be required to implement their employer's Injury and Illness Prevention Program (IIPP) and the Contractors Site-Specific Safety Plan for the project.
7. A CSM or CSR and, at a minimum, a SSR shall be present at all times when work is taking place.
8. All CSRs and CSRs will be required to participate as a member of the Project Safety Committee.

**CONTRACTOR AND SUBCONTRACTOR SAFTY REPRESENTATIVES (CSM/SSM)
QUALIFICATIONS**

1. The CSM and SSM shall have a minimum of three (5) years of construction experience with representative safety experience (primary project duty) for the trade and type of work being performed.
2. Evidence of completing either the OSHA 10 or 30 Hour Construction Outreach Training within the last three years.
3. Current First Aid and CPR training from a provider recognized by OSHA.
4. Ability to communicate in some manner, in all representative languages, with the filed crews.
5. Be able to effectively conduct weekly tailgate training sessions.
6. Capable of stopping work in the event of workplace hazards until corrective actions have been implemented.

CONTRACTOR'S SAFETY MANAGER / REPRESENTATIVE RESPONSIBILITIES

1. Specific responsibilities of the Contractor's Safety Manager / Representative must include, but are not limited to, completing or overseeing the completion of the following by their Employer and all Subcontractors.
 - 1.1. For Subcontractors, these are the responsibilities of the Subcontractor Safety Representative.

RESPONSIBILITIES:

1. Assure project-specific safety orientation sessions are conducted for workers who are new to the site, prior to their beginning work.
2. Conduct, participate in, or assist Field Supervisors with weekly toolbox safety meetings.
3. Conduct weekly supervisory and management safety meetings.
4. Instruct and inform supervisors and management on safety rules and regulations.
5. Instruct supervisors and Employees in the proper use and care of personal protective equipment (PPE).

6. Instruct supervisors and Employees concerning special procedures (e.g. confined space entry, trench shoring, lockout/tagout, etc.)
7. Complete incident investigation reports in accordance with the Insurance Manual and Safety Standards. Records are to be maintained at the site, and distributed as described in these Safety Standards.
8. Conduct and document weekly (at minimum) project safety inspections. Documentation shall be created and maintained for corrective action taken to correct deficiencies identified during inspections. Records of inspections and corrections are to be maintained at the site.
 - 8.1. Forward copies of inspection and corrective action records to the Authorized Representative and UCIP Safety.
9. Maintain training documentation. Records are to be maintained at the site available for review upon request.
10. Implement site-specific safety policies and procedures.
11. Demonstrate, by example, proper safety behavior.
12. Ensure that required first aid supplies are adequate.
13. Coordinate transportation of Employees with minor injuries to the designated Medical Clinic
14. Inform the CSM/CSR (where applicable), Authorized Representative and UCIP Safety informed of any safety related problems that have or may develop.
15. Maintain records in accordance with OSHA Recordkeeping requirements.
 - 15.1. The OSHA 300 Log for the Contractor is to be available for review upon request by the Authorized Representative or UCIP Safety.
16. Review *Loss Control Survey* forms received from UCIP Safety that identifies safety non-compliance items.
 - 16.1. Disseminate the *Loss Control Survey* forms to Subcontractors if necessary.
 - 16.2. Ensure corrective action is taken.
 - 16.3. Return the completed *Loss Control Corrective Action (SAF-2)* form within 48 hours to UCIP Safety and others as required on this project. Forms will be presented at the Pre-Construction Meeting.

CONTRACTOR'S OVERALL RESPONSIBILITIES

1. The Contractor shall be responsible for initiating, maintaining, supervising and enforcing all safety precautions and programs in connection with the performance of the contract for the on-site safety of his/her Employees and Subcontractors performing work for the benefit of this project. This includes responsibilities for vendors, delivery and transportation services, and service providers at the project location.
2. Each Contractor shall have at least one copy of all applicable OSHA regulations available for use and reference at the job site.
3. The Contractor shall design and executive all worker orientation training after they have been issued a UC badge and cleared from the Substance Abuse Prevention Program.
4. The Contractor shall assure all employers are compliant with the Substance Abuse Prevention Program and that an that the Return-to-Work provisions and guidelines are appropriately followed.

SITE-SPECIFIC SAFETY PROGRAM (SSSP)

5. Each Employer shall have an effective and written Site-Specific Safety Program in accordance with OSHA and the UC UCIP requirements. This Site-Specific Safety Program shall also include, but not be limited to, the following site-specific components as they apply to the Employer's work:

- 5.1. Safety and Health Policy Statement
 - 5.2. Assignment of accountability and responsibilities for key personnel responsible for implementation of the Safety Program
 - 5.3. Identification of Competent Persons and Qualified Persons
 - 5.4. Scope of Work Evaluation
 - 5.5. Hazard/Risk/Exposure Assessment
 - 5.6. Control Measures / Activity Hazard Analysis
 - 5.7. Three Week Look Ahead Planning
 - 5.8. Procedures for effectively communicating safety and health matters to Employees
 - 5.9. Safety Incentive Program / Safety Recognition Program
 - 5.10. Progressive Disciplinary Action Program
 - 5.11. Workplace Hazard Identification Inspection and Corrective Action Program
 - 5.12. Safety Training Program (including provisions for Supervisory and Craft Employee training)
 - 5.13. Project-specific Employee Safety Orientation Program
 - 5.14. Provisions for maintaining orientation, training, inspection, corrective action and investigation records
 - 5.15. Hazard Communication Program
 - 5.15.1.1. To include Material Safety Data Sheets for all products at the site
 - 5.16. Job Safety Analysis (Job Hazard Analysis) Program
 - 5.17. Emergency Response and Evacuation Plan
 - 5.18. Fire Prevention Program
 - 5.19. Hot Work Program
 - 5.20. Drug Free Workplace / Substance Abuse Prevention Program
 - 5.21. Incident Investigation Program
 - 5.22. Near Miss Incident Investigation Program
 - 5.23. Fall Prevention Program
 - 5.23.1. Training and rescue shall be addressed in the Fall Protection Program
 - 5.24. Scaffold Safety
 - 5.24.1. Scaffold Inspection, Scaffold Erector Training, and Scaffold User Training shall be addressed in the Scaffold Safety Program
 - 5.25. Confined Space Entry Program
 - 5.26. Lockout/Tagout / Control of Hazardous Energy Program
 - 5.27. Excavation Safety Program
 - 5.28. Site Logistics Plan
 - 5.29. Other written programs required by this and other contract documents or regulatory agencies
 - 5.30. List of Attachments
6. The Contractor shall submit to the Authorized Representative within 30 days of contract award an electronic copy of the Contractor's Site-Specific Safety Program ("Program") for review.
 - 6.1. The Program will be reviewed for inclusion of the requirements of the UCIP Safety Standards and applicable sections of the Project Specifications.
 - 6.2. The approval of the Program will be based solely on the content of the Program relative to conformance with the UCIP Safety Standards and Project Specifications. Receipt of program does not constitute approval.

- 6.3. Failure to attain approval of the Program prior to the scheduled commencement of contract work is not grounds for a time extension.
- 6.4. Upon approval of the Program for conformance to said requirements, the Contractor shall submit two copies of the Program signed by the Contractor's Owner or CEO to the Authorized Representative.
7. The Contractor scope shall include these UCIP Safety Standards. This shall include all services required for the complete performance of the contract work in accordance with the requirements of the UCIP Safety Standards.
8. All Contractor and Subcontractor Site Managers, Field Superintendents and Dedicated Safety Personnel shall complete an OSHA 10-Hour Construction Outreach Training Program or have Training and certification in the OSHA 500 Construction Outreach 10/30 hour Programs within the past 3 yrs prior to mobilization. Applicable personnel assigned to the project after mobilization shall complete this training within 30 days of assignment.
9. All Contractor and Subcontractor Employees shall receive a project site safety orientation that at minimum reviews the Project Safety Rules and regulations, and applicable Emergency and Evacuation Plans prior to their start of work.
 - 9.1. Vendors and visitors shall be provided with an orientation that is appropriate for their exposures during their time on site.
 - 9.2. The Contractor is to provide this orientation.
10. The Contractor shall conduct monthly (at minimum) Project Safety Meetings with their Subcontractors to properly coordinate the work within the trades and resolve matters related to safety and health and project work. Minutes shall be kept of each meeting, including topics covered and attendees, and made available to the Authorized Representative or UCIP Safety upon request.
 - 10.1. The Owner reserves the right to request additional Project Safety Meetings be conducted by the Contractor when requested by the Authorized Representative or UCIP Safety to address specific areas of concern.
11. The Employer shall conduct toolbox safety meetings with their Employees at least once a calendar week. Minutes of these toolbox meetings are to be prepared and maintained by the Contractor, and available for review by the Authorized Representative or UCIP Safety, upon request.
 - 11.1. Meeting minutes shall contain the following:
 - 11.1.1. Employee names in a legible format
 - 11.1.2. Identifier for each Employee
 - 11.1.3. Employer name
 - 11.1.4. Date of meeting
 - 11.1.5. Description of meeting topics
 - 11.1.6. Name(s) of person(s) conducting the meeting
12. The Contractor and Employer shall ensure that all personnel are properly trained and instructed for all jobs that require specific training and/or competency to meet all applicable OSHA regulations, state and federal law, and the requirements herein.

13. Each Contractor and Subcontractor (via the Contractor) shall submit to the Authorized Representative a list of (a) Competent Persons and Qualified Persons as applicable to the Employer's scope of work, and (b) First Aid / CPR trained personnel prior to starting work.
 - 13.1. Each list shall be clearly dated, and updated as required throughout the contract period. Each time the list is updated, a copy shall be provided to the Authorized Representative.
14. Each Employer is responsible for handling, on a daily basis, rubbish and debris generated by its work. The contractor must keep the work place clean.
15. The Contractor is responsible for ensuring that corrective action is taken when *Loss Control Survey* forms are issued to the Contractor.
16. The *Loss Control Corrective Action* form must be completed by the Contractor and returned within 48 hours of receipt to UCIP Safety and others as required by these Safety Standards. Copies of these forms will be provided separately at the Pre Construction Meeting.
17. The Contractor will cooperate in inspections by OSHA and other regulatory agencies.
18. The cited Employer(s) shall submit copies of all regulatory agency citation notices to the Contractor (if applicable), Authorized Representative and UCIP Safety immediately upon receipt.
 - 18.1. The Contractor shall ensure that the cited Employer posts copies of all citations as required by OSHA or the applicable regulatory agency.

PROJECT SAFETY COMMITTEE

1. The Contractor's Project Manager shall serve as the Chair for the Project Safety Committee.
2. At minimum, the Committee shall include the CSM, CSR, and the SSR of each first-tier Subcontractor, the Construction Manager, UC Safety and UCIP Safety.
3. The Committee shall meet no less than once per calendar quarter, or as needed.

PROJECT PLANNING AND PROJECT MEETINGS

1. Safety and loss control activities are key elements in the success of this project.
2. Safety and loss control activities are to be integrated into the work plan such that safety is an integral component of the construction process, rather than treated as a separate activity.
3. There are five main elements to the planning and meeting component of the UCIP Safety Standards.
 - 3.1. **Project Survey:** Prior to the start of work, the Contractor shall conduct a physical survey of the job site. The Contractor shall also review the plans and specifications.
 - 3.2. **Construction Process Plan:** From the Project Survey, the Contractor shall develop a written Construction Process Plan. The Construction Process Plan shall identify tasks and activities under four main categories:
 - 3.2.1. Construction sequence and procedures
 - 3.2.2. Temporary Structures / Shoring / Reshoring / Bracing / Retention Systems required
 - 3.2.3. Critical Structures or Processes
 - 3.2.4. Description of required tests and approvals

- 3.3. **Job Hazard Analysis:** Job Hazard Analysis (JHAs) needs may be pre-determined in part by reviewing the Construction Process Plan and Construction Schedule. The JHA should be prepared far enough in advance of the task or activity to ensure that changes or revisions will not affect the scheduled execution of the task or activity. JHA's are further discussed later in this section.
- 3.4. **Contract Progress Meetings:** These meetings are typically held on a weekly or bi-weekly basis, and are typically chaired by the Authorized Representative. A sample minimum Safety and Loss Control Agenda is included in this section.
 - 3.4.1. The Contractor shall prepare a Risk Mitigation Three-Week Look-Ahead Schedule (form found as Appendix G) and submit same for review prior to each Contract Progress Meeting.
- 3.5. **Pre-Phase Planning Meetings:** Pre-phase meeting needs may be identified from the Construction Process Plan. A sample Pre-Planning Matrix is provided in the Appendices.
 - 3.5.1. The Contractor shall schedule the Pre-Phase Planning Meeting far enough in advance of the start of the relevant phase to ensure that changes or revisions to JHA's and coordination efforts will not affect the scheduled execution of the relevant phase of work.
 - 3.5.2. The Pre-Phase Meeting shall include the Authorized Representative and UCIP Safety, as well as all Contractors and Subcontractors involved in that phase of work. This meeting shall identify and address the safety and coordination issues of the relevant phase of work.
 - 3.5.3. Pre-Phase Hazard Analysis' shall be prepared using the JHA form (or an acceptable equivalent); specific JHAs are to be prepared using the Pre-Phase Hazard Analysis as a guide.
 - 3.5.4. Subsequent meetings may be required throughout the phase of work to maintain safety and coordination efforts.

JOB SAFETY ANALYSIS

1. **A Job Hazard Analysis (JHA)** is to be developed by the Employer (or Employers) for any significant activity identified by the employer, contractor, program management, UCIP safety team and/or the Project Safety Committee. Each crew shall review the JHA(s) applicable to their tasks to be conducted during their work shift prior to the start of each shift.
 - 1.1. The JHA is a task/operation driven document to ensure that the job task or operation receives proper safety planning prior to beginning work. In actuality, the JHA is a written work plan that incorporates safety procedures into the work procedure. Refer to Section 2 for a list that describes some of the operations and tasks that will require a JHA.
2. JHA's are to be completed by a supervisor familiar with the task to be performed.
 - 2.1. When specific tasks require a JHA, the CSM/CSR/SSR shall facilitate the JHA process and document review of the JHA with the supervisor(s) in advance of the work shift.
3. To conduct a JHA utilizing the JHA form contained in Section 2 of these standards, follow these basic steps:
4. **Select the job to be analyzed.** Use the following factors as a guide in selecting jobs to be analyzed, remembering that those with the worst incident experience shall be evaluated first.
 - 4.1. Frequency of incidents

- 4.2. Disabling injuries.
 - 4.3. Potential for severe injury.
 - 4.4. New operations/jobs.
5. **Break the job down into successive steps.** (Avoid making the breakdown too detailed or too general)
- 5.1. Select an experienced and cooperative Employee to perform the job.
 - 5.2. Explain the purpose of the analysis.
 - 5.3. Observe the Employee as the job is performed.
 - 5.4. Record each job step in the breakdown.
 - 5.5. Review with the Employee and seek comments.
6. **Identify the hazards and the potential incidents.**
- 6.1. Is there a danger of striking again, being stuck by, or incurring other injurious contact with an object?
 - 6.2. Can the work be caught in, between, or by objects?
 - 6.3. Is there a potential slip, trip, or fall hazard?
 - 6.4. Are there strain exposures from pushing, pulling, reaching, twisting or lifting?
 - 6.5. Are there environmental hazards in the form of gases, vapors, fumes, mists, or dusts?
7. **Develop ways to eliminate hazards and prevent potential incidents.**
- 7.1. Find a new way to do the job.
 - 7.2. Change the physical conditions that create hazards.

CONTRACT PROGRESS MEETINGS

Following is a suggested agenda for the Safety and Loss Control component of the Progress Meeting. This agenda may be modified to reflect project needs.

1) Contractor:

- a) Report of incidents involving the Contractor or its' Subcontractors since the last progress meeting
 - i) If the UCIP SAF-3 form has not been filed relevant to any incident discussed, it shall be distributed and discussed by the Contractor at this meeting.
 - (1) Contractor discussion is to include corrective or preventative action taken to prevent a reoccurrence
- b) Report of injuries to Employees of the Contractor or its' Subcontractors since the last meeting
 - i) If the UCIP SAF-3 form has not been filed relevant to any incident discussed, it shall be distributed and discussed by the Contractor at this meeting
 - (1) Contractor discussion is to include corrective or preventative action taken to prevent a reoccurrence
 - ii) Contractor shall report on the work status of each injured Employee until said Employee returns to full duty
- c) Report of near-miss incidents involving the Contractor or its' Subcontractors since the last meeting
 - i) If the UCIP SAF-4 form has not been filed relevant to any incident discussed, it shall be distributed and discussed by the Contractor at this meeting
 - (1) Contractor discussion is to include corrective or preventative action taken to prevent a reoccurrence
- d) Provide a description of work activities until the next meeting, including anticipated Employee and public safety concerns and non-routine tasks/activities
 - i) Contractor is to report on pre-planning that has been done – i.e. steps that will be taken to minimize these hazards.

- ii) Contractor is to be prepared to discuss pedestrian and vehicular traffic controls that will be employed.
- e) Provide a brief description of activities anticipated for the next three weeks to identify potential concerns in advance to facilitate pre-planning by all parties
 - i) A Job Safety Analysis or Activity Hazard Analysis may be requested from the Contractor for future activities

2) UCIP Safety:

- a) Report of Non-Compliance Items identified on Loss Control Surveys that have not been responded to
- b) Report of Non-Compliance Items identified on Loss Control Surveys that have been responded to, but have not been corrected
- c) Report of Non-Compliance Items identified on Loss Control Surveys that are repeat items (i.e. – the same item, or substantively similar item has been identified in the past, and has reoccurred)
- d) Report of incidents involving the Contractor or its' Subcontractors since the last progress meeting
- e) Report of injuries involving the Contractor or its' Subcontractors since the last progress meeting
- f) Report of Near-Miss Incidents involving the Contractor or its' Subcontractors since the last progress meeting
- g) Report of any existing or emerging trends in the Contractor's safety performance
- h) Report of future activities that require pre-planning
 - i) Pedestrian and vehicular traffic control
 - ii) Job Safety Analysis

3) Owner / Authorized Representative:

- a) Reporting or discussion of any item(s) described herein.
- b) Any additional other topic(s)/item(s) not described herein.

INCIDENT REVIEW MEETINGS

1. The Contractor's Safety Manager (CSM) shall adopt a practice of scheduling an Incident Review Meeting within 24 hours of the occurrence of an incident.
2. For the purposes of this section, "Incident" may be defined as any or all of the following: (As determined by owners authorized representatives.)
 - 2.1. Near-Miss Incident
 - 2.2. First-Aid Case
 - 2.3. Recordable Injury
 - 2.4. Lost-Time Injury
 - 2.5. Vehicular Incident
 - 2.6. General Liability / Third-Party Incident
 - 2.7. Incident review as determined by owner's representative.
3. The intent and purpose of this meeting is to interactively and cooperatively identify causal factors that had, or may have had, a role in the incident, and to identify corrective action(s) and practice(s) to implement to avoid potential reoccurrence of the incident. It is NOT a faultfinding or blame-finding event.
4. Attendees should include:
 - 4.1. Authorized Representative
 - 4.2. CPM
 - 4.3. CPS
 - 4.4. CSM / CSR
 - 4.5. SSR (if applicable)

- 4.6. UCIP Safety
- 4.7. Contractor / Subcontractor (Assistant) Superintendent(s) accountable via functional structure of the project for the incident
- 4.8. Contractor / Subcontractor (General) Foreman / Foremen accountable via functional structure of the project for the incident
- 4.9. Craftperson(s) involved with the incident. (Optional)

PRE-SHIFT CREW MEETINGS (PRODUCTION and SAFETY)

1. Each Contractor and Subcontractor crew shall conduct a pre-shift production and safety meeting at the start of each shift.
2. These meetings shall:
 - 2.1. Review of production activities for the shift
 - 2.2. Review of safety activities that are a component of the production activities
3. Such meetings are to generally be five (5) to ten (10) minutes long, and are, at minimum, to focus on the following:
 - 3.1. Tasks for the shift
 - 3.1.1. Applicable Job Safety Analysis'
 - 3.2. Tools and equipment needed for those tasks
 - 3.3. Materials needed for those tasks
 - 3.4. Proper material handling techniques
 - 3.5. Safe work procedures to perform those tasks
 - 3.6. PPE needed to safety perform those tasks
 - 3.7. Questions from the crew
4. These meetings shall be documented in the same manner as the weekly Safety Meeting.

UCIP SAFETY RESPONSIBILITIES

UCIP Safety is responsible for monitoring and evaluating the Contractor's safety, health, and environmental compliance. UCIP Safety reports these findings to the Authorized Representative and the Contractor for corrective action and enforcement actions. Responsibilities and duties of UCIP Safety may include, but are not limited to the following:

1. Compile, follow-up, and maintain safety performance statistics for the project.
 - 1.1. Communicate above information to the Authorized Representative and other Owner personnel to ensure they are informed and involved in the safety program.
2. Keep apprised of new regulations and developments to assist in keeping the safety policies and procedures current and effective.
3. Conduct job site safety surveys of Contractors and Subcontractors activities to observe safety performance, make recommendations and document non-compliance items.
4. UCIP Safety will document non-compliance items, recommendations, and or comments on the *Loss Control Survey* form. UCIP Safety will submit copies of the completed *Loss Control Survey* forms to the Authorized Representative and Contractor. The *Loss Control Corrective Action* form will be submitted to the Contractor when a written response is required.
5. Review and communicate methods and procedures to the Contractor's Safety Representative and the Authorized Representative to foster the highest level of incident prevention performance possible.
6. Provide special consulting to the Owner, Authorized Representative, Contractor and Subcontractors regarding problems and challenges that may arise on the project.

7. Conduct incident investigations if required.
 - 7.1. If performed, such reports shall not relieve the Owner, Contractor, Employer, or Insurer of their obligation to perform their own investigation, or of any responsibility they have to complete and file notices, reports and forms in accordance with applicable regulatory requirements.
8. Review all Contractor incident investigation reports to ensure thorough investigations were conducted and controls instituted to prevent future incidents or accidents.

REPORTS AND FORMS

1. The Contractor is responsible for ensuring that corrective action is taken when Loss Control Survey forms are issued to the Contractor. The *Loss Control Corrective Action Form* must be completed by the Contractor and returned to the Authorized Representative and UCIP Safety, within 48 hours of receipt.
2. Each Employer shall maintain copies of weekly toolbox safety meeting reports on site for review upon request by the Authorized Representative and/or UCIP Safety.
3. Each Employer shall maintain weekly project inspection reports and corresponding corrective action records on site for review upon request by the Authorized Representative and/or UCIP Safety.
4. Each Employer shall electronically submit to the Authorized Representative via the Contractor on a weekly basis a copy of:
 - 4.1. Weekly safety meeting reports
 - 4.2. Weekly inspection reports
 - 4.3. Corrective action records (may be on the same form as the inspection reports).
5. The Contractor will furnish the Aon UCIP Administrator, UCIP Safety and Authorized Representative with a copy of the completed (SAF-3 and SAF-4) forms no later than 24 hours after knowledge of the incident or injury.
 - 5.1. NOTE: The forms do not constitute notice to the Carrier, and do not replace the Employer's First Report of Injury that must be filed with the Project's Workers' Compensation Insurance Carrier by the Employer of the injured/ill Employee.

CONTRACTOR/SUBCONTRACTOR SAFETY NON-COMPLIANCE

1. UCIP Safety has the right to stop any work activity imminently dangerous to life or health until safety violations are corrected.
2. An initial violation by a Contractor's/Subcontractor's Employee will result in a notification to the Contractor's supervisory personnel and the Authorized Representative.
 - 2.1. A second violation may result in the Authorized Representative requiring the Contractor Employee to be excluded from the site for a period designated by the Owner.
3. The removal procedure may be accelerated and/or expanded to include removal of a Contractor's/Subcontractor's entire workforce by the Authorized Representative where the violation of safety regulations is widespread, or where the Contractor/Subcontractor does not demonstrate good faith effort.

4. Employers that are unresponsive to safety issues or that have an unsatisfactory safety evaluation may be deemed ineligible to bid additional contracts for a period designated by the Owner.
5. Employers may report legitimate unsafe actions/activities of other contractors to the Authorized Representative or UCIP Safety.

SUBSTANCE ABUSE PREVENTION POLICY

1. PURPOSE

- 1.1. In order to maintain a safe, healthful and efficient work environment, and to minimize absenteeism and tardiness, all Employers shall implement a Substance Abuse Prevention Policy that, at minimum, includes testing as prescribed by this section.
- 1.2. The Employer's program shall utilize a test procedure and protocol that mirrors or exceeds the Contractor's internal substance abuse testing parameters and protocols.

2. FUNDAMENTAL REQUIREMENTS

- 2.1. Employers shall implement and enforce a policy that prohibits the possession, distribution, promotion, manufacture, sale, use or abuse of illegal and unauthorized drugs, drug paraphernalia, controlled substances and alcoholic beverages by Employees, agents or any person otherwise under the control of the Employer, including Employees and agents of Subcontractors and consultants while on the work site, or while otherwise covered by the OCIP while working on the Project. Further, Employees shall be prohibited from reporting to the premises under the influence of drugs or alcohol.
- 2.2. The Policy must apply to all personnel, including but not limited to regular, part-time, probationary, casual and contract Employees of the company, as well as to Employees and agents of Subcontractors and consultants. The Employer shall take whatever legally permissible steps are necessary or appropriate to enforce compliance with this policy.
- 2.3. Employees governed by this policy may possess a prescription medication in its original container and prescribed for current use of the person in possession by an authorized medical practitioner; provided that the Employer provides a mechanism to ensure that Employees taking prescription medicine inform their Employer about potential side effects of medication which may affect the Employee's work ability (particularly their alertness and coordination), safety and the safety of others.
- 2.4. Any Employee covered under the OCIP shall be drug and alcohol tested in accordance with the provisions of the Employer's program:
 - 2.4.1. When involved in any type of incident, whether injury or property damage was incurred or not. All injuries required medical attention will be subject to testing.
 - 2.4.2. For reasonable suspicion of impairment which has been validated by a third party.
 - 2.4.3. The cost of all testing will be the responsibility of the employer of the effected worker.
3. Any Employee who fails or refuses to take a drug and alcohol screen in accordance with the terms of the contract shall be removed from the project.
4. Items 2.4, 2.4.1, 2.4.2, and 3 are subject to the terms of any Project Labor Agreement.

RETURN TO WORK PROGRAM

Purpose:

This is to establish basic guidelines for an Early Return to Work (transitional duty) work assignment for injured workers. Each Employer shall have a written Early Return to Work Program that shall be implemented on this project unless specifically prohibited by the terms of a Collective Bargaining Agreement.

Definitions

1. ***Injured Worker*** – An injured Employee who has sustained a job related injury or illness that results in a Workers' Compensation claim.
2. ***Transitional Duty Work*** – Temporary job that the injured worker can perform while recovering from the work related injury or illness. *Transitional duty* is the same thing as *Temporary Modified Duty*. The job may be limited to a specific time frame.

Benefits

1. Effectively impacts the Employer's Experience Modification Rating and contributes to reduced insurance premiums.
2. May eliminate the need for vocational rehabilitation.
3. Boosts Employee morale and demonstrates that the Employer wants to cooperate with the injured worker.
4. A worker on transitional duty can be of value to an Employer if there is an alternative plan or job description available.

Fundamental Requirements

1. Construction Employees who are disabled by an injury or illness suffered at work are entitled to receive workers' compensation payments including both the cost of medical treatment and replacement of lost wages during the period of their disability.
2. Employers shall implement an Early Return to Work Program that provides transitional jobs in certain specified instances. A transitional job is work, which requires the Employee to avoid certain types of physical activity, depending on the nature of the Employee's injury.
3. A transitional duty assignment will not change a worker's benefits, coverage and premium amounts. Any injured worker will be considered for transitional work to comply with the doctor's restrictions.

How To Identify Transitional Work

1. Review all job descriptions for modification.
2. Identify transitional work in each department.
3. Make sure transitional duties are within Employee's stated capabilities
4. Communicate with other departments to share transitional duty worker.

Examples of Modified (Transitional) Jobs

1. Flagging or directing traffic.
2. Monitoring quantity of export/import materials.
3. Monitoring safety requirements of co-workers.
4. Conducting safety meetings and training.
5. Delineating trenches, excavations or danger areas.
6. Cross-training for another job or offsite training.

7. Assisting the estimating department by delivering estimates, blue prints, etc.
8. Assisting in warehouse or tool cribs.

III. FORMS, REPORTS AND DISTRIBUTION INSTRUCTIONS

This section illustrates the forms that will be used on this project.

Electronic copies of the SAF-03, SAF-04 and SAF-06 forms will be provided to the Contractor prior to the start of the project.

UC reserves the right to change, modify, or substitute these forms.

<i>Loss Control Survey Form</i>	<i>(SAF-1)</i>
<i>Loss Control Corrective Action Form</i>	<i>(SAF-2)</i>
<i>Environmental Health & Safety Investigation Report</i>	<i>(SAF-3)</i>
<i>Near-Miss Accident/Incident Report</i>	<i>(SAF-4)</i>
<i>Job Safety Analysis Form</i>	<i>(SAF-6)</i>
<i>Monthly Non-Compliance Item Summary</i>	<i>(SAF-10)</i>

Loss Control Survey Form (SAF-1)

The Loss Control Survey is completed by UCIP Safety to document non-compliance items observed on or related to the project. The Loss Control Survey is distributed to the General Contractor, Owner, and Owner's Agent / Representative.

Loss Control Surveys are not prepared for individual subcontractors – all surveys on a contract package will be issued to the General Contractor.

Auditor: _____ University of California _____ (enter specific project name)
 Contractor: _____ LOSS CONTROL SURVEY _____ Contract Number: _____
 Survey Date: _____

Hazard Classification / Rating		Contractor / Subcontractor					Non-Compliance Items		
<p>Class A Hazard: A condition or practice with substantial probability of serious injury, death, loss of body parts, permanent disability, or financial loss of body parts, permanent disability, or financial loss of body parts.</p> <p>Class B Hazard: A condition or practice that is likely to cause serious injury or illness resulting in temporary disability or property damage that is disruptive and not restorable.</p> <p>Class C Hazard: A condition specifically determined not to be a serious nature, but that is a danger to safety. A condition likely to cause only minor injury or loss of duration property damage.</p>							<p>Project Superintendent has responsibility to implement corrective measures and submit Project Manager with the Loss Control Survey within 48 hours of the survey.</p> <p>Contractor's Action Codes</p> <p>NR = No Response Required - Contractor corrected Hazard during survey</p> <p>R = Response Required - Contractor required to submit Corrective Action Form</p>		
							<p>Number and Describe Each Item</p>		
P. P. E.	P. P. E. - Body Parts Respiratory Protection / Equipment								
Postings	OSHA Poster / Permits, Workers' Comp, Etc.								
Positions & Actions of People	Striking Against/Struck By / Ergonomics Fall Potential / Elevated Work Danger Area / Unsafe Act / Horseplay								
Tools And Equipment	Right Tool / Used Correctly / In Safe Condition Heavy Construction Equipment / Vehicles								
General Project Conditions	First Aid, Emergency Procedures Hazard Communication / MSDS / Labeling Safety Training / Tailgate Meetings OSHA Competent / Qualified Person Cert. Fire Protection and Prevention Hot Work - Cutting, Heating and Welding Comp.Gases / Flammables / Combustibles Housekeeping / Sanitation / Drinking Water Guardrails - Stairs, Ramps, FloorHoles, Etc. Ladders, Ramps and Runways Scaffolds, Planks, Rails, Breeding, Mud Sills, Etc. Forklifts / Aerial Devices / Elevating Platforms Cranes / Hoisting / Rigging / Inspectors / Certs. Erection of Structures Confined Spaces - Testing, Ventilation, Etc. Excavations - Shoring, Sloping, Shields, Etc. Traffic Control / Flagging - Vehicle & Pedestrian								
Electrical	Grounding / GFI / Cords / Plugs / Switches / Etc. High and Low Voltage - Minimum Clearances								
Environmental	Environmental Action Plan / Spill Containment								
Builder's Risk	Protection of Materials/Structure/Security								
Other	Specify:								

"Our Loss Control Survey is intended to assist you in your loss control activities. However, no responsibility is assumed for the discovery and elimination of all potential causes of loss, code violations, or exceptions to good practice and does not relieve you of any of your responsibilities to identify and correct any unsafe practices or conditions on the premises and its operations. We do not assume any liability because of conducting such survey."

Some Loss Control Surveys will require a written response by the General Contractor to demonstrate and document corrective action on the part of the General Contractor or its' subcontractors. Such surveys have an "R" in the Response Required column beside a non-compliance item. Items identified with an "R" require a response using the SAF-2 Form that will be provided by UCIP Safety. Items identified with an "NR" do not require a written response.

Loss Control Corrective Action Form (SAF-2)

The Loss Control Corrective Action Form is provided to the Contractor with the SAF-1 when the Loss Control Survey requires written evidence of correction to be provided by the Contractor.

The Contractor is to complete the form in its entirety and return the form to the designated recipients for this project within 48 hours of receipt for correction of the items noted on the Loss Control Survey and provision of the written response to the Loss Control Survey.

University of California

Project Name: University of California
 Contract Number: -
 Contractor: 0

Survey Date:
 Auditor: 0

INSTRUCTIONS: (1) Enter Company Name, (2) Enter Item Number From Loss Control Survey, (3) Enter Date Corrected, (4) Supervisor's Sign-off, (5) Supervisor's Phone Number, (6) Briefly State Corrective Action Taken, (7) Distribute Form as directed below.					
(1) Company Name	(2) Item #	(3) Date Corrected	(4) Supervisor Sign-off	(5) Phone #	(6) State Corrective Action Taken

RETURN RESPONSE TO: AON RISK SERVICES and As Directed by the Project

Environmental Health & Safety Investigation Report (SAF-3)

The Environmental Safety & Health Investigation Report is to be completed by the Contractor for all applicable incidents within 24 hours of the incident.

If the incident involves a subcontractor, both the Contractor and Subcontractor are to provide independent, completed reports.

NOTE:

The Incident Investigation Data Form (Appendix I) is to be used in conjunction with the Root Cause Analysis Chart (Appendix H) to investigate the following types of incidents:

- Incidents resulting in an OSHA recordable injury or illness
- Incidents resulting in business interruption
- Incidents resulting in process interruption
- Near-miss incidents with potential high-severity consequences

If the incident requires a Root Cause Analysis to be performed, the SAF-3 is considered to be a preliminary report for initial notification purposes.

Distribution of the Root Cause Analysis as documented on the Incident Investigation Data Form shall include the Deputy Executive Director of Projects and Facilities.

University of California
 ENVIRONMENTAL HEALTH AND SAFETY INCIDENT INVESTIGATION REPORT

IDENTIFYING INFORMATION	Company		Project		
	General Contractor		Contract Number		
	Location Of Incident		Date Of Incident	Time	Date of Report
	<input type="checkbox"/> Injury Or Illness		<input type="checkbox"/> Property Damage		<input type="checkbox"/> Environmental Incident
	Injured's Name		Property Damaged		Type Of Incident:
	Job Title	Time in Position	Nature of Damage/Loss		<input type="checkbox"/> Haz Mat Spill <input type="checkbox"/> Transportation <input type="checkbox"/> Water Quality <input type="checkbox"/> Tank Leak <input type="checkbox"/> Waste Handling/Disposal <input type="checkbox"/> IAQ <input type="checkbox"/> Fire/Smoke <input type="checkbox"/> Other
	Nature of Injury/Illness	Part Of Body	Cost	Estimated Cost	Estimated Actual
	Activity Being Performed		Object, Equipment, Substance Inflicting Damage		Nature of Damage/Loss
	Object, Equipment, Substance Inflicting Harm		Person in Control of Activity at Time of Occurrence		Task/Activity Being Performed At Time of Occurrence
	Severity of the Injury (check all that apply)				
<input type="checkbox"/> Fatality <input type="checkbox"/> Lost Workdays <input type="checkbox"/> Restricted Duty <input type="checkbox"/> OSHA Recordable <input type="checkbox"/> Medical Treatment <input type="checkbox"/> First Aid <input type="checkbox"/> Other					
DESCRIPTION	Describe How the Incident Occurred				
CAUSE ANALYSIS	Describe The Events And Conditions That Contributed To The Accident				
ACTION PLAN	What Corrective Actions Have Been Or Will Be Taken to Prevent Similar Occurrences? (include estimated time lines for completion)				
REGULATORY	Has There Been Contact With A Government Agency Regarding This Incident? (if yes, describe)				
Documentation Attached (list):		Prepared By:			
		Title:			
		Employer:			
		Phone No.:			

SAF-3

REV 10/06

Near-Miss Incident Report (SAF-4)

The Near-Miss Incident Report is to be completed by the (Sub) Contractor for all applicable incidents within 24 hours.

If the incident involves a Subcontractor, both the Contractor and Subcontractor are to provide independent, completed reports.

NOTE:

The Incident Investigation Data Form (Appendix I) is to be used in conjunction with the Root Cause Analysis Chart (Appendix H) to investigate near-miss incidents with potential high-severity consequences

If the incident requires a Root Cause Analysis to be performed, the SAF-4 is considered to be a preliminary report for initial notification purposes.

Distribution of the Root Cause Analysis as documented on the Incident Investigation Data Form shall include the Deputy Executive Director of Projects and Facilities.

**University Of California UCIP PROJECT
 NEAR-MISS INJURY / INCIDENT REPORT**

Use this form to report near-miss accidents/incidents which could have, but did not, cause injuries or property loss on the job site. It may also be used to track potentially hazardous conditions which could cause an incident. Submit a copy to the OSR, OAR and to OCIP Safety.

Contractor Name:		Project Name:	
Contract Number:		General Contractor (if applicable):	
Date of Near Miss Incident:	Time of Incident:		
Location of the near-miss accident/incident (include address of the facility and location within the facility):			
Description of near-miss accident/incident or condition that exists:			
Recommendation for eliminating or reducing the potential hazard:			
Actions taken to correct the potential problem:			
Reported by:		Title:	
Telephone number:		Date of Report:	

SAF-4

REV 1/99

Job Safety Analysis Form (SAF-6)

The Job Safety Analysis is to be completed by the Contractor for all hazardous activities.

The Owner, OAR, or UCIP Safety may also require the completion of a Job Safety Analysis for any task.

The Owner, OAR and/or UCIP Safety will not approve a Job Safety Analysis for the Contractor or Subcontractor. These parties may review the Job Safety Analysis in an effort to contribute to project safety, and may request copies be provided for evaluation prior to the start of an activity.

This form may be reproduced as necessary to complete the Analysis – that only one page is provided in this section is not to imply that any or all Job Safety Analysis can be completed using one page.

Basic instructions for completing the Job Safety Analysis are found in Section 1. For additional information, please contact UCIP Safety.

JOB SAFETY ANALYSIS		JOB OR TASK: <i>University of California</i>		DATE:	PAGE ____ OF ____
INSTRUCTIONS ON REVERSE SIDE		JSA NO. _____	<input checked="" type="checkbox"/> NEW <input type="checkbox"/> REVISED	SUPERVISOR:	ANALYSIS BY:
COMPANY/ORGANIZATION:		PROJECT:		LOCATION:	REVIEWED BY:
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:				APPROVED BY:	
#	SEQUENCE OF BASIC JOB STEPS	POTENTIAL HAZARDS	RECOMMENDED ACTION OR PROCEDURE		

Monthly Non-Compliance Item Summary (SAF-10)

The Monthly Non-Compliance Item Summary is prepared by UCIP Safety at the end of each month to provide project safety compliance information to the Owner and OAR.

This report will list the General/Prime Contractor and all Subcontractors working under that General/Prime Contractor. The report will identify the number of non-compliance observations by category for the report period.

The SAF-10 is distributed to the Owner and OAR by the UCIP.

JOB SAFETY ANALYSIS		JOB OR TASK: <i>University of California</i>		DATE:	PAGE ____ OF ____
<i>INSTRUCTIONS ON REVERSE SIDE</i>		JSA NO. _____	<input type="checkbox"/> NEW <input type="checkbox"/> REVISED	SUPERVISOR:	ANALYSIS BY:
COMPANY/ORGANIZATION:		PROJECT:		LOCATION:	REVIEWED BY:
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:				APPROVED BY:	
#	SEQUENCE OF BASIC JOB STEPS	POTENTIAL HAZARDS	RECOMMENDED ACTION OR PROCEDURE		

IV. CONTRACTOR SAFETY STANDARDS

Following are the minimum safety requirements and guidelines for this project.

No attempt has been made to restate applicable OSHA, ANSI, NFPA, State/Federal Agency, or State and Local standards in their entirety. The Contractor is reminded of its' responsibility to have at least one copy of all applicable OSHA Standards, as well as other Standards incorporated by reference into the OSHA Standards, available at the project for use and review.

In some instances, the UCIP Contractor Safety Standards are more stringent than the applicable OSHA standards. In other instances due to variables in State OSHA programs, the applicable State OSHA standards may be more stringent than the UCIP Contractor Safety Standards. The Contractor is reminded that the most stringent requirement shall apply.

AIR TESTING EQUIPMENT

1. Approved air testing equipment shall be used to test utility holes, cable vaults, pits, confined spaces and similar spaces for flammable, toxic, or oxygen deficient atmospheres. The exposing Employer(s) is (are) responsible for the provision, maintenance, calibration and testing of said equipment.
2. Air testing equipment shall be UL classified for use in Class I, Division 1, Groups A, B, C & D Division 1 hazardous locations as defined by the National Electrical Code.
3. Air testing equipment must be tested and calibrated as required by the manufacturer before each use.
4. Testing, calibration, use, and repairs shall be in accordance with the manufacturer's operating manual and instructions.
5. Prior to use, Employees must be trained per manufacturer requirements on the use, limitations and alarm modes of each air-testing device that they use.
6. Air testing equipment must be fully functional and checked per manufacturer requirements prior to use.
7. Employees must immediately leave a work area whenever an equipment alarm sounds due to:
 - 7.1. Low or high oxygen level (acceptable range is 19.5% to 23% oxygen).
 - 7.2. Combustible gas detected above 10% lower explosive limit (LEL).
 - 7.3. Set point for a toxic gas level is reached (e.g., 10 ppm hydrogen sulfide)
 - 7.4. Sensor failure
 - 7.5. Low battery alarm.
8. Equipment must be carried with the Employee or placed immediately adjacent to the work area and set to operate in a continuous monitor mode.

ASBESTOS

1. Asbestos is to be handled only by qualified and certified Employers and Employees.
 - 1.1. Abatement Contractors/Subcontractors must be approved in accordance with applicable State, Federal, and Local requirements to perform removal and disposal of asbestos containing material and encapsulation.
2. Contractors must determine the existence of asbestos content in buildings/ building materials PRIOR to any construction, remodeling, or demolition activities.
3. Upon discovery of any asbestos containing materials (ACM) or presumed asbestos containing materials (PACM), Contractor/Subcontractor shall stop work in such areas and notify the Authorized Representative.
4. The Contractor/Subcontractor shall ensure Employees are trained in asbestos awareness to identify ACM and PACM.
5. All asbestos abatement/removal work must follow all regulations of OSHA, the Environmental Protection Agency (EPA) or applicable state agency, and the applicable Air Quality Management District.

BARRICADES

1. Barricades are required around excavations, holes or openings in floor or roof areas, edges of roofs and elevated platforms, around certain types of overhead work, and wherever necessary to warn or protect people against falling in, through or off. Barricades may also be used to isolate people (such as Employees of other crews or Employers, other project/Owner personnel, and the public) from work activities as required by the activity, potential hazards created by the activity, or the location of the activity.
 - 1.1 Barricades must be suitable for the area of use (i.e., blinker type barricade or protective barricade to provide physical protection from falling).
2. To ensure the safety of the general public, the Employer shall provide and maintain adequate protection, such as chain link fences, gates and barricades, to separate work areas from areas outside job site limits.
 - 2.1. Barricades must be suitable for the area of use (i.e., blinker type barricade or protective barricade to provide physical protection from falling).
 - 2.2. Barricades/fences are to be placed around all construction trenches.
 - 2.3. Portable fencing shall be installed around construction work areas, contractor storage areas, and contractor's heavy equipment if they are not otherwise protected within the confines of the Project's perimeter barricade.

Fencing

1. Chain link fencing shall be free from barbs, icicles (excess galvanizing material that may form sharp projections) or other projections that may cause injury.
2. Fencing must be in good repair and installed to ensure stability of the fencing from being knocked over by Employees, or the general public.
3. Portable fencing shall be installed/braced to prevent being blown over during windy conditions.

4. Base supports of portable fencing shall be installed/placed to eliminate tripping hazards when fencing is placed adjacent to sidewalks and walkways.
5. The Authorized Representative reserves the right to prohibit use of, temporary fence panel systems that require the use of a tubular or pedestal base support system that presents a potential trip hazard to pedestrians.

BURNING, WELDING AND HOT WORK

1. The Employer shall have a Hot Work Program for fire prevention during hot work activities.
 - 1.1. This Program shall meet or exceed the requirements of NFPA 51B-1999, "Standard for Fire Prevention during Welding, Cutting and Other Hot Work".
2. An approved fire extinguisher and/or other fire protection equipment are to be provided by the Employer for each hot work operation in accordance with OSHA and local Fire Marshal / Fire Code requirements.
3. The Employer shall procure and post all permits necessary for hot work as required by the Fire Marshal or Fire Code having jurisdiction over the project. The Contractor shall be provided with a copy of all such permits.
4. The Employer shall provide appropriate firefighting equipment for each hot work activity. This equipment shall be located on the same elevation(s) of the work and within 25 feet of the hot work activity.
5. When air monitoring is required, the Lower Explosive Limit must be non-detectable (0% LEL), prior to any type of burning, welding, or hot work being conducted by the Employer.
 - 5.1. Air monitoring will be required around or near any areas that may pose a potential fire or explosion threat from flammable or combustible vapors, for example.

Hot Work

1. Hot work includes, but is not limited to, the following activities: grinding, cutting, welding, brazing or soldering, heating, hot air welding or other operations that generate heat, flames, arcs, sparks or other sources of ignition.
2. Prior to performing hot work the Employer shall evaluate the following: type of hot work to be performed, site preparation, atmospheric conditions, use of appropriate personal protective equipment, and fire fighting equipment.
3. Site preparation should include a survey for the following: combustible materials; hazards posed by heat transfer; flammable, corrosive, or toxic residues; equipment linings; appropriate lock/tagout application; and housekeeping.
4. The Employer shall also evaluate the work area for the potential consequences of thermal conduction. Thermal conduction is the transfer of heat that could cause ignition by/through an object heated by the hot work operation.

CLOTHING / PROFESSIONAL DEMEANOR

1. The Contractor shall require each Employee, agent, or Subcontractor to wear appropriate attire of a form in accordance with the provisions of the contract.

Clothing

1. Employee dress should be neat in appearance and consistent with a professional atmosphere.
2. Shirts and long pants must be worn at all times on the site.
3. Sleeveless shirts and tank tops are not permitted.
4. Clothing should not be torn or frayed.
5. Clothing contaminated by oily, flammable, toxic or caustic materials should not be worn until properly cleaned.
6. Certain tasks may require the wearing of fire-resistant materials, such as Nomex®. In such circumstances, extremely flammable clothing material such as nylon should be discouraged.

Shoes

1. Tennis shoes are prohibited.
2. Shoes should be made of fire-resistant materials.
3. Soles should be made of slip-resistant materials, and not worn to the point where slip resistance is compromised.

Professional Demeanor

1. Personal cellular telephone use is prohibited except during lunch and authorized breaks.
2. Equipment operators are prohibited from operating their equipment while conducting any (personal or business) cellular telephone conversation.

COMPRESSED GAS CYLINDERS, GAS CUTTING AND WELDING

1. All cylinders must be secured and transported in an upright position at all times.
2. Oxygen and fuel gas cylinders must be:
 - 2.1. Separated at least 20 ft., or a 5 foot high barrier with a 1/2 hour fire rating when in storage, and
 - 2.2. Placed away from potential contact that may rupture the tanks.
3. Cylinder valves shall be turned to the off position if left inactive for 30 minutes or longer.
4. Cylinders designed for valve protection caps must have the valve protection caps installed when in storage or when being transported.
5. Cylinders, hoses, and fittings shall be checked for leaks and damage on a regular basis.

6. Cylinders must be labeled as to the nature of their contents per NFPA requirements and the OSHA Hazard Communication Standard.
7. Cylinders shall not be taken into confined spaces.
8. Cylinder storage areas shall have appropriate warning signage posted.
9. Appropriate fire-fighting equipment must be provided for each cylinder storage area.
10. Torches and hoses shall not be left connected to cylinders overnight.
11. Torches and hoses shall not be stored in unventilated gang boxes or storage containers.
12. Flashback arrestors and check valves shall be installed in accordance with manufacturer's instruction on all oxygen-fuel torch sets.

CONCRETE AND MASONRY CONSTRUCTION

Concrete Construction

1. The creating Employer must guard all protruding reinforcing steel to eliminate impalement hazards.

Structural Concrete

1. The Employer must not remove any forms or shoring until a determination has been made by the testing lab and structural Authorized Representative that the concrete has gained sufficient strength to support its own weight and that of superimposed loads.
2. The Employer must not place loads on any concrete structure until concrete has reached a compressive strength predetermined by the structural Authorized Representative of record.
 - 2.1. The Contractor shall be the point of contact for information regarding this item.
3. Where concrete shoring/reshoring is employed, a shoring/reshoring plan specific to the project shall be available for review at the project.
 - 3.1. Deviations from the shoring/reshoring plan will require the issuance of a new shoring/reshoring plan.
 - 3.1.1. The addition of superimposed loads on the floor (such as equipment and/or materials) not considered in the reshoring plan shall be construed as a deviation from the plan.

Pouring and Pumping Operations

1. Permanent and temporary power lines shall be identified prior to the start of a concrete pour. Appropriate safeguards shall be implemented for the pumping, pouring and finishing operations.
2. A site traffic control plan shall be established for concrete truck traffic. Trained spotters and Flaggers shall be used as necessary for worker and public safety.
3. Employees involved in pouring and finishing activities shall have appropriate personal protection equipment, including gloves, mud boots, and eye protection.
4. Concrete truck washout areas shall be in an area acceptable to the Owner, and located out of vehicular and pedestrian travel areas.

5. Diapers or the equivalent shall be provided for the pump and concrete trucks when the truck to pump transfer occurs in a public street or other public area.
6. A site logistics plan shall be prepared for each pump location, and shall include provisions for concrete truck traffic routing and control, as well as pedestrian traffic routing and control (if applicable).

Masonry Construction

1. Masonry walls shall be braced and/or supported as required by OSHA and/or local requirements.

Clear Zone

1. Unauthorized personnel shall be prohibited from entering the work area.

Cutting, Grinding and Profiling

1. Dry cutting, grinding, and profiling of concrete or masonry shall be prohibited except in instances where it is determined in a manner consistent with applicable safety and health standards that the use of water in the cutting, grinding or profiling is not feasible.
2. If it is determined that the use of water is infeasible:
 - 2.1. The Employer shall use work practice controls to control the dust, such as a vacuum with a high efficiency particulate air filter (HEPA), or other dust control system;
 - 2.2. Any dry cutting which occurs shall be done in a designated area away from other Employees if possible; and
 - 2.2.1. The Employer shall provided affected Employees with appropriate respiratory protection as part of a respiratory protection program in accordance with applicable OSHA standards.

CONFINED SPACE ENTRY

1. The Employer must abide by the applicable OSHA standards for all confined space entry operations and furnish all appropriate personnel, equipment, and support.
2. Employer personnel must be trained in the hazards of confined space work, including operating and rescue procedures, the use of respiratory equipment, and instructions as to the hazards they may encounter.
3. The Employer shall develop a written, understandable confined space operating and rescue procedure. This procedure must be made available to all affected Employees.
4. The Employer is required to provide all necessary entry-rescue equipment required for all entries into confined spaces (tripod, full body harness and lifeline or equivalent, etc.) as required by the applicable Standard. Wrist straps may be used in designated areas instead of a full body harness.
5. Prior to entry into a confined space, the Employer shall ensure all lines that may convey flammable, injurious, or incapacitating substances into the space are disconnected, blinded, or blocked off by other positive means in accordance with Lockout/Tagout regulations.

6. Prior to entry into confined space, the Employer shall test the air with an appropriate device or method for: (1) Oxygen content, (2) Flammable gases and vapors, and (3) Potential toxic air contaminants. A written record shall be made and kept at the work site.
7. The confined space shall be emptied, flushed, or otherwise purged of flammable or injurious substances to the extent feasible.
 - 7.1. The Employer is required to provide the proper ventilation equipment.
8. Whenever an atmosphere free of dangerous air contamination and/or oxygen deficiency cannot be ensured, the Employer shall provide approved respiratory equipment to affected Employees, who are involved in a comprehensive respiratory protection program in accordance with applicable OSHA standards.
9. Where a Standby Employee is required, the Standby Employee must have a valid certificate in First Aid and CPR training from the American Red Cross, or equivalent training verified by documentary evidence.
10. Visual contact or two-way radio communication must be available at all times.
 - 10.1. If radios are selected for communication, the Employer shall provide the radios.
11. The Employer must establish a means of communication with outside Emergency Services.

CONNECTIONS TO UTILITIES

1. The Contractor shall not, or allow any Subcontractor to, make any temporary service connections to electrical, water, air or steam utilities without approval of the Owner.
2. Temporary connections shall comply with all applicable Federal, State, and local regulations.
3. Temporary connections shall be inspected on a regular basis.

CRANES, BOOM TRUCKS AND RIGGING

The term crane as used in this section shall be construed to include boom trucks and similar truck-mounted cranes.

1. Cranes and derricks exceeding three tons rated capacity shall not be used in lifting service until an approved certifying agent has certified the equipment.
 - 1.1. Current annual and quadrennial (where required) inspection certificates shall be maintained on each crane.
 - 1.1.1. Cranes that do not have such evidence of inspection shall not be permitted to operate on the project.
 - 1.2. Current daily and periodic inspection records shall be maintained on each crane.
2. An approved certifying agent shall re-inspect any crane that is involved in any incident or is damaged during set-up or operation, and a new certificate of inspection issued prior to being returned to service.
3. Only Employees authorized by the Contractor and trained, or known to be qualified, in the safe operation of cranes or hoisting apparatus shall be permitted to operate such equipment.

- 3.1. Where required, Operators shall have valid evidence of current Licensing or Certification in accordance with State and Local requirements.
- 3.2. Operators not having such evidence where required shall not be permitted to operate applicable machinery (except under terms and conditions prescribed for Trainees by applicable regulations).
4. All mobile cranes having either a maximum rated boom length exceeding 200 feet or a maximum rated capacity exceeding 50 tons shall be equipped with a load indicating device or a load movement device.
5. Cranes shall be equipped with a boom angle or a boom radius indicator and clearly legible load chart in clear view from the Operator's position.
6. An effective, audible warning and operating signal device (such as a horn) shall be provided on the outside of the crane. The controls shall be in easy reach of the Operator.
7. When required by the manufacturer's or certifying agent's instructions, outriggers shall be set so that wheels or crawler tracks within the boundary of the outriggers shall be relieved of all weight by the outrigger jacks or blocking.
8. Plates, pads or mats shall be used under the outriggers or crawlers of all cranes when a lift exceeds 75% of the capacity of the crane as it is configured for that lift. The plates, pads, or mats shall be of suitable material and size to support the crane on the surface that it is set up on.
9. The Employer shall ensure that a qualified person visually inspects the crane, derrick, or hoist's controls, rigging and operating mechanism prior to the first operation of any work shift. Records of daily inspections by the Operator or other qualified person shall be maintained on the crane, and must be available for review upon request.
10. Adjustments and repairs to the crane shall only be made by a qualified person.
11. A fire extinguisher of not less than 10-B:C rating shall be kept in serviceable condition and readily accessible to the Operator.
12. Operations shall be conducted and the job controlled in a manner to prevent loads from being passed directly over workers, occupied workspaces, or occupied passageways.
13. A qualified signal person shall be provided when the point of operation is not in full and direct view of the Operator unless a signaling or control device is provided. Only one person shall be permitted to give signals to the Operator.
 - 13.1. Any Employee involved in the operation may give a "stop" signal if such a signal is warranted.
14. A legible chart depicting and explaining the system of crane signals used shall be conspicuously posted in the vicinity of the hoisting operation.
15. All loads shall be rigged by an identified, qualified, and authorized Rigger.
16. No Employee shall be permitted to ride on loads, hooks, or slings of any derrick, hoist, or crane.
17. Swing radius protection shall be provided where a rotating crane is positioned to operate in areas where persons may be caught between rotating parts and fixed objects or non-rotating crane components.

18. Tag lines, restraint lines, or guide ropes shall be used on all loads except where their use presents a greater hazard. Such lines or ropes should be insulated to prevent shock, and shall not contain knots or splices that may snag on an object.
19. Cranes, hoists, or derricks shall not be left unattended while the load is suspended unless the load is over water, a barricaded area, or is blocked up or otherwise supported.
20. Before leaving the crane unattended, the Operator shall:
 - 20.1. Land or properly secure any attached load
 - 20.2. Disengage clutch (if applicable)
 - 20.3. Set travel, swing, boom brakes, and other locking devices unless otherwise specified by the certifying agents
 - 20.4. Put controls in the "off" position
 - 20.5. Stop the engine
 - 20.6. Secure the crane against accidental travel
21. In all operations where the weight of the load being handled is unknown and may approach the rated capacity, a qualified person shall determine the magnitude of the load unless the crane is equipped with a load-indicating device.
22. The Contractor shall provide a qualified person to direct the lift. The qualified person shall see that:
 - 22.1. The crane is properly leveled for the work being performed and blocked where necessary.
 - 22.2. The load is well secured and properly balanced in the sling or lifting device before it is lifted more than a few inches.
23. A designated person shall monitor the clearance between crane booms, load lines, and loads, and power lines and alert the Operator when necessary.
24. For power lines rated 50k V, or less, minimum clearance between the lines and any part of the crane or load is 10 feet. For power lines rated over 50k V, minimum clearance between the lines and any part of the crane or load shall be 10 feet plus 0.4 inch for every 1k V over 50k V.

Rigging, Slings and Hooks

1. Hoisting hooks shall be of the safety latch-type.
2. Crane hooks with cracks or with deformation of throat opening more than 15 percent in excess of normal opening or more than 10-degree twist from plane of unbent hook shall be removed from service.
3. Ropes shall be inspected for proper lubrication, excessive wear, broken strands, and proper weaving.
4. In order to determine proper time for replacement, a continuing inspection record shall be maintained for hoisting ropes. Conditions such as the following shall be reason for replacement:
 - 4.1. In running ropes, 6 randomly distributed broken wires in one rope lay, or 3 broken wires in one strand in one lay.
 - 4.2. Wear of 1/3 the diameter of outside individual wires.
 - 4.3. Kinking, crushing, bird caging, or other damage resulting in distortion of the rope structure.
 - 4.4. In stranding ropes, more than 2 broken wires in one lay in sections beyond end connections

- or more than one broken wire at an end connection.
- 4.5. Reduction of rope diameter below nominal diameter due to loss of core support, internal or external corrosion, or wear of outside wires.
 5. Fixtures are usually attached to wire rope by the use of wire rope clips. The clips must be attached with the inside curve of the U-bolt against the dead, or short end of the wire rope, and flat clip (saddle) against the live, or long end of the wire rope.
 6. Each day before being used, wire rope slings, alloy steel chain slings, metal mesh slings, and natural and synthetic fiber rope slings, and all fastenings and attachments shall be inspected for damage or defects by a qualified person.
 7. Slings shall have permanently affixed tags stating the following:
 - 7.1. Manufacturer's name or trademark
 - 7.2. Rated capacity

CRITICAL LIFTS (CRANES, BOOM TRUCKS, DERRICKS, ETC.)

1. A Critical Lift Plan shall be prepared for all lifts that:
 - 1.1. Exceed 75% of the lifting device's capacity as configured for that lift; or
 - 1.2. Is deemed a critical lift by the Owner or Authorized Representative by reason of potential negative consequences to safety, structure, or schedule; or
 - 1.3. Involve two or more cranes or lifting devices.
2. A qualified person shall prepare the Critical Lift Plan. The qualified person preparing the plan may be the crane Operator, lift supervisor, or rigger. The crane Operator, lift supervisor, and rigger shall participate in the preparation of the plan. The plan shall be documented, and a copy provided to the Contractor and the Authorized Representative. The plan shall be reviewed by, and signed by, all personnel involved with the lift.
 - 2.1. The plan shall specify the exact size and weight of the load to be lifted and all crane and rigging components that add to the weight. The manufacturer's maximum load limits for the entire range of the lift as listed in the load charts shall also be specified.
 - 2.2. The plan shall specify the lift geometry and procedures, including the crane position, height of the lift, the load radius, and the boom length and angle, for the entire range of the lift.
 - 2.3. The plan shall designate the crane Operator, lift supervisor, and rigger, and state their qualifications.
 - 2.4. The plan will include a rigging plan that shows the lift points and describes rigging procedures and hardware requirements.
 - 2.5. The plan will describe the ground conditions, outrigger or crawler track requirements, and, if necessary, the design of mats, necessary to achieve a level, stable foundation of sufficient bearing capacity for the lift.
 - 2.5.1. For floating cranes or derricks, the plan shall describe the operating base (platform) condition and any potential list.
 - 2.6. The plan will list environmental conditions under which lift operations are to be stopped.
 - 2.7. The plan will specify coordination and communication requirements for the lift operation.
 - 2.8. For tandem or trailing crane lifts, the plan will specify the make and model of the cranes, the line, boom and swing speeds, and requirements for an equalizer beam.

DEMOLITION

1. Utility companies shall be notified and all utility service shut off, capped, or otherwise controlled, at the building or curb line before starting demolition. The Employer is responsible to verify that these actions have been taken.
 - 1.1. The Contractor shall develop an Emergency Call List for all known utility owners prior to the start of demolition activities.
 - 1.2. A site plan shall be marked up to show the locations of known utilities, and the nearest identified shut-off valves/controls. This plan shall be available in the Contractor's Site Office. The Authorized Representative shall be provided with a copy. UCIP Safety should be provided with a copy.
2. Existing alarm systems shall be identified and taken out of service prior to commencing demolition operations. Alarm services shall be notified that the alarm will be taken out of service before taking the system out of service.
3. The Contractor shall determine if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property.
4. When the presence of hazardous substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated prior to demolition.
5. Pipe-covering insulation, steel beam and column fire protection, and HVAC duct shall be surveyed for asbestos.
6. During demolition, continuing inspections shall be made as the work progresses to detect hazards resulting from weakened, load burdened, or deteriorated floors or walls or loosened materials.
 - 6.1. The Contractor and Employer shall ensure that floor load limits are not exceeded during demolition operations.
 - 6.2. Disperse demolition equipment throughout the structure and remove demolished materials to prevent excessive loads on supporting walls, floors or framing.
7. Adequate dust control measures shall be provided during demolition, stockpiling and loading operations.
8. Walking across exposed floor joists, steel beams, or girders is prohibited.
9. The Contractor and Employer shall ensure safe passage of persons around the area of demolition. Conduct operations to prevent damage to adjacent buildings, structures, other facilities, and people.
10. Provide interior and exterior shoring, bracing, or supports to prevent movement, settlement or collapse of structures to be demolished, and to adjacent facilities.
11. Demolish concrete and masonry in sections. Use bracing and shoring to prevent collapse.

ELECTRICAL

1. All temporary power panels shall have covers installed at all times by the Employer.
 - 1.1. All circuits must be clearly labeled.
2. The Contractor is to supply ground fault circuit interrupters ("GFCI") for all temporary electrical wiring cords and equipment.
 - 2.1. Ground Fault Circuit Interrupters shall be tested in accordance with manufacturer's requirements. Logs shall be maintained of all such testing.

- 2.2. Certain Ground Fault Circuit Interrupters have an automatic reset feature. Such GFCIs are not permitted on this project.
3. Temporary lighting shall not be suspended by its' extension/power cord.
4. Temporary lighting must be equipped with guards to prevent contact with the bulb.
5. Extension cords must be at minimum 12 gauge, three-wire cords.
6. Power tools must be double insulated or grounded properly, and inspected prior to use.
7. The Employer must properly tagout and/or lockout any equipment within the Employer's responsibility. Control of the lock and/or tag is also the Employer's responsibility.
8. The Contractor shall coordinate instances that require multi-Employer lockout/tagout activities.
9. Ground pins shall not be removed from electrical cords.
10. Damaged or defective tools and cords shall be removed from service.

ELEVATING WORK PLATFORMS AND AERIAL DEVICES

1. Only authorized and trained personnel shall operate an aerial device or elevating work platform.
2. Boom, basket, platform load limits specified by the manufacturer shall not be exceeded.
3. Employees shall not sit or climb on the edge of the basket or platform or use planks, ladders, guardrails or other devices to gain greater height.
4. Employees shall not work off of elevated work platforms or aerial devices when exposed to high winds.

Aerial Devices

1. An aerial device is any vehicle-mounted or self-propelled device, telescoping extensible or articulating, or both, which is primarily designed to position personnel.
2. Belting off to an adjacent pole, structure, or equipment while working from an aerial device is not permitted.
3. Lift controls shall be tested in accordance with the manufacturer's recommendations or instructions prior to use to determine that such controls are in safe working condition.
4. Aerial baskets or platforms shall not be supported by adjacent structures when workers are on the platform or in the baskets while in an elevated position.
5. An Employee, while in an elevated aerial device shall be secured to the identified anchorage point through the use of a full body harness and lanyard for fall protection.

Elevating Work Platforms

1. An elevating work platform is a device designed to elevate a platform in a substantially vertical axis. (Vertical Tower, Scissor-Lift)

2. The top railing shall be 42 inches high, plus or minus 3 inches, with a midrail at the half-height point. Where the guardrail is less than 39 inches high, an approved personal fall protection system shall be used.
3. Powered elevating work platforms shall have both upper and lower control devices. Controls shall be plainly marked as to their function and guarded to prevent accidental operation.
4. An emergency stopping device shall be provided at the upper controls of elevating work platforms.
5. Ladders or other objects shall not be placed on top of units to gain greater height.

EMERGENCY ACTION / EVACUATION PLAN

1. The Contractor is responsible for the development of a project-wide emergency action plan that shall take into account probable and possible emergency situations.
 - 1.1. Each Employer shall develop a written job-specific emergency action plan that shall take into account probable and possible emergency situations specific to their operations.
 - 1.1.1. This plan shall be shared with and coordinated with the Contractor.
 - 1.2. The Plan shall be revised throughout the course of the project to reflect changed conditions.
 - 1.3. The Plan shall be maintained at the site, and available for review upon request.

Contents

1. At minimum, the plan shall contain:
 - 1.1. Project site map
 - 1.2. Street map of immediate area showing Project location that clearly identifies one-way and dead-end streets.
 - 1.3. Building Plan, including a plan for each floor
 - 1.4. Emergency notification list
 - 1.5. Emergency notification procedures
 - 1.6. Evacuation procedures
 - 1.7. Evacuation route
 - 1.8. Evacuation refuge area
 - 1.9. How Employees will be trained on the contents of this plan
 - 1.10. Intervals for refresher training

Emergency Contact List

1. The Contractor shall provide the Authorized Representative and UCIP Safety with an Emergency Contact List.
 - 1.1. This list shall include 24-hour contact information for key project personnel.
 - 1.2. The Contractor shall maintain this list throughout the duration of the contract, and provide a revised copy to all parties when made necessary by changes to personnel or their contact information.

ENVIRONMENTAL CONTROLS

1. Spills of hazardous materials (including cutting oil, fuel, solvents, antifreeze etc.) must be reported immediately to the appropriate regulatory agencies and to the Authorized Representative. The party responsible for the spill is responsible for cleanup costs.
2. Cutting equipment must have secondary containment (drip pans, sandboxes).
3. Drums, jugs and other containers must have secondary containment.
4. All containers must be maintained in good condition, and must be appropriate for the materials to be stored in them.
5. All containers must be labeled with their contents and precautions for use.
6. Containers containing hazardous waste must be labeled "Hazardous Waste" in addition to listing their contents on the label.
7. Weekly inspections of the Project must be performed by the Contractor to assure compliance with this section.
8. The Creating Employer is responsible for proper disposal of its hazardous wastes.
 - 8.1. A copy of the completed Uniform Hazardous Waste Manifest must be provided to the Contractor (if applicable), Authorized Representative and UCIP Safety.

EQUIPMENT/TOOLS

1. Contractor equipment and tools must be in proper working condition and routinely (i.e. daily or prior to use) inspected for defects.
2. Any equipment or tool found to be damaged or defective must be removed from service and repaired before it can be returned to service.
3. Manufacturer's instructions shall be followed with respect to equipment/tool operation and training requirements.
4. Equipment is not to be used with loads that exceed the recommended rated capacity.
5. The Employer is to use only their equipment and tools, and not those of other Employers, unless Employees are properly trained and authorized.
6. Tools and equipment are to be used for their designated purpose.
7. Tools and equipment are to be used only by trained and authorized Employees.
8. Proper guards or shields must be installed on all power tools before use.
 - 8.1. All guards must be manufactured by and/or approved by the manufacturer for that particular piece of equipment.
9. The practice of "wedging or pegging" guards on circular saws or other equipment, rendering them non-functional, is not permitted.
10. No internal combustion vehicle or machinery is to be operated inside structures unless proper engineering controls have been implemented to minimize carbon monoxide levels.

- 10.1. In such cases where vehicles or machinery are operated inside structures, carbon monoxide levels shall be monitored as often as required to ensure a safe work environment.
11. All material handling equipment must have an audible backup alarm.
12. Tools and equipment must be properly stored, secured and located away from unauthorized access.
13. For pneumatic power tools, all air hoses exceeding ½ inch inside diameter shall have a safety device (commonly known as an “OSHA valve” or “safety check valve”) at the source of air supply or branch line origin (such as a manifold) to reduce pressure in case of hose failure.

EXCAVATIONS

1. The Contractor shall obtain an activity permit for excavations when required by the owner or local or state law.
2. Trenching or excavating activities must be under the supervision of a Competent Person.
3. The Contractor's materials for the protection of personnel (i.e., bracing, shoring, shielding, and trench boxes) must be in good condition and of proper dimensions/materials.
4. Excavations must be inspected at least daily by the Competent Person.
5. The Contractor's Competent Person must determine the soil classification (Type A, B, or C) to determine the appropriate type of protective system required for the excavation.
6. Excavated soils, materials or equipment are to be kept at least two feet from the edge of the excavation.
7. The Contractor must provide appropriate barricades to protect people from falling into the trench (lighted barricades must be provided at night).
8. Ladders or other means of egress must be provided by the Contractor for access and spaced within 25 feet of any worker inside the excavation when the depth of the excavation exceeds 4 feet (48”).
9. Walkways are to be provided over any excavation or trench point that Employees may need to cross. Walkway must have handrails, midrails, and toeboards.
10. Where pedestrian traffic must be accommodated over excavations, suitable non-skid plates or other suitable material capable of withstanding at least twice the maximum intended load must be provided to serve as a pedestrian runway for safe passage.
 - 10.1. The edges of the runway shall be tapered to minimize trip hazards. In the alternative, the approach to the runway shall be tapered with a suitable and durable material or the runway set into the surface to minimize trip hazards.
11. Rescue equipment must be provided by the Contractor (full body harness and lifeline, breathing apparatus, basket stretcher, etc.) when hazardous atmospheric conditions are expected to exist.
12. Contractor must follow all regulations as outlined in the project Safety Standards, the Contract Documents, Federal and State OSHA regulations, and local requirements pertaining to trenching and excavating activities.

FALL PROTECTION

1. All trades will follow the CalOSHA's fall protection requirement where workers will be protected from all falls at a height of 7.5 feet or more by protective systems including fall arrest and restraint systems.
2. Personal Fall Arrest Systems for Iron Workers trade classification shall (a) limit the fall distance to a maximum of 6 feet and (b) prohibit the Employee from contacting a lower level or structural element.
 - 2.1. Where practicable, the anchor end of the lanyard shall be secured at a level not lower than the Employee's waist.
3. Where a fall hazard exists, efforts must be made to eliminate the hazard; provide protection against the hazard; or establish alternative methods to control/monitor the hazard.
4. Rescue shall be addressed in the Employer's fall protection policies and fall protection training.

Training and Retraining

5. Employers are required to provide training for any Employee who might be exposed to a fall hazard prior to the exposure or upon hiring. Documentation shall be maintained and available for review upon request.
6. Training must include an explanation of the company's fall protection policies and safe work practices with general instructions and precautions; specific instruction where required; hazard identification and correction; selection and proper use of protective devices; and maintenance of equipment. Instruction should also include correct procedures for inspecting, erecting, disassembling, and maintaining fall protection systems used; and the Employee's role in fall prevention and protection
7. Retraining. When the Employer has reason to believe that any affected Employee who has already been trained does not have the understanding and skill required by paragraph (a) of this section, the Employer shall retrain each such Employee. Circumstances where retraining is required include, but are not limited to, situations where:
 - 7.1. Changes in the workplace render previous training obsolete; or
 - 7.2. Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
 - 7.3. Inadequacies in an affected Employee's knowledge or use of fall protection systems or equipment indicate that the Employee has not retained the requisite understanding or skill.

Methods of Fall Protection

- 7.4. Methods of fall protection include:
 - 7.4.1. Guardrails and toeboards
 - 7.4.2. Covers for floor and roof openings, pits, trap-doors, and temporary floor openings.
 - 7.4.3. Personal Fall Arrest Systems.
 - 7.4.4. Personal Fall Restraint Systems.
 - 7.4.5. Positioning Device Systems.
 - 7.4.6. Safety Nets.
 - 7.4.7. Scaffold Platforms.
 - 7.4.8. Roof Warning Lines.
- 7.5. Fall Protection Plans, Controlled Access Zones, Safety Monitor Systems and Controlled Decking Zones require the approval of the Contractor for their use.

8. The only allowable type of body restraint system allowed will be a full body harness with a lifeline, and lanyard. Safety belts are not permitted for fall arrest or fall restraint.
9. All personal fall arrest, personal fall restraint and positioning device systems shall be labeled as meeting the requirements contained in ANSI A10.14-1991.
10. Personal Fall Arrest Systems shall (a) limit the fall distance to a maximum of 6 feet and (b) prohibit the Employee from contacting a lower level or structural element.
 - 10.1. Where practicable, the anchor end of the lanyard shall be secured at a level not lower than the Employee's waist.
11. Lifelines and anchorages shall be capable of supporting a minimum dead weight of 5,000 pounds.
12. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
13. Anchorages used for attachment of personal fall arrest equipment:
 - 13.1. Shall be independent of any anchorage being used to support or suspend platforms, and
 - 13.2. Capable of supporting at least 5,000 pounds per Employee, or
 - 13.3. Part of a complete personal fall protection system used under the supervision of a qualified person that maintains a safety factor of at least two (2).
14. The use of non-locking snaphooks is prohibited.
15. Body belts shall not be used for fall protection or fall restraint.

Positioning Device Systems

16. Positioning devices shall be rigged such that an Employee cannot free fall more than 2 feet.
17. Positioning device systems shall be inspected prior to each use.
18. Anchorage points for positioning device systems shall be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

Personal Fall Restraint

19. A Personal Fall Restraint System shall not allow the Employee to fall.
20. Anchorage points used for fall restraint shall be capable of supporting 4 times the intended load.
21. Personal Fall Restraint protection shall be rigged to allow the movement of Employees only as far as the sides of the working level or working area.

FIRE PROTECTION AND PREVENTION

1. The Contractor must develop a fire protection program to be followed throughout all phases of construction.
 - 1.1. The program shall include the most stringent of OSHA, local Fire Marshal, and/or local Fire Code requirements.
2. Fire fighting equipment must be conspicuously located or conspicuously marked.

3. A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of floor and fraction thereof. Where the floor is less than 3,000 square feet at least one fire extinguisher is required.
4. The clear and unobstructed travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 75 feet.
5. In multi-story buildings, at least one fire extinguisher shall be provided on each floor and located adjacent to the stairway.
6. A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids are stored.
7. Portable fire extinguishers shall be fully charged, inspected monthly and serviced annually.
8. Storage of more than 25 gallons of flammable liquids shall be in a NFPA approved storage cabinet. Not more than 120 gallons of Class I, II, or IIIA liquids may be stored in a storage cabinet.
9. A fire extinguisher, rated not less than 20-B, shall be located outside of, but not more than 10 feet from the door opening of storage rooms.
10. A portable fire extinguisher rated at least 10B:C shall be kept near operations where fuel gas cylinders/bottles are being used.
11. Portable fire extinguisher shall be readily available for use where temporary heating devices are used.
12. "No Smoking" signs shall be posted as required by operations or material exposures.
13. The Owner reserves the right to designate no smoking areas on the project.

FIRST AID

1. Each Employer shall ensure the availability of a suitable number of appropriately trained persons to render First Aid and CPR.
2. Field Supervisors and Safety Representatives must be trained in First Aid and CPR.
 - 2.1. Evidence of training shall be available for review upon request.
3. Each Employer shall provide at least one appropriately sized and stocked first-aid kit in a weatherproof container.
 - 3.1. The first-aid kit shall be inspected regularly to ensure that the expended items are promptly replaced.
4. Eye wash capabilities shall be provided by the exposing Employer as required by the MSDS for products used at the job site.
5. Each Contractor and Subcontractor shall submit (via the Contractor) to the Authorized Representative a list of First Aid / CPR trained personnel prior to starting work.
 - 5.1. Each list shall be clearly dated, and updated as required throughout the duration of the contract period. Each time the list is updated, a copy shall be provided to the Authorized Representative.

FLAMMABLES AND COMBUSTIBLES

1. The Employer is required to supply extinguisher, fire blankets, and other sufficient fire protection devices for the immediate work area where flammable and combustible material is stored or used. All fire extinguishers must be provided by the Contractor and rated at a minimum of 2A, 20BC.
 - 1.1. Fire extinguishers shall be checked to verify that they are fully charged.
2. All Employer supplied flammable liquids must be stored in approved safety containers.
 - 2.1. All containers must be properly labeled and stored when not in use.
 - 2.2. Only approved metal safety cans will be allowed for flammable storage.
3. The Employer shall identify non-compatible materials in advance, and provide for separate storage as required.
4. Storage in excess of 25 gallons of flammable liquids or 60 gallons of combustible liquids shall be within cabinets constructed to the requirements of NFPA 30.
5. All outside storage areas must be at least 20 feet from any building.
6. For roof work:
 - 6.1. No more than a one-day supply of flammables may be placed on the roof during working hours.
 - 6.2. All flammables must be removed from the roof at the end of each workday by the Contractor.
 - 6.3. At least two extinguishers appropriate for the type and quality of flammable materials present must be provided if flammables are present.
7. All Contractor-supplied flammable and combustible materials must be kept away from sparks, heaters, and any other heat source.

FORKLIFTS (INDUSTRIAL TRUCKS AND TRACTORS)

1. Only drivers authorized by the Employer and trained in the safe operations of industrial trucks shall be permitted to operate forklifts.
2. Operator training and posting of information regarding forklift operations shall be in accordance with applicable OSHA Standards.
3. The Employer shall certify that each Operator has been trained and evaluated.
4. All forklifts and industrial trucks and tractors shall be equipped with an audible back-up alarm which can be normally clearly heard from a distance of 200 feet
 - 4.1. In congested areas or areas with high ambient noise which obscures the audible alarm, a signal person in clear view of the operator shall direct the backing operation.
5. The rated capacity of all industrial trucks and industrial tractors shall be displayed at all times on the vehicle in such a manner that it is readily visible to the Operator.
6. Every industrial truck and tractor shall be equipped with operable brakes, a parking brake, and a horn.

7. Seat belts shall be provided on industrial trucks and tractors where rollover protection is installed. Employees shall be instructed in their use.
8. No riders shall be permitted on vehicles unless the vehicles are equipped with adequate riding facilities.
9. Employees shall not ride on, or be elevated on the forks of lift trucks.
10. Industrial trucks may be used to elevate Employees in accordance with applicable OSHA Standards and manufacturer's recommendations using appropriate personnel platforms.
11. Employees shall not be allowed to stand, pass, or work under the elevated portion of an industrial truck, loaded or empty.
12. Drivers shall check the vehicle at least once per shift. Attention shall be given to tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system (forks, chains, cable and limit switches).
13. Vehicles shall not exceed the authorized or safe speed, always maintaining a safe distance from other vehicles, keeping the truck under positive control at all times.
14. The driver shall slow down and sound the horn at cross aisles and other locations where vision is obstructed.
15. Grades shall be ascended or descended slowly.
16. The forks shall always be carried as low as possible, consistent with safe operation.
17. When leaving a vehicle unattended, the power shall be shut off, brakes set, the mast brought to the vertical position, and forks left in the down position.
18. Forklifts (Industrial Trucks and Tractors) shall not be loaded in excess of their rated capacity.

HAZARD COMMUNICATION

1. The Contractor shall maintain (a) a copy of all Material Safety Data Sheets, and (b) a chemical inventory list, for all hazardous substances used at the jobsite by their firm, as well as for all hazardous substances used at the jobsite by all Subcontractors regardless of tier.
 - 1.1. The location of the Project's Material Safety Data Sheets and chemical inventory list shall be communicated to the Authorized Representative and UCIP Safety.
2. In accordance with the provisions of the Hazard Communication Standard, each Employer must have a comprehensive written Hazard Communication Program which includes:
 - 2.1. A list of hazardous substances known to be on site.
 - 2.2. Methods the Employer will use to inform Employees of the hazards of non-routine tasks.
 - 2.3. On Multi- Employer job sites, the program shall include the methods Employer s will use to inform other Employers of any precautionary measures to protect their Employees.
 - 2.4. The methods used to provide other Employer (s) with access to Material Safety Data Sheets.
 - 2.5. The methods the Employer will use to inform the other Employer (s) of the labeling system in use.

3. The Contractor must submit a copy of its Hazard Communication Program to the Authorized Representative upon request.
4. Each Employer must have a job site binder which contains the following items:
 - 4.1. A comprehensive written Hazard Communication Policy.
 - 4.2. A chemical inventory listing all hazardous materials brought onto or used on the project site by the Employer.
 - 4.3. Material Safety Data Sheets (MSDS's) for all hazardous materials used on the project site.
5. The Employer shall ensure that all Employees have received training in the safe use of hazardous materials; and that Employees are able to read and understand the information on Material Safety Data Sheets. The training shall include at least:
 - 5.1. Methods and observations that may be used to detect the presence or release of a hazardous chemical.
 - 5.2. The physical and health hazards of the chemicals used in the work area.
 - 5.3. Measures Employees can take to protect themselves from the hazards.
 - 5.4. Details of the hazard communication program, including the labeling systems and the use of MSDS.
6. The Employer shall ensure that all containers used on the construction site are properly labeled as to their contents, including gas and diesel containers.
7. The Employer will provide a Material Safety Data Sheet (MSDS) for any hazardous substance that will be used on the job site to the Contractor prior to its use.

HEATERS, PORTABLE

1. All heaters must be Factory Mutual and/or Underwriters Laboratory approved.
2. The Employer must notify the Contractor to review and approve all liquid/gas fueled Contractor heaters brought onto the site prior to use.
 - 2.1. The use of liquid/gas fueled heaters inside of buildings requires Contractor approval.
3. Tent Heater use requirements:
 - 3.1. Use only in tents made of fire resistant material.
 - 3.2. Avoid contact with heating elements or other hot parts.
 - 3.3. Keep flammable materials and clothing away from hot equipment.
 - 3.4. Never use heaters in a utility hole or in a tent that covers a utility hole.
 - 3.5. Ensure adequate ventilation is provided when using a tent.
 - 3.6. Secure a fire extinguisher within the tent in an accessible location.

HEAVY EQUIPMENT/MATERIAL HANDLING AND EARTHMOVING EQUIPMENT

1. Equipment shall be maintained in good working order. All vital parts such as motors, chassis, blades, bladeholders, tracks, drives, hydraulic and pneumatic mechanisms, and transmissions must be inspected each day.

2. Whenever visibility conditions warrant additional light, all vehicles, or combinations of vehicles, in use shall be equipped with at least two headlights and two taillights in operable condition.
3. All vehicles, or combination of vehicles, shall have brake lights in operable condition.
4. All vehicles shall be equipped with an adequate audible warning device (horn) at the Operator's station.
5. All vehicles must have a back-up alarm that is normally audible for a distance of 200 feet.
 - 5.1. In congested areas or areas with high ambient noise which obscures the audible alarm, a signal person in clear view of the operator shall direct the backing operation.
6. All vehicles with cabs shall be equipped with windshields and powered wipers.
7. Vehicles operating in areas or conditions that causes fogging or frosting of windshields shall be equipped with operable defogging or defrosting devices.
8. Cracked or broken windshields shall be promptly replaced.
9. Windshields and mirrors shall be kept clean such that vision is not compromised or obstructed.
10. Seat belts with approved proper anchorage points shall be installed in all haulage, earth moving, and material handling heavy equipment.
11. The Employer shall ensure Employee use of seat belts on motor vehicles.
12. Trucks with dump bodies shall be equipped with positive means of support, permanently attached, to prevent accidental lowering of the body while maintenance or inspection work is being done.
13. Operating levers controlling hoisting or dumping devices on haulage bodies shall be equipped with a latch or other device that will prevent accidental starting or tripping of the mechanism.
14. Trip handles for tailgates of dump trucks shall be so arranged that, in dumping, the Operator will be in the clear.
15. All rubber-tired motor vehicle equipment shall be equipped with fenders.
16. All vehicles in use shall be checked at the beginning of each shift for defects in:
 - 16.1. Service brakes, trailer brake connections, parking brake system, and emergency stopping system (brakes).
 - 16.2. Tires, horn, steering mechanism, seat belts, operating controls and safety devices.
 - 16.3. Lights, reflectors, windshield wipers, defrosters, and fire extinguishers.
17. Before starting a job, the Operator shall be given instructions regarding the work to be done.
18. Before starting the motor, the Operator shall check to make sure that all operating controls are in the neutral position.
19. Before starting the equipment, or moving the equipment after re-entering the cab, the Operator shall walk entirely around the equipment to make sure no other personnel, equipment or material will be struck.

