

# Campus Design Standards

## Division 2 – Site Construction



| Department        | Name             | Signature | Date      |
|-------------------|------------------|-----------|-----------|
| PDC Manager       | Brian Litchfield |           | 2.12.2019 |
| PDC Manager       | Erin Borzage     |           | 2-12-19   |
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## 02000 – Site Construction

### Introduction

The University will maintain the existing high-quality design and construction that is fundamental to the campus. The campus architecture is both the functional and symbolic embodiment of a private, Catholic university. The church of The Immaculata is a signature building and campus icon. It serves as a way-finding element. General architectural guidelines can be categorized into four areas of campus: Campus Core/Academic District; Valley Residential Areas/Wellness and Recreation Facilities; East Campus/ Residential, Collegiate Athletics and Recreation Facilities; and Alcalá Park West. Decisions made to determine site selection, program functions, architectural treatment and landscape amenities are key. Campus buildings in concert with site landscaping contribute to the campus character and image.

The USD campus displays a varied landscape, with topographic and geographic influences due to its prominent mesa-top location adjacent to Tecolote Canyon. Given the local climate, drought conditions and storm water management regulations, the campus plan will reduce ornamental lawns. Overall, the emerging campus landscape will continue to maintain the high quality character and will result in more sustainable and less water-intensive landscape to reinforce its location in the region. This approach will maintain an aesthetically pleasing, well-functioning landscape that contributes to the University's sense of history and permanence, as well as its landmark status in the city.

### Contacts

1. The Project Manager (Planning, Design and Construction)

### Index of References

- |                                      |                      |
|--------------------------------------|----------------------|
| 1. USD Master Plan Design Guidelines | <i>Appendix 1.1</i>  |
| 2. Lighting Schedule                 | <i>Appendix 16.5</i> |
| 3. Irrigation Parts Schedule         | <i>Appendix 2.3</i>  |
| 4. Tree/Palm Exclusion List          | <i>Appendix 2.4</i>  |

### Code/Sustainability References

1. California Building Code
2. LEED Silver (Pursuit of certification on a project by project basis)
3. Building Energy Efficiency Standards
4. California Fire Code
5. ANSI

### 02050 Basic Site Materials and Methods

1. Consideration for Sustainability

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## 02100 Site Remediation

1. Soil Amendment – Minimum of four (4) samples shall be taken at each project site. Soil amendments to be determined on a project-by-project basis by Facilities Management.

## 02200 Site Preparation

This standard is project specific.

## 02300 Earthwork

1. For new construction – Salvaging topsoil to be determined by soil's report. Confirm with Project Manager the location of storage for duration and method of protection of project.

## 02400 Tunneling, Boring and Jacking

This standard is project specific.

## 02450 Foundation and Load Bearing Elements

This standard is project specific.

## 02500 Utility Services

1. Irrigation
  - a. Should be based on relativity to sun
  - b. North facing system should be separate from West facing system
  - c. Controller – One controller if valves are used
    - i. Rainbird IQ system – connect to WiFi
    - ii. Verify with Project Manager the ability to tie into existing controller or if new is required
  - d. Drip – Preferred for tree growth, expandability ring
  - e. Bubbler – Potted trees must be on irrigation system.
2. Rehabilitation
  - a. All irrigation must be fed from an irrigation-only meter. Confirm existing meter type with Project Manager.
3. It is required for the contractor to maintain the existing irrigation mainlines running through the project.
4. The University prefers that when sleeve is installed underground (for irrigation, electricity, etc.), extra sleeves for future design shall be included as part of the design and installation. The Design professional shall include extra sleeves on the Contract Documents, and if a project does not include Contract Documents, shall be assumed by the Contractor.

## 02600 Drainage and Containment

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1. Storm Drainage
  - a. Drain Grate – Project Manager to approve location of drain
    - i. Concrete – Brass finish
    - ii. Shrub – Plastic, Atrium
    - iii. Lawn – Brass/Plastic

## Bases, Ballasts, Pavements and Appurtenances

1. Pedestal – 4” standard height with conduit in base

## 02800 Site Improvements and Amenities

1. Basic Methods:
  - a. No pouring of concrete over footing of structure.
  - b. Any construction within existing lawn/landscaped areas to review existing irrigation services and make adjustments for new construction.
2. Material Type:
  - a. Campus grass – Tall fescue
  - b. Sports areas materials – Bandera grass or artificial turf (confirm with Project Manager)
  - c. Decomposed granite
    - i. Color – Arizona Gold
    - ii. Size – tbd
  - d. Concrete Styles
    - i. Refer to Division 3 – Concrete
3. Transit Circulation
4. Vehicle Circulation
5. Pedestrian Circulation
  - a. Truncated Domes
    - i. The University preference is Charcoal with gray concrete; terra cotta on colored concrete, such as San Diego Buff. Depending on the cast surface, the color must comply with City requirements.
6. Surface Parking Lots
  - a. Asphalt
7. Parking Structures
  - a. Refer to Division 3 – Concrete for example of textured concrete in parking structures
8. Outdoor Recreational Facilities:
  - a. Tennis Courts
    - i. Blue or green finish – must comply with University and Division standards, confirm with Project Manager
9. Solar Generation

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- a. USD has lease agreements with solar providers. Notify USD Office of Sustainability prior to any shutoff. All shutoffs should be scheduled at night.

