

# CAMPUS STANDARDS HANDBOOK

OFFICE OF PHYSICAL PLANNING AND CONSTRUCTION  
UNIVERSITY OF CALIFORNIA, SANTA CRUZ

*Italics indicate recent revisions.*

THESE STANDARDS ARE PROVIDED TO UCSC CONSULTANTS  
FOR GUIDANCE IN THE PREPARATION OF CONSTRUCTION  
DOCUMENTS. THEY ARE NOT TO BE USED AS A  
SPECIFICATION.

IF ANY PORTION OF THESE STANDARDS IS INCORPORATED INTO  
CONSTRUCTION DOCUMENTS, IT IS THE RESPONSIBILITY OF THE CONSULTANT  
TO VERIFY THE APPROPRIATENESS OF SUCH EXCERPT TO THE PARTICULAR  
PROJECT.

|           |   |                |
|-----------|---|----------------|
| PART I.   | GENERAL INFORMATION AND INSTRUCTIONS<br>TO EXECUTIVE ARCHITECTS | 5/1/98         |
|           | A. Purpose  |                |
|           | B. Abbreviations and Definitions                                |                |
|           | C. Administrative Requirements                                  |                |
| PART II.  | GENERAL BUILDING REQUIREMENTS                                   | 6/23/2010      |
|           | A. General  |                |
|           | B. Disabled Access  |                |
|           | C. Moisture Control   |                |
|           | D. Roof Water Drainage  |                |
|           | E. Acoustic Privacy   |                |
|           | F. Energy Efficiency  |                |
|           | G. Maintenance  |                |
|           | H. Mechanical   |                |
|           | I. Plumbing   |                |
|           | J. Fire Protection  |                |
|           | K. Electrical   |                |
|           | L. Elevators  |                |
|           | M. Nonstructural Building Elements                              |                |
|           | N. Faculty Offices  |                |
|           | O. Building Directories   |                |
|           | P. Trailer Standards  |                |
|           | Q. Hazardous Building Materials                                 |                |
| PART III. | SITE REQUIREMENTS   | 6/23/2010      |
|           | A. General  |                |
|           | B. Erosion Control  |                |
|           | C. Drainage   |                |
|           | D. Landscape  |                |
|           | E. Parking  |                |
|           | F. Circulation  |                |
|           | G. Fire Department Access                                       |                |
|           | H. Site Lighting & Electrical                                   |                |
|           | I. Trash Collection   |                |
|           | J. Signs  |                |
|           | K. Fences   |                |
|           | L. Bollards   |                |
|           | M. Utility Boxes & Vaults                                       |                |
| PART IV.  | UNIVERSITY OF CALIFORNIA STANDARD DOCUMENTS                     | (not included) |
| PART V.   | SPECIFICATION GUIDELINES  |                |
|           | A. Division 1: General Requirements                             | 10/01/2007     |

(Division One Sections are generally not included in this Standard; The UCSC Project Manager will provide the Division One for each particular project)

## B. Division 2: Sitework

|       |  |            |
|-------|--|------------|
| 02200 | Earthwork Standards                            | 6/23/2010  |
| 02280 | Soil Treatment Standards                       | 6/23/2010  |
| 02500 | Paving and Surfacing Standards                 | 6/23/2010  |
| 02665 | Water Distribution Standards                   | 6/23/2010  |
| 02666 | District Heating Water System Standards        | 6/23/2010  |
| 02667 | Cooling Tower Water System Standards           | 6/23/2010  |
| 02685 | Underground Gas Distributions System Standards | 6/23/2010  |
| 02720 | Storm Drainage System Standards                | 6/23/2010  |
| 02730 | Sanitary Sewerage Systems Standards            | 6/23/2010  |
| 02780 | Underground Conduit Standards                  | 6/23/2010  |
| 02800 | Site Improvements Standards                    | 6/23/2010  |
| 02810 | Irrigation Standards                           | 6/23/2010  |
| 02830 | Chain Link & Wire Fences and Gates Standards   | 6/23/2010  |
| 02900 | Landscaping Standards                          | 12/08/2011 |

## C. Division 3: Concrete

|       |                                  |        |
|-------|----------------------------------|--------|
| 03300 | Cast-in-Place Concrete Standards | 3/2/99 |
|-------|----------------------------------|--------|

