OPEN THIS DOCUMENT FIRST: Design Standards Process

Overview:

SCCD has established standards for design and construction to ensure equity and consistency in facilities and for efficiency in operations and maintenance. The Standards consist of Design Standards that are directives and information that Design Consultants should incorporate into their contract documents (drawings and specifications). A few disciplines have also provided Construction Specifications and Typical Details, which should be customized to the design project.

These Standards were developed by the District, with intensive input from District Facilities, Maintenance and Operations personnel, in addition to IT personnel and the Security shared governance Committee for relevant sections. The Standards are based on prior experience at the District and the best practices from other California Community Colleges, and the products selected were carefully evaluated based on criteria that included aesthetics & user comfort, durability, ease of maintenance, sustainable properties/practices and cost.

Purpose:

These Design Standards are a tool to clarify direction and streamline project execution for design professionals, construction managers and other participants in capital improvement projects. They represent the District’s “strong preference” and should be applied, when possible, without compromising the creativity of the overall design. Final disposition, color, size, product choice etc. should conform to the best extent possible where equivalent substitutes are allowed in the Design Standard. If equivalent substitutes are allowed only “if performance and quality equivalency can be evidenced” or the consultant wishes to deviate from the written design standards for other reasons, then the consultant needs to provide evidence/justification and seek District approval as outlined below.

In all cases the written design standards do not diminish or eliminate the standard of care owed by the consultant to SCCD or relieve, in any manner whatsoever, a consultant from any professional responsibility, duty or due diligence required toward that work.

These Design Standards should be incorporated into all Solano Community College (“SCC”, the “College”) projects. Projects include but are not limited to new construction, Tenant Improvements (TI) projects, remodels, and renovations. It is understood that the College could not attempt to upgrade and retrofit all campus facilities in a single massive construction project; such a process would be prohibitively costly and disruptive. Rather, the strategy is for installations to be implemented continually and concurrently in a phased manner, over time and as funding allows, toward a goal of all campuses and campus buildings eventually meeting the same consistent Design Standards.
**Design Standards Process:**

The following Design Standards Process Guidelines incorporation and approval process provides procedural guidelines to ensure that project-specific design and contractor teams submit and receive approval by authorized SCCD departmental and administrator personnel at defined milestones. This allows for SCCD review, input, and approval as well as documentation of any approved deviations or variances to the Design Standards early in the design process.

Approved deviations and variances from the Design Standards should be conscious and justifiable, provide a solution for a site-specific need or replace outdated/obsolete requirements, and be compatible with other Design Standards. **Proposed deviations shall be submitted to SCCD in writing for review and approval prior to incorporation into the project.** Approved deviations may be project-specific or permanent; if an approved deviation or variance is intended to be permanent the change should be reflected in the associated Design Standard.

**Review and Approval**

Review and approval by SCCD is required at the conclusion of each of the design phases listed below prior to progressing to the next phase. Documentation required for review includes project drawings and specifications; manufacturer cut sheets, diagrams, and other product data; associated progress cost estimates and written identification of deviations/variances from District Standards. Not all projects will include all phases.

**Schematic Design**

Design professionals should become familiar with the **Architectural, Landscape, Sustainability and other Guidelines** (found in Book 1 of the Facilities Master Plan) and the **District Standards** (found in Book 2 of the Facilities Master Plan and on Facilities Website) prior to initiating the design process. While most of the specifics within the District Standards will be reflected in future design phases, there are some aspects reflected in the District Standards that require consideration from the onset of the design process. If any deviations/variability are apparent at this early phase, bring them to District attention for consideration.

Deliverables of this phase are as stipulated in the Contract with the District. In addition for system designs such as Electronic Security and Safety, Fire Alarm etc. provide the following: a written design narrative which describes planned system elements by function and overall design. The narrative should include conceptual device and system floor plan, site layout drawings and functional/operational project planning.

**Design Development**

This is the phase where the specifics within the Design Standards will need to be reflected and coordinated within the specific project, and any required deviations/variances should be apparent during this phase. Bring all deviations/variances to District attention, in written format, for
evaluation and action as soon as they are determined. Do not assume deviations/variations will be apparent to District personnel during their documentation review towards the end of this phase.

Deliverables of this phase are as stipulated in the Contract with the District. In addition for system designs such as Electronic Security and Safety, Fire Alarm etc. provide the following: refinement of schematic design conceptual elements to provide a greater level of detail of system floor plan, functional/operational project planning and site layout drawings as well as required supporting components such as physical, electrical, MEP, data network, etc.

**Construction Documents**

By this phase the deviations/variances should have already been resolved. If coordination and detailing efforts during this phase require previously unknown deviations/variances from District Standards, bring them to District attention, via written format, for evaluation and action as soon as they are determined.