20. Contractor shall ensure that Operators of heavy equipment wear appropriate hearing protection devices.
21. At no time shall a piece of equipment be left unattended while the motor is running, especially if the machine is on an inclined surface or on loose material.
22. Block or chock wheels when parking on inclines.
23. Machines shall be operated at speeds and in a manner consistent with conditions on the project.
24. No Employee other than the Operator shall ride on equipment.
25. During refueling operations equipment motors shall be turned off. Smoking is prohibited during refueling.
26. If possible, equipment shall be driven entirely off the roadway at night.
27. Unattended equipment must be left in a secure area not accessible to members of the public or unauthorized third parties.
 - 27.1. Keys shall be removed from unattended equipment.
28. Spotters and/or Flaggers must be used when equipment Operator's view is obstructed whether moving forward or backward.

HORIZONTAL BORING / PIPE JACKING

1. Prior to boring/jacking operations the Employer must contact the regional *One Call Notification System* to ensure all owners of underground facilities in the area of are notified to mark their utility locations.
2. The Employer shall locate all buried utilities before commencing boring/jacking operations.
3. Open a guide hole (bore slot) over any existing utility that is in line with the bore shot.
4. Excavate bore slot, bell hole and guide holes as necessary.
5. If resistance is encountered during the boring/jacking operation, cease the boring operation immediately and excavate at the point of resistance to determine necessary action.
6. The Operator must be trained in the use of the boring/jacking machine.
7. At least two crewmembers must operate the bore motor at all times.
8. Stay clear of rotating bore pipe and the rotating head of boring machine. Loose clothing, long hair, or gloves can cause injury if caught in rotating bore pipe.
9. Only one crewmember shall transmit signals to the Operator.
10. Do not hold rotating bore pipe with hands or feet.
11. Operate the boring machine only at slow RPM's when used to connect or disconnect bore pipe.

HOUSEKEEPING

1. All construction materials must be stored in an orderly manner.
2. All exits and access ways must be kept unobstructed.
3. All work areas must be cleaned and free of debris.
4. Puncture hazards (nails, staples, fasteners, etc.) created by stripped formwork, scrap lumber, pallets, shipping materials, etc. shall be eliminated or controlled by the creating Employer.
5. Metal containers with covers must be provided for disposal of oily and paint soaked rags.
6. Maintain all exits.
7. Emergency exits must be available.
 - 7.1. Panic hardware, where present, must remain unobstructed.
8. Walkways and sidewalks must be kept free of construction materials, debris, dirt, tools and extension cords.
9. Where steel plates are used to bridge excavations or other similar type construction activities in walkways or sidewalks, the leading edges of the steel plates must be tapered or feathered with temporary asphalt or other suitable materials to prevent trip hazards.

LADDERS

1. Type II (Commercial) and Type III (Household) ladders are prohibited.
2. The Employer shall provide a training program for each Employee using ladders and stairways, as necessary. The program shall enable each Employee to recognize hazards related to ladders and stairways, and shall train each Employee in the procedures to be followed to minimize these hazards.
 - 2.1. Retraining shall be provided for each Employee as necessary so that the Employee maintains the understanding and knowledge acquired through compliance with this section.]
3. Broken or defective ladders must be immediately removed from service.
4. Employees must maintain a 3-point contact while climbing ladders.
5. Job-Made ladders shall be constructed in accordance with OSHA provisions.
6. All types of ladders must be inspected at least daily for:
 - 6.1. Cracks, splits, splinters, and decay.
 - 6.2. Protruding nails and loose rivets.
 - 6.3. Loose, bent or broken braces, tie rods, guide irons, locks, pulleys and strand hooks.
 - 6.4. Broken, worn or defective spurs and pads.

Extension Ladders

1. Portable ladder feet shall be placed on a substantial base.
2. Straight and extension ladders must be tied off or secured to prevent displacement.
3. Metal ladders must not be used near energized equipment.

4. No more than one Employee is allowed on a ladder.
5. Ladders are not to be used for skids, braces, workbenches, or any other purpose other than climbing.
6. All straight and extension ladders must be equipped with nonskid safety feet.
7. Ladders must extend no less than 36 inches above the landing.
8. Ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.

Step Ladders

1. Stepladders must be fully open and the spreader set in the open and locked position.
2. Do not climb, stand or sit on the top two rungs.
3. Do not lean a stepladder against a wall in the unopened position.
4. Always ascend and descend facing the ladder.
5. Do not exceed the designated weight capacity.

LEAD

1. The Contractor shall identify any Lead Based Paint (LBP) within the proposed scope of work PRIOR to any construction, remodeling, or demolition activities.
2. The Contractor shall identify any sheet lead, such as in laboratories, x-ray facilities, prior to commencing demolition or construction activities.
3. The Contractor shall arrange for disposal of the hazardous waste stream (e.g., paint chips), through an approved waste disposal facility and obtain the EPA Hazardous Waste Generator Identification number.
4. All Employees and supervisors who perform lead abatement work shall have a current training certificate by an approved trainer.

LIQUIDS - CORROSIVE ACIDS AND CAUSTICS

1. Do not store, handle, apply or use acids or caustics until a proper procedure has been established.
2. Never add water to acid - if dilution is needed, add acid to water.
3. Emergency eyewash and/or shower facilities must be immediately available to any person working with acids and caustics.
4. Proper personal protection must include a face shield, apron, gloves and sleeve lets as well as any other equipment deemed necessary by the MSDS or manufacturer's usage instructions.

LOCKOUT - TAGOUT / CONTROL OF HAZARDOUS ENERGY

1. The Employer must have a written Lock-out/Tag-out program for the control of hazardous energy that meets or exceeds the OSHA standards.
2. Equipment, energized systems, and pressurized systems shall be completely de-energized before beginning the Lock-out/Tag-out procedure and subsequent cleaning, servicing, or adjusting operations.

3. Moveable parts shall be mechanically blocked or locked out prior to cleaning, servicing, or adjusting operations.
4. Equipment that has lockable controls or that is readily adaptable to lockable controls shall be locked out or positively sealed in the *off* position.
5. Accident prevention signs or tags shall be placed on the controls of equipment, machines, and prime movers during repair work.
6. All Employers must affix their own lock/tag.
7. Locks and/or tags must be removed at the end of the job by the originator. Never remove another person's tag or lock to operate a switch, valve, or device.

LOCATING UNDERGROUND UTILITIES BEFORE EXCAVATING

1. The Employer must locate buried utilities before digging.
 - 1.1. Prior to excavation, all known owners of underground facilities in the area shall be notified by calling the regional One Call Notification System.
2. The nearest shut off valve or control point for known utilities shall be identified on a site plan to be maintained by the Contractor.
3. The Employer shall check the entire job site for visual signs of substructures. This includes such items as manhole covers, water meter boxes, ditch lines, pavement patches, previous location marks, pole risers, and the obvious absence of overhead utilities.
4. The Employer must expose substructures by hand after locations are determined.
5. The Employer shall be careful not to damage the utility substructure by scraping, hammering, or other forms of excavation or locating efforts.
6. The Employer shall be aware of the possibility of joint use of an excavation/trench for power, telephone, gas, fiber optics, cable, etc.

MOTOR VEHICLES

1. All Employees driving job site motor vehicles shall have a valid driver's license for the state in which the Employee resides and for the class vehicle driven.
2. Drivers of vehicles over 26,000 pounds GVW are required by Federal and State Departments of Transportation regulations to possess a Commercial Drivers License (CDL).
3. Drivers on the project site shall obey all street and highway speed and traffic laws.
4. Drivers shall check the mechanical condition of their vehicles at least daily.
5. Drivers are required to observe the "right of way" rule. Yield to other drivers whose driving actions demand the right-of-way.
6. Drive defensively. Anticipate what the other driver may do. Leave yourself an out.
7. Drivers shall keep a distance of AT LEAST one vehicle length for each 10 miles of speed between their vehicle and the vehicle in front of them.

8. Employees driving and riding in Contractor vehicles must wear seat belts.
9. Block or chock vehicle wheels when parking on inclines.
10. All passengers in motor vehicles must be seated and within the confines of the vehicle.
11. The site speed limit is 5 mph. Obey all traffic signs.
12. All vehicles must be shut off when unoccupied.
13. Pedestrians have the right of way.
14. Parking shall be in specified areas only. Do not block entrances and do not park in reserved spaces.
15. The Contractor is responsible for the stability of any material being hauled.
16. Employees are not allowed to ride in the open bed of a pickup truck.
17. Unauthorized passengers shall not be transported in any vehicle or on any equipment at any time.

ORIENTATION

Orientation shall take place for all workers new to the site in a manner readily understandable to the individual Employee. Orientation content should be adjusted accordingly for workers transferred to the Sponsor's site.

All orientations shall be documented. Records shall be maintained at the project available for review by the Authorized Representative and UCIP Safety upon request.

Topics may include, but are not limited to:

1. Type and history of the project, including Owner and final product
2. Explanation of Sponsor's Safety Philosophy
3. Sponsor's Safety Rules
4. Employer's Safety Rules (to include the Code of Safe Practices)
5. Sponsor's Site-Specific Safety Rules
6. Project map, including entrances, exits, and parking areas
7. Emergency procedures
8. Evacuation procedures
9. Fire protection and prevention procedures and practices – initial site-specific training
10. Incident reporting procedures
11. Near-miss Incident reporting procedures
12. Procedures to report unsafe acts and/or conditions
13. Location of First-Aid kits, clinic(s) and hospital
14. Location of project Bulletin Board
15. Day, time and location of Safety Meetings
16. Personal Protective Equipment requirements, including how, when and where to obtain/replace
17. Project dress code
18. Hazard Communication training (site-specific)

19. Fall Protection – initial site-specific training
20. Confined Spaces – initial site-specific training
21. Electrical Safety – initial site-specific training
22. Ladder safety – initial site-specific training
23. Scaffold safety – initial site-specific training
24. Hot work safety – initial site-specific training
25. Control of hazardous energy (including Lockout-Tagout) – initial site-specific training
26. Site vehicle safety requirements
27. Housekeeping requirements

OVERHEAD UTILITIES

1. The Contractor shall identify all overhead utilities prior to the start of any work.
2. The Contractor shall identify the voltage carried by each power line, and identify the minimum required clearances prior to commencing work in the vicinity of the line.
 - 2.1. Identifications of all lines and minimum clearances shall be documented on a site plan that is made available to all Employees, Subcontractors, vendors and suppliers.
 - 2.2. This site plan shall include identification of all lines that are within 42 feet of the perimeter of the site.
 - 2.3. Temporary utilities shall be added to the site plan as required.
3. Proper distances must be maintained from all overhead power lines, such as by the use of a signal person.
 - 3.1. A minimum clearance distance of 10 (ten) feet shall be maintained by apparatus or equipment from power lines of 50Kva or less.

PERMITS

1. Unless otherwise relieved via contract provisions, each Employer shall obtain relevant permits pertinent to the safety of Employees and operations.
2. Permits shall be available for review at the job site upon request of the Authorized Representative or UCIP Safety.
3. Contractors must obtain and post Cal/OSHA Activity Permits for the following construction activities:
 - 3.1. Construction of trenches or excavations which are 5 feet or deeper and into which a person is required to descend.
 - 3.2. Construction of any building, structure, scaffolding or falsework more than 3 stories high, or the equivalent height (36 feet).
 - 3.3. Demolition of any building structure, or dismantling of scaffolding or falsework more than 3 stories high, or the equivalent height (36 feet).
 - 3.4. Erection or dismantling of vertical shoring systems more than 3 stories high, or the equivalent height (36 feet).
 - 3.5. Use of fixed or mobile tower cranes.

PERSONAL PROTECTIVE EQUIPMENT

1. The Employer shall ensure that Employees are trained in the proper use, care and sanitation, and limitations of Personal Protective Equipment (PPE) in accordance with applicable OSHA Standards and manufacturer's instructions and recommendations.
2. Employers are required to assess the workplace to determine if hazards that require the use of personal protective equipment are present or are likely to be present.
3. Employers must select and have affected Employees use properly fitted personal protective equipment (PPE) suitable for protection from existing hazards.
4. Employees must wear hard hats complying with or exceeding the requirements of ANSI Z89.1-1986 while on the job site.
 - 4.1. "Cowboy" and similar novelty hard hats are not permitted.
5. Each Employer is responsible to supply required personal protective equipment to their Employees.
6. Safety glasses shall be worn by all personnel at all times while on the project.
 - 6.1. All safety glasses, goggles, and face shields must meet or exceed the requirements of ANSI Z87.1-1989.
 - 6.2. The addition of side shields to prescription safety glasses is not permitted unless they meet the ANSI standards.
 - 6.3. Safety eyewear manufactured to meet or exceed the requirements of ANSI Z87.1-2003 must provide High Impact protection.
7. Sturdy work boots are required at all times on the job site.
8. Respiratory, hearing, face, skin, and hand protection are required for any applicable areas and operations on the job site.
9. Employees who are required to wear respiratory protection must receive a medical assessment of their physical ability to wear the equipment, be properly fit tested, and be trained in the use, care, maintenance, and limitations of the respiratory device.
 - Tennis shoes, running shoes, casual street shoes, sandals or shoes made of other thin material shall not be worn by Contractor Employees on the job site. Sturdy work boots with fire resistant material are required.
 - High visibility vest are required by all employees at all times.

POSTING REQUIREMENTS

1. The Contractor shall be required to construct a weatherproof job site bulletin board. Federal and State regulations require Employers to conspicuously display all required posters at locations where Employees report each day.
2. At minimum, the following items shall be posted:
 - 2.1. Industrial Welfare Commission's Order Regulating Wages, Hours, and Working Conditions
 - 2.2. Pay Day Notice
 - 2.3. OSHA "Job Safety and Health Protection"
 - 2.4. Employer's "Code of Safe Practices" / Safety Rules
 - 2.5. Discrimination in Employment is Prohibited by Law
 - 2.6. Sexual Harassment Poster
 - 2.7. Americans with Disabilities Act (ADA)
 - 2.8. Notice of Compensation Carrier
 - 2.9. Notice to Employees of Unemployment Insurance and Disability Insurance
 - 2.10. Cal/OSHA Operating Rules for Industrial Trucks
 - 2.11. Emergency Telephone Numbers

POWDER-ACTUATED TOOLS

1. Powder-actuated tools must meet or exceed the requirements of ANSI A10-3.1977.
2. Only trained workers holding a valid Operator's card can use a powder-actuated tool.
3. Containers for powder-actuated tools must be lockable and bear the label POWDER-ACTUATED TOOL on the outside. The container must be kept under lock and key storage.
4. The following must be provided with each tool:
 - 4.1. Operating and service manuals.
 - 4.2. Power load chart.
 - 4.3. Inspection-Service record.
 - 4.4. Repair and servicing tools.
5. Eye or face protection is required for Operators and assistants.
6. Tools must be inspected prior to use. Defective tools must not be used.
7. Powder-actuated tools must not be left unattended.
8. Powder-actuated tools must be unloaded if work is interrupted. Tools must not be loaded until ready for use.
9. On misfire, the tool must be held in place for 30 seconds.
10. Misfires shall be placed in a can of water.
11. Different power loads must be kept in separate compartments.

12. Warning signs must be posted bearing the words: "POWDER-ACTUATED TOOLS IN USE" within 50 feet of the point of use.

PUBLIC PROTECTION PLAN

1. The Contractor shall develop a Public Protection Plan prior to the commencement of work. The Public Protection Plan shall be reviewed and revised as necessary throughout the project.
 - 1.1. The Plan shall be in writing and available at the job site for review upon request.
 - 1.2. For the purposes of this section, "Public" refers to parties not involved in the execution of work related to this construction project.

Considerations

1. The Public Protection Plan shall consider and include at minimum the following items as they apply to the project: (NOTE: this is neither intended nor represented to be a complete list.)
 - 1.1. Noise
 - 1.2. Dust, Fumes, Mists, Smoke, Vapors
 - 1.3. Traffic hazards
 - 1.4. Pedestrian hazards
 - 1.5. Radiation (including lasers, x-rays, and welding rays)
 - 1.6. Machinery and vehicles
 - 1.7. Falling objects
 - 1.8. Wind-borne objects
 - 1.9. Security
 - 1.10. Utilities
 - 1.11. Hazardous Materials and Hazardous Substances (including use and storage)
 - 1.12. Response to incidents involving the public
 - 1.13. Public demonstrations or protests

Components

1. The Public Protection Plan shall at minimum include the following components:
 - 1.1. Policy statement
 - 1.2. Assignment of responsibilities
 - 1.3. Identification of existing and predictable public concerns
 - 1.4. Provisions to monitor and inspect the implementation of the provisions of the Public Protection Plan
 - 1.5. Provisions for incident investigation
 - 1.6. Hazard abatement procedures

SANITATION

1. The Contractor must provide in a clean and sanitary condition:
 - 1.1. All potable water for drinking,

- 1.2. Adequate toilet facilities,
 - 1.3. Hand wash facilities as required by the Material Safety Data Sheet or state standards
 - 1.4. Appropriate containers for disposal of garbage,
 - 1.5. Any necessary insect control for items 1.1 to 1.4 of this subsection.
2. A minimum of one separate toilet facility shall be provided for each 20 Employees or fraction thereof of each sex.
 3. Toilet facilities shall be kept clean, maintained in good working order, designed and maintained in a manner that will assure privacy, and provided with an adequate supply of toilet paper.

SCAFFOLDS

1. Scaffolds shall be erected, moved, dismantled or altered only under the supervision and direction of a Competent Person qualified in scaffold erection, moving, dismantling or alteration.
2. The Employer shall have a Competent Person determine the feasibility and safety of providing fall protection for Employees erecting or dismantling supported scaffolds. Fall protection is required for Employees erecting or dismantling supported scaffolds where the installation and use of such protection is feasible and does not create a greater hazard.
3. The Employer shall have each Employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training shall include the following topics, as applicable:
 - 3.1. The nature of any electrical hazards, fall hazards, and falling object hazards in the work area,
 - 3.2. The correct procedures for dealing with electrical hazards
 - 3.3. The correct procedures for erecting, maintaining, and dismantling the fall protection and falling object protection systems being used
 - 3.4. The proper use of the scaffold, including the proper handling of materials on the scaffold
 - 3.5. The maximum intended load and the load-carrying capacities of the scaffold
 - 3.6. Any other pertinent procedures or safety requirements
4. The Employer shall have each Employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a Competent Person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:
 - 4.1. The nature of scaffold hazards
 - 4.2. The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting and maintaining the type of scaffold in question
 - 4.3. The design criteria, maximum intended load-carrying capacity, and intended use of the scaffold
 - 4.4. Any other pertinent procedures or safety requirements
5. When the Employer has reason to believe that an Employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the Employer shall retrain each such Employee so that the requisite proficiency is regained.
6. Handrails, midrails and toeboards are required on all scaffolds over six feet high.
 - 6.1. If the guardrail system is incomplete or missing, personal fall protection is required.

7. A ladder or other acceptable means for access must be provided.
8. Wheels must be locked on rolling scaffolds before use.
 - 8.1. There is no riding of manually propelled scaffolds.
9. All connections, including casters, on rolling scaffolds shall be pinned.
10. The Contractor must keep the platform load within the safe platform work load limit.
11. Scaffolds must be erected level on a firm base. When the scaffold is resting on earth or other such material, the uprights shall rest on and be secured to the equivalent of a 2-inch by 10-inch by 10-inch wood base.
12. Suspended scaffolds must have adequate anchorage points. Occupants shall have a full body harness, lifeline and deceleration device that must be attached to a separate anchorage point than that of the scaffold prior to stepping out onto any suspended scaffold.
13. Scaffold planks must be laid tight and secured to prevent movement. Planks must overlap between 6 and 12 inches over the scaffold supports.
14. A stair tower or built-in stair/ladder system shall be provided for access to all scaffolds four frames or more in height.

STEEL ERECTION

1. No building, structure, or part thereof, or any temporary support shall be loaded in excess of its designed capacity.
2. Trusses and beams shall be braced laterally and progressively during construction to prevent buckling or overturning.
3. During placing of structural members, the load shall not be released from the hoisting line until the members are secured with not less than two bolts drawn up wrench tight.
4. Where skeleton steel is being erected, a tightly planked and substantial floor shall be maintained within two stories or 30 feet, whichever is less, below and directly under that portion of each tier of beams on which any work is being performed.
5. When connecting beams at the periphery or interior of a building or structure where the fall distance is greater than six (6) feet, the Connector shall be provided with and use appropriate personal fall protection equipment in accordance with OSHA requirements.
 - 5.1. Connector means an Employee who, working with hoisting equipment, is placing and connecting beams or other structural members.
6. When performing work other than connecting, Employees shall be provided and use personal fall protection equipment in accordance with OSHA requirements where the fall distance is greater than six (6) feet.
7. Open web steel joists shall not be placed on any structural steel framework unless such framework is safely bolted or welded.

8. Containers shall be provided for storing or carrying rivets, bolts, and drift pins, and secured against accidental displacement when aloft.
9. When bolts or drift pins are being knocked out, means shall be provided to keep them from falling.
10. Impact wrenches shall be provided with a locking device for retaining the socket.
11. Connections of equipment used in plumbing-up shall be properly secured.
12. Turnbuckles shall be secured to prevent unwinding while under stress.
13. Plumbing-up guys shall be removed only under the supervision of a Competent Person.
14. Employees working above grade or any surface and exposed to protruding reinforcing steel or other similar projections shall be protected against the hazard of impalement by the use of guardrails, or approved fall protection systems, or protective covers.
15. Exposed edges of all temporary planked or temporary metal decked floors at the periphery of the building, or at interior openings, such as stairways and elevator shafts shall be protected by a single 3/8-inch minimum diameter wire rope located between 42 and 45 inches above design finish floor height. Midrail protection shall be installed at the completion of the installation of decking.
16. Employees shall be trained in accordance with applicable OSHA standards and project-specific requirements.

TAR AND MELTING POTS

1. Any melting chamber must be vented and must have a working thermometer.
2. No melting pots or tar kettles may be located on roof surfaces. All melting pots must be on the ground outside, and at least 25 feet from any building.
3. Pipelines shall be adequately braced or supported to prevent collapse.
4. Barricades must be provided when hot liquids are present overhead on a roof or upper floor.
5. Buckets containing hot asphalt or pitch shall not be carried on ladders.
6. A fire extinguisher shall be kept near each kettle in use. Extinguisher capacity shall be at least:
 - 6.1. Less than 150 gallon kettle – 8:B.C.
 - 6.2. 150 to 350 gallon kettle – 16:B.C.
 - 6.3. Larger than 350 gallon kettle – 20:B.C.
7. At a minimum, an 8:BC fire extinguisher shall be kept near each kettle in use.
8. Kettle and tanker pumps shall be provided with a means of stopping the flow of hot asphalt or pitch manually from the rooftop in emergencies.
9. Pumper pipelines shall be securely fastened at rooftop and shall not be supported by ladders used for access.

WARNING SIGNS

1. The Contractor shall post site access and warning signage, including emergency contact information, in accordance with applicable requirements.
2. Project Employees shall obey all warning signs.
3. Signage shall be maintained in legible condition, and cleaned or replaced as necessary to maintain legibility.
4. All Contractor-installed warning signs, signals and barricades must be removed when the hazard no longer exists.
 - 4.1. The Contractor shall monitor conditions to ensure timely and accurate removal of these devices.

WORK ZONE TRAFFIC CONTROL

1. The Employer shall establish work area protection zones necessary to protect Employees and the public when work is performed in areas where pedestrians or vehicles have access.
2. All Employees in work zones shall wear Class II (for Class I and Class II exposures) or Class III reflectorized garments in accordance with the requirements of the MUTCD.
3. Traffic control shall be established in compliance with the U.S. Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD), State and local traffic control regulations, the WATCH Handbook (where referenced by contract), or other contract-referenced documents/standards.
4. The Employer shall establish Work Area Protection in consideration of the location of the worksite, pedestrian and traffic conditions, and the time of day (daylight or dark).
5. The Employer shall ensure adequate protection to passing vehicles on a roadway by providing a Flagger when barricades, signs and signals may be insufficient.
6. When placing or removing Work Area Protection, the Employee shall:
 - 6.1. Be consistently alert to traffic conditions.
 - 6.2. Face oncoming traffic.
 - 6.3. Wear proper personal protection (e.g. traffic warning vest, hard hat, eye protection).
7. Place the initial warning sign (e.g., Construction Ahead) first and remove last.
8. Work zone sites must be made safe for pedestrians by using:
 - 8.1. Rope or vinyl warning tape.
 - 8.2. Fencing or other barricades.
 - 8.3. Cones and signs.
 - 8.4. Pedestrian crossings (designated and painted).
 - 8.5. Other appropriate means, methods and devices.
9. All night work requires adequate illumination to light the work area and warn public vehicular traffic.
10. For night work, the illumination used to light the work area shall be aimed such that it does not create glare for, or blind, the public driving through the work zone.

11. The Employer shall ensure adequate protection to passing vehicles on a roadway by providing a Flagger when barricades, signs and signals may be insufficient.

Flagging Operations

1. Flagging Operations shall be conducted in accordance with the following unless a more specific standard applies:
 - 1.1. Flaggers shall be trained in the proper fundamentals of flagging (signaling) traffic before being assigned as Flaggers.
 - 1.2. The Flagger must be protected and the motorist forewarned by use of advance warning signs and cones.
 - 1.3. Use cones before the Flaggers position to mark the traffic lane.
 - 1.4. The use of high visibility orange vests shall be required to all Flaggers.
 - 1.5. During the hours of darkness the Flaggers shall be outfitted with a reflectorized garment, and the Flagger's position shall be illuminated.
 - 1.6. To Stop Traffic - The Flagger shall face traffic and hold the stop paddle in a vertical position at arms length.
 - 1.7. When It Is Safe For Traffic To Proceed - The Flagger shall stand parallel to the traffic movement, and with the slow paddle held in a vertical position at arms length.
 - 1.8. Flags shall be a minimum of 18" x 18" in size, and orange in color.

Plate Bridging

1. Trenches, excavations, or other surface openings or significant depressions must be covered with a bridge plate to permit safe and unobstructed flow of traffic.
2. Bridging plates must be secured from movement by a holding device(s) such as cleats, angles, bolts, tack welding, etc.
3. Bridging plates should be installed to produce a minimum amount of noise.
4. Bridging plates must extend a minimum of one foot beyond the edges, with pavement materials feathering the edges for a reasonably smooth transition.
5. Advance warning signs shall be posted when steel plates are used in a travel path.
 - 5.1. Refer to the WATCH Manual (where applicable) for specific requirements.

V. APPENDICES

A. Advance Planning Suggestions for Construction Work

Each operation of a construction job should be planned in advance. Such planning is needed at all stages of the project. It should start with the estimators, prior to preparations of bids, and continue throughout the job, with superintendents and foremen doing their share. Advance planning will benefit all aspects of the project – safety, productivity and quality. Construction planning will eliminate some accidents automatically, by creating a well-organized job. But expert planning gives special attention to safety, and thus is highly effective in making the operation safe and efficient.

This Appendix may be used in its entirety or in part for pre-construction, pre-phase, or pre-start (for Subcontractors coming to an existing project). This Appendix may also serve in whole or in part as a component of regular Owner-Contractor meetings.

ADVANCE PLANNING SUGGESTIONS FOR CONSTRUCTION WORK

1. Safe Access and Movement

(a) Workers

- 1) Adequate work areas
- 2) Adequate access and egress
- 3) Adequate walkways and runways
- 4) Adequate ladders, stairways, or elevators
- 5) Work areas and passageways clear of rubbish, debris, nails, etc.
- 6) Protection for perimeter, floor and roof openings
- 7) Adequate illumination

(b) Vehicles

- (1) Adequate site roads.
 - (A) Adequate turning space
 - (B) Adequate parking area
 - (C) Free from excessive mud and dust
- (2) Separate materials storage areas and dump areas
- (3) Adequate signs, signals, etc., to route vehicles on job
- (4) Adequate maintenance and repair of vehicles

(c) Location of Utilities and Service

- (1) Locate saw shops, tool sheds, offices, etc., in a safe, convenient place
- (2) Consider location of high-voltage lines
 - (A) Arrange to move, de-energize, or erect barrier, if contact is a possibility
- (3) Locate sanitary facilities, drinking water, power, etc., for safety and convenience

2. Schedule Work for Safety

- (a) Have safety materials on job when needed, i.e., personal protective equipment, etc
- (b) Plan work so that too many trades are not in a small area at the same time
- (c) Plan work considering product usage and the effect on adjacent trades (i.e. – hot tar roofing, solvent based paints, etc.)
- (d) Plan work considering tasks and their effect on adjacent trades (i.e. – sandblasting, grinding, cutting and welding, etc.)

3. Work Procedures

(a) Materials Handling

- (1) Methods of elevating and handling materials.
 - (A) Adequate space.
 - (B) Proper auxiliary equipment, i.e., cranes, hoists, elevators, trucks, etc.
- (2) Methods of loading and unloading.
 - (A) Adequate space.
 - (B) Proper auxiliary equipment, i.e., power shovels, cranes, rigging, fork lifts, etc.

(b) Tools and Equipment

- (1) Repair, maintenance, and care.
- (2) Inspection.
- (3) Adequate supplies of the right tools for each part of job.

(c) Workers and Foremen

- (1) Proper job placement.
- (2) Adequate training and supervision.
- (3) Adequate manpower.
- (4) Plans for maintaining interest in safety.
 - (A) Safety bulletins, record charts, and posters.
 - (B) Recognition for groups or individuals with safety records.
 - (C) Investigation and reporting on all accidents.
 - (D) Knowledge of safety orders.
 - (E) Safety meetings.

(This document is adapted from Title 8, California Code of Regulations, §1938)

B. Personal Fall Arrest System Guidelines

Personal fall arrest systems - non-mandatory guidelines for complying fall protection requirements.

This Appendix is adapted from Federal OSHA §1926 Subpart M Appendix C. Portions have been omitted from the original – refer to §1926 Subpart M Appendix C for the full text.

Selection and use considerations. The kind of personal fall arrest system selected should match the particular work situation, and any possible free fall distance should be kept to a minimum. Consideration should be given to the particular work environment. For example, the presence of acids, dirt, moisture, oil, grease, etc., and their effect on the system, should be evaluated. Hot or cold environments may also have an adverse effect on the system. Wire rope should not be used where an electrical hazard is anticipated. As required by the standard, the Employer must plan to have means available to promptly rescue an Employee should a fall occur, since the suspended Employee may not be able to reach a work level independently.

Where lanyards, connectors, and lifelines are subject to damage by work operations such as welding, chemical cleaning, and sandblasting, the component should be protected, or other securing systems should be used. The Employer should fully evaluate the work conditions and environment (including seasonal weather changes) before selecting the appropriate personal fall protection system. Once in use, the system's effectiveness should be monitored. In some cases, a program for cleaning and maintenance of the system may be necessary.

Testing considerations. Before purchasing or putting into use a personal fall arrest system, an Employer should obtain from the supplier information about the system based on its performance during testing so that the Employer can know if the system meets this standard. Testing should be done using recognized test methods. This appendix contains test methods recognized for evaluating the performance of fall arrest systems. Not all systems may need to be individually tested; the performance of some systems may be based on data and calculations derived from testing of similar systems, provided that enough information is available to demonstrate similarity of function and design.

Component compatibility considerations. Ideally, a personal fall arrest system is designed, tested, and supplied as a complete system. However, it is common practice for lanyards, connectors, lifelines, deceleration devices, body belts and body harnesses to be interchanged since some components wear out before others. The Employer and Employee should realize that not all components are interchangeable. For instance, a lanyard should not be connected between a body belt (or harness) and a deceleration device of the self-retracting type since this can result in additional free fall for which the system was not designed. Any substitution or change to a personal fall arrest system should be fully evaluated or tested by a Competent Person to determine that it meets the standard, before the modified system is put in use.

Employee training considerations. Thorough Employee training in the selection and use of personal fall arrest systems is imperative. Employees must be trained in the safe use of the system. This should include the following: application limits; proper anchoring and tie-off techniques; estimation of free fall distance, including determination of deceleration distance, and total fall distance to prevent striking a lower level; methods of use; and inspection and storage of the system. Careless or improper use of the equipment can result in serious injury or death. Employers and Employees should become familiar with the material in this appendix, as well as manufacturer's recommendations, before a system is used. Of uppermost importance is the reduction in strength caused by certain tie-offs (such as using knots, tying around sharp edges, etc.) and maximum permitted free fall distance. Also, to be stressed are the importance of inspections prior to use, the limitations of the equipment, and unique conditions at the worksite which may be important in determining the type of system to use.

Instruction considerations. Employers should obtain comprehensive instructions from the supplier as to the system's proper use and application, including, where applicable:

- (1) The force measured during the sample force test;
- (2) The maximum elongation measured for lanyards during the force test;
- (3) The deceleration distance measured for deceleration devices during the force test;
- (4) Caution statements on critical use limitations;
- (5) Application limits;
- (6) Proper hook-up, anchoring and tie-off techniques, including the proper dee-ring or other attachment point to use on the body belt and harness for fall arrest;
- (7) Proper climbing techniques;
- (8) Methods of inspection, use, cleaning, and storage; and
- (9) Specific lifelines which may be used. This information should be provided to Employees during training.

Rescue considerations. As required by §1926.502(d) (20), when personal fall arrest systems are used, the Employer must assure that Employees can be promptly rescued or can rescue themselves should a fall occur. The availability of rescue personnel, ladders or other rescue equipment should be evaluated. In some situations, equipment that allows Employees to rescue themselves after the fall has been arrested may be desirable, such as devices that have descent capability.

Inspection considerations. As required by §1926.502(d) (21), personal fall arrest systems must be regularly inspected. Any component with any significant defect, such as cuts, tears, abrasions, mold, or undue stretching; alterations or additions which might affect its efficiency; damage due to deterioration; contact with fire, acids, or other corrosives; distorted hooks or faulty hook springs; tongues unfitted to the shoulder of buckles; loose or damaged mountings; non-functioning parts; or wearing or internal deterioration in the ropes must be withdrawn from service immediately, and should be tagged or marked as unusable, or destroyed.

Tie-off considerations. One of the most important aspects of personal fall protection systems is fully planning the system before it is put into use. Probably the most overlooked component is planning for suitable anchorage points. Such planning should ideally be done before the structure or building is constructed so that anchorage points can be incorporated during construction for use later for window cleaning or other building maintenance. If properly planned, these anchorage points may be used during construction, as well as afterwards.

Properly planned anchorages should be used if they are available. In some cases, anchorages must be installed immediately prior to use. In such cases, a registered professional Authorized Representative with experience in designing fall protection systems, or another qualified person with appropriate education and experience should design an anchor point to be installed.

In other cases, the Agency recognizes that there will be a need to devise an anchor point from existing structures. Examples of what might be appropriate anchor points are steel members or I-beams if an acceptable strap is available for the connection (do not use a lanyard with a snaphook clipped onto itself); large eye-bolts made of an appropriate grade steel; guardrails or railings if they have been designed for use as an anchor point; or masonry or wood members only if the attachment point is substantial and precautions have been taken to assure that bolts or other connectors will not pull through. A qualified person should be used to evaluate the suitability of these "make shift" anchorages with a focus on proper strength.

Employers and Employees should at all times be aware that the strength of a personal fall arrest system is based on its being attached to an anchoring system which does not reduce the strength of the system (such as a properly dimensioned eye-bolt/snap-hook anchorage). Therefore, if a means of attachment is used that will reduce the strength of the system, that component should be replaced by a stronger one, but one that will also maintain the appropriate maximum arrest force characteristics.

Tie-off using a knot in a rope lanyard or lifeline (at any location) can reduce the lifeline or lanyard strength by 50 percent or more. Therefore, a stronger lanyard or lifeline should be used to compensate for the weakening effect of the knot, or the lanyard length should be reduced (or the tie-off location raised) to minimize free fall distance, or the lanyard or lifeline should be replaced by one which has an appropriately incorporated connector to eliminate the need for a knot.

Tie-off of a rope lanyard or lifeline around an "H" or "I" beam or similar support can reduce its strength as much as 70 percent due to the cutting action of the beam edges. Therefore, use should be made of a webbing lanyard or wire core lifeline around the beam; or the lanyard or lifeline should be protected from the edge; or free fall distance should be greatly minimized.

Tie-off where the line passes over or around rough or sharp surfaces reduces strength drastically. Such a tie-off should be avoided or alternative tie-off rigging should be used. Such alternatives may include use of a snap-hook/dee ring connection, wire rope tie-off, an effective padding of the surfaces, or an abrasion-resistance strap around or over the problem surface.

Horizontal lifelines may, depending on their geometry and angle of sag, be subjected to greater loads than the impact load imposed by an attached component. When the angle of horizontal lifeline sag is less than 30 degrees, the impact force imparted to the lifeline by an attached lanyard is greatly amplified. For example, with a sag angle of 15 degrees, the force amplification is about 2:1 and at 5 degrees sag, it is about 6:1. Depending on the angle of sag, and the line's elasticity, the strength of the horizontal lifeline and the anchorages to which it is attached should be increased a number of times over that of the lanyard. Extreme care should be taken in considering a horizontal lifeline for multiple tie-offs. The reason for this is that in multiple tie-offs to a horizontal lifeline, if one Employee falls, the movement of the falling Employee and the horizontal lifeline during arrest of the fall may cause other Employees to fall also. Horizontal lifeline and anchorage strength should be increased for each additional Employee to be tied off. For these and other reasons, the design of systems using horizontal lifelines must only be done by qualified persons. Testing of installed lifelines and anchors prior to use is recommended.

The strength of an eyebolt is rated along the axis of the bolt and its strength is greatly reduced if the force is applied at an angle to this axis (in the direction of shear). Also, care should be exercised in selecting the proper diameter of the eye to avoid accidental disengagement of snap-hooks not designed to be compatible for the connection.

Vertical lifeline considerations. As required by the standard, each Employee must have a separate lifeline [except Employees engaged in constructing elevator shafts who are permitted to have two Employees on one lifeline] when the lifeline is vertical. The reason for this is that in multiple tie-offs to a single lifeline, if one Employee falls, the movement of the lifeline during the arrest of the fall may pull other Employees' lanyards, causing them to fall as well.

Snap-hook considerations. As required by §1926.502(d) (6), the following connections must be avoided (unless properly designed locking snaphooks are used) because they are conditions that can result in roll-out when a non-locking snaphook is used:

- (i) Direct connection of a snaphook to a horizontal lifeline.
- (ii) Two (or more) snaphooks connected to one dee-ring.
- (iii) Two snaphooks connected to each other.
- (iv) A snaphook connected back on its integral lanyard.
- (v) A snaphook connected to a webbing loop or webbing lanyard.
- (vi) Improper dimensions of the dee-ring connection point in relation to the snaphook dimensions which would allow the snaphook keeper to be depressed by a turning motion of the snaphook. rebar, or other components.

Free fall considerations. The Employer and Employee should at all times be aware that a system's maximum arresting force is evaluated under normal use conditions established by the manufacturer, and in no case using a free fall distance in excess of 6 feet (1.8 m). A few extra feet of free fall can

significantly increase the arresting force on the Employee, possibly to the point of causing injury. Because of this, the free fall distance should be kept at a minimum, and, as required by the standard, in no case greater than 6 feet (1.8 m). To help assure this, the tie-off attachment point to the lifeline or anchor should be located at or above the connection point of the fall arrest equipment to belt or harness. (Since otherwise additional free fall distance is added to the length of the connecting means (i.e. lanyard)). Attaching to the working surface will often result in a free fall greater than 6 feet (1.8 m). For instance, if a 6-foot (1.8 m) lanyard is used, the total free fall distance will be the distance from the working level to the body belt (or harness) attachment point plus the 6 feet (1.8 m) of lanyard length. Another important consideration is that the arresting force that the fall system must withstand also goes up with greater distances of free fall, possibly exceeding the strength of the system.

Elongation and deceleration distance considerations. Other factors involved in a proper tie-off are elongation and deceleration distance. During the arresting of a fall, a lanyard will experience a length of stretching or elongation, whereas activation of a deceleration device will result in a certain stopping distance. These distances should be available with the lanyard or device's instructions and must be added to the free fall distance to arrive at the total fall distance before an Employee is fully stopped. The additional stopping distance may be very significant if the lanyard or deceleration device is attached near or at the end of a long lifeline, which may itself add considerable distance due to its own elongation. As required by the standard, sufficient distance to allow for all of these factors must also be maintained between the Employee and obstructions below, to prevent an injury due to impact before the system fully arrests the fall. In addition, a minimum of 12 feet (3.7 m) of lifeline should be allowed below the securing point of a rope grab type deceleration device, and the end terminated to prevent the device from sliding off the lifeline. Alternatively, the lifeline should extend to the ground or the next working level below. These measures are suggested to prevent the worker from inadvertently moving past the end of the lifeline and having the rope grab become disengaged from the lifeline.

Obstruction considerations. The location of the tie-off should also consider the hazard of obstructions in the potential fall path of the Employee. Tie-offs that minimizes the possibilities of exaggerated swinging should be considered. In addition, when a body belt is used, the Employee's body will go through a horizontal position to a jack-knifed position during the arrest of all falls. Thus, obstructions that might interfere with this motion should be avoided or a severe injury could occur.

Other considerations. Because of the design of some personal fall arrest systems, additional considerations may be required for proper tie-off. For example, heavy deceleration devices of the self-retracting type should be secured overhead in order to avoid the weight of the device having to be supported by the Employee. Also, if self-retracting equipment is connected to a horizontal lifeline, the sag in the lifeline should be minimized to prevent the device from sliding down the lifeline to a position that creates a swing hazard during fall arrest. In all cases, manufacturer's instructions should be followed.

C. Sample Pre-Planning Matrix

(This is provided as a sample to assist the Contractor and its' Subcontractors in the identification of hazards and concerns and related control/mitigation measures. This is not represented or intended to be a complete list of operations and exposures that will be encountered on this project.)

OPERATION or EXPOSURE	HAZARD OR CONCERN	CONTROLS / MITIGATION MEASURES	ACTION BY / STATUS / NOTES
Concrete Formwork			
Concrete Pours			
Crane Lifts – Power Lines			
Crane Lifts – Crane Location			
Crane Lifts – Critical Lifts			
Crane Lifts – Ground Conditions			
Cranes - Set-up and Delivery			
Cranes – Certification			
Cranes – Operators			
Excavations			
Exterior Wall Installation			
Fall Protection Anchorages			
General Site Safety			
Hot Work			
Interior Work			
Material Handling & Storage			
Pile Driving / Caissons / Drilled Piles			
Power Lines			
Public Hazards			
Roadway Work Zones			
Site Access			
Structural Frame - Concrete			
Structural Frame – Steel			
Underground Utilities			

D. Activity Hazard Analysis (“AHA”)

(Adapted from the U.S. Army Corps of Authorized Representatives Safety & Health Manual EM 385-1-1 dated November 3, 2003)

An Activity Hazard Analysis:

- Shall define the activities being performed, and
- Shall identify:
 - the sequence of work,
 - the specific hazards anticipated,
 - site conditions,
 - equipment, tools, materials, and PPE required, and
 - the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk.

AHAs are to be developed by the Contractor.

The AHA shall be discussed with all involved and affected parties prior to the start of the covered activity.

The name of the Competent/Qualified Person required for all activities described in the AHA shall be provided in the AHA.

- If there are multiple Competent/Qualified Persons, they shall be identified on an attachment to the AHA. This attachment shall be updated as required by changes (additions/deletions) to the designated personnel.

The AHA shall be reviewed, modified and updated as necessary.

ACTIVITY HAZARD ANALYSIS		
ACTIVITY:	DATE:	REVISION DATE:
CONTRACTOR:	PREPARED BY:	REVISED BY:
PRINCIPAL STEPS	POTENTIAL SAFETY / HEALTH HAZARDS	RECOMMENDED CONTROLS
<p><i>Identify the principal steps involved and the sequence of work activities.</i></p> <p><i>Equipment, tools, PPE, materials and employee environment/chemical exposures are to be addressed in this section.</i></p>	<p><i>Analyze each principal step and the work sequence for potential hazards.</i></p>	<p><i>Develop specific controls for each potential hazard.</i></p>
EQUIPMENT AND TOOLS TO BE USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<p><i>List the equipment and tools to be used in the work activity.</i></p> <p><i>Hazards, controls, inspection requirements and training requirements are to be addressed in the appropriate sections of the AHA.</i></p>	<p><i>List inspection requirements for the work activity.</i></p>	<p><i>List training requirements, including hazard communication.</i></p>

(Contact UCIP Safety for an AHA form in editable electronic form)

E. Severe Weather Guidelines

1. **Objective:** This checklist is intended to be a general guideline of the detailed tasks that construction projects must consider in preparing for a severe weather event. It is not to be considered a complete document for any project due to the changing nature of the project and the unique concerns of each weather event. Each area of the project is to be reviewed to evaluate the work that needs to be accomplished both from this list, as well as their own specific requirements. It is understood that the action plan is for the preparation of all areas under construction.
2. **General Requirements**
 - 2.1. Document specific stop work time / date.
 - 2.2. Photograph project in detail to substantiate both completed and status of on-going work.
 - 2.3. Photograph work and effort expended for hurricane protection.
 - 2.4. Clean site and buildings from all trash and debris. Service and empty all trash containers.
 - 2.5. Secure dumpsters that remain on site.
 - 2.6. Remove from site or place inside a protecting structure any portable office or storage containers.
 - 2.7. Remove project records and documents and store appropriately.
 - 2.8. Comply with the crane manufacturer's recommendations for high-wind conditions.
 - 2.9. As much as practical, remove from site all conventional mobile cranes. For those that remain, boom down and extend and set the outriggers. Prepare equipment as recommended by the manufacturer.
 - 2.10. Lighter weight equipment should be removed from site and stored appropriately. Heavier equipment should be placed in manner to shield or weight other site materials. Consideration should be given to flood prone areas.
3. **Sitework**
 - 3.1. Consolidate soil stockpiles. Consider the height of the stockpile according to storage area.
 - 3.2. Coordinate the protection or removal of dewatering operations filtering materials as required.
 - 3.3. Remove screening fabric from chain link fences.
4. **Concrete**
 - 4.1. Consolidate, bundle, and strap plywood, metal pan forms, scaffolding / shoring materials.
 - 4.2. Evaluate present state of decking in place. Secure with weight of consolidated rebar, or other material, or disassemble as necessary.
 - 4.3. Complete welding of precast façade panels as specified. Secure any panels stored on site.
5. **Masonry**
 - 5.1. Secure all scaffolding systems with tie-downs and tiebacks. Remove and store scaffold planks appropriately.
 - 5.2. Remove portable mixers from site.
 - 5.3. Consolidate and strap bundle all loose concrete masonry units, cement bags, etc.
6. **Metals**
 - 6.1. Remove all oxygen, acetylene, and associated metal welding / cutting gasses from site.
 - 6.2. Remove portable welding machines from site.
 - 6.3. Stockpile and bundle all loose material.
 - 6.4. Remove all loose and wind prone materials from elevated decks and floors. Complete welding and anchoring of all structural steel and miscellaneous iron framing that is presently erected. Remove all members that will not be connected as specified by the contract documents.
7. **Woods and Plastics**

- 7.1. Store in a protected area not subject to wind and water infiltration all millwork, cabinetry, lumber, etc. Bundle and consolidate.
8. Thermal and Moisture Protection
 - 8.1. Remove all roofing and associated materials that are not installed from the roof deck, bundle, and store in protected area.
 - 8.2. Complete areas of work to a stage that will achieve complete dry-in on building sections that are critical and / or are required to remain protected and operational.
9. Exterior Finish Systems, Doors and Windows
 - 9.1. Complete the curtainwall and storefront anchoring framing that is presently erected. Remove all members that will not be connected.
 - 9.2. Re-crate loose glazing and framing and store appropriately.
 - 9.3. Remove staging platforms, rigging, safety lines, and associated equipment.
 - 9.4. Store hardware, doors, and frames that are not installed in a protected area not subject to wind and water infiltration.
 - 9.5. Close and secure all doors that are installed. (No doors should be blocked open).
10. Finishes
 - 10.1. Consolidate and bundle all loose sheetrock, studs, etc. Store and cover in protected area.
 - 10.2. Store all paints, cement, ceiling tile, grid, fixtures, carpets, PVC Conduit/Pipe, etc. in rooms that are secure and not subject to water and wind infiltration.
11. Specialties
 - 11.1. Store all toilet compartments, accessories, fire extinguishers, etc. not presently installed in rooms that are not subject to water and wind infiltration.
12. Furnishings
 - 12.1. Store all furniture and related furnishings in an area not subject to wind and water infiltration.
13. Hoists and Conveying Systems
 - 13.1. De-energize personnel hoists and elevators that are not critical to the building function.
 - 13.2. Confirm sump pits are clean and pumps are operational.
 - 13.3. Close and secure elevator equipment room doors. Cover electronic devices with plastic sheeting on equipment that is turned off.
14. Mechanical
 - 14.1. Bundle and consolidate all loose material, piping, boxes, etc. and store appropriately.
 - 14.2. Confirm all mechanical room doors are closed and secured.
 - 14.3. De-energize AHU's and associated fan powered distribution units if any are operational.
15. Electrical
 - 15.1. Bundle and consolidate all conduit and related material and store appropriately.
 - 15.2. De-energize all non-essential temporary circuits.
 - 15.3. Review UPS and generators systems, fuel, and circuitry for life safety requirements.
 - 15.4. Confirm all electrical and telephone rooms are closed and secured.

F. Model Contractor/Subcontractor Safety Plan (CSSP)

(Contractors and Subcontractors, may use this as a guide and template to creating their Site-Specific Safety Program in accordance with the requirements of the contract. The acronym CSSP is specific to this appendix.)

ABOUT THIS MODEL PROGRAM

Every Contractor/Subcontractor must establish, implement and maintain a written (Sub)Contractor Safety Plan (CSSP) and a copy must be maintained at each work site. The minimum requirements for establishing, implementing and maintaining an effective written (Sub)Contractor safety plan are contained in the contract. The (Sub)Contractor shall comply with the contract and shall complete the model program to detail specific issues relating to the following elements:

- Accountability/Responsibility/Key Line Personnel
- Statement of (Sub)Contractor's Safety and Health Policy
- Identification of Competent/Qualified Persons
- Scope of Work Evaluation
- Hazard/Risk/Exposure Assessment
- Control Measures/Activity Hazard Analysis
- (Sub)Contractor Periodic Safety Audits/Inspections
- (Sub)Contractor's Weekly Safety Planning – Weekly Look Ahead Plan
- Compliance Requirements and Policy
- Written Progressive Disciplinary Program
- Hazard Correction System
- Training and Instruction
- Project Site Orientation
- Communication System
- Recordkeeping
- Accident/Exposure Investigation
- Emergency Action Plan
- Site-Specific Medical Emergency Plan
- Written Hazard Communication Program
- Written Trenching and Shoring Plan (if applicable)
- Written Fall Protection Plan (if applicable)
- Other written programs as specified by regulatory agency or contract Requirements
- List of Attachments

This model program has been prepared as an aid only for use by Contractors/Subcontractors. Contractors/Subcontractors are solely responsible for the content of their own CSSPs. This model program was written for a broad spectrum of (Sub)Contractor employers and it should be modified as appropriate to provide the essential framework required for a (Sub)Contractor Safety Plan on this project.

Proper use of this model program requires the Project Manager/Superintendent of your firm to carefully review the requirements for each of the CSSP elements found in this model. Complete the appropriate blank spaces and check those items that are applicable to your workplace. Sample forms for hazard assessment and correction, accident/exposure investigation, and worker training and instruction are provided with this model program.

This model program must be maintained by the (Sub)Contractor's Project Manager in order to be effective.

1. Responsibility/Identification of Key Line Personnel

Contractor:

Address:

Telephone

Fax

Email

Company Executive responsible for project:

Contact No.

Manager/Superintendent:

Contact No.

Safety Representative/Manager:

Contact No.

Key Foreperson or forepersons:

Contact No.

Client Project Management POC:

Contact No.

These personnel have the authority and responsibility for implementing the provisions of this program for:

Project Site Location

On-site Contact No.

All managers and supervisors are responsible for implementing and maintaining the CSSP in their work areas and for answering worker questions about the CSSP. A copy of this CSSP is available from each manager and supervisor.

2. Statement of (Sub)Contractor's Safety and Health Policy

Include your company statement here

3. Identification of Competent/Qualified Persons

List/Submit Certificate

4. Scope of Work Evaluation

List Major Activities

5. Hazard/Risk/Exposure Assessment

List Hazards and Exposures here

Major hazards or risks and exposures associated with the scope of work evaluation shall be listed here. Each major activity shall be evaluated and an Activity Hazards Analysis developed.

6. Control Measures/Activity Hazard Analysis

(Provide an Appendix to include Hazard Control Measures and Activity Analysis for Risks Listed in #5)

7. Subcontractor Periodic Safety Inspections/Audits

In addition, periodic inspections to identify and evaluate on-going workplace hazards shall be performed by the following competent persons or observers in the following areas of our workplace:

Competent Person/Observer	Area of Expertise/Responsibility
---------------------------	----------------------------------

Periodic inspections are performed according to the following schedule:

- _____ (daily, weekly, monthly, etc.)
- When we initially established our CSSP;
- When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace;
- When new, previously unidentified hazards are recognized;
- When occupational injuries and illnesses occur;
- When we hire and/or reassign permanent or intermittent workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted; and
- Whenever workplace conditions warrant an inspection.

Periodic inspections consist of identification and evaluation of workplace hazards utilizing applicable sections of the (Sub)Contractor's Site-Specific Safety Program or other effective methods to identify and evaluate workplace hazards.

8. Subcontractor Risk Mitigation Three-Week Look-Ahead Planning Submission

The form found in Appendix G can be used to plan risk mitigation strategies and to submit same for review prior to contract progress meetings.

9. Compliance Requirements Policy

Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.

All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.

Our system of ensuring that all workers comply with the rules and maintain a safe work environment includes:

- Informing workers of the provisions of our CSSP;
- Evaluating the safety performance of all workers;
- Recognizing employees who perform safe and healthful work practices;
- Providing training to workers whose safety performance is deficient;
- Disciplining workers for failure to comply with safe and healthful work practices; and
- The following practices:

- _____

10. Written Progressive Disciplinary Program

(Explain or attach written program)

11. Hazard Correction Policy

Unsafe or unhealthy work conditions; practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- When observed or discovered;
- When an imminent hazard exists which cannot be immediately abated without endangering employees or property, we will remove all exposed workers from the area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection; and
- All such actions taken and dates they are completed shall be documented on the appropriate forms.

12. Training and Instruction Policy

All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

- When the CSSP is first established;
- To all new workers;
- To all workers given new job assignments for which training has not previously provided;
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;
- Whenever the employer is made aware of a new or previously unrecognized hazard;
- To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed; and
- To all workers with respect to hazards specific to each employee's job assignment.

Workplace safety and health practices for all locations include, but are not limited to, the following:

- Explanation of the employer's CSSP, the UC Safety Standards, emergency action plan and fire prevention plan, and measures for reporting any unsafe conditions, work practices, injuries and when additional instruction is needed.
- Use of appropriate clothing, including gloves, footwear, and personal protective equipment.
- Information about chemical hazards to which employees could be exposed and other hazard communication program information.
- Availability of toilet, hand-washing, and drinking water facilities.
- Provisions for medical services and first aid including emergency procedures.

In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

13. Project Site Employees Orientation Program Subjects

We orient our workers about the following checked subjects:

- Client safety requirements
- The employer's code of safe practices.
- Road and highway safety practices
- Flagging
- Traffic control
- Confined spaces.
- Safe practices for operating any agricultural equipment.
- Good housekeeping, fire prevention, safe practices for operating any construction equipment.
- Safe procedures for cleaning, repairing, servicing and adjusting equipment and machinery.
- Safe access to working areas.
- Protection from falls.
- Electrical hazards, including working around high voltage lines.
- Crane operations.
- Trenching and excavation work.
- Proper use of powered tools.
- Guarding of belts and pulleys, gears and sprockets, and conveyor nip points.
- Machine, machine parts, and prime movers guarding.
- Lockout/tagout procedures.
- Materials handling.
- Chainsaw and other power tool operation.
- Unsafe weather conditions.
- Yarding operations, including skidding, running lines, rigging and communication.
- Landing and loading areas, including release of rigging, landing layout, moving vehicles and equipment, truck locating, loading and shipping.
- Fall protection from elevated locations.
- Use of elevated platforms, including condors and scissor lifts.
- Driver safety.
- Traffic safety
- Slips, falls, and back injuries.
- Ergonomic hazards, including proper lifting techniques and working on ladders or in a stooped posture for prolonged periods at one time.
- Personal protective equipment.
- Respiratory Equipment.
- Hazardous chemical exposures.
- Hazard communication.
- Physical hazards, such as heat stress, noise, and ionizing and non-ionizing radiation.
- Laboratory safety.
- Bloodborne pathogens and other biological hazards.
- Other job-specific hazards, such as _____

14. Employee Communication System and Policy

We recognize that open, two-way communication between management and staff on health and safety issues is essential to an injury-free, productive workplace. The following system of communication is

designed to facilitate a continuous flow of safety and health information between management and staff in a form that is readily understandable and consists of one or more of the following checked items:

- New worker orientation including a discussion of safety and health policies and procedures.
 - Review of our CSSP and UC Safety Standards.
 - Workplace safety and health training programs.
 - Regular weekly and daily safety meetings.
 - Effective communication of safety and health concerns between workers and supervisors, including translation where appropriate.
 - Posted or distributed safety information.
 - A system for workers to anonymously inform management about workplace hazards.
 - A labor/management safety and health committee that meets regularly, prepares written records of the safety and health committees meetings, reviews results of the periodic scheduled inspections, reviews investigations of accidents and exposures and makes suggestions to management for the prevention of future incidents, reviews investigations of alleged hazardous conditions, and submits recommendations to assist in the evaluation of employee safety suggestion.
 - Other:
-
-

15. Recordkeeping Policy

We have taken the following steps to document implementation of our CSSP:

- Records of hazard assessment inspections, including the persons conducting the inspection, the unsafe conditions and work practices that have been identified and the action taken to correct the identified unsafe conditions and work practices, are recorded on a hazard assessment and correction form
- Documentation of safety and health training for each worker, including the worker's name or other identifier, training dates, types of training, and training providers are recorded on a worker training and instruction form.
- Other records are retained as required by contract specifications or by local, state or federal OSHA regulations. Where regulations do not specify the length of records retention, a period of three years after project completion will be used.

16. Accident/Exposure Investigations Policy

Procedures for investigating workplace accidents and hazardous substance exposures include:

- Responding to the accident scene as soon as possible;
- Reporting immediately to the appropriate project point-of-contact
- Interviewing injured workers and witnesses;
- Examining the workplace for factors associated with the accident/exposure;
- Determining the cause of the accident/exposure;
- Taking corrective action to prevent the accident/exposure from reoccurring;
- Recording the findings and corrective actions taken; and
- Post-accident substance abuse testing (as permitted by the PLA).

17. Emergency Action Plan

(Define assembly areas, head count procedure etc.)

18. Site Specific Medical Emergency Plan

(Define/ provide emergency contact numbers, competent first-aid provider locations, etc.)

19. Hazard Communication Program

(Attach written program and MSDSs)

20. Written Trenching and Shoring Plan

(Attach if applicable)

21. Written Fall Protection Plan

(Attach if applicable)

22. Attach other written programs as required by regulation and applicable to this project.

23. List of Attachments

- Periodic Safety/Audit Inspection Record
- Accident Inspection Report Form
- Sample Training Record
- Subcontractors Weekly Safety Planning Submission
- Site-Specific Safety Plan – Self Assessment Checklist

G. Risk Mitigation Three-Week Look-Ahead Form

UC

Risk Mitigation Three-Week Look-Ahead Form

Safety plan for week ending: _____ Subcontractor: _____
Project/ Location: _____ Meeting date: _____
Plan Prepared by: _____ Dated: _____

Next Three Weeks' Scope of Work:

Identified Risks/Exposures/Hazards:

Control Measures:

Additional Activity Hazards Analysis Required:

Subcontractors Mobilizing/Demobilizing:

Audit/Inspections Scheduled:

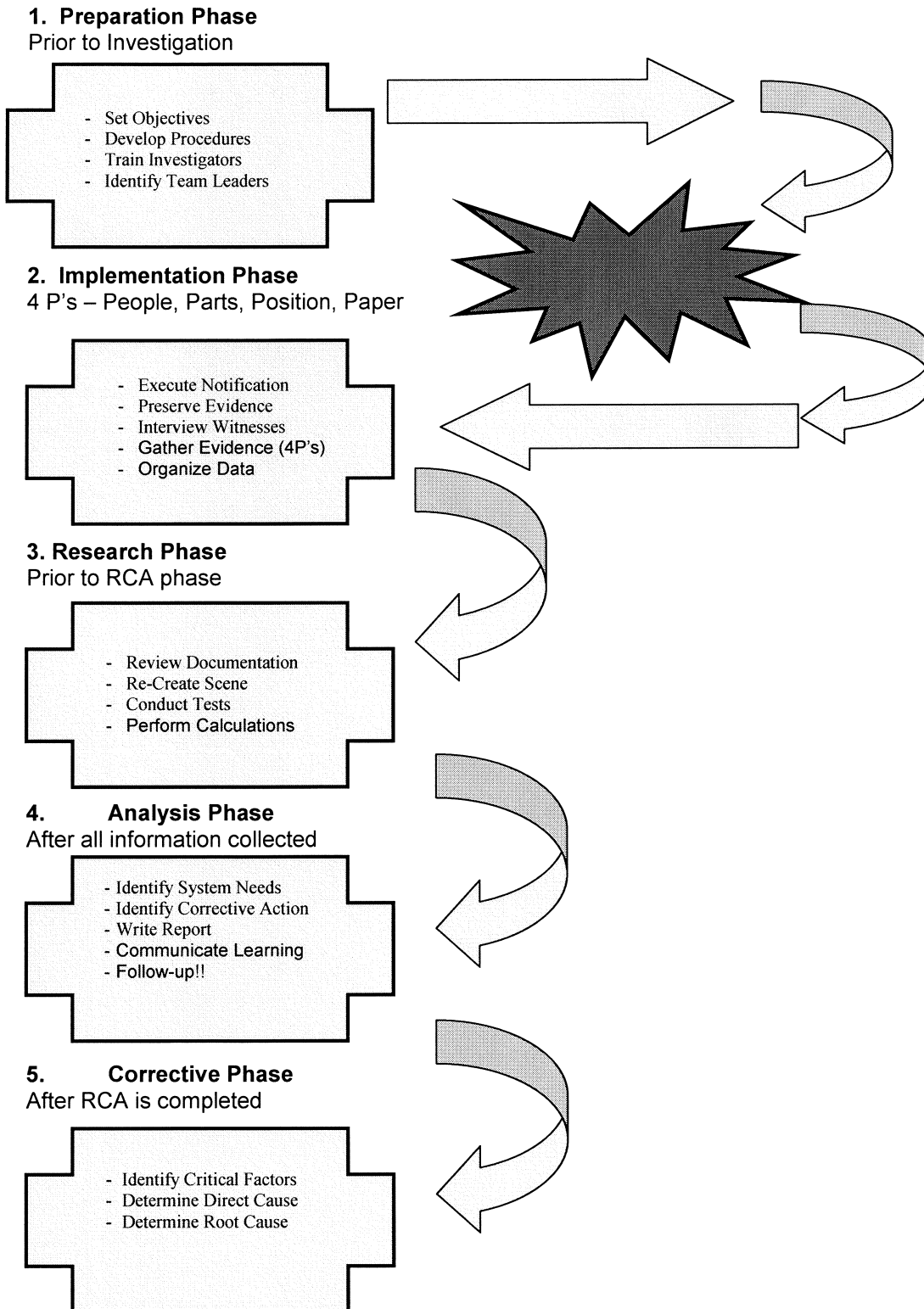
Competent Person Changes:

Planned Orientation/Training :

Recommendations/Comments/Concerns:

Note: This information should be incorporated into the meeting minutes.

H. Root Cause Analysis Chart



Step 1 – Identify Critical Factor(s)

Critical factors are events, conditions or behaviors that, if eliminated, would have prevented or lessened the severity of the incident.

The analysis portion of the RCA process begins with a review of all information and data collected during the investigation. This data is comprised of both facts and inferences. To identify critical factors, ask the following question: ***“Would the incident have been prevented or would the severity of the outcome been reduced, if this particular factor was not present?”*** For every fact or inference to which the answer is **“YES”** an individual root cause analysis, with corrective actions, should be conducted.

Step 2 – Determine Direct Cause(s)	
For each critical factor identified, ask the question, <i>“Why did this occur?”</i> Review all direct cause categories and list each potential direct cause for every critical factor identified in step 1.	
At-Risk Behaviors	
A. Following Procedures	B. Use of Tools or Equipment
A1 Violation of SOPs by individual	B1 Improper use of equipment
A2 Violation of SOPs by group	B2 Improper use of tools
A3 Violation of SOPs by supervisor	B3 Use of defective equipment (aware)
A4 Operation of equipment w/o authority	B4 Use of defective tools (aware)
A5 Improper position of posture for task	B5 Improper placement of tools, equipment or materials
A6 Overexertion of physical activity	B6 Operation of equipment at improper speed
A7 Work or motion at improper speed	B7 Servicing of equipment while in operation
A8 Working in an awkward posture	B8 Wrong tool for the job
A9 Improper lifting	
A10 Improper loading	
A11 Taking shortcuts	
C. Use of Protective Methods	D. Inattention/Lack of Awareness
C1 Lack of hazard awareness	D1 Improper decision making
C2 PPE not used	D2 Distraction by other(s)
C3 Improper use of PPE	D3 Insecure footing/maintain 3-point contact
C4 Use of defective or contaminated PPE	D4 Failure to maintain eyes on path
C5 Inadequate energy control (lockout)	D5 Acts of violence
C6 Equipment or materials not secured	D6 Failure to warn
C7 Disabled guards, warning systems or safety devices	D7 Use of drugs or alcohol
C8 Removed guards, warning systems or safety devices	D8 Routine activity without thought
C9 PPE not available	D9 Habituated to hazard or warning signs
	D10 Horseplay
	D11 Placed self in line-of-fire

Step 2 – Determine Direct Cause(s)			
For each critical factor identified, ask the question, “Why did this occur?” Review all direct cause categories and list each potential direct cause for every critical factor identified in step 1.			
At-Risk Behaviors			
E. Protective Systems		F. Tools, Equipment and Vehicles	
E1	Inadequate guards or protective devices	F1	Defective equipment
E2	Defective guards or protective devices	F2	Inadequate equipment
E3	No guards or protective devices in place	F3	Improperly prepared/maintained equipment
E4	Inadequate PPE	F4	Defective tools
E5	Defective PPE	F5	Inadequate tools for the job
E6	Inadequate warning systems	F6	Improperly prepared tools
E7	Defective warning systems	F7	Defective vehicle
E8	Inadequate isolation of process or equipment	F8	Inadequate vehicle for purpose used
E9	Inadequate safety devices	F9	Improperly prepared/equipped vehicle
E10	Defective safety devices	F10	Improperly designed tools/equipment
		F11	Improper proximity to equipment or vehicle
G. Work Exposures		H. Workplace Environment	
G1	Fire or explosions	H1	Congestion or restricted motion
G2	Noise	H2	Inadequate ventilation
G3	Repetitive motion	H3	Inadequate illumination
G4	Energized electrical systems	H4	Unprotected height
G5	Energized mechanical, hydraulic, pneumatic or chemical systems	H5	Inadequate workplace design
G6	Radiation (ionizing/non-ionizing)	H7	Controls less than adequate
G7	Temperature extremes	H8	Displays less than adequate
G8	Hazardous chemicals	H9	Labels less than adequate
G9	Mechanical hazards	H10	Conflicting information given
G10	Clutter or debris	H11	Creates awkward posture
G11	Weather or acts of nature	H12	Reduced visibility
G12	Slippery floors or walkways		

Step 3 – Determine Root Cause(s)			
For each direct cause, again ask the question, “Why did this occur?” Review each root cause category to determine all possible root causes.			
Personal Factors			
1. Physical Capability (7,11,15, 20)		2. Physical Conditions (1, 2, 5, 15, 20)	
1-1	Vision deficiency	2-1	Previous injury or illness
1-2	Hearing deficiency	2-2	Fatigue due to workload
1-3	Other sensory deficiency	2-3	Fatigue due to lack of rest
1-4	Reduced respiratory capacity	2-4	Fatigue due to sensory overload
1-5	Musculoskeletal disorder	2-5	Exposure to temperature extremes
1-6	Other permanent/temporary disability	2-6	Exposure to oxygen deficiencies
1-7	Inability to sustain body position	2-7	Exposure to atmospheric variations
1-8	Restricted range of body movement	2-8	Blood sugar deficiency
1-9	Substance sensitivities or allergy	2-9	Impairment due to drugs or alcohol
1-10	Inadequate size or strength		

Step 3 – Determine Root Cause(s)	
For each direct cause, again ask the question, “Why did this occur?” Review each root cause category to determine all possible root causes.	
1-11 Influenced by medication	
3. Mental State (1,3,11,13,15,19,20)	4. Mental Stress (1,3,7,11,12,13,15)
3-1 Poor judgment	4-1 Preoccupation with problems
3-2 Memory failure	4-2 Frustration
3-3 Poor condition or reaction time	4-3 Confusing directions/demands
3-4 Emotional disturbance	4-4 Conflicting directions/demands
3-5 Fears or phobias	4-5 Meaningless or degrading activities
3-6 Low mechanical aptitude	4-6 Emotional overload
3-7 Low learning aptitude	4-7 Extreme judgment/decision demands
3-8 Influenced by medication	4-8 Extreme concentration/perception demands
	4-9 Extreme boredom
5. Behavior (1,2,3,7,8,13,14,19)	6. Skill Level (1,2,11,15)
5-1 Improper performance rewarded / tolerated	6-1 Inadequate assessment of required skill
5-2 Proper performance is punished	6-2 Inadequate practice of skill
5-3 Improper attempt to save time	6-3 Infrequent opportunity to practice skill
5-4 Improper attempt to avoid discomfort	6-4 Lack of coaching/training on skill
5-5 Improper attempt to gain attention	
5-6 Employee perceived haste	
5-7 Supervisor implied haste	
5-8 Lack of appropriate incentives	
5-9 Improper supervisory example	
5-10 Inadequate reinforcement of safe behaviors	
5-11 Inappropriate peer pressure	
5-12 Inadequate performance feedback	
5-13 Improper recognition for at risk behavior	

Step 3 – Determine Root Cause(s)	
For each direct cause, again ask the question, <i>“Why did this occur?”</i> Review each root cause category to determine all possible root causes.	
7. Training/Knowledge (2,3,4,6,7,11,12)	8. Leadership and Accountability (1,2,3,10,11,13,15)
7-1 Inadequate knowledge transfer 7-2 Inability to comprehend 7-3 Inadequate instructor qualifications 7-4 Inadequate training equipment 7-5 Misunderstanding training instructions 7-6 Inadequate recall of training received 7-7 Training not reinforced on the job 7-8 Inadequate refresher training provided 7-9 Inadequate design of training program 7-10 Inadequate training objective/goals 7-11 Inadequate new employee training 7-12 Inadequate on-the-job training 7-13 No measurement of training effectiveness 7-14 No training provided 7-15 Need for training not identified 7-16 Training records incorrect / not current 7-17 New process introduced w/o training 7-18 Management decision not to provide training	8-1 Unclear/conflicting reporting relationships 8-2 Unclear/conflicting assignment of responsibility 8-3 Improper/insufficient delegation of authority 8-4 Inadequate accountability system in place 8-5 Inadequate or incorrect performance feedback 8-6 Failure to conduct worksite walkthrough 8-7 Inadequate promotion/enforcement of safety 8-8 Inadequate correction of prior hazard / incident 8-9 Inadequate identification of workplace hazards 8-10 Inadequate management of change system 8-11 Inadequate incident reporting / investigation 8-12 Inadequate or lack of safety meetings 8-13 Inadequate matching of qualifications for job 8-15 Lack of supervisory management knowledge 8-16 Inadequate health hazard evaluation
9. Authorized Representative Design (1,3,5,13,14,18)	
9-1 Failure to identify hazards 9-2 Inadequate ergonomic design 9-3 Inadequate technical design 9-4 Inadequate monitoring of construction 9-5 Failure to include H&S in review process 9-6 No independent design review 9-7 Inadequate review of potential failures 9-8 Failure to document change	

Step 3 – Determine Root Cause(s)

For each direct cause, again ask the question, *“Why did this occur?”*
 Review each root cause category to determine all possible root causes.

--	--

Job Factors

10. Work Planning and Maintenance (13,17,18)	11. Purchasing (13,17,18)
10-1 Inadequate work planning	11-1 Inadequate specs on invoice
10-2 Inadequate preventative maintenance	11-2 Inadequate research on materials
- assessment of needs	11-3 Inadequate specs to vendor
- lubrication/servicing	11-4 Inadequate mode of shipment
- adjustment/assembly	11-5 Improper handling of materials
- cleaning/resurfacing	11-6 Improper storage of materials
10-3 Inadequate repair	11-7 Improper substitution
- communication of needed repairs	11-8 Inadequate material packaging
- scheduling of work	11-9 Exceeded shelf life
- examination of parts	11-10 Material hazards not identified
- parts substitution	11-11 Inadequate H&S approval process
10-4 Excessive wear and tear	11-12 Failure to receive MSDS
- inadequate planning for use	11-13 Poor communication of hazards
- extension of service life	
- improper loading	
- use by untrained personnel	
- used for wrong purpose	
10-5 Inadequate reference material available	
10-6 Inadequate inspection/monitoring	
- no documentation	
- no accountability for corrections	
10-7 Inadequate job placement	
- appropriate personnel not identified	
- appropriate personnel not available	
- appropriate personnel not provided	
12. Tools and Equipment (1,5,14,18)	13. Contractor Selection/Safety (3,12,17)
12-1 Inadequate assessment of needs	13-1 No contractor pre-qualifications
12-2 Inadequate assessment of risks	13-2 Inadequate pre-qualifications
12-3 Lack of ergonomic considerations	13-3 Inadequate contractor selection
12-4 Inadequate standards/specifications	13-4 Use of non-approved contractor
12-5 Inadequate availability	13-5 Lack of contractor oversight
12-6 Inadequate adjustment/repair	13-6 Lack of job oversight
12-7 Inadequate salvage/reclamation	13-7 Failure to provide safety training
12-8 Failure to replace worn parts	13-8 Lack of contractor communication

Step 3 – Determine Root Cause(s)	
For each direct cause, again ask the question, “Why did this occur?” Review each root cause category to determine all possible root causes.	
12-9 Poor equipment record history	13-9 Failure to specify H&S requirements
14. Rules/Policies/Procedures (1,2,3,13)	15. Communication (1,2,3,5,7,10,11,13)
14-1 Lack of SOP's 14-2 No accountability for SOP's 14-3 Lack of JHA's 14-4 Inadequate JHA's 14-5 SOP's inconsistent with work processes 14-6 Lack of employee involvement with SOP's 14-7 Unclear definition of corrective actions 14-8 SOP's not accessible, poor SOP format 14-9 Inadequate implementation of SOP's -contradictory statements -confusing format -no check-off spaces provided -inadequate sequence of steps -confusing instructions -critical steps missing 14-10 Inadequate enforcement of SOP's 14-11 Inadequate monitoring of work 14-12 Inadequate supervisor knowledge 14-13 Inadequate communication of SOP's 14-14 Outdated SOP's / no revision schedule	15-1 Poor communication between: -co-workers -supervisor and employee -departments/work groups -work shifts 15-2 Ineffective communication methods 15-3 Poor communication of H&S data 15-4 Standard terminology not used 15-5 Incorrect instructions provided 15-6 Verification techniques not used 15-7 Messages too long/complicated

Step 4 – Determine System Need(s)

For each root cause category identified, refer to the number in parenthesis, and associate it with Management System deficiencies that contributed to the root cause. Determine if key system elements are in place, if they require updating, or if missing and/or additional elements need to be incorporated in the system.

Management System Elements

1. Leadership		2. Leadership Development	
1-1	General H&S policy and vision statement established	2-1	H&S training regularly analyzed
1-2	Assigned responsibilities for safety / loss control	2-2	H&S training provided to new managers
1-3	Senior and middle management participation	2-3	H&S training provided to senior management
1-4	Established safety management measurement systems	2-4	H&S training for management regularly updated
1-5	H&S as an agenda in all meetings	2-5	Records of leadership training maintained
1-6	Internal H&S audits conducted by management	2-6	Training effectiveness measured / monitored
1-7	Individual responsibility for safety assigned		
1-8	H&S committees in place and functional		
1-9	Production demands never compromise safety		
1-10	Adequate H&S management reference materials		
1-11	Applicable regulatory requirements identified		
1-12	Communication with external H&S experts conducted		
3. Accountability		4. Information Management	
3-1	H&S accountability system established	4-1	H&S information database in place
3-2	Accountability system exists in writing	4-2	Trend analysis conducted
3-3	Roles/expectations exists for all job classes	4-3	Trend analysis worked into plan
3-4	Management systems identified		
3-5	Regular evaluations conducted		
3-6	Consequences in place (negative and positive)		
3-7	Annual renewal component established		
5. Hazard Evaluation		6. Incident Investigation	
5-1	Planned general inspections conducted	6-1	Written incident investigation system
5-2	Follow-up system for corrective actions	6-2	Line management participation
5-3	All levels of management involved	6-3	Management review of major incidents
5-4	Audit report analysis established	6-4	Remedial action and follow-up
5-5	Both conditions and behaviors are audited	6-5	Near miss reporting and investigation
5-6	External audit conducted annually	6-6	Communication system for incidents
5-7	Pre-use equipment inspections conducted		
5-8	JHA's conducted for all jobs		
5-9	Process renewal component established		

Step 4 – Determine System Need(s)	
<p>For each root cause category identified, refer to the number in parenthesis, and associate it with Management System deficiencies that contributed to the root cause. Determine if key system elements are in place, if they require updating, or if missing and/or additional elements need to be incorporated in the system.</p>	
Management System Elements	
<p>7. Behavior Modification</p> <p>7-1 At risk behaviors identified 7-2 System for observation and feedback 7-3 Observer training program established 7-4 Management role identified 7-5 Behavior leadership team in place 7-6 Database of behavior data exists 7-7 Action plans developed based on data 7-8 Timely follow-up on corrective actions 7-9 Process renewal component established</p>	<p>8. Reinforcement and Recognition</p> <p>8-1 Formal R&R system in place 8-2 System uses upstream H&S measures 8-3 Recognition is person specific 8-4 Recognition is mostly symbolic 8-5 Recognition considers employee input 8-6 Recognition motivates behavior</p>
<p>9. Emergency Preparedness</p> <p>9-1 Administrative roles established 9-2 Identification of potential emergencies 9-3 Written emergency plan 9-4 Identification of energy control sources 9-5 Emergency response teams trained 9-6 First aid and response equipment available 9-7 Emergency communications established 9-8 Coordination with local agencies 9-9 Evacuation drills conducted 9-10 Training workforce conducted</p>	<p>10. Incident Analysis</p> <p>10-1 Hazard risk assessments conducted 10-2 Tracking and trending of incident data 10-3 RCA always conducted 10-4 Property damage analysis included 10-5 Near miss analysis conducted 10-6 Training for RCA provided</p>
<p>11. Knowledge and Skill Training</p> <p>11-1 Administration system established 11-2 Training needs analysis / testing of learning 11-3 Instructor qualifications established 11-4 Training systems in place 11-5 Training systems evaluation / follow-up 11-6 H&S training and task training performed</p>	<p>12. Change Management</p> <p>12-1 Written system in place 12-2 Administrative responsibilities identified 12-3 Communication system established 12-4 Measurement system for effectiveness</p>
<p>13. Communication</p> <p>13-1 Communications reach entire facility 13-2 Process for top-down and bottom-up in place 13-3 Feedback and coaching available 13-4 Training in personal communications 13-5 Task instruction 13-6 Planned personal contacts, e.g. one-on-one 13-7 Audited for effectiveness / timeliness</p>	<p>14. Authorized Representative Design</p> <p>14-1 Administration roles identified 14-2 Hazard identification conducted 14-3 Risk assessment conducted 14-4 Project review for safety 14-5 H&S analysis conducted 14-6 Operational/work process controls in place</p>

Step 4 – Determine System Need(s)

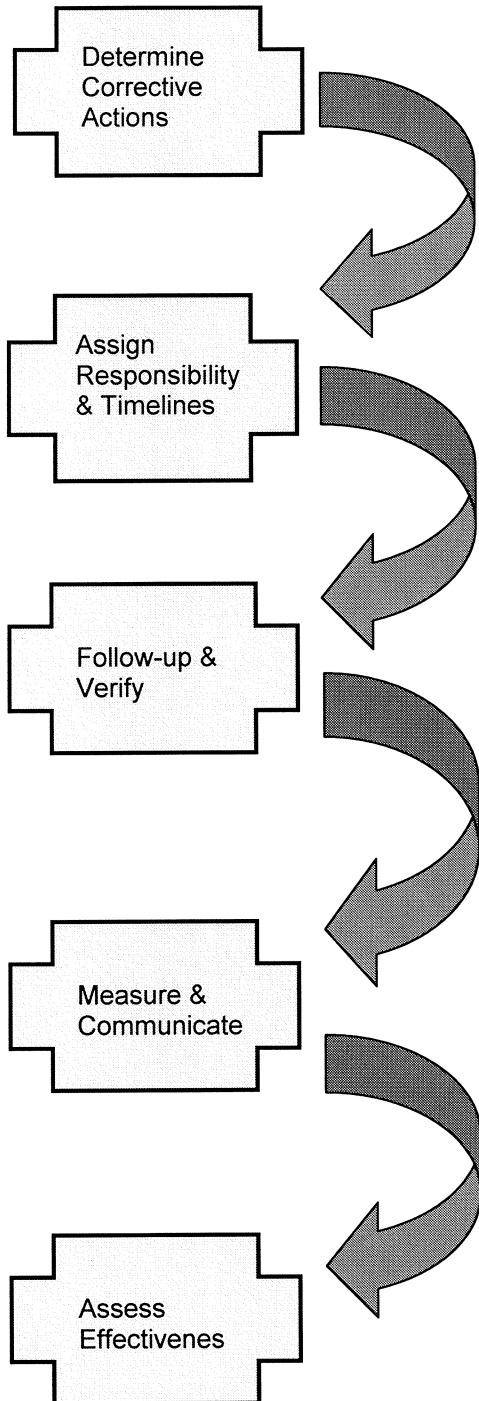
For each root cause category identified, refer to the number in parenthesis, and associate it with Management System deficiencies that contributed to the root cause. Determine if key system elements are in place, if they require updating, or if missing and/or additional elements need to be incorporated in the system.

Management System Elements

15. Human Resources		16. Enrollment	
15-1 Job capability requirements established		16-1 Informal enrollment process in place	
15-2 Medical pre-placement exam required		16-2 Formal enrollment process established	
15-3 Behavioral interviews carried out		16-3 Enrollment renewal process in place	
15-4 New hire skill analysis completed		16-4 Process addresses chronic non enrollers	
15-5 General orientation / training conducted			
15-6 Widespread recruiting / quality candidates			
15-7 Pre-employment qualification checks made			
15-8 Mentoring systems in place			
15-9 Probationary review period established			
17. Materials/Services Management		18. Operation and Maintenance	
17-1 Written policy/procedures established		18-1 Preventative maintenance system in place	
17-2 Critical processes/parts inspected		18-2 Critical processes/parts inspected	
17-3 Selection of contractors includes safety		18-3 Pre-use equipment inspections conducted	
17-4 Management of contractors while on site		18-4 Work order system in place	
17-5 H&S review of incoming materials		18-5 H&S issue prioritization (24 hours)	
17-6 H&S training of contractors			
17-7 Communication systems for MSDS's			
19. Health and Hygiene Control		20. Drug and Alcohol	
19-1 Responsibility defined		20-1 Policy established and well communicated	
19-2 Hazard identification and evaluation		20-2 For-cause testing in place	
19-3 Hazard control system in place		20-3 EAP available	
19-4 Appropriate IH monitoring conducted		20-4 Random testing in place	
19-5 Information and training provided			
19-6 Health care education available			
19-7 Professional assistance and oversight			
19-8 Medical surveillance conducted			
19-9 Internal communications established			
19-10 Recordkeeping tracked and maintained			
19-11 Collaboration established for health and IH			

Step 5 – Develop Corrective Action(s)

Corrective actions must be designed to address management system needs and deficiencies, in addition to preventing re-occurrence of all root and direct causes.



I. Incident Investigation Data Form

The Incident Investigation Data Form is to be used in conjunction with the Root Cause Analysis Chart (Appendix H) to investigate the following types of incidents:

- Incidents resulting in an OSHA recordable injury or illness
- Incidents resulting in business interruption
- Incidents resulting in process interruption
- Near-miss incidents with potential high-severity consequences.

This form is available in electronic format from UCIP Safety.