## D. Division 4: Masonry

|       |                        |        |
|-------|------------------------|--------|
| 04200 | Unit Masonry Standards | 3/2/99 |
|-------|------------------------|--------|

## E. Division 5: Metals

|       |                             |        |
|-------|-----------------------------|--------|
| 05120 | Structural Steel Standards  | 3/2/99 |
| 05500 | Metal Fabrication Standards | 3/2/99 |

## F. Division 6: Wood and Plastics

|       |                                  |        |
|-------|----------------------------------|--------|
| 06100 | Rough Carpentry Standards        | 3/2/99 |
| 06200 | Finish Carpentry Standards       | 3/2/99 |
| 06400 | Architectural Woodwork Standards | 3/2/99 |

## G. Division 7: Thermal and Moisture Protection

|       |                                     |        |
|-------|-------------------------------------|--------|
| 07100 | Waterproofing Standards             | 5/1/98 |
| 07190 | Moisture Barrier Standards          | 5/1/98 |
| 07300 | Shingles and Roofing Tile Standards | 5/1/98 |
| 07460 | Siding Standards                    | 5/1/98 |
| 07500 | Membrane Roofing Standards          | 5/1/98 |
| 07600 | Flashing and Sheet Metal Standards  | 5/1/98 |

## H. Division 8: Doors and Windows

|       |                                 |        |
|-------|---------------------------------|--------|
| 08100 | Metal Doors and Frames          | 5/1/98 |
| 08200 | Wood and Plastic Door Standards | 5/1/98 |
| 08300 | Special Doors                   | 5/1/98 |
| 08500 | Metal Window Standards          | 5/1/98 |
| 08700 | Hardware Standards              | 5/1/98 |

## I. Division 9: Finishes

|       |                              |        |
|-------|------------------------------|--------|
| 09200 | Lath and Plaster Standards   | 5/1/98 |
| 09250 | Gypsum Drywall Standards     | 5/1/98 |
| 09300 | Tile Standards               | 5/1/98 |
| 09650 | Resilient Flooring Standards | 5/1/98 |
| 09680 | Carpet Standards             | 5/1/98 |
| 09900 | Painting Standards           | 5/1/98 |

## J. Division 10: Specialties

|       |                                       |         |
|-------|---------------------------------------|---------|
| 10100 | Chalkboard and Tackboard Standards    | 5/1/98  |
| 10170 | Plastic Toilet Compartment Standards  | 5/1/98  |
| 10522 | Fire Protection Specialties Standards | 5/1/98  |
| 10550 | Postal Specialties Standards          | 5/1/98  |
| 10800 | Toilet and Bath Accessories Standards | 2/19/99 |

## K. Division 11: Equipment

|       |                                  |         |
|-------|----------------------------------|---------|
| 11130 | Audio-Visual Equipment Standards | 2/19/99 |
| 11600 | Laboratory Equipment Standards   | 2/19/99 |

## L. Division 12: Furnishings

|       |                                   |        |
|-------|-----------------------------------|--------|
| 12510 | Horizontal Louver Blind Standards | 5/1/98 |
| 12520 | Black-Out Shade Standards         | 5/1/98 |
| 12540 | Draperies Standards               | 5/1/98 |

## M. Division 13: Special Construction (not used)

## N. Division 14: Conveying Systems

|       |                     |          |
|-------|---------------------|----------|
| 14000 | Conveying Standards | 12/18/08 |
| 14240 | Hydraulic Elevators | 12/18/08 |
| 14250 | Traction Elevators  | 12/18/08 |

## O. Division 15: Mechanical

|       |  |        |
|-------|--|--------|
| 15010 | General Mechanical Requirements            | 5/1/98 |
| 15300 | Fire Protection                            | 5/1/98 |
| 15400 | Plumbing Design Guidelines                 | 5/1/98 |
| 15500 | Heating, Ventilating, and Air Conditioning | 5/1/98 |
| 15990 | Testing, Adjusting, and Balancing          | 5/1/98 |