Deliverables of this phase are as stipulated in the Contract with the District. In addition for system designs such as Electronic Security and Safety, Fire Alarm etc. provide the following: design drawings indicating location, installation details, cabling and interfaces for elements approved in the schematic design and design development phases. This phase includes written device and systems specifications in the current MasterFormat edition as issued by the Construction Specifications Institute. These specifications should clearly describe interfaces between systems or assemblies and interfaces to any other equipment and systems under other Design Standards.

**Project Close-Out**

Deliverables of this phase are as stipulated in the Contract with the District. District should endeavor to update District Standards for any deviations or variances that were approved as permanent during that particular project.

End of Document
DESIGN STANDARD for Benches

Purpose:
The purpose of this document is to standardize the benches used throughout the campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and aesthetic value of these objects on campus.

Design Standard:

- Set back at least 24” from pedestrian walkway
- Place by other amenities such as bus shelters, kiosks, newsstands, waste receptacles, etc.
- Place along pedestrian walkways
- Should be located to give people a choice between sun and shade, and protected from elements like wind
- Use backless benches in park-like areas individually or in clusters
- Use benches with back in lower traffic areas along primary and secondary pedestrian routes, plazas and main building entryways
- Benches should be located on concrete paving, interlocking pavers, or asphalt

Approved Manufacturers:

- Landscape Forms.
  - Model: 72” Scarborough Bench, Horizontal Strap with Back or 72” Scarborough Bench, Horizontal Strap Backless.
  - Color: Powdercoated stormcloud
  - Mounting: Surface mounted
  - Phone: (269) 381-0396
  - Web: Landscapeforms.com
Substitutes Allowed:

Approved manufacturer or approved equal.

Associated Design Standards and Construction Specifications

Install per manufacturer’s specifications.
Scarborough™
Bench, 48" Backless, with Horizontal Strap Seat

DESIGN STANDARD
Division 12 93 00 Benches

Solano Community College District

Page 4 of 4 4.10.2014
DESIGN STANDARD for Bike Racks & Bike Lockers

Purpose:

The purpose of this document is to standardize the benches used throughout the campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and aesthetic value of these objects on campus.

Design Standard:

- Place near building entrances along bike paths
- At least 5’ from crosswalk or fire hydrant
- Minimum 2’ from curb
- Minimum 3’ from street furniture, light poles, parking meters, trees, and other objects
- 3’ from wall if perpendicular to wall
- 3’ from wall if parallel to wall
- Single loop or five loop racks recommended
- Install number of bike racks and lockers per CalGreen Standards

Approved Manufacturers:

- Bike Lockers
  - Manufacturer: Dura Bike Locker, durabikelocker.com
  - Phone: (916) 488-7026
  - Model: DBLP Pie Shaped Bicycle Locker
  - Color: Galvanized steel, powder coat graphite with bike symbol wall perforation
  - Mount: In ground

- Bike Lockers
  - Manufacturer: Bikeparking.com
- Phone: (415) 333-6428
- Style: Welle Multiple Bend Round Pipe
- Color: Powder coat silver metallic
- Mount: In ground

**Substitutes Allowed:**

Approved manufacturer or approved equal

**Associated Design Standards and Construction Specifications**

Install per manufacturer’s specifications
DURA BIKE LOCKER
A DIVISION OF HANNAN SPECIALTIES INC.
Made in the USA

DIMENSION SHEET FOR
MODEL: DBLP
Pie Shaped Bicycle Locker

www.durabikelocker.com
4019 LEOS LN. #3 - CARMICHAEL, CA 95608
(916) 488-7026 - (800) 722-BIKE (2453)
BIKEPARKING.COM

DESIGN STANDARD
Solano Community College District
Division 12 93 00 Bike Racks & Lockers

WELLE™ MULTI BEND ROUND PIPE RACKS

<table>
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<th>Mount</th>
<th>Item</th>
<th># of Bends</th>
<th>Bike Capacity</th>
<th>Common Length</th>
<th>Weight</th>
<th>Wide Loop Length</th>
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<td>H3605</td>
<td>3</td>
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<td>39&quot;</td>
<td>65 lbs</td>
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<td>462 cm</td>
<td>93 kg</td>
<td>729 cm</td>
<td>110 kg</td>
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</table>

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DESIGN STANDARD
Division 12 93 00 Bike Racks & Lockers

Solano Community College District

[Image of a person locking their bicycle at a rack]
DESIGN STANDARD for Bollards

Purpose:
The purpose of this document is to standardize the use of bollards used on campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and value of these objects on campus.

Design Standard:
- Maximum spacing 8’ on center, minimum 4’ on center
- Permanent bollards are used to restrict vehicular access at gates and entryways
- Removable bollards may be installed where occasional vehicle access is required, such as service roads
- Should be used anywhere pedestrian pathways meet vehicular traffic

Approved Manufacturers:
Reliance Foundry Co., LTD.
- Model: R-7902 Removal Steel Bollard
- Color: Bengal Silver
- Mounting: Embedded receiving with lids
- Phone: (604)592-4333
- Website: Reliance-foundry.com

Substitutes Allowed:
Approved manufacturer or approved equal.