Part A – to be completed as an initial report form

Incident Identification:	Check one: <input type="checkbox"/> personal injury <input type="checkbox"/> vehicle <input type="checkbox"/> environmental <input type="checkbox"/> property dmge. <input type="checkbox"/> other	Check one if injury: <input type="checkbox"/> first aid <input type="checkbox"/> recordable <input type="checkbox"/> restricted duty <input type="checkbox"/> lost time <input type="checkbox"/> environmental - minor <input type="checkbox"/> environmental - minor <input type="checkbox"/> other <input type="checkbox"/> not applicable		Check one: <input type="checkbox"/> employee <input type="checkbox"/> contractor <input type="checkbox"/> other
	Incident Location: <input style="width: 95%;" type="text"/>			

Incident Occurred:	Day	Date	Time	Incident Reported:	Date	Time
	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>		<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>
Time Employee Began Work:	<input style="width: 95%;" type="text"/>			Last Time Off:	<input style="width: 95%;" type="text"/>	

Incident reported to:	<input style="width: 95%;" type="text"/>	Position:	<input style="width: 95%;" type="text"/>
-----------------------	--	-----------	--

Person Injured/Involved			
Name:	<input type="text"/>	Date of Birth:	<input type="text"/>
Job Title:	<input type="text"/>	Department:	<input type="text"/>
Experience at Current Position:	<input type="text"/>	Qualifications for Current Position:	<input type="text"/>
Hire Date:	<input type="text"/>	Orientation Date:	<input type="text"/>
Brief Description of Training History	<input type="text"/>		

Describe Incident (in order of occurrence):
<input type="text"/>

Describe Injuries:
<input type="text"/>

Attach/Insert Photos or Other Relevant Information:
<input type="text"/>

Supervisor at Time of Incident:	
Direct Supervisor:	

Parties/Witnesses Involved – add lines if necessary	
Name, Title	Signature
Employee Involved	
Witness	
Supervisor	

Nature of Injury		Bodily Location	
<input type="checkbox"/> 01 Contusion	<input type="checkbox"/>	<input type="checkbox"/> 07 Heat Stress	<input type="checkbox"/>
<input type="checkbox"/> 02 Burns	<input type="checkbox"/>	<input type="checkbox"/> 08 Chemical Exp.	<input type="checkbox"/>
<input type="checkbox"/> 03 Eye	<input type="checkbox"/>	<input type="checkbox"/> 09 Foreign Body	<input type="checkbox"/>
<input type="checkbox"/> 04 Strain/Sprain	<input type="checkbox"/>	<input type="checkbox"/> 10 Multiple injury	<input type="checkbox"/>
<input type="checkbox"/> 05 Fracture	<input type="checkbox"/>	<input type="checkbox"/> 11 Other (specify)	<input type="checkbox"/>
<input type="checkbox"/> 06 Laceration	<input type="checkbox"/>		

Incident Type		Inflicting Agent – specify in blank space	
<input type="checkbox"/> 01 Caught In	<input type="checkbox"/>	<input type="checkbox"/> 08 Struck By	<input type="checkbox"/>
<input type="checkbox"/> 02 Fall from Height	<input type="checkbox"/>	<input type="checkbox"/> 09 Fire	<input type="checkbox"/>
<input type="checkbox"/> 03 Chemical	<input type="checkbox"/>	<input type="checkbox"/> 10 Environmental	<input type="checkbox"/>
<input type="checkbox"/> 04 Thermal	<input type="checkbox"/>	<input type="checkbox"/> 11 Noise Induced	<input type="checkbox"/>
<input type="checkbox"/> 05 Slip/Trip/Fall	<input type="checkbox"/>	<input type="checkbox"/> 12 Other (specify)	<input type="checkbox"/>
<input type="checkbox"/> 06 Electricity	<input type="checkbox"/>		
<input type="checkbox"/> 07 Ergonomic	<input type="checkbox"/>		

Description of Investigation
at scene:
at office:

Investigation Team		
Name, Title		Signature
Led By		
Member		
Member		
Member		
Member		
Member		
Member		
Member		

Direct Causes – from RCA Chart	
Behavior – list all codes	Condition– list all codes

Root Causes – from RCA Chart	
Personal Factors	Job Factors

Management System Elements – from RCA Chart			

Actions Taken to Prevent Similar Incident (list responsible party and date due)		
Action	Due Date	Responsibility

Additional Comments:			
Lead Investigator:	Signature	Print Name	Date

C:\Documents and Settings\nhamill\Local Settings\Temporary
 Internet Files\OLKCE\OGCSDM-#200472-v1-
 UCIP_Safe_y_S_a_da_ds_ma_ual_NJH_Ao__edi_s_5_7_WJN
 DOC

Bond No.: _____

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, The Regents of the University of California ("The Regents") has awarded to _____ as Principal a contract dated the _____ day of _____, 2012 (the "Contract") for the work described as follows:

**HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA MERCED CAMPUS
MERCED COUNTY, MERCED CALIFORNIA**

BID PACKAGE: _____

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

NOW, THEREFORE, we, the undersigned Principal and _____ as Surety, are held and firmly bound unto The Regents in the sum of \$ _____ for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by The Regents, or its subcontractors shall fail to pay any of the persons named in State of California Civil Code Section 3181, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall become and be null and void.

This bond shall inure to the benefit of any of the persons named in State of California Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

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

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

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

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

IN WITNESS WHEREOF, we have hereunto set our hands this _____
day of _____, 2012.

Principal: _____
(Name of Firm)

Surety: _____
(Name of Firm)

By: _____
Title: _____

By: _____
Title: _____

Address for Notices:

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

Bond No.: _____

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

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

**HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA MERCED CAMPUS
MERCED COUNTY, MERCED CALIFORNIA**

BID PACKAGE: _____

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

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

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

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

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

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

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

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

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

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

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

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

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

Principal:	_____	Surety:	_____
	(Name of Firm)		(Name of Firm)
By:	_____	By:	_____
Title:	_____	Title:	_____

Address for Notices:

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

APPLICATION FOR PAYMENT

Number: _____ Period to: _____

TO UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, MERCED, UNIVERSITY OF CALIFORNIA, 5200 N. LAKE ROAD, MERCED, CA 95344 AND UNIVERSITY'S REPRESENTATIVE:

FROM PRIME TRADE CONTRACTOR: _____
 ADDRESS: _____
 PROJECT NAME: HOUSING 4: THE SUMMITS
 PROJECT NUMBER: 906270
 FACILITY: University of California, Merced
 CONTRACT DATE: _____
 APPLICATION DATE: _____

<u>CHANGE ORDER SUMMARY:</u>		<u>Additions</u>	<u>Deductions</u>
Change Orders approved in previous months:	Total:	_____	_____
Change Orders approved this month:			
Number:	Date Approved:		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
		Total:	_____

NET CHANGE BY CHANGE ORDERS: _____

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

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

*Pursuant to Article 9.2.2 of the General Conditions.

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

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

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

(Prime Trade Contractor)
By: _____
(Name)

(Title)

DECLARATION

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

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

_____, _____, State of _____
on _____, 20__.

(Signature)

(Print Name)

HOUSING 4: THE SUMMITS
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

PROJECT NO.: 906270

PROJECT NAME HOUSING 4: THE SUMMITS
 PROJECT NUMBER: 906270
 FACILITY: University of California, Merced
 CONTRACT DATE: _____

APPLICATION NUMBER: _____
 APPLICATION DATE: _____
 PERIOD TO: _____
 PRIME TRADE CONTRACTOR: _____

SCHEDULE 1
 TO

APPLICATION FOR PAYMENT

COST BREAKDOWN

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

PROJECT NAME: _____ HOUSING 4: THE SUMMITS _____

PRIME TRADE CONTRACTOR: _____

PROJECT NUMBER: _____ 906270 _____

APPLICATION NUMBER: _____

SCHEDULE 2
TO
APPLICATION FOR PAYMENT

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

As of _____, 20__ (not earlier than 5 days prior to the date of the Application For Payment of which this certification is a part), the aggregate market value of securities on deposit in Escrow

Account No. _____ with _____
(Escrow Agent)

is _____ Dollars (\$ _____).

(Escrow Agent)

(Prime Trade Contractor)

By: _____
(Name)

(Name)

(Title)

(Title)

Date: _____

Date: _____

NOTE: Notary acknowledgment for Prime Trade Contractor and Escrow Agent must be attached.

PROJECT NAME: _____ HOUSING 4: THE SUMMITS _____
PRIME TRADE CONTRACTOR: _____
PROJECT NUMBER: _____ 906270 _____
APPLICATION NUMBER: _____

SCHEDULE 3
TO
APPLICATION FOR PAYMENT
LIST OF SUBCONTRACTORS

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

<u>Name of Subcontractor</u>	<u>Subcontracted Work Activity</u>	<u>Date Work Activity Completed</u>

(Prime Trade Contractor)

By: _____
(Name)

(Title)

Date: _____

PROJECT NAME: HOUSING 4: THE SUMMITS

PRIME TRADE CONTRACTOR: _____

PROJECT NUMBER: 906270

APPLICATION NUMBER: _____

SCHEDULE 4
TO
APPLICATION FOR PAYMENT

DECLARATION OF RELEASE OF CLAIMS

Prime Trade Contractor hereby certifies that attached hereto are releases and waivers of claims and stop notices from all Subcontractors furnishing labor, services, or materials covered by the Certificate For Payment dated

_____, 20____, except those listed below:

(Prime Trade Contractor)

By: _____
(Name)

(Title)

Date: _____

SELECTION OF RETENTION OPTIONS

I (we): _____
(Prime Trade Contractor)

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

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

(Type of security)

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

OR SELECT OPTION 3 _____ Check here for Option 3
herewith elect to have retention on the above-referenced project paid directly into the Escrow Account.

(Type of Security to be purchased)

An Escrow Account will be opened with**:

(Name of state or federally chartered bank in California)

whose address is:

(Street)

(City, County)

(State, Zip Code)

On Behalf of Prime Trade Contractor*

(Signature)

On Behalf of University Acknowledged and Approved

(Signature)

(Printed Name)

Thomas E. Lollini, FAIA

(Printed Name)

(Title)

Associate Vice Chancellor Design & Construction

(Title)

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

**** Note: Prime Trade Contractor and its surety bear the risk of failure of the bank selected.**

Note: If a completed and signed Escrow Agreement is not submitted with this form, University will not allow deposit of securities in lieu of retention.

RETURN THIS AGREEMENT SIGNED BY PRIME TRADE CONTRACTOR AND ESCROW AGENT TO:
PHYSICAL PLANNING DESIGN AND CONSTRUCTION, UNIVERSITY OF CALIFORNIA, MERCED, 5200 N.
Lake RD, MERCED CA 95343.

Escrow Account No.: _____

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

This Escrow Agreement is made as of _____, _____, and entered into by and between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, whose address is University of California, Office of the President, 1111 Franklin Street, 6th Floor, Oakland, CA 94607-5200, hereinafter called "University," and

whose address is _____

hereinafter called "Prime Trade Contractor," and _____

a state or federally chartered bank in the state of California, whose address is:

hereinafter called "Escrow Agent."

For consideration hereinafter set forth, University, Prime Trade Contractor, and Escrow Agent agree as follows:

(1) Prime Trade Contractor has the option to deposit securities with Escrow Agent as a substitute for retention required to be withheld by University pursuant to the Contract Documents, hereinafter referred to as "Contract," entered into between University and Prime Trade Contractor for the Project titled **Housing 4: The Summits, Project No. 906270** in the amount of \$_____, dated _____. Alternatively, on written request of Prime Trade Contractor, University shall deposit retention directly with Escrow Agent. When Prime Trade Contractor deposits the securities as a substitute for retention, Escrow Agent shall notify University within 5 days after the deposit. At all times, Prime Trade Contractor shall have on deposit securities the market value of which is at least equal to the cash amount then required to be withheld as retention under the terms of the Contract. Securities shall be held in the name of The Regents of the University of California, Merced Campus (Facility); and Prime Trade Contractor shall be designated as the beneficial owner.

(2) Escrow Agent shall review the market value of securities deposited in escrow under this Escrow Agreement as often as conditions of the securities market warrant, but in no case less than once per month. Escrow Agent shall promptly notify University and Prime Trade Contractor of the market value of the deposited securities if such market value is less than the total amount of retention required to be withheld under the terms of the Contract. Prime Trade Contractor shall promptly deposit additional securities so that the current market value of the total of all deposited securities shall be at least equal to the total required amount of retention. Escrow Agent shall, within 5 days after University's request, provide a statement to University of the current market value of all securities deposited under this Escrow Agreement as of a date not earlier than 5 days prior to such request. The provisions of this Paragraph 2 shall not apply to securities consisting of monetary deposits as allowed by Paragraph 7 held by a bank as Escrow Agent, provided the bank provides monthly statements reflecting the status of the monetary deposits held by the bank to University and Prime Trade Contractor.

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

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

(5) Prior to Prime Trade Contractor's submission of each Application For Payment, Escrow Agent shall issue a current statement of (a) the value of the securities currently being deposited in lieu of retention and (b) the current value of all securities being held in escrow pursuant to this Escrow Agreement. Such statement shall be no more than 5 days old at the time of submission, shall be notarized or have a guarantee of signature, and shall be submitted to Prime Trade Contractor with a copy to University under separate cover. Prime Trade Contractor shall attach such original statement to each Application For Payment. The provisions of this Paragraph 5 shall not apply to securities consisting of monetary deposits as allowed by Paragraph 7 held by a bank as Escrow Agent, provided the bank provides monthly statements reflecting the status of the monetary deposits held by the bank to University and Prime Trade Contractor.

(6) If, at the request of Prime Trade Contractor, University deposits retention directly with Escrow Agent, Escrow Agent shall hold such retention for the benefit of Prime Trade Contractor until such time as the escrow created under the Contract is terminated. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when University deposits retention directly with Escrow Agent.

(7) University will allow Prime Trade Contractor to deposit the following securities in lieu of retention and direct the investment of the retention deposits into any of the following which at the time of payment are legal investments under the laws of the State of California:

- a. Direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America or any Federal Reserve Bank), or obligations the timely payment of the principal of and interest on which are fully guaranteed by the United States of America, or tax-exempt obligations which are rated in the highest rating category of a nationally recognized bond rating agency.
- b. Obligations, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following: Banks for Cooperatives, Federal Intermediate Credit Banks, Federal Home Loan Bank System, Export-Import Bank of the United States, Federal Financing Bank, Federal Land Banks, Federal Farm Credits, Government National Mortgage Association, Farmer's Home Administration, Federal Home Loan Mortgage Corporation, or Federal Housing Administration.
- c. Bonds of the State of California or those for which the faith and credit of the State of California are pledged for the payment of principal and interest.
- d. Interest-bearing bankers acceptances and demand or time deposits (including certificates of deposit) in banks, provided such deposits are either (1) secured at all times, in the manner and to the extent provided by law, by collateral security described in clauses a or b of this Paragraph 7 continuously having a market value at least equal to the amount so invested so long as such underlying obligations or securities are in the possession of the Securities Investors Protection Corporation, (2) in banks having a combined capital and surplus of at least One Hundred Million Dollars, or (3) fully insured by the Federal Deposit Insurance Corporation.
- e. Taxable government money market portfolios restricted to obligations with maturities of one (1) year or less, issued or guaranteed as to payment of principal and interest by the full faith and credit of the United States of America.
- f. Commercial paper rated in the highest rating category of a nationally recognized rating agency, and issued by corporations organized and operating within the United States of America and having total assets in excess of Five Hundred Million Dollars.

(8) Prime Trade Contractor shall be responsible for paying all fees, costs, and expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by Prime Trade Contractor and Escrow Agent. All fees, costs, and expenses of this Escrow Agreement and any transactions carried out hereunder shall be billed by Escrow Agent to Prime Trade Contractor. In the event that any fees, costs, or expenses shall remain unpaid in excess of 30 days from the date due, Escrow Agent may withhold such unpaid amount from any income distributable to Prime Trade Contractor, but shall not withhold such unpaid amount from any income distributable to University.

(9) Interest earned on the securities or the money market accounts held in escrow and all interest earned on the interest shall be for the sole account of Prime Trade Contractor and shall be held in escrow. Interest may be withdrawn by Prime Trade Contractor from time to time, without notice to University, only to the extent that the total amount held in escrow meets or exceeds the required amount of retention.

(10) Except as provided in Paragraph 9, Prime Trade Contractor shall have the right to withdraw all or any part of the escrow account only by written notice to Escrow Agent accompanied by written authorization from University to Escrow Agent stating that University consents to the withdrawal of the amount sought to be withdrawn by Prime Trade Contractor. University shall not be obligated to consent to any withdrawal to the extent of stop notice claims which cannot be satisfied from other funds then due and payable to Prime Trade Contractor.

(11) University shall have the right to draw upon the securities, any interest earned on the securities, and any interest earned on the interest in the event of default by Prime Trade Contractor. Upon 7 days written notice to Escrow Agent from University, with a copy to Prime Trade Contractor, Escrow Agent shall immediately convert the securities, any interest earned on the securities, and all interest earned on the interest to cash and shall distribute the cash as instructed by University. Escrow Agent shall have no duty to determine whether a default has occurred and may rely solely upon the written notice of such default from University.

(12) Upon receipt of written notification from University certifying that final payment is due under the Contract, Escrow Agent shall release to Prime Trade Contractor the amount, if any, by which the value of all securities and interest on deposit less escrow fees and charges of the escrow account exceeds 125% of all stop notice claims on file. Escrow Agent shall pay the remaining amount to University or as directed by University. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payment of fees and charges.

(13) Escrow Agent shall rely upon the written notifications from University and Prime Trade Contractor pursuant to this Escrow Agreement; and University and Prime Trade Contractor shall hold Escrow Agent harmless from Escrow Agent's release, conversion, and disbursement of the securities and interest as set forth herein.

(14) Escrow Agent shall have the right to terminate this Escrow Agreement upon 30 days notice to all parties hereunder. Upon receipt of such notice, University and Prime Trade Contractor shall appoint a successor Escrow Agent in writing and deliver written notice of such appointment to Escrow Agent. Thereupon, Escrow Agent shall deliver all assets in its custody to such successor Escrow Agent and all responsibility of Escrow Agent under this Escrow Agreement shall terminate; provided, however, if Prime Trade Contractor and University fail to appoint a successor Escrow Agent on or before the end of the 30 day notice period, then Escrow Agent is authorized and instructed to return all assets, documents, and other items in its custody to University and this Escrow Agreement shall be terminated without further instruction.

(15) The duties and responsibilities of Escrow Agent shall be limited to those expressly set forth in this Escrow Agreement; provided, however, that, with Escrow Agent's written consent, the duties and responsibilities in this Escrow Agreement may be amended at any time or times by an instrument in writing signed by all parties.

(16) Whenever Prime Trade Contractor tenders securities to be deposited in lieu of retention, an authorized representative of the Prime Trade Contractor shall declare under penalty of perjury that the securities are lien free and shall remain lien free during their retention by the Escrow Agent. The declaration shall be in the following form:

“The undersigned, on behalf of _____(Name of Prime Trade Contractor) whose address is _____(Street Address, City, State, Zip Code) represents, covenants and warrants that the securities tendered herewith are lien free and shall remain lien free during their retention by the Escrow Agent.

I, _____(Name), hereby declare that I am the _____(Title) of _____(Name of Prime Trade Contractor), that I am duly authorized to make this representation, and that I declare under perjury under the laws of the State of California that the foregoing is true and correct.”

(Signature)

(Date)

(17) The names of the persons authorized to give written notice or to receive written notice on behalf of University and on behalf of Prime Trade Contractor in connection with this Escrow Agreement, and exemplars of their respective signatures, are as set forth below. Such names may be changed by written notice to the other parties.

On behalf of University:

1. Monir Ahmed, Director

(Name)

(Signature)
(209) 228-4475

(Telephone Number)

2. Mary Miller, Vice Chancellor for
Administration

(Name)

(Signature)

(Telephone Number)

On behalf of Prime Trade Contractor:

1.

(Name)

(Signature)

(Telephone Number)

2.

(Name)

(Signature)

(Telephone Number)

Prime Trade Contractor, Escrow Agent, and University hereby agree to the covenants contained herein.

IN WITNESS WHEREOF, Prime Trade Contractor, Escrow Agent, and University have executed this Escrow Agreement, the day and year first written above.

University:

Prime Trade Contractor:

By

By

(Signature)
Monir Ahmed

(Printed Name)
Director

(Title)

(Telephone Number)

(Signature)

(Printed Name)

(Title)

(Telephone Number)

By

Mary Miller

By

(Signature)

(Printed Name)
Vice Chancellor for Administration

(Title)

(Telephone Number)

(Signature)

(Printed Name)

(Title)

(Telephone Number)

Escrow Agent:

By:

(Signature)

(Printed Name)

(Title)

(Telephone Number)

SUBMITTAL SCHEDULE
 (Refer to Section 01334 Shop Drawings, Project Data and Samples)

PROJECT NAME: HOUSING 4: THE SUMMITS
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED CALIFORNIA

PROJECT NO: 906270

FACILITY: PHYSICAL PLANNING, DESIGN & CONSTRUCTION,
 UNIVERSITY OF CALIFORNIA, MERCED CAMPUS

CONTRACT DATE: _____

Prime Trade Contractor
 /SUBCONTRACTOR: _____

SPECIFICATION SECTION: _____

WORK ACTIVITY: _____

Event	Scheduled Completion Date	Actual Completion Date	Calendar Days Required to Complete
1. Received by Prime Trade Contractor and Time for Checking			
2. First Delivered to University's Representative and Time for Checking			
3. Return to Prime Trade Contractor			
4. Corrections Completed and Time for Corrections			
5. Next Delivered to University's Representative and Time for Checking			
6. Return to Prime Trade Contractor			
7. Approval for Job Information			
8. Approval for Fabrication and Time for Fabrication			
9. Fabrication Completed			
10. Shipping Date and Time en Route			
11. Delivery to Job			

**COST PROPOSAL
(for UCIP Project)**

Date: _____ Change Request No.: _____

Project Name: HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA
Project No: 906270
Facility: PHYSICAL PLANNING, DESIGN & CONSTRUCTION
UNIVERSITY OF CALIFORNIA, MERCED
MERCED CALIFORNIA
Contract Date: _____

SCOPE OF CHANGE:

INSTRUCTIONS:

1. Complete this form by providing (a) all information required above, (b) the amount and justification based upon the Contract Schedule for any proposed adjustment of Contract Time, (c) the proposed adjustment of Contract Sum, (d) the attached "Cost Proposal Summary," and (e) the attached form titled, "Supporting Documentation for the Cost Proposal Summary."
2. Attach the form titled "Supporting Documentation for the Cost Proposal Summary" for Prime Trade Contractor and each Subcontractor involved in the Extra Work. Each such form shall be completed and signed by Prime Trade Contractor or Subcontractor actually performing the Work activity identified on the form. Attach supporting data to each such form to substantiate the individually listed costs. The costs provided on these forms shall be used to substantiate Additional Costs shown on the Cost Proposal Summary.
3. The Prime Trade Contractor Fee shall be computed on the Cost of Extra Work of Prime Trade Contractor and each Subcontractor involved in the Extra Work; and shall constitute full compensation for all costs and expenses related to the subject change and not listed in the "Supporting Documentation for the Cost Proposal Summary," including overhead and profit.
4. Refer to Article 7.3 of the General Conditions for the method of computing the Prime Trade Contractor Fee.

Adjustment of the Contract Time (Include justification based upon the Contract Schedule):

Refer to Article 8 of the General Conditions.

_____ (Days)

Adjustment of the Contract Sum (Total Additional Cost from Cost Proposal Summary):

Refer to Article 7 of the General Conditions.

\$ _____

By submitting this Cost Proposal, Prime Trade Contractor Certifies that it does not include the cost of any insurance coverages provided by University (including workers' compensation, general liability and builders' risk) for Prime Trade Contractor and its subcontractors of all tiers.

Submitted: _____
(Prime Trade Contractor)
By: _____
Title: _____
Date: _____

Received: _____
(University's Representative)
By: _____
Title: _____
Date: _____

COST PROPOSAL SUMMARY

Project Name: HOUSING 4: THE SUMMITS
 UNIVERSITY OF CALIFORNIA, MERCED
 MERCED, CALIFORNIA

Project No.: 906270

Facility: University of California, Merced

Change Request No.: _____

Prime Trade Contractor Name: _____

		(1)	(2)	(3)	(4)
		Prime Trade Contractor	1st Tier Subs	2nd & Lower Tier Subs	Total
ACTUAL COSTS	1. Straight Time Wages/Salaries - Labor				
	2. Fringe Benefits and Payroll Taxes - Labor				
	3. Overtime Wages/Salaries - Labor				
	4. Fringe Benefits and Payroll Taxes - Overtime				
	5. Materials and Consumable Items				
	6. Sales Taxes (On line 5)				
	7. Rental Charges				
	8. Royalties				
	9. Permits				
	10. Actual Costs (Sum of lines 1-9)				
11. Insurance & Bonds (up to 0.75% of line 10)					
PRIME TRADE CONTRACTOR FEE	12. Sub-Sub (15% of line 10; col. 3)				
	13. Subcontractor (5% of line 10; col. 3)				
	14. Subcontractor (15% of line 10; col. 2)				
	15. Prime Trade Contractor (5% of line 10; col. 2 & 3)				
	16. Prime Trade Contractor (15% of line 10; col. 1)				
	17. Prime Trade Contractor Fee (Sum of lines 12-16)				
	18. Sum of lines 10, 11, & 17				

Actual Costs are taken from line 12 of the attached forms titled, "Supporting Documentation For the Cost Proposal Summary" for Prime Trade Contractor and each Subcontractor involved in the Extra Work.

SUPPORTING DOCUMENTATION FOR THE COST PROPOSAL SUMMARY

Prime Trade Contractor/Subcontractor Name: _____ Change Order Request No.: _____
 Work Activity _____ Project No.: 906270
 Facility University of California, Merced

COST ITEM		COST ⁽¹⁾
ACTUAL COSTS	1. Straight Time Wages/Salaries -- Labor	
	2. Fringe Benefits and Payroll Taxes -- Labor: ____ % of line 1	
	3. Overtime Wages/Salaries - Labor (Attach University Representative's written authorization)	
	4. Fringe Benefits and Payroll Taxes -- Overtime: ____ % of line 3	
	5. Materials and Consumable items	
	6. Sales Taxes: ____ % of line 5	
	7. Rental Charges (attach U.S. Army Corps of Engineers' Schedule)	
	8. Royalties	
	9. Permits	
	10. Total Direct Expense -- sum of lines 1-9	
	11. Insurance and Bonds: ____ % of line 10 (up to 0.75% of line 10)	
TOTAL	12. Sum of lines 10 and 11	

 (Company Name)

 (Signature) ⁽²⁾

 (Title)

 (Date)

 (Company Name)

 (Signature) ⁽³⁾

 (Title)

 (Date)

- NOTES:
- (1) Round-off all Costs to the nearest dollar.
 - (2) This form shall be prepared and signed by Prime Trade Contractor or Subcontractor actually performing the Work activity indicated above.
 - (3) If this form is signed by a Subcontractor, it shall be reviewed and signed by Prime Trade Contractor certifying the accuracy of the information.

Estimated Adjustment
of Contract Sum: _____

Estimated Adjustment
of Contract Time: _____

(University's Representative)

By: _____
(Name)

(Title)

Date: _____

(University Project Manager)

(Name)

(Title)

Date: _____

(Prime Trade Contractor)

(Name)

(Title)

Date: _____

NOTE: This Field Order will be superseded by a Change Order that will include the scope of the change in the Work and any actual adjustments of the Contract Sum and the Contract Time.

CHANGE ORDER

University of California Facility: Merced Campus

Change Order No. _____ Reference Field Order No. _____

PROJECT NAME:	HOUSING 4: THE SUMMITS		
PROJECT LOCATION:	UNIVERSITY OF CALIFORNIA MERCED, MERCED CALIFORNIA		
PROJECT NO:	906270	CONTRACT DATE:	
TO PRIME TRADE CONTRACTOR:			
ADDRESS:			

DESCRIPTION OF CHANGE:

ADJUSTMENT OF CONTRACT SUM:

ADJUSTMENT OF CONTRACT TIME:

Original Contract Sum: \$ _____
Prior Adjustments: \$ _____
Contract Sum Prior to this Change: \$ _____
Adjustment for this Change: \$ _____
Revised Contract Sum: \$ _____

Original Contract Time: _____ (Days)
Prior Adjustments: _____ (Days)
Contract Time Prior to this Change: _____ (Days)
Adjustment for this Change: _____ (Days)
Revised Contract Time: _____ (Days)

Prime Trade Contractor waives any claim for further adjustments of the Contract Sum and the Contract Time related to the above described change in the Work.

RECOMMENDED:

By: _____
(Signature of University's Representative)

(Printed Name)

Date: _____

ACCEPTED:

By: _____
(Prime Trade Contractor Signature)

(Printed Prime Trade Contractor Name)

Date: _____

REVIEWED AND RECOMMENDED:

By: _____
(Signature of University's Designated Administrator)

(Printed Name)

Date: _____

FUNDS SUFFICIENT:

By: _____
(Signature from University's Accounting Office)

(Printed Name)

Date: _____

APPROVED:

UNIVERSITY: THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA

(Printed or Typed Name)

By: _____
(Signature)

(Title)

Date: _____

**CONDITIONAL WAIVER AND
RELEASE UPON PROGRESS PAYMENT**

Upon receipt by the undersigned of a check from:

(Name of Prime Trade Contractor or Subcontractor)

in the sum of \$

payable to _____

and when the check has been properly endorsed and has been paid by the bank upon which it is drawn, this document shall become effective to release any lien, stop notice, or bond right the undersigned has on the Project of The Regents of the University of California located at:

HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA
PROJECT #: 906270

(Facility and Project Name)

to the following extent. This release covers a progress payment for labor, services, equipment, or material furnished to

(Name of Prime Trade Contractor or Subcontractor)

through _____ only and does not cover any retentions retained before or after the release
(Date)

date; extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, or the right of the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment. Before any recipient of this document relies on it, that party should verify evidence of payment to the undersigned.

Application for Payment # _____

Dated: _____

(Company Name)

By:

(Name)

(Title)

**CONDITIONAL WAIVER AND
RELEASE UPON FINAL PAYMENT
EXHIBIT 10A**

Upon receipt by the undersigned of a check from

(Name of Prime Trade Contractor or Subcontractor)

in the sum of \$ _____

payable to _____

and when the check has been properly endorsed and has been paid by the bank upon which it is drawn, this document shall become effective to release any lien, stop notice, or bond right the undersigned has on the Project of The Regents of the University of California located at and named

HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA
PROJECT NO.: 906270

(Facility and Project Name)

to the following extent. This release covers the final payment for all labors, services, equipment, or material furnished on the Project except for disputed claims for additional work in the amount of \$ _____.

Before any recipient of this document relies on it, that party should verify evidence of payment to the undersigned.

Dated: _____

(Company Name)

By: _____

(Name)

(Title)

Application for Payment # _____

July 8, 2011

Exhibit 10A
Conditional Waiver and Release
on Final Payment

**UNCONDITIONAL WAIVER AND
RELEASE UPON PROGRESS PAYMENT**

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

The undersigned has been paid and has received a progress payment in the sum of

\$ _____

for labor, services, equipment, or material furnished to:

(Name of Prime Trade Contractor or Subcontractor)

on the Project of The Regents of the University of California located at:

HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA
PROJECT NO.: 906270

(Facility and Project Name)

and does hereby release any lien, stop notice, or bond right, that the undersigned has on the above referenced Project to the following extent. This release covers a progress payment for labor, services, equipment, or materials furnished to:

(Name of Prime Trade Contractor or Subcontractor)

through _____ only and does not cover any retentions retained before or after the release
(Date)

release date; extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, or the right of the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment.

Dated: _____

(Company Name)

By:

(Name)

(Title)

**UNCONDITIONAL WAIVER AND
RELEASE ON FINAL PAYMENT
EXHIBIT 11A**

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

The undersigned has been paid in full
for all labor, services, equipment, or material furnished to:

(Name of Prime Trade Contractor or Subcontractor)

on the Project of The Regents of the University of California located at and named

HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
MERCED, CALIFORNIA
PROJECT NO.: 906270

(Facility and Project Name)

and does hereby waive and release any lien, stop notice, or bond right, that the undersigned has on the above referenced Project, except for disputed claims for extra work in the amount of \$_____.

Application for Payment # _____

Dated: _____

(Company Name)

By: _____
(Name)

(Title)

July 8, 2011

Exhibit 11A
Unconditional Waiver and Release
on Final Payment

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
MASTER BUILDERS RISK PROGRAM**

COVERAGE SUMMARY

This document summarizes the Builder's Risk policy and is not intended to reflect all the terms and conditions or exclusions of such policy as of the effective date of coverage. This document is not an insurance policy and does not amend, alter or extend the coverage afforded by the listed policy. The insurance afforded by the listed policy is subject to all the terms, exclusions and conditions of such policy.

INSURANCE COMPANY: Lexington Insurance Company

BEST'S RATING: A+ XV

NAMED INSURED: The Regents of the University of California

INSURING AGREEMENT

1. This Policy, subject to the terms, exclusions, limitations and conditions; insures against all risk of direct physical loss or damage to property insured while at the location of the Insured Project (as fully described in the contract documents), while in offsite storage or while in transit, all within the policy territory and occurring during the term of this policy.

LIMITS OF LIABILITY

1. **SCHEDULE OF LIMITS**

This Company shall be liable for the actual contract value, as specified in the Project Certificate (sample attached) of all individual Insured Projects insured hereunder, but not exceeding the limits and sublimits set forth below:

A. Limit of Liability:

- \$100,000,000 physical damage or loss to covered property at the site of each individual Insured Project.
- \$25,000,000 Joisted Masonry. Projects exceeding \$25,000,000 require advance approval.
- \$10,000,000 Wood Frame. Projects exceeding \$10,000,000 require advance approval.

NOTE: This limit of liability will correspond with the estimated total construction cost as indicated on the original application. The limit of liability will not be increased until the University's Representative has notified Aon Risk Services of any increase in the total construction cost.

B. Sublimits of Liability:

1. \$ 250,000 Decontamination and Clean-up Expense
2. \$1,000,000 Demolition and Increased Cost of Construction
3. \$1,000,000 Expediting Expense any one location
4. \$2,500,000 Off-site Storage at any one location
5. \$2,500,000 Property in Transit on any one conveyance
6. \$ 250,000 Valuable Papers and Records including Plans, Blueprints, Drawings, Renderings, Specifications or Other Contract Documents, Models, EDP Media, EDP Systems,
7. \$10,000,000 Interior Water Damage in any one occurrence

TERMS AND CONDITIONS

1. **NAMED INSURED**

The Regents of the University of California and all affiliated and subsidiary companies, corporations, ventures, partnerships or other organizations, all owned, controlled or managed by the Named Insured and all as now exist or may hereafter be constituted or acquired. In respect to Joint Ventures, the Named Insured's percentage interest is included. If the Named Insured is responsible for such insurance as provided herein, and to the extent the full contract value is declared, then this policy will include the interests of Joint Venture partners for their respective percentage share(s).

2. **ADDITIONAL INSUREDS**

To the extent required by any contract or subcontract for the Insured Project, and then only as their respective interests may appear, any individual(s) or entity(ies) specified in such contract or subcontract, are recognized as Additional Insureds hereunder. As respects architects, engineers, manufacturers and suppliers, the foregoing is limited to their site activities only.

3. **ATTACHMENT/TERMINATION**

Applicable to the Master Policy in effect from 12:01 AM, September 1, 2005 until 12:01 AM, September 1, 2008, Insured Project coverage will apply at the Project start date noted in the Project Certificate issued and continuing in full force and effect as specified by the estimated Completion Date in the Project Certificate and/or the contract.

NOTIFICATION OF COVERAGE/TERMINATION: *If construction is not completed on time and coverage beyond the original expiration date is required, prior notification must be given by the University Representative to Aon Risk Services.*

4. **DEDUCTIBLE**

\$25,000 each OCCURRENCE for ALL OTHER PERILS (AOP)
\$100,000 each OCCURRENCE for INTERIOR WATER DAMAGE

NOTE: *The contractor shall be responsible for the deductible amount.*

EXCLUSIONS

PROPERTY EXCLUDED

This Policy does not insure:

1. Land and land values and the value of cut, fill and backfill materials existing at the project site prior to project commencement. To the extent included estimated total contract value declared for premium purposes, the value of fill and backfill materials purchased for use in the completion of the project is not excluded. Notwithstanding the foregoing, labor and material charges incurred to move, remove, place or otherwise handle cut, fill and backfill materials, whether insured or uninsured in the foregoing, are covered to the extent such charges are included in the estimated total contract value declared for premium purposes.
2. Contractor's tools machinery, plant and equipment, including spare parts and accessories, whether owned, loaned, borrowed, hired or leased, and property of a similar nature not destined to become a permanent part of the completed Insured Project unless the value of the same is declared under a Project Certificate and additional premium is paid at rates, terms and conditions to be agreed; construction plant, tools and equipment, unless the value of same is reported to the Company, endorsed hereon and additional premium is paid at a rate to be agreed;
3. Vehicles or equipment licensed for highway use, watercraft or aircraft;
4. Water, animals of any kind, standing timber, and growing crops.
5. Accounts, bills, currency, stamps, deeds, evidence of debt, checks, money, securities, precious metals, precious stones or other property of a similar nature;
6. EXISTING PROPERTY at the site of the Insured Project;
7. Property located at other than the location of the Insured Project, except that which is in-transit or temporary storage.
8. Prototype, developmental or used machinery and equipment but only as to damage while undergoing any form of Hot Testing, commissioning or startup unless specifically endorsed to the policy.
9. Transmission and distribution lines upon energization at the completion of testing;
10. Any property located at a site, which stores, processes, handles or makes use of radioactive materials unless reported to and accepted by the Company. The foregoing shall not apply to locations or property making use of radioactive isotopes contained within equipment used for diagnostic or testing purposes

EXCLUDED CAUSES OF LOSS

1. Consequential loss, damage or expense of any kind or description including but not limited to loss of market or delay, liquidated damages, performance penalties, penalties for

non-completion, delay in completion, or non compliance with contract conditions, whether caused by a peril insured or otherwise

2. Faulty or defective workmanship, materials, supplies, or design
3. Error, omission or deficiency in design, plans, specifications, engineering or surveying
4. War
5. Nuclear reaction or radiation or radioactive contamination however caused
6. Unexplained disappearance, shortage or other loss discovered upon taking inventory.
7. Loss, damage costs, expenses, fines or penalties at the order of any government agency
8. Any form of fungus, however caused, including but not limited to yeast, mold, mildew, smut, mushrooms, spores or any substance, product or byproduct produced by, released by or arising as a consequence of the past or current existence of fungus. This includes, but is not limited to the cost to remediate the presence or effects of any of the foregoing shall also be excluded.
9. The actual, alleged or threatened release, discharge, escape or dispersal of Contaminants or Pollutants
10. Asbestos Hazard
11. Loss or damage covered under any written or implied guarantee or warranty by any manufacturer or supplier
12. Cessation of work, whether total or partial.
13. Normal subsidence, settling, cracking, expansion, contraction or shrinkage of walls, floors, ceilings, buildings, foundations, patios, walkways, driveways or pavements
14. Infestation, disease, freeze, drought and hail, weight of ice or snow or any damage caused by insects, vermin, rodents or animals but only as respects to Trees, Plants, Shrubs and Landscaping.
15. Erosion of graded or planted finish or rough grades which results from normal precipitation
16. Loss, damage, destruction, distortion, erasure, corruption, alteration, diminishment in value, or loss of use or usefulness of electronic data, operating systems, micro processors, or computers.
17. Flood as defined herein. However if fire, explosion, or leakage from FIRE PROTECTIVE EQUIPMENT ensues, then this policy insurers only such ensuing loss or damage
18. Earthquake as defined herein. However if fire, explosion, or leakage from FIRE PROTECTIVE EQUIPMENT ensues, then this policy insurers only such ensuing loss or damage

EXTENSIONS OF COVERAGE

1. **TRANSIT:**

Subject to the sublimit, coverage applies with respect to property insured from the commencement of loading at the original point of shipment anywhere within the policy territory until completion of unloading at the location of Insured Project, including shipments on inland or coastal waters but excluding ocean marine shipments. To the extent others are responsible for loss or damage to property insured while in transit under terms F.O.B. to a designated location or recipient, this extension of coverage will apply excess thereof and shall not contribute thereto.

The Insured agrees to keep records of all shipments insured hereunder and make them available to the Company upon request.

This coverage shall be void if the Insured enters into any special agreement with carriers releasing them from their common law or statutory liability or agreeing that this insurance shall in any way inure to the benefit of such carriers, however, the Insured may, without prejudice to this coverage, accept such bills of lading, receipts, or contracts of transportation as are ordinarily issued by carriers containing a limitation as to the value of property insured.

2. **OFFSITE STORAGE:**

Subject to the sublimit, coverage applies with respect to property insured anywhere within the policy territory but excluding such property while in the course of manufacturing or processing at a manufacturer's or supplier's site or while in transit. To the extent others are responsible for loss or damage to covered property while in offsite storage, this extension of coverage will apply excess thereof and shall not contribute thereto.

3. **EXPEDITING EXPENSE:**

Subject to the sublimit, this Policy shall pay for reasonable wages for overtime, night work, and work on public holidays and extra costs of express freight or other rapid means of transportation which are necessary to make temporary repairs and to expedite the permanent repair or replacement of the property insured when damaged by an peril insured, but only to the extent such is necessary to continue as nearly as practicable the normal operation of the work in progress.

4. **ORDINANCE OR LAW / DEMOLITION AND INCREASED COST OF CONSTRUCTION:**

Subject to the sublimit, in the event of insured loss or damage under this policy that causes the enforcement of any law or ordinance in effect at the time of loss that regulates the repair, rebuilding or re-construction of the damaged portions of the Insured Project, then to the extent required by such enforcement of any law or ordinance, the Company shall be liable for:

A. Cost of demolishing undamaged parts of the Insured Project including cost of clearing the site.

- B. The value of such undamaged part of the facility which must be demolished;
- C. Increased cost of repair, rebuilding or re-construction of the damaged portions of the Insured Project on the same premises for the same use but not exceeding like height, floor area, style, material and limited to the minimum requirements of the law or ordinance.

With respect to coverage provided by Paragraph B., it is further understood and agreed that the Company shall not be liable for any loss, unless and until the damaged or destroyed building(s) or structure(s) is actually rebuilt or replaced on the same premises with due diligence and dispatch and in no event, unless repair or replacement is completed within two (2) years after the destruction or damage or within such further time as the Company may allow, in writing, during the two (2) years.

The following costs are not payable hereunder:

- A. Cost of demolition or increased cost of repair or reconstruction, debris removal, or other consequential loss caused by the enforcement of any law or ordinance regulating asbestos material or CONTAMINANTS OR POLLUTANTS*;
 - B. Cost of any governmental direction or request declaring that asbestos material present in, part of or utilized on any undamaged portion of insured property can no longer be used for the purpose for which it was intended or installed and must be removed or modified.
 - C. Cost of compliance with the enforcement of any law or ordinance which an Insured would have otherwise incurred by nature of such law or ordinance in the absence of any loss or damage covered by this policy.
5. **CLEAN UP OF CONTAMINANTS OR POLLUTANTS*:**

Subject to the sublimit, the Company will pay for the necessary and reasonable expenses actually incurred by the Insured to cleanup and remove CONTAMINANTS OR POLLUTANTS* from land or water confined to the INSURED PROJECT if the discharge, dispersal, seepage, migration, release or escape of the CONTAMINANTS OR POLLUTANTS* is directly caused by insured physical loss of or damage to property insured which occurs during the term of this policy.

It is a condition precedent to recovery under this extension of coverage, that the Company shall have paid or agreed to pay for direct physical loss or damage to Insured Property hereunder and that the Insured shall give written notice to the Company of intent to claim for cost of debris removal or cost to clean up not later than twelve (12) months after the date of such loss or damage.

6. **FIRE BRIGADE CHARGES AND EXTINGUISHING EXPENSES:**

Subject to the sublimit, when property insured is destroyed or damaged by a peril insured, this Policy shall cover:

A. Fire brigade charges and other extinguishing expenses for which the Insured may be assessed;

B. Loss of fire extinguishing materials expended in fighting fire;

7. **PLANS, BLUEPRINTS, DRAWINGS, ETC:**

Subject to the sublimit, this Policy is extended to cover direct physical loss of or damage to plans, blueprints, drawings, renderings, specifications or other contract documents and models while at the Insured Project.

8. **TREES, PLANTS, SHRUBS AND LANDSCAPING:**

This Policy is extended to cover direct physical loss of or damage to trees, plants, shrubs and landscaping materials which are located at the Insured Project, the value of which have been included in the estimated Total Company Value reported to the Company, however, liability for such shall not exceed \$ 1,000 any one item;

9. **DEBRIS REMOVAL:**

Subject to the sublimit, in the event of direct physical loss or damage insured against and occurring during the term of this Policy, the Company will pay the following necessary and reasonable costs:

A. costs to remove debris being a part of the property insured from the location of the Insured Project; and / or

B. cost of cleanup at the Insured Project made necessary as a result of such direct physical loss or damage.

The Company will not pay the expense or cost to extract CONTAMINANTS OR POLLUTANTS* from debris, or to remove, restore, or replace contaminated or polluted land or water. Nor will the Company pay to remove or transport property or debris to a site for storage or decontamination required because the property or debris is affected by CONTAMINANTS OR POLLUTANTS*, whether or not such removal, transport or decontamination is required by law, ordinance or regulation.

It is a condition precedent to recovery under this extension that the Company shall have paid, or agreed to pay, for direct physical loss or damage to the property insured, unless such payment is precluded solely by the operation of any deductible, and that the Insured shall give written notice to the Company of intent to claim for cost of debris removal or cost to cleanup not later than (12) twelve months after the date of such physical loss or damage.

SELECTED GENERAL CONDITIONS

1. IN CASE OF LOSS

A. Notice of OCCURRENCE:

The Insured will, as soon as practicable, after notifying the University Representative and the University's Chief Risk Officer, report in writing to the Company every OCCURRENCE that may give rise to a claim under this Policy.

B. Proof of Loss:

The Insured will as soon as practicable, file with the Company a signed and sworn detailed proof of loss.

C. Payment of Loss:

All adjusted claims will be due and payable no later than thirty days after presentation and acceptance of proof of loss by this Company or its appointed representative.

D. Partial Payment of Loss:

In the event of a loss insured by this policy, it is understood and agreed that the Company will make partial payments of claims subject to the policy provisions and the normal policy adjustment provisions.

2. RECOVERY OR SALVAGE

Any recovery or salvage will apply as if recovered or received prior to the loss settlement and the loss will be readjustment accordingly, except for:

- A. proceeds from subrogation and other insurance recovered or received after a loss settlement under this policy;
- B. any recovery from suretyship, insurance, reinsurance, security or indemnity taken by or for the benefit of the Company.

3. VALUATION

At the time and place of loss, the basis of adjustment of a claim, unless otherwise endorsed herein, shall be as follows:

- A. Property Under Construction – The cost to repair or replace the property lost or damaged at the time and place of loss with material of like kind and quality less betterment, including contractor's reasonable profit and overhead not exceeding the percentages in the original contract; if not so replaced then loss shall be settled on the basis of ACTUAL CASH VALUE with proper deduction for depreciation.

- B. Property of Others (Including Items Supplied by the Owner) – The cost to repair or replace the property lost or damaged with material of like kind and quality including contractor's charges incurred prior to loss and related to such property, if any, less betterment, or the property owner's cost, whichever is less.
- C. Temporary Works – The actual cash value of the lost or damaged property valued as of the time and place of loss.
- D. Valuable Papers and Records - The cost to reproduce the property with other property of like kind and quality including the cost of gathering or assembling information from back up data if replaced, or if not replaced, at the value of blank material;
- 1. Installed Trees and Shrubs - The cost to replace with property of like kind, quality and size plus the proper proportion of labor expended if such damage occurs after installation.

4. PROTECTION OF PROPERTY

The Named Insured will take reasonable steps to protect, recover or save the property insured and minimize any further or potential loss or damage when:

- A. The property insured has sustained direct physical loss or damage by an insured peril; or
- B. The property insured is in imminent danger of sustaining direct physical loss or damage by the perils of:
 - 1. WINDSTORM or other related perils, but only when the potential for the same to occur has been forecasted by the National Weather Service;
 - 2. Fire;

SELECTED DEFINITIONS

The following terms have been defined in the Master Policy and will be applied in the interpretation of certain wording used herein or within the Master Policy.

1. **FLOOD:**

A condition of inundation of normally dry areas, including dewatered areas, that results from:

- A. The rising or overflow of inland or tidal waters;
- B. The unusual and rapid accumulation or runoff of surface waters.
- C. Mudslides (mudflows) which are caused by flooding as defined in subparagraph B above and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current;

The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding the cyclical levels which result in flooding as defined in A above.

2. **CONTAMINANTS OR POLLUTANTS:**

Any material which after its release can cause or threaten damage to human health or human welfare or which can cause or threaten damage, deterioration, loss of value, marketability or loss of use to property insured hereunder as listed in the Federal Water Pollution Control Act, Clean Air Act, Resource Conservation and Recovery Act of 1976, and Toxic Substances Control Act, or as designated by the US Environmental Protection Agency.

3. **EARTHQUAKE:**

All land movement due to seismic activity, including but not limited to shocks, tremors, volcanic action, earth rising or shifting, landslide, subsidence, sinkhole, rockfall and tsunami.

4. **FIRE PROTECTION SYSTEMS:**

Tanks, water mains, hydrants, or valves, and any other equipment whether used solely for fire protection or jointly for fire protection and for other purposes but excluding:

- A. branch piping from a joint system where such branches are used entirely for purposes other than fire protection.
- B. any underground water mains or appurtenances located outside of the described premises and forming part of the public water distributing system.
- C. Any pond or reservoir in which the water is impounded by a dam

5. **OCCURRENCE:**

Any one loss, disaster, casualty, accident, incident, or a series of one or more of the foregoing arise out of a single event or originating cause during the Policy term and including all resultant or concomitant losses wherever located with the following exceptions:

With the exception of strikes, riots, civil commotion and vandalism or EARTHQUAKE*, FLOOD* and WINDSTORM*, OCCURRENCE* means any one loss, disaster, casualty, accident, incident, or a series of one or more of the foregoing arising out of a single event or originating cause during the Policy term and including all resultant or concomitant losses wherever located.

6. **WINDSTORM:**

A named atmospheric disturbance accompanied by wind, rain, hail, tornado or any combination of the foregoing and including any resulting flood, tidal or wave action.

7. **PROJECT CERTIFICATE**

A certificate of insurance (sample attached) evidencing coverage under the Policy of individual Insured Project(s).

SAMPLE ONLY

Lexington Insurance Company							
CERTIFICATE OF INSURANCE							
CERTIFICATE PERIOD _____ to _____		CERTIFICATE NUMBER		IM	0001	- 00	
This Certificate follows terms and conditions of LEXINGTON INSURANCE COMPANY Policy				IM	7477530	- 00	
This certificate neither affirmatively nor negatively amends, extends or alters the coverage, limits, terms or conditions of the Master policy unless expressly stated herein.							
NAMED INSURED <small>(include address)</small>	The Regents of The University of California and/or their construction managers, contractors, subcontractors, as their interests may appear 1111 Franklin Street, 10 th Floor Oakland, CA 94607-5200	PREMIUM \$		ANNUAL RATE			
			Builders Risk				/\$100
			Delay In Completion				/\$100
			Hot Testing / Month				/\$100
			Earthquake				/\$100
			Flood				/\$100
			Windstorm / Month				/\$100
			Damage To Existing Property				/\$100
			Ordinance & Law / Demo & ICC				/\$100
			Transit				/\$100
			Offsite Storage				/\$100
			Expediting Expense				/\$100
			Fire Dept. Service Charges				/\$100
			Plans, Blueprints & Models				/\$100
			Terrorism				/\$100
LOSS PAYEE <small>(include address)</small>	N/A = Not Applicable						
MORTGAGEE <small>(include address)</small>	Not Applicable						
PROJECT LOCATION <small>(include address)</small>	UC Campus Address: Project Name & Number Prime Contractor						
PROJECT DESCRIPTION <small>(Structural type, size, material, occupancy, etc.) (If renovation or rehab, be specific)</small>							
COVERAGE <small>(Place X in all applicable coverage blocks)</small>	All Risk	Hot Testing	Contractor's Wrap Around	Delay In Completion	Damage To Existing Property	Ordinance & Law / Demo & ICC	Terrorism

CERTIFICATE NUMBER: IM _____ - 00

SAMPLE ONLY

STANDARD COVERAGE TERMS	
<small>(Coverage shall only apply under this Certificate to those individual Limits, Sub-limits and Aggregate Limits for which a value is entered below)</small>	
LIMIT OF LIABILITY	\$ _____ * Any One OCCURRENCE* During The Certificate Period
SUB-LIMITS OF LIABILITY <small>(Sublimits per OCCURRENCE* except Delay In Completion as Certificate Aggregate)</small>	\$ <u>See Above</u> Physical Damage To Insured Property
	\$ <u>Excluded</u> Delay In Completion (see coverage terms below for specific sublimits)
	\$ <u>2,500,000</u> Physical Damage To Property In Transit - Any One Conveyance
	\$ <u>2,500,000</u> Physical Damage To Property In Offsite Storage - Any One Location
	\$ <u>1,000,000</u> Expediting Expense
	\$ <u>250,000</u> Fire Brigade Charges & Extinguishing Expenses
	\$ <u>250,000</u> Physical Damage To Plans, Blueprints, Drawings, Renderings, Specifications Or Other Contract Documents And Models At The Insured Project
	\$ <u>1,000,000</u> Ordinance Or Law / Demolition & Increased Cost of Construction
	\$ <u>Excluded</u> Damage To Existing Property
	\$ <u>25.0%</u> Of the amount of insured physical loss or damage - Debris Removal
ANNUAL AGGREGATES <small>(Aggregate limits apply to each annual period within this Certificate beginning on the Certificate inception date)</small>	\$ <u>Excluded</u> Caused By, Resulting From, Contributed To Or Aggravated By The Peril Of EARTHQUAKE*
	\$ <u>Excluded</u> Caused By, Resulting From, Contributed To Or Aggravated By The Peril Of COASTAL WINDSTORM*
	\$ <u>Excluded</u> Caused By, Resulting From, Contributed To Or Aggravated By The Peril Of FLOOD*
DEDUCTIBLES <small>(Deductibles apply per OCCURRENCE*) (When % is entered, the % is applied against the total insured physical damage values at risk at the time and place of loss subject to the dollar minimum)</small>	\$ <u>25,000*</u> Physical Damage, Except
	\$ <u>Excluded</u> % EARTHQUAKE*
	\$ <u>Excluded</u> % COASTAL WINDSTORM*
	\$ <u>Excluded</u> % FLOOD*
	\$ <u>Excluded</u> Hot Testing
	\$ <u>Excluded</u> Calendar Day Deductible Period – Delay In Completion - Standard Coverage
\$ <u>Excluded</u> Calendar Day Deductible Period – Delay In Completion - Optional Coverage	
DELAY IN COMPLETION COVERAGE TERMS	
<small>(Coverage for Delay In Completion shall only apply under this Certificate when this section is completed in its entirety)</small>	
NAMED INSURED & BUSINESS ADDRESS	Not Applicable
ANTICIPATED DATE OF COMPLETION*	N/A
PERIOD OF INDEMNITY*	N/A Calendar Days
Subject to individual Certificate Aggregate sublimits shown below, the total Certificate Aggregate limit for which the Company shall be liable is \$ _____ N/A	
CERTIFICATE AGGREGATE SUB-LIMITS OF LIABILITY	Loss Of Gross Earnings \$ <u>N/A</u>
	Loss Of Rental Income \$ <u>N/A</u>
	Soft Costs / Additional Expense \$ <u>N/A</u>
<small>When a Certificate Aggregate Sub-limit is entered for Soft Costs / Additional Expense above, coverage shall be further limited to the individual Certificate Aggregate Sub-limits entered to the right</small>	Interim Interest Expense \$ _____ N/A
	Really Taxes / Ground Rents \$ _____ N/A
	Advertising Expense \$ _____ N/A
	Commission Expense \$ _____ N/A
	Architect / Engineer Fees \$ _____ N/A
	Project Administration Expense \$ _____ N/A
	Legal / Accounting Fees \$ _____ N/A
	Insurance Premiums \$ _____ N/A
	\$ _____
	\$ _____
\$ _____	

CERTIFICATE NUMBER: IM _____ - 00

SAMPLE ONLY

HOT TESTING PERIOD TERMS

(If an X is entered in the coverage block on page one the following must be provided)

HOT TESTING PERIOD: N/A Days

OTHER COVERAGE TERMS / CONDITIONS

(Identify other terms and conditions below that apply to this Certificate)

- * An Interior Water Damage Sublimit of \$10,000,000 is applicable to all projects on a per occurrence basis.
- * A Deductible of \$100,000 is applicable to the Interior Water Damage Sublimit on a per occurrence basis

Countersigned at: _____

Dated: _____ By: _____ Title: _____

EXHIBIT 13A

EXHIBIT

REPORT OF SUBCONTRACTOR INFORMATION

Sheet No. _____ of _____

Provide the following information for each contracting party including the Contractor and each Subcontractor regardless of tier.* Attach additional sheets if necessary.

1	2A	2B	3	4	5	6	7		8			
							License Classification**	License No.**	Business categories* (Check all categories that apply)			
Full Name of Business	Portion of the Work	Dollar Amt	Street Address City, State & ZIP	Tel No / FAX No	Contact Name	Type of Owner- ship			SBE*	DBE*	WBE*	DVBE* N/A
(GC)												
(Sub 1)												
(Sub 2)												
(Sub 3)												
							Column 6 - Type of Ownership		Column 8 - Business Categories			
							SP = Sole Proprietorship P = Partnership C = Corporation JV = Joint Venture O = Other		SBE = Small Business Enterprise DBE = Disadvantaged Business Enterprise WBE = Woman Business Enterprise DVBE = Disabled Veteran Business Enterprise			

* Regardless of tier, a completed Self-Certification must be submitted for the General Contractor and each Subcontractor shown on this Exhibit.
 ** List only those License Classification and Numbers relevant to this project.

EXHIBIT 13B
 EXHIBIT

FINAL DISTRIBUTION OF CONTRACT DOLLARS

Provide the following information for each contracting party including the Contractor and each Subcontractor regardless of tier.* Attach additional sheets if necessary.

1 Full Name of Business	2 Street Address, City, State and ZIP	3 Tel No / FAX No	4 Contact Name	5 Business categories					6 Contract Dollars	
				SBE*	DBE*	WBE*	DVBE*	N/A	Amount (\$)	Percent (%)
(GC)				0	0	0	0	0	0	0%
(Sub 1)				0	0	0	0	0	0	0%
(Sub 2)				0	0	0	0	0	0	0%
(Sub 3)				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
				0	0	0	0	0	0	0%
Total Contract Amount = { \$1,000.00 }				Column 6 - Business Categories					SUBTOTALS	
				SBE =	Small Business Enterprise					
				DBE =	Disadvantaged Business Enterprise					
				WBE =	Woman Business Enterprise					
				DVBE =	Disabled Veteran Business Enterprise					
						\$0				
						\$0				
						\$0				
						\$0				

* Regardless of tier, a completed Self-Certification must have been submitted for the General Contractor and each Subcontractor shown on this Exhibit.

** Refer to the Report of Subcontractor Information for license and other information.

EXHIBIT14
SELF-CERTIFICATION

For the Contractor and each Subcontractor indicated on the Report of Subcontractor Information, the following must be completed.

Indicate all Business category(ies) that apply by initialing next to the applicable category(ies):

 (Initial, if applicable) **Small Business Enterprise (SBE)** - an independently owned and operated concern certified, or certifiable, as small business by the Federal Small Business Administration (SBA). (Size standards by Standard Industrial Classification codes required by the Federal Acquisition Regulations, Section 19.102, may be found at www.sba.gov/size. The University may rely on written representation by the vendors regarding their status.) Annual average receipts, computed from the gross receipts for the last 3 fiscal years, do not exceed the amount listed in the MAXIMUM RECEIPTS TABLE below. The average annual receipt is computed by taking the sum of the gross receipts of the prior 3 fiscal years and dividing by 3.

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

 (Initial, if applicable) **Disadvantaged Business Enterprise (DBE)** - a business concern which is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as members of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free private enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged. Business owners who certify that they are members of named groups (Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans) are to be considered socially and economically disadvantaged.

 (Initial, if applicable) **Women-Owned Business Enterprise (WBE)** - a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

 (Initial, if applicable) **Disabled Veteran Business Enterprise (DVBE)** - a business that is at least 51% owned by one or more disabled veterans or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. A Disabled Veteran is a veteran of the military, naval, or air service of the United States with a service connected disability who is a resident of the State of California. To qualify as a veteran with a service connected disability, the person must be currently declared by the United States Veterans Administration to be 10% or more disabled as a result of service in the armed forces.

 (Initial, if applicable) **None of the above categories apply.**

I hereby certify under penalty of perjury under the laws of the State of California that I have read this certification and know the contents thereof, and that the business category indicated above reflects the true and correct status of the business in accordance with Federal Small Business Administration criteria and Federal Acquisition Regulations, FAR 19 pertaining to small, disadvantaged, women-owned, and disabled veteran business enterprises. I understand that falsely certifying the status of this business, obstructing, impeding or otherwise inhibiting any University of California official who is attempting to verify the information on this form may result in suspension from participation in University of California business contracts for a period up to five (5) years and the imposition of any civil penalties allowed by law.

INFORMATION FURNISHED BY:

(Print or Type Name of Owner and/or Principal)

(Name of Business or Firm)

a

(Insert type of business e.g. corporation, sole proprietorship, partnership, etc.)

By:

(Print Name)

(Title)

(Signature)

(Date)

PRIVACY NOTICE

The State of California Information Practices Act of 1977 (effective July 1, 1978) requires the University of California to provide the following information to individuals who are asked to supply personal information about themselves. Information furnished on the Self-Certification form may, in some cases, identify personal information of an individual.

- The University of California, Merced, is requesting the information contained in this form and the accompanying Report of Subcontractor Information.
- The Small Business Outreach Program Manager at the University of California, Merced, is responsible for maintaining the requested information. The contact information for the Small Business Outreach Program Manager may be found at: <http://www.ucop.edu/purchserv/documents/sbdlmgr.pdf>
- The maintenance of information is authorized in part by Public Contract Code section 10500.5.
- Furnishing the information requested on this form is mandatory. If SBE, DBE, WBE and/or DVBE status is applicable, furnishing such information is mandatory.
- Failure to provide the information may be a violation of bidding procedures and/or breach of the contract and the University may pursue any and all remedies permitted by the provisions of the Contract Documents.
- The information on this form is collected for monitoring and reporting purposes in accordance with state law and University policy.
- The individual may access information contained in this form and related forms by contacting the Small Business Outreach Program Manager(s).

EXHIBIT 15
CERTIFICATE OF SUBSTANTIAL COMPLETION

Project Name: HOUSING 4: THE SUMMITS

Contractor: _____

Project Number: 906270

Date of Issuance: _____

The Work has been reviewed and the date of Substantial Completion is hereby established as of the date of issuance above.

A Certificate of Occupancy has been issued by the University's Building Official _____ on _____, _____.

A list of items to be completed or corrected is included herein. The failure to include any items on such list does not alter the responsibility of Prime Trade Contractor to complete all of the Work in accordance with the Contract Documents.

In accordance with the Contract Documents, Contractor is notified as follows:

1. Without limitation of Contractor's obligation to fully complete the Work within the Contract Time, Contractor shall complete or correct the Work on the list of items attached hereto within _____ days from the date of Substantial Completion.
2. Contractor shall be responsible for all Contract requirements except items or responsibilities of University set forth in Paragraph 2 above.
3. List of items to be completed or corrected: See Attached List

UNIVERSITY'S REPRESENTATIVE:

(Name of Firm)

(Signature)

(Typed or Printed Name)

(Title)

(Date)

UNIVERSITY: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

(Signature)

(Typed or Printed Name)

(Title)

(Date)

cc: Office of Risk Management

**EXHIBIT 16
GUARANTEE/WARRANTY FORM**

Date: _____
Project Name: _____
HOUSING 4: THE SUMMITS
UNIVERSITY OF CALIFORNIA, MERCED
Project Location: _____
Merced County, Merced, California
Project Number: _____
906270
GUARANTEE FOR: _____

(Specification SECTION and Contract No.)
(the "Contract"), between the Regents of the University of California ("University") and

(Name of Prime Trade Contractor)
("Prime Trade Contractor")
and _____
(Name of Subcontractor)

Hereby guarantee to University that the portion of the work described as follows:

Which it has provided for the above referenced Project, is of good quality; free from defects; free from any liens, claims, and security interests; and has been completed in accordance with Specifications SECTION _____ and the other requirements of the Contract.

The undersigned further agrees that, if at any time within _____ months after the date of the guarantee the undersigned receives notice from University that the aforesaid portion of the Work is unsatisfactory, faulty, deficient, incomplete, or not in conformance with the requirements of the Contract, the undersigned will, within 10 days after receipt of such notice, correct, repair, or replace such portion of the Work, together with any other parts of the Work and any other property which is damaged or destroyed as a result of such defective portion of the Work or the correction, repair, or replacement thereof; and that it shall diligently and continuously prosecute such correction, repair, or replacement to completion.

In the event the undersigned fails to commence such correction, repair, or replacement within 10 days after such notice, or to diligently and continuously prosecute the same to completion, the undersigned, collectively and separately, do hereby authorize University to undertake such correction, repair, or replacement at the expense of the undersigned; and Prime Trade Contractor will pay to University promptly upon demand all costs and expenses incurred by University in connection therewith.

SUBCONTRACTOR

Signed: _____
Title: _____
Typed Name: _____
Name of Firm: _____
Prime Trade Contractor
License Classification, Code,
and Number: _____
Address: _____

**PRIME TRADE
CONTRACTOR**

Signed: _____
Title: _____
Typed Name: _____
Name of Firm: _____

EXHIBIT 17 REQUEST FOR INFORMATION			
Prime Trade Contractor Code		Contract	
Project Name	HOUSING 4: THE SUMMITS		
Project No(s).	906270	RFI No.	
University's Representative		Date	
Drawing/Sheet Number		Printed	
Initiated By		Specification Section	
Date Response Needed		Reference	
Subject			

TRANSMITTAL RECORD			
TRANSMISSION	ATTENTION	SENT	RECEIVED
PRIME TRADE CONTRACTOR TO CONSULTANT			
COPY TO UNIVERSITY'S REPRESENTATIVE			
CONSULTANT TO SUB-CONSULTANT			
UNIVERSITY'S REPRESENTATIVE TO UCM DEPT.			
UCM DEPT. TO UNIVERSITY'S REPRESENTATIVE			
SUB-CONSULTANT TO CONSULTANT			
CONSULTANT TO PRIME TRADE CONTRACTOR			
COPY TO UNIVERSITY'S REPRESENTATIVE			
PRIME TRADE CONTRACTOR TO SUB-CONTRACTOR			
REVIEW COPY TO		BY	DATE
INSPECTOR			
FILE			
FIRE DEPT./ STATE FIRE MARSHAL			

QUESTION			
COST IMPACT	TIME IMPACT	SOLUTION ATTACHED	ATTACHMENTS
<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

RESPONSE			
COST IMPACT	TIME IMPACT	SOLUTION ATTACHED	ATTACHMENTS
<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

EXHIBIT 18

UTILITY SERVICE INTERRUPTION/SHUT DOWN REQUEST

A minimum of 7 working days advance notice
is required prior to each utility service interruption/shut down
(Refer to Section 01113 Special Requirements)

SUBMIT DIFFERENT FORM FOR EACH UTILITY

To University's Representative: _____

Submitted by Contractor: _____

(Printed Name/Title) _____

Project No: 906270 _____

Project Name: HOUSING 4: THE SUMMITS _____

Date Request Submitted: _____

Shut Down Date Requested: _____

Commencing Time of Shut Down: _____ A.M. _____ P.M.

Duration of Shutdown: _____ A.M. _____ P.M.

Type of Utility Service to be shut down:

Prime Trade Contractor Signature: _____

The above shut down HAS / HAS NOT been scheduled as requested.

EXHIBIT 18
UTILITY SERVICE INTERRUPTION/SHUT DOWN REQUEST

Additional comments if required:

Confirmed by telephone with _____

Confirmed via fax on _____ by _____

EXHIBIT 19
 UNIVERSITY OF CALIFORNIA, MERCED CAMPUS
 NEW CONSTRUCTION PROJECT INFORMATION FORM
 TO COMPLY WITH THE TERMS OF THE
 GENERAL PERMIT TO DISCHARGE STORM WATER
 ASSOCIATED WITH CONSTRUCTION ACTIVITY (WQ ORDER No. 2009-0009-DWQ)

I. NOTICE OF INTENT

UNIVERSITY OF CALIFORNIA, MERCED CAMPUS	WDID#	5F24S319219
--	--------------	--------------------

II. PROPERTY OWNER

Name UNIVERSITY OF CALIFORNIA	Contact Person Gary Knox		
Mailing Address 5200 N LAKE ROAD	Title DIRECTOR OF CONSTRUCTION SERVICES		
City MERCED	State CA	Zip 95343	Phone (209) 228-4404

III. CONTRACTOR INFORMATION

Contractor	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone () -

IV. NEW CONSTRUCTION PROJECT INFORMATION

Project No 906270			
Project Name Housing 4: The Summits	University's Representative		
Physical Address/Location	Latitude	Longitude	County
City (or nearest City) Merced	Zip	Site Phone Number () -	Emergency Phone Number () -
A. Total size of construction site area: ___ Acres	B. Total area to be disturbed: ___ Acres (% of total___)		
C. Percent of site imperviousness (including rooftops): Before Construction: ___% After Construction: ___%			
D. Tract Number(s): ___,	E. Mile Post Marker:		
F. Is the construction site part of a larger common plan of development or sale? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	G. Name of plan or development: UNIVERSITY OF CALIFORNIA, MERCED CAMPUS	H. Construction commencement date: ___/___/___	
I. Percentage of site to be mass graded:	J. Projected construction dates: Complete grading: ___/___/___ Complete project: ___/___/___		
K. Type of Construction (Check all that apply):			
1. <input type="checkbox"/> Residential 2. <input type="checkbox"/> Commercial 3. <input type="checkbox"/> Industrial 4. <input type="checkbox"/> Reconstruction 5. <input type="checkbox"/> Transportation 6. <input type="checkbox"/> Utility Description: 7. <input type="checkbox"/> Other (Please List):			

V. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (check one)

- A SWPPP has been prepared for this facility and is available for review:
Date Prepared: ___/___/___ Date Amended: ___/___/___
- A SWPPP will be prepared and ready for review by (enter date): ___/___/___
- A tentative schedule has been included in the SWPPP for activities such as grading, street construction, home construction, etc.

B. MONITORING PROGRAM

- A monitoring and maintenance schedule has been developed that includes inspection of the construction BMPs before Anticipated storm events and after actual storm events and is available for review.

If checked above: A qualified person has been assigned responsibility for pre-storm and post-storm BMP inspections to identify effectiveness and necessary repairs or design changes. YES NO
Name: _____ Phone: (____) ____ - _____

C. PERMIT COMPLIANCE RESPONSIBILITY

A qualified person has been assigned responsibility to ensure full compliance with the Permit, and to implement all elements of the Storm Water Pollution Prevention Plan including:

- 1. Preparing an annual compliance evaluation. YES NO
Name: _____ Phone: (____) ____ - _____
- 2. Eliminating all unauthorized discharges. YES NO

VI. VICINITY MAP AND FEE (must show site location in relation to nearest named streets, intersections, etc.)

Have you included a vicinity map with this submittal? YES NO

UC Merced pays annual fee; no fee required by Contractor

VII. CONTRACTOR CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with."

Printed Name: _____

Signature: _____ Date: _____

Title: _____

THE NEXT SECTION TO BE COMPLETED BY UNIVERSITY'S REPRESENTATIVE

VIII. UNIVERSITY CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with."

Printed Name: _____

Signature: _____ Date: _____

Title: _____

**EXHIBIT 22
 MATERIAL SUBSTITUTION PROPOSAL**

TO (NAME): _____
 PROJECT: HOUSING 4: THE SUMMITS PROJECT No.: 906270

- A. We hereby submit for your consideration the following product instead of the specified item:
1. Section: _____
 2. Article Number: _____
 3. Specified Item: _____
 4. Proposed Substitution (Mfg., Type, Model, etc.): _____

- B. Complete all of the following:
1. Does this substitution offer University a cost credit (including costs for changes by other subcontractors)?
 Yes No How much? \$ _____

List of Subcontractors, if any that may be affected by the substitution.	
Name	Trade

2. Does this substitution offer earlier delivery or less Contract Time?
 Yes No
 How much and why? _____
3. How does this substitution affect any dimensions, layout, or details of other subcontractors as shown on the Drawings?

4. What are the specific differences between this substitution and the specified item?

- C. Attach the following as applicable (Check if attached):
- | | |
|---|--------------------------|
| 1. Manufacturer's technical data | <input type="checkbox"/> |
| 2. Laboratory test or performance results | <input type="checkbox"/> |
| 3. Drawings & wiring diagrams of the proposed product | <input type="checkbox"/> |
| 4. Drawings & description of changes required by other subcontractors | <input type="checkbox"/> |
| 5. Samples | <input type="checkbox"/> |
| 6. Manufacturer's guarantee & maintenance instructions | <input type="checkbox"/> |

D. Submitted by Prime Trade Contractor: _____

Statement by Prime Trade Contractor that the proposed substitution is in full compliance with the requirements of the Contract Documents and Applicable Code Requirements.

Signature: _____ Date: _____

E. University Review Decision:

For Use Only by University's Representative							
<input type="checkbox"/>	Accepted	<input type="checkbox"/>	Rejected	<input type="checkbox"/>	Revise and Resubmit	<input type="checkbox"/>	See Attached

University's
Representative
Signature: _____ Date: _____

EXHIBIT 23
MATERIAL SUBMITTAL APPROVAL FORM

(SEE INSTRUCTIONS ON PAGE 2)

TO: UNIVERSITY OF CALIFORNIA, MERCED	FROM: (Prime Trade Contractor)	DATE:
CONTRACT NUMBER: 900020	SUBMITTAL NUMBER:	PREVIOUS SUBMITTAL NUMBER:
		SUBMITTAL: [] NEW [] RESUBMITTAL

TO BE COMPLETED BY PRIME TRADE CONTRACTOR	FOR UNIVERSITY'S USE ONLY
--	----------------------------------

ITEM NO.	SPECIFICATION SECTION/PARA NO./DRAWING NO.	DESCRIPTION OF MATERIAL/SHOP DRAWINGS (Includes Type, Model No., Catalog No., Mfg., etc.)	Approved	Dis-Approved	SEE COMMENTS	INITIAL

NOTE By completing this form the undersigned Prime Trade Contractor certifies that the material and shop drawings complies with all drawings and specifications of subject contract and the Prime Trade Contractor has reviewed submittal procedures specified in division 1. Checking is for general conformance with the design concept only. Reviews are subject to all contract requirements. No contract requirements are waived unless specifically noted. Prime Trade Contractor is responsible for identifying all proposed material substitutions, dimensions, quantities, techniques of construction and coordination with all other trades.

DATE	TYPE OR PRINT NAME AND TITLE	SIGNATURE
------	------------------------------	-----------

FOR UNIVERSITY'S USE ONLY

TO: (Prime Trade Contractor)
 Approved Disapproved
 As indicated Above and Subject to Any Applicable Comments on the Reverse Side. Request Resubmittal on Disapproved items within _____ Days of Date Shown Below.

DATE	TYPE OR PRINT NAME AND TITLE	SIGNATURE
------	------------------------------	-----------

EXHIBIT 26

LETTER OF INSTRUCTION NO. _____

University of California Facility: MERCED

PROJECT NAME:	HOUSING 4: THE SUMMITS		
PROJECT LOCATION:	UNIVERSITY OF CALIFORNIA, MERCED CAMPUS, MERCED COUNTY, MERCED CALIFORNIA		
PROJECT NO:	906270		CONTRACT DATE:
TO PRIME TRADE CONTRACTOR:			
ADDRESS:			
UNIVERSITY'S REPRESENTATIVE:			
SUBJECT:			

The following information is hereby issued as a clarification or interpretation of the Contract Documents. This is a clarification or interpretation only and not intended to change the scope of the Work, the Contract Sum, or the Contract Time.

DESCRIPTION:

University's Representative

EXHIBIT 27

PRIME TRADE CONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.3.3 of the General Conditions, I certify as follows:

1. The Claim to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by Prime Trade Contractor are accurate and complete. Supporting data for amounts incurred by Prime Trade Contractor is accurate and complete. Any such supporting data, including any such new amounts, submitted after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted by Prime Trade Contractor on behalf of any and all subcontractors or suppliers, of all tiers, or any person or entity under Prime Trade Contractor, are accurate and complete. Prime Trade Contractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that, to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the adjustment of the Contract Sum for which the Prime Trade Contractor believes the University is liable.
5. Attached hereto is a certification that has been executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the claim to which this certification is attached.
6. I am duly authorized to certify the Claim on behalf of the Prime Trade Contractor.

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

(Signature)

(Print Name)

(Name of Prime Trade Contractor)

EXHIBIT 28

SUBCONTRACTOR CLAIM CERTIFICATION

Pursuant to Article 4.3.3 of the General Conditions, I certify as follows:

1. The portion of the Claim made on behalf of the Subcontractor to which this certification is attached is made in good faith.
2. Amounts claimed for costs, expenses and damages incurred by the Subcontractor are accurate and complete. Supporting data for amounts incurred by the Subcontractor is accurate and complete. Any such supporting data, including any such new amounts, submitted to Prime Trade Contractor after the execution of this certification, will be accurate and complete.
3. To the best of my knowledge and belief, amounts claimed, and supporting data submitted to Prime Trade Contractor by the Subcontractor on behalf of any and all subcontractors or suppliers to Subcontractor, of all tiers, or any person or entity under Subcontractor, are accurate and complete. Subcontractor will not submit, after the date of execution of this certification, any such supporting data, including any such new amounts that, to the best of my knowledge and belief, is not accurate and complete.
4. The amount requested accurately reflects the amount for which the Subcontractor believes the University is liable to Prime Trade Contractor.
5. I am duly authorized to certify the Claim on behalf of the Subcontractor.

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

(Signature)

(Print Name)

(Name of Subcontractor)

REQUIREMENTS PER LEED SECTION 01 81 13
Housing 4: The Summits, Project #906270

Company: _____ Date: _____

Representative: _____ Phone # _____

Vendor/Supplier: _____ Representative: _____ Phone # _____

Per requirements in LEED Specification section 01120 you are required to submit the listed information for all materials and products to the provided for the (Project)

_____. Please fill out and return this form for each individual product or material type. Do not leave any blanks; enter "0" or N/A if that is the case. Please call our jobsite office with any questions _____.

Specification Section: _____

Product/Material
Description: _____

Total Product /
Material Cost (Excluding Labor & Equipment) \$ _____

Note: Definitions for the following items can be found in Specification Section 01120-1.3. Back up documentation is required for all items listed below. See Specification Section 01120.

Percentage of Post-Industrial/Pre Consumer Recycled Content _____%

Percentage of Post-Consumer Recycled Content _____%

Point of Final Assembly if within 500 mile Radius of Project Jobsite (City & Miles from Project) _____

Point of Extraction if within 500 mile _____

Meets MR 6.0 Rapidly Renewable Materials Yes No NA

Meets EQ 4.1-4.4 Low Emitting Materials Requirements: Yes No NA

Signed _____ Date _____

**SECTION 01 11 00
SUMMARY OF WORK**

PART 1 - GENERAL

1.1 WORK REQUIRED BY CONTRACT DOCUMENTS

- A. This project consists of site development, underground utilities and construction of a 110,000 gross square foot Housing Facility consisting of 5 floors made up of Student Activity Space, Dorm Rooms, Study Rooms, Shared Bathrooms, Office Space, a Multi-Purpose Room, Mechanical/Electrical Rooms, and Tutoring Rooms. The site consists of an approximately 2-acre parcel along Ranchers Road on the UC Merced campus, north of the existing Phase 3 Housing: The Summits. The project started with the first Bid Release in the Fall 2011, and shall be completed within 24 months.
- B. The Project will be constructed using Multiple Prime Trade Contractors, totaling approximately 31 unique Bid Packages, with each Prime Trade Contractor executing a direct Contract with the University. The University's Representative will provide full time, on-site Construction Management, including coordination, scheduling and quality control for the entire Project.
- C. Each Prime Trade Contractor will be required to perform its work in accordance with a Preliminary Master Project Schedule to be developed, updated, and maintained by the University Representative after award of the Prime Trade Contract. Each Prime Trade Contractor will be required to provide specified scheduling information necessary for the development, updating, and maintenance of the Preliminary Master Project Schedule by the University Representative.

1.2 PROJECT PHASING

- A. The Work of this Contract is included in one Phase. Refer to the Preliminary Master Project Schedule for number of calendar days to complete work.

1.3 WORK SEQUENCE

- A. See Preliminary Master Project Schedule and Preliminary Prime Trade Contractor Schedules.

1.4 UNIVERSITY OCCUPANCY

- A. The following portions of the Work are designated for occupancy by the University as indicated:
 - 1. See Preliminary Master Project Schedule.

1.5 SUBSTANTIAL COMPLETION

- A. Substantial Completion shall be applicable to the entire Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 11 00

SECTION 01 11 30
SCOPE OF WORK – SURVEYING & LAYOUT

1.0 SCOPE OF WORK – SPECIFICATIONS

Furnish all labor, material, equipment, taxes, and supervision necessary to perform all requirements of the following specification sections in complete accordance with the Contract Documents:

- .1 Section 01 71 23 – Field Engineering

2.0 SCOPE OF WORK – GENERAL

Prime Trade Contractor also includes, but is not limited to, the following general items required for Prime Trade Contractor's work:

- 1. Permits, licenses, and fees associated with this trade's business as required for this Scope of Work.
- .2 Shop drawings, manufacturer's data, and samples.
- .3 Receiving, unloading, and protecting supplies and material.
- .4 Hoisting, staging, loading, unloading and coordinating with other Prime Trade Contractors.
- .5 Scaffolding, ladders, rolling staging, etc., unless specifically excluded below.
- .6 Work areas to be left broom clean on a daily basis. Cleanup of general construction debris to University's general trash dumpster on a daily basis. If necessary, one person from each Prime Trade Contractor will be assigned to a composite clean up crew supervised by University's Representative's Consultant (ProWest) every Wednesday. This will be strictly enforced and any PTC not providing labor will be charged for cleanup by the University on a monthly basis. Only building construction contractors onsite will be required for composite cleanup.
- .7 Temporary support for own work. Temporary construction water will be provided on site. Protect all water connections to source from leaking and tripping hazards. Temporary electricity source will be provided by University.
- .8 Task lighting to be provided by Prime Trade Contractor.
- .9 Welding and temporary power for welding.
- .10 Lifting, staging, storage, and transportation, of own personnel, materials and equipment.
- .11 Multiple mobilizations, shift work and/or weekend work as required to meet this Scope of Work and the Preliminary Prime Trade Contractor Schedule and Preliminary Master Project Schedule.
- .12 Protection of work to prevent damage until accepted by University.

- .13 Export to campus stockpile within a one mile radius all excavated spoils generated, unless specifically excluded below.
- .14 Coordinate the Work in this section with all separate Prime Trade Contractors as required.
- .15 Schedule and coordinate all inspections and testing required.
- .16 The University will provide limited vertical and horizontal control as described in Section 01 71 23 - Field Engineering. Prime Trade Contractor shall include all additional surveying and layout as required for this Scope of Work.
- .17 Permits, fees and authorizations from appropriate agencies for the delivery, set up and use of Prime Trade Contractor's cranes and equipment on the project.
- .18 Onsite Superintendent, Foreman or Project Manager must have a cellular phone to allow the University's Representative's Consultant (ProWest) to contact them during construction hours. Provide the phone numbers of two persons that can respond to emergencies 24 hours a day.
- .19 Streets must be kept continuously clean during and after staging and material deliveries while Prime Trade Contractor is on the site.
- .20 Relocate temporary construction services as required to perform this Scope of Work to locations approved by University's Representative's Consultant (ProWest), i.e. toilets, fencing, barricades, etc.
- .21 When using scaffolding *and/or temporary stairs* provided by Separate Contractors, provide all waivers of liability and indemnification as required by Separate Contractors as regards scaffolding *and/or temporary stairs*.
- .22 When using any manufacturer or product which is not listed first or as the Basis-of-Design in the specifications, include all additional impact costs such as field coordination, required modifications by Separate Contractors, redesign by Architect/Engineer, and similar costs as specified in Section 01 25 00 - Product Options and Substitutions.
- .23 The Prime Trade Contractor receiving material deliveries shall provide all necessary personnel, flagmen, barricades, cones, ribbons, Traffic Police escorts, and the like to keep the streets, parking lot and lay down yard continuously safe and clean during and after staging of material deliveries. Special provisions shall be arranged with the University's Representative's Consultant (ProWest) should any prolonged blockage be necessary of any Emergency Access Route. No long term and or overnight storage in this zone will be allowed. Materials / Equipment left in this area will be removed at the contractor's expense.
- .24 Prime Trade Contractor shall be solely responsible for safe work practices regarding lock out tag out. The PTC shall check all utilities are in a safe condition before proceeding with any work. The University's Representative's Consultant (ProWest) or personnel employed by the University shall assist the PTC in shutting down water, electrical, fire sprinkler, etc., but the PTC retains the final and sole responsibility for providing a safe work environment for its workers and supervision on a daily (or hourly as required) basis.