## P. Division 16: Electrical

|       |  |          |
|-------|--|----------|
| 16050 | Basic Electrical Materials and Methods Standards | 02/17/10 |
| 16100 | Underground Distribution Standards               | 01/06/10 |
| 16300 | High Voltage Distribution Standards              | 01/06/10 |
| 16430 | Metering Standards                               | 02/17/10 |
| 16500 | Lighting Standards                               | 01/06/10 |
| 16530 | Exterior Lighting Standards                      | 01/06/10 |
| 16600 | Emergency Power Unit                             | 01/06/10 |

|       |   |          |
|-------|---|----------|
| 16700 | Communications Standards                          | 01/06/10 |
|       | Telephone   |          |
|       | Twisted Pair Data                                 |          |
|       | Coaxial Cable                                     |          |
|       | Fiber Optic                                       |          |
|       | Audio Visual                                      | 01/06/10 |
| 16720 | Fire Alarm Systems Standards                      | 01/06/10 |
|       | Sample Specification                              | 01/06/10 |
|       | California State Fire Marshal Submittal Checklist | 01/06/10 |
| 16780 | Television Systems Standards                      | 01/06/10 |

Q. Division 17: Energy Management Systems

|       |   |         |
|-------|---|---------|
| 17000 | Standards                                       | 3/5/01  |
| 17000 | Standards Sample Point list                     | 3/5/01  |
| 17000 | Sample Specification - Energy Management System | 3/5/01  |
| 17500 | BMS Integration – Guide Specification           | 7/13/01 |

PART VI. STANDARD DETAILS AND DRAWINGS

|        |   |          |
|--------|---|----------|
| 1.5-1  | Construction Site Sign  | 4/12/91  |
| 2.5-1  | Refuse Truck Turnarounds  | 9/27/91  |
| 2.6-1  | Backflow Prevention   | 4/1/93   |
| 2.6-2  | Branch Gas Main and Valve Installation                                    | 12/17/97 |
| 2.6-3  | Fire Hydrant Installation   | 4/29/93  |
| 2.6-4  | Thrust Block  |          |
| 2.6-5  | Air Release Valve Installation  | 8/24/92  |
| 2.6-6  | Buried Gate Valve Installation  |          |
| 2.6-7  | Concrete Collar for Manhole Frame   | 3/23/93  |
| 2.6-8  | Cast Iron Manhole Frame and Cover   |          |
| 2.6-9  | Electrical Manhole Cover  |          |
| 2.6-10 | Master Gas Meter Installation   | 11/5/97  |
| 2.6-11 | Water Sample Station  | 8/20/92  |
| 2.6-12 | Typical Underground Pipe  | 1/27/98  |
| 2.6-13 | Water Meter Assembly  | 12/12/97 |
| 2.7-1a | Clean Out   |          |
| 2.7-1b | Clean Out Alternate   | 2/10/98  |
| 2.7-2  | Bedding for Reinforced Concrete & Vitrified Clay Pipes                    |          |
| 2.7-3  | Storm & Sanitary Sewer Manhole  | 3/25/93  |
| 2.7-4  | Precast Oil Separator and Sediment Trap: Section                          | 10/13/97 |
| 2.7-5  | Precast Oil Separator and Sediment Trap: Plan                             | 10/16/97 |
| 2.8-1  | Steel Bollard Installation (check applicable detail with Project Manager) | 12/17/97 |
| 2.8-1  | Wood Bollard Installation (check applicable detail with Project Manager)  | 3/2/99   |
| 2.8-2  | Wire Mesh Fence   | 9/12/97  |
| 2.8-3  | Guard Post  | 4/9/93   |
| 2.8-4  | Lock box  | 12/17/97 |
| 2.8-5  | Bicycle Hitching Post   | 3/18/93  |
| 2.8-6  | 'Cola' Bike Rack Installation   | 3/18/93  |
| 2.8-7  | U-Rail Bike Rack Installation   | 3/18/93  |
| 2.8-8  | Sign Post and Base  | 4/3/92   |
| 2.9-1  | Tree Staking  | 2/25/99  |