## 02900 Consideration for Exterior Design – Planting Concepts

The following concepts should guide the Designer in landscaping projects with the University's campus:

1. Hierarchy of Open Space with the planting and building should enhance natural spaces.

## 02950 Consideration for Site Restoration and Rehabilitation

1. Current Code

## Requirements for As-built Drawings

Prior to the completion of construction and occupancy, the contractor is required to provide the Project Manager a detailed schedule of materials used in each space of the project, including the manufacturer, supplier, color name and number, pattern, and size applied. An electronic version of the final room landscaping schedule is to be provided as part of the "as-built" documentation for the project. See *Appendix 1.2 for Documentation and Archiving*.

## **Appendix 2.3 – Irrigation Parts**



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**Listed are fixtures currently in use within the USD Campus. Alternates to these fixtures may be presented for consideration**

| Code  | Description                                             | Type             | Subtype            | Manufacturer             |
|-------|---------------------------------------------------------|------------------|--------------------|--------------------------|
| 10566 | Drip, Staked Spider Sprays Q                            | Irrigation Parts | Fittings, Drip     | Rain Bird Services Corp. |
| 11236 | Drip, Xeri-Bird, Plugged                                | Irrigation Parts | Fittings, Drip     | Rain Bird Services Corp. |
| 10375 | Filter, Rainbird, PRF- 100-RBY                          | Irrigation Parts | Fittings, Drip     | Rain Bird Services Corp. |
| 10376 | Filter, Rainbird, XFF- TFA- 075                         | Irrigation Parts | Fittings, Drip     | Rain Bird Services Corp. |
| 10389 | Head, Rainbird, 12", PGJ P/C                            | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10390 | Head, Rainbird, 3500, Shrub Sprays                      | Irrigation Parts | Spray Head         | Rain Bird Services Corp. |
| 10391 | Head, Rainbird, 3504, P/C                               | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10392 | Head, Rainbird, 3506, P/C                               | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 11158 | Head, Rainbird, 5000 Plus Shrub Spray FC                | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 11157 | Head, Rainbird, 5000 Plus Shrub Spray PC                | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10393 | Head, Rainbird, 5004 Plus, 360 PRS SAM                  | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 11072 | Head, Rainbird, 5004 Plus, 360 Shrub Spray PRS SAM      | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10394 | Head, Rainbird, 5004 Plus, P/C PRS SAM                  | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 11071 | Head, Rainbird, 5004 Plus, P/C Shrub Spray PRS SAM      | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10395 | Head, Rainbird, 5006 Plus, 360 PRS SAM                  | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10396 | Head, Rainbird, 5006 Plus, P/C PRS SAM                  | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10397 | Head, Rainbird, 5012 Plus, 360 PRS SAM                  | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10398 | Head, Rainbird, 5012 Plus, P/C PRS SAM (no side inlets) | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10992 | Head, Rainbird, 8005 PRS SAM                            | Irrigation Parts | Pop Up Rotors Head | Rain Bird Services Corp. |
| 10399 | Head, Rainbird, End Strips                              | Irrigation Parts | Spray Head         | Rain Bird Services Corp. |
| 10400 | Head, Rainbird, RD04SP45                                | Irrigation Parts | Pop Up Head        | Rain Bird Services Corp. |
| 10401 | Head, Rainbird, RD06SP45                                | Irrigation Parts | Pop Up Head        | Rain Bird Services Corp. |
| 10402 | Head, Rainbird, 1812, SAMS (no side inlets)             | Irrigation Parts | Pop Up Head        | Rain Bird Services Corp. |

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## Appendix 2.4 – Tree/Palm Exclusion List

Listed are trees/palms that are not preferred by USD. Any specification of those listed below will not be accepted.

| Botanical name            | Common name                                                        |
|---------------------------|--------------------------------------------------------------------|
| Ficus                     | all Varieties (acceptable certain areas)                           |
| Cupaniopsis anacardioides | Carrotwoods (not accepted)                                         |
| Tipuana tipu              | Tipu (acceptable in certain locations)                             |
| Schinus terebinthifolius  | Brazilian Peppers                                                  |
| Platanus racemose         | Sycamore (acceptable in certain locations)                         |
| Prunis                    | Purple leaf Plum (acceptable in certain locations)                 |
| Alnus rhombifolia         | White Alder (acceptable in certain locations)                      |
| Cupressus semervirens     | Italian Cypress (spacing is important - 6-8' away from buildings)  |
| Cupressus arizonica       | Twisted Junipers (spacing is important - 6-8' away from buildings) |
| Koel Rutteria             | Golden Rain Tree                                                   |
| Chitalpa tashkentensis    | Chitalpa                                                           |
| Casuarina                 | Beefwood, She Oak                                                  |
| <b>Palms</b>              |                                                                    |
| Washingtonia robusta      | Mexican Fan Palm                                                   |
| Canary Island Date        | Date Palm                                                          |

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