- .25 On-site Portable Toilets and Sanitary Wash Stations with regular cleaning and service will be provided. Each Contractor to keep in their own control additional toilet paper, hand towels, and sanitary hand wipes etc. for their crew's use in the event replacement / service is lacking by the toilet provider.
- .26 No eating inside of buildings – eat only in designated lunch areas. Provide cleanup of all food waste and trash immediately after eating.
- .27 No AM/FM radios, CD players, iPods, MP3 players, iPhones, head phones or ear buds of any type, etc., on site.
- .28 Prime Trade Contractors must pay for own parking.
- .29 Prime Trade Contractors are responsible for disposal and recycling of materials per LEED requirements to dumpsters provided by others.
- .30 The Jobsite is adjacent to ongoing campus activities. Due to noise constraints, work hours are from 7:00 a.m. to 5:00 p.m. on weekdays. All work is to be performed with minimal interruption to campus activities. Weekend work must be pre-approved by the University and University's Representative's Consultant (ProWest).
- .31 Coordinate and provide submittals, submittal schedule, including shop drawings, manufacturer's data, samples, mockups, as-builts, warranty and guarantee as specified. Coordination of each Prime Trade Contractor's Work Scope is required to be done between All Prime Trade Contractor(s).
- .32 Provide all project record documents, including as-builts, warranty and guarantee as required per contract documents. Provide weekly updates of as-builts documents on to Construction Manager's plan set. In no case shall work be covered prior to as-built updates. Prime Trade Contractor to provide transparencies, CADD files, etc., and transfer all weekly as-built information, including RFI's to these close-out documents, as required by contract documents.
- .33 Task lighting for own work.
- .34 Welding and temporary power for welding. Submit welder's certifications. Responsible for providing welding procedures. All onsite welding shall be done with OSHA approved protective shield, and shields must be in place prior to start of welding work. Shields are required to protect the general public and onsite workers from direct eye contact to welder's arc and keep welding slag spotter confined to the designated welding area.
- .35 Safety requirements for own work. OSHA approved personal protective safety equipment such as hard hats, work shoes, gloves, goggles, masks, vests, harnesses, etc. shall be worn by all Prime Trade Contractor personnel and 3rd party delivery men at all times when on project site
- .36 Multiple move-ons as required to meet this Scope of Work and the Prime Trade Contractor Schedule and Master Project Schedule.
- .37 Each Prime Trade Contractor is responsible to provide backing, head out, wall or ceiling opening layout requirements to other Prime Trade Contractors. Failure to communicate

these requirements to other Prime Trade Contractors will transfer the responsibility for these items back to the initial Prime Trade Contractor.

- .38 Schedule and coordinate all inspections and testing required for own work. Copy Construction Manager on all communications with Inspectors. Provide timely notice, not to delay work. Cost of re-inspection due to non-compliant work shall be the responsibility of Prime Trade Contractor.
- .39 A minimum of one Superintendent/Foreman is required for duration of own work on project. Superintendent/Foremen must be on site when work is being performed. Superintendent/Foreman may not be changed without Construction Manager's approval. Sub-Contractors are to be supervised by Prime Trade Contractor Superintendent/Foreman. No exceptions.
- .40 No smoking within the perimeter of building.
- .41 This Scope of Work is written to complement the Plans and Specifications and does not modify any portion of the Plans and Specifications unless specific scope item states to modify Plans or Specifications by using the word "modify," or "change" or "disregard."
- .42 Some Scopes of Work overlap the Scopes of Work of other Contractors. This does not absolve either Contractor of their obligation to complete their Scope of Work. In all cases of dispute, the Owner and/or Construction Manager shall have the final decision as to responsibility and/or payment allocation.
- .43 Contractors are required to attend mandatory pre-installation meetings prior to commencement of work.
- .44 Prime Trade Contractor is to contact Underground Service Alert prior to commencing any underground trenching and/or shoring/excavation: (800) 227-2600.

3.0 SCOPE OF WORK - SPECIFIC

Prime Trade Contractor also includes, but is not limited to, the following specific items:

- .1 Establish horizontal and vertical staking control.
- .2 Stake soil boring locations.
- .3 Provide two benchmarks per floor at each wing of the building. Locations to be coordinated with University's Representative's Consultant (ProWest).
- .4 Stake building pad boundaries at corners for all buildings.
- .5 Provide offset stakes at all building grid lines for all sides of building for footing excavation. Coordinate offsets with CIPC Contractor.
- .6 Rough grade stakes at 50 foot intervals at grade breaks and angle points for site grading.
- .7 Verify grades at site to be within + / - .10 feet after earthwork first move-in.

- .8 Blue tops for building subgrade at 50 foot grid intervals.
- .9 Provide certification for building pads.
- .10 Staking for the project construction fence.
- .11 Provide permanent elevation benchmarks in four locations that will remain undisturbed during construction. Coordinate these locations with the University's Representative's Consultant (ProWest).
- .12 Provide 6 offset column lines per floor at each wing of the building. Include 8 offset column lines at slabs on grade. Coordinate with University's Representative's Consultant (ProWest) for column lines used.
- .13 Staking for elevator pits, concrete stairs, site walls, planter walls, cheek walls, seat walls, interior and exterior building retaining walls and stem walls, concrete walks, and ramps.
- .14 Water – provide offset line and grade at 25 foot intervals for domestic and fire water lines.
- .15 Hydronic piping – provide offset line and grade at 25 foot intervals for chilled water lines.
- .16 Sewer – provide offset line and grade at 25 foot intervals for sewer manholes, mainlines, laterals and cleanouts.
- .17 Storm Drain – provide offset line and grade at 25 foot intervals for storm drain mainlines, laterals, manholes, drain structures and inlets.
- .18 Gas – provide offset line and grade at 25 foot intervals for gas mains and laterals.
- .19 Staking for AC paving, curbs, curb and gutters. Two move-ins required. Figure 2 man crew, 8 hours.
- .20 Check location and invert elevation for points of connection at existing sewer, storm drain, gas main, domestic/fire water, electrical and IT feeders. Site Utilities Contractor to pothole. Provide report. Figure 2 man crew, 4 move-ons, 4 hours each.
- .21 Site Lighting – provide offset stakes and grade for all site lights. Figure 2 man crew, 8 hours.
- .22 Telephone/IT and electrical power – provide offset line and grade at 25 foot intervals for pullboxes, manholes, and conduit runs.
- .23 Final curb and gutter, curb, mow curb, sidewalks, planters, handicap sidewalk ramps and driveway approaches – at 25 foot intervals, angle points and radii. Figure 2 man crew, 24 hours.
- .24 Staking for yard stand pipes and fire hydrants.
- .25 Stake limits of demolition at paving. Include limits of curb removal.

- .26 Office computations.
- .27 Provide staking at temporary roads, construction staging lot, office trailer lot, and temporary water and power.
- .28 Provide all pertinent survey information on stakes.
- .29 Provide drawings dimensioning utility tie-ins 5 feet outside of building footprint and locate dimension off of grid lines at each building.
- .30 Professional liability insurance with minimum limits of \$1,000,000.
- .31 All travel, reimbursables, etc.
- .32 See the preliminary Master Project Schedule for additional staking requirements.
- .33 Verification of sub-excavation elevations. One (1) two-man crew 32 hours and four (4) move-ons.
- .34 Include an additional 32 hours of a two man survey crew to verify grades or stake as directed by the University's Representative's Consultant (ProWest). Include office computations, travel and equipment.

4.0 SCOPE OF WORK – EXCLUSIONS

Prime Trade Contractor excludes the following items:

- .1 Re-staking due to lost or destroyed stakes.
- .2 Staking of property corners.
- .3 Protection of survey points.
- .4 All other survey & layout work not specifically stated in Section 3.0 above

END OF SECTION 01 11 30

**SECTION 01 12 00.29
SUMMARY OF WORK**

PART 1 - GENERAL

1.1 WORK REQUIRED BY CONTRACT DOCUMENTS

- A. Scope of Work: The work to be done includes all labor, tools and equipment necessary to furnish and install all materials and equipment shown on the drawings and described herein and to perform tests described herein, to provide complete and operating systems to the extent specified and shown on the Drawings. The Prime Trade Contractor shall furnish all equipment, material and supplies, except where specifically noted as existing or as supplied by The University. The University is the Regents of the University of California.
- B. This project consists of site development, underground utilities and construction of a 110,000 gross square foot Housing Facility consisting of 5 floors made up of Student Activity Space, Dorm Rooms, Study Rooms, Shared Bathrooms, Office Space, a Multi-Purpose Room, Mechanical/Electrical Rooms, and Tutoring Rooms. The site consists of an approximately 2-acre parcel along Ranchers Road on the UC Merced campus, north and northeast of the existing Phase 3 Housing: The Summits.

1.2 SCOPE OF WORK – SPECIFICATIONS

Furnish all labor, material, equipment, taxes and supervision necessary to perform all requirements of the following specification sections in complete accordance with the Contract Documents:

- .1 Section 10 14 40 – Signage
- .2 Section 10 14 40.01 – Interior Signage Schedule by Door Number
- .3 Section 10 14 40.02 – Interior Signage Schedule by Sign Type

1.3 SCOPE OF WORK - GENERAL

Prime Trade Contractor also includes, but is not limited to, the following general items required for Prime Trade Contractor's work:

- 1. Permits, licenses and fees associated with this trade's business as required for this Scope of Work.
- 2. Shop drawings, manufacturer's data, and samples.
- 3. Receiving, unloading and protecting supplies and material.
- 4. Hoisting, staging, loading, unloading and coordinating with other Prime Trade Contractors.

5. Scaffolding, ladders, rolling staging, etc., unless specifically excluded below.
6. Work areas to be left broom clean on a daily basis. Clean up of general construction debris to University's general dumpster on a daily basis. If necessary, one person from each Prime Trade Contractor will be assigned to a composite clean up crew supervised by University's Representative every Wednesday. This will be strictly enforced, and any Prime Trade Contractor not providing labor will be charged for the clean up by the University on a monthly basis. Only building construction contractors onsite will be required for composite clean up.
7. Temporary support for own work. Temporary construction water will be provided on site. Protect all water connections to source from leaking and tripping hazards. Temporary electricity source will be provided by University.
8. Welding and temporary power for welding.
9. Lifting, staging, storage and transportation of own personnel, materials and equipment.
10. Multiple mobilizations, shift work and/or weekend work as required to meet this Scope of Work and Preliminary Prime Trade Contractor Schedule and Preliminary Master Schedule.
11. Protection of work to prevent damage until accepted by University
12. Export to campus stockpile within a one mile radius all excavated spoils generated, unless specifically excluded below.
13. Coordinate the work in this section with all separate Prime Trade Contractors as required.
14. Schedule and coordinate all inspections and testing required.
15. The University will provide limited vertical and horizontal control as described in Section 01 71 23 – Field Engineering. Prime Trade Contractor shall include all additional surveying and layout as required for this Scope of Work.
16. Permits, fees and authorizations from appropriate agencies for the delivery, set up and use of Prime Trade Contractor's crane and equipment on the project.
17. Onsite Superintendent, Foreman or Project Manager must have a cellular phone to allow the University's Representative to contacto them during construction hours. Provide the phone numbers of two persons that can respond to emergencies 24 hours a day.
18. Streets must be kept continuously clean during and after staging and matieral deliveries while Prime Trade Contractor is on site.
19. Relocate temporary construction services as required to perform this scope of work to locations approved by University's Representative; i.e.. toilets, fencing, barriers, etc.

20. When using scaffolding and or temporary stairs provided by separate contractors, provide all waivers of liability and indemnification as required by separate contractors as regards scaffolding and/or temporary stairs.
21. When using any manufacturer or product which is not listed first or as the Basis of Design in the specifications, include all additional impact costs such as field coordination, required modifications by separate contractors, redesign for Architect/Engineer, and similar costs as specified in Section 01 25 00- Product Options and Substitutions.
22. The Prime Trade Contractor receiving material deliveries shall provide all necessary personnel, flagmen, barricades, cones, ribbons, Traffic Police escorts, and the like to keep the streets, parking lot and lay down yard continuously safe and clean during and after staging of material deliveries. Special provisions shall be arranged by the University's Representative should any prolonged blockage be necessary of any Emergency Access Route. No long term and or overnight storage in this zone will be allowed. Materials/equipment left in this area will be removed at the contractor's expense.
23. Prime Trade Contractor shall be solely responsible for safe work practices regarding lock out tag out. The Prime Trade Contractor shall check all utilities are in a safe condition before proceeding with any work. The University's Representative or personnel employed by the University shall assist in the PTC shutting down water, electrical, fire sprinkler, etc., but the PTC retains the final and sole responsibility for providing a safe work environment for its workers and supervisions on a daily (or hourly as required) basis.
24. On-site portable toilets and sanitary wash stations with regular cleaning and service will be provided. Each Contractor to keep in their own control additional toilet paper, hand towels and sanitary hand wipes, etc. for their crew's use in the event replacement/service is lacking by the toilet provider.
25. No eating inside of buildings – eat only in designated lunch areas. Provide clean up of all food waste and trash immediately after eating.
26. No AM/FM radios, CD players, iPods, MP3 players, iPhone, head phones or ear buds of any type, etc., on site.
27. Prime Trade Contractor must pay for own parking.
28. Prime Trade Contractors are responsible for disposal and recycling of materials per LEED requirements to dumpsters provided by others.
29. The Jobsite is adjacent to ongoing campus activities. Due to noise constraints, work hours are from 7:00AM to 5:00PM on weekdays. All work is to be performed with minimal interruption to campus activities. Weekend work must be pre-approved by the University.
30. Coordinate and provide submittals, submittal schedule, including shop drawings, manufacturer's data, samples, mockups, as-builts documents as

specified. Coordination of each Prime Trade Contractor's work scope is required to be done between all Prime Trade Contractors.

31. Provide all project record documents, including as-builts, warranty and guarantee as required per contract documents. Provide weekly update of as-builts documents onto Construction Manager's plan set. IN no case shall work be covered prior to as-builts updates. Prime Trade Contractor to provide transparencies, CADD Files, etc., and transfer all weekly as-built information, including RFI's to these documents as required by contract documents.
32. Task lighting for own work.
33. Welding and temporary power for welding. Submit welder's certifications. Responsible for providing welding procedures. All on site welding shall be done with OSHA approved protective shields, and shields must be in place prior to start of welding work. Shields are required to protect the general public and onsite workers from direct eye contact to welder's arc and keep welding slag spotter confined to the designated welding area.
34. Safety requirements for own work. OSHA approved personal protective safety equipment such as hard hats, work shoes, gloves, goggles, masks, vests, harnesses, etc. shall be worn by all Prime Trade Contractors personnel and 3rd party delivery men at all times when on project site.
35. Multiple move-ons as required to meet this Scope fo Work and the Prime Trade Contractor Schedule and Primary Master Schedule.
36. Each Prime Trade Contractor is responsible to provide backing, head out, wall or ceiling opening layout requirements to other Prime Trade Contractors. Failure to communicate these requirements to other Prime Trade Contractors will transfer the responsibility for these items back to the initial Prime Trade Contractor.
37. Schedule and coordinate all inspections and testing required for own work. Copy Construction Manager on all communications with Inspectors. Provide timely notice, not to delay work. Cost of re-inspection due to non-compliant work shall be the responsibility of the Prime Trade Contractor.
38. A minimum of one Superintendent/Foreman is required for duration of own work on project. Superintendent/Foreman must be on site when work is performed. Superintendent/Foreman may not be changed without Construction Manager's approval. Subcontractors are to be supervised by Prime Trade Contractor Superintendent/Foreman. No exceptions.
39. No smoking within perimeter of building.
40. This Scope of Work is written to complement the Plans and Specifications and does not modify any portion of the Plans and Specifications unless specific scope item states to modify Plans or Specifications by using the word "modify" or "change" or "disregard".

41. Some scopes of work overlap the scopes of work of other contractors. This does not absolve either contractor of their obligation to complete their scope of work. In all cases of dispute, the Owner and/or Construction Manager shall have the final decision as to responsibility and/or payment allocation.
42. Contractors are required to attend mandatory pre-installation meetings prior to commencement of work.
43. Prime Trade Contractor is to contact Underground Service Alert prior to commencing any undergrounding trenching and/or shoring/excavation: (800) 227-2600.

1.4 SCOPE OF WORK - SPECIFIC

1. Provide all material, equipment, fabrication and installation required for the following:

- a. Interior Room Identification Signs
- b. Triple-Sided Illuminated Exterior Building Monument Sign
- c. Interior Wall-Mounted LEED Display Sign
- d. Exterior Wall-Mounted Building Identification Signs
- e. Vinyl Letters Building Identification Signs

1.5 FINAL COMPLETION

- A. Final Completion shall be applicable to the entire work as required by Article 4 of the Contract Agreement.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 12 00.029

SECTION 01 25 00
PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 - GENERAL

- 1.1 GENERAL PROVISIONS REGARDING SPECIFICATION OF PRODUCTS, MATERIAL OR EQUIPMENT BY BRAND OR TRADE NAME.
- A. Products, material or equipment specified by both brand or trade name and model number are approved for use, provided that Prime Trade Contractor complies with all Contract requirements. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment can be used without modification, to meet the requirements of the plans and specifications; Prime Trade Contractor shall, at its sole cost, modify such products, material, or equipment so that they comply with all requirements of the plans and specifications.
 - B. The first-named product, material or equipment specified by brand or trade name and model number is the basis for the Project design and the use of any item other than the first-named one may require modifications of that design. If Prime Trade Contractor uses any product, material or equipment other than the first-named one, Prime Trade Contractor shall, at its sole cost:
 - 1. Make all revisions and modifications to the design and construction of the Work necessitated by the use the product, material or equipment.
 - 2. Be responsible for all costs of any changes resulting from the use of the product, material or equipment including without limitation, costs or changes which affect other parts of the Work, the work of Separate Prime Trade Contractors, or any other property or operations of the University.
 - C. When a product, material or equipment specified by brand or trade name is followed by the words "or equal," a substitution may be permitted if the substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and if the substitution complies with all other requirements of the plans and specifications.
 - D. A product, material or equipment specified by brand or trade name followed by the words "or equal, no known equal," signifies that University does not have sufficient knowledge to specify a product, material or equipment, other than the one specified by brand or trade name, that is suitable for use on the Project. The use of the words "no known equal" is not intended to discourage substitution requests in accordance with the requirements specified herein.
 - E. When catalog numbers and specific brands or trade names not followed by the designation "or equal" are used in conjunction with a product, material or equipment required by the specifications, substitutions will not be allowed and the named product, material or equipment must be used.
 - F. Specification of a product, material or equipment by brand or trade name and model number is not a representation or warranty that the product, material or equipment is

available; Prime Trade Contractor should confirm, prior to submitting its Bid, the availability of any product, material or equipment specified by brand or trade name and model number.

- G. **COMPLETE AND ACCEPTABLE SUBSTITUTION SUBMITTALS SHALL BE DELIVERED TO THE UNIVERSITY'S REPRESENTATIVE'S CONSULTANT (CONSTRUCTION MANAGER) NO LATER THAN 35 DAYS FROM THE NOTICE TO PROCEED. SUBMITTALS MAY BE REQUIRED SOONER THAN 35 DAYS IF THE NOTICE TO PROCEED WAS DELAYED BY THE PRIME TRADE CONTRACTOR OR IF REQUIRED BY EARLY ACTIVITIES INDICATED ON THE PRELIMINARY MASTER PROJECT SCHEDULE.**

1.2 **SPECIAL REQUIREMENTS FOR PRODUCTS, MATERIAL OR EQUIPMENT, OTHER THAN THE FIRST-NAMED PRODUCT, MATERIAL OR EQUIPMENT, SPECIFIED BY BOTH BRAND OR TRADE NAME AND MODEL NUMBER.**

- A. In addition to complying with all other submittal requirements of the Contract, submit within 5 days after the date of commencement specified in the Notice to Proceed, for review and approval by the University's Representative, Prime Trade Contractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriate licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the product, material or equipment. If no revisions or modifications are necessary, submit within 5 days after the date of commencement specified in the Notice to Proceed, a written representation that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. Prime Trade Contractor shall utilize the first-named product, material or equipment if Prime Trade Contractor fails to make the appropriate required submittal pursuant to this paragraph within the 5-day period.
- B. A product, material or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number may be used if no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment. If such revisions or modifications are necessary, the product, material or equipment may be used only if the revisions or modifications are approved in writing by the University's Representative. Prime Trade Contractor has the burden of demonstrating, through the procedures specified herein, that any such revisions or modifications will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, Prime Trade Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility or appearance of the Project or any portion of the Project.

1.3 **SPECIAL REQUIREMENTS FOR SUBSTITUTIONS.**

- A. In addition to complying with all other submittal requirements of the Contract, submit written data demonstrating that the proposed substitution is equal to or superior to the

first-named product, material or equipment in quality, utility and appearance and otherwise complies with all requirements of the plans and specifications, including:

1. Complete technical data including drawings, performance specifications, samples, and test reports of the article proposed for substitution.
 2. Statement by Prime Trade Contractor that the proposed substitution is in full compliance with the requirements of the Contract Documents and Applicable Code Requirements.
 3. List of Subcontractors, if any, that may be affected by the substitution.
 4. Prime Trade Contractor prepared specifications and drawings, including design and engineering calculations, prepared by an appropriately licensed professional, depicting all revisions and modifications to the design and construction of the Work necessitated by the use of the substitution. If no revisions or modifications are necessary, submit a written representation that no revisions or modifications to the design or construction of the Work are necessitated by the use of the product, material or equipment.
- B. At the request of and within the timeframes specified by the University's Representative:
1. Submit samples as deemed necessary by the University's Representative to evaluate the proposed substitution.
 2. Submit proposed substitution to tests deemed necessary by the University's Representative to evaluate the proposed substitution. Such tests shall be made by an independent Testing Laboratory and at the sole expense of Prime Trade Contractor, after review and approval of the test procedures by University's Representative. If re-testing is deemed necessary by the University's Representative to evaluate the proposed substitution, such re-testing shall be made by an independent Testing Laboratory at the sole expense of the Prime Trade Contractor.
 3. Provide any additional information deemed necessary by the University's Representative to evaluate the proposed substitution.
- C. If University's Representative, in reviewing a proposed substitution, requires revisions or corrections to be made to previously accepted shop drawings and supplemental supporting data to be resubmitted, Prime Trade Contractor shall do so within the time period specified by the University's Representative. A proposed substitution may be rejected if Prime Trade Contractor fails to submit such revisions, corrections, or supplemental supporting data within the specified time period.
- D. Except for products, material or equipment designated in the Bidding Documents for evaluation of substitutions prior to award, requests for substitution, including the data required by Paragraph 1.3.A, must be submitted to the University's Representative not later than 35 days after the date of commencement specified in the Notice to Proceed. No requests for substitutions of products, material or equipment subject to the 35-day deadline shall be considered unless the request and supporting data is submitted on or before the deadline, except those deemed, in University's Representative's sole opinion, to be necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.

- E. If a product, material or equipment is designated in the Bidding Documents for evaluation of substitutions prior to award, then a request for substitution of the product, material or equipment, including the data required by Paragraph 1.3.A, must be submitted by the deadline specified in the Bidding Documents. Because of time constraints, only one submittal will be allowed for each such substitution request. Requests for substitutions of products, material or equipment designated for evaluation prior to award may not be made after the deadline specified in the Bidding Documents, and such requests shall not be considered unless the request and supporting data is submitted on or before the deadline specified in the Bidding Documents. Notwithstanding the foregoing, the University may consider, after award of the Contract, requests for substitution of a product, material or equipment designated for evaluation prior to award where, in University's Representative's sole opinion, a substitution is necessary because (i) previously specified or approved manufactured products, material or equipment are no longer manufactured, (ii) of University initiated change orders, or (iii) it is in the best interest of University to accept such substitution.
- F. In reviewing the supporting data submitted for substitutions, University's Representative will use, for purposes of comparison, all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Specifications. If more than 2 submissions of supporting data are required, the cost of reviewing the additional supporting data shall be at Prime Trade Contractor's expense.
- G. Prime Trade Contractor has the burden of demonstrating, through the procedures specified herein, that its proposed substitution is equal to or superior to the first-named product, material or equipment in quality, utility and appearance and complies with all other requirements of the plans and specifications. If revisions or modifications to the design or construction of the work are necessitated by the use of the substitution, Prime Trade Contractor also has the burden of demonstrating, through the procedures specified herein, that the use of the substitution will not be detrimental to the quality, utility or appearance of the Project or any portion of the Project.
- H. The University's Representative may refuse to approve any requested substitution where, in the reasonable opinion of the University's Representative, Prime Trade Contractor has failed to demonstrate, through the procedures specified herein, that the proposed substitution is equal to, or superior to, the first-named product, material or equipment, in quality, utility and appearance and that the proposed substitution complies with all other requirements of the plans and specifications.
- I. University's Representative may reject any substitution not proposed in the manner and within the time limits prescribed herein.
- J. Substitutions are not allowed unless approved in writing by the University's Representative. Any such approval shall not relieve Prime Trade Contractor from the requirements of the Contract Documents.
- K. The 35-day and 5-day submittal periods do not excuse Prime Trade Contractor from completing the Work within the Contract Time or excuse Prime Trade Contractor from paying liquidated damages if Final Completion is delayed.

- L. If revisions or modifications to the design or construction of the Work are necessitated by the use of a substitution, the substitution may be used only if the revisions and modifications are approved in writing by the University's Representative. The University's Representative may refuse to approve any such proposed revisions or modifications where, in the reasonable opinion of the University's Representative, Prime Trade Contractor has failed to demonstrate, through the procedures specified herein, that the revisions or modifications are not detrimental to the quality, utility and appearance of the Project or any portion of the Project.
- M. If a substitution request is finally rejected by the University Representative, Prime Trade Contractor shall furnish and install:
1. the first-named product, material, or equipment; or
 2. a product, material, or equipment, other than the first-named product, material or equipment, specified by both brand or trade name and model number, provided Prime Trade Contractor complies with the submittal requirements (including deadlines) of subsection 1.2 above.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 01 25 00

**SECTION 01 26 13
REQUESTS FOR INFORMATION**

PART 1 - GENERAL

1.1 SUMMARY

- A. This section contains the procedures to be followed by the Prime Trade Contractor for submitting requests for clarification or additional information.

1.2 PROCEDURES

- A. Notification by the Prime Trade Contractor:
1. Submit all requests for clarification and/or additional information in writing to the University's Representative using the Request for Information (RFI) form (Exhibit 17).
 2. RFI's not completely and correctly filled out by the Prime Trade Contractor will not be answered. Impacts to the Project arising from the Prime Trade Contractor's failure to properly submit RFI's are the Prime Trade Contractor's sole responsibility.
 3. Number RFI's sequentially. Submit a new RFI for each new question. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI shall be '001.' The second RFI shall be '002.' The first resubmittal of RFI 002 shall be '002A.'
- B. Limit each RFI to one subject and one subject only. RFI's addressing more than one subject will not be answered.
- C. Submit RFI's if one of the following conditions occur:
1. Prime Trade Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.
 2. Prime Trade Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.
 3. Prime Trade Contractor discovers what appears to be an omission from the Contract Documents that cannot be reasonably inferred from the intent of the Contract Documents.
- D. Non Compliant RFI's
1. RFI's will not be recognized or accepted if, in the opinion of the University's Representative, one of the following conditions exist:
 - a. The Prime Trade Contractor submits the RFI as a request for substitution.
 - b. The Prime Trade Contractor submits the RFI as a submittal.
 - c. The Prime Trade Contractor submits the RFI under the pretense of a Contract Documents discrepancy or omission without thorough review of the Documents.
 - d. The Prime Trade Contractor submits the RFI in manner that suggest that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.
 - e. The Prime Trade Contractor submits an RFI in an untimely manner without proper coordination and scheduling of Work or related trades.

2. If over 10% of the RFI's received from the Prime Trade Contractor are found to fall into these categories, the Prime Trade Contractor will be back charged the cost to the University of the additional effort required to respond to these inappropriate questions. Such back charges may include expenses incurred by the University's Design Professional as determined by the University's Representative. Said back charges will be deducted from the Contract Sum.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Requests for Information

- A. Prime Trade Contractor shall ask for any clarification or request for information immediately upon discovery. Prime Trade Contractor shall submit RFI's in a reasonable time frame so as not to affect the project schedule while allowing the full response time described below. RFI's shall include:
 1. Specification Section or Drawing Number and Detail impacted.
 2. Address impacts to schedule and cost.
 3. Suggest possible solutions to fit field conditions, if appropriate.
- B. Response Time:
 1. The University's Representative, whose decision will be final and conclusive, shall resolve such questions and issue instructions to the Prime Trade Contractor within a reasonable time frame. In most cases, RFI's will receive a response within 14 days. In some cases, this time frame may need to be lengthened for complex issues, or shortened for emergency situations, as mutually agreed in writing between the University's Representative and the Prime Trade Contractor.
 2. Should the Prime Trade Contractor proceed with the Work affected before receipt of a response from the University's Representative, any portion of the Work which is not done in accordance with the University's Representative's interpretations, clarifications, instructions, or decisions is subject to removal or replacement and the Prime Trade Contractor shall be responsible for all resultant losses.
- C. Failure to Agree: In the event of failure to agree as to the scope of the Contract requirements, the Prime Trade Contractor shall follow procedures set forth in the General Conditions.

END OF SECTION 01 26 13

**SECTION 01 31 00
PROJECT COORDINATION**

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Contractor shall coordinate all Work with the Owner's Representative.
- B. Coordinate the Work and do not delegate responsibility for coordination to any subcontractor.
- C. Anticipate the interrelationship of all subcontractors and their relationship with the Work.
- D. Resolve differences or disputes between subcontractors concerning coordination, interference or extent of the work between sections.
- E. Coordinate the work of subcontractors so that portions of the work are performed in a manner that minimizes interference with the progress of the work.
- F. Do not obstruct spaces and installations that are required to be clear by Applicable Code Requirements.
- G. Do not cover any piping, wiring, ducts or other installations until they have been inspected and approved and required certificates of inspection issued.
- H. Remove and replace all work which does not comply with the Contract Documents. Repair or replace any other work or property damaged by these operations with no adjustment of Contract Sum.
- I. Coordinate all portions of the Work requiring careful coordination in order to fit in space available. Before commencing such portions of the work, prepare supplementary Drawings for review by the Owner's Representative.

1.02 PROJECT COORDINATION

- A. Project Meetings: Refer to Section 01 31 19.
- B. Submittals: Refer to Section 01 33 23.
- C. Correspondence: Clearly identify correspondence with Project Name, Project No. 906270, subject and detailed reference to relevant Drawings and Specifications. Details of distribution will be determined at Procedure Meeting; refer to Section 01 31 19.

1.03 MECHANICAL, ELECTRICAL AND RELATED SYSTEMS COORDINATION

- A. Prior to proceeding with the work, and before installation, coordinate and work out all exposed and congested conditions, and penetrations of new and existing structure involving work of various Sections to ensure that conflicts between the work of the various Divisions and with other requirements of the Contract Documents are resolved. Provide all work necessary to coordinate these conditions including all materials and labor necessary to overcome congested conditions at no increase in Contract Sum or Contract Time.
- B. Prepare Coordination Drawings for review by the Owner's Representative. Coordination drawings shall include overlays of the Shop drawings prepared per Section 01 33 23-1.3. Drawings must, at a minimum, be submitted as hard copy colored plan view plots, with all systems clearly identified and all elevations to bottoms of pipes, ducts, diffusers, conduits, etc. clearly annotated and with any discrepancies from the Contract Document Requirements clearly identified.
- C. General Coordination Requirements:
 - 1. Generally, utilities shall be neatly arranged, parallel to building structure.
 - 2. The Contract Documents showing utilities are generally diagrammatic in nature, except where specific elevations or dimensions are given.
 - 3. Not all offsets, fittings, etc. required to clear building structural elements and other work are shown in the contract documents; offsets, fittings, etc. shall be provided as required.
 - 4. Layout of sloped plumbing piping shall generally take precedence, followed by ductwork, cable trays, large (feeder) conduits and finally pressurized piping. However, precedence does not imply that offsets and other revisions required to coordinate the work with the requirements of the Contract documents will not be required for all utilities.
 - 5. The Owner reserves the right to require minor changes to locations and/or elevations of utilities shown in the Coordination Drawings as part of their approval process to improve functionality, accessibility, and/or aesthetics of exposed installations at no increase in Contract Sum or Contract Time, except where the locations and/or elevations are specifically dimensioned in the Contract Documents.
- D. For work concealed above suspended ceilings, in walls or otherwise concealed from view, modification of location and/or arrangement of utilities shall generally be allowed to suit the Contractor's needs, subject to maintaining indicated ceiling heights, wall thicknesses, equipment access and other Contract Document requirements.
 - 1. Maintain locations of items such as sprinkler heads, light fixtures, outlets, speakers, fire alarm devices, etc. indicated on the Reflected Ceiling Plans or Interior Elevations, or where not specifically located, in line, centered in ceiling panels, etc. to present a neat and orderly appearance.

2. Where valves, dampers, J-boxes or other similar items needing access occur above hard ceilings, ceilings with special finishes, or in walls, they shall be clustered to minimize the size and number of access panels.
 3. Access panels shall, in all cases, be neatly organized with other exposed elements and clearly located on the Coordination Drawings for approval. Locate access panels where access to them is not obstructed by other fixed construction.
 4. Contractor shall coordinate any ceiling or wall framing modifications necessary to accommodate the Work.
- C. For work located exposed to view in areas generally occupied by the public or staff, additional coordination requirements shall apply:
1. All, exposed utilities shall be neatly arranged, at elevations and locations indicated on the Contract Documents, or if not specifically indicated, at the highest elevation possible and as close as practical to the locations indicated.
 2. Except where specifically indicated or otherwise approved, all utilities shall be kept above the inferred ceiling plane set by light fixtures, open ceiling grids, bottom chords of trusses or joists, whichever is higher.
 3. Provide penetrations through concrete or steel beams where indicated and/or as approved by the structural engineer to maintain pipe elevations, rather than offsetting below beams.
 4. Where offsets are required, make offsets tight to walls, beams, etc, instead of in the middle of spaces.
 5. Subject to elevation restraints and approval, parallel runs of utilities shall be consolidated and/or stacked as much as possible to reduce extent of ceiling occluded by utilities.
- D. For work exposed in Mechanical & Electrical rooms or similar spaces generally not occupied on a regular basis, and where specific arrangement is not indicated in the Contract Documents, neatly arrange work in accordance with general coordination requirements.
1. Maintain minimum 3' wide by 7'-6" headroom unrestricted access to all equipment, valves, and other items requiring access and/or maintenance, except where greater access is shown, specified, or required to meet code requirements or to maintain equipment.
- E. The term "utilities" as used in this Section includes all piping, conduit, cabling, cable trays, ductwork, equipment and similar or related items.

- F. Coordination Drawings may be prepared using three dimensional modeling software, and submission in electronic format is optional, but shall not supersede the requirements for the specified plots.

1.03 CUTTING AND PATCHING

The Contractor shall be responsible for the coordination and final results of all cutting and patching. Cutting shall be done neatly. Patching shall be of the same material and workmanship as the surrounding finish so that in the final results the patch is not visible. All penetrations of new concrete walls and floors must be coordinated and sleeved prior to the installation of concrete. No coring at new concrete work will be permitted. Where pipes, ducts or other elements are required to pass through or otherwise interfere with any structure, or where notching, boring, cutting or patching of said structure is necessary, the work shall be done only after the Owner's Representative's approval has been obtained.

1.04 NOXIOUS OR TOXIC MATERIALS

The use of noxious or toxic materials for all applications in alternations of work in or adjacent to buildings occupied by the Owner's personnel shall be done only after submittal of product data if required, proper notification to and approval of the Owner, via The Owner's Representative, who may also require that such work be performed on the weekends or other specific days. Such notice shall be given to the Owner, in writing, via the Owner's Representative, a minimum of five (5) working days in advance of said use.

END OF SECTION 01 31 00

**SECTION 01 31 19
PROJECT MEETINGS**

PART 1 - GENERAL

1.1 PTC PRECONSTRUCTION CONFERENCE(S)

- A. Prior to commencement of Work, a preconstruction conference will be conducted by the University's Representative to discuss procedures that are to be followed during performance of the Work.
- B. Location: As designated by University's Representative.
- C. Attending shall be:
 - 1. University's Representative.
 - 2. Prime Trade Contractor's Project Manager
 - 3. Prime Trade Contractor's Project Site Superintendent.
 - 4. Subcontractors, as appropriate or as requested by the University's Representative.
 - 5. Others as appropriate or as requested by the University's Representative.

1.2 BILLING MEETINGS

- A. Monthly billing meeting shall be conducted by University's Representative each month prior to submittal of the Application For Payment (Exhibit 4).
- B. Location: As designated by University's Representative.
- C. Attending shall be:
 - 1. University's Representative.
 - 2. University's Inspection Team.
 - 3. Others as appropriate or as requested by the University's Representative.

1.3 AOC (ARCHITECT, OWNER, CONSTRUCTION MANAGER) PROGRESS MEETINGS

- A. Weekly progress meetings will be held to discuss and resolve field problems. The University's Representative shall conduct these meetings.
- B. Location: At University's Representative job trailer and via conference call.
- C. Attending shall be:
 - 1. University's Representative.
 - 2. University's Consultants (optional)
 - 3. University's Design Professional and Design Professional's Consultants as appropriate.
 - 4. Others as appropriate or as requested by the University's Representative.

1.4 PREPATORY MEETINGS AND PRE-INSTALLATION CONFERENCES

- A. The University's Representative will conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction or when required in technical Specification Section.
- B. Attendance will be required of parties directly affecting, or affected by, or involved in the installation and its coordination or integration with other materials and installations that

have preceded or will follow the particular item of work or activity under consideration. Parties attending the conference shall be qualified and authorized to act on behalf of entity each represents.

- C. Conference Schedule: Schedule conference to assure a sufficient amount of time prior to the scheduled work or activity under consideration so that any concerns, problems or disagreements can be resolved without delaying the Project. Notify the University's Representative 7 days in advance of meeting date.
- D. The University's Representative will make physical arrangements for conferences, prepare agenda, preside at conferences, record minutes, and distribute copies within two days after conference to the University's Representative, the Project Inspector, conference participants and those affected by the decisions made at the conference. The University's Representative will record in the minute's significant discussions and agreements and disagreements.
- E. Do not proceed with the work or activity if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of work and reconvene the conference at the earliest feasible date.

1.5 PRIME TRADE CONTRACTOR MEETINGS

- A. Progress Meetings:
 - 1. To be held a minimum of one-week intervals or more often when required by the University's Representative.
 - 2. Meeting Locations: Jobsite trailer.
 - 3. All Prime Trade Contractors shall attend.
- B. Coordination Meetings:
 - 1. To be held at minimum of one-week intervals or more often when required by the University's Representative.
 - 2. Meeting Location: Jobsite trailer.

1.6 GUARANTEES, BONDS, WARRANTIES AND SERVICE/OPERATION AND MAINTENANCE CONTRACTS/DATA REVIEW MEETING

- A. Eleven months following the date of Substantial Completion, a meeting shall be conducted by the University's Representative for the purpose of reviewing the guarantees, bonds, and service and maintenance contracts for materials and equipment. The Prime Trade Contractor shall take action as appropriate to implement repair or replacement of defective items, and to extend service and maintenance contracts as required.
- B. Attending shall be:
 - 1. University's Representative.
 - 2. University's Consultants, as appropriate.
 - 3. University's Design Professional and Design Professional's Consultants as appropriate.
 - 4. Prime Trade Contractor superintendent(s) whom will be managing the project from on site.
 - 5. Subcontractors, as appropriate or as requested by the University's Representative.
 - 6. Others as appropriate or as requested by the University's Representative.

1.7 LEAN SCHEDULING AND PULL-PLANNING MEETINGS

- A. The University Representative will be utilizing the “Last Planner System” to develop and implement a phased schedule that supplements and supports the Master Schedule included within the bid documents.
1. This will require time commitment from officers and supervisors of all contractors.
 2. All Prime Trade Contractors will be required to provide their input and commitment to the final schedule.
 3. There will be a workshop held prior to the start of construction where the process will be explained in detail and the Master Project Schedule reviewed. Periodically “pull planning” sessions will be held to refine and expand on the detail in the Master Project Schedule. These sessions will require the contractor’s superintendents and foreman to brainstorm and create detailed activities and resource requirements that support the Master Schedule.
- B. Attending shall be:
1. University’s Representative.
 2. University’s Consultants (optional).
 3. University’s Design Professional and Design Professional’s Consultants as appropriate (optional)
 4. Prime Trade Contractor superintendent(s) whom will be managing the project from on site.
 5. Subcontractors, as appropriate or as requested by the University’s Representative.
 6. Others as appropriate or as requested by the University’s Representative.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 19

SECTION 01 31 42
PRIME TRADE CONTRACTOR SCHEDULES

PART 1 - GENERAL

1. PRIME TRADE CONTRACTOR SCHEDULE

The University's Representative will be utilizing the "Last Planner System" to develop and implement a phased schedule that supplements and supports the Preliminary Master Project Schedule included within the bid documents. This will require time commitment from officers and supervisors of all contractors. All contractors will be required to provide their input and commitment to the final schedule.

A. Pull Planning Sessions

1. There will be a workshop held prior to the start of construction where the process will be explained in detail and the Preliminary Master Project Schedule reviewed.
2. Periodically "pull planning" sessions will be held to refine and expand on the detail in the Preliminary Master Project Schedule.
3. These sessions will require the Prime Trade Contractor's superintendents and foreman to brainstorm and create detailed activities and resource requirements that support the Preliminary Master Project Schedule.
4. After all contractors agree to each other's input, all parties will commit to this updated schedule.

B. Submit

1. Six week look-ahead schedules will be reviewed and updated each week and will be the basis of a Weekly Work Plan (WWP).
2. All contractors will be required to submit their WWP on a weekly basis prior to that week.

C. Form

1. The WWP will consist of a production plan in which quantity goals as well as weekly manpower requirements established consistent with meeting the overall project schedule.
2. Prepare the WWP in sufficient detail to demonstrate preliminary planning for the Work and to represent a practical plan to complete the Work within the Contract Time and in accordance with the Preliminary Master Project Schedule.

D. Activities

1. The WWP will consist of a production plan in which quantity goals as well as weekly manpower requirements established consistent with meeting the overall project schedule.
2. Identify all holidays, including University holidays, and non-working days on the WWP.

3. During the Pull Planning Sessions each Prime Trade Contractor will identify all Work activities in correct sequence for the completion of the Work. Work activities will include the following:
 - a. Major Contractor-furnished equipment, materials, and building elements, and scheduled activities requiring submittals or University's prior approval.
 - b. System test dates.
 - c. Scheduled overtime Work if required by Contract Documents.
 - d. Dates designated for working spaces, storage areas, access, and other facilities to be provided by University.
 - e. Dates orders and decisions from University on designated items are due.
 - f. Dates for delivery of University-furnished equipment.
 - g. Dates for University-furnished utilities.
 - h. Connection and relocation of existing utilities.
 - i. Connection to or penetrating existing structures.
 - j. Scheduled inspections as required by Codes, or as otherwise specified.

4. During the Pull Planning Sessions each trade contractor will identify all Work activities that constitute the critical path.
 - a. Critical Work activities are defined as Work activities which, if delayed or extended, will delay the scheduled completion of one or more of the milestones specified in this Section or the scheduled completion of the Work, or both. All other Work activities are defined as non-critical Work activities and are considered to have float.

1.2 PRELIMINARY MASTER PROJECT SCHEDULE

- A. The Preliminary Master Project Schedule shall be utilized for monitoring progress of the Work and represent a practical plan to complete the Work within the Contract Time.
- B. The Preliminary Master Project Schedule will identify the following milestone events:
 1. Refer to the Preliminary Master Project Schedule shown in the Bidding Documents for milestone events.
- C. The Preliminary Master Project Schedule will identify all holidays and non- working days.
- D. Updating.
 1. The Preliminary Master Project Schedule and WWP will be monitored and updated each week during the construction phase by the whole project team.
 2. Monitoring and evaluation will cover not only future activities; but completed activities will be evaluated from a "lesson learned" perspective in order to improve on future planning activities.
 3. Project team members will be held accountable for meeting these goals.
 4. No Applications For Payment will be processed nor shall any progress payments become due until updated information is accepted by University's Representative.

1.3 TIME CONTROL

- A. Set up control procedures so that approved schedules are adhered to. Contractor's responsibility is to properly notify University's Representative of anticipated and actual time delays (refer to General Conditions).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 42

**SECTION 01 31 45
CONTRACT SCHEDULES**

PART 1 - GENERAL

1.1 PRELIMINARY CONTRACT SCHEDULE

- A. Within the time stated in the Notice of Selection as Apparent Lowest Responsible Bidder, Prime Trade Contractor shall submit a preliminary work plan or schedule of proposed operations to the University's Representative for approval. This schedule shall acknowledge the full contract duration as well as significant known contract constraints. In preparation of the plan or schedule, which will be computer generated by the University's Representative with input from the Prime Trade Contractors (see Instructions to Bidders for additional detail, the Prime Trade Contractor shall make due allowance for and include the following:
1. Preparation of equipment and material submittals for review.
 2. Procurement schedule.
 3. Construction and installation schedule.
 4. Major milestones.
- B. Form
1. Prepare the Preliminary Contract Schedule in sufficient detail to demonstrate preliminary planning for the Work and to represent a practical plan to complete the Work within the Contract Time.

1.2 PROJECT OR CONTRACT SCHEDULE

1. Within 30 working days of receipt of the Notice to Proceed, the Prime Trade Contractor shall submit a detailed project schedule. This Detailed Project Schedule shall incorporate the first 90 calendar days of contract Work as shown in the accepted Preliminary Contract Schedule.
2. Form:
 - a. The Detailed Contract Schedule shall be CPM (Critical Path Method), using PDM (Precedence Diagram Method) method of scheduling, with time scaled diagrams (plots) and tabular charts.
 - b. The Detailed Contract CPM Schedule will be computer generated by the Owner's Representative with input from the Prime Trade Contractors; When approved by the University, the schedule shall serve as the contract schedule for the project.
 - c. The Detailed Contract CPM Schedule duration shall conform to the full contract duration; and may include one or more float activities, to show full accounting of the Contract Time.
 - d. Prepare the Detailed Contract Schedule in sufficient detail to demonstrate serious planning for the Work and to represent a practical plan to complete the Work within the Contract Time.
 - e. Identify all holidays, UC Merced finals weeks and non-working days.
 - f. Critical Work activities are defined as Work activities that, if delayed or extended, will delay the scheduled completion of 1 or more of the milestones specified in

this Section or the scheduled completion of the Work, or both. All other Work activities are defined as non-critical Work activities and are considered to have float.

- g. Float is defined as the time that a non-critical Work activity can be delayed or extended without delaying the scheduled completion of milestones specified in this Section or the scheduled completion of the Work, or both. Neither the Prime Trade Contractor nor the University shall have an exclusive right to the use of float. The party using float shall document the effect on the updated Contract Schedule.

B. Content:

1. The Contract Schedule shall identify all Work activities in correct sequence for the completion of the Work. Work activities shall include the following:
 - a. Major Prime Trade Contractor-furnished equipment, materials, and building elements, and scheduled activities requiring submittals or University's Representative's prior approval.
 - 1) Show dates for the submission, review, and approval of each such submittal. Dates shall be shown for the procurement, fabrication, delivery, and installation of major equipment, materials, and building elements, and for scheduled activities designated by the University.
 - 2) A minimum of 18 days shall be allotted for University's Representative to review each submittal.
2. System test dates.
3. Scheduled overtime Work if required by Contract Documents.
4. Dates Prime Trade Contractor requests designated workspaces, storage area, access, and other facilities to be provided by the University.
5. Dates Prime Trade Contractor requests orders and decisions from the University on designated items.
6. Dates Prime Trade Contractor requests University-furnished equipment.
7. Dates Prime Trade Contractor requests University-furnished utilities.
8. Connection and relocation of existing utilities.
9. Connecting to or penetrating existing structures.
10. Scheduled inspections as required by Codes, or as otherwise specified.

C. Presentation

1. Network Logic Diagrams
 - a. The Contract Schedule shall include all construction and demolition activities, procurement of equipment components and major off-site fabricated items, through the entire construction phase, including pre-commissioning and job close out. Completion or "Punch List" work shall be included in the Contract Time.
 - b. The Contract Schedule shall include a complete sequence of construction, in adequate detail for the planning and coordination of the Work. Unless approved

- by the University's Representative, there shall be no activities shown with durations in excess of 20 working days.
- c. The Contract Schedule shall be depicted in the form of precedence diagramming method (PDM) and shall be segregated or divided into bands of activities to reflect the Prime Trade Contractor's scheduling areas and/or phasing of all construction and procurement activities.
 - d. The PDM Diagram may be divided into a number of separate pages with suitable notation relating to the interface points from one page to the other. Individual pages shall not exceed 30 by 42 inches.
 - e. Each activity shall be drawn so that the early start and early finish dates (or actual dates) are clearly indicated. The schedule plot also shall show the dates in tabular form.
 - f. Each activity shall reflect at least the following information:
 - 1) Description of the work.
 - 2) Activity duration (in work days).
 - 3) Activity number.
 - 4) Activity relationship and float.
 - g. All activities shall be shown, distinguishing critical path activities, non-critical activities and milestone activities.
 - h. For large schedules, a summary page shall be provided indicating the major milestones. The summary page shall include a legend that clearly identifies all symbols used within the CPM PDM Diagram. The summary page shall include an index listing all sheets within each sub-network.
 - i. Graphic schedules shall be accompanied by electronic data files of the network, showing all activities, durations, dependencies and constraints. The files shall be provided on 3.5 inch disk, Zip 100 disk, or CD-ROM, MS Windows format.
2. Tabular Computer Reports
 - a. Accompanying the Construction Schedule, the Contractor shall submit various computer generated tabular reports as further described within this Section.
 - b. As requested by the University's Representative, the Contractor will be required to submit additional Schedule and Cost Reports.
- D. Computer System and Computer Generated Tabular Reports:
1. The computer system selected shall be based on PRIMAVERA/PRIMAVISION®, , or equal.
 2. The computer software employed by the University's Representative will be capable of:
 - a. Numeric or Alpha/Numeric activity numbering.
 - b. Activity codings (to facilitate selecting groups or groupings of activities), with at least a 6-position alpha/numeric code.
 - c. Activity description field of at least 48 characters.
 - d. Reporting capabilities that allow sorting of a group or groupings of activities to generate various computer tabular reports and, establishing various planning schedules, as well as bar graphs.

- e. Identifying any user assigned constraint; e.g., start not earlier than on the printout, adjacent to the activity.
 - f. Activity coding to allow graphic presentation in Gantt or PERT chart format.
3. Computer generated tabular reports:
- a. Construction Schedule tabular reports shall include the activity number, activity description, duration, remaining duration, percent complete, early start date, early finish date, late start date, late finish date, total float, precedence relationships, lead/lag values and shall correlate work days to schedule dates. If the activity is completed or in progress, it shall have actual start or actual finish dates in lieu of the planned dates. The following sorts are required:
 - 1) A Schedule of all activities, sorted by activity number, with the CPM Logic.
 - 2) A Schedule of all activities, sorted by early start date without the CPM Logic.
 - 3) A Schedule of all activities, sorted by total float without the CPM Logic.
 - 4) When requested, a Schedule of all activities showing successors, predecessors and constraints.
 - b. Computer generated bar graphs of all activities. The following sorts are required:
 - 1) Sorted by early start only.
 - 2) Sorted by trade and/or responsibility, by early start.
 - c. Computer generated milestone schedule.

E. Submission

1. Upon receipt, the University's Representative shall review the, Detailed Contract Schedule; the University's Representative and the Prime Trade Contractor shall meet to jointly review the Schedule.
2. If the Schedule is found to be acceptable, the schedule will then be approved by the University's Representative as the Baseline Construction Schedule (Contract Schedule).
3. If the Prime Trade Contractor or the University's Representative determines the Contract Schedule to be in need of revision, within 10 working days thereafter, the Prime Trade Contractor shall revise and resubmit the Schedule to the University's Representative for approval, and, upon acceptance thereof, the Schedule shall be approved as the Baseline Construction Schedule (Contract Schedule).

F. Distribution:

1. University's Representative, 3 copies.
2. Contractor's Superintendent.

G. Updating:

1. Prime Trade Contractor shall update the Contract Schedule reflecting progress as of the end of the month and shall submit to the University's Representative for approval by no later than the tenth day of the following month. The updates shall be made as follows:
 - a. The schedule update shall consist of updated CPM Schedule reports similar to the Baseline Construction Schedule. The CPM Schedule reports shall report progress based upon percent complete of actual time and remaining duration. If the Prime

- Trade Contractor is behind schedule, or requests an extension to the Contract time, the Contract Schedule must be updated and submitted for review in support of the request. Contract Schedules must be updated any time that delays or a change in scheduled work occurs.
- b. The updated Contract Schedule shall reflect an up-to-date status of the contract work as completed, and materials furnished and in permanent place that qualify for payment.
 - c. The updated Contract Schedule shall reflect the true effect of all processed change orders for the progress month. Subject to the provisions stated in the General Conditions, the Prime Trade Contractor will be granted an extension to the contract time for the cumulative effect any approved change orders have had on the critical path; refer to General Conditions for the prerequisites for entitlement to a time extension.
 - d. The updated Contract Schedule shall include all delays for the progress month. Subject to the provisions stated in the General Conditions, the Prime Trade Contractor will be granted an extension to the contract time for the cumulative effect any excusable delay(s) had on the critical path. No time extension will be granted for a claimed delay, unless the Prime Trade Contractor can demonstrate to the satisfaction of the University's Representative the claimed delay affected the controlling operation or operations of the project. To receive an extension to the contract time, the following conditions must be met:
 - 1) Written notice has been provided, within 7 days of the delay.
 - 2) The written notice meets the notice requirements as outlined in the General Conditions.
 - 3) The Prime Trade Contractor has met the conditions of the General Conditions, all of which are prerequisites for entitlement of an extension of the contract time. The Prime Trade Contractor may submit, with the written notification or with the updated Construction Schedule, a CPM sub-net sketch that delineates the activities that were affected by the delay and the effect the delay had on the critical path. No time extension will be granted if the Prime Trade Contractor has not met the requirements of the General Conditions, or if the Prime Trade Contractor has not satisfactorily demonstrated that the claimed delay affected the critical path. Accordingly, all delays not incorporated into the updated Construction Schedule shall be deemed denied by the University.
2. At the updating, in addition to the above, the Prime Trade Contractor shall provide short interval schedule reports, which include:
 - a. A bar graph spanning 1 month prior to the datum line to 2 months beyond the datum line.
 - b. A " Four-Week Look Ahead" or predicated status report, covering the work within the next 4 week period, with activities sorted by early start.
 3. The Prime Trade Contractor shall provide an Accompanying Narrative Report as needed to explain changes to the schedule, changes to the critical path and shall include a list of critical activities that require action from the University's Representative. The Accompanying Narrative Report shall include a listing of all delays that affected the critical path and shall clearly explain the impact the claimed delay(s) had on the critical path and shall include an account audit of days lost/gained.

4. Other conditions under which additional schedule updating will be required are as follows:
 - a. When delay in completion of any work items or sequence of work items result in an indicated extension of the project completion.
 - b. When delays in submittals or deliveries or work stoppages known to the Contractor are encountered that make replanning or rescheduling of the work necessary.
 - c. When the schedule does not represent the actual prosecution and progress of the work.
5. Subject to all other requirements of the Contract Documents, nothing in these requirements shall be deemed to be a usurpation of the Prime Trade Contractor's authority and responsibility to plan and schedule the Work.
6. Distribute copies as required for initial distribution and monthly distribution.

1.3 TIME CONTROL

- A. Set up control procedures so that approved schedules are adhered to. Prime Trade Contractor's responsibility is to properly notify University's Representative of anticipated and actual time delays (refer to General Conditions).
- B. Time extension requests shall be submitted in accordance with the provisions of General Conditions.
- C. The Prime Trade Contractor's time extension request shall be reviewed and evaluated by the University's Representative. A request for the extension shall be deemed denied if not responded to by University's Representative within 21 days.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 45

**SECTION 01 33 23
SUBMITTALS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including the General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

All Submittals, including documents, as described herein or in other areas of the Contract Documents.

- B. Related Sections:

1. Specific Sections reference required submittal(s). All Submittals, other than in connection with proposed substitutions, shall be submitted to the Owner's Representative only when specifically required; and the Owner's Representative will not review any other such submittals. Product Data and Samples for proposed substitutions shall be submitted to the Owner's Representative in accordance with Section 01630. Contractor shall be responsible for obtaining such copies of Shop Drawings, Product Data, and Samples as it may require for its own use.
2. Requirements for other types of submittals such as test reports, operating instructions, maintenance data, and warranties.
3. Section 01 31 00 Project Coordination.
4. Bid Documents.
5. The General Conditions of the Contract.
6. Section 01 81 13 LEED General Requirements

- C. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following

1. Submittal schedule.
2. Daily construction reports.
3. Shop Drawings.
4. Product Data.
5. Samples.
6. Quality assurance submittals.

7. Special Reports.
 8. Requests for Information.
- B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
1. Permits.
 2. Applications for Payment.
 3. Performance and payment bonds.
 4. Insurance certificates.
 5. List of subcontractors.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1 Section 01 31 00 "Project Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
 2. Division 1 Section 01 31 19 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
 3. Division 1 Section 01 31 45 "Contract Schedules" specifies requirements for submission of Construction Contract Schedules
 4. Division 1 Section 01 45 00 "Quality Control" specifies requirements for submittal of inspection and test reports.
 5. Division 1 Section 01 78 39 "Project As-Built Documents" specifies requirements for submittal of Project Record Documents at project closeout.
 6. Division 1 Section 01 78 36 "Guarantees, Warranties, Bonds, Service & Maintenance Controls" specifies requirements for submittal of warranties and bonds at project closeout.

1.3 DEFINITIONS

- A. The terms "Shop Drawings" and "Product Data" as used herein, also include, but are not limited to, fabrication, erection, layout and setting drawings, manufacturers' standard drawings, descriptive literature, catalogs, brochures, performance and test data, wiring and control diagrams, all other Drawings and description data pertaining to materials, equipment, or systems and the positions thereof conform to the Contract Documents.
- B. As used herein, the term "manufactured" applies to standard units usually mass-produced. The term "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop Drawings shall establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining Work, and amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure.

- C. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
 - 1. Preparation of Coordination Drawings is specified in Section 01 31 00 "Project Coordination" and article 1.08 below and may include components previously shown in detail on Shop Drawings or Product Data.
- D. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
- E. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

1.4 SCHEDULE OF SUBMITTALS

- A. Below is a partial listing of required Submittals from the Contractor within times indicated. Additional Submittals required as part of the Contract Documents are required in specific sections. The Contractor shall be responsible for transmitting material by method required to accommodate his schedule for review and construction. Where applicable, Contractor and/or Subcontractors shall provide necessary information sufficiently in advance to meet such time periods. Where a building assembly is involved, make a single submittal which includes all components for the assembly.
- B. Before or at execution of the Contract:
 - 1. Contract bonds, as required.
 - 2. Final list of Subcontractors and Subcontractor qualifications.
 - 3. Certificate of insurance.
 - 4. Schedule of Values: 24 hours after Bid.
 - 5. Names, with job and responsibility descriptions, for each member of the Contractor's project team.
 - 6. List of Minority and Female Participation proposed: 7 calendar days after Bid due date.
- C. Prior to Substantial Completion
 - 1. Operation & maintenance Manuals.
- D. Prior to Final Acceptance:
 - 1. Record Drawings.
 - 2. Signed Certificates of Inspection.
 - 3. Performance Tests and Reports.
 - 4. Request for Final Inspection.
 - 5. Request for Final Payment.

- E. Time between Submission of Submittal and Return to the Contractor: Unless noted elsewhere in these specifications, the Owner's Representative shall have the review period noted below from receipt of a contractor's submittal in which to review and respond to the submittal. Re-submittals shall require the same review time as the original submittal. The CPM Construction Schedule shall indicate these review times.
1. General Submittals: 2 weeks.
 2. Mechanical and Electrical submittals: 3 weeks.
 3. Coordination Drawings: 4 weeks.
 4. Requests for Information: 1 week.
- F. Re-submittals: 21 days from date of instruction to resubmit.

1.5 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Owner's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 - a. In the case where several submissions are submitted concurrently, the Contractor shall indicate on the transmittal the priority with which the submissions should be processed and returned. Every attempt will be made to return priority submissions within ten (10) working days but this cannot be guaranteed in the case of large or multiple submissions.
 - b. The Owner's Representative and/or Engineer will not review submittals that have not been reviewed and coordinated by the Contractor and subcontractor and which do not bear their respective stamps. Submittals bearing substantial errors in interpretation of the contract documents or that are obviously not coordinated will be returned un-reviewed for reprocessing, coordination and approval by the Contractor.
 - f. No extension of Contract Time or Price will be authorized because of failure to transmit complete submittals to the Owner's Representative sufficiently in advance of the Work to permit processing.

4. Submittal Review: To be reviewed by the Owner's Representative for general design requirements only. Do not construe the Owner's Representative's review as:
 - a. Permitting variation from Contract documents except as specifically authorized or requested by the Owner's Representative and/or Engineer.
 - b. Relieving the Contractor of responsibility for errors in details, dimensions or quantities.
 - c. Permitting departures from additional details or instructions previously furnished by the Owner's Representative and/or Engineer.
 - d. Relieving the Contractor or responsibility for integrating and coordinating various trades and separate contracts.

- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 1. Provide a space approximately 4 by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken. The Contractor's approval stamp shall be worded as follows:

(Contractor's name) certifies that submittal complies in all respects,
except as noted, with the requirements of the Contract Documents.
Approved By: _____ Date: _____
 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of the Owner.
 - d. Name and Address of the Owner's Representative and/or Engineer
 - e. Name and address of the Contractor.
 - f. Name and address of the subcontractor.
 - g. Name and address of the supplier.
 - h. Name of the manufacturer.
 - i. Number and title of appropriate Specification Section.
 - j. Reference to Standards and materials indicated in the Specifications and whether there are any deviations from those stated.
 - k. Drawing number and detail references, as appropriate.
 3. All submittals shall indicate in writing, conformance with the criteria, standards and regulations required by the Specifications, and shall reference each Paragraph wherein that requirement is stated, on the related portion of the submittal.
 4. When phrase "by others" appears on Shop Drawings, the Contractor shall indicate on the Drawing who is to furnish material or operations so marked.

- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Owner's Representative using a transmittal form. This form shall include provision for filling in of dates sent and received by/from each party in the review process to function as a tracking aid. The original of this form will be

included with the submission of the submittal and be returned by the Owner's Representative to the Contractor with the submittal return.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- D. Make submittals promptly in accordance with the Submittal Schedule and in such sequence as to cause no delay in the Work or in the work of any Separate Contractor.
- E. Number of Submittals Required:
1. Shop Drawings: Submit one (1) reproducible transparency and two (2) opaque reproductions of each Drawing. After checking, the Owner's Representative will make prints for itself, the Owner, and their consultants and then return the reproducible copy to Contractor. Contractor will make prints, as it requires for its use and for Subcontractors' use.
 2. Product Data and Non-Reproducible Submittals: Submit the number of copies which are required for use by the Contractor, plus three (3) copies which will be retained by the Owner and the Owner's Representative.
 3. Samples: Submit the number specified in the Section or six (6) if the number is not specified in the Section, which requires them.
- F. All submittals shall be routed through the Construction Manager. The Owner's Representative and/or Engineer will not accept submittals that are not forwarded through and reviewed by the Contractor.

1.6 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for submittal of the Contractor's Construction Schedule.
1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.
 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category (Shop Drawings, Product Data, or Samples).
 - d. Name of the subcontractor.
 - e. Description of the part of the Work covered.
 - f. Scheduled date for re-submittal.
 - g. Scheduled date for the Owner's Representative and/or Engineer's final release or approval.

- B. Distribution: Following response to the initial submittal, print and distribute copies to the Owner, Owner's Representative, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.
 - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.
- D. When phrase "by others" appears on Shop Drawings, the submitting Contractor shall indicate on the Drawing who is to furnish material of operations so marked.

1.7 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
 - 1. Dimensions.
 - 2. Identification of products and materials included by sheet and detail number.
 - 3. Compliance with specified standards.
 - 4. Notation of coordination requirements.
 - 5. Notation of dimensions established by field measurement.
 - 6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 36 by 48 inches (914 by 1219 mm).
 - a. Scale: minimum 1/4-inch plans, 3/8-inch at elevations and sections or where otherwise appropriate or required to illustrate work clearly.
 - 7. For work specified under Divisions 21 (Fire Sprinkler), 15, 16 and 17 (as applicable):
 - a. Engage professional drafter to prepare plans formatted to match the size and title blocks of the Contract Drawings. These plans shall reflect existing dimensions as field verified by the Contractor. Plans shall be uniform and identical and shall serve as backgrounds for preparation of shop or layout drawings required under the relevant Divisions and for preparation of Coordination Drawings specified in Section 01040 Project Coordination. They will also ultimately be used for recording of as-built information required under these Divisions. Refer to Section 01720 regarding Record Documents.

- b. Where additional sheets of elevations, sections, details or diagrams are required for shop or coordination drawings, such sheets shall match the Contract Drawings with respect to size and title block.
 - c. Refer to Divisions 21, 22, 23, 26, 27 and 28 Sections for additional general requirements applicable to Shop Drawings for these Divisions. Where conflicts between other Division Sections, this Section or Section 01 31 00 occur, the more stringent requirements shall apply.
8. One of the prints returned to the Contractor shall be marked and maintained as a "Record Document".
 9. Do not use Shop Drawings without an appropriate final stamp indicating action taken. Shop Drawing Submittals shall additionally not be deemed to have final approval prior to submission and approval of Coordination Drawings.
 10. Provide the University with final approved submittals in electronic format.

1.8 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
 3. Refer to Divisions 22, 23 and 26 Specification Sections for additional general requirements applicable to Product Data for mechanical and electrical work.
 4. Manufacturer's standard schematic drawings and diagrams:
 - a. Modify the standard schematic Drawings and other diagrams to delete information, which is not applicable to the work.

- b. Supplement standard information to provide information specifically applicable to the work.
5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
- a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
 - b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.9 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
- 1. Mount or display Samples in the manner to facilitate review of qualities indicated. Prepare Samples to match the Owner's Representative and/or Engineer's sample. Include the following:
 - a. Specification Section number and reference.
 - b. Generic description of the Sample.
 - c. Sample source.
 - d. Product name or name of the manufacturer.
 - e. Compliance with recognized standards.
 - f. Availability and delivery time.
 - 2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
 - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
 - d. Samples not incorporated into the Work shall be designated as the Owner's Property and shall be turned over to the Owner prior to Substantial Completion.

3. Preliminary Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices.
 - a. The Owner's Representative and/or Engineer will review and return preliminary submittals with the Owner's Representative and/or Engineer's notation, indicating selection and other action
 4. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
 - a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.10 QUALITY ASSURANCE SUBMITTALS

- A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 1. Signature: an officer of the Manufacturer shall sign Certification or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Section 01 45 00 "Quality Control".

1.11 SPECIAL REPORTS

- A. General: Submit special reports directly to the Owner's Representative within one day of occurrence. Submit a copy of the report to the Owner and other entities that are affected by the occurrence.

- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the Owner in advance when such events are known or predictable.
- C. Reporting Accidents: Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

1.12 ARCHITECT AND/OR ENGINEER'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Owner's Representative and/or Engineer will review each submittal, mark to indicate action taken, and return promptly.
 - 1. This review is for general conformance with the design concept and with the Contract Documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the Project plans and Specifications, nor as authorizing departures therefrom. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, and/or selecting fabrication processes, for techniques of assembly, and for performing the work in a safe manner.”
- B. Action Stamp: The Owner's Representative and/or Engineer will stamp each submittal with a uniform, action stamp. The Owner's Representative and/or Engineer will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. Review Completed - Accepted subject to its compatibility with future submissions and additional partial submissions for portions of the Work not covered in this submission. Does not constitute deletion or completed review of specified or required items not shown in the partial submission.
 - 2. Correct as Noted - Same as "Review Completed" above, except that minor corrections as noted shall be made by the Contractor. If, for any reason, notations cannot be complied with, then resubmission shall be required.
 - 3. Revise and Resubmit - Means that the submittal does not conform with project requirements and that fabrication, manufacture, or construction shall not proceed. Submittal must be revised to conform and be submitted until stamped with one of the above actions.
 - a. Do not permit submittals marked "Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
 - 4. Rejected - Means that the information contained in the submittal is materially not in conformance with the design concept of the project and the contract documents. For example, wrong size, model, capacity or material. Fabrication, manufacture, or construction shall not proceed until the information is resubmitted and stamped with either “Review Completed” or “Correct as Noted”.

5. Review Includes Letter dated ____ - Either in lieu of or in addition to notations on the submittal, the Owner's Representative is providing corrections or additional information by means of a separate letter, which will require further action by the Contractor. This indication may be made in conjunction with other markings on the review stamp.
 6. Furnish Additional Information Noted – Means that additional information is required to be submitted prior to full and/or final review of the submittal. Generally this mark will be used in combination with the above actions.
- C. Unsolicited Submittals: The Owner's Representative will return unsolicited submittals to the sender without action.

1.13 RESUBMITTALS

- A. Resubmission Requirements: Shop Drawings and Product Data:
1. Revise Shop Drawings or Product Data and resubmit as specified for the initial submittal.
 2. Identify any changes, which have been made other than those requested. Note any departures from the Contract Documents or changes in previously reviewed submittals, which were not commented upon by the Owner's Representative.
- B. If more than 1 re-submittal is required, the Contractor shall pay the Owner's Representative's costs for review of such re-submittal. The Owner's Representative will notify the Contractor and the Owner of such costs and the amount will be paid prior to conducting required reviews.

END OF SECTION 01 33 23

**SECTION 01 35 00
SPECIAL REQUIREMENTS**

PART 1 - GENERAL

1.1 DEFINITION OF PROJECT SITE

- A. Prime Trade Contractor's use of the Project site for the Work and storage is restricted to the areas designated on the Drawings.
- B. The Project site is located at University of California, Merced Campus, 5200 N. Lake Rd. Merced CA 95344.

1.2 WORK HOURS

- A. No Work shall be done outside of standard Monday through Friday 7:00 A.M. to 5:00 P.M. working hours, on holidays or weekends unless prior written approval has been obtained from the University's Representative.

1.3 SITE INGRESS AND EGRESS

- A. All Prime Trade Contractors shall use the Project Access Road off of Lake Road at Ranchers Road as shown on the Site Logistics Plan.
- B. The Earthwork Contractor shall construct and maintain temporary access roads and laydown areas as shown on the Site Logistics Plan. All temporary access roads shall comply with all applicable laws, regulations & permit requirements.

1.4 SITE RESTRICTIONS

A. OUT OF BOUNDS AREAS

1. Little Lake

- a. The Prime Trade Contractor shall not permit any Prime Trade Contractor personnel or construction vehicle to approach within 100 feet of Little Lake except with the prior written approval of the University's Representative.
- b. The Prime Trade Contractor shall ensure that no Prime Trade Contractor personnel shall use the Lake to fish, swim or for other non-construction activities.
- c. The Prime Trade Contractor shall ensure that no run-off shall enter the Lake except as indicated on the Drawings.
- d. The Prime Trade Contractor shall ensure that no construction garbage, detritus, waste or debris (whether solid or liquid) of any type shall enter the Lake.

2. Merced Irrigation District

- a. The Prime Trade Contractor shall not permit any Prime Trade Contractor personnel or construction vehicle to approach within 50 feet of the

- b. Fairfield Canal and the penstock between Le Grand and Fairfield Canals except with the prior written approval of the University's Representative. The Prime Trade Contractor shall ensure that no Prime Trade Contractor personnel shall use the Fairfield Canal or the penstock between Le Grand and Fairfield Canals to fish, swim or for other non-construction activities.
- c. The Prime Trade Contractor shall ensure that no run-off shall enter the Fairfield Canal or the penstock between Le Grand and Fairfield Canals except as indicated in the Contract documents.
- d. The Prime Trade Contractor shall ensure that no construction garbage, detritus, waste or debris (whether solid or liquid) of any type shall enter the Fairfield Canal or the penstock between Le Grand and Fairfield Canals.

1.5 ROADS

- A. Existing roads and existing or planned construction roads shall be used for construction access within the limits defined herein.
- B. Prime Trade Contractor shall take all necessary precaution to insure the safety of University Students, Faculty and Visitors at all times.
- C. Prime Trade Contractor must obtain prior written approval from the University's Representative to block streets or parking areas at any time.
- D. The Prime Trade Contractor shall clear all roads (including Lake Road), parking areas and sidewalks affected by the Contractor's operations. This will include the immediate removal of dust, dirt, or any other debris or detritus so that roads and sidewalks are maintained in a safe and usable condition.

1.6 PARKING

- A. All parking locations and arrangements must be coordinated and approved by University's Transportation and Parking Services (TAPS) prior to the start of work.
- B. A parking permit and fee to utilize the University of California, Merced (UCM) parking facilities will be required for all areas. Parking permits can be purchased on a monthly basis at a fee of \$30 per month per vehicle. Contact Transportation and Parking Services (TAPS) at (209) 228-4548 or visit the Facilities modular behind Central Plant for information on obtaining permits. A valid permit must be displayed at all times by all vehicles while parking on campus, whether in fenced construction areas or not.
- C. The Prime Trade Contractor shall not permit any personnel to park within the construction site or construction yard. Parking will be limited to a maximum of one company insured vehicle on site or within the construction yard.
- D. On-street parking is not permitted in areas not designated for parking or construction.
- F. Vehicles found to be on university property without a valid permit, will be cited. Fines range from \$50.00 for no permit to \$445.00 for parking in a handicapped stall without a valid blue tag.

1.7 TRAFFIC CONTROL

- A. The Prime Trade Contractor shall adopt all practical means to minimize interference to traffic. Access to other facilities under construction shall be maintained at all times. The Prime Trade Contractor shall provide a schedule of any activity that will impact traffic, or any planned closing of the streets, for approval by the University's Representative and shall give a minimum of 14 working days notice before closing any street or access.
- B. Prime Trade Contractor shall furnish at Prime Trade Contractor's expense all barricades, lights, and other devices and means necessary to control traffic and shall maintain these devices at all times to protect the public and/or Work.
- C. It is the responsibility of the Prime Trade Contractor performing Work on or adjacent to a highway to install and maintain such devices as are necessary to provide safe passage for the traveling public through the Work, as well as for the safeguard of workers. Before Work begins, traffic control plans for handling traffic through a construction or maintenance Project shall be submitted to and approved by the University's Representative and public agency or authority having jurisdiction over the highway, in accordance with Chapter 5 of the CalTrans Traffic Manual.
- D. The Prime Trade Contractor shall comply with the provisions of 01 35 40 Environmental Mitigation.
- E. The Prime Trade Contractor shall ensure that all of the Prime Trade Contractor's activities that affect traffic control, road use, materials delivery, equipment delivery, rights of way and preservation of 3rd party access rights are coordinated with those of all Separate Prime Trade Contractors.

1.8 SURROUNDING SITE CONDITION SURVEY

- A. Prior to commencing the Work, Prime Trade Contractor, and University's Representative shall tour the Project site together to examine and record damage to existing adjacent buildings, campus streets and city streets, bicycle paths, sidewalks, and all other improvements. This record shall serve as a basis for determination of subsequent damage due to Prime Trade Contractor's operations and shall be signed by all parties making the tour. Any cracks, sags, or damage to the adjacent buildings and improvements not noted in the original survey, but subsequently discovered, shall be reported to the University's Representative.

1.9 INTERRUPTION OF BUILDING SERVICES

- A. Planned utility service shutdowns shall be accomplished during periods of minimum usage. In some cases this will require Work activities before 8:00 A.M. and after 5:00 P.M. and weekend Work, at no additional cost to the University. At least 7 working days advance notice shall be given to the University's Representative before interruptions to utility service (refer to Exhibit 18 Utility Service Interruption/Shut Down Request) and other interferences with use of existing buildings, surrounding hardscape and roads.
- B. Shutdowns critical to the completion of the project shall be listed as Milestones on the project schedule. The Prime Trade Contractor shall program Work so that service will be

restored in the minimum possible time, and shall cooperate with the University in reducing shutdowns of utility systems.

- C. The University reserves the right to deny shutdown requests based on scheduled work load, research projects, and usage of surrounding buildings or other activities planned on campus.

1.10 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. The Drawings show, if applicable, existing above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, hot water, and other utilities that are known to the University.
- B. Prime Trade Contractor shall locate all known existing installations before proceeding with construction operations that may cause damage to such installations. Existing installations shall be kept in service where possible and damage to them shall be repaired at no additional cost to the University.
- C. Existing underground structures and utilities shall be kept in service unless prior approval to interrupt or shutdown service is obtained from University's Representative. If damaged, they shall be repaired by the Prime Trade Contractor with no adjustment of Contract Sum or Contract Time.
- D. The Prime Trade Contractor shall coordinate all Work with the operations of separate Prime Trade Contractors as needed. This shall include, but not be limited to, the responsibility of the Prime Trade Contractor to coordinate with other contractors installing underground utilities. Such coordination should take place prior to any excavation or trenching operations by the Prime Trade Contractor.
- E. If any other structures or utilities are encountered, the Prime Trade Contractor shall request University's Representative to provide direction on how to proceed with the Work.
- F. If any structure or utility is damaged by the Prime Trade Contractor, the Prime Trade Contractor shall take appropriate action to ensure the safety of persons and property.
- G. No Work is to be performed on energized electrical equipment unless scheduled with the University's Representative. The University reserves the right to specify specific conditions for all Work involving energized high-voltage electrical equipment.
- H. Prime Trade Contractor shall uncover, prior to any earthwork for new construction, all existing piping where crossings, interferences or connections are shown on the Drawings, from 1 foot below proposed construction limit to the existing ground surface. Any variation in the actual elevations and the indicated elevations shall be brought to the University's Representative's attention. If the Prime Trade Contractor does not expose all existing utilities, Prime Trade Contractor shall not be entitled to additional compensation for Work necessary to avoid interferences.
- I. If interferences occur at locations other than the general locations shown on the Drawings, and such utilities are damaged before their locations have been established, or create an interference, the Prime Trade Contractor shall notify the University's Representative and a method for repairing the damage or correcting the interference shall be supplied by the

University's Representative. Payment for additional Work due to interferences not shown on the Drawings shall be in accordance with the General Conditions.

- J. Care shall be exercised to prevent damage to adjacent facilities including walks, streets, curbs, and gutters; where equipment will pass over these obstructions suitable planking shall be placed. Damaged facilities, due to the Prime Trade Contractor operations, shall be removed and replaced at the Prime Trade Contractor's expense.

1.11 PROTECTION OF PERSONNEL

- A. Prime Trade Contractor shall take proper precautions to ensure the safety of all persons at all times during the construction period.

1.12 PROJECT SITE SECURITY

- A. The General Conditions Prime Trade Contractor shall install and maintain 8' high chain link site security fencing and gates as shown on the Site Logistics Plan. Fencing at the building perimeter shall include green shade screen to shield construction activities from view. ALL Prime Trade Contractor shall be responsible for keeping areas involved in this Work locked and secure at all times when Work is not in progress. Verify this scope is correct
- B. All persons working on the Project site shall receive a site safety briefing and Natural Resource Awareness Training from the University prior to being allowed to start work.

1.13 CONSTRUCTION STAGING & MULTIPLE CONSTRUCTION CONTRACTS

- A. The following describes the scheduling of the Work and the coordination required for the Work done by Separate Contractors:
 - 1. The University reserves the right to let other construction contracts.
 - 2. The following projects may be in progress at times during this project:
 - a. Rec Center North
 - b. Various Infrastructure Projects
 - 3. Disagreements between the Prime Trade Contractor and other Separate Prime Trade Contractors about concurrent use of Work areas or access to the Project site which are not resolved by the participants shall be referred to the University's Representative and the Prime Trade Contractor agrees to abide by the University's Representative's determination as to concurrent use or priority of access and to perform its Work in compliance with the University's Representative's resolution at no additional cost to the University.
- B. All material and equipment for construction operations shall be brought in and the Work so conducted as to avoid any interference with existing University facilities or their normal operations, and with concurrent construction Work by other separate Prime Trade Contractors.

1.14 FINAL EXAM SCHEDULE

- A. Prime Trade Contractor shall be advised that academic finals week takes place on the UC Merced campus during May, August and December of each year. During these periods of time, students are involved in intensive testing relative to their academic course work. During these periods of time, noise level generated as a result of construction activity must be kept to a minimum. Prime Trade Contractors will be expected to Work with the University's requirements to achieve a level of noise that is acceptable to the University. Actual schedule for finals weeks during each year will be coordinated with Prime Trade Contractor following the issuance of the Notice to Proceed.

1.15 WORK SITE DECORUM

- A. Extreme care to limit noise and odors shall be taken at all times. Loud or unnecessary conversation shall be avoided. The playing of radios tapes, or compact discs shall be strictly prohibited.
- B. Prime Trade Contractor shall control the conduct of its employees and those of its subcontractors and suppliers so as to prevent interaction initiated by said employees with University of California Merced students, staff, or other individuals (except those associated with the Project), on or adjacent to the Project site. Without limitation, unwanted interaction by these employees includes whistling at, motioning toward, or initiating conversations with passersby. In the event that any employee initiates such unwanted interaction, or utilizes profanity, Prime Trade Contractor shall, either upon request of University's Representative or on its own initiative, replace said employee with another of equivalent technical skill, at no additional cost to the University.
- C. Smoking is prohibited in and within 20 feet of any entrance, window, or air intake of all University buildings and in enclosed areas. Smoking will not be allowed in the construction area. Smoking will be allowed in a designated area within the construction storage yard only.
- D. Firearms are prohibited on University property.
- E. Alcoholic beverages are prohibited on University property unless the prior written approval of the University's Representative is obtained.
- F. Pets are prohibited on the Project site.

1.16 PUBLICITY

- A. Prime Trade Contractor shall not release any information, story, photograph, plan or drawing relating to the Project to anyone, including press or other public communications medium, except as submitted and approved for release by the University's Representative.

1.17 PROJECT SIGN

- A. No signs or advertisements will be permitted on the Project site, except with express permission of University's Representative.

1.18 JOB OFFICE

- A. Space on the Project Site is limited. Trailer space must be requested and approved by the University's Representative. Storage and office trailers are to be located in the temporary laydown area as shown on the Site Logistics Plan. Space will be allocated by the University's Representative. Prime Trade Contractor shall provide and maintain all temporary facilities as required for completion of the Project. Verify location of temp laydown area on drawings.

1.19 SALVAGE

- A. All material and equipment removed as part of this Project is the property of the Contractor and shall be removed from the Campus and legally disposed of, unless otherwise stated in the Prime Trade Contractor's "Scope of Work".

1.20 CLEANUP

- A. During the progress of the Work, the Prime Trade Contractor shall keep the Project site in a neat and clean condition that is free of debris to the satisfaction of the University's Representative. All materials and debris accumulated in conjunction with completing this Work shall be disposed of in the jobsite trash dumpsters provided by the **General Conditions Prime Trade Contractor (BP.01)** and disposed of off campus. Prime Trade Contractor shall not use University refuse containers.

1.21 UNIVERSITY FURNISHED CONSTRUCTION DOCUMENTS

- A. University will furnish to the Prime Trade Contractor 1 set of Drawings and Specifications and 1 CD of the Drawings and Specifications upon an award of the Contract at no cost. If more than 1 set is required or if the Prime Trade Contractor wants the Drawings in another size other than the size issued with the Bidding Documents, the Prime Trade Contractor will pay the actual cost of reproduction for printing.

1.22 JOB CONDITIONS

- A. Protection: Where roof edge does not terminate in a parapet wall and/or where Work is in progress overhead and materials or objects could potentially fall, the General Conditions Prime Trade Contractor is required to construct temporary covered pedestrian walkways over each building entrance. Walkway covers shall extend out 12 feet in length for the first floor and an additional 4 feet for each additional floor of the building. Walkway covers shall extend from face of building. Prime Trade Contractor shall be required to place and maintain yellow safety construction flagging or ropes with signage to prevent pedestrians from coming within 25 feet of Work in progress overhead and to route pedestrians in and out of building entrances.
- B. Safety Precautions: Perform Work in such a manner as to prevent damage to existing facilities to remain or to be salvaged. Hazardous Work shall not be left standing or hanging, but shall be knocked or pulled down to avoid damage or injury to employees or the public.

C. Crane Operation, Staging and Storage

1. Operator Training and Crane Certification: Prior to starting crane operations, Prime Trade Contractor shall provide copies of operator's training and crane certification to the University's Representative.
2. Crane Staging Area: Prime Trade Contractor shall be required to coordinate with the University's Representative a minimum of 5 working days in advance of loading and removal of materials from the roof. Prime Trade Contractor is responsible for providing necessary staging area for crane.
3. Storage: Prime Trade Contractor shall not be allowed on-site crane storage unless with the prior written approval of the University's Representative.