|         |                                     |            |
|---------|-------------------------------------|------------|
| 3.3-1   | Exterior Stair Nosing               | 10/23/97   |
| 5.5-1   | Exterior Stair Railing              | 1/30/97    |
| 10.4-41 | Typical Signage at Corridor Door    | 12/17/97   |
| 10.7-50 | Blue Light Emergency Phone          | 11/5/2007  |
| 10.7-51 | Campus Phone                        | 6/01/04    |
| 14.2-1  |                                     |            |
| 14.2-2  |                                     |            |
| 14.2-3  |                                     |            |
| 14.2-4  |                                     |            |
| 14.2-5  |                                     |            |
| 14.2-6  |                                     |            |
| 14.2-7  |                                     |            |
| 15.5-0  | Fire Smoke Dampers                  | 11/30/2009 |
| 16-1    | Substation One Line Diagram         | 3/23/93    |
| 16-2    | Path Lighting                       |            |
| 16-3    | Street Light Electrolier            |            |
| 16-4    | SCADA 480V Meter Schematic          | 11/09/2007 |
| 16-5    | Conduit Duct Bank - Encased         | 3/18/93    |
| 16-6    | Generic Computer Room EPO Schematic | 10/26/2007 |
| 16-7    | Telephone/Data Backboard Layout     | 12/16/97   |
| 16-9    | Blue Light Emergency Phone          | 3/2/98     |

## PART VII. APPENDICES

|    |  |         |
|----|--|---------|
| A. | Recommended Native Plants, Non-Native Plants, and Grass Seed Mixture | 5/1/98  |
| B. | Housing Guidelines   | 5/1/98  |
| C. | Post-Construction Stormwater Management Requirements                 | 3/03/14 |
| D. | Erosion Control Standards  | 9/20/11 |
| E. | Best Management Practices Under 1 Acre                               |         |
| F. | Infiltration Testing   | 12/1/13 |

## PART VIII.

## RELATED DOCUMENTS (not included in Standards)

## WHERE AVAILABLE

|    |  |  |
|----|--|--|
| 1. | Classroom Guidelines                                       | Office of Media Services, UCSC<br>(Copy for Viewing Available in Records Management Office,<br>Office of Physical Planning and Construction) |
| 2. | Implementation Program for the Long Range Development Plan | Records Management Office<br>Office of Physical Planning and Construction  |
| 3. | Campus Drainage Plan                                       | Records Management Office<br>Office of Physical Planning and Construction  |
| 4. | "Campus Signing Program, UCSC"                             | Records Management Office<br>Office of Physical Planning and Construction  |
| 5. | "Staking Landscape Trees", Drafting & Archives Office      | Records Management Office  |

|     |   |   |
|-----|---|---|
|     | Leaflet #2576 (See Section 02900, III, B)<br>Division of Agricultural Sciences, UC, 1982  | Office of Physical Planning and Construction                              |
| 6.  | State Public Works Board/Dept. of Finance Guidelines<br>University of California Office the President   | Records Management Office<br>Office of Physical Planning and Construction |
| 7.  | Stormwater Pollution Prevention Plan Example (Colleges 9/10)  | Records Management Office<br>Office of Physical Planning and Construction |
| 8.  | Installation and Use of Security Alarms   | University Police   |
| 9.  | Key Control and Access Policy: HS-300-1   | University Police   |
| 10. | UCSC Student Housing Security Standards<br>(Environmental and Physical Security Design Standards for Student<br>Housing and Support Facilities as Developed by University Consultant<br>Campus Crime Prevention Programs dated June 1992) | UCSC Housing Services   |
| 11. | Residential Key Control Policy<br>(Draft 5-29-96)   | UCSC Housing Services   |
| 12. | Reference Specifications  | Records Management Office<br>Office of Physical Planning and Construction |
|     | 07510 Built Up Roofing  | Music Facility, Project #6301   |
|     | 07522 Fully Adhered Elastomeric Sheet Roofing   | Nat Sci Alts, Project #2513   |
| 13. | "Specifying Construction Products"  | University of California Facilities Manual                                |
| 14. | "Construction Documents Review Checklist"   | University of California Facilities Manual                                |
| 15. | "Errors Commonly Made in the Construction Documents"  | University of California Facilities Manual                                |
| 16. | Landscape Management Program, 1995  | Records Management Office<br>Office of Physical Planning and Construction |
| 17. | Facilities Inventory Guidelines, 1993<br>Appendix C: Building Area Overview<br>Appendix D: Definitions Checklist  | Records Management Office<br>Office of Physical Planning and Construction |
| 18. | AIA CAD Layer Guidelines<br>(Updated Version: February 2002)  | Records Management Office<br>Office of Physical Planning and Construction |