1.23 NOT USED

1.24 PROJECT SITE SUPERINTENDENT

- A. Prime Trade Contractor shall employ a competent Project Site Superintendent/Foreman satisfactory to the University's Representative. The Project Site Superintendent/Foreman shall be in attendance at the Project site at all times during the performance of the Work. Project Site Superintendent/Foreman shall represent the Prime Trade Contractor and communications given to and received from the Project Site Supervisor shall be binding on Prime Trade Contractor.
- B. The Prime Trade Contractor shall submit to the University's Representative the qualifications of the Project Site Superintendent/Foreman prior to commencement of the Work. The University's Representative shall approve the Project Site Superintendent/Foreman based on his/her experience with projects similar to type, scope, size, and complexity.
- C. The Project Site Superintendent/Foreman approved for the Project by the University's Representative, must be able to proficiently read, write and verbally communicate in English. The Project Site Superintendent/Foreman may not perform the Work of any trade, pick-up materials, or perform any Work not directly related to the supervision and coordination of the Work at the Project site while Work is in progress.
- D. Failure to maintain a Project Site Superintendent/Foreman on the Project site at all times Work is in progress shall be considered a material breach of this Contract, entitling University to terminate the Contract or alternatively, issue a stop Work order until the Project Site Superintendent/Foreman is on the Project site. If, by virtue of issuance of said stop Work order, Prime Trade Contractor fails to complete the Contract on time, Prime Trade Contractor will be assessed Liquidated Damages in accordance with the Agreement.
- E. If the Project Site Superintendent/Foreman fails to perform to the satisfaction of the University's Representative, the University's Representative may, upon 15 days written notice, require the Prime Trade Contractor to remove the Project Site Superintendent/Foreman from the Project and replace the Project Site Superintendent/Foreman with a replacement acceptable to the University's Representative.

- F. If the Prime Trade Contractor elects a replacement of the Project Site Superintendent/Foreman, such replacement shall be discussed with the University's Representative prior to actual replacement. The same criteria employed by the University's Representative to approve the initial Project Site Superintendent/Foreman shall also apply to the University's Representative's approval of any subsequent Project Site Superintendent/Foreman.

1.25 OTHER PRIME TRADE CONTRACTOR SITE PERSONNEL

- A. In addition to the Project Site Superintendent/Foreman, the Prime Trade Contractor shall provide site personnel of quality and quantity sufficient to carry out all of the on-site Prime Trade Contractor responsibilities described in the Contract Documents. See Instructions to Bidders for other site personnel requirements that may also be required.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 35 00

**SECTION 01 35 40
ENVIRONMENTAL MITIGATION**

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Related Sections

1. 01 81 13 LEED® Requirements
2. 01 74 19 Site Waste Management Program
3. 01 35 43 Hazardous Materials Procedures

B. Requirements

1. The Environmental Mitigation requirements for this Project are recorded in this Specification Section. The mitigation measures may include, but are not limited to, procedures and standards to control:
 - a. Dust Palliation
 - (1) All construction, demolition, excavation, extraction or other earthmoving activities shall comply with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII - Fugitive PM10 Prohibitions.
 - (2) All disturbed areas, including storage piles, shall be sprinkled with water or other dust control agents/chemical stabilizers acceptable to SJVAPCD, or shall be covered with vegetative ground cover, so as to effectively prevent dust emissions. Additional watering or acceptable dust control agents/chemicals shall be applied during dry weather or windy days until dust emissions are not visible.
 - (3) Trucks hauling dirt and debris shall be effectively wetted and/or maintain not less than six inches freeboard and/or cover the top of the load to reduce wind blown dust or spills.
 - (4) Dirt or debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to the Project site shall be cleaned daily of construction related dirt or mud. The use of dry rotary brushes and blower devices is prohibited except where preceded by sufficient wetting to limit visible dust emissions and the prior written approval of the University's Representative.
 - (5) On-site stockpiles of excavated material shall be covered or watered.
 - (6) Traffic speeds on unpaved roads shall be limited to 15 mph.
 - (7) If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more calendar days, the area must comply with conditions for a stabilized surface area as defined in Rule 8011 of SJVAPCD and Prime Trade Contractor shall comply with the record keeping requirements specified in Rule 8011 of SJVAPCD.

- b. Other Air Pollutants
 - (1) When feasible, construction equipment should use alternative fuel sources such as propane, natural gas or electricity.
 - (2) Minimize idling time of machinery to a maximum of 10 minutes when construction equipment is not in use.
 - (3) Construction equipment rated greater than 100 horsepower shall have, to the extent feasible, diesel exhaust controlled by use of catalyst-based diesel particulate filters.
 - (4) Use low-emission on-site station equipment.
- c. Noise
 - (1) Construction equipment shall be properly outfitted and maintained with adequate mufflers and other appropriate noise reduction devices to minimize construction-generated noise.
 - (2) Stationary noise sources such as generators or pumps shall be located away from noise sensitive land-uses and occupied buildings.
 - (3) Prior to construction activities, Prime Trade Contractor shall coordinate with the County Parks and Recreation Division to reduce the likelihood that planned events at the Lake Yosemite Park are adversely affected by project construction.
 - (4) Comply with all applicable sound ordinances as required.
 - (5) Should the Prime Trade Contractor need to generate construction noise adjacent to occupied buildings, the Prime Trade Contractor shall inform the University's Representative in writing 14 calendar days prior to generating the noise.
 - (6) The Prime Trade Contractor shall comply with the provisions of Section 01 35 00 Special Requirements with regard to Work Hours.
- d. Odors
 - (1) Work that causes excessive odors shall be performed only after coordination with the University's Representative. Filtering of air intakes to air handling units may be needed to prevent odors and vapors from entering buildings.
 - (2) Prime Trade Contractor shall provide 14 working days advance written notice to the University's Representative in order for advance notices to be forwarded to building occupants. Work stoppage may occur if advance notification has not been coordinated or if odors and vapors from the work are found to generate complaints from building occupants.
- e. Light
 - (1) The Prime Trade Contractor shall minimize up-light and light spill by focusing light sources and using shielding.
 - (2) No light sources shall be directed across the site boundaries.

1.2 ARCHAEOLOGICAL RESOURCES

A. GENERAL

- 1. If during the course of construction, evidence of deposits of historical or archaeological interest is found, the Prime Trade Contractor shall cease the Work affecting the find and immediately notify the University's Representative and shall

not disturb deposits until written notice from University's Representative is given to proceed.

2. Prime Trade Contractor will be compensated for lost time or changes in construction to avoid the find based upon normal change order procedures if Critical Path is affected.

B. Procedures

1. If a potentially significant archaeological find is identified during construction, the University may incorporate into the proposed project design measures that will minimize or eliminate direct impacts to the deposit. These may include avoidance of the site by inclusion in landscaping or open space, placement of fill over the site, and/or project redesign. If this is not feasible, or if such measures will not ensure the avoidance of impacts, the University will ensure that an archaeological testing program is carried out to assess the significance of the find.
2. If a find is determined to be significant, and if it cannot be preserved intact through project design measures, then the University will retain an archaeologist to design and carry out a treatment plan to document the data and/or preserve such scientific samples of the data for which the site is significant as may be appropriate, given the significance of the find.
3. Any significant finds that are recovered shall be retained by University and will be donated to an appropriate cultural or historical center. Unauthorized collection of artifacts is prohibited. If human remains are encountered, Work will be halted and the Merced County Coroner will be contacted immediately by the University's Representative. If human remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission. The Commission will then notify the person it believes to be the most likely descendant. That descendant will work with the University to develop a program for reinternment of the remains and any associated artifacts.
4. When Native American archaeological, ethnographic, or spiritual resources are found, identification and handling of those resources will be conducted jointly by a University appointed Archaeologist and Native American representatives who are approved by the local Native American community as scholars of their cultural traditions. The Archaeologist shall either be certified by the Society of Professional Archaeologist, or meet the Federal Standards appearing in 36 CFR 61. If no approved Native American representative is available, persons who represent tribal government and/or organizations in the surrounding region shall be consulted. If historic archaeological resources are found, identification and handling of those resources will be conducted by historical archaeologists or architectural historians retained by the University.

1.3 PALEONTOLOGICAL RESOURCES

A. General

1. If during the course of construction, evidence of deposits of paleontological interest is found, the Prime Trade Contractor shall cease the Work affecting the find and immediately notify the University's Representative. Do not disturb deposits until written notice from University's Representative is given to proceed.

2. Prime Trade Contractor will be compensated for lost time or changes in construction to avoid the find based upon normal change order procedures if Critical Path is affected.

B. Procedures

1. Prior to project construction, construction personnel shall be informed by the Prime Trade Contractor of the potential for encountering significant paleontological resources.
2. If a potentially significant paleontological find is discovered, the Prime Trade Contractor shall cease all operations in the area of the find until a University appointed paleontologist has been afforded the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find.
3. Collection of fossil resources by other than the University's consulting paleontologist is prohibited.
4. A University appointed, qualified paleontologist may be intermittently present to inspect exposures of the Merhten Formation, North Merced Gravels, and Riverbank Formation during construction operations to ensure that paleontological resources are not destroyed by project construction.

1.4 NOXIOUS OR TOXIC MATERIALS

A. The Prime Trade Contractor shall ensure that:

1. No noxious or toxic materials shall be used in or around occupied buildings without prior approval of the University's Representative.
2. Chemical wastes shall be stored in covered metal containers and shall be removed from the premises daily.
3. There shall be no accumulations of wastes that create hazardous conditions.
4. Adequate ventilation is provided during use of volatile or noxious substances. Such materials shall only be used after 48 hours previous notification to the University's Representative and preferably on weekends or "down" periods.
5. Chemicals, such as mineral spirits, oil, or paint thinner, are not dumped into storm or sanitary drains or on University property or on any adjoining property.
6. Vehicle maintenance or servicing shall not spill oil or fuel onto the ground and if a spill occurs, it shall be cleaned up immediately and the soil disposed of according to local, State, and/or Federal requirements.
7. Chemical storage, including fuel and oil, shall be double contained.
8. The Prime Trade Contractor's Project Site Superintendent shall be trained in the prevention and correction of spills.
9. Prime Trade Contractor shall have immediate access to spill control equipment, such as absorbent, shovels, and containers.

1.5 REMOVAL AND DISPOSAL OF EXCESS SOIL

- A. All materials and debris accumulated in conjunction with completing this Work shall be disposed of legally by the Prime Trade Contractor off the University's property. Prime Trade Contractor shall not use University refuse containers. Clear soil spoils shall be transported and deposited at a designated on-campus site.

- B. A temporary staging area for storage of excavated soil is shown on the Civil Drawings. The intent of this area is to serve as a nearby storage area for excavated soil intended by the Primary Trade Contractor to be used for backfill or fill later in the project. This area is to be restored to original condition after its use is no longer required.

1.6 REMOVAL AND DISPOSAL OF WASTE MATERIALS

- A. All waste materials resulting from the process of clearing and construction shall be legally disposed of by the Prime Trade Contractor as follows:
1. All refuse and debris, concrete and other inert materials, combustible and incombustible substances, resulting from the processes of construction, shall be removed from the University's property. The Prime Trade Contractor shall not use any refuse container belonging to the University. The General Conditions Prime Trade Contractor shall provide debris boxes for the use of all Prime Trade Contractors and dispose all debris off-site excepting chemical and hazardous waste which shall be disposed of by the Prime Trade Contractor generating the waste. Prime Trade Contractors shall be responsible for depositing their waste into the debris boxes provided by the General Conditions Prime Trade Contractor on a daily basis.
 2. Chemical Waste: All chemical waste, including solvents, oils or any other material that may be harmful to plant life, shall be disposed of in accordance with local, State and/or Federal regulations. Chemical waste shall not be stored on the University's property. At completion of Work, any contaminated soil shall be removed from the University's property and replaced with good soil by the Prime Trade Contractor at no additional cost to the University.
- B. The Prime Trade Contractor shall not burn or bury rubbish or waste materials on the University's property.
- C. During construction, the Prime Trade Contractor shall maintain buildings, premises and property free from accumulations of waste materials and rubbish. The Prime Trade Contractor shall legally dispose of such waste, rubbish and debris at reasonable intervals off the University's property.

1.7 CONTROL OF NONNATIVE & INVASIVE PLANT SPECIES

- A. Prime Trade Contractor shall ensure that seeds from invasive plant species are not transported into the Campus site by earth moving equipment. At a minimum, the Prime Trade Contractor shall ensure that:
1. All earth moving equipment shall be washed down (wheels, under-carriage, bucket/bed, etc.) prior to being transported to the Project site. All earth moving equipment shall be clean and free of seeds or other plant material before being brought on site.
 2. The Prime Trade Contractor shall notify the University's Representative of the source location of all off-site fill material a minimum of 10 calendar days prior to importing material to the Project site and appropriate steps shall be taken to

minimize the potential for invasive species to colonize areas disturbed during construction due to use of such fill.

3. Any organic material used during project construction for erosion control, or any material used for hydroseeding or revegetating disturbed areas is certified free of invasive species.

1.8 PROTECTION OF SENSITIVE AREAS OUTSIDE PROJECT SITE BOUNDARY

- A. General Conditions Prime Trade Contractor shall install and maintain all temporary construction fencing around the Project site in accordance with Section 01 56 00 Temporary Barriers and Enclosures and in accordance with fencing layout shown on the Site Logistics Plan. Fencing shown to be installed at the building site, as opposed to the laydown area, will include green shade meshing to obstruct views into the construction site.
- B. The Prime Trade Contractor shall operate strictly within the confines of the fence and in the staging area described in the Site Logistics Plan (see Information Available to Bidders).
- C. In no instances shall construction related vehicles or Prime Trade Contractor's personnel travel beyond the Project site boundary except on roads.
- D. In no instance shall the Prime Trade Contractor allow any material, whether solid or liquid, to migrate from the Project site across, under or over the temporary construction fencing except when said material is being removed from the Project site in accordance with the Contract Documents.

1.9 NATURAL RESOURCE AWARENESS TRAINING FOR CONSTRUCTION PERSONNEL

- A. Training Program
 1. Prior to working on the Project site, all construction personnel shall attend a training program provided by the University Representative on Monday and Wednesday mornings at 7:30am. The training will include at minimum, a description of the species at risk and their habitat, the importance of the species and their habitat, the general measures being implemented to conserve the sensitive areas/species, and the boundaries within which the project may be accomplished.
 2. The training shall be conducted in English and shall consist of a presentation and the distribution of appropriate literature. The Prime Trade Contractor shall ensure that all Prime Trade Contractor, sub-contractor and Prime Trade Contractor supplier personnel attend a training session before they start working at the Project site.
 3. The Prime Trade Contractor shall ensure that the following site regulations, which will be identified in the Training program, are adhered to:
 - a. All food related items shall be properly disposed of, and signs indicating that the feeding of wildlife is prohibited shall be placed at the Project site.
 - b. Vehicle traffic shall occur primarily between dawn and dusk, and shall be limited to 20 mph to reduce the potential for wildlife road mortality.
 - c. Any trench or pit shall be constructed in such a way as to provide ramps of either fill or planks to prevent kit fox and other species from becoming entrapped.
 - d. Pipes, culverts, etc. greater than four inches in diameter shall be stored in such a way as to prohibit foxes or other species from using these areas as

- temporary refuge. In addition, these structures shall be thoroughly inspected each morning for kit fox or other species.
- e. No firearms shall be allowed on University Property.
 - f. No pets shall be permitted on University Property.
 - g. The use of pesticides on the Project site by the Prime Trade Contractor, including but not limited to rodenticides, insecticides and herbicides, is prohibited unless prior written approval of the University's Representative is obtained.
 - h. Construction vehicles shall be limited to a maximum speed of 10 mph in the vicinity of breeding ponds of California tiger salamander during the salamander movement period. The location of the breeding ponds and dates of the movement period shall be identified by the University's Representative.
 - i. If construction activities occur within 0.6 miles of salamander breeding ponds, the General Conditions Prime Trade Contractor shall erect drift fences or other effective salamander barriers around the site before 1st February in the winter prior to the start of construction. The fences shall be positioned so as to allow salamander's access to the breeding ponds but to exclude them from the Project site. Prior to fence erection, layout of the fences shall be submitted to the University's Representative for review and approval.
 - j. The University's Representative shall identify any areas containing burrowing owls. The General Conditions Prime Trade Contractor shall establish "Sensitive Areas" around the occupied owl holes identified by the University's Representative. The Sensitive Areas shall not be disturbed by the Prime Trade Contractor. The Sensitive Areas shall extend to a distance of 160 feet from each occupied burrow during the non-breeding season of 1st September through 31st January. The sensitive Areas shall extend to a distance of 250 feet from each occupied burrow during the breeding season of 1st February through 31st August. The General Conditions Prime Trade Contractor shall erect a temporary fence during the breeding season around occupied burrows. If in the opinion of the University's Representative, the Sensitive Area method is impractical, the owls may be passively relocated. To relocate the owls, the General Conditions Prime Trade Contractor shall fit one-way doors across the entrances to those burrows identified by the University's Representative. The doors shall be positioned so that the owls can exit but not enter their burrows. The doors shall remain in place for 72 hours. Before and during the relocation process, the Prime Trade Contractor shall establish a 250 feet Sensitive Area around the burrows identified for relocation. No relocation activity shall be carried out during the breeding season.
 - k. The University's Representative shall identify the location of active raptor nests adjacent to the Project site. Should an active Swanson's Hawk nest be located within 1000 feet of the Project site, or an active nest of another raptor species be identified within 250 feet of active construction, the University's Representative will, in consultation with the California Department of Fish & Game, determine the actions necessary to protect the nest site. Such actions may include avoiding construction within a distance from the nest determined by the University's Representative for a period determined by the University's Representative

1.10 AUTHORITY OF THE UNIVERSITY'S REPRESENTATIVE TO SUSPEND WORK

- A. The University's Representative has the authority to suspend construction work when such work causes or threatens to cause harm to sensitive habitat or species.
- B. Prime Trade Contractor will be fully responsible for any and all damages and sanctions placed against the Project for any violations of these requirements.

1.11 SURFACE WATER CONTROL

- A. All portions of the Work shall be kept free of standing water at all times during construction of the Work herein specified. Where required, temporary drainage ditches, berms, or pumping systems shall be constructed to divert drainage water away from the Project site and the resultant water shall be carried to the nearest water course approved by the University's Representative and disposed of without erosion to the surrounding area. Care shall be taken to prevent silting of the water courses. Silt that is deposited, as a result of the Work in this Project, shall be removed and disposed of by the Prime Trade Contractor, at the Prime Trade Contractor's expense and to the satisfaction of the University's Representative. The Prime Trade Contractor shall follow CALTRANS "Handbook of Practices, Storm Water Pollution Practice."

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 35 40

**SECTION 01 35 43
HAZARDOUS MATERIALS PROCEDURES**

PART 1 - GENERAL

1.1 CONTRACTOR'S RESPONSIBILITY

- A. Except as otherwise specified, in the event Prime Trade Contractor encounters on the Project site material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), lead, or other hazardous substances that have not been rendered harmless, Prime Trade Contractor shall immediately stop work in the area affected and report the condition to the University's Representative in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of University and Prime Trade Contractor if in fact the material is asbestos, PCB, lead, or other hazardous substances and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos, PCB, lead, or other hazardous substances, or when such materials have been rendered harmless.
- B. Disclose any hazardous substance or condition exposed during the Work to the University's Representative for decision or remedy.
- C. In no event, shall the Prime Trade Contractor install materials that contain asbestos, PCB, lead or other known hazardous materials without specific prior written approval by the University's Representative.
- D. Disposal of lighting ballasts containing PCB's shall be accomplished by the University. The Prime Trade Contractor shall coordinate with the University's Representative regarding a date, location and time for delivery to a location on Campus to be designated.
- E. Regulated Carcinogens by California Code of Regulations (CCR) Title 8, Section 5200 et seq.
 - 1. Products containing chemicals regulated as carcinogens by California Occupational Safety and Health Act (OSHA) are not allowed for use on University projects. The OSHA regulated carcinogens are:
 - a. 2-Acetylaminofluorene, 5209
 - b. 4-Aminodiphenyl
 - c. Benzidine (and its salts)
 - d. 3,3'-Dichlorobenzidine (and its salts)
 - e. 4-Dimethylaminoazobenzene
 - f. alpha-Naphthylamine
 - g. beta- Naphthylamine
 - h. 4-Nitrobiphenyl
 - i. N-Nitrosodimethylamine
 - j. beta-Propiolactone
 - k. bis-Chloromethyl ether
 - l. Methyl chloromethyl ether
 - m. Ethyleneimine
 - n. Methylene Chloride, 5202
 - o. Methylenedianiline (MDA), 1535, 5200
 - p. Cadmium, 1532, 5207
 - q. Asbestos, 1529, 5208, 5208.1, 8358

- r. Vinyl Chloride, 5210
 - s. Coke Oven Emissions, 5211
 - t. 1,2-Dibromo-3-Chloropropane (DBCP), 5212
 - u. Acrylonitrile, 5213
 - v. Inorganic Arsenic, 5214
 - w. 4,4'-Methylenebis(2-Chloroaniline) (MBOCA), 5215
 - x. Formaldehyde, 5217
 - y. Benzene, 5218
 - z. Ethylene Dibromide (EDB), 5219
 - aa. Ethylene Oxide (EtO), 5220
 - bb. 1,3 Butadiene, 5201
2. Case-by-case exceptions may be considered for products containing the following COSHA recognized carcinogens:
 - a. Methylene Chloride, 5202
 - b. Cadmium, 1532, 5207
 - c. Inorganic Arsenic, 5214
 - d. Formaldehyde, 5217
 - e. Benzene, 5218
 3. Case-by-case exceptions may only be made when suitable alternative products are not available. Such exceptions are subject to approval by the University's Representative.
 4. Exceptions require that the Prime Trade Contractor shall have an established carcinogen program as required by COSHA and shall submit to University's Representative, a copy of the COSHA Confirmation of Report for COSHA carcinogens.
 5. When exceptions are granted the Prime Trade Contractor is responsible for providing to the University's Representative a copy of the semi-annual Confirmation of Report received from COSHA or, in lieu of that, a copy of the Prime Trade Contractor's semi-annual report as submitted to COSHA at periods not to exceed 6 months, or at project closeout, whichever occurs first.

1.2 ASBESTOS IN BUILDINGS NOTIFICATION

- A. California Health and Safety Code, Section 25915, Chapter 10.4, Division 20 requires UC Merced employees and contractors working for the campus to be notified of the presence of asbestos in buildings constructed prior to 1979. For information about asbestos in specific buildings, contact the University's Representative.
- B. It is important to note that the presence of asbestos does not mean you have been exposed to asbestos. Exposure strictly refers to the inhalation or ingestion of friable asbestos particles. Asbestos becomes friable through drilling, sanding or similar destructive processes usually associated with remodeling or demolition work. Intact, bonded, sealed and undisturbed asbestos does not pose a hazard.
- C. Prime Trade Contractors who disturb or potentially disturb friable or non-friable asbestos must comply with all Federal State and Local rules and regulations regarding hazardous materials.

1.3 LEAD BASED PAINT IN BUILDINGS

- A. The California Department of Health Services requires the certification of employees and supervisors performing lead related construction activities in residential and public buildings, as defined in Title 17, California Code of Regulations, Division 1, Chapter 8. Lead related construction work is defined in Title 17 as any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential or public building, including preparation and cleanup, that, by using or disturbing lead containing material or soil, may result in significant exposure of adults or children to lead.
- B. It is important to note that the presence of lead does not mean you have been exposed to lead. Exposure strictly refers to the inhalation or ingestion of lead dust. Lead becomes dust through drilling, sanding or similar destructive processes usually associated with remodeling or demolition work. Intact, bonded, sealed and undisturbed lead does not pose a hazard.
- C. For information about lead in specific buildings, contact the University Representative
- D. Prime Trade Contractors who disturb or potentially disturb lead must comply with all Federal State and Local rules and regulations regarding hazardous materials.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 35 43

**SECTION 01 41 00
REGULATORY REQUIREMENTS**

PART 1 - GENERAL

1.1 CODES, AGENCIES, AND REFERENCES

- A. The Work shall be performed in accordance with Applicable Code Requirements and applicable requirements of all other regulatory agencies, including, but not limited to, the following:
1. Americans with Disabilities Act - Title II.
 2. California Environmental Quality Act.
 3. California Health and Safety Code.
 4. National Fire Protection Association (NFPA).
 5. Federal Occupational Safety and Health Administration.
 6. Federal Clean Water Act, including but not limited to the Storm Water Pollution Prevention requirements.
 7. Federal Endangered Species Act.
 8. Federal Clean Air Act.
 9. Porter-Cologne Water Quality Act, State of California
 10. Endangered Species Act, State of California
 11. California Fish & Game Code, Section 1600, et. seq.
 12. Resource Conservation and Recovery Act (RCRA) and the California Hazardous Waste Control Law.
 13. Comprehensive Environmental Response and Cleanup Liability Act (CERCLA)
 14. California Building Code (CBC)

1.2 STANDARDS AND CODES

- A. Applicable laws, codes, rules, regulations, ordinances and standards
1. Code of Federal Regulations
 - a. Title 33, Navigation and Navigable Waters
 - b. Title 40, Protection of Environment
 - c. Title 50, Wildlife and Fisheries
 2. California Code of Regulations (CCR)
 - a. Title 8, Industrial Relations/Elevators
 - b. Title 14, Natural Resources
 - c. Title 17, Public Health
 - d. Title 19, Public Safety
 - e. Title 20, Public Utilities and Energy
 - f. Title 21, Public Works

- g. Title 22, Environmental Health
- h. Title 23, Waters
- i. Title 24, California Building Standards Code
 - 1) Part 2, California Building Code 2010
 - 2) Part 3, California Electric Code 2010
 - 3) Part 4, California Mechanical Code 2010
 - 4) Part 5, California Plumbing Code 2010
 - 5) Part 6, California Energy Code 2010
 - 6) Part 7, California Elevator Safety Construction Code 2010
 - 7) Part 9, California Fire Code 2010
 - 8) Part 12, California State Reference Standards 2010
- a. Title 27 Environmental Protection 2007

3. San Joaquin Valley Air Pollution Control District Regulation #8 2004

1.3 REFERENCES

- A. Unless otherwise specified, specific references to codes, regulations, standards, manufacturers' instructions, or requirements of regulatory agencies, when used to specify requirements for materials or design elements, shall mean the latest edition of each in effect at the date of submission of bids, or the date of the Change Order (Exhibit 9) or Field Order (Exhibit 8), as applicable.

1.4 CONFLICTS

- A. Unless otherwise directed by the University's Representative, if a conflict exists between referenced regulatory requirements and the Contract Documents, the Prime Trade Contractor shall refer the matter to the University's Representative for further instruction.
- B. Nothing stated in this Section of the Specifications or other Sections of the Specifications, the other Contract Documents or the Bidding Documents or shown on the Drawings shall be construed as allowing Work that is not in strict compliance with all applicable Federal, State, regional, and local statutes, laws, regulations, rules, ordinances, codes and standards.

1.5 TRENCHING AND SHORING

- A. All Work shall be in full accordance, but not necessarily limited to the following codes and regulations: Titles as listed in Section 1.2 Standards and Codes above, State of California, California Code of Regulations (CCR), California Occupational Safety and Health Administration (OSHA).
 - 1. Pursuant to Labor Code 6707, the Prime Trade Contractor shall include in the bid all costs incident to the provisions of adequate sheeting, shoring, bracing or equivalent method for the protection of life or limb that shall conform to applicable Federal and State safety orders.
 - 2. Before beginning any excavation 5 feet or more in depth, the Prime Trade Contractor shall submit to the University's Representative a detailed Drawing showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the

hazard of caving ground during the excavation. The proposed design shall comply with the standards established by the State of California Construction Safety Orders, Title 8 and Title 24 of the California Code of Regulations (CCR). If the design varies from such shoring system standards, the Drawing shall be prepared by a registered civil or structural engineer whose name and registration number shall be indicated on the Drawing. If a dispute arises as to whether the plan must be prepared by a registered civil or structural engineer, the University's Representative's determination of the matter shall be final and conclusive on the Prime Trade Contractor. The cost of required engineering services shall be borne by the Prime Trade Contractor and shall be deemed to have been included in the Contract Sum for the Work as stated in the Agreement.

3. Neither the review nor approval of any Drawing showing the design of shoring, bracing, sloping, or other provisions for worker protection, shall relieve the Prime Trade Contractor from the obligation to comply with construction State of California Construction Safety Order and Title 24 of the California Code of Regulations (CCR) for the design and construction of such protective Work, and the Prime Trade Contractor shall indemnify the University and the University's Representative from any and all claims, liability, costs, actions and causes of action arising out of or related to the failure of such protective systems. The Prime Trade Contractor shall defend the University, its officers, employees, Design Professional and agents and the University's Representative in any litigation or proceeding brought with respect to the failure of such protective systems.
4. All Work including any temporary construction shall be in full compliance with the latest orders of the Division of Industrial Safety of the State of California and all codes and regulations as called for hereinafter in these specifications.

1.6 REGULATORY NOTIFICATIONS

- A. Submit all required notifications to Federal, State of California, State in which disposal facility is located if not in California, regional, and local agencies with regulatory responsibilities associated with the Work activities that are included in the Contract. All notifications shall be served in writing, in the form required by the agency requiring notification, and in a timely manner so as not to negatively impact the Project schedule. Serve notifications at least 10 working days in advance (or earlier if required by agency) of activity requiring notice. The Prime Trade Contractor shall serve all required notifications in writing to all governmental and quasi-government agencies having notification requirements pertaining to any portion of the Work included in the Project.
- B. Prime Trade Contractor shall comply with the State General Construction Activity Storm water Permit National Pollutant Discharge Eliminate System (NPDES) for the campus and comply with the University's Storm Water Pollution Prevention Plan.

1.7 NOTIFICATIONS, CERTIFICATES AND UNIFORM HAZARADOUS WASTE MANIFEST

- A. Permits
 1. Prime Trade Contractor will not be required to obtain a County of Merced building permit.
- B. Fire Department

1. Prime Trade Contractor shall be responsible for issuing in writing to the University's Representative the following notifications prior to starting site Work:
 - a. Hazardous Condition Notification - Hot Work: must be coordinated before starting any hot work (welding, burning, or cutting, etc.) involving use of gas or electric welding equipment. Prime Trade Contractor shall report to the University's Representative, at the beginning and 30 minutes prior to the end of each shift that such "hot" work takes place
 - b. Hazardous Conditions Notification-General: for the storage or use of any flammable liquid in excess of 10 gallons or in any confined area where vapors can be ignited. The Prime Trade Contractor shall report to the University's Representative at the beginning and 30 minutes prior to the end of each shift that such work takes place
 - c. Hazardous Condition Notification-Special Conditions: Coordinate in advance with the University's Representative before restricting access to or blocking of any building exit or Work that will require the shutdown of building fire protection or alarm systems. The Prime Trade Contractor shall report to the University's Representative at the beginning and 30 minutes prior to the end of each shift that such work takes place
 - d. At the end of the Work, the Prime Trade Contractor must submit Automatic Sprinkler Systems- Material and Test Certificate for Aboveground Piping and Automatic Sprinkler Systems- Material and Test Certificate for Underground Piping for approval by the University (Exhibits 20 and 21). The Automatic Sprinkler underground and aboveground will not be accepted until these certificates have been completed and submitted.
 - C. Prior to commencing clearing, excavation and trenching, Contractor shall locate all known existing installations before proceeding with construction operations that may cause damage to such installation. Existing installations shall be kept in service where possible and damage to them shall be repaired at no additional cost to the University.
 - D. Uniform Hazardous Waste Manifest: Prime Trade Contractor shall be responsible for coordination with the University's Representative for obtaining a Uniform Hazardous Waste Manifest prior to removal of asbestos containing materials, polychlorinated biphenyl (PCB), or other hazardous materials from the Project site. Manifest will be provided by the University's Representative. Only the University's Representative will be allowed to sign individual manifests on behalf of the Prime Trade Contractor/University.
- 1.8 CIVIL OR CRIMINAL PENALTIES OR FINES
- A. Prime Trade Contractor shall be liable for the payment of any and all civil or criminal penalties or fines imposed by the U.S. Fish & Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), California Department of Fish & Game (CDFG), Central Valley Regional Water Quality Control Board (CVRWQCB) or any other applicable regulatory agency for Prime Trade Contractor's violations of the federal Endangered Species Act (ESA), Clean Water Act (CWA), California Endangered Species Act (CESA), Porter-Cologne Water Quality Control Act (Porter-Cologne); any regulation promulgated to implement said statutes; the UC Merced Biological Opinion; or any applicable authorization issued by the USFWS, USACE, CDFG, CVRWQCB, or other applicable federal, state or local regulatory agency.

- B. In the event Prime Trade Contractor is found liable for civil actions under the abovementioned statutes, regulations, permits or authorizations, Prime Trade Contractor shall be responsible for the payment of any civil penalties imposed by any applicable regulatory agency. Penalties may vary according to the applicable statute, including but not limited to, penalties of up to \$50,000 per day of violation of the CWA, \$25,000 for each ESA violation, and \$15,000 per day of violation of Porter-Cologne.

- C. In the event Prime Trade Contractor is convicted of criminal actions under the abovementioned statutes, regulations, permits or authorizations, Prime Trade Contractor shall be responsible for satisfying applicable terms of imprisonment and the payment of any criminal fines imposed by the regulatory agency. Fines may vary according to the applicable statute, including but not limited to, fines of \$250,000 per day of violation of the CWA, \$50,000 for each ESA violation, and \$15,000 per day of violation of Porter-Cologne.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 41 00

SECTION 01 42 13
ABBREVIATIONS, SYMBOLS & DEFINITIONS

PART 1 - GENERAL

1.1 ABBREVIATIONS

A. The following abbreviations of organizations may be used in the Contract Documents:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturers' Association
AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ABAG	Association of Bay Area Governments
ABPA	Acoustical and Board Products Association
ABPTA	American Bearing Power Transmission Association
ACI	American Concrete Institute
ACIL	American Council of Independent Laboratories
ACPA	American Concrete Pipe Association
ADA	Americans with Disabilities Act of 1990
ADAAG	American with Disabilities Act Accessibility Guidelines
ADC	Air Diffusion Council
AFBMA	Anti-Friction Bearing Manufacturers Association
AFI	Air Filter Institute
AGA	American Gas Association
AF&PA	American Forest and Paper Association
AGC	Associated General Contractors of America
AHA	American Hardboard Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AIMA	Acoustical and Insulation Materials Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standards Committee
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
AOAC	Association of Official Analytical Chemists
APA	American Plywood Association
API	American Petroleum Institute
AQMD	Air Quality Management District
ARI	Air-Conditioning and Refrigeration Institute
ASA	American Standards Association
ASAHC	American Society of Architectural Hardware Consultants
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers

ASME	American Society of Mechanical Engineers Association
ASTM	American Society for Testing and Materials
AWCI	Association of Wall and Ceiling Industries
AWG	American Wire Gauge
AWI	Architectural Woodwork Institute
AWPA	American Wood-Preservers' Association
AWPB	American Wood Preservers Bureau
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers' Association
BICSI	Building Industry Consulting Service International
BOCA	Building Officials and Code Administrators
CAC	California Administrative Code
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CDA	Copper Development Association, Inc.
CDFG	California Department Fish and Game
CE	Corps of Engineers (U.S. Dept. of the Army)
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response and Cleanup Liability Act
CESO	California Elevator Safety Order
CGA	Compressed Gas Association
CISPI	Cast Iron Soil Pipe Institute
CLFMI	Chain Link Fence Manufacturer's Institute
CLPA	California Lathing and Plastering Association
CMC	California Mechanical Code
CMM	State of California, Business, Transportation and Housing Agency, Department of Transportation "Materials Manual"
COSHA	California Occupational Safety and Health Act
CPC	California Plumbing Code
CPSC	Consumer Product Safety Commission
CRI	Carpet and Rug Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards of NBS (U.S. Dept. of Commerce)
CSS	State of California, Business, Transportation and Housing Agency, Department of Transportation "Standard Specifications"
CTI	Cooling Tower Institute
CVRWQCB	Central Valley Regional Water Quality Control Board
DHI	Door & Hardware Institute
DHS	California Department of Health Services
DSA	Division of State Architect
DSA/AC	Division of State Architect, Access Compliance Section
EIA	Electronic Industrial Alliance
EPA	Environmental Protection Agency

ESO	Electrical Safety Orders of Division of Industrial Safety, Title 8, CAC
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
FFDA	Federal Food and Drug Administration
FGMA	Flat Glass Marketing Association
FIA	Factory Insurance Association
FM	Factory Mutual System, Factory Mutual Engineering Corporation
FS	Federal Specifications
FSC	Forest Stewardship Council
GA	Gypsum Association
GFI	Ground Fault Interrupter
HCP	Habitat Conservation Plan
HEPA	High Efficiency Particulate Air
HI	Hydronics Institute
HMI	Hoists Manufacturers Institute
HMMA	Hollow Metal Manufacturers Association
HPMA	Hardwood Plywood Manufacturers Association
IAPMO	International Association of Plumbing and Mechanical Officials
IAQ	Indoor Air Quality
IBEW	International Brotherhood of Electrical Workers
IBR	Institute of Boiler and Radiator Manufacturers
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineering Association
IEC	International Electrotechnical Commission
IEQ	Indoor Environmental Quality
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society of North America
IGCC	Insulating Glass Certification Council
IPCEA	Insulated Power Cable Engineers' Association
ISA	Instrument Society of America
ISO	International Standards Organization
ITU	International Telecommunications Union
LEED®	Leadership in Energy & Environmental Design
LIA	Lead Industries Association
MBMA	Metal Building Manufacturer's Association
MIA	Marble Institute of America
MID	Merced Irrigation District
MIL	U.S. Government, Military Specification
MLSFA	Metal Lath/Steel Framing Association
MM	State of California, Business, Transportation and Housing Agency, Department of Transportation "Materials Manual"
MSS	Manufacturers Standardization Society of Valves and Fittings Industry
NAAB	National Association of Air Balance
NAAMM	The National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBFU	National Board of Fire Underwriters
NBGQA	National Building Granite Quarries Association, Inc.
NBHA	National Builders' Hardware Association

NBS	National Bureau of Standards
NCCP	National Communities Conservation Plan
NCMA	National Concrete Masonry Association
NCPWB	National Certified Pipe Welding Bureau
NEBB	National Environmental Balancing Bureau
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Protection Act
NETA	National Electrical Testing Association
NFPA	National Fire Protection Association
NHLA	National Hardwood Lumber Association
NIOSH	National Institute of Occupational Safety and Health
NPA	National Particleboard Association
NPDES	National Pollutant Discharge Eliminate System
NRC	Noise Reduction Coefficient
NRCA	National Roofing Contractors Association
NRMCA	National Ready Mixed Concrete Association
NSF	National Sanitation Foundation
NWMA	National Woodwork Manufacturers Association, Inc.
NWWDA	National Wood Window and Door Association
OSHA	Office of Safety and Health Act
OSHPD	Office of Statewide Health Planning and Development
PCA	Portland Cement Association
PCB	Polychlorinated Biphenyl
PCI	Precast/Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PI	Perlite Institute
PS	Product Standard of United States Department of Commerce
RCRA	Resource Conservation & Recovery Act
RCSC	Research Council on Structural Connection
RFCI	Resilient Floor Covering Institute
RIS	Redwood Inspection Service
RUS	U.S. Department of Agriculture, Rural Utilities Service
SJVAPCD	San Joaquin Valley Air Pollution Control District
SAE	Society of Automotive Engineers
SBC	State Building Code
SBS	State Building Standards Electrical Code, Title 24, Part 3
SCS	Scientific Certification Systems
SDI	Steel Door Institute
SFM	State of California, Office of State Fire Marshal
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal & Air Conditioning Contractors' National Association, Inc.
SPIB	Southern Pine Inspection Bureau (Grading Rules)
SPR	Simplified Practice Recommendation
SSPC	Society for Protective Coatings
STC	Sound Transmission Coefficient
SWI	Sealant and Waterproofers Institute

SWPPP	Storm Water Pollution Prevention Plan
TCA	Tile Council of America, Inc.
TIA	Telecommunications Industry Association
UBC	Uniform Building Code
UCM	University of California Merced
UCMFM	University of California Merced Facilities Management
UFAS	Uniform Federal Accessibility Standards
UHMW	Ultra-High Molecular Weight
UL	Underwriters' Laboratories, Inc.
USA	Underground Service Alert
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service
USGBC	United States Green Building Council
USS	United States Standards
USSG	United States Steel Gauge
WAPA	Western Area Power Authority
WCLIB	West Coast Lumber Inspection Bureau
WH	Warnock Hersey
WIC	Woodwork Institute of California
WLPDIA	Western Lath/Plaster/Drywall Industries Association
WRSI	Western Concrete Reinforcing Steel Institute
WWPA	Western Wood Products Association
WWPOA	Western Wood Preserving Operators Association
WWTP	Waste Water Treatment Plant

B. Additional abbreviations, used on the Drawings, are listed thereon.

1.2 SYMBOLS

A. Symbols, used only on the Drawings, are shown thereon.

1.3 DEFINITIONS

A. The following terms, when used on the Drawings or in the Specifications, shall have the following meanings:

1. AS DIRECTED - "As directed by the University's Representative."
2. AS REQUIRED - "As required by Applicable Code Requirements; by good building practice; by the condition prevailing; by the Contract."
3. AS SELECTED - "As selected by the University's Representative."
4. BY OTHERS - Work on this Project that is outside the scope of Work to be performed by the Prime Trade Contractor under this Contract, but that will be performed by the University, Separate Prime Trade Contractors, or other means.
5. EQUAL - Of same quality, appearance, and utility to that specified, as determined by the University's Representative. The Prime Trade Contractor bears the burden of proof of quality.
6. FABRICATED - Items specifically assembled or made out of selected materials to meet individual design requirements.

7. FURNISH - "Supply only, not install (unless required to be provided or installed elsewhere in the Contract Documents)."
8. INSTALL - "Install or apply only, not furnish."
9. MANUFACTURED – Applies to standard units usually mass-produced.
10. OFF SITE - Outside the Work area as shown on the Drawings or the property lines.
11. PROJECT SITE - Geographical location of the Project.
12. PROVIDE - "Furnish and install."
13. SHOWN - "As indicated on the Drawings."
14. SPECIFIED - "As written in the Contract Documents."
15. SUBMIT - "Submit to University's Representative."
16. OFCI - UNIVERSITY-FURNISHED, PRIME TRADE CONTRACTOR
INSTALLED - "To be furnished by University and installed by Prime Trade Contractor as part of the Work. Scope of work includes receipt, off-loading, inspection, on-site storage of material and protection after installation until acceptance."

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 42 13

**SECTION 01 45 00
QUALITY CONTROL**

PART 1 - GENERAL

1.1 DEFINITIONS

- A. The term "University's Testing Laboratory" means a testing laboratory retained and paid for by University for the purpose of reviewing material and product reports and performing other services as determined by the University.
- B. The term "Prime Trade Contractor's Testing Laboratory" means a testing laboratory retained and paid for by Prime Trade Contractor to perform the testing services required by the Contract Documents. Prime Trade Contractor's Testing Laboratory shall be an organization other than University's Testing Laboratory and shall be acceptable to the University's Representative. It may be a commercial testing organization, the testing laboratory of a trade association, the certified laboratory of a supplier or manufacturer, Prime Trade Contractor's own forces, or other organization. Prime Trade Contractor's Testing Laboratory shall have performed testing of the type specified for at least 5 years.
- C. The term "Geotechnical Engineer" means an engineer retained and paid for by the University for the purpose of performing geotechnical inspection, testing, and observation functions specified by the University.

1.2 PRIME TRADE CONTRACTOR'S RESPONSIBILITIES REGARDING UNIVERSITY'S TESTING LABORATORY

- A. Secure and deliver to University's Testing Laboratory adequate quantities of representative samples of materials proposed for use as specified.
- B. Submit a copy of the preliminary design mixes proposed to be used for concrete and other materials that require review by University's Testing Laboratory to the University Representative. University Representative will submit the copy to the University's Testing Laboratory for review.
- C. Submit copies of product test reports as specified.
- D. Furnish incidental labor and facilities:
 - 1. To provide University's Testing Laboratory access to the Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- E. Provide a minimum of forty-eight hours notice to University's Representative to allow for University's Testing Laboratory assignment of personnel and scheduling of tests.
- F. When material or work to be tested or inspected is not available for testing or inspection, even though notice has been given under Subsection 1.2.E above, Prime Trade Contractor

shall reimburse University for University's Testing Laboratory personnel and travel expenses incurred.

1.3 TESTS AND INSPECTIONS

- A. Tests, inspections, and acceptance of portions of the Work required by the Contract Documents or by Applicable Code Requirements shall be made at the appropriate times. Except as otherwise provided, Prime Trade Contractor shall make arrangements for such tests, inspections, and acceptances with Prime Trade Contractor's Testing Laboratory. Prime Trade Contractor shall give the University's Representative a minimum of twenty-four hours written notice of when and where tests and inspections are to be made.
- B. If such procedures for testing, inspection, or acceptance reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, Prime Trade Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for the University's Representative's services and expenses.
- C. If the University's Representative is to observe tests, inspections, or make acceptances required by the Contract Documents, University's Representative will do so promptly and, where practicable, at the normal place of testing.
- D. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.
- E. Certain portions of the Work will be tested and/or inspected at various stages. Nothing in any prior acceptance or satisfactory test result shall govern, if at any subsequent time the Work, or portion thereof, is found not to conform to the requirements of the Contract Documents.

1.4 ADDITIONAL TESTING AND INSPECTION

- A. If initial tests or inspections made by University's Testing Laboratory or Geotechnical Engineer reveal that any portion of the Work does not comply with the Contract Documents, or if the University's Representative determines that any portion of the Work requires additional testing or inspection, additional tests and inspections shall be made as directed.
 - 1. If such additional tests or inspections establish that such portion of the Work complies with the Contract Documents, all costs of such additional tests or inspections shall be paid by the University.
 - 2. If such additional tests or inspections establish that such portion of the Work fails to comply with the Contract Documents, all costs of such additional tests and inspections, and all other costs resulting from such failure, including compensation for the University's Representative and the University's consultants, shall be deducted from the Contract Sum.

1.5 TEST REPORTS

- A. University's Testing Laboratory and Prime Trade Contractor's Testing Laboratory shall submit 1 copy of all reports to University's Representative, indicating observations and results of tests and indicating compliance or non-compliance with the Contract Documents.
- B. The University's Representative shall distribute to the Prime Trade Contractor one copy of the reports from the University's Testing Laboratory.
- C. The number of copies for the Prime Trade Contractor and supplier being tested will be determined upon commencement of the Contract.

1.6 CLOSING IN UNINSPECTED WORK

- A. Do not allow or cause Work to be covered or enclosed before it has been inspected and approved by the University's Representative. Should any Work be enclosed or covered before it has been approved, it shall be uncovered, inspected, approved or repaired, and covered. Make all repairs necessary to restore Work of others to the condition in which it was found at time of cutting, at no additional cost to the University.

1.7 GEOTECHNICAL ENGINEER

- A. All excavation, filling, and compaction shall be subject to inspection, observation, and testing by Geotechnical Engineer. The University will retain and pay expenses of the Geotechnical Engineer to perform the inspection, testing, and observation functions described in this Section, except that the costs of any additional testing or inspection made necessary by inadequate compaction, replacement of unacceptable material or other Work not complying with the Contract Documents shall be borne by the Prime Trade Contractor and may be deducted from the Contract Sum. The Geotechnical Engineer shall communicate with the University's Representative who will relay any appropriate instructions to the Prime Trade Contractor.
- B. Source Quality Control: Geotechnical Engineer will sample and test fill material from the source designated by the Prime Trade Contractor. Prime Trade Contractor shall pay for the Geotechnical Engineer's transportation expenses, if the source is more than 50 miles from the Project site.

1.8 JOB CONDITIONS

- A. Prime Trade Contractor shall visit the Project site to determine the existing conditions, nature of materials to be encountered and other facts concerning or affecting the Work to be performed under this Contract.
- B. The records of investigation of soil or subsurface conditions and logs of test borings that are made available by the University are not part of the Contract and are solely for the convenience of the Bidder or Prime Trade Contractor. It is expressly understood and agreed that the University assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the investigation thus made, the records thereof, or of the interpretations set forth therein, and there is no warranty or guaranty, either express or implied, that the conditions indicated by such investigations or records are representative

of those existing throughout such areas or any part thereof, or that unanticipated for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

- C. The availability or use of the records of investigations of soil or subsurface conditions and/or logs of test borings shall not be construed as a waiver of the Prime Trade Contractor's duty to examine the Project site of the Work contemplated. Prime Trade Contractor is cautioned to make such independent investigations and examinations as necessary to satisfy the Prime Trade Contractor of subsurface conditions to be encountered in the performance of the Work.
- D. The records of investigations will not relieve Prime Trade Contractor from the risk of unanticipated soil or subsurface conditions or from properly fulfilling the terms of the Contract at the Contract Sum.
- E. Prime Trade Contractor shall promptly, and before such condition is disturbed, notify the University's Representative in writing if soil or subsurface conditions are encountered which require, in the opinion of the University's Representative, design details which differ from those design details shown in the Contract Documents and the University's Representative finds that such revised, design details will cause an increase or decrease in the cost of, or the time required for performance of the Contract, the University's Representative will, after approval by the University, modify the Contract terms in writing to provide for the change in design details and to provide for an adjustment in cost and/or time of performance as permitted in the General Conditions.

1.9 RESPONSIBILITY FOR ACCURACY OF SITE DATA

- A. Upon application to the University to do so, the Prime Trade Contractor will be permitted to enter the Project site to put down test holes or trenches to determine the conditions for construction prior to bidding, and subject to compliance with the requirements of Division 1. Such test holes or trenches shall be located at least 10 feet clear of any existing foundations, and/or any existing trees, utilities, or other improvements. Test holes shall be backfilled with granular backfill as specified. The test holes shall be kept full of water during backfilling; the backfill shall be hand shoveled into the hole so that it is completely dispersed and "puddled" as placed. Drill cuttings shall be neatly piled over the hole after backfilling. Material to be excavated is assumed to be earth or other materials that can be removed by power earth moving equipment, including rippers.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 45 00

**SECTION 01 51 00
TEMPORARY UTILITIES**

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. Responsible Prime Trade Contractor shall provide and maintain temporary utilities for construction operations and related necessary temporary structures. Remove them when they are no longer needed.
- B. Responsible Prime Trade Contractor shall pay for connections/disconnections of all temporary utilities; e.g., gas, water, power, and telephone.
- C. Responsible Prime Trade Contractor shall pay for connections for water and electricity to Project site sources.
- D. University does not guarantee amounts of water and electricity available from existing University's sources, nor will the University be responsible for interruptions in service.
- E. Responsible Prime Trade Contractor shall maintain and operate systems to provide continuous service.
- F. Responsible Prime Trade Contractor shall modify and extend systems as required.
- G. Materials may be new or used, but shall be adequate for the required purposes. Their use and methods of installation shall not create unsafe conditions or violate requirements of Applicable Codes Requirements.

1.2 REMOVAL AND RECONDITIONING

- A. Responsible Prime Trade Contractor shall remove all temporary services installed as a requirement of these Contract Documents. Restore utilities to their original condition at the completion of Work.
- B. Responsible Prime Trade Contractor shall legally and properly dispose of all debris resulting from removal and reconditioning operations.
- C. Concrete, Drywall and Painting Prime Trade Contractors shall patch and repair building elements as required by temporary utility removals.

1.3 REQUIREMENTS OF REGULATORY AGENCIES

- A. Responsible Prime Trade Contractor shall install and use temporary utilities in accordance with latest version of the following:
 - 1. California Electrical Code.
 - 2. Federal, State, and local codes and regulations.
 - 3. Utility company requirements.

1.4 TEMPORARY ELECTRICITY

- A. University will not provide electricity free of charge. Prime Trade Contractor shall meter temporary electricity and will be charged based on average UC Merced rates.
- B. Refer to Instructions to Bidders for temporary electrical scope of work and Prime Trade Contractor's responsibility.

1.5 TEMPORARY FIRE PROTECTION

- A. All Prime Trade Contractors shall conform to the rules, regulations, and instructions of the University and the Merced County Fire Department and such agencies having jurisdiction or identified by the University's Representative. The Contractor shall:
 - 1. Ensure that no burning shall be done on Project site.
 - 2. Provide and maintain fire protection equipment including extinguishers, fire hoses, and other equipment as necessary for proper fire protection during the course of the Work.
 - 3. Use fire protection equipment only for extinguishing fires.
 - 4. Locate fire extinguishers in field offices, storage sheds, tool houses, other temporary buildings, and throughout the Project site.
- B. In the area under construction demolition, the General Conditions Prime Trade Contractor will provide at least 1 multi-purpose dry chemical fire extinguisher for each 3,000-square feet of building floor area. Locate fire extinguishers so that a person never has to walk more than 75 feet to obtain one. Fire extinguisher minimum size must be 4A:20BC (10 pound ABC). Use fire protection equipment only for fighting fires. Any additional fire extinguishers required for your scope of work are to be provided by the responsible Prime Trade Contractor.
- C. The General Conditions Prime Trade Contractor shall assigned a qualified person with authority to maintain fire protection equipment, institute fire prevention measures, be a liaison with the University's Representative, Merced County Fire Department and such agencies having jurisdiction or identified by the University's Representative, and direct the prompt removal of combustible and waste materials from the Project site. Prior to start of Work, all Prime Trade Contractors shall organize a mandatory safety meeting. The attendees at this meeting shall at a minimum include the University's Representative, a representative of the Merced County Fire Department, the Prime Trade Contractor's Project Site Superintendent and the Prime Trade Contractor's Fire Liaison.
- D. All Prime Trade Contractors shall instruct all subcontractors in the site fire prevention measures, the location of fire extinguishers and the procedures for dealing with fire on site.
- E. Call 9-1-1 and pull fire alarm box when applicable, for any emergency. Report the exact location (building name and street intersection) and nature of the emergency. The Prime Trade Contractor is responsible for and will be billed for fire response charges (actual cost of personnel and equipment) for any false alarm and needless call.
- F. Refer to Section 01 41 00 Regulatory Requirements for permits required.

- G. Vehicles or storage of materials on Project site must not obstruct, block or damage or render useless any fire hydrants, fire department connection, fire alarm box or fire access roadway. Any necessary road closures or disruption to utilities shall be requested through the University's Representative as stated in Section ~~0113-01.35.00~~ Special Requirements.
 - H. Do not tamper with or work on any fire alarm or fire protection system without first gaining authorization from the University's Representative. System shutdown requests shall require a minimum of 48 hours advance notice. Contact University's Representative for any such requests.
- 1.6 TEMPORARY HEAT, VENTILATION AND AIR CONDITIONING
- A. The Mechanical Prime Trade Contractor shall provide temporary heat and ventilation as required by the Instructions to Bidders and as required to maintain adequate environmental conditions to meet specified minimum conditions for installation of materials; and to protect equipment, materials, and finishes from damage due to temperature or humidity for all work. The use of temporary heating appliances will require a Hazardous Condition Permit as specified in Section 01.41.00 Regulatory Requirements.
 - B. All Prime Trade Contractors shall provide adequate forced ventilation of enclosed areas to cure installed materials, to prevent excessive humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases for their own work.
- 1.7 TEMPORARY SANITARY FACILITIES
- A. Portable Chemical Toilets and maintenance will be provided by General Conditions Prime Trade Contractor.
 - B. Permanent toilet facilities within an existing building shall not be used without written authorization of the University.
- 1.8 TEMPORARY TELEPHONE SERVICE
- A. The General Conditions Prime Trade Contractor shall provide a mobile radio system on-site at all times for effective University's Representative communications with the Prime Trade Contractors field personnel. A radio will be provided to each Prime Trade Contractor.
- 1.9 TEMPORARY WATER
- A. University will not provide water free of charge. Contractor shall meter temporary water and will be charged based on average UC Merced rates.
 - B. Water may be taken from University's systems in such quantities and at such times as they are available. If this is done, the responsible Prime Trade Contractor using the water source shall provide all equipment, including metering, connections, and other materials necessary for extending the utility lines to where they will be used. Coordinate the installation with University's Representative. The responsible Prime Trade Contractor shall pay for connections and removal of connections to the local water and power mains.

- C. If water is obtained from a campus fire hydrant, the hydrant valve shall not be used as a control valve. Use hydrant wrench; do not use pipe wrench. The responsible Prime Trade Contractor using water source shall provide all valving necessary to control the flow of water.
- D. The responsible Prime Trade Contractor shall:
 - 1. Use a reduced pressure backflow preventer shall be used at any connection to University's system, including fire hydrants.
 - 2. Install according to California Administrative Code, Title 17, Section 7603(c), and test immediately after installation by a certified tester in accordance with Title 17, CAC, Section 7605(d).
 - 3. Install piping with taps located so that water is available throughout the Project site by the use of hoses. Protect piping and fittings against freezing.
 - 4. Provide water for human consumption in accordance with the regulatory requirements for potable water.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 51 00

SECTION 01 56 00
TEMPORARY BARRIERS AND ENCLOSURES

PART 1 - GENERAL

1.1 TEMPORARY FACILITIES

- A. All Prime Trade Contractors shall provide and maintain the following temporary facilities as required for prosecution of the Contract:
1. All scaffolding, staging, runways, and similar equipment necessary to complete own work is to be provided by the responsible Prime Trade Contractor installing the said work.
 2. The General Conditions Prime Trade Contractor shall provide a Man/Material Hoist, complete with operators and signals as required until such time as one of the elevators becomes operational at which time the hoist shall be removed by the General Conditions Prime Trade Contractor. The Electrical Prime Trade Contractor shall provide electrical power of sufficient voltage and amperage as needed for operation of the hoist and shall remove that service when it is no longer required.
 3. Temporary rigging, rubbish chutes, ladders between floors and similar equipment shall be provided by Prime Trade Contractor requiring said work
 4. Barricades, lights and similar safety precautions shall be provided by the Prime Trade Contractor requiring said work.
 5. OSHA compliant guardrails at floor openings and building perimeter shall be provided by the Structural Steel Prime Trade Contractor The General Conditions Primary Trade Contractor shall install toe guards upon placement of concrete slabs and shall maintain the guardrails until they are no longer required at which time they will be removed and returned to the Structural Steel Prime Trade Contractor by the General Conditions Prime Trade Contractor.
 6. The Earthwork Prime Trade Contractor shall erect and maintain a temporary OSHA compliant guardrail system around the building excavation and shall remove it when directed by the University's Representative.
 7. All materials and equipment required to safely accomplish Work under this Section shall be in conformance with requirements of California Occupational Safety and Health act (OSHA), Chapter 5 of CalTrans Traffic Manual and other State and Federal Codes and regulations where applicable.
- B. Codes: All temporary Work and facilities shall conform to the above requirements that pertain to operation, safety and fire hazard.
- C. Removal: Upon completion of the Work, and before the final payment, the responsible Prime Trade Contractor shall remove all temporary Work and facilities to put the Project site in the condition required by the Contract Documents with no additional cost to the University.

1.2 TEMPORARY PROJECT CONSTRUCTION FENCE

- A. No Prime Trade Contractor shall place any signs, advertisements, notices, or graphic materials on construction fencing that have not been approved in advance by University's Representative.
- B. Fencing shall be provided and maintained by General Conditions Prime Trade Contractor.
- C. All Prime Trade Contractors are responsible for any damage caused by Prime Trade Contractor's Operations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 56 00

SECTION 01 56 39
TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The General Conditions Prime Contractor shall provide and maintain temporary fencing around all trees shown to be protected on the contract drawings. This Contractor shall assume responsibility for watering and maintaining these trees throughout the construction duration. All Prime Trade Contractors shall perform all work necessary and required to protect and maintain all trees, shrubs and turf within the limits of the Work in healthy growing condition at all times during the Project where own work is adjacent to trees, shrubs and turf. If during the course of construction, any adjacent trees or shrubs are damaged due to own work performed in said area, penalties will be assigned for tree injury which results in the decline or death of trees. The preservation of existing trees to remain is of great importance.
- B. Limit of Work: Refer to Drawings for limits of Work.
- C. Definitions
 - 1. "Injury" is defined, without limitation, as any bruising, scarring, tearing, or breaking of roots, branches, or trunk.
 - 2. "Tree protection zone" is defined for each species. Species tolerance to construction impacts and the tree's age determine the radius of the tree protection zone. The tree protection zone shall be 1.5 feet per inch trunk diameter unless otherwise noted by the University's Representative.
 - 3. "Existing tree" is defined as any or all of the existing trees to be preserved, as designated on the Drawings.
 - 4. "Consulting Arborist" is a certified arborist registered by the International Society of Arboriculture (ISA). The Prime Trade Contractor shall submit Arborist's credentials for review by the University's Representative 14 calendar days prior to the Preconstruction Conference defined in Subsection 1.5. Consulting Arborist shall be supplied at the expense of the Prime Trade Contractor.

1.2 STANDARDS

- A. Published specifications, standards, tests, or recommended methods of trades, industry, or governmental organizations apply to the Work of this Section. In addition, all Prime Trade Contractors shall conduct operations in accordance with: Cabling, Bracing and Guying Standards for Shade Trees, latest revision, as published by the National Arborist Association (NAA), 174 RT 101, Bedford, New Hampshire 03102.

1.3 QUALITY ASSURANCE

- A. General Responsibility: All Prime Trade Contractors shall be directly responsible for protection and welfare of all existing trees within the limits of own Work area. This responsibility shall continue until the entire Project is completed and accepted by the University and through maintenance period.

1.4 SITE CONDITIONS

- A. Protection: All Prime Trade Contractors shall become acquainted with all site conditions, and shall take necessary precautions to protect site conditions and permanent improvements. Damage caused by the Prime Trade Contractor shall be repaired or replaced to its original condition to the satisfaction of the University's Representative. Should utilities, grade changes, or other conditions not shown on the Drawings be found within the tree protection zone during the course of the Work, report to the University's Representative in writing, and obtain instruction prior to proceeding with the Work affected.
- B. Field-verify all dimensions, grades, and coordinates, which affect existing trees and plants. Indicate elevations at the base of all trees within the limits of the work on the grading plan. Report discrepancies to the University's Representative in writing, and obtain the University's Representative's instructions prior to proceeding with the Work affected.

1.5 PRECONSTRUCTION CONFERENCE

- A. It shall be the responsibility of all Prime Trade Contractors to call for a meeting at the Project site with the University's Representative. Meeting attendees shall include the Prime Trade Contractor, University's Representative, Consulting Arborist, Engineers, and Architects. This meeting shall occur prior to start of construction of any nature within the protection zone of the trees.
- B. The purpose of the meeting shall be to establish the conditions of all existing trees upon receipt of the Project site by the Prime Trade Contractor. Failure to call for said meeting implies acceptance by the Prime Trade Contractor of existing trees in their existing condition.
- C. The University's Representative shall document the condition of the trees prior to this meeting. The purpose of the meeting shall be to confirm what work is to occur near the trees and to discuss mitigation of the potential impacts on trees to be preserved if necessary.

1.6 REPAIR AND COMPENSATION

- A. Any damage to existing tree trunks, limbs or roots over 2 inches in diameter shall be immediately reported in writing to the University's Representative and, at the direction of the University's Representative, repaired immediately at the Prime Trade Contractor's expense by the approved Consulting Arborist.
- B. The Consulting Arborist shall direct repair of trees damaged by construction operations. Repairs shall be made promptly after damage occurs to prevent progressive deterioration of damaged trees.
- C. The Prime Trade Contractor shall compensate the University for any tree or shrub to remain which is damaged or destroyed owing to the Prime Trade Contractor's failure to provide adequate protection. Said compensation will be assessed by the University's Representative using the following schedule of values using the "tree caliper" method (greatest trunk diameter, measured 30 inches above ground):

1. For trees and shrubs with diameters up to and including 4 inches, compensation shall be the actual cost of replacement with item similar in species, size, and shape, including:
 - a. Actual cost of item boxed out of ground.
 - b. Transportation and delivery of boxed item to Project site.
 - c. Planting and staking.
 - d. Maintenance, including watering, fertilizing, pruning, pest control, and other care for a period of 90 calendar days to the satisfaction of the University's Representative.
 2. For trunks up to:
 - a. Twelve inches - \$7,200
 - b. Thirteen inches - \$8,200
 - c. Fourteen inches - \$9,200
 - d. Fifteen inches - \$10,000
 - e. Sixteen inches - \$11,500
 - f. Seventeen inches - \$12,000
 - g. Add \$1,200 for each caliper inch or partial caliper inch over seventeen inches.
 3. A penalty shall be assessed for limb damage of \$200 per inch of limb diameter for any limb greater than 2 inches in diameter, measured where the limb should be pruned in order to make a proper thinning cut.
 4. A penalty will be assessed of \$20 per square inch of tree trunk area damaged. This penalty shall be assessed when it is determined that the Prime Trade Contractor is responsible for damage to a tree trunk, but the tree is still healthy enough to remain at the site. An example of this kind of damage would be the collision of a tractor with the trunk of a mature tree where the bark is peeled back, and the damaged area will require repair and healing.
- D. Damaged tree limbs or trees that have died as a result of injury during construction shall remain the property of the University and shall remain or be removed by the Prime Trade Contractor as directed by the University's Representative.

1.7 WARRANTY OF REPLACEMENT PLANT MATERIAL

- A. Prime Trade Contractor shall warrant that all plants covered by the provisions of this Section will be healthy and in flourishing condition of active growth 1 year from the date of Final Acceptance.

1.8 MAINTENANCE DURING CONSTRUCTION

- A. Maintenance includes, but is not limited to mitigation of damage due to storm drainage, or any condition, which requires immediate attention, and proper placement & maintenance of Tree Protection Fencing. Unauthorized moving of fencing which leads to damage of plant material may be subject to charges incurred by the Prime Trade Contractor. If the General Conditions Prime Trade Contractor fails to perform routine maintenance, the cost of labor or a maintenance crew shall be paid by the Prime Trade Contractor.
- B. The General Conditions Prime Trade Contractor shall perform periodic inspections of existing trees to be preserved and submit written proposals to the University's Representative for additional maintenance Work as may be required to ensure the health

and general well being of the plant material. The Prime Trade Contractor shall retain, at the direction of the University's Representative, additional specialists as may be required to perform this Work.

- C. Irrigation: Following co-ordination with the University's Representative, existing trees to be preserved shall be given water to saturate the top 3 to 4 feet (as demonstrated by the soil probe) of the soil within the tree protection zone and 2 to 3 feet extending from the tree protection zone. Quantities, frequencies, and lengths of watering time are variable and shall depend upon seasonal rainfall. Irrigation recommendations of the University's Representative shall be followed.

1.9 TREE PROTECTION FENCING

- A. Tree protection fencing shall be chain-link fencing (minimum 6-feet) on concrete anchor blocks unless otherwise noted.
- B. The General Conditions Prime Trade Contractor shall install tree protection fencing around trees to be preserved at a distance required from the base of the trunk to the protection zone. All fencing shall remain until Project completion, and it shall then be removed only as directed by the University's Representative.
- C. During the course of construction, General Conditions Prime Trade Contractor shall relocate the fence if required to facilitate construction only after notifying University's Representative, to avoid compaction or other injury of tree roots.
- D. The General Conditions Prime Trade Contractor shall relocate the fence if required to facilitate construction to avoid compaction or other injury of tree roots only after notifying University's Representative.
- E. The Prime Trade Contractor shall protect the fencing and shall be responsible for any damage incurred to the fences requiring replacement or reinstallation.
- F. Approval of the University's Representative for Work within the fenced area shall not release Prime Trade Contractor from any of the provisions specified herein for the protection of existing trees.

1.10 PLANT LIFE PROTECTION

- A. Protection: All trees, shrubs and turf not marked for removal shall be protected against damage from construction operations.
- B. Tree Protection:
 - 1. Where necessary in the opinion of the University's Representative, trees within the limits of the Work shall be protected with tree protection fencing. No trees shall be cut or felled without specific permission from the University's Representative. Trees cut or damaged without written permission of the University's Representative shall be subject to provisions of Repair and Compensation.
 - 2. Cutting and Pruning: Cutting and pruning of trees as required to accommodate construction shall be done only with the specific permission and direction of the University's Representative. Except as required by excavation or trenching shown

on the Drawings, soil within the tree protection zone shall not be disturbed. University's Representative shall be notified immediately if roots of a diameter greater than 2 inches must be cut. Where trenching or excavation for utilities or new construction is required within tree protection zones, tunneling under and around roots shall be done by hand digging line-boring or vacuuming to minimize damage to the root systems.

3. Tree Protection Zone: Do not permit the following within the tree protection zone of an existing tree, except as specified in this Section:
 - a. Storage or parking automobiles or other vehicles.
 - b. Stockpiling of building material, refuse, or excavated materials.
 - c. Skinning or bruising of bark.
- C. Shrub and Turf Protection: Keep damage to shrubs, turf and other plant materials to a minimum and restore to original condition. Turf to be restored with sod lawn unless otherwise approved by the University's Representative.
- D. Maintenance: It shall be the responsibility of the Prime Trade Contractor to maintain all plant materials and turf within the Project site in a healthy, thriving condition during the life of the Contract.

1.11 GENERAL PROTECTION

- A. During the course of construction, take all necessary precautions to protect the existing trees from injury or death. Protection shall be given to the roots, trunk, limbs and foliage of all existing trees.
- B. Approval by the University's Representative for Work within the tree protection zone shall not waive the Prime Trade Contractor's responsibility for complying with the requirements of this Section.
- C. During the course of construction of approved Work within the tree protection zone, no roots larger than 2 inches in diameter shall be cut without prior written approval by the University's Representative.
- D. Do not permit the following within the tree protection zone of an existing tree, except as specified in this Section:
 1. Storage or parking automobiles or other vehicles.
 2. Stockpiling of building material, refuse, or excavated materials.
 3. Skinning or bruising of bark.
 4. Use of trees as support posts, power poles, or signposts; anchorage for ropes, guy wires, or power lines; or other similar functions.
 5. Dumping of poisonous materials on or around trees and roots. Such materials include but are not limited to paint, petroleum products, contaminated water, or other deleterious materials.
 6. Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches, and other miscellaneous excavation without prior written approval by the University's Representative.
 7. Damage to trunk, limbs, or foliage caused by maneuvering vehicles or stacking material or equipment too close to the tree.

8. Compaction of the root area by movement of trucks or grading machines, storage of equipment, gravel, earth fill, or construction supplies, etc.
 9. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.
 10. Damage to root system from flooding, erosion, and excessive wetting and drying resulting from dewatering and other operations.
 11. Do not permit the use of herbicide, within the area of the tree protection zone without prior written approval from the University's Representative. The application of herbicides anywhere on the Project site to which can be attributed the decline or death of existing trees shall constitute negligence on the part of the Prime Trade Contractor. Prime Trade Contractor shall be liable for damages.
 12. During construction the existing site surface drainage patterns shall not be altered within the area of the tree protection zone, except as shown on the Drawings.
 13. Prime Trade Contractor shall not alter the existing water table within the area of the tree protection zone.
 14. Grading is to be avoided within the tree protection zone unless absolutely necessary. Grading techniques and mitigation procedures are to be specified by the University's Representative.
- E. All necessary measures shall be taken to maintain healthy living conditions for existing trees to be preserved. Such measures shall include but not be limited to periodic washing of leaves for the removal of dust, irrigation, etc.
- F. Excavation Around Trees
1. Excavation within tree protection zone of trees shall be done only where absolutely necessary and by, or at the direction and with approval from the University's Representative.
 2. Where trenching for utilities is required within tree protection zones, tunneling under and around roots shall be by hand digging. Main lateral roots, and taproots shall not be cut. Smaller roots that interfere with installation of new Work may be cut. Where appropriate, an underground method of pipe installation referred to as "line-boring", around sensitive roots, sidewalks and roads. Determination would be by the University's Representative as to when it would be appropriate to use this method.
 3. Where excavation for new construction is required within tree protection zone of trees, hand excavation and tunneling shall be employed to minimize damage to root systems. If large, main lateral roots are encountered, they shall be exposed beyond excavation limits. If encountered immediately adjacent to location of new construction and relocation is not practical, roots shall be cut approximately 6 inches back from new construction. Obtain approval from the University's Representative before cutting.
 4. Prior to excavation for drain line along existing sidewalk, tree roots shall be cut with a mechanical root-cutter rather than typical trenching to minimize root wrenching.
 5. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be packed with wet peat moss or 4 layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill. The cover over the roots shall be wetted to the point of runoff so roots stay moist. This should be done at least daily during most seasons, but may required more frequent

watering during the summer months. Excavations shall be closed within 24 hours; and, where this is not possible, the side of the excavation adjacent to the tree shall be kept shaded with burlap or canvas. No excavation shall occur within 10 feet of the trunk of any tree. Excavations within 20 feet of any tree shall be limited to that which is absolutely necessary for building construction under the supervision of the University's Representative.

6. Branching structure shall be thinned in accordance with NAA "Pruning Standards and Practices" to balance structural or weight balance problems in the crown of the tree that might lead to further damage. Thinning shall not exceed 30 percent of existing branching structure.

G. Backfilling

1. Approved excavations shall be carefully backfilled with the excavated materials approved for backfilling. Backfill shall conform to adjacent grades without dips, sunken areas, humps, or other surface irregularities. Jet backfill when trench has been backfilled to half its depth and again when fully backfilled, making certain no air pockets exist around roots.
2. Do not use mechanical equipment to compact backfill. There shall be no air tamping used to avoid compaction of tree root systems. Tamp carefully using hand tools, refilling and retamping until Final Acceptance as necessary to offset settlement.

1.12 TRIMMING OF TREES

- A. In company with the University's Representative ascertain the limbs and roots, which are to be trimmed, and clearly mark them to designate the approved point of cutting.
- B. A Consulting Arborist, certified by the International Society of Arboriculture (ISA), may be engaged to direct removal of branches from trees and large shrubs that are to remain if required to clear for new construction.
- C. Dead and damaged trees that are determined by the University's Representative to be incapable of restoration to normal growth pattern shall be removed at no additional cost to the University.
- D. Pruning operations shall be extended to restore the natural shape of entire tree where directed by the University's Representative and as noted on the Drawings.
- E. Cut evenly, using proper tools and skilled workers, to achieve neat severance with the least possible damage to the tree. Follow ISA Pruning Guidelines.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 56 39

SECTION 01 57 23
STORM WATER POLLUTION PREVENTION

PART 1 - GENERAL

1.1 SCOPE

- A. Discharge of pollutants (any substance, material, or waste other than clear, uncontaminated storm water) from the project into the storm drain system is strictly prohibited by the Central Valley Regional Water Quality Control Board's (CVRWQCB) Water Quality Control Plan (Basin Plan).
- B. Contractor to provide all material, labor, and equipment for installation, implementation, and maintenance of all surface-water pollution prevention measures. This work includes the following:
 - 1. Furnishing, placing, and installing effective measures for preventing runoff of soil, silts, gravel, hazardous chemicals or other materials prohibited by the CVRWQCB from entering the storm water drainage system.
 - 2. Management of on-site construction materials in such a manner as to prevent said materials from contacting storm water or wash water and running off into the storm drain system.
 - 3. Complying with applicable standards and regulations specified herein.
 - 4. Maintain 1 copy of the most current revised Storm Water Pollution Protection Plan (SWPPP) at the Contractor's work site.
 - 5. Review any changes in the SWPPP plan each week at the weekly meetings with University's Representative and others. At each weekly meeting, the Contractor shall submit a numbered checklist of the current status of each prevention measure on the job site.
- C. In this section, the term "storm drain system" shall include storm water conduits, storm drain inlets and other storm drain structures, street gutters, channels, ditches, and the Fairfield Canal and Little Lake.
- D. Sanitary sewer discharge regulations are intended to provide protection of the sanitary sewer system and the University's or local Waste Water Treatment Plant (WWTP). In this section, "sanitary sewer" shall include any sanitary sewer manhole, clean out, sewer laterals or other connection to the WWTP.
- E. Contractor shall have storm water pollution prevention measures in place and conduct inspections year-round. It is the responsibility of the Contractor to be prepared for a rain event in the non-rainy season, and to be aware of weather predictions. The University is not responsible for informing the Contractor of rain predictions.
- F. Sanitary sewer blockages can result in a back-up and discharge to the storm drain system. Contractor shall immediately notify the University's Representative if they become aware of a clogged sanitary sewer associated with the Project.
- G. Contractor shall not allow any non-storm water from the Project to enter the storm drain system. Examples of non-storm water include water used for dust suppression, pipe

flushing and testing, and domestic supply water used to wash streets, painting and drywall equipment, vehicles, or other uses.

- H. Water resulting from de-watering an excavation may be discharged to a storm drain only if it is free of pollutants, including sediment. Contractor shall use methods such as a settling basin or filter to ensure that dewatering discharges are free of pollutants.

1.2 REGULATIONS AND STANDARDS

- A. Contractor shall comply with the following applicable regulations, including all applicable amendments:
 - 1. Clean Water Act, United States Environmental Protection Agency, and Porter-Cologne Water Quality Act, State of California.
 - 2. Central Valley Regional Water Quality Control Board's Basin Plan, 1998 Edition.
 - 3. Waste Discharge Requirements Order No. **2010-0014-DWQ** (National Pollutant Discharge Elimination System (NPDES) Permit No. **CAS000002**) These Orders are referred to as the General Permit.
 - 4. NPDES Phase II General Municipal Permit requirements.
- B. Contractor shall comply with the following standards and guidelines on storm drain pollution prevention:
 - 1. California Stormwater Quality Association Handbooks – Construction, Municipal, Industrial and Commercial, and New Development and Redevelopment. These documents can be viewed and downloaded from the Association's website at <http://www.cabmphandbooks.org>.
- C. Contractor shall employ a Qualified SWPPP Practitioner (QSP) to oversee and implement the Storm Water Pollution Prevention Plan.

1.3 SUBMITTALS

- A. Submittals shall comply with requirements specified in Section 01 33 23 Shop Drawings, Product Data and Samples.
- B. Submit a New Construction Project Information Form (Exhibit 19) to University of California, Merced Office of Environment, Health and Safety. This form is required for compliance with the campus-wide permit with the CVRWQCB for discharges of storm water associated with construction activities.
- C. Review the University's Storm Water Pollution Prevention Plan (SWPPP) prior to ground breaking. The SWPPP contains all required elements specified in the General Permit using the SWPPP Template in Appendix B of the California Stormwater Quality Association – Stormwater Best Management Practice Handbook for Construction. This template can be downloaded from the California Stormwater Quality Association website at <http://www.cabmphandbooks.org/Construction.asp>. The SWPPP has been developed and revised as necessary to meet the following objectives:
 - 1. To identify pollutant sources that may affect the quality of storm water discharges associated with construction activity from the construction site.

2. To identify non-storm water discharges.
 3. To identify, construct, and implement storm water pollution prevention measures (Best Management Practices, or BMPs) to reduce or eliminate pollutants in storm water discharges from the construction site, both during construction and after construction is completed.
 4. To develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).
 5. Contractor shall notify the University whenever there is a change in construction, operations or site conditions that may affect the discharge of pollutants to surface waters so that the SWPPP can be amended. All amendments should be dated and directly attached to the SWPPP.
 6. The SWPPP shall include a site map and site-specific written plans that describes pollution sources for the construction activity and the methods that will be used for erosion and sediment control, hazardous materials management, and any other construction activity that are sources of pollution. The list of topics to be covered in the plan are included in Part 3 Execution of this Section.
- B. Site work shall not commence until the SWPPP has been reviewed and accepted by the University of California, Merced Office of Environment, Health and Safety.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide materials as required for execution of the Work.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor will implement the University's SWPPP as directed by the University. The Contractor will work with the University to choose the best available performance-based technology and methods to prevent storm water pollution for construction site activity. The method(s) chosen shall be appropriate for each specific site condition.
- B. The University will provide a Qualified SWPPP Practitioner (QSP) to provide all inspections as required by the State Water Resource Board.

3.2 SWPPP TOPICS

- A. Following are topics addressed in the SWPPP:
1. Introduction/Site Description:
 - a. The SWPPP shall include basic information about the project including: size of site, type of construction, location of site, project start date and estimated completion date. The site description shall be updated to reflect changes in conditions which may reflect.
 2. Maps:

- a. The General Permit has specific map requirements, including a topographic map showing the location of nearby surface water bodies and the discharge location(s) for the site. A detailed site map is also required, which shall identify areas of soil disturbance, location of surface water bodies, areas of existing surface vegetation, location of sediment or pollutant control measures, site drainage patterns, areas used for storage of soils, waste, or materials, vehicle and equipment parking or service areas, existing paved areas and location of post-construction controls. The maps shall be updated as needed to reflect changes as the project progresses. The approved map and plan shall be kept onsite for reference by the Contractor, University's Representative or governmental agencies.
3. Description of Site and Soil Types:
 - a. Include the following estimates:
 - (1) The size of the construction site (in acres) to be supplied to Contractor by University's Representative;
 - (2) The runoff coefficient of the site before and after construction;
 - (3) The percentage of the area of construction that is impervious before and after construction) to be supplied to Contractor by University's Representative.
4. Pollutant Sources:
 - a. List and describe pollutants that are likely to be present in storm water discharges from the site, such as sediment, waste materials, concrete, etc. Describe the locations of storage or use of such materials and the measures to prevent pollution.
5. Toxic Materials:
 - a. Describe all toxic materials that will be used during construction, such as adhesives, paint, petroleum products, pesticides, and vehicle fluids. Describe the locations of storage or use of such materials and the measures to prevent pollution.
6. Erosion and Sediment Control:
 - a. Provide a description of erosion and sediment control measures that will be used on the site, and correlate the description with the site map. Areas requiring erosion control measures are exposed soil, such as stockpiles, bare soil, sloped soil, and any area of disturbed soil. Erosion control measures include paving, tarp placement, soil blankets, mulching, seeding, hydro-mulching, and spreading straw. Sediment control measures include drain inlet protection, filter fabric, geo-textile silt fencing, gravel placement, gravel or sand bag placement, and straw wattle placement. This list is not all inclusive and the Contractor should refer to the resources listed in this section to identify the best measures for the project. Describe measures to reduce the tracking of sediment from the site. Describe waste disposal practices and methods to prevent waste materials from polluting storm water. Indicate the location of concrete washout areas. Both erosion and sediment control practices are designed to be implemented as an integrated system of pollution control. Without

erosion controls, sediment controls are easily overwhelmed and will not prevent pollution.

7. Non-Storm Water Management:
 - a. Describe all non-storm water discharges that may occur on site. Examples of non-storm water discharges include irrigation runoff, street cleaning, spills, or leakage from storage tanks. Non-storm water discharges should be eliminated or reduced to the extent feasible. Discharges from dewatering are allowed only if they are free of pollutants, including sediment.
8. Maintenance, Inspection and Repair of Controls:
 - a. Structural pollution controls require ongoing inspection, maintenance and repair. Contractor shall maintain all pollution control measures to achieve compliance with the SWPPP and General Permit. Describe procedures for responding to failure of any structural controls and indicate the persons responsible for inspection, maintenance and repair.
9. Spill Prevention and Control:
 - a. Measures to prevent, control and respond to spills shall be described in the SWPPP. Contractor shall take precautions to prevent accidental spills of pollutants, including hazardous materials brought onsite by the Contractor. However, in the event of a spill, the Contractor shall be responsible for the following:
 - (1) Immediately contain and prevent leaks and spills of prohibited pollutants from entering the storm drain system. Clean up the spill and label the contained material. Store the container in a safe place and contact the University's Representative prior to disposal of the waste by the Contractor. Contractor shall keep a spill kit on site at all times for this purpose.
 - (2) Contractor shall comply with all federal, state, and local hazardous waste requirements. Ensure that no spilled materials are washed into the streets, gutters, storm drains, or creeks.
 - (3) Report any hazardous or unknown material spills immediately to the University's Representative and the University of California, Merced Office of Environment, Health and Safety. If a spill occurs after hours or on a weekend, call (209) 658-8487 and Merced County Department of Public Health, Division of Environmental Health at (209) 381-1090.
10. Post-Construction Stormwater Management
 - a. Describe all the control practices to reduce pollutants in storm water discharges after the construction activities are completed at the site. Post construction BMPs include: minimizing land disturbance, minimizing impervious surfaces, treatment of storm water runoff using filtration, use of efficient irrigation systems, and planting to reduce erodable surfaces.

11. Personnel:
 - a. Identify and describe the training of the personnel responsible for the implementation and monitoring of the SWPPP and BMPs. These activities must be performed by a Qualified SWPPP Practitioner (QSP). Documentation of training shall be available upon the request of the University's Representative or a regulatory agency.

12. Notification List:
 - a. Provide the company's name, address and telephone number, along with a contact person's name and telephone number for everyone responsible for implementation of the SWPPP. The Contractor shall inform all subcontractors (if any) of the water pollution prevention requirements contained in this specification and the site-specific SWPPP and include appropriate subcontract provisions to ensure that these requirements are met.

13. Monitoring and Reporting:
 - a. The SWPPP shall describe the monitoring program to ensure compliance with the General Permit. The monitoring plan shall include site inspections by the contractor and the (QSP) shall conduct required inspections of the construction, prior to anticipated storm events, during extended storm events, and after actual storm events to identify areas contributing to a discharge of storm water associated with construction activity. The name(s) and contact number(s) of the assigned inspection personnel shall be listed in the SWPPP. Weekly and pre-storm inspections are to ensure that BMPs are properly installed and maintained; post-storm inspections are to assure that the BMPs have functioned adequately. During extended storm events, inspections shall be required each 24-hour period. BMPs shall be evaluated for adequacy and proper implementation and whether additional BMPs are required in accordance with the terms of the General Permit. The Contractor shall submit a copy of all inspection reports to the University's Representative for review.
 - b. Inspections must be documented and the records maintained onsite for review by the University's Representative or regulatory agencies. If instances of non-compliance with the General Permit are identified, the Contractor shall notify the University's Representative immediately. Corrective measures should be implemented immediately following discovery of an exceedance of water quality standards or other instance of non-compliance.

3.3 ENVIRONMENTAL ENFORCEMENT

- A. The CVRWQCB has authority to enforce, through codified regulations, any portions of this Section that may violate applicable regulations. Agency enforcement may include but is not limited to: citations, orders to abate, bills for cleanup costs and administration, civil suits, and/or criminal charges. Contract compliance action by the University shall not be construed to void or suspend any enforcement actions by these or other regulatory agencies.

- B. Contractor shall notify the University's Representative within 24 hours after issuance of any citation(s) issued by any regulatory agency and shall be responsible for all fines and costs necessary to correct the conditions listed in the citation(s) to include all legal fees and University expenses.

END OF SECTION 01 57 23

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. All material and equipment incorporated in the Work shall be:
 - 1. New.
 - 2. In a condition acceptable to the University's Representative.
 - 3. Suitable for intended use.
 - 4. Clean, dry, and undamaged.

1.2 TRANSPORTATION AND HANDLING

- A. Arrange for delivery of materials and equipment to minimize length of on site storage prior to installation.
- B. All common carrier deliveries shall be marked for the Prime Trade Contractor. Identify location of Project site by Project name, street address, etc.
- C. University will not receive deliveries on behalf of the Prime Trade Contractor.
- D. Deliver manufactured products and materials in their original unbroken containers or bundles, clearly labeled with manufacturer's name, brand, and grade seal or model number and labels intact until time of use.
- E. Handle materials and equipment in a manner to avoid damage to products and their finishes.
- F. Promptly remove damaged or defective products from the Project site and replace at no additional cost to the University.

1.3 STORAGE AND PROTECTION

- A. Other than Project site, storage space may not be available.
- B. Store manufactured products in accordance with manufacturers' instructions and with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weather tight enclosures.
 - 2. Maintain temperature and humidity in accordance with manufacturers' recommendations.
- C. Exterior Storage
 - 1. Store materials and equipment above ground on blocking or skids to prevent soiling, staining, and damage.
 - 2. Cover products that are subject to damage by the elements with impervious protective sheet coverings. Provide adequate ventilation to prevent condensation.

3. Store sand, rock, or aggregate material in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- D. Arrange storage to allow adequate inspection.
- E. Periodically inspect stored products to assure that products are maintained under specified conditions and are free from damage and deterioration.
- F. Protection After Installation
1. Prevent damage to materials and equipment.
 2. Use whatever protective materials or methods are necessary to prevent damage to installed products from traffic, construction operations, and weather. Remove protection when no longer required.
 3. Maintain temperature and humidity conditions in interior spaces for the Work in accordance with manufacturers' instructions for the materials and equipment being protected.

1.4 UNDERWRITERS' LABORATORIES LABEL

- A. Materials and equipment, for which Underwriters' Laboratories, Inc. (UL) standards have been established and their label service is available, shall bear the appropriate UL Label.

1.5 MANUFACTURERS' TRADE MARKS AND NAMES

- A. University's Representative reserves the right to review and request the removal or redesign of manufacturers' trade marks and names on items of materials and equipment which will be exposed to view in the completed Work. Such removal or redesign shall be with no adjustment of the Contract Sum.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 60 00

SECTION 01 71 23
FIELD ENGINEERING

PART 1 - GENERAL

1.1 PREPARATION

- A. Lay out and install all Work to lines and grades in accordance with Contract Documents.

1.2 LAYOUTS AND MEASUREMENTS

- A. All Prime Trade Contractors shall provide all survey Work required for horizontal and vertical location of all Work in this Project as applies to their scope of work.
- B. All Prime Trade Contractors shall be responsible for paying for the replacement and reestablishment of control stakes, monuments, and lines furnished by the University that are destroyed or disturbed by Prime Trade Contractor's construction activities. The University shall provide the following
- Establish all building corners, 6 column lines in the north-south direction, 2 column lines in the east-west and 4 elevation benchmarks at locations directed by the University's Representative prior to excavation
 - Reestablish the above following excavation and prior to the start of foundations.
 - Establish the same column lines on each floor and roof following placement of concrete slabs plus provide 2 elevation benchmarks at each floor (inside the building) as directed by the University's Representative.
 - Reestablish building column line locations and benchmarks prior to start of site hardscape work as directed by the University's Representative.
- C. All Prime Trade Contractors shall furnish the University's Representative, prior to Project acceptance, 2 complete sets of the field notes for the survey Work and cut sheets in addition to 2 sets of drawings marked showing all deviations from Project alignment and grades as applies to their scope of work.
- D. Generally, grades shall match adjacent surfaces, and existing flow lines shall be maintained.

1.3 SURVEY REFERENCE POINTS

- A. All Prime Trade Contractors shall locate and protect control points prior to beginning the Work, and preserve all permanent reference points throughout construction operations. The Prime Trade Contractor shall:
1. Not change reference points without prior approval of the University's Representative.
 2. Report to the University's Representative when any reference point is lost, destroyed, or requires relocation due to necessary changes in grades or locations.

1.4 PROJECT SURVEY REQUIREMENTS

- A. All Prime Trade Contractors shall establish lines and levels, locate, and lay out for own work.

- B. All Prime Trade Contractors shall provide layouts as Work proceeds to assure compliance with required schedules, lines, levels, and tolerances for own work.

1.5 RECORDS

- A. All Prime Trade Contractors are required to maintain a complete and accurate log of all control and survey Work as it progresses for own work.

1.6 SUBMITTALS

- A. Upon request by the University's Representative, All Prime Trade Contractors shall submit documentation to verify accuracy of field engineering Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 71 23

SECTION 01 73 23
SUPPORTING FROM BUILDING STRUCTURE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This Section provides guidelines and limitations all bracing, anchorage and seismic restraints for supporting all mechanical, electrical, plumbing, audio-visual or architectural items from the building structure.
- B. The Prime Trade Contractor shall design and install all support and bracing systems except as noted. The Prime Trade Contractor shall provide for attachment to portions of the building structure capable of bearing the loads imposed and shall design systems to not over stress the building structure.
- C. The Prime Trade Contractor is not required to design support and bracing for items that the Contract Documents provide specific attachment, support, and bracing.
- D. Seismic bracing is not required for the following items:
 - 1. Gas piping less than 1 inch inside diameter.
 - 2. Piping in boiler and mechanical equipment rooms less than 1.25 inches inside diameter.
 - 3. All other piping less than 2.5 inch inside diameter, unless racked together.
 - 4. All piping and duct suspended by individual hangers 12 inches or less in length.
 - 5. All rectangular air handling ducts less than 6 square feet in cross sectional area.
 - 6. All round air handling ducts less than 28 inches in diameter.
 - 7. All electrical conduits less than 2.5 inches inside diameter, unless racked together.

1.2 QUALITY ASSURANCE

- A. Design and install all support systems to comply with the Seismic Design Category D requirements of the 2007 California Building Code (CBC), Chapter 16 and ASCE 7-05, Chapter 13.
- B. For seismic bracing design use the services of a structural engineer licensed in California.
- C. For seismic bracing for mechanical, electrical and plumbing systems, refer to the Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA), "Guidelines for Seismic Restraints of Mechanical Systems and Plumbing Piping Systems" for guidelines.

1.3 SUBMITTALS

- A. Submit Shop Drawings for all substructures and attachment methods in accordance with Section 01 33 23 Submittals.
- B. Submit proposed alternative methods of attachment for review and approval by the University's Representative prior to deviating from the requirements given below.

- C. For all seismic bracing systems, submit structural calculations and details prepared and signed by the Prime Trade Contractor's licensed engineer that include all resultant forces applied to the building structure. Do not over stress building structure. Calculations will be reviewed for compliance with design criteria, not for arithmetic.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Furnish all substructures and fasteners required to comply with the limitations given below. Use materials as specified in the various Sections and as appropriate to the use.
- B. Channel framing systems: as required to meet Project design.
- C. All exterior materials: hot-dipped galvanized or stainless steel.

PART 3 - EXECUTION

3.1 SEISMIC BRACING

- A. In applying formulae (13.3-1), (13.3-2), (13.3-3) or (13.3-4) from Chapter 13 of ASCE 7-05 the following minimum values, unless otherwise required by ASCE 7-05, shall apply:

$$I_p = 1.0$$

$$S_{DS} = 0.48$$

- B. Design and install seismic bracing so as not to defeat the operation on any required vibration isolation or sound isolation devices.

END OF SECTION 01 73 23

SECTION 01 73 29
CUTTING, PATCHING AND MATCHING

PART 1 - SUMMARY

1.1 DESCRIPTION

A. Work Included

1. Patching and matching existing Work altered or disturbed to accommodate new construction.
2. Patching and matching existing Work damaged or defaced during new construction as required to restore to condition at time of award of Contract.
3. Matching of new Work in existing construction to adjacent existing Work unless otherwise noted.
4. Execute cutting, patching and matching in a manner to prevent damage to other Work and to provide proper surfaces for the installation of repairs, penetrations through surfaces, equipment, or other items.

1.2 SUBMITTALS

- A. Submit in accordance with Section 01 33 23 Submittals.
- B. Product Literature and Shop Drawings: Submit for review materials, methods, or systems different from existing Work to be matched.
- C. Samples as requested by the University's Representative.

1.3 QUALITY ASSURANCE

A. Design Criteria

1. Patching shall achieve security and protection where exposed to weather, and shall preserve the continuity of existing fire ratings.
2. Cutting, patching and matching shall successfully duplicate the undisturbed adjacent finishes, colors, textures, and profiles. Where there is dispute over whether the duplication is successful or has been achieved to a reasonable degree, the judgment of the University's Representative shall be final.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in the original packages, containers or bundles with seals unbroken and labels intact until time of use.

1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Follow the manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Materials shall be as required to match the appearance, quality and performance of the existing finishes to be duplicated.
- B. Where the existing finish to be duplicated was achieved with materials now out of production or otherwise unavailable, obtain review and acceptance by the University's Representative of substitutions.
- C. Provide primers, sealers, underlayments, backing, blocking, furring, suspension systems, and related items required for any purpose in patching existing Work.
- D. Materials shall be subject to the review of and acceptance by the University's Representative.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

- A. Perform Work in accordance with the manufacturer's recommendations, deviating only as directed by the University's Representative to achieve a good match.
- B. For the following items, the Prime Trade Contractor shall employ the installer or fabricator to perform any cutting, patching or matching of such items:
 - 1. Weather-exposed or moisture-resistance elements.
 - 2. Fireproofing.
 - 3. Finishes surfaces exposed to view.
- C. Adjust and fit products to provide a neat installation.
- D. Inform the University's Representative of locations where Work will be noisy, and obtain the University's Representative approval of the times during which such Work will be done; otherwise keep noise to a minimum.
- E. Finish or refinish surfaces as required to match adjacent finishes. Refinish to nearest intersection or refinish entire assembly.
- F. Patching of ceramic tile surfaces in buildings:
 - 1. Restore to pre-existing new condition, using specified materials.

3.2 PAINTING

- A. Extent of Painting
 - 1. Paint over the entire surface plane, unless otherwise noted.
 - 2. Over patched wall, soffit, or ceiling surfaces, paint to the nearest cut-off line for the entire surface, such as the intersection with the adjacent wall or ceiling, a

beam, a pilaster, or to nearest opening frame where a total cut-off does not occur within 10 feet of the patch, unless otherwise noted.

- B. Ensure painted surfaces do not present a spotty, touched-up appearance.
- C. Provide a smooth continuous surface in texture, coverage, and color.

3.3 PAVEMENT

- A. Asphaltic and Portland Cement concrete shall be patched to match adjacent surfaces and thickness, with similar material; e.g., exposed aggregate concrete, colored concrete, etc.
- B. All damaged concrete shall be removed and replaced to the nearest existing expansion or control joint, where joints were constructed to the full depth of the slab, not at surface scribed or sawn joints unless specifically approved by the University's Representative
- C. Restore pavement markings.
- D. Other paving materials and systems such as decomposed granite; stone pavers, etc. shall be replaced or restored in kind. Replace or restore an entire panel or area to present a uniform appearance to the satisfaction of the University's Representative.
- E. All new surfaces shall be within 1/4-inch elevation of adjacent surfaces. All slopes to adjacent surfaces shall be less than 1 in 20, unless approved by University's Representative.

3.4 LANDSCAPING AND IRRIGATION

- A. Restore to pre-existing condition, using similar materials.

END OF SECTION 01 73 29

**SECTION 01 73 35
SELECTIVE DEMOLITION**

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Extent of demolition will be shown on Drawings.
- B. No demolition shall commence until prior written approval is obtained from the University's Representative.
- C. Unless otherwise indicated, demolished materials become Prime Trade Contractor's property. Remove from Project site.
- D. Items indicated to be removed and salvaged remain University's property. Remove, clean, and deliver to University's designated storage area.
- E. Comply with Environmental Protection Agency (EPA) regulations and disposal regulations of authorities having jurisdiction.
- F. Prior to starting demolition of any building or structure, comply with requirements listed in Section 01 41 00 Regulatory Requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 DEMOLITION

- A. Maintain and protect existing utilities to remain in service before proceeding with demolition, providing bypass connections to other buildings on the system.
- B. Locate, identify, shut off, disconnect, and cap off utility services to be demolished.
- C. Conduct demolition operations and remove debris to prevent injury to people and damage to adjacent buildings and site improvements.
- D. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
- E. Promptly patch and repair holes and damaged surfaces of building caused by demolition. Restore ex-poted finishes of patched areas and extend finish restoration into remaining adjoining construction.
- F. Promptly remove demolished materials from University's property and legally dispose of them. Do not burn demolished materials.

END OF SECTION 01 73 35

SECTION 01 74 19
SITE WASTE MANAGEMENT PROGRAM

PART 1 - GENERAL

1.1 SUMMARY

- A. The University of California Merced has committed to a triple zero policy of zero waste, zero emissions and zero energy by 2020. The University contributes a lot of operational waste each year and equally just as much waste in construction. This site waste management specification is designed to help meet our triple zero policy. The General Conditions Prime Trade contractor is required to follow the requirements of this specification section and LEED Green Building Design and Construction, 2009 edition, Waste Management Credit 2 requirements for 2 points.
- B. Environmental Issues: Project requires a special Site Waste Management Program:
 - 1. Divert a minimum of 95 percent of project waste from landfill (weight basis).
 - 2. Extract and re-cycle materials from the waste stream.
 - 3. Effect optimum control of solid wastes.
 - 4. Prevent environmental pollution and damage.
- C. Related Work:
 - 1. Section 01 81 13 LEED® Requirements.
 - 2. Section 01 35 00 Special Requirements
 - 3. Section 01 73 35 Selective Demolition
 - 4. Section 01 35 43 Hazardous Materials Procedures.

1.2 DEFINITIONS

- A. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.
- B. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial, and industrial waste, including construction, remodeling, repair, and demolition operations.
- C. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- D. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, trash, debris, and rubble resulting from land-clearing, construction, remodeling, repair, and demolition operations and other similar materials.
 - 1. Rubbish: Includes both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, tin cans, and bones, and other similar materials.
 - 2. Debris: Includes both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work, and other similar materials.

- E. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals and inorganic wastes, and other similar materials.
- F. Sanitary Wastes:
 - 1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food, or other similar materials.
- G. Sewage: Domestic sanitary sewage.

1.3 GENERAL REQUIREMENTS

- A. The General Conditions Prime Trade Contractor shall furnish labor, containers, transportation and payment of any disposal fees for construction waste generated by all new construction work. Removal of waste generated by selective demolition and removal of hazardous waste shall be the responsibility of the General Conditions Prime Trade Contractor.. Paperwork demonstrating that Selective Demolition waste has been recycled shall be provided by the General Conditions Prime Contractor.
- B. The General Conditions Prime Trade Contractor shall prepare and submit the following documentation.
 - 1. Monthly report showing total tonnage of construction waste, tonnage diverted, each type of diverted material, diversion percentages and all weight tickets as required by LEED Credit MR 2.
 - 2. Final report when all construction activities are completed showing total tonnage of construction waste, tonnage diverted, each type of diverted material, diversion percentages and all weight tickets as required by LEED Credit MR 2.
 - 3. All LEED documentation as required by LEED Credit MR 2.

1.4 HAZARDOUS MATERIALS

- A. The University has identified all known hazardous substances on this project. Comply with requirements listed in the following Sections:
 - 1. Section 01 35 43 Hazardous Materials Procedures.

1.5 REQUIREMENTS

- A. Recycling: Implemented by General Conditions Prime Trade Contractor is a recycling program that includes separate collection of waste materials of following types as applicable to Project:
 - 1. Debris for lunch trash.
 - 2. Asphalt
 - 3. Concrete and concrete blocks.
 - 4. Brick and masonry materials.
 - 5. Untreated lumber.
 - 6. Clean dimensional wood and palette wood.
 - 7. Plywood, oriented strand board, and medium density fiberboard.

8. Paper – bond.
 9. Paper (e.g. newsprint).
 10. Cardboard and paper packaging materials.
 11. Plastics.
 12. Rigid foam.
 13. Insulation.
 14. Ferrous metal.
 15. Non-ferrous metals (e.g. copper, aluminum, etc.).
 16. Glass.
 17. Gypsum board (unpainted).
 18. Carpet and pad.
 19. Beverage containers.
 20. Plumbing fixtures.
 21. Electrical fixtures and wires.
 22. Others as noted on the Waste Management Plan, required by LEED Green Building Design and Construction reference guide 2009 edition and that has been approved by the University.
- B. Separation of Waste: General Conditions Prime Trade Contractor shall coordinate deposit of contractors waste into the appropriate recycling and waste bins. Recycling and waste bin area shall be kept neat, clean and marked.. A list of acceptable and unacceptable materials, in order to avoid contamination of materials, will be posted on each waste and recycling bin by the General Conditions Prime Trade Contractor.
- C. Handling: General Conditions Prime Trade Contractors shall keep materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process:
1. Clean materials that are contaminated prior to placing in collection containers.
 2. The General Conditions Prime Trade Contractor shall arrange for collection by or delivery to appropriate recycling center or transfer station that accepts construction and demolition waste for purpose of recycling.

END OF SECTION 01 74 19

SECTION 01 77 00
CLOSEOUT PROCEDURES, FINAL CLEANING, AND EXTRA MATERIAL

PART 1 - GENERAL

1.1 FINAL COMPLETION

- A. When Work is complete, submit written certification to University's Representative that:
 - 1. Work has been inspected by the Prime Trade Contractor for compliance with the Contract Documents.
 - 2. Work has been completed in accordance with the Contract Documents.
 - 3. Equipment and systems have been tested in presence of the University's Representative and are operational.
 - 4. Work is complete and ready for final inspection.

1.2 PREPARATION FOR FINAL INSPECTION

- A. Perform final cleaning as specified below.
- B. In accordance with Section 01 78 36 Guarantees, Warranties, Bonds, Service & Maintenance Contracts, assemble guarantees/warranties with service and maintenance contracts, operating and maintenance instructions, and other items as specified, and submit to the University's Representative.

1.3 FINAL CLEANING

- A. Upon completion of the Work, the Prime Trade Contractor shall promptly remove from the Project site and Project site vicinity (including roofs):
 - 1. All of Prime Trade Contractor's equipment
 - 2. All temporary structures
 - 3. All surplus material, including construction debris, lumber, etc.
 - 4. Remove waste, surplus materials and rubbish from Project site, including roof areas.
- B. The entire Project site shall be left in a neat and clean condition to the satisfaction of the University's Representative.
- C. The Prime Trade Contractor shall execute final cleaning prior to final inspection. Cleaning shall be by experienced professional cleaners.
- D. The Prime Trade Contractor shall:
 - 1. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish glass and glossy surfaces, vacuum carpeted and soft surfaces, broom clean other interior spaces.
 - 2. Clean equipment and fixtures to a sanitary condition, clean permanent filters and replace disposable filters of mechanical equipment operated during construction.

3. Clean ducts, blowers and coils if units were operated without filters during construction.
4. Vacuum and wipe sides of electrical panels and cabinetwork.
5. Comply with manufacturer's instructions for cleaning.
6. Clean each surface or unit to condition expected from normal, commercial building cleaning and maintenance program.
7. Clean Project site, sweep paved areas, rake clean ground surfaces.
8. Remove stains, dirt, finger marks, etc., from wall and ceiling surfaces and trim.
9. Disinfect, clean and polish all plumbing fixtures.
10. Use cleaning materials and methods that will not create hazards to health or property or cause damage to products or Work.
11. Remove temporary tapes, wrapping, coatings, paper labels, and similar items. Dust, mop, wash or wipe exposed and semi-exposed surfaces as necessary to leave work in new, clean condition.

1.4 RESTORATION OF DAMAGED WORK

- A. Restore or replace, as specified or directed by the University's Representative, materials and finishes damaged from movement of equipment or other operations by Prime Trade Contractor at no additional cost to the University.
- B. Restoration shall be equal to original Work, and finishes shall match appearance of existing adjacent Work.

1.5 REMEDIAL WORK

- A. Remedial Work necessary owing to faulty workmanship or materials shall be performed by the Prime Trade Contractor at no additional cost to the University.
- B. Work shall be coordinated with University's Representative and performed at such time and in such manner to cause minimal interruption and inconvenience to University's operations.

1.6 EXTRA MATERIAL

- A. In the various Sections, where additional or extra material is required to be delivered to the University, obtain from the University's Representative, to whom the material is to be delivered, a signed receipt stating the nature of the material, the quantity, and the place and date. Deliver such receipts to the University's Representative upon completion of the Work.
- B. In addition to required parts listed in other Sections of the Specification, provide any special programming software and database tools necessary to operate systems.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 77 00

SECTION 01 78 36
GUARANTEES, WARRANTIES, BONDS, SERVICE & MAINTENANCE CONTRACTS

PART 1 - GENERAL

1.1 GUARANTEES

- A. Guarantees from Subcontractors shall not limit Prime Trade Contractor's warranties and guarantees to the University. The Prime Trade Contractor shall cause warranties of Subcontractors to be made directly to the University. If such warranties are made to the Prime Trade Contractor, Prime Trade Contractor shall assign such warranties to the University prior to final payment.
- B. At a minimum, the Prime Trade Contractor shall warrant that all work installed under this Contract is free of defect and will remain in good working order for a period of one year for all surface improvements and five years for all underground work. If warranties specified elsewhere in these documents are for a longer period of time than that specified in this section, the longer warranties shall apply.

1.2 FORM OF GUARANTEE

- A. Submit written guarantees, in the form of Guarantee/Warranty Form (Exhibit 16) in accordance with Section 01 33 23 Submittals.

1.3 SUBMITTAL REQUIREMENTS

- A. Assemble required guarantees, bonds, and service and maintenance contracts.
- B. Number: 1 signed original and 2 copies.
- C. Table of Contents: Neatly typed and in orderly sequence. Provide complete information for each item as follows:
 - 1. Product or Work item.
 - 2. Firm name, address, telephone number and name of principal.
 - 3. Scope.
 - 4. Identifying name, serial number or part number.
 - 5. Proper procedure in case of failure.
 - 6. Circumstances that might affect the validity of guarantee or bond.

1.4 FORM OF SUBMITTAL

- A. Prepare in duplicate packets.
- B. Format
 - 1. On sheets 8-1/2 by 11 inches punched for 3-ring binder. Fold larger sheets to fit into binders.
 - 2. Identify each packet on the cover with typed or printed title, "Guarantees and Bonds", and the following:

- a. Project No.
 - b. Title of Project.
 - c. Name of Prime Trade Contractor.
- C. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.
- D. Time of Submittals
- 1. Within 10 days after date of Substantial Completion, prior to request for final payment.
 - 2. For Work activities, where Final Completion is delayed beyond the date of Substantial Completion, provide updated submittal within 10 calendar days after Final Completion, listing the date of Final Completion as the start of the Guarantee To Repair Period.

1.5 SUBMITTALS REQUIRED

- A. Submit guarantees, bonds, and service and maintenance contracts specified in the individual Specification Sections.
- B. Compile all warranties from the specified individual Specification Sections. Submit those in a commercial, 3-ring binder with durable and cleanable plastic covers.

1.6 SPARE PARTS AND MAINTENANCE MATERIAL

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.
- B. Deliver to Project site and place in location as directed by the University's Representative and obtain receipt prior to final payment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 78 36

SECTION 01 78 39
PROJECT AS-BUILT DOCUMENTS

PART 1 - GENERAL

1.1 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store Project as-built documents and samples in the Contractor's office in a location completely separate from documents used for construction. The location shall be approved by the University's Representative.
- B. Maintain as-built documents in order and in a clean, dry, legible condition.
- C. Do not use as-built documents for construction.

1.2 AS-BUILT DOCUMENTS

- A. As-built Drawings
 - 1. The Prime Trade Contractor shall maintain on the Project site at all times in a clean, dry legible condition, 1 set of all Drawings and 1 set of all Shop Drawings. These Drawings shall be used to record as-built conditions on a day-to-day basis, and shall be kept current, and shall be available for inspection by the University's Representative during normal working hours.
 - 2. The Prime Trade Contractor shall obtain weekly written confirmation from the University's Representative that the as-built conditions are adequately represented in the As-built Drawings.
 - 3. On three (3) occasions to be determined by the University's Representative, the Prime Trade Contractor shall prepare in both AUTOCAD® format (latest version available at date of bid) and PDF Format on CD-ROM digital images of the current As-built Drawings. The image files shall be in format ORIGINAL.DWG and DRAWING NUMBER.PDF. The Prime Trade Contractor may scan the As-built Drawings or use a digital camera or any other appropriate means so long as the resulting image is legible when viewed from the CD-ROM using a computer. All cross references within the same AUTOCAD® drawing must be bound.
 - 4. Record the following types of information on As-built Drawings
 - a. Location of Work buried under or outside the building, such as plumbing and electrical lines and conduits. Provide horizontal and vertical dimensions from fixed points. Record all locations of underground Work, points of connection, valves, manholes, catch basins, capped stub outs, invert elevations, etc.
 - b. Locations of all significant Work concealed inside the building, the locations of which were changed by the Prime Trade Contractor from those shown on the Drawings.
 - c. Locations of all items, not necessarily concealed but varying from the locations shown on the Drawings.
 - d. All changes in size, location, and other features of installation not shown on Drawings.
 - e. Sufficient information such that Work concealed in the building may be located with reasonable ease and accuracy. This may be accomplished by dimension or by stating the relationship to the spaces in the building near

which the Work was installed. The University's Representative's decision on what constitutes sufficient information shall be final.

- f. All electrical and control installations to indicate terminal points, wire numbers/circuit numbers, panel designations, device identification, and/or sequence of operations.
 - g. Record existing below-grade utilities if they are exposed by the project or are located within the Project boundary on the as-built drawings.
 - h. Provide dimension from a designated reference point for all below-grade utilities, provide and record on the as-built drawing the exact dimension from an existing designated reference point relative to the campus bench mark elevation.
5. Additional drawings shall be provided as required to properly describe changes.
 6. Upon completion of the Work, the As-built Drawings shall be certified by the Prime Trade Contractor to represent the true, as-built conditions and shall be given to the University's Representative as described in Subsection 1.3.

B. Specifications and Addenda

1. Record the following:
 - a. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - b. Changes made by Addenda, Change Order (Exhibit 9), or Field Order (Exhibit 8), and clarifications and interpretations made by Letter of Instruction (Exhibit 26).
 - c. Provide two (2) hard copies of the specifications and addenda ten (10) days after Final Completion.

C. Large-Scale Layout Drawings

1. Division 21-22-23-Mechanical and Division 26-Electrical of the Specifications require the preparation of large-scale, detailed Layout Drawings of the Work of those Divisions. These Layout Drawings are not Shop Drawings as defined by the General Conditions, but, together with Shop Drawings or Layout Drawings of all other affected Sections, are used to check, coordinate, and integrate the Work of the various Sections.

D. Project Photographs

1. At appropriate intervals but not less than once a month, the Prime Trade Contractor shall submit digital site photographs on CD-ROM to the University's Representative. These photographs shall:
 - a. Use format NAME.JPG
 - b. Show the completed installation of all pipes, ducts, cable trays and other mechanical, electrical and plumbing services before they are covered and hidden from view. This shall include, but not be limited to, services cast into concrete elements; buried services covered by ground slabs; services in walls hidden by sheetrock, tile, or plaster; services above ceilings.
2. The CD-ROM containing the photographs shall also contain an electronic file with enough information to identify the exact location of the element shown in each photograph. The electronic file shall:

- a. Be in Microsoft Word or Excel format.
- b. Cross reference to the name of each photograph.
- c. Identify the location and direction of each photograph. As a minimum, this shall include element identification, grid reference, floor number if applicable and cardinal direction photographer was facing when photograph was taken.
- d. Identify the date of the photograph.

1.3 PROJECT LEGACY DOCUMENTS

A. AS-BUILT DRAWINGS

1. The Prime Trade Contractor shall submit to the University's Representative, 10 calendar days after Final Completion, fully updated As-built Drawings and Shop Drawings. These Drawings shall be prepared from the As-built Drawings.
2. The As-Built Drawings shall be in electronic format, AUTOCAD® latest version available at date of bid. File shall be ORIGINAL.DWG format and PDF format. Electronic media shall be CD-ROM. The Contractor shall provide two (2) hard copies of the drawings on 24 pound 96 Bright Bond paper or better quality and two (2) copies on CD-ROMs. Each CD-ROM shall contain all of the electronic Drawing files.
3. The Prime Trade Contractor's AUTOCAD® As-Built Drawings may be based on AUTOCAD® Design Drawings provided by the University or the University's Design Professional so long as for each drawing:
 - a. Any lines added to the Design Drawing in model space by the Contractor shall be in AUTOCAD® layers not currently used by the Design Drawings. The Prime Trade Contractor shall not use more than five (5) layers for added lines.
 - b. Any lines deleted from the Design Drawing in model space by the Prime Trade Contractor shall be copied into a single layer not currently used by the Design Drawings.
 - c. The Prime Trade Contractor's As-Built Drawings based on the Design Drawings shall therefore contain:
 - (1) The lines on the Design Drawings in the same AUTOCAD® layers as the Design Drawings (not changed by the Contractor).
 - (2) A single AUTOCAD® layer containing the lines on Design Drawings deleted by the Contractor.
 - (3) Not more than five (5) AUTOCAD® layers containing the lines added by the Prime Trade Contractor to the Design Drawing.
4. AUTOCAD® As-Built Drawings not based on AUTOCAD® Design Drawings provided by the University or the University's Design Professional, shall be configured as follows:
 - a. Title block and plot set-up shall be in Paper space.
 - b. All other drawing data shall be in Model space.
 - c. Each drawing shall contain a title block and orientation/north arrow approved by the University's Representative.

B. SHOP DRAWINGS

1. The Prime Trade Contractor shall submit to the University's Representative, 10 calendar days after Final Completion, fully updated Shop Drawings.
Prime Trade Contractor shall:
 - a. Provide 2 hard copies of the Shop Drawings on 24 pound, 96 Bright Bond paper.
 - b. Provide 2 CD-ROMs, each of which contains all drawing data if the Prime Trade Contractor used Computer Aided Drafting software to prepare the Shop Drawings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 78 39

**SECTION 01 79 00
TRAINING**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section contains requirements for training the University's personnel, by persons retained by the Prime Trade Contractor specifically for the purpose of providing training in the proper operation and maintenance of the equipment and systems installed under this contract.

1.2 RELATED WORK AND DOCUMENTS

- A. Section 01 91 00 Commissioning (Not Included in Bid Release 1)
- B. Division 14 Conveying Systems
- C. Division 21 Fire Suppression
- D. Division 22 Plumbing Systems
- E. Division 23 Heating, Ventilating and Cooling
- F. Division 26 Electrical
- G. Division 27 Communications
- H. Division 28 Alarms and Surveillance
- I. Division 32 Exterior Improvements

1.3 QUALITY ASSURANCE

- A. When required by the Contract documents, the Prime Trade Contractor shall provide on-the-job training of the University's personnel. The training sessions shall be conducted by qualified, experienced, factory-trained representatives of the various equipment manufacturers. Training shall include instruction in both operation and maintenance of the subject equipment.

1.4 SUBMITTALS

- A. The following information shall be submitted to the University's Representative in accordance with the provisions of Section 01 33 23 Submittals. The material shall be reviewed and accepted by the University's Representative as a condition precedent to receiving progress payments in excess of 50 percent of the contract amount and not less than 3 weeks prior to the provision of training:
- B. Lesson plans for each training session to be conducted by the manufacturer's representatives. In addition, training manuals, handouts, visual aids, and other reference materials shall be included.

- C. Subject of each training session, identity and qualifications of individuals to be conducting the training, and tentative date and time of each training session.
- D. Videotapes, taken by a professional photographer, of all training sessions and field instructions shall be submitted to the University at conclusion of training.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Where specified, the Prime Trade Contractor shall conduct training sessions for the University's personnel to instruct the staff on the proper operation, care, and maintenance of the equipment and systems installed under this Contract. Training shall take place at the site of the Work and under the conditions specified in the following paragraphs. Approved operation and maintenance manuals shall be available at least 30 calendar days prior to the date scheduled for the individual training session. Prime Trade Contractor shall ensure that Operation and Maintenance manuals have approved by the Design Team and the required number of O&M manuals have been provided to the University's Representative at least 2 weeks in advance of training.

2.2 LOCATION

- A. Training sessions shall take place at the Project Site.

2.3 LESSON PLANS

- A. Formal written lesson plans shall be prepared for each training session. Lesson plans shall contain an outline of the material to be presented along with a description of visual aids to be utilized during the session. Each plan shall contain a time allocation for each subject.
- B. One complete set of originals of the lesson plans, training manuals, handouts, visual aids and reference material shall be presented to the University and shall be suitably bound for proper organization and easy reproduction. The Prime Trade Contractor shall furnish at least 10 copies of necessary training manuals, handouts, visual aids and reference materials at least 1 week prior to each training session.

2.4 FORMAT AND CONTENT

- A. Each training session shall be comprised of time spent both in the classroom and at the specific location of the subject equipment or system. As a minimum, the training session shall cover the following subjects for each item of equipment or system:
 - 1. Familiarization
 - a. Review catalog, parts lists, drawings, etc., which have been previously provided for the plant files and operation and maintenance manuals.
 - b. Check out the installation of the specific items.
 - c. Demonstrate the unit and indicate how all parts of the specifications are met.
 - d. Answer questions.
 - 2. Safety
 - a. Using material previously provided, review safety references.

- b. Discuss proper precautions around equipment.
3. Operation
 - a. Using material previously provided, review reference literature.
 - b. Explain all modes of operation (including emergency).
 - c. Check out University's personnel on proper use of the equipment.
4. Preventative Maintenance
 - a. Using material previously provided, review preventive maintenance (PM) lists including
 - (1) Reference material.
 - (2) Daily, weekly, monthly, quarterly, semiannual and annual jobs.
 - b. Show how to perform PM jobs.
 - c. Show University's personnel what to look for as indicators of equipment problems.
5. Corrective Maintenance
 - a. List possible problems.
 - b. Discuss repairs – point out special problems.
 - c. Open up equipment and demonstrate procedures, where practical.
6. Parts
 - a. Show how to use previously provided parts list and order parts.
 - b. Check over spare parts on hand. Make recommendations regarding additional parts that should be available.
7. Local Representatives
 - a. Describe where to order parts: Name, address, telephone and Email address.
 - b. Describe service problems:
 - (1) Who to call.
 - (2) How to get emergency help.
8. Operation and Maintenance Manuals
 - a. Review any other material submitted.
 - b. Update material, as required.

PART 3 - EXECUTION

3.1 TRAINING

- A. Training shall be conducted in conjunction with the operational testing and commissioning periods. Classes shall be scheduled such that classroom sessions are interspersed with field instruction in logical sequence. The Prime Trade Contractor shall arrange to have the training conducted on consecutive days, with no more than 6 hours of classes scheduled for any one day. Concurrent classes shall not be allowed. Training shall be certified by listing attendees and subjects covered.
- B. Acceptable operation and maintenance manuals for the specific equipment shall be provided to the University prior to the start of any training. Videotaping shall take place concurrently with all training sessions. All training sessions and field instruction shall be videotaped by the Prime Trade Contractor and tapes of all classes submitted to the University.

- C. The following services shall be provided for each item of equipment or system as required in individual specification sections. Additional services shall be provided, where specifically required in individual specification sections.
1. As a minimum, classroom equipment training for operations personnel shall include:
 - a. Using slides and drawings, discuss the equipment's specific location in the plant and an operational overview.
 - b. Purpose and plant function of the equipment.
 - c. A working knowledge of the operating theory of the equipment.
 - d. Startup, shutdown, normal operation, and emergency operating procedures, including a discussion on system integration and electrical interlocks, if any.
 - e. Identify and discuss safety items and procedures.
 - f. Routine preventative maintenance, including specific details on lubrication and maintenance of corrosion protection of the equipment and ancillary components.
 - g. Operator detection, without test instruments, of specific equipment trouble symptoms.
 - h. Required equipment exercise procedures and intervals.
 - i. Routine disassembly and assembly of equipment if applicable (as judged by the University on a case-by-case basis) for purposes such as operator inspection of equipment.
 2. As a minimum, hands-on equipment training for operations personnel shall include:
 - a. Identify location of equipment and review the purpose.
 - b. Identifying piping and flow options.
 - c. Identifying valves and their purpose.
 - d. Identifying instrumentation:
 - (1) Location of primary element
 - (2) Location of instrument readout.
 - e. Discuss purpose, basic operation, and information interpretation.
 - f. Discuss, demonstrate, and perform standard operating procedures and round checks.
 - g. Discuss and perform the preventative maintenance activities.
 - h. Discuss and perform startup and shutdown procedures.
 - i. Perform the required equipment exercise procedures.
 - j. Perform routine disassembly and assembly of equipment if applicable.
 - k. Identify and review safety items and perform safety procedures, if feasible.
 3. As a minimum, classroom equipment training for the maintenance and repair personnel shall include:
 - a. Theory of operation.
 - b. Description and function of equipment.
 - c. Startup and shutdown procedures.
 - d. Normal and major repair procedures.
 - e. Equipment inspection and troubleshooting procedures including the use of applicable test instruments and the "pass" and "no pass" test instrument readings.
 - f. Routine and long-term calibration procedures.

- g. Safety procedures.
 - h. Preventative maintenance such as lubrication; normal maintenance such as belt, seal, and bear replacement; and up to major repairs such as replacement of major equipment part(s) with the use of special tools, bridge cranes, welding jigs, etc.
4. As a minimum, hands-on equipment training for maintenance and repair personnel shall include:
- a. Locate and identify of equipment components.
 - b. Review the equipment function and theory of operation.
 - c. Review normal repair procedures.
 - d. Perform startup and shutdown procedures.
 - e. Review and perform the safety procedures.
 - f. Perform University approved practice maintenance and repair job(s) including mechanical and electrical adjustments and calibration and troubleshooting equipment problems.

END OF SECTION 01 79 00

SECTION 01 81 13
LEED® REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes general requirements and procedures for compliance with certain U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED®) New Construction (NC) v3.0 prerequisites and credits needed for the Project to obtain a minimum of LEED® Gold certification & a preferred LEED® Platinum certification.
- B. LEED® NC 3.0 requirements shall be followed in conjunction with requirements specified in all other Sections. Any discrepancies shall be referred to the University's Representative for clarification.
1. Other LEED® prerequisites and credits needed to obtain LEED® certification are dependent on material selections and may not be specifically identified as LEED® requirements. Compliance with requirements needed to obtain LEED® prerequisites and credits may be used as one criterion to evaluate substitution requests.
 2. Additional LEED® prerequisites and credits needed to obtain the indicated LEED® certification are dependent on the Architect's design and other aspects of the Project that are not part of the Work of the Contract.
 3. Each Prime Trade Contractor shall designate an onsite field staff person contact for all LEED® prerequisites and credit documentation, subcontractor supervision and submittal coordination.
 - a. The University's Representative will coordinate all Prime Trade Contractor LEED® on-site field staff person for LEED® requirements.
 4. Documentation for LEED® prerequisites and credits must be submitted in the format required by the USGBC for review using LEED®-Letter Templates. Including all required credit audit documentation, completion of LEED® calculators, and LEED® credit templates. Refer to 1.6 of this section for a more detailed explanation of the LEED®-Online process and LEED® Construction Submittal.
 5. A copy of the LEED®-NC v3.0 reference guide should be purchased by each Prime Trade Contractor and available on site at all times to accompany this specification. Additional information on LEED® and how to purchase copies of the LEED®-NC v3.0 reference guide and how to use LEED®-Letter Templates can be found at www.usgbcv.org and <https://leedonline.usgbc.org>
- C. Related Work:
1. All other sections where indicated.
 2. LEED® submittal status matrix
 3. This project shall incorporate prototype campus-wide credits that were approved by the USGBC in March of 2007. The Prime Trade Contractor shall be required to provide full credit documentation and back-up for each Prototype Credit, as required, as part of their Construction Submittal.

1.2 REFERENCE STANDARDS

- A. ASHRAE Guideline 0-2005 – The Commissioning Process
- B. ASHRAE Guideline 1-1996 -The HVAC Commissioning Process.
- C. ASHRAE Standard 90.1-2007 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
- D. ASHRAE Guideline 4-1993 - The Preparation of Operations and Maintenance Documentation for Building systems.
- E. ASHRAE Standard 62.1-2007 - Ventilation for Acceptable Indoor Air Quality.
- F. CRI - Carpet and Rug Institute Indoor Air Quality Green Label Testing Program.
- G. CARB - California Air Resources Board Suggested Control Measures for Architectural Coatings
- H. EPA Energy Star - Program Requirements for Roof Products.
- I. EPACT – Energy Policy Act of 1992
- J. FSC - Forest Stewardship Council (FSC) Guidelines for Certified Wood.
- K. GS 11 – Green Seal (VOC) Guidelines for Paints.
- L. SCAQMD Rule # 1168 –South Coast Air Quality Management District Adhesive and Sealant Applications.
- M. USGBC LEED® United States Green Building Council (USGBC) Leadership in Energy and Environmental Design Reference Guide.
- N. USGBC LEED® United States Green Building Council (USGBC) Leadership in Energy and Environmental Design Rating System for New Construction version 3.0.

1.3 DEFINITIONS

- A. Agrifiber Product: Products consisting of fibrous material derived from the agricultural industry and typically characterized by rapidly renewable characteristics. Such products may consist of wheat straw, sugar cane, and other agricultural crops.
- B. Adequate Ventilation: Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of dust, fumes, vapors and gases.
- C. Certificates of Chain-of-Custody: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by a Forest Stewardship Council (FSC) - accredited certification body to comply with FSC 1.2, "Principles and Criteria." Certificates shall include evidence that mill is certified for chain-of-custody by an FSC-accredited certification body. For more information go to www.fscus.org.

- D. Chain of Custody: A tracking procedure to document the status of a product from the point of harvest, extraction, or recovery to the point of ultimate end use.
- E. Chemical Waste: Includes paints, adhesives, sealants, coatings, petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- F. Chlorofluorocarbons (CFCs): Any of various halocarbon compounds consisting of carbon, hydrogen, chlorine, and fluorine, once used widely as aerosol propellants and refrigerants. Chlorofluorocarbons have been identified to cause depletion of the atmospheric ozone layer.
- G. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- H. Construction IAQ Management Plan: A document that outlines measures to minimize contamination in a building during construction and to flush the building of contaminants prior to occupancy.
- I. Cost Basis: A basis of calculation wherein the input values are in terms of monetary cost (US Dollar).
- J. Environmental Pollution and Damage: The presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances or the environment of neighboring buildings and environmental areas; or degrade the utility of the environment for aesthetic, cultural or historical purposes.
- K. Hazardous Materials: Includes pesticides, biocides, carcinogens, and “wet products” as listed by recognized authorities, such as the Environmental Protection Agency (EPA), International Agency for Research on Cancer (IARC), the State of California, and any special local requirements.
- L. Heat Island Effect: A condition wherein elevated temperatures are experienced in urban landscapes as a result of solar energy retention within constructed bodies. Principal bodies that contribute to the heat island effect include streets, sidewalks, parking lots, and buildings.
- M. Infrared Emittance: Parameter between 0 and 1 that indicates the ability of a material to shed infrared radiation.
- N. Interior Final Finishes: Materials and products that will be exposed at interior occupied spaces, including flooring, wall covering, finish carpentry, and ceilings.
- O. LEED®: Leadership in Energy & Environmental Design, version 2.2 Green Building Rating System for New Construction.
- P. Life Cycle Analysis (LCA): An informed decision making process that can be applied to building components, design strategies, and other measures associated with building alternatives. The LCA process considers all costs and benefits (economic, social, and environmental) over the course of the building’s life.

- Q. Life Cycle Costing (LCC): A sub-component of the more general Life Cycle Analysis (LCA), LCC considers only economic costs over the course of the building's life. LCC is used to determine the best choice among mutually exclusive alternatives by summing the present value of all costs over the life of the alternative.
- R. Municipal Solid Waste Landfill: A permitted facility that accepts solid, non-hazardous waste such as household, commercial, and industrial waste, including construction and demolition waste.
- S. Packaged Dry Products: Materials and products that are installed in dry form and delivered to the site in the manufacturer's packaging, including carpets, resilient flooring, ceiling tiles, and insulation.
- T. Point of Extraction, Harvest, or Recovery: The geographic location where the material was extracted, harvested, or recovered.
- U. Point of Final Assembly: The geographic location where individual components are assembled into the product that is furnished and Installed by the tradesmen.
- V. Post-Consumer Material: Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of products, which can no longer be used for its intended purpose.
- W. Pre-Consumer Material: Material diverted from the waste stream during the manufacturing process (can also be considered post-industrial). Excluded is reutilization of materials such as rework, re-grind or scrape generated in a process and capable of being reclaimed within the same process that generated it.
- X. Post-Consumer Recycled Content: The percentage content of waste material to total material (weight basis) when waste material is derived from products or packaging which has been discarded by an individual, commercial enterprise, or other public or private entity after having fulfilled its intended application or use.
- Y. Post-Industrial Recycled Content: The percentage content of waste material to total material (weight basis) when waste material is generated as a by-product of an industrial process and which has properties significantly different than those of the original material and therefore, in its current form, cannot be recycled back through the same general process.
- Z. Recycled Content: The percentage by weight of constituents that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer or post-industrial), or after consumer use (post-consumer).
 - 1. Spills and scraps from the original manufacturing process that are combined with other constituents after a minimal amount of reprocessing for use in further production of the same product are not recycled materials.
 - 2. Discarded materials from one manufacturing process that are used as constituents in another manufacturing process are pre-consumer or post industrial

- AA. Recycling: The collection, reprocessing, marketing and use of materials that were diverted from the solid waste stream.
- BB. Regionally Manufactured Materials: Materials that are manufactured within a radius of 500 miles from the Project location. Manufacturing refers to the final assembly of components into the building product that is installed at the Project site.
- CC. Regionally Extracted, Harvested, or Recovered Materials: Materials that are extracted, harvested, or recovered and manufactured within a radius of 500 miles from the Project site.
- DD. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- EE. Volatile Organic Compounds (VOCs): Carbon compounds emitted by materials that participate in atmospheric photochemical reactions. VOC's are common in building products and are emitted over time through outgassing. Sources of VOC's may include solvents in paints and other coatings; wood preservatives; strippers and household cleaners; adhesives in particleboard, fiberboard, and some plywoods; and foam insulation. When released, VOCs can contribute to the formation of smog and can cause respiratory tract problems, headaches, eye irritations, nausea, and damage to the liver, kidneys, and central nervous system, and possibly cancer.
- FF. Waste Management Plan: A Project-related plan for the collection, transportation, and disposal of the waste generated at the construction site. The purpose of the plan is to ultimately reduce the amount of material being landfilled.
- GG. Weight Basis: A basis of calculation wherein the input values are in terms of weight (US Pound).
- HH. Wet Products: Materials and products installed in wet form, including paints, sealants, adhesives, and special coatings.

1.4 GENERAL REQUIREMENTS

- A. Prime Trade Contractor shall designate a LEED[®] Representative, for the approval of the University's Representative. Prime Trade Contractor's LEED[®] Representative shall be an individual responsible for implementation, coordination, and documentation of LEED[®] Credit Requirements specified herein. Prime Trade Contractor's LEED[®] Representative shall attend all LEED[®] Certification meetings as stipulated in Part 1.5.A & B and shall be present on site at all times when work is in progress.
- B. The following table summarizes the credits that need full documentation from each prime trade contractor as noted in this LEED[®] specification, 1.6 Submittals.

LEED® Certification	
LEED® Reference	Point Description
MR Credit 2	Construction Waste Management
MR Credit 4: PTC	Recycled Content Material
MR Credit 5: PTC	Local/Regional Materials
MR Credit 6: PTC	Rapidly Renewable Materials
MR Credit 7: PTC	Certified Wood
IEQ Credit 3.1 – 3.2: PTC	Construction IAQ Management Plan
IEQ Credit 4.1 – 4.4: PTC	Low-Emitting Materials

1.5 MEETINGS

A. Prime Trade Contractor shall conduct LEED® Certification meetings as required with all subcontractors, in addition to those meetings outlined in Section 01 31 19 Project Meetings.

1. Prime Trade Contractor’s Project Manager
2. University’s Representative & or University’s LEED® Coordinator
3. Prime Trade Contractor’s LEED® Representative
4. All other attendees designated by University’s Representative
5. SubContractor Representatives as appropriate to stage of work

B. At a minimum, LEED® certification goals and issues shall be discussed at the following meetings:

1. Preconstruction Meetings
2. Progress Meetings
3. Prime Trade Contractor Meetings
4. Monthly Project LEED® Meetings. Meeting should be scheduled as a part of regularly scheduled job meetings on site.

1.6 SUBMITTALS

A. Submittal Requirements for LEED® compliance are in addition to those submittal requirements specified elsewhere in the Specifications. Any discrepancies shall be referred to the University’s Representative for clarification. Submit LEED® Product Submittal Data Form with the following information.

1. Provide actual material costs, excluding labor and equipment, for each material supplied for divisions 3-10. Specific Material cost data for individual components and

- materials (not including labor) will be required to be provided as part of some LEED® pre-requisite and credit requirements submittals.
2. Consistent numbers must be applied to various LEED® credits submittals requiring similar material cost data.
 3. If applicable, fill out MR Credit 4: Recycled Content information and attach documentation confirming post consumer and pre consumer recycled content.
 4. If applicable, fill out MR Credit 5: Regional Materials content information and attach documentation confirming location of product extracted, harvested or recovered, as well as manufactured within 500 mile of project site. Also provide map quest confirming distances.
 5. If applicable, fill out MR Credit 6: Rapidly Renewable Materials content information and attached documentation confirming its rapidly renewable content.
 6. If applicable, fill out MR Credit 7: Certified Wood Materials content information. Track certified wood purchases and retain associated COC (Chain of Custody) documentation. Collect copies of vendor invoices for each certified wood product. Maintain a list that identifies the percentage of certified wood in each purchase.
 7. If applicable, fill out IEQ Credit 4.1 through 4.4 Low Emitting Materials information and attach documentation confirming VOC limit, CRI Green Label Plus Certification No., Floor Score Certification, No added urea-formaldehyde resins or no urea-formaldehyde.
- B. Complete and submit all required support documentation to the university in format(s) required by the USGBC.
- C. With final project submittals provide the following:
1. All approved Substitution Request Forms related to this section.
- D. LEED® Action Plans: Provide preliminary submittals within 30 days of date established for the Notice to Proceed indicating how the following requirements will be met.
1. MR Credit 2: Comply with University's Waste Management Plan.
 2. MR Credit 4: List of proposed materials with recycled content.
 - a. Indicate cost, post-consumer recycled content, and pre-consumer recycled content for each product having recycled content.
 - b. Indicate cost of all products and materials used regardless of recycled content for the purpose of comparison so as to ultimately derive a cost-based percentage of recycled content.
 3. MR Credit 5: List of proposed regionally extracted, processed, and manufactured materials.
 - a. Identify each regionally extracted, processed, and manufactured material, its source, and cost.
 4. MR Credit 6: List of proposed rapidly renewable materials:
 - a. Include statement, indicating costs for each product containing rapidly renewable materials.

5. MR Credit 7.0: List of proposed certified wood products.
 - a. Include statement, indicating costs for each product containing certified wood.
 - b. Include statement indicating total cost for wood-based materials used for Project, including non-rented temporary construction.
 6. IEQ Credit 3.1: Construction indoor air quality management plan, during construction
 7. IEQ Credit 3.2 Construction indoor air quality manage plan, before occupancy
 8. IEQ Credits 4.1, 4.2, 4.3 & 4.4: Low Emitting Materials
- E. LEED® Progress Reports(Monthly):
1. Written narrative describing progress to date. If progress to date deviates from Plan, Prime Trade Contractor shall describe deviation and summarize proposed actions to be undertaken in order to meet LEED® Certification goal. Concurrent with each Application for Payment, submit reports and or calculations, per credit requirements, demonstrating compliance :
 - a. MR Credit 4: Recycled content.
 - b. MR Credit 5: Regionally manufactured materials and regionally extracted, harvested, or recovered materials.
 - c. MR Credit 6 Rapidly Renewable Materials.
 - d. MR Credit 7 Certified wood products.
 - e. IEQ Credits 3.1 and 3.2: Construction Indoor Air Quality Management (IAQ) plan: During Construction and Before Occupancy
 - f. IEQ Credit 4.1, 4.2, 4.3 & 4.4: Low Emitting Materials
 2. Within 14 calendar days of Project Completion, Prime Trade Contractor shall provide to University's Representative 2 copies of all LEED® required documentation demonstrating compliance with LEED® Certification requirements, including but not limited to, documentation provided during the submittal process.
- F. LEED® Documentation Submittals:
1. SS Credit 8: Product Data for interior and exterior lighting fixtures that stop direct-beam illumination from leaving the building site.
 2. SS Credit 7.1: Product data showing the measured reflectance and emittance of each paving material installed on site to calculate Solar Reflectance Index (SRI), or the actual SRI for each paving material installed on site, or the default SRI from LEED® Reference Guide.
 3. SS Credit 7.2: Product data and manufacturer's catalog cuts highlighting that the roofing material complies with LEED® Solar Reflectance Index requirements.
 4. WE Credit 3: Product Data for plumbing fixtures indicating water consumption. Specify plumbing fixtures, controlled by the Energy Policy Act of 1992, which reduce water use by (20 percent). Controlled fixtures include toilets, showerheads, lavatory faucets, kitchen faucets, and urinals. Include water use calculations equivalents for all the following abbreviations used:
 - a. gpf = gallons per flush

- b. gpm = gallons per minute
 - c. gal/cycle = gallons per cycle
 - d. psig = pounds per square inch of gauge
5. EA Prerequisite 3: Product Data for new HVAC equipment indicating absence of CFC refrigerants and phase-out plan to replace CFC refrigerants in HVAC&R systems with CFC-free refrigerants within the Construction Period.
 6. EA Credit 4: Product Data for new HVAC equipment indicating absence of HCFC refrigerants, and for clean-agent fire-extinguishing systems indicating absence of HCFC and Halon.
 7. MR Credit 2: Comply with University's Waste Management Plan.
 8. MR Credit 4: Product Data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.
 - a. List total cost of all materials for the projects.
 - b. Submit required audit documentation:
 - 1) Manufacturer cut sheets, literature or letters highlighting the overall post-consumer and/or post-industrial recycled content percentages (by weight) of each product listed on the template.
 - 2) Materials invoices (showing costs) for each product listed on the template.
 9. MR Credit 5: Product Data indicating location of materials extracted, processed & manufactured regionally.
 - a. Statement indicating cost and distance from manufacturer to Project for each regionally manufactured material.
 - b. Statement indicating cost and distance from point of extraction, harvest, or recovery to Project for each raw material used in regionally manufactured materials.
 - c. Calculations demonstrating that the project incorporates the required percentage of regional materials/products and showing their cost, and the total cost of all materials for the project [estimate can be generated by providing the total project value].
 - d. Submit required audit documentation:
 - 1) Manufacturer or vendor literature, cut sheets, letter stating address location of each material's final assembly site.
 - 2) Map (Yahoo Maps or equivalent) indicating distances from each location to the project site.
 - 3) Documentation of the cost/value of each material.
 10. MR Credit 6: Provide a list, product data, and cost for each of the rapidly renewable materials on the project.
 11. MR Credit 7: Provide a list, product data, and cost for each of the certified wood product materials on the project.

12. IEQ Credit 3.1:
 - a. Provide letter listing each air filter used during construction and at the end of construction. Include the MERV value, manufacturer name, and model number.
 - b. Construction indoor air quality management plan.
 - c. Product Data for temporary filtration media.
 - d. Product Data for filtration media used during occupancy.
 - e. Construction Documentation: Six photographs at three different occasions during construction along with a brief description of the SMACNA approach employed, documenting implementation of the IAQ management measures, such as protection of ducts and on-site stored or installed absorptive materials.
 - f. Required audit documentation:
 - 1) Construction IAQ Management Plan addressing the SMACNA/ LEED® requirements.
 - 2) Manufacturer literature, cut sheets, or letters showing the MERV values of filtration media used (during construction and immediately before occupancy).
13. IEQ Credit 3.2: Provide requirements for items Option 1 or 2.
 - a. Provide letter template confirming the building air flush-out procedures including the dates when flush-out was begun and completed and statement that filtration media was replaced after flush-out..
 - b. Product Data for filtration media used during flush-out and during occupancy.
 - c. Report from testing and inspecting agency indicating results of IAQ testing and documentation showing conformance with IAQ testing procedures and requirements.
14. IEQ Credit 4.1: Product Data and material safety data sheets (MSDS) for adhesives and sealants used on the interior of the building indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA method 24).
 - a. Provide letter or matrix listing the adhesives and sealants used in the building and declaring that they meet the noted requirements.
 - b. Provide required audit documentation:
 - 1) Cut sheets and Materials Safety Data Sheet (MSDS), or letter from the manufacturer for each adhesive/sealant used on the interior, with the VOC content (g/L) circled and indicating VOC content of each product used and indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA method 24).
 - 2) Summary table comparing credit VOC requirements and actual VOC levels for each product.
15. IEQ Credit 4.2:
 - a. Provide letter or matrix listing all the paints and coatings used in the building and stating that they comply with the VOC and chemical component limits of Green Seal's GS-11 requirements.

- b. Provide required audit documentation:
 - 1) Cut sheets, MSDS, or letter from the manufacturer for each interior paint, with the VOC content (g/L) circled. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA method 24).
 - 2) Summary table comparing credit VOC requirements and actual VOC levels for each product.
16. IEQ Credit 4.3:
- a. Carpet: Provide letter or matrix listing all the carpet systems used in the building and stating that they comply with the VOC limits of the Carpet and Rug Institute's Green Label Indoor Air Quality Test Program.
 - 1) Provide required audit documentation:
 - a) Cut sheets, manufacturer literature or letter, or CRI Green Label literature stating that the carpet(s) meets the CRI Green Label IAQ test program criteria.
 - b) Documentation for installation adhesive, including printed statement of VOC content.
 - b. Hard Surface Flooring Products (resilient flooring, wood flooring, tile flooring, etc.): Provide letter or matrix listing all hard surface flooring products used in the building and stating that they comply with FloorScore standard and certified by an independent third-party. As an alternative, provide letter or matrix listing stating that at least 25 percent of non-carpet finished flooring is FloorScore-certified.
 - 1) Provide required audit documentation:
 - a) Cut sheets, manufacturer literature or letter, or FloorScore certification indicating compliance with FloorScore standard.
 - b) Documentation for installation adhesive, including printed statement of VOC content.
17. IEQ Credit 4.4:
- a. Provide letter or matrix listing all the composite wood and agrifiber products used in the building and stating that they contain no added urea-formaldehyde resins.
 - b. Provide required audit documentation
 - 1) Cut sheets or manufacturer literature or letters indicating the bonding agents for each composite wood and agrifiber material used in the project, showing that no added urea-formaldehyde resins were used in these products.
- G. All material submittals must include the following information on the cover of the submittal:
- 1. LEED[®] cover sheet see EXHIBIT 30 in Division 1.

- H. Water Efficiency Product Data: Where the Specifications require data relating to water efficiency, submit:
 - 1. Cut sheet or written affidavit from the manufacturer which shall include, but is not limited to, the following:
 - a. Conservation Specifications.
 - b. Demonstration that fixture complies with all applicable fixture performance requirements of the Energy Policy Act of 1992.

- I. Adhesives – For each adhesive applied on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet.
 - 2. Material Safety Data Sheet (MSDS) highlighting compliance with VOC limits stipulated in Part 2 of this Section.
 - 3. An updated list of all adhesives applied on the interior of the Project.

- J. Ducts and HVAC Equipment – Prime Trade Contractor shall submit:
 - 1. Construction Photographs demonstrating conformance with IAQ Construction Management Plan measures to insure protection of materials from moisture while stored on site. Construction photographs shall be time stamped and labeled with location by room number, and shall be taken weekly throughout those periods said materials are stored on site and installed.

- K. Sealants – For each sealant or sealant primer applied on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet.
 - 2. Material Safety Data Sheet (MSDS) highlighting compliance with VOC limits stipulated in Part 2 of this Section.
 - 3. An updated list of all sealants and sealant primers applied on the interior of the Project

- L. Paints – For each paint product applied on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet.
 - 2. Material Safety Data Sheet (MSDS) highlighting compliance with VOC limits and chemical component limits stipulated in Part 2 of this Section.
 - 3. An updated list of all paints applied on the interior of the Project

- M. Architectural Coatings – For each architectural coating applied on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet.
 - 2. Material Safety Data Sheet (MSDS) highlighting compliance with VOC limits and chemical component limits stipulated in Part 2 of this Section.
 - 3. An updated list of all architectural coatings applied on interior of the Project

- N. Carpets - For each carpet product used on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut sheet highlighting compliance with VOC requirements stipulated in Part 2 of this Section, or a letter from the manufacturer declaring compliance with VOC requirements stipulated in Part 2 of this Section.
 - 2. An updated list of all carpet products applied on the interior of the Project
- O. Agrifiber Products - For each agrifiber product used on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet highlighted to show the non-urea formaldehyde resin or binder used in the products.
 - 2. An updated list of all agrifiber products applied on the interior of the Project
- P. Composite Wood Products - For each composite wood product used on the interior of the Project, Prime Trade Contractor shall submit:
 - 1. Cut Sheet highlighted to show the non-urea formaldehyde resin or binder used in the products.
 - 2. An updated list of all composite wood products applied on the interior of the Project.
- Q. Filtration Media - For each air-handling unit used on the Project, Prime Trade Contractor shall submit a cut sheet highlighting the Minimum Efficiency Reporting Value (MERV) of the installed filter. The installed filter MERV shall be in compliance with the approved Construction Indoor Air Quality Management Plan measures.

1.7 SUBSTITUTIONS

- A. Requests for substitutions shall comply with the provisions of Section 01 25 00 Product Options and Substitutions, with the following additional information required where LEED® requirements are specified.
 - 1. No substitutions shall be submitted without the full projected LEED® impact documented.
- B. Where LEED® material emission limits are specified, the University shall reject proposed substitutions where:
 - 1. Data for VOC's is not provided
 - 2. Emissions of VOC's exceed the material's specified VOC limit
 - 3. There is negative impact on overall system efficiency.
 - 4. The total number of LEED® credits will be compromised.
 - 5. The intent of the LEED® credits are compromised
- C. Substitutions that may affect LEED® certification requirements must be clearly stated as such.
- D. Comply with the requirements of Section 01 25 00 Product Options and Substitutions except as follows:

1. Only (1) one request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
2. Prior to submitting detailed information required under Section 01 25 00 Product Options and Substitutions, submit the following for initial review by the University's Representative.
 - a. Product data including manufactures names, address, and phone number.
 - b. Description of the differences of the proposed substitution from specified product. Include description of environmental advantages of proposed substitution over specified product.
 - c. Substituted products shall not be ordered or installed without written acceptance by the University's Representative.
3. Requests for Substitutions
 - a. Submit a separate request for each LEED[®] related product substitution.
 - b. Identify product by Specification Section and LEED[®] credit or credits, if applicable.
 - c. List similar projects using product, dates of installation, and names of Prime Trade Contractor and Owner.
 - d. Give itemized comparison of proposed substitution with specified product, listing variations, and reference Specification section and Article number.
 - e. Include copy of Material Safety Data Sheet (MSDS) if applicable.
 - f. Give cost data comparing proposed substitution with specified product and amount of net change to Contract Sum. The cost data should be based on life cycle analysis for each affected product including annual energy consumption and maintenance costs.
 - g. State effect of substitution on construction schedule and changes required in other work of products.

1.8 CREDIT REQUIREMENTS

- A. The following is a list of Credit Requirements for which the Prime Trade Contractor shall contribute LEED[®] certification documentation demonstrating compliance with the corresponding LEED[®] Credit Requirements.
- B. The following Credit Requirements for LEED[®] compliance are in addition to those requirements specified elsewhere in the Specifications.
- C. Erosion and Sedimentation Control: Contractor shall prevent loss of soil during construction.
 1. Contractor shall comply with the Universities Erosion Control Plan
- D. Reduced Site Disturbance: Prime Trade Contractor shall limit site disturbance including earthwork and clearing of vegetation to 40 feet beyond the building perimeter, 5 feet beyond primary roadway curbs, walkways, and main utility branch trenches, and 25 feet beyond previous paving areas that require additional staging areas in order to limit compaction in the paved area.

- E. Water Use Reduction: Prime Trade Contractor shall provide water fixtures, excluding those for irrigation, which use, in aggregate 40 percent less water than the water use baseline calculated for the Project by the design team.
 - 1. Throughout the work, Prime Trade Contractor shall comply with applicable submittal requirements stipulated in 1.6 of this specification.
 - 2. Within 14 calendar days of Project Completion, Prime Trade Contractor shall provide to University's Representative 2 copies of all LEED® required documentation demonstrating compliance with LEED® Certification requirements, including but not limited to, documentation provided during the submittal process.

- F. Building Systems Commissioning: Prime Trade Contractor shall comply with the following requirements of LEED® Energy and Atmosphere Prerequisite 1 – Fundamental Building Systems Commissioning:
 - 1. Refer to Section 01 91 00 Commissioning.

- G. Additional Commissioning: Prime Trade Contractor shall comply with the following requirements of LEED® Energy and Atmosphere Credit 3 – Additional Commissioning:
 - 1. Refer to Section 01 91 00 Commissioning.

- H. Ozone Depletion: Prime Trade Contractor shall meet the intent to reduce ozone depletion potential through the following.
 - 1. Prime Trade Contractor shall provide refrigeration equipment that does not contain or make use of hydrochlorofluorocarbons (HCFC's).
 - 2. Prime Trade Contractor shall provide fire suppression systems that do not contain or make use of Halon.

- I. Construction Waste Management: Prime Trade Contractor shall comply with University's Site Waste Management Plan.

- J. Recycled Content: Prime Trade Contractor shall use materials with recycled-content so that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 20 percent of the total value of the materials in the project. (Mechanical and electrical components shall not be included in this calculation).

- K. Local and Regional Materials - Manufacturing: Prime Trade Contractor shall provide a minimum of 20 percent (cost basis) of project materials that are extracted, processed, and manufactured within a radius of 500 miles of the project.

- L. Rapidly Renewable Materials: Prime Trade Contractor shall provide a minimum of 2.5% (cost basis) of rapidly renewable materials or products harvested within a ten-year cycle or shorter.

- M. Certified Wood: Prime Trade Contractor shall provide a minimum of 50% (cost basis) of all new non-salvaged wood-based materials that are certified in accordance with the Forest Stewardship Council (FSC) guidelines for wood building components. Certified wood-based components may include those stipulated in Part 2.

- N. Construction Indoor Air Quality Management Plan: Prime Trade Contractor shall develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and preoccupancy phases of Project buildings.
1. Prime Trade Contractor shall submit to University's Representative 2 copies of a Construction IAQ Management Plan within 14 calendar days of Notice to Proceed. Plan shall include, but not be limited to, the following:
 - a. Provision to meet the five requirements of SMACNA IAQ Guideline for Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008.
 - b. Provision to protect stored on-site or installed absorptive materials from moisture damage. This shall include a description of:
 - 1) Storage of materials on elevated platforms, under cover, and in a dry location
 - 2) Secure coverage of the tops and sides of material with waterproof sheeting if materials are not stored in an enclosed location.
 - c. Provision to protect HVAC equipment during construction. This shall include a description and commitment to:
 - 1) Shut down the return side of the HVAC system during heavy construction or demolition and cover return air openings air tight to prevent introduction of contaminants.
 - 2) Provide temporary filters that shall be replaced with new media prior to occupancy if the HVAC system is operated during heavy construction.
 - d. Provision to take Construction Photographs demonstrating conformance with the approved Construction Indoor Air Quality Management Plan measures to insure protection of materials and air-handling equipment from moisture while stored on site.
 - 1) A minimum of 6 Construction Photographs shall be taken on three different occasions during Construction for a total minimum of 18. Construction photographs shall be time stamped and shall be taken during those periods' absorptive materials and HVAC equipment is stored on site. Refer to Part 2 for a list of absorptive materials.
 - 2) Construction Photographs shall include identification of the SMACNA approach featured by each photograph.
 - 3) Prime Trade Contractor shall submit Construction Photographs to the University's Representative for approval.
 - e. Provision to utilize outdoor air filtration media with a minimum MERV of 13 throughout the construction and preoccupancy phases of Project.
 - f. For air handlers, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grill, as determined by ASHRAE 52.2-1999.
 - g. Provision to replace all filtration media immediately prior to occupancy. Conduct flush-out with new MERV 13 filtration media, and after flush-out, replace with new MERV 13 filtration media, except the filters solely processing outside air.

- h. Provision to conduct a minimum two-week building flush-out with new filtration media at 100 percent outside air after construction ends and prior to occupancy.
 - OR**
 - i. Provision to conduct a baseline indoor air quality testing procedure consistent with current EPA protocol for Environmental Requirements, Baseline IAQ and Materials.
2. Within 14 calendar days of Project Completion, Prime Trade Contractor shall submit to University’s Representative a letter template, which shall include, but not be limited to:
- a. A listing of filtration media and corresponding MERV used during construction and installed at the end of construction.
 - b. A minimum of 18 Construction photographs as per the specified Construction IAQ Management Plan requirements.
 - c. A written narrative describing the building flush out procedures implemented (if applicable).
 - d. Flush-out Start Date for each building (if applicable).
 - e. Flush-out End Date for each building (if applicable).
- O. Low –Emitting Materials – Adhesives and sealants, paint, carpet systems, composite wood and agrifiber products applied on the interior of the building shall comply with the product requirements stipulated in Part 2 and applicable submittal requirements stipulated in Part 1.
- 1. Prime Trade Contractor shall submit to University’s Representative 2 copies of a LEED® Certification Progress Report each month throughout the work. Report shall include, but not be limited to, the following:
 - a. Requirement in 1.6.F of this section.
- P. Low –Emitting Materials – Adhesives and Sealants: Interior adhesives and sealants shall comply with the VOC limits of SCAQMD Rule #1168.
- Q. Low –Emitting Materials - Paint: Interior paints and coatings shall comply with the VOC and chemical component limits of Green Seal GS-11.
- R. Low –Emitting Materials - Carpet: Interior carpet products shall comply with the CRI Green Label Indoor Air Quality Test Program
- S. Low –Emitting Materials - Wood: Interior Composite wood and interior agrifiber products shall contain no added urea-formaldehyde resins.
- T. The following table lists all of the LEED® credits that shall be implemented and documented for the project to achieve a LEED® Gold certification & preferably Platinum. The list notes where the Prime Trade Contractor must track and submit full documentation per LEED®-NC Certification Requirements. These credits are designated “PTC”.

LEED® Certification	
LEED® Reference	Point Description
*SS Prerequisite: PTC	Erosion and Sedimentation Control

LEED® Certification	
LEED® Reference	Point Description
*SS Credit 4.1	Alternative Transportation
SS Credit 4.2	Bike Security Changing/Shower Facilities
*SS Credit 4.4	Carpool/Parking Capacity
*SS Credit 5.2	Reduce Site Disturbance
*SS Credit 6.1	Storm Water Management
*SS Credit 6.2	Storm Water Management Treatment
SS Credit 7.2	Heat Island Effect, Roof
*SS Credit 8	Light Pollution Reduction
*WE Credit 1	Water Efficient Landscaping
WE Credit 3	Water Efficiency
EA Prerequisite 1 – 3	Energy Design
EA Credit 1	Optimize Building Energy Performance
EA Credit 3	Additional Commissioning
EA Credit 4	Elimination of HCFC's & Halon
EA Credit 5	Measurement and Verification
MR Prerequisite 1	Storage and Collection of Recyclables
MR Credit 2: PTC	Waste Management Plan
MR Credit 4: PTC	Recycled Content Material
MR Credit 5: PTC	Local/Regional Materials
MR Credit 7: PTC	Certified Wood
IEQ Prerequisite 1	Minimum IAQ Performance
*IEQ Prerequisite 2	Environmental Tobacco Smoke Control
IEQ Credit 1	Carbon Dioxide Monitoring
IEQ Credit 3.1 – 3.2: PTC	Construction IAQ Management Plan
IEQ Credit 4.1 – 4.4: PTC	Low-Emitting Materials
IEQ Credit 5	Indoor Chemical & Pollutant Source Control

LEED® Certification	
LEED® Reference	Point Description
IEQCredit 6.1	Controllability of Systems, Lighting
IEQ Credit 6.2	Controllability of Systems, Thermal Comfort
IEQ Credit 7.1 – 7.2	Thermal Comfort
*ID Credit 1.1	Exhibit
*ID Credit 1.2	Open Space
ID Credit 1.3	Green Cleaning
ID Credit 1.4	Exceptional Water Savings
*ID Credit 2.0	LEED® Accredited Professional

* Prototype Credits that are part of UC Merced’s campus wide sustainability plan.

PART 2 - PRODUCTS

2.1 UNAUTHORIZED MATERIALS

- A. Materials and products required for work of this section shall not contain unauthorized materials including, but not limited to, the following:
1. Asbestos
 2. Polychlorinated biphenyls (PCB)
 3. Other hazardous materials identified by the University.
 4. Urea formaldehyde

2.2 LOW-EMITTING MATERIALS

- A. Credit IEQ 4.1: Adhesives, Sealants and Sealant Primers must comply with South Coast Air Quality Management District (SCAQMD) Rule #1168. Volatile organic compound (VOC) limits listed in the table below correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005.
1. Wood Glues: 30 g/L.
 2. Metal to Metal Adhesives: 30 g/L.
 3. Adhesives for Porous Materials (Except Wood): 50 g/L.
 4. Subfloor Adhesives: 50 g/L.

5. Plastic Foam Adhesives: 50 g/L.
 6. Carpet Adhesives: 50 g/L.
 7. Carpet Pad Adhesives: 50 g/L.
 8. VCT and Asphalt Tile Adhesives: 50 g/L.
 9. Cove Base Adhesives: 50 g/L.
 10. Gypsum Board and Panel Adhesives: 50 g/L.
 11. Rubber Floor Adhesives: 60 g/L.
 12. Ceramic Tile Adhesives: 65 g/L.
 13. Multipurpose Construction Adhesives: 70 g/L.
 14. Fiberglass Adhesives: 80 g/L.
 15. Structural Glazing Adhesives: 100 g/L.
 16. Wood Flooring Adhesive: 100 g/L.
 17. Contact Adhesive: 80 g/L.
 18. Special Purpose Contact Adhesive: 250 g/L.
 19. Structural Wood Member Adhesive: 140 g/L.
 20. Sheet Applied Rubber Lining Operations: 850g/L.
 21. Plastic Cement Welding Compounds: 50 g/L.
 22. ABS Welding Compounds: 4325 g/L.
 23. CPVC Welding Compounds: 490 g/L.
 24. PVC Welding Compounds: 510 g/L.
 25. Adhesive Primer for Plastic: 550 g/L.
 26. Architectural Sealants: 250 g/L.
 27. Nonmembrane Roof Sealants: 300 g/L.
 28. Roadway Sealants: 250 g/L.
 29. Single-ply Roof Membrane Sealants: 450 g/L.
 30. Other Sealants: 420 g/L.
 31. Sealant Primers for Nonporous Substrates: 250 g/L.
 32. Sealant Primers for Porous Substrates: 775 g/L.
 33. Other Sealants Primers: 750 g/L.
- B. Credit IEQ 4.2: Paints and coatings used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site) must comply with the following criteria as applicable to the project scope.

1. Architectural paints and coatings applied to interior walls and ceilings must not exceed the volatile organic compound (VOC) content limits established in Green Seal Standard GS-11, Paints, 1st Edition, May 20, 1993.
2. Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates must not exceed the VOC content limit of 250 g/L established in Green Seal Standard GC-03, Anti-Corrosive Paints, 2nd Edition, January 7, 1997.
3. Clear wood finishes, floor coatings, stains, primers, and shellacs applied to interior elements must not exceed the VOC content limits established in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.
4. Flat Paints and Coatings: VOC not more than 250 g/L.
5. Non-Flat Paints and Coatings: VOC not more than 250 g/L.
6. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
7. Restricted Components: Paints and coatings shall not contain any of the following:
 - a. Acrolein.
 - b. Acrylonitrile.
 - c. Antimony.
 - d. Benzene.
 - e. Butyl benzyl phthalate.
 - f. Cadmium.
 - g. Di (2-ethylhexyl) phthalate.
 - h. Di-n-butyl phthalate.
 - i. Di-n-octyl phthalate.
 - j. 1,2-dichlorobenzene.
 - k. Diethyl phthalate.
 - l. Dimethyl phthalate.
 - m. Ethylbenzene.
 - n. Formaldehyde.
 - o. Hexavalent chromium.
 - p. Isophorone.
 - q. Lead.
 - r. Mercury.
 - s. Methyl ethyl ketone.
 - t. Methyl isobutyl ketone.
 - u. Methylene chloride.
 - v. Naphthalene.
 - w. Toluene (methylbenzene).
 - x. 1,1,1-trichloroethane.
 - y. Vinyl chloride.

Coating	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond breakers	350							
clear Wood finishes - Varnish - sanding sealers - Lacquer	350 350 350 680	550			275	275 275 275		
clear brushing lacquer	680				275			
concrete-curing compounds	350						100	
concrete-curing compounds for roadways and bridges**	350							
Dry-fog coatings	400						150	
fire-proofing exterior coatings	450	350						
fire-retardant coatings*** - clear - Pigmented	650 350							
flats	250	100						50
floor coatings	420		100					50
Graphic arts (sign) coatings	500							
industrial maintenance (im) coatings High temperature im coatings Zinc-rich im primers	420 420		420 340	250		100 100		
Japans/faux finishing coatings	700	350						
Magnesite cement coatings	600	450						
Mastic coatings	300							
Metallic Pigmented coatings	500							
Multicolor coatings	420	250						
nonflat coatings	250	150				50		
nonflat high gloss	250		150				50	
Pigmented lacquer	680	550			275			
Pretreatment wash primers	780		420					
Primers, sealers, undercoaters	350		200			100		
Primers, sealers, undercoaters	350		200			100		
Quick-dry enamels	400		250			150	50	
Quick-dry primers, sealers, undercoaters	350		200			100		
Recycled coatings			250					
Roof coatings aluminum roof coatings	300 500		250		50 100			
Roof primers, bituminous	350		350					
Rust: preventive coatings	420		400			100		
shellac - clear - Pigmented	730 550							
specialty primers	350					250	100	
stains - interior	350 250		250				100	
swimming pool coatings - Repair - other	650 340		340					
traffic coatings	250	150					100	
Waterproofing sealers	400		250			100		
Waterproofing concrete, masonry sealers	400					100		
Wood preservatives - Below-ground	350							
other	350							

* the specified limits remain in effect until revised.

** Does not include compounds used for curbs and gutters, sidewalks, islands, driveways, and other miscellaneous concrete areas.

*** the fire-retardant coating category was eliminated on January 1, 2007, and subsumed by the coating category for which it was formulated.

- C. Credit IEQ 4.3: All carpet installed in the building interior must meet the testing and product requirements of the Carpet and Rug Institute Green Label Plus program. All carpet cushion installed in the building interior must meet the requirements of the Carpet and Rug Institute Green Label program. All hard surface flooring must be certified as compliant with the FloorScore2 standard (current as of the date of this rating system, or more stringent version) by an independent third-party. Flooring products covered by FloorScore include vinyl, linoleum, laminate flooring, wood flooring, ceramic flooring, rubber flooring and wall base.
- D. Credit IEQ 4.4: Composite wood and agrifiber products used on the interior of the building (i.e., inside the weatherproofing system) must contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies must not contain added urea-formaldehyde resins.

2.3 SEALANTS

- A. All interior sealants and sealant primers shall comply with the VOC limits established by South Coast Air Quality Management District (SCAQMD) Rule 1168, effective July 1, 2005 and amended January 7, 2005.

2.4 PAINTS

- A. All interior paints shall comply with the VOC and chemical component limits established by Green Seal GS-11, Paints, 1st Edition, May 20, 1993; Green Seal Standard GC-03, Anti-Corrosive Paints, 2nd Edition, January 7, 1997; and South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.

2.5 ARCHITECTURAL COATINGS

- A. All site-applied interior architectural coatings shall comply with the VOC and chemical component limits of CARB Suggested Control Measure for Architectural Coatings.

2.6 CARPET SYSTEMS

- A. All carpet products applied on the interior of the Project shall comply with the VOC limit established by the Carpet and Rug Institute (CRI) Green Label Indoor Air Quality Test Program.

2.7 WOOD AND WOOD PRODUCT

- A. Certified wood products may include framing, flooring finishes, furnishings, veneers and non-vented temporary construction applications such as bracing, concrete formwork, and pedestrian barriers.

2.8 COMPOSITE WOOD PRODUCTS

- A. Composite wood products shall contain no added urea-formaldehyde resins.

2.9 AGRIFIBER PRODUCTS

- A. Agrifiber products shall contain no added urea-formaldehyde resins.

2.10 ABSORPTIVE MATERIALS

- A. Absorptive Materials shall include, but not be limited to:
1. Filtration media
 2. Acoustical and thermal insulation
 3. Lined ductwork
 4. Masonry units
 5. Lumber
 6. Finished architectural woodwork
 7. Acoustical Ceiling Tiles

PART 3 - EXECUTION

3.1 CONSTRUCTION VENTILATION AND PRECONDITIONING

- A. Prime Trade Contractor shall execute the approved Construction IAQ Management Plan as specified in this Section.
- B. During construction Prime Trade Contractor shall meet or exceed the minimum requirements of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines For Occupied Buildings Under Construction, 2nd Edition 2007, ANSI/SMACNA 008-2008 (Chapter 3).
- C. Temporary Construction Ventilation: Prime Trade Contractor shall Maintain sufficient temporary ventilation of areas where materials are being used that emit VOC's, and maintain ventilation continuously during installation, and until emissions dissipate after installation. If continuous ventilation is not possible via the building's HVAC system(s) then ventilation shall be supplied via open windows and temporary fans, sufficient to provide no less than three air changes per hour. Prime Trade Contractor shall ensure that:
1. The period after installation shall be sufficient to dissipate odors and elevated concentrations of VOCs. Where no specific period is stated in these Specifications, a time period of 72 hours shall be used.
 2. All areas shall be vented directly to outside. Areas shall not be vented to other enclosed areas.
- D. During dust producing activities (e.g. drywall installation and finishing) ventilation system shall be off, and openings in supply and return HVAC system shall be protected from dust infiltration. Provide temporary ventilation as required.

- E. Preconditioning: Prior to installation, Prime Trade Contractor shall allow products which have odors and VOC emissions to off-gas in dry, well-ventilated space outside of building for 14 calendar days, in order to allow for reasonable dissipation of odors and emissions.

3.2 SEQUENCING

- A. Environmental Issues: Prime Trade Contractor shall complete all interior finish material installation no less than 14 days prior to Substantial Completion to allow for building flush out. Submit notification to University's Representative when all interior finish material installation is complete, highlighting the date of completion.

3.3 FIELD QUALITY CONTROL

- A. A. Building Flush Out: Prior to Substantial Completion, Prime Trade Contractor shall flush out building continuously (i.e. 24 hours per day, 7 days per week) using 100 percent outside air at standard operational set-point temperatures for at least 14 calendar days. Conduct flush-out with new MERV 13 filtration media, and after flush-out, replace with new MERV 13 filtration media, except the filters solely processing outside air. For air handlers, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 must be used at each return air grill, as determined by ASHRAE 52.2-1999. If interruptions of more than 4 hours are required for testing and balancing purposes, extend flush out period by a minimum of 1 day.
 - 1. When touch-up work is performed, Prime Trade Contractor shall provide temporary construction ventilation during installation and extend building flush out by a minimum of 4 days after touch-up installation is complete.
 - 2. Return ventilation system to normal operation following flush-out period to minimize energy consumption.
 - 3. Replace all outside air filtration media prior to occupancy. Filtration media shall have a MERV of 13 as determined by ASHRAE 52.2-1999.
- B. IAQ Testing: If Building Flush Out is not undertaken, Prime Trade Contractor shall conduct a baseline indoor air quality testing procedure consistent with current EPA protocol for Environmental Requirements, Baseline IAQ and Materials.

3.4 PROTECTION

- A. Protect stored on-site and installed absorptive materials from moisture damage. Where absorptive materials not intended for wet applications are exposed to moisture, immediately remove from site and dispose of properly.
- B. Protect installed materials using methods that do not support growth of molds and mildews.
 - 1. Immediately remove from site and properly dispose of materials showing signs of mold and signs of mildew, including materials with moisture stains.
 - 2. Replace materials showing signs of mold and mildew with new, undamaged materials.
 - 3. Ducts: Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside ducts.

- C. Ducts: Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside ducts.

END OF SECTION 01 81 13



Platinum Scorecard

Project Name: Housing 4
Project #: 906270

Yes ? No

19 Sustainable Sites 26 Points

Table with 3 columns: Status (Y/N), Requirement Name, and Points. Includes Prereq 1 Construction Activity Pollution Prevention (Required) and Credits 1 through 8.

Yes ? No

6 Water Efficiency 10 Points

Table with 3 columns: Status (Y/N), Requirement Name, and Points. Includes Prereq 1 Water Use Reduction, 20% Reduction (Required) and Credits 1.1 through 3.

Yes ? No

33 Energy & Atmosphere 35 Points

Table with 3 columns: Status (Y/N), Requirement Name, and Points. Includes Prereq 1 Fundamental Commissioning of the Building Energy Systems (Required), Prereq 2 Minimum Energy Performance: 10% New Bldgs or 5% Existing Bldg Ren (Required), Prereq 3 Fundamental Refrigerant Management (Required), and Credits 1 and 2.

		9% Renewable Energy	5
		11% Renewable Energy	6
		13% Renewable Energy	7
2		Credit 3 Enhanced Commissioning	2
2		Credit 4 Enhanced Refrigerant Management	2
3		Credit 5 Measurement & Verification	3
		Credit 6 Green Power	2
Yes	?	No	

6		Materials & Resources	14 Points
---	--	----------------------------------	-----------

Y		Prereq 1 Storage & Collection of Recyclables	Required
		Credit 1 Building Reuse	1 to 3
		1.1 Maintain 55% of Existing Walls, Floors & Roof	1
		1.2 Maintain 75% of Existing Walls, Floors & Roof	2
		1.3 Maintain 95% of Existing Walls, Floors & Roof	3
		Credit 1.4 Building Reuse, Maintain 50% of Interior Non-Structural Elements	1
Y		Credit 2.1 Construction Waste Management, Divert 50% from Disposal	1
Y		Credit 2.2 Construction Waste Management, Divert 75% from Disposal	1
		Credit 3.1 Materials Reuse, 5%	1
		Credit 3.2 Materials Reuse, 10%	1
Y		Credit 4.1 Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	1
Y		Credit 4.2 Recycled Content, 20% (post-consumer + 1/2 pre-consumer)	1
Y		Credit 5.1 Regional Materials, 10% Extracted, Processed & Manufactured Regionally	1
		Credit 5.2 Regional Materials, 20% Extracted, Processed & Manufactured Regionally	1
		Credit 6 Rapidly Renewable Materials	1
Y		Credit 7 Certified Wood	1
Yes	?	No	

15		Indoor Environmental Quality	15 Points
----	--	-------------------------------------	-----------

Y		Prereq 1 Minimum IAQ Performance	Required
Y		Prereq 2 Environmental Tobacco Smoke (ETS) Control	Required
Y		Credit 1 Outdoor Air Delivery Monitoring	1
Y		Credit 2 Increased Ventilation	1
Y		Credit 3.1 Construction IAQ Management Plan, During Construction	1
Y		Credit 3.2 Construction IAQ Management Plan, Before Occupancy	1
Y		Credit 4.1 Low-Emitting Materials, Adhesives & Sealants	1
Y		Credit 4.2 Low-Emitting Materials, Paints & Coatings	1
Y		Credit 4.3 Low-Emitting Materials, Carpet Systems	1
Y		Credit 4.4 Low-Emitting Materials, Composite Wood & Agrifiber Products	1
Y		Credit 5 Indoor Chemical & Pollutant Source Control	1
Y		Credit 6.1 Controllability of Systems, Lighting	1
Y		Credit 6.2 Controllability of Systems, Thermal Comfort	1
Y		Credit 7.1 Thermal Comfort, Design	1
Y		Credit 7.2 Thermal Comfort, Verification	1
Y		Credit 8.1 Daylight & Views, Daylight 75% of Spaces	1
Y		Credit 8.2 Daylight & Views, Views for 90% of Spaces	1
Yes	?	No	

6		Innovation & Design Process	6 Points
---	--	--	----------

Y		Credit 1.1 Innovation in Design: Campus as a Teaching Tool AGMBC Prototype Credit	1
Y		Credit 1.2 Innovation in Design: Exemplary Perform. Max. Open Space AGMBC Protot	1
Y		Credit 1.3 Innovation in Design: Green Cleaning and Custodial Care Program	1
Y		Credit 1.4 Innovation in Design: Provide Specific Title	1
Y		Credit 1.5 Innovation in Design: Provide Specific Title	1
Y		Credit 2 LEED® Accredited Professional	1
Yes	?	No	

4		Regional Priority Credits	4 Points
---	--	----------------------------------	----------

Y		Credit 1.1 Regional Priority Credit: SSc4.1	1
Y		Credit 1.2 Regional Priority Credit: WEc1.1	1
Y		Credit 1.3 Regional Priority Credit: WEc3 (40%)	1
Y		Credit 1.4 Regional Priority Credit: EAc2 (1%)	1
Yes	?	No	

89		Project Totals (Certification Estimates)	110 Points
----	--	---	------------

Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80+ points

**SECTION 01 91 00
COMMISSIONING**

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Work included in this section: Oversight, coordination, and documentation of the following:
1. Commissioning of selected systems and equipment specified under Division 13 Special Construction.
 2. Commissioning of selected systems and equipment specified under Division 23 Mechanical.
 3. Commissioning of selected systems and equipment specified under Division 26 Electrical.
 4. Commissioning of systems and equipment specified under Division 23 Energy Management and Control Systems.

1.2 RELATED SECTIONS AND REQUIREMENTS

- A. Requirements of Division 1 General Requirements apply to all work in this section.
- B. Related Sections:
1. Section 01 79 00 Training.
 2. Section 23 08 00 HVAC Commissioning
 3. Section 26 08 00 Electrical Commissioning
 4. Section 28 08 00 Security System Commissioning

1.3 GENERAL

- A. Building Commissioning is a quality assurance process that has as its goal that all systems perform interactively and according to design intent under the full range of expected operating conditions. The Prime Trade Contractor shall ensure that all systems are fully commissioned and that commissioning is fully documented as specified in this Section.
- B. Commissioning Team. The Commissioning Team for the construction and post-construction period shall include:
1. Prime Trade Contractor Members:
 - a. Commissioning Coordinator (see paragraph 1.3C).
 - b. Division 13, Division 22, Division 23, Division 26, Division 27 and Division 28 project managers plus key subcontractors where appropriate, including the Test & Balance Prime Trade Contractor.

2. University Members:
 - a. University's Representative.
 - b. University plant operator/engineer (during the functional testing and training phases only).
 - c. University's Design Professional.

C. Commissioning Coordinator:

1. The Prime Trade Contractor shall procure and provide the services of the Commissioning Coordinator.
2. Qualifications:
 - a. Cumulative of eight or more years experience in one or more of the following for projects of similar size and complexity:
 - 1) Building mechanical or electrical system commissioning.
 - 2) Building mechanical or electrical system construction project management.
 - 3) Building mechanical or electrical system coordination services for a general Prime Trade Contractor.
 - 4) Building mechanical system test & balance project management.
 - b. Five or more years of experience with project management software such as MS Project or equal.
 - c. Either an employee of or direct subcontractor to the Prime Trade Contractor.
3. Services to be provided: See paragraph 3.1.

1.4 SUBMITTALS

- A. See Section 01 33 23 Submittals. Verify & coordinate the sections
- B. Commissioning Coordinator Qualifications. Prior to any commissioning work taking place, submit Commissioning Coordinator's resume listing applicable experience for review and approval by the University's Representative.
- C. Equipment submittals and shop drawings:
 1. See Divisions 13, 22, 23, 26, 27 and 28.
- D. Commissioning Reports:
 1. Start-up and Factory Tests.
 - a. See Divisions 13, 22, 23, 26, 27 and 28 for requirements.
 - b. Compile after all equipment has been started and submit five copies to University's Representative for review and approval.
 2. Pre-functional Tests:
 - a. See Divisions 13, 22, 23, 26, 27 and 28 for checklists.
 - b. Compile after all equipment pre-functional forms have been completed and submit five copies to University's Representative for review and approval.
 3. Test and Balance Reports.

- a. See Section 23 05 93 Testing, Adjusting and Balancing for content and quantity of reports.
 - b. Include only those reports developed after spot checks and associated rebalancing have been completed.
4. Functional Tests:
- a. See Divisions 23, 26, 27 and 28 for forms and requirements.
 - b. Compile after all tests have been completed and submit five copies to University's Representative for review and approval.
5. Demonstration Tests:
- a. Tests will be a subset of Functional Tests and will be identified one day prior to the Tests by the University's Representative. See Divisions 23, 26, 27 and 28 for expected time required.
 - b. Compile after all tests have been completed and submit five copies to University's Representative for review and approval.
6. Trend Reviews:
- a. Data to be provided to University's Representative in electronic format specified in Divisions 23, 27 and 28.
7. Final Report:
- a. Include the following completed documentation:
 - 1) System/Equipment Matrix (see Paragraph 3.1A.2).
 - 2) Start-up and Factory Tests.
 - 3) Test and Balance Reports.
 - 4) Pre-functional test documentation.
 - 5) Functional test documentation.
 - b. Format and Procedure:
 - 1) Submit two draft copies for review and comment by University's Representative, who will return one copy.
 - 2) Make changes noted on returned copy and compile final draft.
 - 3) Submit Final Report in the following format:
 - 4) Five bound copies.
 - 5) One electronic copy on CD in format readable by software on Operator's Workstation, as specified in Divisions 23, 26, 27 and 28. Reports may be scanned from paper copies but word-searchable electronic versions preferred.
 - 6) One electronic copy as above copied onto the Operator's Workstation server.
8. Operations and Maintenance Manuals: See Divisions 13, 22, 23, 26, 27 and 28.
9. Training manuals: See Section 01 79 00 Training, and Divisions 13, 22, 23, 26, 27 and 28.

10. Re-commissioning Management Manual
 - a. Prepare and submit 1 copy of a Re-commissioning Management Manual containing the following information organized into a 3-ring binder with tabbed sections as listed.
 - 1) Design Intent. (Material provided by the University's Representative)
 - 2) Final version of the University's requirements and design basis narratives, including brief descriptions of each system.
 - 3) Controls. (Material provided by respective Prime Trade Contractor.)
 - 4) As-built sequences of operation for all equipment.
 - 5) Controls drawings
 - 6) A list of time of day schedules and a schedule to review them for relevance and efficiency.
 - 7) A list of all user adjustable setpoints and reset schedules with rationale for their selection and range.
 - 8) Energy and Water Efficiency Measures. (Material provided by University Representative.)
 - 9) A description and rationale for all energy and water saving features and strategies with operating and instructions.
 - 10) Guidelines for establishing and tracking benchmarks for whole building energy use and equipment efficiencies of cooling, heating, and service hot water equipment.
 - 11) Seasonal Issues. Not applicable to UC Merced projects.
 - 12) Calibration. (Material provided by respective Prime Trade Contractor.)
 - 13) Recommendations for recalibration frequency of sensors and devices by type and use.
 - 14) Continuing Commissioning Plan (Material provided by University Representative.)
 - 15) Recommended frequency for re-commissioning by equipment type or system, with reference to tests conducted during initial commissioning.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 COMMISSIONING COORDINATION

A. Commissioning Coordinator shall:

1. Prepare schedule of commissioning activities specified in Divisions 13, 22, 23, 26, 27 and 28 including:
 - a. Submission of equipment submittals and shop drawings
 - b. Equipment start-up and pre-functional tests
 - c. Factory start-up and inspection of equipment
 - d. Test and balance

- e. EMCS calibration and start-up
 - f. Electrical system functional testing
 - g. EMCS system functional testing
 - h. EMCS demonstration tests (to University's Representative)
 - i. EMCS trending initiation
 - j. EMCS trend review data distribution (to University's Representative)
 - k. Submission of operations and maintenance manuals
 - l. Development and submission of record drawings
 - m. Training of University personnel
 - n. Preparation of Final Commissioning Report
2. Prepare a system and equipment commissioning matrix with a line item for each piece of equipment and each subsystem specified to be commissioned under Division 13, 22, 23, 26, 27 and 28. The System/Equipment matrix shall include for each line item:
- a. Equipment tag or name.
 - b. Service.
 - c. Location.
 - d. Responsible subcontractor.
 - e. The due date and actual completion date for the following (where applicable):
 - 1) Submittals.
 - 2) Shop drawings.
 - 3) Factory test.
 - 4) Equipment set.
 - 5) Preliminary operations and maintenance manuals indicating start-up procedures.
 - 6) Pre-start verification.
 - 7) Equipment start-up.
 - 8) Pre-functional test.
 - 9) Test and balance.
 - 10) Functional performance test.
 - 11) Operations and maintenance manuals.
 - 12) Record drawings.
 - 13) Training.
3. Complete the commissioning matrix as activities are completed, and distribute to Commissioning Team at least one day prior to each Team meeting or when requested by University's Representative.
4. Schedule and chair meetings of Commissioning Team:
- a. Commissioning Team shall be notified of all meeting times and locations at least two weeks prior to the meeting.
 - b. Prime Trade Contractor Members of Commissioning Team shall attend all scheduled meetings; University Members of Commissioning Team shall be invited to all meetings and attend where they feel their attendance is beneficial or where required to witness demonstration tests and training.

- c. Prior to start of construction until 30 days prior to start-up of any equipment:
 - 1) One scoping meeting shall occur prior to any Division 13, 22, 23, 26, 27 and 28 submissions of equipment submittals or shop drawings. Meeting shall include a discussion of preliminary commissioning schedule and roles of each Team member.
 - 2) Bi-monthly progress meetings (more frequent if required in the judgment of the Commissioning Coordinator; less frequent if requested by the Commissioning Coordinator and approved by the University's Representative).
 - d. 30 days prior to start-up of any equipment through start of functional testing: Bi-weekly progress meetings (more frequent if required in the judgment of the Commissioning Coordinator; less frequent if requested by the Commissioning Coordinator and approved by the University's Representative).
 - e. During functional testing until their completion: Weekly progress meetings (more frequent if required in the judgment of the Commissioning Coordinator; less frequent if requested by the Commissioning Coordinator and approved by the University's Representative).
 - f. After functional testing until all commissioning documentation is complete: Meetings as required in the judgment of the Commissioning Coordinator.
5. Supervise pre-functional and functional testing performed by Prime Trade Contractor's Members of Commissioning Team:
- a. Coordinate tests among Team Members and schedule tests so that required work for each trade is complete prior to tests being performed.
 - b. Ensure that tests are successfully completed by reviewing test forms for completeness and positive response, and ensuring forms have been signed by the Team Member who performed the work. (The Commissioning Coordinator is not required to perform or witness any pre-functional or functional tests.)
 - c. Compile test documentation and submit to the University's Representative for review and approval.
 - d. Coordinate and ensure resolution of punchlists from University's Representative.
6. Supervise and witness demonstration tests performed by Prime Trade Contractor's Members of Commissioning Team, also witnessed by the University's Members of the Commissioning Team:
- a. Compile test documentation and submit to the University's Representative for review and approval.
 - b. Coordinate and ensure resolution of punchlists from the University's Representative.
 - c. Coordinate retesting where required until tests are successfully completed.
7. Coordinate EMCS post-construction and post-occupancy trend reviews with Division 23 Prime Trade Contractor:
- a. Ensure trends are initiated as specified in Division 23. The post-construction review will occur directly after functional testing is complete (see Division 23 for exact time period). Two post-occupancy reviews will occur, one after approximately 6 months of operation, and one approximately two months prior to the end of the warranty period.

- b. Ensure data is transmitted in required format to University's Representative.
 - c. Coordinate and ensure resolution of trend review punchlists from the University's Representative.
 - d. Coordinate retesting where required until tests are successfully completed.
8. Maintain a master deficiency and resolution log developed from punchlists, including status and date of resolution of each deficiency. Provide the University's Representative with regular progress reports.
 9. Coordinate and confirm completion of training of University personnel as specified under Divisions 13, 22, 23, 26, 27 and 28.
 10. Compile and submit Final Commissioning Report.
 11. Compile and submit the Re-commissioning Management Manual.

3.2 REMEDIAL WORK

- A. Remedial work shall be performed at no additional cost to the University.
- B. Remedial work shall include re-performing any commissioning or other tests related to remedial work once remediation is complete at no additional cost to the University.
- C. Prime Trade Contractor shall compensate University's Representative on a time and material basis at standard billing rates for any additional time required to witness additional demonstration tests or to review additional EMCS trends beyond the initial tests (see paragraphs 3.1A.6.c and 3.1A.7.d), at no additional cost to the University.

3.3 SYSTEM ACCEPTANCE

- A. Specified Division 13, 22, 23, 26, 27 and 28 systems shall be considered commissioned and substantially complete when the following have been submitted and approved by University Representative:
 1. Final Commissioning Report.
 2. Post-construction trend review.
 3. Other completion documentation as defined in Divisions 13, 22, 23, 26, 27 and 28, including University sign-off that training has been completed.
 4. All remedial action associated with punchlists developed by the University's Representative.
- B. Remedial action required to address deficiencies identified by post-occupancy trend reviews shall be covered by the system warranty at no additional cost to the University.

END OF SECTION 01 91 00

**SECTION 01 92 00
OPERATING AND MAINTENANCE**

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Compile Product Data and related information appropriate for University's maintenance and operation of products provided under this Contract.
- B. Prepare operating and maintenance data as specified herein and as specified in individual Specification Sections.
- C. Instruct University's personnel in the maintenance and operation of equipment and systems.

1.2 FORM OF SUBMITTAL

- A. Prepare data in the form of an instructional manual for use by University's personnel in both electronic and hard copy formats.
 - 1. Electronic Format
 - a. The Prime Trade Contractor may scan the documents using word searchable software or any other appropriate means so long as the resulting image is legible and word searchable when viewed from the provided CD-ROM using a computer.
 - 2. Hard Copy Format
 - a. Size: 8-1/2 by 11 inches.
 - b. Paper: 20 lb minimum, white, for typed pages.
 - c. Text: Manufacturers' printed or neatly typewritten data.
 - d. Drawings
 - (1) Provide reinforced punched binder tab that is bound with the text.
 - (2) Fold larger drawings to the size of the text pages.
 - e. Provide flyleaf for each separate product or each piece of operating equipment.
 - (1) Provide typed description of products and major component parts of equipment.
 - (2) Provide indexed tabs.
 - f. Cover: Identify each volume with typed or printed title "Operating and Maintenance Instructions". List the following:
 - (1) Project No.
 - (2) Title of Project.
 - (3) Identify general subject matter covered in the volume.
 - g. Binders
 - (1) Commercial quality three-ring binders with durable and cleanable plastic covers.
 - (2) When multiple binders are used, correlate the data into related groups.

3. Submit Operations and Maintenance manual on or before 75 percent progress payment submittal.

1.3 CONTENT OF MANUAL

- A. Table of Contents: Include in each volume, neatly typewritten.
 1. Identify Prime Trade Contractor, name of responsible principal, address, and phone number.
 2. List each product included, indexed to the content of the volume.
 3. List, with each product, the name, address, and telephone number of:
 - a. Subcontractor or installer.
 - b. Maintenance contractor, as appropriate.
 - c. Identify area of responsibility of each of the previously mentioned parties.
 - d. Nearest source of supply for parts and replacement.
 4. Identify each product by product name, serial number, part number and any other identifying symbols necessary.
 5. Identify the location of the installed product.
- B. Product Data
 1. Include only those sheets that are pertinent to the specific product.
 2. Annotate each sheet to:
 - a. Clearly identify the specific product or part installed.
 - b. Clearly identify the data applicable to the installation.
 - c. Delete references to inapplicable information.
- C. Drawings
 1. Supplement Product Data with drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems.
 - b. Control and flow diagrams.
 2. Coordinate drawings with information in Project record documents to assure correct illustration of completed installation.
 3. Do not use Project record documents as maintenance drawings.
- D. Written text: As required to supplement Product Data for the particular installation.
 1. Organize in a consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedure.
- E. Copy of each warranty, bond, and service contract issued
 1. Provide information sheet for the University's personnel, giving
 - a. Proper procedures in the event of failure.
 - b. Circumstances that might affect the validity of warranties or bonds.

1.4 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit 2 copies of the complete manual in its final form.

- B. Content, for each unit of mechanical equipment and each mechanical system, shall be as follows:
1. Description of unit or system, and component parts
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial numbers of replaceable parts.
 2. Operating procedures
 - a. Start-up, break-in, and normal operating instructions.
 - b. Regulation, control, stopping, shutdown, and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
 3. Systems Demonstration
 - a. Prior to final inspection, demonstrate operation of each system to University's Representative and University personnel. All work, required for each system to be fully functional, shall be complete and the system shall be fully operational prior to the demonstration.
 - b. Instruct designated personnel in operation, adjustment, and maintenance of equipment and systems, using operation and maintenance data as basis of instruction.
 4. Maintenance procedures
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassembly, repair, and reassembly.
 - d. Aligning, adjusting, and checking
 5. Preventative Maintenance (PM) Schedule
 - a. A tabular listing of all systems and equipment within the facility which require preventative maintenance, to include:
 - (1) System or equipment name.
 - (2) System or equipment number.
 - (3) PM activity to be performed on that system or piece of equipment.
 - (4) Consumable materials required for performance of the PM activity, such as lubricants, including the specification and quantity needed.
 - (5) Frequency of performance of PM activity.
 - (6) Date of performance of first round of each PM activity relative to facility commissioning and acceptance by the University.
 - b. The requirements of this section cannot be met merely by the supply of Operating & Maintenance manuals from equipment vendors. The extraction of recommended preventative maintenance activities from vendor manuals for all equipment and incorporation onto a summary table as described above is required.
 6. Servicing and lubricating schedule, with list of lubricants required.
 7. Manufacturer's printed operating and maintenance instructions.
 8. Description of sequence of operation by control manufacturer.
 9. Original manufacturer's parts list, illustrations, current prices, recommended quantities to be maintained in storage, assembly drawings, and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear.

- b. Items recommended to be stocked as spare parts.
 10. As-installed control diagrams by controls manufacturer.
 11. Prime Trade Contractor's and Subcontractors' coordination drawings and as-built color-coded piping diagrams.
 12. Charts of valve tag numbers, with the location and function of each valve.
 13. Other data as required in the various Specification Sections.
- C. Content, for each electrical and electronic system, as appropriate
 1. Description of system and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data, and tests.
 - c. Complete nomenclature and commercial numbers of replaceable parts.
 2. Circuit directories of panel boards.
 - a. Electrical service.
 - b. Controls.
 - c. Communications.
 3. As-built color-coded wiring diagrams.
 4. Operating procedures
 - a. Routine and normal operating instructions.
 - b. Sequences required.
 - c. Special operating instructions.
 5. Maintenance procedures
 - a. Routine operations.
 - b. Guide to "trouble-shooting".
 - c. Disassembly, repair, and reassembly.
 - d. Adjustment and checking.
 6. Manufacturer's printed operating and maintenance instructions.
 7. Original manufacturer's parts list, illustrations, current prices, recommended quantities to be maintained in storage, assembly drawings, and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
 8. Other data as required in the individual Specification Sections.
- D. Prepare and include additional data as may be required for instruction of the University's personnel.
- E. Additional requirements for operating and maintenance data as specified in the individual Specification Sections.
- F. Provide complete information for products specified in the individual Specification Sections.

1.5 SUBMITTAL REQUIREMENTS

- A. Submit 2 copies of the preliminary draft of proposed formats and outlines of content prior to preparation of data, 75 days prior to final inspection. University's Representative will review the draft and return 1 copy with comments.

- B. Submit 1 copy of the completed data in final form 45 days prior to final inspection. A copy will be returned with comments after final inspection. No final inspection will be made until the required data has been submitted and found to be satisfactory.
- C. Submit specified number of copies of approved data in final form 10 calendar days after final inspection but not later than 10 days prior to Owner Training.

1.6 INSTRUCTIONS OF UNIVERSITY'S PERSONNEL

- A. Work requiring instruction of the University's personnel is specified in the individual Specification Sections.
- B. Schedule the instructional meeting or meetings 2 weeks after instructional manuals have been submitted, reviewed, and accepted by the University's Representative.
- C. Upon the University's taking Beneficial Occupancy or after Final Completion (whichever is earlier), fully qualified representatives of the manufacturers shall fully instruct the University's Representative and University personnel in the operation, adjustment, and maintenance of all equipment and systems.
- D. Basis of Instruction: Operating and maintenance manual. Review contents of manual with University personnel in full detail to explain all aspects of operations and maintenance.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 92 00

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
VOLUME 1 of 2			
G0.01	VICINITY MAP, PROJECT DATA, PROJECT TEAM	12/07/11	
G0.10	ABBREVIATIONS, SYMBOLS, MATERIALS	12/07/11	
G0.11	INDEX OF DRAWINGS	12/07/11	
G0.30	CODE ANALYSIS	12/07/11	
G0.31	CODE ANALYSIS	12/07/11	
G0.32	CODE ANALYSIS	12/07/11	
G0.33	CODE ANALYSIS	12/07/11	
G0.40	ACCESSIBILITY SITE PLAN	12/07/11	
G0.41	ACCESSIBLE MOUNTING HEIGHTS AND DIAGRAMS	12/07/11	
G0.42	INTERIOR SIGNAGE	12/07/11	
G0.43	INTERIOR SIGNAGE	12/07/11	
CM1.0	SITE LOGISTIC PLAN	08/16/11	
C-1.0	COVER SHEEET	12/07/11	
C-2.0	TOPOGRAPHIC SURVEY	12/08/11	
C-2.1	DEMOLITION PLAN	12/07/11	
C-3.0	OVER EXCAVATION PLAN	12/07/11	
C-4.0	UTILITY PLAN	12/07/11	
C-4.1	UTILITY PLAN	12/07/11	
C-5.0	CONSTRUCTION DETAILS	12/07/11	
C-5.1	CONSTRUCTION DETAILS	12/07/11	
C-5.2	CONSTRUCTION DETAILS	12/07/11	
C-6.0	SITE LAYOUT AND GRADING PLAN	12/07/11	
C-7.0	WATER POLLUTION CONTROL PLAN	12/07/11	
C-7.1	WATER POLLUTION CONTROL DETAILS	12/07/11	
L1.00	SITE PLAN	12/07/11	
L1.01A	LAYOUT PLAN EAST	12/07/11	
L1.01B	LAYOUT PLAN WEST	12/07/11	
L1.01C	LAYOUT PLAN MAMMOTH LAKES	12/07/11	
L1.01D	DETAIL LAYOUT & DETAIL KEY PLAN	12/07/11	
L1.01E	SITE FURNITURE LAYOUT & DETAIL KEY PLAN	12/07/11	
L1.02A	PAVING PLAN EAST	12/07/11	
L1.02B	PAVING PLAN WEST	12/07/11	
L1.02C	PAVING PLAN MAMMOTH LAKES	12/07/11	
L1.03A	DETAIL KEY PLAN EAST	12/07/11	
L1.03B	DETAIL KEY PLAN WEST	12/07/11	
L1.03C	DETAIL KEY PLAN MAMMOTH LAKES	12/07/11	
L2.01A	GRADING PLAN EAST	12/07/11	
L2.01B	GRADING PLAN WEST	12/07/11	
L2.01C	GRADING PLAN MAMMOTH LAKES	12/07/11	
L4.01A	PLANTING PLAN EAST	12/07/11	
L4.01B	PLANTING PLAN WEST	12/07/11	
L4.01C	PLANTING PLAN MAMMOTH LAKES	12/07/11	
L4.02	LANDSCAPE DETAILS	12/07/11	
L5.01	LANDSCAPE DETAILS	12/07/11	
L5.02	LANDSCAPE DETAILS	12/07/11	
L5.03	LANDSCAPE DETAILS	12/07/11	
L5.04	LANDSCAPE DETAILS	12/07/11	
L5.05	LANDSCAPE DETAILS	12/07/11	
L5.06	LANDSCAPE DETAILS	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
L5.07	LANDSCAPE DETAILS	12/07/11	
L5.08	LANDSCAPE DETAILS	12/07/11	
L5.09	LANDSCAPE DETAILS	12/07/11	
L5.10	LANDSCAPE DETAILS	12/07/11	
A0.31	DOOR SCHEDULE FIRST FLOOR	12/07/11	
A0.32	DOOR SCHEDULE SECOND FLOOR	12/07/11	
A0.33	DOOR SCHEDULE THIRD FLOOR	12/07/11	
A0.34	DOOR SCHEDULE FOURTH FLOOR	12/07/11	
A0.35	DOOR SCHEDULE FIFTH FLOOR AND LOWER ROOF	12/07/11	
A0.50	WINDOW SCHEDULE	12/07/11	
A0.51	STOREFRONT & LOUVER SCHEDULE	12/07/11	
A1.01	SITE PLAN	12/07/11	
A2.01A	FLOOR PLAN - GROUND FLOOR EAST	12/07/11	
A2.01B	FLOOR PLAN - GROUND FLOOR WEST	12/07/11	
A2.02A	FLOOR PLAN - SECOND FLOOR EAST	12/07/11	
A2.02B	FLOOR PLAN - SECOND FLOOR WEST	12/07/11	
A2.03A	FLOOR PLAN - THIRD FLOOR EAST	12/07/11	
A2.03B	FLOOR PLAN - THIRD FLOOR WEST	12/07/11	
A2.04A	FLOOR PLAN - FOURTH FLOOR EAST	12/07/11	
A2.04B	FLOOR PLAN - FOURTH FLOOR WEST	12/07/11	
A2.05A	FLOOR PLAN - FIFTH FLOOR EAST	12/07/11	
A2.05B	FLOOR PLAN - FIFTH FLOOR WEST	12/07/11	
A2.06A	LOWER ROOF PLAN EAST	12/07/11	
A2.06B	LOWER ROOF PLAN WEST	12/07/11	
A2.07A	UPPER ROOF PLAN EAST	12/07/11	
A2.07B	UPPER ROOF PLAN WEST	12/07/11	
A3.01	PARTIAL ELEVATIONS - NORTH	12/07/11	
A3.02	PARTIAL ELEVATIONS - SOUTH	12/07/11	
A3.03	PARTIAL ELEVATIONS - EAST	12/07/11	
A3.04	PARTIAL ELEVATIONS - WEST	12/07/11	
A3.05	PARTIAL ELEVATIONS - FIRST FLOOR PASEOS	12/07/11	
A3.10	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.11	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.12	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.13	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.14	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.15	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.16	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.17	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.18	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.19	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.20	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.21	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.22	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.23	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.24	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A3.25	ENLARGED WALL SECTIONS & PARTIAL ELEVATIONS	12/07/11	
A4.10	PARTIAL FLOOR PLAN - GROUND FLOOR EAST WING - NORTH	12/07/11	
A4.11	PARTIAL FLOOR PLAN - GROUND FLOOR EAST WING - SOUTH	12/07/11	
A4.12	PARTIAL FLOOR PLAN - GROUND FLOOR CENTRAL WING	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
A4.13	PARTIAL FLOOR PLAN - GROUND FLOOR WEST WING - EAST	12/07/11	
A4.14	PARTIAL FLOOR PLAN - GROUND FLOOR WEST WING - WEST	12/07/11	
A4.20	PARTIAL FLOOR PLAN - TYPICAL UPPER FLOOR EAST WING - NORTH	12/07/11	
A4.21	PARTIAL FLOOR PLAN - TYPICAL UPPER FLOOR EAST WING - SOUTH	12/07/11	
A4.22	PARTIAL FLOOR PLAN - TYPICAL UPPER FLOOR CENTRAL WING	12/07/11	
A4.23	PARTIAL FLOOR PLAN - TYPICAL UPPER FLOOR WEST WING - EAST	12/07/11	
A4.24	PARTIAL FLOOR PLAN - TYPICAL UPPER FLOOR WEST WING - WEST	12/07/11	
A4.31	PARTIAL FLOOR PLANS - FIFTH FLOOR WEST WING EAST	12/07/11	
A4.32	PARTIAL FLOOR PLAN - FIFTH FLOOR WEST WING - WEST	12/07/11	
A5.01	INTERIOR ELEVATIONS - TYPICAL DORM A, DORM B+ RA/SINGLE	12/07/11	
A5.02	INTERIOR ELEVATIONS - BATHROOMS	12/07/11	
A5.03	INTERIOR ELEVATIONS - TYPICAL LOUNGES + STUDIES	12/07/11	
A5.04	INTERIOR ELEVATIONS - MULTI-PURPOSE ROOMS	12/07/11	
A5.05	INTERIOR ELEVATIONS - LAUNDRY ROOM + GAME ROOM	12/07/11	
A5.06	INTERIOR ELEVATIONS - OFFICES	12/07/11	
A5.07	INTERIOR ELEVATIONS - OFFICES, FAX + STORAGE	12/07/11	
A5.08	INTERIOR ELEVATIONS - RLC APARTMENT	12/07/11	
A5.09	INTERIOR ELEVATIONS - RLC APARTMENT	12/07/11	
A5.10	INTERIOR ELEVATIONS - TUTORING ROOMS, KITCHEN + VENDING	12/07/11	
A5.11	INTERIOR ELEVATIONS - TYPICAL COORIDORS, UPPER FLOORS	12/07/11	
A5.12	INTERIOR ELEVATIONS - TYPICAL CORRIDORS, UPPER FLOORS	12/07/11	
A5.13	INTERIOR ELEVATIONS - TYPICAL CORRIDORS, UPPER FLOORS	12/07/11	
A5.14	INTERIOR ELEVATIONS - LOBBY + CORRIDORS, GROUND FLOOR	12/07/11	
A5.15	INTERIOR ELEVATIONS - CORRIDORS, GROUND FLOOR WEST WING	12/07/11	
A5.16	INTERIOR ELEVATIONS - TRASH ROOMS	12/07/11	
A5.17	INTERIOR ELEVATIONS - CUSTODIAL, BDF + IDF ROOMS	12/07/11	
A6.01A	CEILING PLAN - GROUND FLOOR EAST	12/07/11	
A6.01B	CEILING PLAN - GROUND FLOOR WEST	12/07/11	
A6.02A	CEILING PLAN - TYPICAL UPPER FLOOR EAST	12/07/11	
A6.02B	CEILING PLAN - TYPICAL UPPER FLOOR WEST	12/07/11	
A6.03A	CEILING PLAN - FIFTH FLOOR EAST	12/07/11	
A6.03B	CEILING PLAN - FIFTH FLOOR WEST	12/07/11	
A6.10	PARTIAL CEILING PLAN - GROUND FLOOR EAST WING - NORTH	12/07/11	
A6.11	PARTIAL CEILING PLAN - GROUND FLOOR EAST WING - SOUTH	12/07/11	
A6.12	PARTIAL CEILING PLAN - GROUND FLOOR CENTRAL WING	12/07/11	
A6.13	PARTIAL CEILING PLAN - GROUND FLOOR WEST WING EAST	12/07/11	
A6.14	PARTIAL CEILING PLAN - GROUND FLOOR WEST WING - WEST	12/07/11	
A6.20	PARTIAL CEILING PLAN - TYPICAL UPPER FLOOR EAST WING - NORTH	12/07/11	
A6.21	PARTIAL CEILING PLAN - TYPICAL UPPER FLOOR EAST WING - SOUTH	12/07/11	
A6.22	PARTIAL CEILING PLAN - TYPICAL UPPER FLOOR CENTRAL WING	12/07/11	
A6.23	PARTIAL CEILING PLAN - TYPICAL UPPER FLOOR WEST WING - EAST	12/07/11	
A6.24	PARTIAL CEILING PLAN - TYPICAL UPPER FLOOR WEST WING - WEST	12/07/11	
A6.30	PARTIAL CEILING PLAN - FIFTH FLOOR EAST WING - NORTH	12/07/11	
A7.01	STAIR 01 PLANS + SECTIONS	12/07/11	
A7.02	STAIR 02 PLANS + SECTIONS	12/07/11	
A7.03	STAIR 03 PLANS + SECTIONS	12/07/11	
A7.04	STAIR 04 PLANS + SECTIONS	12/07/11	
A7.10	ELEVATOR PARTIAL PLANS AND SECTION	12/07/11	
A7.20	TRASH CHUTE SHAFT SECTIONS	12/07/11	
A7.21	MECHANICAL SHAFT SECTIONS	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
A7.30	STAIR DETAILS	12/07/11	
A7.40	ELEVATOR DETAILS	12/07/11	
A8.01	BELOW GRADE WATERPROOFING DETAILS	12/07/11	
A8.02	BELOW GRADE WATERPROOFING DETAILS	12/07/11	
A8.03	CONCRETE DETAILS	12/07/11	
A8.10	EXTERIOR WALL PLAN DETAILS	12/07/11	
A8.11	EXTERIOR WALL PLAN DETIALS	12/07/11	
A8.12	TYP METAL WALL PANEL 1 LAYOUT AT DORM B	12/07/11	
A8.13	TYP METAL WALL PANEL 1 LAYOUT AT BATH	12/07/11	
A8.20	EXTERIOR WALL SECTION DETAILS	12/07/11	
A8.21	EXTERIOR WALL SECTION DETAILS	12/07/11	
A8.22	EXTERIOR WALL SECTION DETAILS	12/07/11	
A8.23	EXTERIOR WALL SECTION DETAILS	12/07/11	
A8.30	WINDOW DETAILS	12/07/11	
A8.31	WINDOW & SUN CONTROL DEVICE DETAILS	12/07/11	
A8.32	WINDOW & SUN CONTROL DEVICE DETAILS	12/07/11	
A8.33	CURTAIN WALL PLAN DETAILS	12/07/11	
A8.34	CURTAIN WALL PLAN DETAILES - AT SUN CONTROL DEVICE	12/07/11	
A8.35	CURTAIN WALL PLAN DETAILS - AT SUN CONTROL DEVICES	12/07/11	
A8.36	CURTAIN WALL SECTION DETAILS	12/07/11	
A8.37	CURTAIN WALL SECTION DETAILS - AT SUN CONTROL DEVICE	12/07/11	
A8.38	STOREFRONT DETAILS	12/07/11	
A8.39	LOUVER DETAILS	12/07/11	
A8.40	EXTERIOR DETAILS	12/07/11	
A8.41	EXTERIOR SEISMIC JOINT DETAILS	12/07/11	
A8.42	EXTERIOR SEISMIC JOINT DETAILS	12/07/11	
A8.44	EXTERIOR FENCE AND GATE DETAILS	12/07/11	
A8.45	EXTERIOR FENCE AND GATE DETAILS	12/07/11	
A8.50	ROOF DETAILS	12/07/11	
A8.51	ROOF DETAILS	12/07/11	
A8.52	ROOF DETAILS	12/07/11	
A8.53	ROOF DETAILS	12/07/11	
A8.57	CANOPY DETAILS	12/07/11	
A8.58	CANOPY DETAILS	12/07/11	
A8.59	CANOPY DETAILS	12/07/11	
A9.01	PARTITION TYPES	12/07/11	
A9.04	PARTITION FRAMING DETAILS	12/07/11	
A9.05	PARTITION HEAD AND TYPICAL PARTITION DETAILS	12/07/11	
A9.06	TYPICAL PARTITION PLAN DETAILS	12/07/11	
A9.07	TYPICAL PARTITION DETAILS	12/07/11	
A9.08	PARTITION FRAMING DETAILS AT MOMENT COLLARS	12/07/11	
A9.10	TYPICAL CEILING DETAILS AND NOTES	12/07/11	
A9.11	CEILING DETAILS	12/07/11	
A9.12	CEILING DETAILS	12/07/11	
A9.15	SHAFT WALL DETAILS	12/07/11	
A9.20	DOOR DETAILS	12/07/11	
A9.21	DOOR & FLOOR TRANSITION DETAILS	12/07/11	
A9.30	INTERIOR & COLUMN COVER DETAILS	12/07/11	
A9.40	CASEWORK DETAILS	12/07/11	
A9.48	BATHROOM CURB DIAGRAMS	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
A9.49	INTERIOR CURB AND SLAB DIAGRAMS	12/07/11	
A9.50	BATHROOM DETAILS	12/07/11	
A9.51	BATHROOM DETAILS	12/07/11	
A9.70	UTILITY COORDINATION REFERENCE SECTIONS	12/07/11	
A9.80	EXPANSION JOINT COVER ASSMEBLY DETAILS	12/07/11	
A9.81	INTERIOR SIEISMIC JOINT DETAILS	12/07/11	
VOLUME 2 of 2			
G0.01	VICINITY MAP, PROJECT DATA, PROJECT TEAM	12/07/11	
G0.11	INDEX OF DRAWINGS	12/07/11	
S0.00	SHEET NOTES, SPECIAL INSP. & ABBREVIATIONS	12/21/11	
S0.01	GENERAL NOTES	12/21/11	
S0.02	TYPICAL CONCRETE DETAILS	12/07/11	
S2.01A	FOUNDATION PLAN - FIRST FLOOR EAST	12/07/11	
S2.01B	FOUNDATION PLAN - FIRST FLOOR WEST	12/07/11	
S2.02A	FLOOR FRAMING PLAN - SECOND FLOOR EAST	12/07/11	
S2.02B	FLOOR FRAMING PLAN - SECOND FLOOR WEST	12/07/11	
S2.03A	FLOOR FRAMING PLAN - THIRD THROUGH FIFTH FLOORS EAST	12/07/11	
S2.03B	FLOOR FRAMING PLAN - THIRD THROUGH FIFTH FLOORS WEST	12/07/11	
S2.04A	ROOF FRAMING PLAN - EAST	12/07/11	
S2.04B	ROOF FRAMING PLAN - WEST	12/07/11	
S2.05A	HIGH ROOF FRAMING PLAN - EAST	12/07/11	
S2.05B	HIGH ROOF FRAMING PLAN - WEST	12/07/11	
S5.01	CONCRETE DETAILS	12/07/11	
S5.02	CONCRETE DETAILS	12/07/11	
S5.03	CONCRETE DETAILS	12/07/11	
S7.01	STEEL DETAILS	12/07/11	
S7.02	STEEL DECK DETAILS	12/07/11	
S7.03	ECCENTRICALLY BRACED FRAME DETAILS	12/07/11	
S7.04	STEEL CONNECTION DETAILS	12/07/11	
S7.05	STEEL CONNECTION DETAILS	12/07/11	
S9.01	ROOF CANOPY SECTIONS AND ELEVATIONS	12/07/11	
S9.02	ROOF CANOPY SECTIONS AND ELEVATIONS	12/07/11	
S9.03	ROOF CANOPY DETAILS	12/07/11	
S9.04	MISCELLANEOUS ROOF STRUCTURE DETAILS	12/07/11	
S9.05	ENLARGED AWNING PLANS AND DETAILS	12/07/11	
S9.06	ENLARGED STAIR PLANS AND DETAILS	12/07/11	
S9.07	TRASH AND GENERATOR ENCLOSURE DETAILS	12/21/11	
M0.1	HVAC LEGENDS AND SCHEDULES	12/07/11	
M0.2	HVAC SCHEDULES	12/07/11	
M0.3	HVAC SCHEDULES	12/07/11	
M0.4	HVAC SCHEDULES	12/07/11	
M0.5	HVAC SCHEDULES	12/07/11	
M1.0	HVAC BUILDING ISOMETRIC	12/07/11	
M2.01	LEVEL 01 KEY PLAN	12/07/11	
M2.01A	LEVEL 01 PARTIAL PLN - EAST WING, NORTH	12/07/11	
M2.01B	LEVEL 01 PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.01C	LEVEL 01 PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.01D	LEVEL 01 PARTIAL PLN - WESTWING, EAST	12/07/11	
M2.01E	LEVEL 01 PARTIAL PLN - WEST WING, WEST	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
M2.02	LEVEL 02 KEY PLAN	12/07/11	
M2.02A	LEVEL 02 PARTIAL PLN - EAST WING, NORTH	12/07/11	
M2.02B	LEVEL 02 PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.02C	LEVEL 02 PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.02D	LEVEL 02 PARTIAL PLAN - WEST WING, EAST	12/07/11	
M2.02E	LEVEL 02 PARTIAL PLAN - WEST WING, WEST	12/07/11	
M2.03	LEVEL 03 KEY PLAN	12/07/11	
M2.03A	LEVEL 03 PARTIAL PLAN - EAST WING, NORTH	12/07/11	
M2.03B	LEVEL 03 PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.03C	LEVEL 03 PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.03D	LEVEL 03 PARTIAL PLAN - WEST WING, EAST	12/07/11	
M2.03E	LEVEL 03 PARTIAL PLAN - WEST WING, WEST	12/07/11	
M2.04	LEVEL 04 KEY PLAN	12/07/11	
M2.04A	LEVEL 04 PARTIAL PLAN - WEST WING, NORTH	12/07/11	
M2.04B	LEVEL 04 PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.04C	LEVEL 04 PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.04D	LEVEL 04 PARTIAL PLAN - WEST WING, EAST	12/07/11	
M2.04E	LEVEL 04 PARTIAL PLAN - WEST WING, WEST	12/07/11	
M2.05	LEVEL 05 KEY PLAN	12/07/11	
M2.05A	LEVEL 05 PARTIAL PLAN - WEST WING, NORTH	12/07/11	
M2.05B	LEVEL 05 PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.05C	LEVEL 05 PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.05D	LEVEL 05 PARTIAL PLAN - WEST WING, EAST	12/07/11	
M2.05E	LEVEL 05 PARTIAL PLAN - WEST WING, WEST	12/07/11	
M2.06	ROOF KEY PLAN	12/07/11	
M2.06A	ROOF PARTIAL PLAN - EAST WING, NORTH	12/07/11	
M2.06B	ROOF PARTIAL PLAN - EAST WING, SOUTH	12/07/11	
M2.06C	ROOF PARTIAL PLAN - CENTRAL WING	12/07/11	
M2.06D	ROOF PARTIAL PLAN - WEST WING, EAST	12/07/11	
M2.06E	ROOF PARTIAL PLAN - WEST WING, WEST	12/07/11	
M3.01	HVAC SECTIONS	12/07/11	
M3.02	HVAC SECTIONS	12/07/11	
M3.03	HVAC BUILDING SECTIONS	12/07/11	
M3.04	HVAC BUILDING SECTIONS	12/07/11	
M4.01	HVAC EQUIPMENT BASIS-OF-DESIGN LAYOUTS	12/07/11	
M4.02	HVAC EQUIPMENT BASIS-OF-DESIGN LAYOUTS	12/07/11	
M5.01	CHW SYSTEM PIPING SCHEMATIC	12/07/11	
M5.02	HW SYSTEM PIPING SCHEMATIC	12/07/11	
M6.01	HVAC DETAILS	12/07/11	
M7.01	CONTROL SCHEMATICS	12/07/11	
M7.02	CONTROL SCHEMATICS	12/07/11	
M7.03	CONTROL SCHEMATICS	12/07/11	
P0.1	PLUMBING LEGEND & SCHEDULES	12/07/11	
P2.0A	PLUMBING PLAN 1ST FLOOR BELOW GRADE	12/07/11	
P2.0B	PLUMBING PLAN 1ST FLOOR BELOW GRADE	12/07/11	
P2.1A	PLUMBING PLAN 1ST FLOOR	12/07/11	
P2.1B	PLUMBING PLAN 1ST FLOOR	12/07/11	
P2.2A	PLUMBING PLAN 2ND FLOOR	12/07/11	
P2.2B	PLUMBING PLAN 2ND FLOOR	12/07/11	
P2.3A	PLUMBING PLAN 3RD FLOOR	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
P2.3B	PLUMBING PLAN 3RD FLOOR	12/07/11	
P2.4A	PLUMBING PLAN 4TH FLOOR	12/07/11	
P2.4B	PLUMBING PLAN 4TH FLOOR	12/07/11	
P2.5A	PLUMBING PLAN 5TH FLOOR	12/07/11	
P2.5B	PLUMBING PLAN 5TH FLOOR	12/07/11	
P2.6A	PLUMBING PLAN ROOF	12/07/11	
P2.6B	PLUMBING PLAN ROOF	12/07/11	
P4.1	ENLARGED PLUMBING PLANS	12/07/11	
P4.2	ENLARGED PLUMBING PLANS	12/07/11	
P5.1	HOT & COLD WATER RISER DIAGRAMS	12/07/11	
P5.2	COLD WATER RISER DIAGRAMS	12/07/11	
F0.00	FIRE PROTECTION NOTES AND LEGEND	12/07/11	
F0.01	FIRE PROTECTION TYPICAL DETAILS	12/07/11	
F0.02	FIRE PROTECTION TYPICAL DETAILS	12/07/11	
F2.01A	FIRE PROTECTION GROUND FLOOR EAST	12/07/11	
F2.01B	FIRE PROTECTION GROUND FLOOR WEST	12/07/11	
F2.02A	FIRE PROTECTION TYPICAL FLOOR EAST	12/07/11	
F2.02B	FIRE PROTECTION TYPICAL FLOOR WEST	12/07/11	
F2.03A	FIRE PROTECTION FIFTH FLOOR EAST	12/07/11	
F2.03B	FIRE PROTECTION FIFTH FLOOR WEST	12/07/11	
F2.04A	FIRE PROTECTION LOWER ROOF EAST	12/07/11	
F2.04B	FIRE PROTECTION LOWER ROOF WEST	12/07/11	
E0.01	SYMBOLS LIST AND DRAWING INDEX	12/07/11	
E0.02	SCHEDULES AND NOTES	12/07/11	
E0.03	SCHEDULES AND NOTES	12/07/11	
E0.04	TITLE 24	12/07/11	
E0.05	PANEL SCHEDULES	12/07/11	
E0.06	PANEL SCHEDULES	12/07/11	
E1.01	SITE ELECTRICAL PLAN	12/07/11	
E2.01A	FIRST FLOOR LIGHTING PLAN EAST	12/07/11	
E2.01B	FIRST FLOOR LIGHTING PLAN WEST	12/07/11	
E2.02A	SECOND FLOOR LIGHTING PLAN EAST	12/07/11	
E2.02B	SECOND FLOOR LIGHTING PLAN WEST	12/07/11	
E2.03A	THIRD FLOOR LIGHTING PLAN EAST	12/07/11	
E2.03B	THIRD FLOOR LIGHTING PLAN WEST	12/07/11	
E2.04A	FOURTH FLOOR LIGHTING PLAN EAST	12/07/11	
E2.04B	FOURTH FLOOR LIGHTING PLAN WEST	12/07/11	
E2.05A	FIFTH FLOOR LIGHTING PLAN EAST	12/07/11	
E2.05B	FIFTH FLOOR LIGHTING PLAN WEST	12/07/11	
E3.01A	FIRST FLOOR POWER PLAN EAST	12/07/11	
E3.01B	FIRST FLOOR POWER PLAN WEST	12/07/11	
E3.02A	SECOND FLOOR POWER PLAN EAST	12/07/11	
E3.02B	SECOND FLOOR POWER PLAN WEST	12/07/11	
E3.03A	THIRD FLOOR POWER PLAN EAST	12/07/11	
E3.03B	THIRD FLOOR POWER PLAN WEST	12/07/11	
E3.04A	FOURTH FLOOR POWER PLAN EAST	12/07/11	
E3.04B	FOURTH FLOOR POWER PLAN WEST	12/07/11	
E3.05A	FIFTH FLOOR POWER PLAN EAST	12/07/11	
E3.05B	FIFTH FLOOR POWER PLAN WEST	12/07/11	
E3.06A	ROOF ELECTRICAL PLAN EAST	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
E3.06B	ROOF ELECTRICAL PLAN WEST	12/07/11	
E4.01A	FIRST FLOOR FIRE ALARM PLAN EAST	12/07/11	
E4.01B	FIRST FLOOR FIRE ALARM PLAN WEST	12/07/11	
E4.02A	SECOND FLOOR FIRE ALARM PLAN EAST	12/07/11	
E4.02B	SECOND FLOOR FIRE ALARM PLAN WEST	12/07/11	
E4.03A	THIRD FLOOR FIRE ALARM PLAN EAST	12/07/11	
E4.03B	THIRD FLOOR FIRE ALARM PLAN WEST	12/07/11	
E4.04A	FOURTH FLOOR FIRE ALARM PLAN EAST	12/07/11	
E4.04B	FOURTH FLOOR FIRE ALARM PLAN WEST	12/07/11	
E4.05A	FIFTH FLOOR FIRE ALARM PLAN EAST	12/07/11	
E4.05B	FIFTH FLOOR FIRE ALARM PLAN WEST	12/07/11	
E5.01	ROOM DETAILS	12/07/11	
E6.01	POWER SINGLE LINE DIAGRAM	12/07/11	
E6.02	FIRE ALARM RISER DIAGRAM	12/07/11	
E7.01	ELECTRICAL DETAILS	12/07/11	
E7.02	ELECTRICAL DETAILS	12/07/11	
T0.01	TECHNOLOGY TITLE SHEET	12/07/11	
T0.02	SCHEDULE OUTLET	12/07/11	
T0.11	RISER DIAGRAM PATHWAYS	12/07/11	
T0.12	RISER DIAGRAM CABLING	12/07/11	
T0.13	RISER DIAGRAMS CATV	12/07/11	
T0.14	RISER DIAGRAM GROUNDING	12/07/11	
T1.01	SITE CONDUIT PLAN	12/07/11	
T2.01A	FLOOR PLAN LEVEL 1 EAST	12/07/11	
T2.01B	FLOOR PLAN LEVEL 1 WEST	12/07/11	
T2.02A	FLOOR PLAN LEVEL 2 EAST	12/07/11	
T2.02B	FLOOR PLAN LEVEL 2 WEST	12/07/11	
T2.03A	FLOOR PLAN LEVEL 3 EAST	12/07/11	
T2.03B	FLOOR PLAN LEVEL 3 WEST	12/07/11	
T2.04A	FLOOR PLAN LEVEL 4 EAST	12/07/11	
T2.04B	FLOOR PLAN LEVEL 4 WEST	12/07/11	
T2.05A	FLOOR PLAN LEVEL 5 EAST	12/07/11	
T2.05B	FLOOR PLAN LEVEL 5 WEST	12/07/11	
T3.01A	RCP LEVEL 1 EAST	12/07/11	
T3.01B	RCP LEVEL 1 WEST	12/07/11	
T3.02A	RCP LEVEL 2 EAST	12/07/11	
T3.02B	RCP LEVEL 2 WEST	12/07/11	
T3.03A	RCP LEVEL 3 EAST	12/07/11	
T3.03B	RCP LEVEL 3 WEST	12/07/11	
T3.04A	RCP LEVEL 4 EAST	12/07/11	
T3.04B	RCP LEVEL 4 WEST	12/07/11	
T3.05A	RCP LEVEL 5 EAST	12/07/11	
T3.05B	RCP LEVEL 5 WEST	12/07/11	
T4.01	ROOM PLAN BDF	12/07/11	
T4.02	ROOM PLAN LEVEL 2 IDF	12/07/11	
T4.03	ROOM PLAN LEVEL 2W IDF	12/07/11	
T4.04	ROOM PLAN LEVEL 4E IDF	12/07/11	
T4.05	ROOM PLAN LEVEL 4W IDF	12/07/11	
T4.06	TYPICAL RISER	12/07/11	
T5.01	INSTALLATION DETAILS	12/07/11	

LIST OF DRAWINGS

SHEET NO.	TITLE	SHEET DATE	LATEST REV.
T5.02	SITE DETAILS	12/07/11	
T5.03	INSTALLATION DETAILS	12/07/11	
T5.04	INSTALLATION DETAILS	12/07/11	
T5.11	INSTALLATION DETAILS	12/07/11	
T5.12	INSTALLATION DETAILS	12/07/11	
T5.13	INSTALLATION DETAILS	12/07/11	
T5.14	INSTALLATION DETAILS	12/07/11	

SECTION 10 1400 –SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior Room Identification Signs
2. Triple-Sided Illuminated Exterior Building Monument Sign (AA4 Housing Building ID)
3. Interior Wall-Mounted LEED Display Sign
4. Exterior Wall-Mounted Building Identification Signs.
5. Vinyl Letters Building Identification Signs.
6. Project Schedule:

1. All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.
2. Other Signs must be fabricated and ready for installation by July 1, 2013. Installation must be completed by July 31, 2013

1.2 SUBMITTALS

- A. Procedures: In accordance with interior signage schedule “0253-Half Dome-Signage20130311-Revised.pdf” and summary of interior signage types in “0253-Half Dome-Signage20130311-Revised-Sort.pdf”, building floor plans “0253-HD-FloorPlans20130311-1&2.pdf”, “0253-HD-FloorPlans20130311-3&4.pdf”, and “0253-HD-FloorPlans20130311-5&R.pdf”, and signage graphics in “Half Dome Sign Bid Package Graphics-20130311-Revised.pdf”, Product Data and Samples.
- B. Shop Drawings: scale drawings for each sign indicating materials, attachments, lettering layout, and colors.
1. Show details of fabrication and installation including foundations, and mounting details, elevations, and relationship to adjacent improvements. Shop Drawing size: 17”Lx11”H.
 2. Show all material dimensions, finishes, hardware, and anchorage.
 3. For monument sign, including the following:
 - a. Setting drawings, templates, and direction for installation of anchor bolts and other anchors to be installed under other Sections.
 - b. Wiring diagrams for electrical components.
 - c. Access panels for service and replacement of lamps and other components in addition to those shown on the Drawings.
 - d. Structural calculations for monument sign in sufficient detail to meet requirements of governing authorities and confirm intended performance. Calculations shall be signed and stamped by an engineer registered in the State of California. Contractor is responsible for the cost for the engineering while there is no need for permits. All information shall submit to University for approval.
- C. Product Data:
1. Manufacturer's specifications, recommendations, and installation instructions.

- a. Electrical light fixtures, lamps, fittings, and components. LED lights are acceptable.
 - b. Surface preparation and coatings for exposed metal surfaces. Include manufacturer's data sheet for each applied coating.
- D. Samples:
1. One partial sign sample showing each sign type, minimum 12 inches square or larger as appropriate for sign configuration. Submit for each required color.
 2. Dimensional Characters: Full-size of each type of dimensional character required. Show character style, material, finish, and method of attachment.
 3. Complete typeface fonts including upper and lower case letters, numbers, and punctuation as applicable to text shown or provided by University's Representative.
 4. Samples of letter and word spacing for each letter size.
 5. Other Exposed Components: As specified under other Sections.
- E. Quality Control:
1. Manufacturer/fabricator qualifications.
 2. Installer qualifications.
 3. Verification of adequacy of power feed for monument sign.
- F. Closeout:
1. Spare parts for electronic components.
 2. Extended warranty.

1.3 QUALITY ASSURANCE

- A. Qualifications: Successful bidder will be required to have to have the C45 Electrical Sign Contractors License from the State of California, current at the time of submission of the bid.
1. Manufacturer/Fabricator Qualifications:
 - a. Firm with three documented experiences in the successful, on-time completion of signs within the last three years similar to those required for this Project.
 - b. Firm must have been in business over 10 years.
 - c. Firm must have in-house fabricators and painters for the Interior Room Identification Signs and the Illuminated Exterior Building Monument Sign.
 - d. Capable of manufacturing UL listed products for illuminated monument sign.
 - e. ISO 9001 approved or capable of submitting equivalent information documenting an in-place quality control program to assure conformance with the performance requirements of these Specifications during design, production, installation, and servicing of the work of this Project.
 2. Installer:
 - a. Firm with three documented experiences in the successful, on-time completion of signs within the last three years similar to those required for this Project.
 - b. The installer is required to be employee(s) of the manufacturer/fabricator.
 - c. Installer shall maintain a full-time supervisor at the jobsite during times that sign work is in progress. Supervisor shall have a minimum of 5 years' experience in work similar in nature and scope to work of this Project.
- B. The Drawings and Specifications represent the design intent only.

- C. Contractor shall be responsible for the structural engineering of monument sign, internal illumination, and methods for fastening and installation.
- D. Applicable Standards and Publications: Unless otherwise specified or shown, signage shall conform to the following standards and publications:
 - 1. ANSI A-117.1 and the Americans with Disabilities Act (ADA).
 - 2. ATBCB Design Guidelines for Signage in relation to the Americans with Disabilities Act.
 - 3. California Code of Regulations, Titles 19 and 24. California Grade 2 Braille shall be used whenever Braille symbols are specifically required. Refer to CBC Section 1117B.5.2. All signage shall conform to CBC Sections 1003, 1103.2.4, and 1117B.5.
 - 4. Uniform Sign Code.
- E. Vendor shall be responsible for the quality of materials and workmanship of any firm acting as the vendor's subcontractor.
- F. Welding, where required, shall be in accordance with procedures specified in American Welding Society Standards using procedures, materials, and equipment of the type required for the work.

1.4 PROJECT CONDITION

- A. Field Measurements: Where sizes of signs are determined by dimensions of surfaces on which they are installed, verify dimensions by field measurement before fabrication and indicate measurements on shop drawings.

1.5 GUARANTEE

- A. At a minimum, the Contractor shall warrant that all work installed under this Contract is free of defect and will remain in good working order for a period of one year for all surface improvements and five years for all underground work. If warranties specified elsewhere in these documents are for a longer period of time than that specified in this section, the longer warranties shall apply.
- B. Manufacturer's Standard Product Warranties:
 - 1. Plastic Elements: Manufacturer's warranty against yellowing, cracking, crazing, or other visible and performance defects for a period of 5 years from the date of installation.
 - 2. Paint Coating: Acrylic polyurethane coating manufacturer's 5-year warranty against defects in materials.
 - 3. Firm shall guarantee the approved signs installed on Project are available for minimum of 5 years from date of installation.
- C. Time of Guarantees Submittals:
 - 1. For Work activities, provide updated submittal within 10 calendar days after Final Completion, listing the date of Final Completion as the start of the Guarantee to Repair Period.
 - 2. For Work activities, where Final Completion is delayed beyond the date of Substantial Completion, provide updated submittal within 10 calendar days after Final Completion, listing the date of Final Completion as the start of the Guarantee to Repair Period.

PART 2 - PRODUCTS

2.1 SIGNAGE

A. Signage Furnished and Installed Under this Contract:

- a. Interior Room Identification Signs: Must match the current existing Interior signs on campus.
 - 1) All interior signs shall be manufactured using a ¼" Photopolymer Process. All exterior signs shall be manufactured using a ¼" exterior Photopolymer Process.
 - 2) Tactile characters shall be raised the required 1/32" inches from sign face. Glue - on letters or etched backgrounds are not acceptable.
 - 3) All text shall be accompanied by Grade 2 Braille. Braille shall be separated ½" from the corresponding raised characters or symbols. Grade 2 Braille translation to be provided by signage manufacturer.
 - 4) All letters, numbers and/or symbols shall contrast with their background, either light characters on a dark background or dark characters on a light background. Characters and background shall have a non-glare finish.
 - 5) In the cases when Braille is not specified in the written specification, use ¼" acrylic using subsurface vinyl graphics and paint.
 - 6) Background Color: Dark Rhein Silver. All sides of the background must consist of the same color as selected.
 - 7) Graphic Color: Benjamin/Moore-Branchport Brown.
 - 8) Letterform shall be: Universe 57 Condense.
 - 9) Signage Installation and Locations: Signs shall be installed with four #8 Torx tamperproof hardware Torx Driver bit. Mounting shall be weather proof in exterior applications. All signs shall be mounted 60" from the floor to the center of the sign on the latch side. The distance between the doorframe and sign shall be 2". Installer assumes responsibility for suitable installation of the signs. Signs shall be level within one quarter of degree. Locations to be verified by University's Representative before installation.
 - 10) Signage mounted on glass shall have backers matching "Dark Rhein Silver" background color.
- b. Triple-Sided Illuminated Exterior Building Monument Sign (AA4 Housing Building ID): Must match the current existing exterior building monument signs on campus. Final copy layout and size will be determined during shop drawing submittal period.
 - 1) Copy: The Summits...Half Dome (final copy to be determined)
 - 2) Signage Location: In hardscape at north entrance of building, exact location to be determined by University's Representative.
 - 3) Quantity Required: One (1)
- c. Interior Wall-Mounted LEED Display Sign: Must match the current existing LEED Display signs on campus.
 - 1) University will provide the LEED Medallion and the graphics/information for the contractor to insert at a later date to be determined.
 - 2) For the 21"x21" LEED Medallion Support, the contractor shall provide a set of the four corner clips in both gold and silver color.

- 3) Material: Maple Hardwood.
 - 4) Signage Location: To be determined by University's Representative.
 - 5) Quantity Required: One (1).
- d. Exterior Wall-Mounted Building Identification Signs: Must match the current existing signs for Tenaya and Cathedral.
- 1) Font: Frutiger 65 Bold; size, 8 inches with ½ inch wide under bar.
 - 2) Material: Water-jet cut aluminum; finish, clear anodized.
 - 3) Copy: Half Dome
 - 4) Location: To be determined by University's Representative.
 - 5) Quantity Required: Five (5)
- e. Vinyl Letters Building Identification Signs: Must match the current existing signs for Tenaya and Cathedral.
- 1) Font: Frutiger 65 Bold; size, 5 inches.
 - 2) Material: Vinyl; Color, White.
 - 3) Copy: Half Dome.
 - 4) Location: To be determined by University's Representative.
 - 5) Quantity Required: Two (2)

2.2 MATERIALS AND COMPONENTS

- A. Aluminum Sheet and Plate: ASTM B209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of Alloy 5005-H32.
- B. Acrylic Sheet: Cast methyl methacrylate monomer plastic conforming to ASTM D788, Sign Grade; "Plexiglas SQ" by Altuglas or equal, unless otherwise recommended by fabricator.
1. Color: White.
- C. Hardwood: As shown on Drawings.
- D. Paint Coatings: Matthews Acrylic Polyurethane ("MAP") by Matthews Paint Company (MPC), or equal. Provide primer as recommended by coating manufacturer for each type of substrate.
1. Colors: To match Pantone colors noted on the Drawings.
- E. Vinyl: Opaque non-reflective film with pressure-sensitive adhesive backing, suitable for exterior applications.
- F. Attachments: As shown on drawings and as approved by University's Representative.
- G. Sealant: As required to prevent light and water leakage at monument sign. No exposed sealant shall be allowed except as indicated on the reviewed shop drawings.

2.3 FABRICATION

- A. Fabricate signage and mountings according to details on Drawings and shop drawings.

- B. Fabricate signage to remain flat under installed conditions with smooth, mechanically finished edges. Ease corners slightly for plastic signs.
- C. Shop-assemble wherever practicable and ready for installation at project site. If not shop assembled, pre-fit in shop to assure proper and expeditious field assembly.
- D. Graphic Elements: All text and symbols shall be sharply distinct and clear.
- E. Attachment Method: Concealed fasteners or mounting tape as recommended by sign manufacturer for mounting signs on substrates involved. Do not use exposed fasteners except where shown, or accepted by the University's Representative.
- F. Tolerances for Flat Metal Components, unless Otherwise Approved.

PART 3 - EXECUTION

3.1 PREPARATION OF CUSTOM SIGNAGE

- A. Prior to installation, inspect site to confirm that all sign locations are as specified, and signs have been received and are ready for installation.
- B. Foundation for Monument Signs: Install concrete footings and aluminum tube posts according to approved shop drawings.
 - 1. Provide asphaltic coating on aluminum to prevent contact with concrete.

3.2 INSTALLATION OF CUSTOM SIGNAGE

- A. General:
 - 1. Use concealed mounting in compliance with manufacturer's instructions.
 - 2. Install signs true, level and plumb at height indicated, with sign surfaces free from distortion or other defects in appearance.
 - 3. Locate signage where shown or as directed by the University's Representative, and as required by code.
 - 4. Install monument signs according to approved shop drawings.
- B. Erection Tolerances:
 - 1. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.
 - 2. Variation from True Position: 1/16 inch.

3.3 CLEANING, ADJUSTING AND PROTECTION

- A. Contractor shall maintain on the Project site at all times in a clean, dry legible. Inspect installed work. Correct deficiencies.
- B. Restore finishes damaged during installation and construction period so that no evidence of correction work remains.

- C. Return items that cannot be refinished in the field to the shop. Make required alterations and refinish entire unit, or provide new units.
- D. Verify gaskets and flanges interface properly to provide a lightproof installation at monument sign.
- E. After installation, clean soiled signs surfaces according to manufacturer's instructions. Protect from damage until acceptance by University.

3.4 RECORD DOUCMENTS

A. AS-BUILT DRAWINGS

- 1. The Contractor shall submit to the University's Representative, 10 calendar days after Final Completion, fully updated As-built Drawings and Shop Drawings for review.
- 2. The As-Built Drawings and Shop Drawings shall be in PDF format. Email is acceptable.

B. RECORD DRAWINGS

- 1. The Contractor shall submit to the University's Representative, 10 calendar days after review and approval by the University, fully updated As-Built Drawings and Shop Drawings.

Contractor shall:

- a. Provide two (2) hard copies of the Shop Drawings in size 17"Lx11"H paper.
- b. Provide two (2) CD-ROMs, each of which contains all electronic drawing files. File shall be in RIGINAL format of the graphic program and PDF format.

END OF SECTION 10 1440

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/			10	00	0253		145					145										LOBBY	EAST		
/			10	00	0253		145					145	S11B	8	EXIT	1				1		LOBBY	EAST		
/			10	00	0253		145					145		9A		1				1		LOBBY	EAST		Frame for evacuation plan.
/			10	00	0253		145							22B		7				7		LOBBY	EAST		17"x11" Landscape insert, Frame for Annunciation Maps.
/			10	00	0253		150			183		150		1	150...KITCHEN	1			1		KITCHEN	EAST			
/			10	00	0253		155			710		155		1	155...LAUNDRY	1			1		LAUNDRY	EAST			
/			10	00	0253	HJ2	155A				227	HJ2-A, 155A.A		15	155A	1			1		ACCESS	EAST			
/			10	00	0253	HJ2	155A					HJ2-B, 155A.B		15	155A	1			1		ACCESS	EAST			
/			10	00	0253		160			1107		160	S11B	8	EXIT	1			1		GAME ROOM	EAST			
/			10	00	0253		160					160		7	ASSISTIVE LISTENING SYSTEM AVAILABLE	1			1		GAME ROOM	EAST		Location to be determined. Put this together with Max Occ sign.	
/			10	00	0253		160					160		9A		1			1		GAME ROOM	EAST		Frame for evacuation plan.	
/			10	00	0253		160					160		1 (EXTERIOR)	160...GAME ROOM	1			1		GAME ROOM	EAST			
/			10	00	0253		160					160.A	19	19	MAXIMUM OCCUPANCY...158	1			1		GAME ROOM	EAST			
/			10	00	0253		160					160.A	S11B	8	EXIT	1			1		GAME ROOM	EAST			
/			10	00	0253		160					160.A		9A		1			1		GAME ROOM	EAST		Frame for evacuation plan.	
/			10	00	0253		160					160.A		1 (EXTERIOR)	160...GAME ROOM	1			1		GAME ROOM	EAST			
/			10	00	0253		170			174		170		1 (EXTERIOR)	170...VENDING	1		1	1		VENDING	EAST			
/			10	00	0253		171			130		171		21 (EXTERIOR)	171	1			1		TUTORING	EAST			
/			10	00	0253		172			163		172		21 (EXTERIOR)	172	1			1		TUTORING	EAST			
/			10	00	0253		172							9A		1			1		TUTORING	EAST		Frame for evacuation plan, place at the outside wall of room 172.	
/			10	00	0253		173			218		173		15 (EXTERIOR)	173	1			1		STORAGE	EAST			
/			10	00	0253		175			393		175		1 (EXTERIOR)	175...TRASH	1			1		TRASH	EAST			
/			10	00	0253		175					175A									TRASH	EAST			
/			10	00	0253		180			1762		180	S11B	8	EXIT	1		1	1		MULTI-PURPOSE	EAST			
/			10	00	0253		180					180		9A		1			1		MULTI-PURPOSE	EAST		Frame for evacuation plan.	
/			10	00	0253		180					180	S10	7	ASSISTIVE LISTENING SYSTEM AVAILABLE	1			1		MULTI-PURPOSE	EAST		Location to be determined. Put this together with Max Occ sign.	
/			10	00	0253		180					180	S20	21 (EXTERIOR)	180	1			1		MULTI-PURPOSE	EAST			
/			10	00	0253		180					180.A	S11B	8	EXIT	1		1	1		MULTI-PURPOSE	EAST			
/			10	00	0253		180					180.A	S19	19	MAXIMUM OCCUPANCY...252	1			1		MULTI-PURPOSE	EAST			
/			10	00	0253		180					180.A		9A		1			1		MULTI-PURPOSE	EAST		Frame for evacuation plan.	
/			10	00	0253		180					180.A		21 (EXTERIOR)	180	1			1		MULTI-PURPOSE	EAST			
/			10	00	0253		185A			133		185A		15	185A	1			1		MULTI-PURPOSE	EAST			
/			10	00	0253		190			249		190		15 (EXTERIOR)	190	1			1		STORAGE/ICE	EAST			
/			10	00	0253		195			208		195	S20	2 (EXTERIOR)	195	1			1		OFFICES	EAST			
/			10	00	0253		195					195		8	EXIT	1		1	1		OFFICES	EAST			
/			10	00	0253		195					195		9A		1			1		OFFICES	EAST		Frame for evacuation plan.	
/			10	00	0253		195A			133		195.A		2	195A	1		1	1		OFFICES	EAST			
/			10	00	0253		195B			78											RECEPTION	EAST			
/			10	00	0253		195C			115		195.C		2	195C	1		1	1		OFFICES	EAST			
/			10	00	0253		195D			116		195.D		2	195D	1		1	1		OFFICES	EAST			
/			10	00	0253		195E			121		195.E		2	195E	1		1	1		OFFICE	EAST			
/			10	00	0253		195F			119		195.F		2	195F	1		1	1		OFFICE	EAST			
/			10	00	0253		195G			264											WORK ROOM	EAST			
/			10	00	0253		195H			124		195.H		2	195H	1		1	1		OFFICE	EAST			
/			10	00	0253		195J			97		195.J		2	195J	1			1		FAX/COPY	EAST			
/			10	00	0253				1X1	651		G001		1 (EXTERIOR)	1X1...BIKE BARN	1			1		BIKE SHED	EAST			
/			10	00	0253				1X1			G002		1 (EXTERIOR)	1X1...BIKE BARN	1			1		BIKE SHED	EAST			
/			10	00	0253		1C1				1008	1C1	S11B	8	EXIT	1			1		CORRIDOR	WEST	FROM 1C1 TO EXTERIOR		
/			10	00	0253		1C1					1C1		9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EXTERIOR	Frame for evacuation plan.	
/			10	00	0253		1C1					1C1		16 (EXTERIOR)	ACCESS FOR (first line) RESIDENTS AND (second line) ESCORTED GUESTS (third line) ONLY (fourth line)	1			1		CORRIDOR	WEST	FROM 1C1 TO EXTERIOR		
/			10	00	0253		1C1					1C1.A	S11B	8	TO EXIT	1			1		CORRIDOR	WEST	FROM 1C1 TO EAST		
/			10	00	0253		1C1					1C1.A		9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EAST	Frame for evacuation plan.	
/			10	00	0253		1C1					1C1		9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EAST	Frame for evacuation plan, Location between door 1C1A and 1C1B.	

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
10	00	0253	1C2			245										CORRIDOR	EAST		
10	00	0253	1C20			46										ALCOVE	EAST		
10	00	0253	1E1			91	1E1	S1	1	1E1...ELEVATOR 1	1			1		ELEVATOR-1	EAST		
10	00	0253	1E1				1E1	S12	9A		1			1		ELEVATOR-1	EAST	Frame for evacuation plan.	
10	00	0253	1E1				1E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
10	00	0253	1E2			83	1E2	S1	1	1E2...ELEVATOR 2	1			1		ELEVATOR-2	EAST		
10	00	0253	1J3	1EM1		36	1J3, 1EM1		15	1EM1	1			1		ELEV MACH	EAST		
10	00	0253	1J1			194	1J1		1	1J1...CUSTODIAN	1			1		MAIN CUST	WEST		
10	00	0253	1J1.A			18	1J1.A		1 (EXTERIOR)	1J1A (first line)FIRE RISER CLOSET (second line)?	1			1		FR CLOSET	WEST	Need to confirm final signage copy with Fire Marshal.	
10	00	0253	1J2																
10	00	0253	1J3																
10	00	0253	1M1			148	1M1		15	1M1	1			1		ELEC.	WEST		
10	00	0253	1M1.1			11	1M1.1		15	1M1.1	1			1		ELEC.	WEST		
10	00	0253	1M2			129	1M2		15 (EXTERIOR)	1M2	1			1		ELECTRICAL	EAST		
10	00	0253	1M2				1M3A		15	1M2	1			1		ELECTRICAL	EAST		
10	00	0253	1M2						22B		7			7		ELECTRICAL	EAST	17"x11" Landscape insert, Frame for Annunciation Maps.	
10	00	0253	1M3			88	1M3		15 (EXTERIOR)	1M3	1			1		ELECTRICAL	EAST		
10	00	0253	1M3				1M3.A		15	1M3	1			1		ELECTRICAL	EAST		
10	00	0253	1M4			444	1M4		15 (EXTERIOR)	1M4	1			1		MECHANICAL	EAST		
10	00	0253	1S1			194	1S1		3	STAIR 1...EXIT STAIR DOWN	1			1		STAIR-1	WEST		
10	00	0253	1S1				1S1	S6A	5 (change Sign Type to 5A)	ACCESSIBLE EXIT (arrow points to right)	1			1		STAIR-1	WEST	Please change the sign size to 11" L x 7" H. Put left arrow below "EXIT".	
10	00	0253	1S1				1S1	S12	9A		1			1		STAIR-1	WEST	Frame for evacuation plan.	
10	00	0253	1S1				1S1	S17								STAIR-1	WEST	No need for sign.	
10	00	0253	1S1				1S1	S14	13B	STAIR 1...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		
10	00	0253	1S1				1S1.A		9A		1			1		STAIR-1	WEST	Frame for evacuation plan.	
10	00	0253	1S1				1S1.A		8	EXIT	1			1		STAIR-1	WEST		
10	00	0253	1S1				1S1.A		1 (EXTERIOR)	1S1...STAIR 1	1			1		STAIR-1	WEST		
10	00	0253	1S1				1S1.A	S6B	5 (change Sign Type to 5B) (EXTERIOR)	ACCESSIBLE BUILDING ENTRY (arrow points to right)	1			1		STAIR-1	WEST	Please change the sign size to 11" L x 9" H. Put left arrow below "EXIT".	
10	00	0253	1S2			237	1S2		3	STAIR 2...TO EXIT	1			1		STAIR-2	EAST		
10	00	0253	1S2				1S2	S14	13B	STAIR 2...ROOF ACCESS...1...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		
10	00	0253	1S2				1S2.A		9A		1			1		STAIR-2	EAST	Frame for evacuation plan.	
10	00	0253	1S2				1S2.A	S11B	8	EXIT	1			1		STAIR-2	EAST		
10	00	0253	1S2				1S2.A		1 (EXTERIOR)	1S2...STAIR 2	1			1		STAIR-2	EAST		
10	00	0253	1S3			177	1S3		1 (EXTERIOR)	1S3...STAIR 3	1			1		STAIR-3	EAST		
10	00	0253	1S3				1S3	S17								STAIR-3	WEST	No need for sign.	
10	00	0253	1S3				1S3	S14	13B	STAIR 3...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		
10	00	0253	1S3				1S3	S12	9A		1			1		STAIR-3	EAST	Frame for evacuation plan.	
10	00	0253	1S3				1S3	S11B	8	EXIT	1			1		STAIR-3	EAST		
10	00	0253	1S3				1S3		5 (change Sign Type to 5B) (EXTERIOR)	ACCESSIBLE BUILDING ENTRY (arrow points to right)	1			1		STAIR-3	EAST	Please change the sign size to 11" L x 9" H. Put left arrow below "EXIT".	
10	00	0253	1S4			253	1S4		1 (EXTERIOR)	1S4...STAIR 4	1			1		STAIR-4	EAST		
10	00	0253	1S4				1S4	S17								STAIR-4	EAST	No need for sign.	

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		1S4					1S4	S14	13B	STAIR 4...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		
/			10	00	0253		1S4					1S4		9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253		1S4					1S4	S11B	8	EXIT	1			1		STAIR-4	EAST		
/			10	00	0253		1S5				54			1 (EXTERIOR)	1S5...STAIR 5	1			1		STAIR-5	EAST		
/			10	00	0253		1T1				256	1T1	S5A	6 (EXTERIOR)	WOMEN	1			1		WOMEN'S W.C.	EAST		Sign on wall, install with silicon and double side tape.
/			10	00	0253		1T1					1T1		4 (EXTERIOR)	WOMEN	1			1		WOMEN'S W.C.	EAST		Sign on door, install with silicon and double side tape.
/			10	00	0253		1T1					1T1		15A (EXTERIOR)	1T1	1			1		WOMEN'S W.C.	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		1T1					1T1	S8	5 (EXTERIOR)	ACCESSIBLE RESTROOMS (right arrow)	2			2		WOMEN'S W.C.	EAST		
/			10	00	0253		1T2				140	1T2	S5C	6 (EXTERIOR)	MEN	1			1		MEN'S W.C.	EAST		Sign on wall, install with silicon and double side tape.
/			10	00	0253		1T2					1T2		4 (EXTERIOR)	MEN	1			1		MEN'S W.C.	EAST		Sign on door, install with silicon and double side tape.
/			10	00	0253		1T2					1T2		15A (EXTERIOR)	1T2	1			1		MEN'S W.C.	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		1T2					1T2		5 (EXTERIOR)	ACCESSIBLE RESTROOMS (left arrow)	2			2		MEN'S W.C.	EAST		
/			10	00	0253		1U1				229	1U1		15	1U1	1			1		BDF	EAST		
Second Floor:																								
/			10	00	0253		201			167		201		1	201...STUDY	1			1		STUDY	WEST		
/			10	00	0253		202			86		202		1	202...TRASH	1			1		TRASH	WEST		
/			10	00	0253		203			264		203		18	203	1		1	1		DORM B	WEST		
/			10	00	0253		204D				272	204.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/			10	00	0253		204D					204.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		204D					204.D		15A	204D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		205			239		205		18	205	1		1	1		DORM A	WEST		
/			10	00	0253		206			229		206		18	206	1		1	1		DORM A	WEST		
/			10	00	0253		207			154		207		18	207	1		1	1		RA/SGL	WEST		
/			10	00	0253		211			239		211		18	211	1		1	1		DORM A	WEST		
/			10	00	0253		212			230		212		18	212	1		1	1		DORM A	WEST		
/			10	00	0253		213			256		213		18	213	1		1	1		DORM B	WEST		
/			10	00	0253		214D				269	214.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.
/			10	00	0253		214D					214.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		214D					214.D		15A	214D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		215			239		215		18	215	1		1	1		DORM A	WEST		
/			10	00	0253		216			242		216		18	216	1		1	1		DORM A	WEST		
/			10	00	0253		221			239		221		18	221	1		1	1		DORM A	WEST		
/			10	00	0253		222			234		222		18	222	1		1	1		DORM A	WEST		
/			10	00	0253		223			259		223		18	223	1		1	1		DORM B	WEST		
/			10	00	0253		224D				269	224.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/			10	00	0253		224D					224.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		224D					224.D		15A	224D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		225			239		225		18	225	1		1	1		DORM A	WEST		
/			10	00	0253		226			242		226		18	226	1		1	1		DORM A	WEST		
/			10	00	0253		230			148		230		18	230	1		1	1		RA/SGL	WEST		
/			10	00	0253		231			239		231		18	231	1		1	1		DORM A	WEST		
/			10	00	0253		232			234		232		18	232	1		1	1		DORM A	WEST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		233			256		233		18	233	1	1		1		DORM B	WEST		
/			10	00	0253		234D				266	234.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.
/			10	00	0253		234D					234.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		234D					234.D		15A	234D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		235			238		235		18	235	1	1		1		DORM A	WEST		
/			10	00	0253		236			238		236		18	236	1	1		1		DORM A	WEST		
/			10	00	0253		240			181		240		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253		241			454		241		1	241...LOUNGE	1			1		LOUNGE	WEST		
/			10	00	0253		245			297											CORRIDOR	EAST		
/			10	00	0253		251			235		251		18	251	1	1		1		DORM A	EAST		
/			10	00	0253		252			236		252		18	252	1	1		1		DORM A	EAST		
/			10	00	0253		253			259		253		18	253	1	1		1		DORM B	EAST		
/			10	00	0253		254D				269	254.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		254D					254.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		254D					254.D		15A	254D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		255			239		255		18	255	1	1		1		DORM A	EAST		
/			10	00	0253		256			242		256		18	256	1	1		1		DORM A	EAST		
/			10	00	0253		257			148		257		18	257	1	1		1		RA/SGL	EAST		
/			10	00	0253		260			164		260		18	260	1	1		1		RA/SGL	EAST		
/			10	00	0253		261			239		261		18	261	1	1		1		DORM A	EAST		
/			10	00	0253		262			234		262		18	262	1	1		1		DORM A	EAST		
/			10	00	0253		263			259		263		18	263	1	1		1		DORM B	EAST		
/			10	00	0253		264D				269	264.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		264D					264.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		264D					264.D		15A	264D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		265			237		265		18	265	1	1		1		DORM A	EAST		
/			10	00	0253		266			240		266		18	266	1	1		1		DORM A	EAST		
/			10	00	0253		270			258		270		1	270...STUDY	1			1		STUDY	EAST		
/			10	00	0253		271			104		271		1	271...TRASH	1			1		TRASH	EAST		
/			10	00	0253		280			149		280		18	280	1	1		1		RA/SGL	EAST		
/			10	00	0253		281			235		281		18	281	1	1		1		DORM A	EAST		
/			10	00	0253		282			236		282		18	282	1	1		1		DORM A	EAST		
/			10	00	0253		283			259		283		18	283	1	1		1		DORM B	EAST		
/			10	00	0253		284D				270	284.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		284D					284.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		284D					284.D		15A	284D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		285			233		285		18	285	1	1		1		CORRIDOR	EAST		
/			10	00	0253		286			228		286		18	286	1	1		1		DORM A	EAST		
/			10	00	0253		287			164		287		1	287...STUDY	1			1		STUDY	EAST		
/			10	00	0253		290			150		290		18	290	1	1		1		RA/SGL	EAST		
/			10	00	0253		291			254		291		18	291	1	1		1		DORM B	EAST		
/			10	00	0253		292			234		292		18	292	1	1		1		DORM A	EAST		
/			10	00	0253		293			239		293		18	293	1	1		1		DORM A	EAST		
/			10	00	0253		294D				269	294.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		294D					294.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		294D					294.D		15A	294D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		295			259		295		18	295	1	1		1		DORM B	EAST		
/			10	00	0253		296			236		296		18	296	1	1		1		DORM A	EAST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		297			242		297		18	297	1	1		1		DORM A	EAST		
/			10	00	0253		2C1				1185	2C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST		
/			10	00	0253		2C1					2C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253		2C1					2C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 2C1 and 240.
/			10	00	0253		2C2				683	2C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253		2C2					2C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253		2C2					2C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan., Location between door 2C2 and 2C10.
/			10	00	0253		2C10				558	2C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253		2C10					2C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253		2C20				453	2C20				1			1		CORRIDOR	EAST		
/			10	00	0253		2E1				91	2E1	S1	1	2E1...ELEVATOR 1	1			1		ELEVATOR-1	EAST		
/			10	00	0253		2E1					2E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253		2E1					2E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253		2E2				83	2E2	S1	1	2E2...ELEVATOR 2	1			1		ELEVATOR-2	EAST		
/			10	00	0253		2J1				54	2J1		1	2J1...CUSTODIAN	1			1		CUST	EAST		
/			10	00	0253		2S1				189	2S1	S15	3	STAIR 1...EXIT STAIR DOWN	1			1		STAIR-1	WEST		
/			10	00	0253		2S1					2S1	S17			1			1		STAIR-1	WEST		No need for sign.
/			10	00	0253		2S1					2S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253		2S1					2S1	S14	13B	STAIR 1...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		Lose the "star" in this sign.
			10	00	0253		2S2				237	2S2	S15	3	STAIR 2...EXIT STAIR DOWN	1			1		STAIR-2	EAST		
			10	00	0253		2S2					2S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
/			10	00	0253		2S2					2S2	S14	13B	STAIR 2...ROOF ACCESS...2...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.
/			10	00	0253		2S3				167	2S3	S15	3	STAIR 3...EXIT STAIR DOWN	1			1		STAIR-3	EAST		
/			10	00	0253		2S3					2S3	S17			1			1		STAIR-3	EAST		No need for sign.
/			10	00	0253		2S3					2S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/			10	00	0253		2S3					2S3	S14	13B	STAIR 3...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		Lose the "star" in this sign.
/			10	00	0253		2S4				214	2S4	S15	3	STAIR 4...EXIT STAIR DOWN	1			1		STAIR-4	EAST		Use sign type 3 instead of sign type 35 to
/			10	00	0253		2S4					2S4	S17			1			1		STAIR-3	EAST		No need for sign.
/			10	00	0253		2S4					2S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253		2S4					2S4	S14	13B	STAIR 4...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		Lose the "star" in this sign.
/			10	00	0253		2T1				157	2T1	S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST		Unisex Sign on wall, install with silicon and double side tape.
/			10	00	0253		2T1					2T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
/			10	00	0253		2T1					2T1		15A	2T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		2U1				181	2U1		15	2U1	1			1		IDF	WEST		
/			10	00	0253		2U2				137	2U2		15	2U2	1			1		IDF	EAST		
Third Floor:																								
/			10	00	0253		301				167	301		1	301...STUDY	1			1		STUDY	WEST		
/			10	00	0253		302				86	302		1	302...TRASH	1			1		TRASH	WEST		
/			10	00	0253		303				264	303		18	303	1			1		DORM B	WEST		
/			10	00	0253		304D				239	304.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/			10	00	0253		304D					304.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

						Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/						10	00	0253					304.D		15A	304D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/						10	00	0253			239		305		18	305	1	1		1		DORM A	WEST		
/						10	00	0253			229		306		18	306	1	1		1		DORM A	WEST		
/						10	00	0253			154		307		19	307	1	1		1		RA/SGL	WEST		
/						10	00	0253			239		311		18	311	1	1		1		DORM A	WEST		
/						10	00	0253			230		312		18	312	1	1		1		DORM A	WEST		
/						10	00	0253			256		313		18	313	1	1		1		DORM B	WEST		
/						10	00	0253				269	314.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.
/						10	00	0253					314.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/						10	00	0253					314.D		15A	314D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/						10	00	0253			239		315		18	315	1	1		1		DORM A	WEST		
/						10	00	0253			242		316		18	316	1	1		1		DORM A	WEST		
/						10	00	0253			239		321		18	321	1	1		1		DORM A	WEST		
/						10	00	0253			234		322		18	322	1	1		1		DORM A	WEST		
/						10	00	0253			259		323		18	323	1	1		1		DORM B	WEST		
/						10	00	0253				269	324.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/						10	00	0253					324.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/						10	00	0253					324.D		15A	324D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/						10	00	0253			239		325		18	325	1	1		1		DORM A	WEST		
/						10	00	0253			242		326		18	326	1	1		1		DORM A	WEST		
/						10	00	0253			148		330		19	330	1	1		1		RA/SGL	WEST		
/						10	00	0253			239		331		18	331	1	1		1		DORM A	WEST		
/						10	00	0253			234		332		18	332	1	1		1		DORM A	WEST		
/						10	00	0253			266		333		18	333	1	1		1		DORM B	WEST		
/						10	00	0253				266	334.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.
/						10	00	0253					334.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/						10	00	0253					334.D		15A	334D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/						10	00	0253			238		335		18	335	1	1		1		DORM A	WEST		
/						10	00	0253			238		336		18	336	1	1		1		DORM A	WEST		
/						10	00	0253			180		340		9A		1			1		LOBBY	WEST		Frame for evacuation plan.
/						10	00	0253			454		341		1	341...LOUNGE	1			1		LOUNGE	WEST		
/						10	00	0253			294		345				1			1		LOBBY	EAST		
/						10	00	0253			235		351		18	351	1	1		1		DORM A	EAST		
/						10	00	0253			236		352		18	352	1	1		1		DORM A	EAST		
/						10	00	0253			259		353		18	353	1	1		1		DORM B	EAST		
/						10	00	0253				269	354.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST		Sign on wall.
/						10	00	0253					354.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/						10	00	0253					354.D		15A	354D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/						10	00	0253			239		355		18	355	1	1		1		DORM A	EAST		
/						10	00	0253			242		356		18	356	1	1		1		DORM A	EAST		
/						10	00	0253			148		357		18	357	1	1		1		RA/SGL	EAST		
/						10	00	0253			164		360		18	360	1	1		1		RA/SGL	EAST		
/						10	00	0253			239		361		18	361	1	1		1		DORM A	EAST		
/						10	00	0253			234		362		18	362	1	1		1		DORM A	EAST		
/						10	00	0253			259		363		18	363	1	1		1		DORM B	EAST		
/						10	00	0253				269	364.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.
/						10	00	0253					364.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		364D					364.D		15A	364D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		365			236		365		18	365	1	1		1		DORM A	EAST		
/			10	00	0253		366			240		366		18	366	1	1		1		DORM A	EAST		
/			10	00	0253		370			358		370		1	370...STUDY	1			1		STUDY	EAST		
/			10	00	0253		371			104		371		1	371...TRASH	1			1		TRASH	EAST		
/			10	00	0253		380			149		380		18	380	1	1		1		RA/SGL	EAST		
/			10	00	0253		381			235		381		18	381	1	1		1		CORRIDOR	EAST		
/			10	00	0253		382			236		382		18	382	1	1		1		DORM A	EAST		
/			10	00	0253		383			259		383		18	383	1	1		1		DORM B	EAST		
/			10	00	0253		384D				270	384.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		384D					384.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		384D					384.D		15A	384D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		385			233		385		18	385	1	1		1		CORRIDOR	EAST		
/			10	00	0253		386			228		386		18	386	1	1		1		DORM A	EAST		
/			10	00	0253		387			164		387		1	387...STUDY	1			1		STUDY	EAST		
/			10	00	0253		390			150		390		18	390	1	1		1		RA/SGL	EAST		
/			10	00	0253		391			254		391		18	391	1	1		1		DORM B	EAST		
/			10	00	0253		392			234		392		18	392	1	1		1		DORM A	EAST		
/			10	00	0253		393			239		393		18	393	1	1		1		CORRIDOR	EAST		
/			10	00	0253		394D				269	394.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253		394D					394.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253		394D					394.D		15A	394D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253		395			259		395		18	395	1	1		1		DORM B	EAST		
/			10	00	0253		396			236		396		18	396	1	1		1		DORM A	EAST		
/			10	00	0253		397			242		397		18	397	1	1		1		DORM A	EAST		
/			10	00	0253		3C1				1204	3C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST		
/			10	00	0253		3C1					3C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253		3C1					3C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan. Location between door 3C1 and 340.
/			10	00	0253		3C2				683	3C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253		3C2					3C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253		3C2					3C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan. Location between door 3C2 and 3C10
/			10	00	0253		3C10				556	3C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253		3C10					3C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253		3C20				454	3C20				1			1		CORRIDOR	EAST		
/			10	00	0253		3E1				91	3E1	S1	1	3E1...ELEVATOR 1	1			1		ELEVATOR-1	EAST		
/			10	00	0253		3E1					3E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253		3E1					3E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253		3E2				83	3E2	S1	1	3E2...ELEVATOR 2	1			1		ELEVATOR-2	EAST		
/			10	00	0253		3J1				54	3J1		1	3J1...CUSTODIAN	1			1		CUST	EAST		
/			10	00	0253		3M1				149	3M1		15	3M1	1			1		ELEC.	WEST		
/			10	00	0253		3M1		3M1A			3M1.A		15	3M1A	1			1		ELEC.	WEST		
/			10	00	0253		3M2				125	3M2		15	3M2	1			1		ELEC.	EAST		
/			10	00	0253		3S1				189	3S1	S15	3	STAIR 1...EXIT STAIR DOWN	1			1		STAIR-1	WEST		
/			10	00	0253		3S1					3S1	S17			1			1		STAIR-1	WEST		No need for sign.
/			10	00	0253		3S1					3S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253		3S1					3S1	S14	13B	STAIR 1...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		Lose the "star" in this sign.
/			10	00	0253		3S2				236	3S2	S15	3	STAIR 2...EXIT STAIR DOWN	1			1		STAIR-2	EAST		
/			10	00	0253		3S2					3S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/		10 00	0253	3S2			3S2	S14	13B	STAIR 2...ROOF ACCESS...3...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.
/		10 00	0253	3S3		167	3S3	S15	3	STAIR 3...EXIT STAIR DOWN	1			1		STAIR-3	EAST		
/		10 00	0253	3S3			3S3	S17								STAIR-3	EAST		No need for sign.
/		10 00	0253	3S3			3S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/		10 00	0253	3S3			3S3	S14	13B	STAIR 3...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		Lose the "star" in this sign.
/		10 00	0253	3S4		214	3S4	S15	3	STAIR 4...EXIT STAIR DOWN	1			1		STAIR-4	EAST		
/		10 00	0253	3S4			3S4	S17								STAIR-3	EAST		No need for sign.
/		10 00	0253	3S4			3S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/		10 00	0253	3S4			3S4	S14	13B	STAIR 4...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		Lose the "star" in this sign.
/		10 00	0253	3T1		157	3T1	S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST		Unisex Sign on wall, install with silicon and double side tape.
/		10 00	0253	3T1			3T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
/		10 00	0253	3T1			3T1		15A	3T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/		10 00	0253	3U2		9	3U2		15	3U2	1			1		IDF	EAST		
Fourth Floor:																			
/		10 00	0253	401		167	401		1	401...STUDY	1			1		STUDY	WEST		
/		10 00	0253	402		86	402		1	402...TRASH	1			1		TRASH	WEST		
/		10 00	0253	403		264	403		18	403	1	1		1		DORM B	WEST		
/		10 00	0253	404D		269	404.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/		10 00	0253	404D			404.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/		10 00	0253	404D			404.D		15A	404D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/		10 00	0253	405		239	405		18	405	1	1		1		DORM A	WEST		
/		10 00	0253	406		229	406		18	406	1	1		1		DORM A	WEST		
/		10 00	0253	407		154	407		18	407	1	1		1		RA/SGL	WEST		
/		10 00	0253	411		239	411		18	411	1	1		1		DORM A	WEST		
/		10 00	0253	412		230	412		18	412	1	1		1		DORM A	WEST		
/		10 00	0253	413		256	413		18	413	1	1		1		DORM B	WEST		
/		10 00	0253	414D		263	414.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.
/		10 00	0253	414D			414.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/		10 00	0253	414D			414.D		15A	414D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/		10 00	0253	415		239	415		18	415	1	1		1		DORM A	WEST		
/		10 00	0253	416		242	416		18	416	1	1		1		DORM A	WEST		
/		10 00	0253	421		239	421		18	421	1	1		1		DORM A	WEST		
/		10 00	0253	422		234	422		18	422	1	1		1		DORM A	WEST		
/		10 00	0253	423		259	423		18	423	1	1		1		DORM B	WEST		
/		10 00	0253	424D		269	424.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST		Sign on wall.
/		10 00	0253	424D			424.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/		10 00	0253	424D			424.D		15A	424D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/		10 00	0253	425		239	425		18	425	1	1		1		DORM A	WEST		
/		10 00	0253	426		242	426		18	426	1	1		1		DORM A	WEST		
/		10 00	0253	430		148	430		18	430	1	1		1		RA/SGL	WEST		
/		10 00	0253	431		239	431		18	431	1	1		1		DORM A	WEST		

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		432			234		432		18	432	1	1		1		DORM A	WEST		
/			10	00	0253		433			256		433		18	433	1	1		1		DORM B	WEST		
/			10	00	0253		434D				266	434.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.	
/			10	00	0253		434D					434.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		434D					434.D		15A	434D	1			1		BATH	WEST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		435			238		435		18	435	1	1		1		DORM A	WEST		
/			10	00	0253		436			238		436		18	436	1	1		1		DORM A	WEST		
/			10	00	0253		440			178		440		9A		1			1		LOBBY	WEST	Frame for evacuation plan.	
/			10	00	0253		441			447		441		1	441...LOUNGE	1			1		LOUNGE	WEST		
/			10	00	0253		445			298											LOBBY	EAST		
/			10	00	0253		451			235		451		18	451	1	1		1		DORM A	EAST		
/			10	00	0253		452			236		452		18	452	1	1		1		DORM A	EAST		
/			10	00	0253		453			259		453		18	453	1	1		1		DORM B	EAST		
/			10	00	0253		454D				269	454.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.	
/			10	00	0253		454D					454.D		4 (MEN)	MEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		454D					454.D		15A	454D	1			1		BATH	EAST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		455			239		455		18	455	1	1		1		DORM A	EAST		
/			10	00	0253		456			242		456		18	456	1	1		1		DORM A	EAST		
/			10	00	0253		457			148		457		18	457	1	1		1		RA/SGL	EAST		
/			10	00	0253		460			164		460		18	460	1	1		1		RA/SGL	EAST		
/			10	00	0253		461			239		461		18	461	1	1		1		DORM A	EAST		
/			10	00	0253		462			234		462		18	462	1	1		1		DORM A	EAST		
/			10	00	0253		463			259		463		18	463	1	1		1		DORM B	EAST		
/			10	00	0253		464D				269	464.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.	
/			10	00	0253		464D					464.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		464D					464.D		15A	464D	1			1		BATH	EAST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		465			236		465		18	465	1	1		1		DORM A	EAST		
/			10	00	0253		466			240		466		18	466	1	1		1		DORM A	EAST		
/			10	00	0253		470			358		470		1	470...STUDY	1			1		STUDY	EAST		
/			10	00	0253		471			104		471		1	471...TRASH	1			1		TRASH	EAST		
/			10	00	0253		480			149		480		18	480	1	1		1		RA/SGL	EAST		
/			10	00	0253		481			235		481		18	481	1	1		1		CORRIDOR	EAST		
/			10	00	0253		482			236		482		18	482	1	1		1		DORM A	EAST		
/			10	00	0253		483			259		483		18	483	1	1		1		DORM B	EAST		
/			10	00	0253		484D				270	484.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.	
/			10	00	0253		484D					484.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		484D					484.D		15A	484D	1			1		BATH	EAST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		485			233		485		18	485	1	1		1		DORM A	EAST		
/			10	00	0253		486			228		486		18	286	1	1		1		DORM A	EAST		
/			10	00	0253		487			164		487		1	487...STUDY	1			1		STUDY	EAST		
/			10	00	0253		490			150		490		18	490	1	1		1		RA/SGL	EAST		
/			10	00	0253		491			254		491		18	491	1	1		1		DORM B	EAST		
/			10	00	0253		492			234		492		18	492	1	1		1		DORM A	EAST		
/			10	00	0253		493			239		493		18	493	1	1		1		DORM A	EAST		
/			10	00	0253		494D				269	494.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.	
/			10	00	0253		494D					494.D		4 (MEN)	MEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		494D					494.D		15A	494D	1			1		BATH	EAST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		495			259		495		18	495	1	1		1		DORM B	EAST		

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/			10	00	0253		496			236		496		18	496	1	1		1		DORM A	EAST			
/			10	00	0253		497			242		497		18	497	1	1		1		DORM A	EAST			
/			10	00	0253		4C1				1204	4C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST			
/			10	00	0253		4C1					4C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.	
/			10	00	0253		4C1							9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 4C1 and 440.	
/			10	00	0253		4C2				682	4C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253		4C2					4C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.	
/			10	00	0253		4C2							9A		1			1		CORRIDOR	EAST		Frame for evacuation plan. Location between door 4C2 and 4C10.	
/			10	00	0253		4C10				558	4C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253		4C10					4C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.	
/			10	00	0253		4C20				452										CORRIDOR	EAST			
/			10	00	0253		4E1				91	4E1	S1	1	4E1...ELEVATOR 1	1			1		ELEVATOR-1	EAST			
/			10	00	0253		4E1					4E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.	
/			10	00	0253		4E1					4E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST			
/			10	00	0253		4E2				83	4E2	S1	1	4E2...ELEVATOR 2	1			1		ELEVATOR-2	EAST			
/			10	00	0253		4J1				54	4J1		1	4J1...CUSTODIAN	1			1		CUST	EAST			
/			10	00	0253		4S1				189	4S1	S15	3	STAIR 1...EXIT STAIR DOWN	1			1		STAIR-1	WEST			
/			10	00	0253		4S1					4S1	S17								STAIR-1	WEST		No need for sign.	
/			10	00	0253		4S1					4S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.	
/			10	00	0253		4S1					4S1	S14	13B	STAIR 1...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		Lose the "star" in this sign.	
/			10	00	0253		4S2				236	4S2	S15	3	STAIR 2...EXIT STAIR DOWN	1			1		STAIR-2	EAST			
/			10	00	0253		4S2					4S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.	
/			10	00	0253		4S2					4S2	S14	13B	STAIR 2...ROOF ACCESS...4...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.	
/			10	00	0253		4S3				167	4S3	S15	3	STAIR 3...EXIT STAIR DOWN	1			1		STAIR-3	EAST			
/			10	00	0253		4S3					4S3	S17								STAIR-3	EAST		No need for sign.	
/			10	00	0253		4S3					4S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.	
/			10	00	0253		4S3					4S3	S14	13B	STAIR 3...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		Lose the "star" in this sign.	
/			10	00	0253		4S4				214	4S4	S15	3	STAIR 4...EXIT STAIR DOWN	1			1		STAIR-4	EAST			
/			10	00	0253		4S4					4S4	S17								STAIR-4	EAST		No need for sign.	
/			10	00	0253		4S4					4S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.	
/			10	00	0253		4S4					4S4	S14	13B	STAIR 4...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		Lose the "star" in this sign.	
/			10	00	0253		4T1				157	4T1	S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST		Unisex Sign on wall, install with silicon and double side tape.	
/			10	00	0253		4T1					4T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.	
/			10	00	0253		4T1					4T1		15A	4T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		4U1				162	4U1		15	4U1	1			1		IDF	WEST			
/			10	00	0253		4U2				137	4U2		15	4U2	1			1		IDF	EAST			
Fifth Floor:																									
/			10	00	0253		501				173	501		1	501...STUDY	1			1		STUDY	WEST			
/			10	00	0253		502				85	502		1	502...TRASH	1			1		TRASH	WEST			
/			10	00	0253		503				263	503		18	503	1		1		1		DORM B	WEST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253		504D				269	504.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.	
/			10	00	0253		504D					504.D		4 (MEN)	MEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		504D					504.D		15A	504D	1			1		BATH	WEST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		505			230		505		18	505	1	1		1		DORM A	WEST		
/			10	00	0253		506			221		506		18	506	1	1		1		DORM A	WEST		
/			10	00	0253		507			160		507		18	507	1	1		1		RA/SGL	WEST		
/			10	00	0253		511			230		511		18	511	1	1		1		DORM A	WEST		
/			10	00	0253		512			222		512		18	512	1	1		1		DORM A	WEST		
/			10	00	0253		513			256		513		18	513	1	1		1		DORM B	WEST		
/			10	00	0253		514D				269	514.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.	
/			10	00	0253		514D					514.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		514D					514.D		15A	514D	1			1		BATH	WEST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		515			230		515		18	515	1	1		1		DORM A	WEST		
/			10	00	0253		516			236		516		18	516	1	1		1		DORM A	WEST		
/			10	00	0253		521			230		521		18	521	1	1		1		DORM A	WEST		
/			10	00	0253		522			225		522		18	522	1	1		1		DORM A	WEST		
/			10	00	0253		523			259		523		18	523	1	1		1		DORM B	WEST		
/			10	00	0253		524D				272	524.D	S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.	
/			10	00	0253		524D					524.D		4 (MEN)	MEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		524D					524.D		15A	524D	1			1		BATH	WEST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		525			230		525		18	525	1	1		1		DORM A	WEST		
/			10	00	0253		526			234		526		18	526	1	1		1		DORM A	WEST		
/			10	00	0253		530			142		530		18	530	1	1		1		RA/SGL	WEST		
/			10	00	0253		531			230		531		18	531	1	1		1		DORM A	WEST		
/			10	00	0253		532			225		532		18	532	1	1		1		DORM A	WEST		
/			10	00	0253		533			256		533		18	533	1	1		1		DORM B	WEST		
/			10	00	0253		534D				266	534.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.	
/			10	00	0253		534D					534.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		534D					534.D		15A	534D	1			1		BATH	WEST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		535			229		535		18	535	1	1		1		DORM A	WEST		
/			10	00	0253		536			228		536		18	536	1	1		1		DORM A	WEST		
/			10	00	0253		540			187		540		9A		1			1		CORRIDOR	WEST	Frame for evacuation plan.	
/			10	00	0253		541			454		541		1	541...LOUNGE	1			1		LOUNGE	WEST		
/			10	00	0253		545			297											CORRIDOR	EAST		
/			10	00	0253		551			235		551		18	551	1	1		1		DORM A	EAST		
/			10	00	0253		552			236		552		18	552	1	1		1		DORM A	EAST		
/			10	00	0253		553			259		553		18	553	1	1		1		DORM B	EAST		
/			10	00	0253		554D				269	554.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.	
/			10	00	0253		554D					554.D		4 (MEN)	MEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.	
/			10	00	0253		554D					554.D		15A	554D	1			1		BATH	EAST	Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		555			239		555		18	555	1	1		1		DORM A	EAST		
/			10	00	0253		556			242		556		18	556	1	1		1		DORM A	EAST		
/			10	00	0253		557			148		557		18	557	1	1		1		RA/SGL	EAST		
/			10	00	0253		560			164		560		18	560	1	1		1		RA/SGL	EAST		
/			10	00	0253		561			239		561		18	561	1	1		1		DORM A	EAST		
/			10	00	0253		562			234		562		18	562	1	1		1		DORM A	EAST		
/			10	00	0253		563			259		563		18	563	1	1		1		DORM B	EAST		
/			10	00	0253		564D				269	564.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.	

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	564D					564.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	564D					564.D		15A	564D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	565			236		565		18	565	1	1		1		DORM A	EAST		
/			10	00	0253	566			240		566		18	566	1	1		1		DORM A	EAST		
/			10	00	0253	570			358		570		1	570...STUDY	1			1		STUDY	EAST		
/			10	00	0253	571			104		571		1	571...TRASH	1			1		TRASH	EAST		
/			10	00	0253	580			149		580		18	580	1	1		1		RA/SGL	EAST		
/			10	00	0253	581			235		581		18	581	1	1		1		CORRIDOR	EAST		
/			10	00	0253	582			236		582		18	582	1	1		1		DORM A	EAST		
/			10	00	0253	583			259		583		18	583	1	1		1		DORM B	EAST		
/			10	00	0253	584D				270	584.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253	584D					584.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	584D					584.D		15A	584D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	585			233		585		18	585	1	1		1		CORRIDOR	EAST		
/			10	00	0253	586			228		586		18	586	1	1		1		DORM A	EAST		
/			10	00	0253	587			164		587		1	587...STUDY	1			1		STUDY	EAST		
/			10	00	0253	590			150		590		18	590	1	1		1		RA/SGL	EAST		
/			10	00	0253	591			254		591		18	591	1	1		1		DORM B	EAST		
/			10	00	0253	592			234		592		18	592	1	1		1		DORM A	EAST		
/			10	00	0253	593			239		593		18	593	1	1		1		CORRIDOR	EAST		
/			10	00	0253	594D				269	594.D	S9B	6 (MEN)	MEN	1			1		BATH	EAST		Sign on wall.
/			10	00	0253	594D					594.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	594D					594.D		15A	594D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	595			259		595		18	595	1	1		1		DORM B	EAST		
/			10	00	0253	597			242		597		18	597	1	1		1		DORM A	EAST		
/			10	00	0253	5C1				1193	5C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST		
/			10	00	0253	5C1					5C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	5C1							9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 5C1 and 540.
/			10	00	0253	5C2				683	5C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253	5C2					5C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	5C2							9A		1			1		CORRIDOR	EAST		Frame for evacuation plan. Location between door 5C2 and 5C10.
/			10	00	0253	5C10				558	5C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST		
/			10	00	0253	5C10					5C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	5C20				452										CORRIDOR	EAST		
/			10	00	0253	5E1				91	5E1	S1	1	5E1...ELEVATOR 1	1			1		ELEVATOR-1	EAST		
/			10	00	0253	5E1					5E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253	5E1					5E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253	5E2				83	5E2	S1	1	5E2...ELEVATOR 2	1			1		ELEVATOR-2	EAST		
/			10	00	0253	5J1				54	5J1		1	5J1...CUSTODIAN	1			1		CUST	EAST		
/			10	00	0253	5M1				142	5M1		15	5M1	1			1		ELEC.	WEST		
/			10	00	0253	5M1		5M1A			5M1.A		15	5M1A	1			1		ELEC.	WEST		
/			10	00	0253	5M2				125	5M2		15	5M2	1			1		ELEC.	EAST		
/			10	00	0253	5S1				189	5S1	S15	3	STAIR 1...EXIT STAIR DOWN	1			1		STAIR-1	WEST		
/			10	00	0253	5S1					5S1	S17								STAIR-1	WEST		No need for sign.
/			10	00	0253	5S1					5S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253	5S1					5S1	S14	13B	STAIR 1...NO ROOF ACCESS...5...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		Lose the "star" in this sign.
/			10	00	0253	5S2				236	5S2	S15	3	STAIR 2...EXIT STAIR DOWN	1			1		STAIR-2	EAST		
/			10	00	0253	5S2					5S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backler	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
10	00	0253	5S2				5S2	S14	13B	STAIR 2...ROOF ACCESS...5...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.
10	00	0253	5S3			167	5S3	S15	3	STAIR 3...EXIT STAIR DOWN	1			1		STAIR-3	EAST		
10	00	0253	5S3				5S3	S17						1		STAIR-3	EAST		No need for sign.
10	00	0253	5S3				5S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
10	00	0253	5S3				5S3	S14	13B	STAIR 3...NO ROOF ACCESS...5...1 HROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		Lose the "star" in this sign.
10	00	0253	5S4			214	5S4	S15	3	STAIR 4...EXIT STAIR DOWN	1			1		STAIR-4	EAST		
10	00	0253	5S4				5S4	S17						1		STAIR-4	EAST		No need for sign.
10	00	0253	5S4				5S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
10	00	0253	5S4				5S4	S14	13B	STAIR 4...NO ROOF ACCESS...5...1 HROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		Lose the "star" in this sign.
10	00	0253	5T1			157	5T1	S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST		Unisex Sign on wall, install with silicon and double side tape.
10	00	0253	5T1				5T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
10	00	0253	5T1				5T1		15A	5T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
10	00	0253	5U3	5U2		9	5U3, 5U2		15	5U2	1			1		IDF	EAST		
Roof:																			
10	00	0253	601		44		601		15 (EXTERIOR)	601	1			1		LANTERN	EAST		
10	00	0253	602		51		602		15 (EXTERIOR)	602	1			1		LANTERN	EAST		
10	00	0253	603		51		603		15 (EXTERIOR)	603	1			1		LANTERN	EAST		
10	00	0253	674	6M2		544	674-A, 6M2.A		15 (EXTERIOR)	6M2	1			1		ROOF TOP EQUIP	EAST		
10	00	0253	674	6M2			674-B, 6M2.B		15 (EXTERIOR)	6M3	1			1		ROOF TOP EQUIP	EAST		
10	00	0253	6S2			248	6S2	S15	3	STAIR 2...EXIT STAIR DOWN	1			1		STAIR-2	EAST		
10	00	0253	6S2				6S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
10	00	0253	6S2				6S2	S14	13B	STAIR 2...ROOF ACCESS...ROOF...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.
ADD TO ORDER:																			
									1 (EXTERIOR)	1J1A (first line)FIRE RISER CLOSET (second line)?	1			1					This is for place holder only. Need to confirm final signage copy with Fire Marshal.
									6 (WOMEN)	WOMEN	5			5					ADDITIONAL SIGNS WITHOUT INSTALLATION
									4 (WOMEN)	WOMEN	5			5					ADDITIONAL SIGNS WITHOUT INSTALLATION
									6 (MEN)	MEN	5			5					ADDITIONAL SIGNS WITHOUT INSTALLATION
									4 (MEN)	MEN	5			5					ADDITIONAL SIGNS WITHOUT INSTALLATION
									9A	Additional frame for annunciation Map and evacuation plan	5			5					ADDITIONAL SIGNS WITHOUT INSTALLATION
									22C	(8.5"X11" PORTRAIT insert)	20			20					ADDITIONAL SIGNS WITHOUT INSTALLATION
Total:					61,337	32,099					626	195	11	626					
					(ASF)	(NASF)													

UC MERCED
Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
I					0253	102		462		102		1	102...TRASH	1		1	1		TRASH	WEST	FROM 1C1 TO 102		
I					0253	150		183		150		1	150...KITCHEN	1		1	1		KITCHEN	EAST			
I					0253	155		710		155		1	155...LAUNDRY	1		1	1		LAUNDRY	EAST			
I					0253	1E1			91	1E1	S1	1	1E1...ELEVATOR 1	1		1	1		ELEVATOR-1	EAST			
I					0253	1E2			83	1E2	S1	1	1E2...ELEVATOR 2	1		1	1		ELEVATOR-2	EAST			
I					0253	1J1			194	1J1		1	1J1...CUSTODIAN	1		1	1		MAIN CUST	WEST			
I					0253	201		167		201		1	201...STUDY	1		1	1		STUDY	WEST			
I					0253	202		86		202		1	202...TRASH	1		1	1		TRASH	WEST			
I					0253	241		454		241		1	241...LOUNGE	1		1	1		LOUNGE	WEST			
I					0253	270		258		270		1	270...STUDY	1		1	1		STUDY	EAST			
I					0253	271		104		271		1	271...TRASH	1		1	1		TRASH	EAST			
I					0253	287		164		287		1	287...STUDY	1		1	1		STUDY	EAST			
I					0253	2E1			91	2E1	S1	1	2E1...ELEVATOR 1	1		1	1		ELEVATOR-1	EAST			
I					0253	2E2			83	2E2	S1	1	2E2...ELEVATOR 2	1		1	1		ELEVATOR-2	EAST			
I					0253	2J1			54	2J1		1	2J1...CUSTODIAN	1		1	1		CUST	EAST			
I					0253	301		167		301		1	301...STUDY	1		1	1		STUDY	WEST			
I					0253	302		86		302		1	302...TRASH	1		1	1		TRASH	WEST			
I					0253	341		454		341		1	341...LOUNGE	1		1	1		LOUNGE	WEST			
I					0253	370		358		370		1	370...STUDY	1		1	1		STUDY	EAST			
I					0253	371		104		371		1	371...TRASH	1		1	1		TRASH	EAST			
I					0253	387		164		387		1	387...STUDY	1		1	1		STUDY	EAST			
I					0253	3E1			91	3E1	S1	1	3E1...ELEVATOR 1	1		1	1		ELEVATOR-1	EAST			
I					0253	3E2			83	3E2	S1	1	3E2...ELEVATOR 2	1		1	1		ELEVATOR-2	EAST			
I					0253	3J1			54	3J1		1	3J1...CUSTODIAN	1		1	1		CUST	EAST			
I					0253	401		167		401		1	401...STUDY	1		1	1		STUDY	WEST			
I					0253	402		86		402		1	402...TRASH	1		1	1		TRASH	WEST			
I					0253	441		447		441		1	441...LOUNGE	1		1	1		LOUNGE	WEST			
I					0253	470		358		470		1	470...STUDY	1		1	1		STUDY	EAST			
I					0253	471		104		471		1	471...TRASH	1		1	1		TRASH	EAST			
I					0253	487		164		487		1	487...STUDY	1		1	1		STUDY	EAST			
I					0253	4E1			91	4E1	S1	1	4E1...ELEVATOR 1	1		1	1		ELEVATOR-1	EAST			
I					0253	4E2			83	4E2	S1	1	4E2...ELEVATOR 2	1		1	1		ELEVATOR-2	EAST			
I					0253	4J1			54	4J1		1	4J1...CUSTODIAN	1		1	1		CUST	EAST			
I					0253	501		173		501		1	501...STUDY	1		1	1		STUDY	WEST			
I					0253	502		85		502		1	502...TRASH	1		1	1		TRASH	WEST			
I					0253	541		454		541		1	541...LOUNGE	1		1	1		LOUNGE	WEST			
I					0253	570		358		570		1	570...STUDY	1		1	1		STUDY	EAST			
I					0253	571		104		571		1	571...TRASH	1		1	1		TRASH	EAST			
I					0253	587		164		587		1	587...STUDY	1		1	1		STUDY	EAST			
I					0253	5E1			91	5E1	S1	1	5E1...ELEVATOR 1	1		1	1		ELEVATOR-1	EAST			
I					0253	5E2			83	5E2	S1	1	5E2...ELEVATOR 2	1		1	1		ELEVATOR-2	EAST			
I					0253	5J1			54	5J1		1	5J1...CUSTODIAN	1		1	42		CUST	EAST			
I					0253	160				160		1 (EXTERIOR)	160...GAME ROOM	1		1	1		GAME ROOM	EAST			
I					0253	160				160.A		1 (EXTERIOR)	160...GAME ROOM	1		1	1		GAME ROOM	EAST			
I					0253	170		174		170		1 (EXTERIOR)	170...VENDING	1		1	1		VENDING	EAST			
I					0253	175		393		175		1 (EXTERIOR)	175...TRASH	1		1	1		TRASH	EAST			
I					0253				651	G001		1 (EXTERIOR)	1X1...BIKE BARN	1		1	1		BIKE SHED	EAST			
I					0253					G002		1 (EXTERIOR)	1X1...BIKE BARN	1		1	1		BIKE SHED	EAST			
I					0253	1J1.A			18	1J1.A		1 (EXTERIOR)	1J1A (first line)FIRE RISER CLOSET (second line)?	1		1	1		FR CLOSET	WEST		Need to confirm final signage copy with Fire Marshal.	
I					0253	1S1				1S1.A		1 (EXTERIOR)	1S1...STAIR 1	1		1	1		STAIR-1	WEST			
I					0253	1S2				1S2.A		1 (EXTERIOR)	1S2...STAIR 2	1		1	1		STAIR-2	EAST			
I					0253	1S3			177	1S3		1 (EXTERIOR)	1S3...STAIR 3	1		1	1		STAIR-3	EAST			
I					0253	1S4			253	1S4		1 (EXTERIOR)	1S4...STAIR 4	1		1	1		STAIR-4	EAST			
I					0253	1S5			54	1S5		1 (EXTERIOR)	1S5...STAIR 5	1		1	1		STAIR-5	EAST			
I					0253	195A		133		195.A		2	195A	1		1	1	13		OFFICES	EAST		This is for place holder only. Need to confirm final signage copy with Fire Marshal.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	195C		115		195.C		2	195C	1		1	1		OFFICES	EAST		
/			10	00	0253	195D		116		195.D		2	195D	1		1	1		OFFICES	EAST		
/			10	00	0253	195E		121		195.E		2	195E	1		1	1		OFFICE	EAST		
/			10	00	0253	195F		119		195.F		2	195F	1		1	1		OFFICE	EAST		
/			10	00	0253	195H		124		195.H		2	195H	1		1	1		OFFICE	EAST		
/			10	00	0253	195J		97		195.J		2	195J	1		1	1	7	FAX/COPY	EAST		
/			10	00	0253	195		208		195	S20	2 (EXTERIOR)	195	1		1	1	1	OFFICES	EAST		
/			10	00	0253	1S1			194	1S1		3	STAIR 1...EXIT STAIR DOWN	1		1	1		STAIR-1	WEST		
/			10	00	0253	1S2			237	1S2		3	STAIR 2...TO EXIT	1		1	1		STAIR-2	EAST		
/			10	00	0253	2S1			189	2S1	S15	3	STAIR 1...EXIT STAIR DOWN	1		1	1		STAIR-1	WEST		
/			10	00	0253	2S2			237	2S2	S15	3	STAIR 2...EXIT STAIR DOWN	1		1	1		STAIR-2	EAST		
/			10	00	0253	2S3			167	2S3	S15	3	STAIR 3...EXIT STAIR DOWN	1		1	1		STAIR-3	EAST		
/			10	00	0253	2S4			214	2S4	S15	3	STAIR 4...EXIT STAIR DOWN	1		1	1		STAIR-4	EAST		
/			10	00	0253	3S1			189	3S1	S15	3	STAIR 1...EXIT STAIR DOWN	1		1	1		STAIR-1	WEST		
/			10	00	0253	3S2			236	3S2	S15	3	STAIR 2...EXIT STAIR DOWN	1		1	1		STAIR-2	EAST		
/			10	00	0253	3S3			167	3S3	S15	3	STAIR 3...EXIT STAIR DOWN	1		1	1		STAIR-3	EAST		
/			10	00	0253	3S4			214	3S4	S15	3	STAIR 4...EXIT STAIR DOWN	1		1	1		STAIR-4	EAST		
/			10	00	0253	4S1			189	4S1	S15	3	STAIR 1...EXIT STAIR DOWN	1		1	1		STAIR-1	WEST		
/			10	00	0253	4S2			236	4S2	S15	3	STAIR 2...EXIT STAIR DOWN	1		1	1		STAIR-2	EAST		
/			10	00	0253	4S3			167	4S3	S15	3	STAIR 3...EXIT STAIR DOWN	1		1	1		STAIR-3	EAST		
/			10	00	0253	4S4			214	4S4	S15	3	STAIR 4...EXIT STAIR DOWN	1		1	1		STAIR-4	EAST		
/			10	00	0253	5S1			189	5S1	S15	3	STAIR 1...EXIT STAIR DOWN	1		1	1		STAIR-1	WEST		
/			10	00	0253	5S2			236	5S2	S15	3	STAIR 2...EXIT STAIR DOWN	1		1	1		STAIR-2	EAST		
/			10	00	0253	5S3			167	5S3	S15	3	STAIR 3...EXIT STAIR DOWN	1		1	1		STAIR-3	EAST		
/			10	00	0253	5S4			214	5S4	S15	3	STAIR 4...EXIT STAIR DOWN	1		1	1		STAIR-4	EAST		
/			10	00	0253	6S2			248	6S2	S15	3	STAIR 2...EXIT STAIR DOWN	1		1	1	19	STAIR-2	EAST		
/			10	00	0253	134D				134.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	204D				204.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	224D				224.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	254D				254.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	294D				294.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	304D				304.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	324D				324.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	354D				354.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	394D				394.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	404D				404.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	424D				424.D		4 (MEN)	MEN	1		1	1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	454D				454.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/			10	00	0253	494D				494.D		4 (MEN)	MEN	1		1	1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/				0253	504D				504.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	524D				524.D		4 (MEN)	MEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	554D				554.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	594D				594.D		4 (MEN)	MEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
											4 (MEN)	MEN	5			5	22				ADDITIONAL SIGNS WITHOUT INSTALLATION
/				0253	1T2				1T2		4 (EXTERIOR)	MEN	1			1	1	MEN'S W.C.	EAST		Sign on door, install with silicon and double side tape.
/				0253	2T1				2T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
/				0253	3T1				3T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
/				0253	4T1				4T1		4 (UNISEX)	RESTROOM	1			1		BATH	EAST		Sign on door, install with silicon and double side tape.
/				0253	5T1				5T1		4 (UNISEX)	RESTROOM	1			1	4	BATH	EAST		Sign on door, install with silicon and double side tape.
/				0253	114D				114.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	124D				124.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	214D				214.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	234D				234.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	264D				264.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	284D				284.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	314D				314.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	334D				334.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	364D				364.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	384D				384.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	414D				414.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	434D				434.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	464D				464.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	484D				484.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.
/				0253	514D				514.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/				0253	534D				534.D		4 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.		
/				0253	564D				564.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.		
/				0253	584D				584.D		4 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on door, base on the Men's triangle shape for the 3M Dual 'Low Profile' (clear), no screws.		
										Additional Order:	4 (WOMEN)	WOMEN	5			5	23				ADDITIONAL SIGNS WITHOUT INSTALLATION	
/				0253	1T1				1T1		4 (EXTERIOR)	WOMEN	1			1	1	WOMEN'S W.C.	EAST	Sign on door, install with silicon and double side tape.		
/				0253	1T1				1T1	S8	5 (EXTERIOR)	ACCESSIBLE RESTROOMS (right arrow)	2			2	2	WOMEN'S W.C.	EAST			
/				0253	1T2				1T2		5 (EXTERIOR)	ACCESSIBLE RESTROOMS (left arrow)	2			2	2	MEN'S W.C.	EAST			
/				0253	1S1				1S1	S6A	5 (change Sign Type to 5A)	ACCESSIBLE EXIT (arrow points to right)	1			1	1	STAIR-1	WEST	Please change the sign size to 11"L x 7"H. Put left arrow below "EXIT".		
/				0253	1S1				1S1.A	S6B	5 (change Sign Type to 5B) (EXTERIOR)	ACCESSIBLE BUILDING ENTRY (arrow points to right)	1			1		STAIR-1	WEST	Please change the sign size to 11"L x 9"H. Put left arrow below "EXIT".		
/				0253	1S3				1S3		5 (change Sign Type to 5B) (EXTERIOR)	ACCESSIBLE BUILDING ENTRY (arrow points to right)	1			1	2	STAIR-3	EAST	Please change the sign size to 11"L x 9"H. Put left arrow below "EXIT".		
/				0253	134D		265	134.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	204D		272	204.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	224D		269	224.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	254D		269	254.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	294D		269	294.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	304D		239	304.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	324D		269	324.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	354D		269	354.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	394D		269	394.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	404D		269	404.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	424D		269	424.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	454D		269	454.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	494D		269	494.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	504D		269	504.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	524D		272	524.D		S9B	6 (MEN)	MEN	1			1		BATH	WEST	Sign on wall.		
/				0253	554D		269	554.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
/				0253	594D		269	594.D		S9B	6 (MEN)	MEN	1			1		BATH	EAST	Sign on wall.		
										Additional Order:	6 (MEN)	MEN	5			5	22				ADDITIONAL SIGNS WITHOUT INSTALLATION	
/				0253	1T2		140	1T2		S5C	6 (EXTERIOR)	MEN	1			1	1	MEN'S W.C.	EAST	Sign on wall, install with silicon and double side tape.		
/				0253	2T1		157	2T1		S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST	Unisex Sign on wall, install with silicon and double side tape.		
/				0253	3T1		157	3T1		S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST	Unisex Sign on wall, install with silicon and double side tape.		
/				0253	4T1		157	4T1		S23A	6 (UNISEX)	RESTROOM	1			1		BATH	EAST	Unisex Sign on wall, install with silicon and double side tape.		
/				0253	5T1		157	5T1		S23A	6 (UNISEX)	RESTROOM	1			1	4	BATH	EAST	Unisex Sign on wall, install with silicon and double side tape.		
/				0253	114D		269	114.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	124D		269	124.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	214D		269	214.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	234D		266	234.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	264D		269	264.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.		
/				0253	284D		270	284.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.		
/				0253	314D		269	314.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	334D		266	334.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		
/				0253	364D		269	364.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.		
/				0253	384D		270	384.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST	Sign on wall.		
/				0253	414D		263	414.D		S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST	Sign on wall.		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/			10	00	0253	434D			266	434.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.	
/			10	00	0253	464D			269	464.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.	
/			10	00	0253	484D			270	484.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.	
/			10	00	0253	514D			269	514.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.	
/			10	00	0253	534D			266	534.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	WEST		Sign on wall.	
/			10	00	0253	564D			269	564.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.	
/			10	00	0253	584D			270	584.D	S9A	6 (WOMEN)	WOMEN	1			1		BATH	EAST		Sign on wall.	
												Additional Order:	6 (WOMEN)	WOMEN			5	23					ADDITIONAL SIGNS WITHOUT INSTALLATION
/			10	00	0253	1T1			256	1T1	S5A	6 (EXTERIOR)	WOMEN	1			1	1	WOMEN'S W.C.	EAST		Sign on wall, install with silicon and double side tape.	
/			10	00	0253	160				160		7	ASSISTIVE LISTENING SYSTEM AVAILABLE	1			1		GAME ROOM	EAST		Location to be determined. Put this together with Max Occ sign.	
/			10	00	0253	180				180	S10	7	ASSISTIVE LISTENING SYSTEM AVAILABLE	1			1	2	MULTI-PURPOSE	EAST		Location to be determined. Put this together with Max Occ sign.	
/			10	00	0253	101				101	S11B	8	EXIT	1			1		PORCH	WEST	FROM 103 TO 101		
/			10	00	0253	140				140	S11B	8	EXIT	1			1		LOBBY/LOUNGE	EAST			
/			10	00	0253	145				145	S11B	8	EXIT	1			1		LOBBY	EAST			
/			10	00	0253	160		1107		160	S11B	8	EXIT	1			1		GAME ROOM	EAST			
/			10	00	0253	160				160.A	S11B	8	EXIT	1			1		GAME ROOM	EAST			
/			10	00	0253	180		1762		180	S11B	8	EXIT	1		1	1		MULTI-PURPOSE	EAST			
/			10	00	0253	180				180.A	S11B	8	EXIT	1		1	1		MULTI-PURPOSE	EAST			
/			10	00	0253	195				195		8	EXIT	1		1	1		OFFICES	EAST			
/			10	00	0253	1C1			1008	1C1	S11B	8	EXIT	1			1		CORRIDOR	WEST	FROM 1C1 TO EXTERIOR		
/			10	00	0253	1C1				1C1.A	S11B	8	TO EXIT	1			1		CORRIDOR	WEST	FROM 1C1 TO EAST		
/			10	00	0253	1S1				1S1.A		8	EXIT	1			1		STAIR-1	WEST			
/			10	00	0253	1S2				1S2.A	S11B	8	EXIT	1			1		STAIR-2	EAST			
/			10	00	0253	1S3				1S3	S11B	8	EXIT	1			1		STAIR-3	EAST			
/			10	00	0253	1S4				1S4	S11B	8	EXIT	1			1		STAIR-4	EAST			
/			10	00	0253	2C1			1185	2C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST			
/			10	00	0253	2C2			683	2C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	2C10			558	2C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	3C1			1204	3C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST			
/			10	00	0253	3C2			683	3C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	3C10			556	3C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	4C1			1204	4C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST			
/			10	00	0253	4C2			682	4C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	4C10			558	4C10	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	5C1			1193	5C1	S11C	8	TO EXIT	1			1		CORRIDOR	WEST			
/			10	00	0253	5C2			683	5C2	S11C	8	TO EXIT	1			1		CORRIDOR	EAST			
/			10	00	0253	5C10			558	5C10	S11C	8	TO EXIT	1			1	26	CORRIDOR	EAST			
/			10	00	0253	140				140		9A		1			1		LOBBY/LOUNGE	EAST		Frame for evacuation plan.	
/			10	00	0253	140				1C1.B		9A		1			1		LOBBY/LOUNGE	EAST		Frame for evacuation plan.	
/			10	00	0253	145				145		9A		1			1		LOBBY	EAST		Frame for evacuation plan.	
/			10	00	0253	160				160		9A		1			1		GAME ROOM	EAST		Frame for evacuation plan.	
/			10	00	0253	160				160.A		9A		1			1		GAME ROOM	EAST		Frame for evacuation plan.	
/			10	00	0253	172						9A		1			1		TUTORING	EAST		Frame for evacuation plan, place at the outside wall of room 172.	
/			10	00	0253	180				180		9A		1			1		MULTI-PURPOSE	EAST		Frame for evacuation plan.	
/			10	00	0253	180				180.A		9A		1			1		MULTI-PURPOSE	EAST		Frame for evacuation plan.	
/			10	00	0253	195				195		9A		1			1		OFFICES	EAST		Frame for evacuation plan.	
/			10	00	0253	1C1				1C1		9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EXTERIOR	Frame for evacuation plan.	
/			10	00	0253	1C1				1C1.A		9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EAST	Frame for evacuation plan.	
/			10	00	0253	1C1						9A		1			1		CORRIDOR	WEST	FROM 1C1 TO EAST	Frame for evacuation plan, Location between door 1C1A and 1C1B.	
/			10	00	0253	1E1				1E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.	
/			10	00	0253	1S1				1S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.	
/			10	00	0253	1S1				1S1.A		9A		1			1		STAIR-1	WEST		Frame for evacuation plan.	
/			10	00	0253	1S2				1S2.A		9A		1			1		STAIR-2	EAST		Frame for evacuation plan.	
/			10	00	0253	1S3				1S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.	
/			10	00	0253	1S4				1S4		9A		1			1		STAIR-4	EAST		Frame for evacuation plan.	

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	240	181		240		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	2C1			2C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	2C1					9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 2C1 and 240.
/			10	00	0253	2C2			2C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	2C2					9A		1			1		CORRIDOR	EAST		Frame for evacuation plan, Location between door 2C2 and 2C10.
/			10	00	0253	2C10			2C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	2E1			2E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253	2S1			2S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253	2S2			2S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
/			10	00	0253	2S3			2S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/			10	00	0253	2S4			2S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253	340	180		340		9A		1			1		LOBBY	WEST		Frame for evacuation plan.
/			10	00	0253	3C1			3C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	3C1					9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 3C1 and 340.
/			10	00	0253	3C2			3C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	3C2					9A		1			1		CORRIDOR	EAST		Frame for evacuation plan, Location between door 3C2 and 3C10.
/			10	00	0253	3C10			3C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	3E1			3E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253	3S1			3S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253	3S2			3S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
/			10	00	0253	3S3			3S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/			10	00	0253	3S4			3S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253	440	178		440		9A		1			1		LOBBY	WEST		Frame for evacuation plan.
/			10	00	0253	4C1			4C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	4C1					9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 4C1 and 440.
/			10	00	0253	4C2			4C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	4C2					9A		1			1		CORRIDOR	EAST		Frame for evacuation plan, Location between door 4C2 and 4C10.
/			10	00	0253	4C10			4C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	4E1			4E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253	4S1			4S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253	4S2			4S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
/			10	00	0253	4S3			4S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/			10	00	0253	4S4			4S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253	540	187		540		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	5C1			5C1		9A		1			1		CORRIDOR	WEST		Frame for evacuation plan.
/			10	00	0253	5C1					9A		1			1		CORRIDOR	WEST		Frame for evacuation plan, Location between door 5C1 and 540.
/			10	00	0253	5C2			5C2		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	5C2					9A		1			1		CORRIDOR	EAST		Frame for evacuation plan, Location between door 5C2 and 5C10.
/			10	00	0253	5C10			5C10		9A		1			1		CORRIDOR	EAST		Frame for evacuation plan.
/			10	00	0253	5E1			5E1	S12	9A		1			1		ELEVATOR-1	EAST		Frame for evacuation plan.
/			10	00	0253	5S1			5S1	S12	9A		1			1		STAIR-1	WEST		Frame for evacuation plan.
/			10	00	0253	5S2			5S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
/			10	00	0253	5S3			5S3	S12	9A		1			1		STAIR-3	EAST		Frame for evacuation plan.
/			10	00	0253	5S4			5S4	S12	9A		1			1		STAIR-4	EAST		Frame for evacuation plan.
/			10	00	0253	6S2			6S2	S12	9A		1			1		STAIR-2	EAST		Frame for evacuation plan.
										Additional Order:	9A	Additional frame for annunciation Map and evacuation plan	5			5	68				ADDITIONAL SIGNS WITHOUT INSTALLATION
/			10	00	0253	1E1			1E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253	2E1			2E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253	3E1			3E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		
/			10	00	0253	4E1			4E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1		ELEVATOR-1	EAST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	5E1			5E1	S16	10	IN CASE OF FIRE, USE STAIRWAY	1			1	5	ELEVATOR-1	EAST		
/			10	00	0253	140			140		12 (EXTERIOR)	ISA symbol	1			1		LOBBY/LOUNGE	EAST		
/			10	00	0253	145			145		12 (EXTERIOR)	ISA symbol	1			1	2	LOBBY	EAST		
/			10	00	0253	1S1			1S1	S14	13B	STAIR 1...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		
/			10	00	0253	1S2			1S2	S14	13B	STAIR 2...ROOF ACCESS...1...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		
/			10	00	0253	1S3			1S3	S14	13B	STAIR 3...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		
/			10	00	0253	1S4			1S4	S14	13B	STAIR 4...NO ROOF ACCESS...1...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		
/			10	00	0253	2S1			2S1	S14	13B	STAIR 1...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST	Lose the "star" in this sign.	
/			10	00	0253	2S2			2S2	S14	13B	STAIR 2...ROOF ACCESS...2...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST	Lose the "star" in this sign.	
/			10	00	0253	2S3			2S3	S14	13B	STAIR 3...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST	Lose the "star" in this sign.	
/			10	00	0253	2S4			2S4	S14	13B	STAIR 4...NO ROOF ACCESS...2...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST	Lose the "star" in this sign.	
/			10	00	0253	3S1			3S1	S14	13B	STAIR 1...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST	Lose the "star" in this sign.	
/			10	00	0253	3S2			3S2	S14	13B	STAIR 2...ROOF ACCESS...3...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST	Lose the "star" in this sign.	
/			10	00	0253	3S3			3S3	S14	13B	STAIR 3...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST	Lose the "star" in this sign.	
/			10	00	0253	3S4			3S4	S14	13B	STAIR 4...NO ROOF ACCESS...3...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST	Lose the "star" in this sign.	
/			10	00	0253	4S1			4S1	S14	13B	STAIR 1...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST	Lose the "star" in this sign.	
/			10	00	0253	4S2			4S2	S14	13B	STAIR 2...ROOF ACCESS...4...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST	Lose the "star" in this sign.	
/			10	00	0253	4S3			4S3	S14	13B	STAIR 3...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST	Lose the "star" in this sign.	
/			10	00	0253	4S4			4S4	S14	13B	STAIR 4...NO ROOF ACCESS...4...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST	Lose the "star" in this sign.	

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/				0253	5S1				5S1	S14	13B	STAIR 1...NO ROOF ACCESS...5...1 THROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-1	WEST		Lose the "star" in this sign.
/				0253	5S2				5S2	S14	13B	STAIR 2...ROOF ACCESS...5...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1		STAIR-2	EAST		Lose the "star" in this sign.
/				0253	5S3				5S3	S14	13B	STAIR 3...NO ROOF ACCESS...5...1 HROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-3	EAST		Lose the "star" in this sign.
/				0253	5S4				5S4	S14	13B	STAIR 4...NO ROOF ACCESS...5...1 HROUGH 5...EXIT ON FLOOR 1	1			1		STAIR-4	EAST		Lose the "star" in this sign.
/				0253	6S2				6S2	S14	13B	STAIR 2...ROOF ACCESS...ROOF...1 THROUGH ROOF...EXIT ON FLOOR 1	1			1	21	STAIR-2	EAST		Lose the "star" in this sign.
/				0253	4J2	155A	227	4J2.A, 155A.A			15	155A	1			1		ACCESS	EAST		
/				0253	4J2	155A		4J2.B, 155A.B			15	155A	1			1		ACCESS	EAST		
/				0253	185A		133	185A			15	185A	1			1		MULTI-PURPOSE	EAST		
/				0253	4J3	1EM1	36	4J3, 1EM1			15	1EM1	1			1		ELEV MACH	EAST		
/				0253	1M1		148	1M1			15	1M1	1			1		ELEC.	WEST		
/				0253	1M1.1		11	1M1.1			15	1M1.1	1			1		ELEC.	WEST		
/				0253	1M2			1M3A			15	1M2	1			1		ELECTRICAL	EAST		
/				0253	1M3			1M3.A			15	1M3	1			1		ELECTRICAL	EAST		
/				0253	1U1		229	1U1			15	1U1	1			1		BDF	EAST		
/				0253	2U1		181	2U1			15	2U1	1			1		IDF	WEST		
/				0253	2U2		137	2U2			15	2U2	1			1		IDF	EAST		
/				0253	3M1		149	3M1			15	3M1	1			1		ELEC.	WEST		
/				0253	3M4	3M1A		3M1.A			15	3M1A	1			1		ELEC.	WEST		
/				0253	3M2		125	3M2			15	3M2	1			1		ELEC.	EAST		
/				0253	3U2		9	3U2			15	3U2	1			1		IDF	EAST		
/				0253	4U1		162	4U1			15	4U1	1			1		IDF	WEST		
/				0253	4U2		137	4U2			15	4U2	1			1		IDF	EAST		
/				0253	5M1		142	5M1			15	5M1	1			1		ELEC.	WEST		
/				0253		5M1A		5M1.A			15	5M1A	1			1		ELEC.	WEST		
/				0253	5M2		125	5M2			15	5M2	1			1		ELEC.	EAST		
/				0253	5U3	5U2	9	5U3, 5U2			15	5U2	1			1	21	IDF	EAST		
/				0253	173		218	173			15 (EXTERIOR)	173	1			1		STORAGE	EAST		
/				0253	190		249	190			15 (EXTERIOR)	190	1			1		STORAGE/ICE	EAST		
/				0253	1M2		129	1M2			15 (EXTERIOR)	1M2	1			1		ELECTRICAL	EAST		
/				0253	1M3		88	1M3			15 (EXTERIOR)	1M3	1			1		ELECTRICAL	EAST		
/				0253	1M4		444	1M4			15 (EXTERIOR)	1M4	1			1		MECHANICAL	EAST		
/				0253	601		44	601			15 (EXTERIOR)	601	1			1		LANTERN	EAST		
/				0253	602		51	602			15 (EXTERIOR)	602	1			1		LANTERN	EAST		
/				0253	603		51	603			15 (EXTERIOR)	603	1			1		LANTERN	EAST		
/				0253	674	6M2	544	674-A, 6M2.A			15 (EXTERIOR)	6M2	1			1		ROOF TOP EQUIP	EAST		
/				0253	674	6M2		674-B, 6M2.B			15 (EXTERIOR)	6M3	1			1	10	ROOF TOP EQUIP	EAST		
/				0253	114D			114.D			15A	114D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/				0253	124D			124.D			15A	124D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/				0253	134D			134.D			15A	134D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/				0253	204D			204.D			15A	204D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/				0253	214D			214.D			15A	214D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	224D			224.D		15A	224D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	234D			234.D		15A	234D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	254D			254.D		15A	254D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	264D			264.D		15A	264D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	284D			284.D		15A	284D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	294D			294.D		15A	294D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	2T1			2T1		15A	2T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	304D			304.D		15A	304D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	314D			314.D		15A	314D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	324D			324.D		15A	324D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	334D			334.D		15A	334D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	354D			354.D		15A	354D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	364D			364.D		15A	364D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	384D			384.D		15A	384D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	394D			394.D		15A	394D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	3T1			3T1		15A	3T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	404D			404.D		15A	404D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	414D			414.D		15A	414D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	424D			424.D		15A	424D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	434D			434.D		15A	434D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	454D			454.D		15A	454D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	464D			464.D		15A	464D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	484D			484.D		15A	484D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	494D			494.D		15A	494D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	4T1			4T1		15A	4T1	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	504D			504.D		15A	504D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	514D			514.D		15A	514D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	524D			524.D		15A	524D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	534D			534.D		15A	534D	1			1		BATH	WEST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	554D			554.D		15A	554D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	564D			564.D		15A	564D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	584D			584.D		15A	584D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	594D			594.D		15A	594D	1			1		BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	5T1			5T1		15A	5T1	1			1	39	BATH	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.
/			10	00	0253	1T1			1T1		15A (EXTEREIOR)	1T1	1			1		WOMEN'S W.C.	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non-Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/			10	00	0253		1T2					1T2		15A (EXTERIOR)	1T2	1			1	2	MEN'S W.C.	EAST		Make this sign to be 8"Lx4"H, only show room number and Braille.	
/			10	00	0253		140			590		140	S21	16 (EXTERIOR)	HALF (first line) DOME (second line)	1			1		LOBBY/LOUNGE	EAST		Note the sign location changes. The sign needs to be outside of the entrance.	
/			10	00	0253		145			287		145		16 (EXTERIOR)	HALF (first line) DOME (second line)	1			1		LOBBY	EAST		Note the sign location changes. The sign needs to be outside of the entrance.	
/			10	00	0253		1C1					1C1		16 (EXTERIOR)	ACCESS FOR (first line) RESIDENTS AND (second line) ESCORTED GUESTS (third	1			1	3	CORRIDOR	WEST	FROM 1C1 TO EXTERIOR		
/			10	00	0253		1S1					1S1	S17									STAIR-1	WEST		No need for sign.
/			10	00	0253		1S3					1S3	S17									STAIR-3	EAST		No need for sign.
/			10	00	0253		1S4					1S4	S17									STAIR-4	EAST		No need for sign.
/			10	00	0253		2S1					2S1	S17									STAIR-1	WEST		No need for sign.
/			10	00	0253		2S3					2S3	S17									STAIR-3	EAST		No need for sign.
/			10	00	0253		2S4					2S4	S17									STAIR-4	EAST		No need for sign.
/			10	00	0253		3S1					3S1	S17									STAIR-1	WEST		No need for sign.
/			10	00	0253		3S3					3S3	S17									STAIR-3	EAST		No need for sign.
/			10	00	0253		3S4					3S4	S17									STAIR-4	EAST		No need for sign.
/			10	00	0253		4S1					4S1	S17									STAIR-1	WEST		No need for sign.
/			10	00	0253		4S3					4S3	S17									STAIR-3	EAST		No need for sign.
/			10	00	0253		4S4					4S4	S17									STAIR-4	EAST		No need for sign.
/			10	00	0253		5S1					5S1	S17									STAIR-1	WEST		No need for sign.
/			10	00	0253		5S3					5S3	S17									STAIR-3	EAST		No need for sign.
/			10	00	0253		5S4					5S4	S17									STAIR-4	EAST		No need for sign.
/			10	00	0253		103			210		101		18	103	1			1			KITCHEN	WEST		
/			10	00	0253		103E			75		103.E		18	103	1	1		1			RLC	WEST		
/			10	00	0253		112			230		112		18	112	1	1		1			DORM A	WEST		
/			10	00	0253		113			268		113		18	113	1	1		1			DORM B	WEST		
/			10	00	0253		115			238		115		18	115	1	1		1			DORM A	WEST		
/			10	00	0253		116			242		116		18	116	1	1		1			DORM A	WEST		
/			10	00	0253		121			238		121		18	121	1	1		1			DORM A	WEST		
/			10	00	0253		122			234		122		18	122	1	1		1			DORM A	WEST		
/			10	00	0253		123			272		123		18	123	1	1		1			DORM B	WEST		
/			10	00	0253		125			238		125		18	125	1	1		1			CORRIDOR	WEST		
/			10	00	0253		126			241		126		18	126	1	1		1			DORM A	WEST		
/			10	00	0253		131			238		131		18	131	1	1		1			CORRIDOR	WEST		
/			10	00	0253		132			234		132		18	132	1	1		1			DORM A	WEST		
/			10	00	0253		133			272		133		18	133	1	1		1			DORM B	WEST		
/			10	00	0253		135			234		135		18	135	1	1		1			DORM A	WEST		
/			10	00	0253		136			238		136		18	136	1	1		1			DORM A	WEST		
/			10	00	0253		203			264		203		18	203	1	1		1			DORM B	WEST		
/			10	00	0253		205			239		205		18	205	1	1		1			DORM A	WEST		
/			10	00	0253		206			229		206		18	206	1	1		1			DORM A	WEST		
/			10	00	0253		207			154		207		18	207	1	1		1			RA/SGL	WEST		
/			10	00	0253		211			239		211		18	211	1	1		1			DORM A	WEST		
/			10	00	0253		212			230		212		18	212	1	1		1			DORM A	WEST		
/			10	00	0253		213			256		213		18	213	1	1		1			DORM B	WEST		
/			10	00	0253		215			239		215		18	215	1	1		1			DORM A	WEST		
/			10	00	0253		216			242		216		18	216	1	1		1			DORM A	WEST		
/			10	00	0253		221			239		221		18	221	1	1		1			DORM A	WEST		
/			10	00	0253		222			234		222		18	222	1	1		1			DORM A	WEST		
/			10	00	0253		223			259		223		18	223	1	1		1			DORM B	WEST		
/			10	00	0253		225			239		225		18	225	1	1		1			DORM A	WEST		
/			10	00	0253		226			242		226		18	226	1	1		1			DORM A	WEST		
/			10	00	0253		230			148		230		18	230	1	1		1			RA/SGL	WEST		
/			10	00	0253		231			239		231		18	231	1	1		1			DORM A	WEST		
/			10	00	0253		232			234		232		18	232	1	1		1			DORM A	WEST		
/			10	00	0253		233			256		233		18	233	1	1		1			DORM B	WEST		
/			10	00	0253		235			238		235		18	235	1	1		1			DORM A	WEST		
/			10	00	0253		236			238		236		18	236	1	1		1			DORM A	WEST		
/			10	00	0253		251			235		251		18	251	1	1		1			DORM A	EAST		
/			10	00	0253		252			236		252		18	252	1	1		1			DORM A	EAST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

				Building # (CANN)	SFX Room	SFX	New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253			259		253		18	253	1	1		1		DORM B	EAST		
/			10	00	0253			239		255		18	255	1	1		1		DORM A	EAST		
/			10	00	0253			242		256		18	256	1	1		1		DORM A	EAST		
/			10	00	0253			164		260		18	260	1	1		1		RA/SGL	EAST		
/			10	00	0253			239		261		18	261	1	1		1		DORM A	EAST		
/			10	00	0253			234		262		18	262	1	1		1		DORM A	EAST		
/			10	00	0253			259		263		18	263	1	1		1		DORM B	EAST		
/			10	00	0253			237		265		18	265	1	1		1		DORM A	EAST		
/			10	00	0253			240		266		18	266	1	1		1		DORM A	EAST		
/			10	00	0253			149		280		18	280	1	1		1		RA/SGL	EAST		
/			10	00	0253			235		281		18	281	1	1		1		DORM A	EAST		
/			10	00	0253			236		282		18	282	1	1		1		DORM A	EAST		
/			10	00	0253			259		283		18	283	1	1		1		DORM B	EAST		
/			10	00	0253			233		285		18	285	1	1		1		CORRIDOR	EAST		
/			10	00	0253			228		286		18	286	1	1		1		DORM A	EAST		
/			10	00	0253			150		290		18	290	1	1		1		RA/SGL	EAST		
/			10	00	0253			254		291		18	291	1	1		1		DORM B	EAST		
/			10	00	0253			234		292		18	292	1	1		1		DORM A	EAST		
/			10	00	0253			239		293		18	293	1	1		1		DORM A	EAST		
/			10	00	0253			259		295		18	295	1	1		1		DORM B	EAST		
/			10	00	0253			236		296		18	296	1	1		1		DORM A	EAST		
/			10	00	0253			242		297		18	297	1	1		1		DORM A	EAST		
/			10	00	0253			264		303		18	303	1	1		1		DORM B	WEST		
/			10	00	0253			239		305		18	305	1	1		1		DORM A	WEST		
/			10	00	0253			229		306		18	306	1	1		1		DORM A	WEST		
/			10	00	0253			239		311		18	311	1	1		1		DORM A	WEST		
/			10	00	0253			230		312		18	312	1	1		1		DORM A	WEST		
/			10	00	0253			256		313		18	313	1	1		1		DORM B	WEST		
/			10	00	0253			239		315		18	315	1	1		1		DORM A	WEST		
/			10	00	0253			242		316		18	316	1	1		1		DORM A	WEST		
/			10	00	0253			239		321		18	321	1	1		1		DORM A	WEST		
/			10	00	0253			234		322		18	322	1	1		1		DORM A	WEST		
/			10	00	0253			259		323		18	323	1	1		1		DORM B	WEST		
/			10	00	0253			239		325		18	325	1	1		1		DORM A	WEST		
/			10	00	0253			242		326		18	326	1	1		1		DORM A	WEST		
/			10	00	0253			239		331		18	331	1	1		1		DORM A	WEST		
/			10	00	0253			234		332		18	332	1	1		1		DORM A	WEST		
/			10	00	0253			266		333		18	333	1	1		1		DORM B	WEST		
/			10	00	0253			238		335		18	335	1	1		1		DORM A	WEST		
/			10	00	0253			238		336		18	336	1	1		1		DORM A	WEST		
/			10	00	0253			235		351		18	351	1	1		1		DORM A	EAST		
/			10	00	0253			236		352		18	352	1	1		1		DORM A	EAST		
/			10	00	0253			259		353		18	353	1	1		1		DORM B	EAST		
/			10	00	0253			239		355		18	355	1	1		1		DORM A	EAST		
/			10	00	0253			242		356		18	356	1	1		1		DORM A	EAST		
/			10	00	0253			148		357		18	357	1	1		1		RA/SGL	EAST		
/			10	00	0253			164		360		18	360	1	1		1		RA/SGL	EAST		
/			10	00	0253			239		361		18	361	1	1		1		DORM A	EAST		
/			10	00	0253			234		362		18	362	1	1		1		DORM A	EAST		
/			10	00	0253			259		363		18	363	1	1		1		DORM B	EAST		
/			10	00	0253			236		365		18	365	1	1		1		DORM A	EAST		
/			10	00	0253			240		366		18	366	1	1		1		DORM A	EAST		
/			10	00	0253			149		380		18	380	1	1		1		RA/SGL	EAST		
/			10	00	0253			235		381		18	381	1	1		1		CORRIDOR	EAST		
/			10	00	0253			236		382		18	382	1	1		1		DORM A	EAST		
/			10	00	0253			259		383		18	383	1	1		1		DORM B	EAST		
/			10	00	0253			233		385		18	385	1	1		1		CORRIDOR	EAST		
/			10	00	0253			228		386		18	386	1	1		1		DORM A	EAST		
/			10	00	0253			150		390		18	390	1	1		1		RA/SGL	EAST		
/			10	00	0253			254		391		18	391	1	1		1		DORM B	EAST		

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
I			10	00	0253	392		234		392		18	392	1	1		1		DORM A	EAST		
I			10	00	0253	393		239		393		18	393	1	1		1		CORRIDOR	EAST		
I			10	00	0253	395		259		395		18	395	1	1		1		DORM B	EAST		
I			10	00	0253	396		236		396		18	396	1	1		1		DORM A	EAST		
I			10	00	0253	397		242		397		18	397	1	1		1		DORM A	EAST		
I			10	00	0253	403		264		403		18	403	1	1		1		DORM B	WEST		
I			10	00	0253	405		239		405		18	405	1	1		1		DORM A	WEST		
I			10	00	0253	406		229		406		18	406	1	1		1		DORM A	WEST		
I			10	00	0253	407		154		407		18	407	1	1		1		RA/SGL	WEST		
I			10	00	0253	411		239		411		18	411	1	1		1		DORM A	WEST		
I			10	00	0253	412		230		412		18	412	1	1		1		DORM A	WEST		
I			10	00	0253	413		256		413		18	413	1	1		1		DORM B	WEST		
I			10	00	0253	415		239		415		18	415	1	1		1		DORM A	WEST		
I			10	00	0253	416		242		416		18	416	1	1		1		DORM A	WEST		
I			10	00	0253	421		239		421		18	421	1	1		1		DORM A	WEST		
I			10	00	0253	422		234		422		18	422	1	1		1		DORM A	WEST		
I			10	00	0253	423		259		423		18	423	1	1		1		DORM B	WEST		
I			10	00	0253	425		239		425		18	425	1	1		1		DORM A	WEST		
I			10	00	0253	426		242		426		18	426	1	1		1		DORM A	WEST		
I			10	00	0253	430		148		430		18	430	1	1		1		RA/SGL	WEST		
I			10	00	0253	431		239		431		18	431	1	1		1		DORM A	WEST		
I			10	00	0253	432		234		432		18	432	1	1		1		DORM A	WEST		
I			10	00	0253	433		256		433		18	433	1	1		1		DORM B	WEST		
I			10	00	0253	435		238		435		18	435	1	1		1		DORM A	WEST		
I			10	00	0253	436		238		436		18	436	1	1		1		DORM A	WEST		
I			10	00	0253	451		235		451		18	451	1	1		1		DORM A	EAST		
I			10	00	0253	452		236		452		18	452	1	1		1		DORM A	EAST		
I			10	00	0253	453		259		453		18	453	1	1		1		DORM B	EAST		
I			10	00	0253	455		239		455		18	455	1	1		1		DORM A	EAST		
I			10	00	0253	456		242		456		18	456	1	1		1		DORM A	EAST		
I			10	00	0253	457		148		457		18	457	1	1		1		RA/SGL	EAST		
I			10	00	0253	460		164		460		18	460	1	1		1		RA/SGL	EAST		
I			10	00	0253	461		239		461		18	461	1	1		1		DORM A	EAST		
I			10	00	0253	462		234		462		18	462	1	1		1		DORM A	EAST		
I			10	00	0253	463		259		463		18	463	1	1		1		DORM B	EAST		
I			10	00	0253	465		236		465		18	465	1	1		1		DORM A	EAST		
I			10	00	0253	466		240		466		18	466	1	1		1		DORM A	EAST		
I			10	00	0253	480		149		480		18	480	1	1		1		RA/SGL	EAST		
I			10	00	0253	481		235		481		18	481	1	1		1		CORRIDOR	EAST		
I			10	00	0253	482		236		482		18	482	1	1		1		DORM A	EAST		
I			10	00	0253	483		259		483		18	483	1	1		1		DORM B	EAST		
I			10	00	0253	485		233		485		18	485	1	1		1		DORM A	EAST		
I			10	00	0253	486		228		486		18	286	1	1		1		DORM A	EAST		
I			10	00	0253	490		150		490		18	490	1	1		1		RA/SGL	EAST		
I			10	00	0253	491		254		491		18	491	1	1		1		DORM B	EAST		
I			10	00	0253	492		234		492		18	492	1	1		1		DORM A	EAST		
I			10	00	0253	493		239		493		18	493	1	1		1		DORM A	EAST		
I			10	00	0253	495		259		495		18	495	1	1		1		DORM B	EAST		
I			10	00	0253	496		236		496		18	496	1	1		1		DORM A	EAST		
I			10	00	0253	497		242		497		18	497	1	1		1		DORM A	EAST		
I			10	00	0253	503		263		503		18	503	1	1		1		DORM B	WEST		
I			10	00	0253	505		230		505		18	505	1	1		1		DORM A	WEST		
I			10	00	0253	506		221		506		18	506	1	1		1		DORM A	WEST		
I			10	00	0253	507		160		507		18	507	1	1		1		RA/SGL	WEST		
I			10	00	0253	511		230		511		18	511	1	1		1		DORM A	WEST		
I			10	00	0253	512		222		512		18	512	1	1		1		DORM A	WEST		
I			10	00	0253	513		256		513		18	513	1	1		1		DORM B	WEST		
I			10	00	0253	515		230		515		18	515	1	1		1		DORM A	WEST		
I			10	00	0253	516		236		516		18	516	1	1		1		DORM A	WEST		
I			10	00	0253	521		230		521		18	521	1	1		1		DORM A	WEST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX Room	SFX New Room #	Assignabl e Area (ASF)	Non- Assignable Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# of Signage (sort)	Total # of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note
/			10	00	0253	522		225		522		18	522	1	1		1		DORM A	WEST		
/			10	00	0253	523		259		523		18	523	1	1		1		DORM B	WEST		
/			10	00	0253	525		230		525		18	525	1	1		1		DORM A	WEST		
/			10	00	0253	526		234		526		18	526	1	1		1		DORM A	WEST		
/			10	00	0253	530		142		530		18	530	1	1		1		RA/SGL	WEST		
/			10	00	0253	531		230		531		18	531	1	1		1		DORM A	WEST		
/			10	00	0253	532		225		532		18	532	1	1		1		DORM A	WEST		
/			10	00	0253	533		256		533		18	533	1	1		1		DORM B	WEST		
/			10	00	0253	535		229		535		18	535	1	1		1		DORM A	WEST		
/			10	00	0253	536		228		536		18	536	1	1		1		DORM A	WEST		
/			10	00	0253	551		235		551		18	551	1	1		1		DORM A	EAST		
/			10	00	0253	552		236		552		18	552	1	1		1		DORM A	EAST		
/			10	00	0253	553		259		553		18	553	1	1		1		DORM B	EAST		
/			10	00	0253	555		239		555		18	555	1	1		1		DORM A	EAST		
/			10	00	0253	556		242		556		18	556	1	1		1		DORM A	EAST		
/			10	00	0253	557		148		557		18	557	1	1		1		RA/SGL	EAST		
/			10	00	0253	560		164		560		18	560	1	1		1		RA/SGL	EAST		
/			10	00	0253	561		239		561		18	561	1	1		1		DORM A	EAST		
/			10	00	0253	562		234		562		18	562	1	1		1		DORM A	EAST		
/			10	00	0253	563		259		563		18	563	1	1		1		DORM B	EAST		
/			10	00	0253	565		236		565		18	565	1	1		1		DORM A	EAST		
/			10	00	0253	566		240		566		18	566	1	1		1		DORM A	EAST		
/			10	00	0253	580		149		580		18	580	1	1		1		RA/SGL	EAST		
/			10	00	0253	581		235		581		18	581	1	1		1		CORRIDOR	EAST		
/			10	00	0253	582		236		582		18	582	1	1		1		DORM A	EAST		
/			10	00	0253	583		259		583		18	583	1	1		1		DORM B	EAST		
/			10	00	0253	585		233		585		18	585	1	1		1		CORRIDOR	EAST		
/			10	00	0253	586		228		586		18	586	1	1		1		DORM A	EAST		
/			10	00	0253	590		150		590		18	590	1	1		1		RA/SGL	EAST		
/			10	00	0253	591		254		591		18	591	1	1		1		DORM B	EAST		
/			10	00	0253	592		234		592		18	592	1	1		1		DORM A	EAST		
/			10	00	0253	593		239		593		18	593	1	1		1		CORRIDOR	EAST		
/			10	00	0253	595		259		595		18	595	1	1		1		DORM B	EAST		
/			10	00	0253	597		242		597		18	597	1	1		1		DORM A	EAST		
/			10	00	0253	257		148		257		18	257	1	1		1	193	RA/SGL	EAST		
/			10	00	0253	130		160		130		19	130	1	1		1		RA/SGL	WEST		
/			10	00	0253	160				160.A	S19	19	MAXIMUM OCCUPANCY...158	1			1		GAME ROOM	EAST		
/			10	00	0253	180				180.A	S19	19	MAXIMUM OCCUPANCY...252	1			1		MULTI-PURPOSE	EAST		
/			10	00	0253	307		154		307		19	307	1	1		1		RA/SGL	WEST		
/			10	00	0253	330		148		330		19	330	1	1		1	5	RA/SGL	WEST		
/			10	00	0253	171		130		171		21 (EXTERIOR)	171	1			1		TUTORING	EAST		
/			10	00	0253	172		163		172		21 (EXTERIOR)	172	1			1		TUTORING	EAST		
/			10	00	0253	180				180	S20	21 (EXTERIOR)	180	1			1		MULTI-PURPOSE	EAST		
/			10	00	0253	180				180.A		21 (EXTERIOR)	180	1			1	4	MULTI-PURPOSE	EAST		
/			10	00	0253	145						22B		7			7		LOBBY	EAST		17"x11" Landscape insert, Frame for Annunciation Maps.
/			10	00	0253	1M2						22B		7			7	14	ELECTRICAL	EAST		17"x11" Landscape insert, Frame for Annunciation Maps.
												22C	(8.5"X11" PORTRAIT insert)	20			20	20				ADDITIONAL SIGNS WITHOUT INSTALLATION
/			10	00	0253	101		115		G003									PORCH	WEST		
/			10	00	0253	102				102.A									TRASH	WEST		
/			10	00	0253	103A		25		103.A									CLOSET	WEST		
/			10	00	0253	103B		17		103.B									WASH	WEST		
/			10	00	0253	103C		131		103C									LIVING	WEST		
/			10	00	0253	103D			62	103.D									BATH	WEST		
/			10	00	0253	106		100		106, 103F									BED	WEST		
/			10	00	0253					106B, 103F-1									CLOSET	WEST		

UC MERCED

Student Housing Phase 4-The Summits-Half Dome (0253)-Interior Signage Schedule

March 11, 2013

Project Schedule: All Interior Room Identification Signs must be fabricated and ready for installation by Friday June 7, 2013. Installation must be completed by June 30, 2013.

Note 1: IF INSTALLER IS NOT SURE OF THE PLACEMENT FOR THE SIGNAGE, PLEASE CHECK WITH UNIVERSITY REPRESENTATIVE.

Note 2: Signage color is to match the Campus Standard Interior Signage Color: Signage Copy Color is Benjamin Moore, branchport brown, Background Color is Silver/Dark Rehein.

Note 3: For Installation, all signs use the same screw pattern, installing threaded inserts in each door to keep from degrading the door material each time the signs are changed.

Note 4: All bathroom signs in this signage schedule are place holders only. Awarded Contractor, please check with the University Representative to confirm what gender is for which bathroom before installation!! -- Min Jiang

					Building # (CANN)	SFX	Room	SFX	New Room #	Assignabl e Area (ASF)	Non- Assignabl e Area (NASF)	Door	Signage Reference # On Drawing	Signage Type	Signage Text	# Of Signage (Installation with four #8 Torx tamperproof hardware Torx Driver bits)	# of Message Board (Installation with four #8 Torx 1-1/4" Pan Head Screws)	Backer	# Of Signage (sort)	Total # Of Signage Type (sort)	Room Description	Room Direction	Remarks	UCM Note	
/			10	00	0253		407		103G	163		407, 103G										MASTER BED	WEST		
/			10	00	0253		407-A		103G-1	11		407-A, 103G-1										CLOSET	WEST		
/			10	00	0253		407B		103G-2	6		407-B, 103G-2										CLOS	WEST		
/			10	00	0253		407C		103G-3	7		407-C, 103G-3										CLOS	WEST		
/			10	00	0253		407D		103G-D		65	407-D, 103G-D										BATH	WEST		
/			10	00	0253		140					140										LOBBY/LOUNGE	EAST		
/			10	00	0253		145					145										LOBBY	EAST		
/			10	00	0253		175					175A										TRASH	EAST		
/			10	00	0253		195B			78												RECEPTION	EAST		
/			10	00	0253		195G			264												WORK ROOM	EAST		
/			10	00	0253		1C2				245											CORRIDOR	EAST		
/			10	00	0253		1C20				46											ALCOVE	EAST		
/			10	00	0253		1J2																		
/			10	00	0253		1J3																		
/			10	00	0253		245			297												CORRIDOR	EAST		
/			10	00	0253		2C20				453											CORRIDOR	EAST		
/			10	00	0253		345			294												LOBBY	EAST		
/			10	00	0253		3C20				454											CORRIDOR	EAST		
/			10	00	0253		445			298												LOBBY	EAST		
/			10	00	0253		4C20				452											CORRIDOR	EAST		
/			10	00	0253		545			297												CORRIDOR	EAST		
/			10	00	0253		5C20				452											CORRIDOR	EAST		
Total:										61,337	32,099					626	195	11	626	626					
										(ASF)	(NASF)														