Associated Design Standards and Construction Specifications
Install per manufacturer specifications.
DESIGN STANDARD for Decomposed Granite Pathways

Purpose:

The purpose of this document is to standardize paths made of decomposed granite. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and aesthetic value of these paths on campus.

Design Standard:

- Install with commercial binder
- Install away from entry doors to prevent spread of fines into buildings and classrooms
- Do not use on paths adjacent to buildings or lawns where materials can migrate onto lawns or building entry systems

Approved Manufacturers:

- Colors: California Gold and Graphite Grey only
- Stabilizer: Technisoil G3 commercial

Associated Design Standards and Construction Specifications

See decomposed granite detail.
FINISH GRADE @ SOD AREA

HEADER

DECOMPOSED GRANITE:
SIZE: FINE TO 1/4" PARTICLE SIZE
INSTALL IN 1/2" LAYERS, EACH LAYER
COMPACTED 90% W/ TOP LAYER MIN.
75% DUST FINES ADD STABILIZER PER
MANUFACTURER SPECIFICATIONS
AND RECOMMENDATIONS.

GEOTEXTILE FABRIC

CLASS II AGGREGATE BASE (SEE SOILS
REPORT FOR COMPACTION RATE IF
AVAILABLE)

COMPACTED SUBGRADE (SEE SOILS
REPORT FOR COMPACTION RATE IF
AVAILABLE)

DECOMPOSED GRANITE PAVING

SCALE: 3/4" = 1'-0"
DESIGN STANDARD for Irrigation

Purpose:

The purpose of this document is to standardize the irrigation procedures and design on campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and efficiency of these systems on campus.

Design Standard:

- Irrigation systems shall be designed to prevent runoff, low head drainage, overspray or other similar conditions.

- All irrigation systems should be designed, managed and maintained to meet or exceed 70% efficiency.

- Sprinklers, drip irrigation and bubblers must be on separate valves.

- Subsurface or low volume irrigation must be used when turf is be planted on slopes greater than 25% or in areas that are less than 8' wide.

- Controllers must use evapotranspiration or soil moisture data

- Overhead irrigation is not permitted within 24” of non-permeable surfaces unless there is an alternate design or technology to prevent runoff or unless the overspray runoff flows into landscaping

- See Irrigation Notes

Approved Manufacturers:

- See Irrigation Legend

Substitutes Allowed:

None

Associated Design Standards and Construction Specifications

Model Water Efficient Landscape Ordinance AB 1881
IRRIGATION NOTES

1. THIS DESIGN IS DIAGRAMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES.

2. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

3. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PayING, STRUCTURES, ETC.

4. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THEN WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

5. ELECTRICAL CONTRACTOR TO SUPPLY 120 VOLT A.C. (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER.

6. EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.

7. SPLICING OF 24 VOLT 2-WIRE CABLE WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 24" COIL OF EXCESS WIRE AT EACH SPlice AND 100 FEET ON CENTER ALONG WIRE RUN.

8. 2-WIRE CABLE SHALL BETWEEN CONTROLLER AND DECODERS SHALL BE P7350D 14 AWG SOLID COPPER JACKETED 2-CONDUCTOR DIRECT BURIAL. 2-WIRE CABLE BETWEEN DECODERS AND SOLENOIDS SHALL BE P7350D DTS 14 AWG SOLID COPPER JACKETED 2-CONDUCTOR DIRECT BURIAL.

9. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE optimum OPERATING PRESSURE FOR EACH SYSTEM.

10. NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT WHICH WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS INSTRUCTIONS ARE OBTAINED.

11. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE DESIGNATED ON THE PLANS.

12. SPRINKLERS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND EXCESS WATER USE A TORO POP-UP BODY WITH INTEGRAL CHECK VALVE OR A KING BROS. CV SERIES CHECK VALVE ON SHRUB RisERS IN LIEU OF SCHEDULE 80 COUPLING.

13. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

14. OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM.

15. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

16. PRIOR TO TRENCHING, CALL UNDERGROUND SERVICE ALERT, (1-800) 642-2444 FOR NORTHERN CALIFORNIA.

17. WHEN VERTICAL OBSTRUCTIONS (STREET LIGHTS, TREES, FIRE HYDRANTS, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE HEADS SO AS TO PREVENT PROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER, THIRD OR HALF CIRCLE HEAD AT THE SIDES OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST.

18. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS TWO (2) INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN A PLASTIC BAG AND SECURED WITH A RUBBER BAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS; WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHODED WITH BURLAP OR CANVAS.

19. STATIC PRESSURE AT POINT OF CONNECTION IS APPROXIMATELY 9X PSI.

20. INSTALL ALL IRRIGATION VALVE BOXES SHALL BE PURPLE FOR USE WITH RECYCLED WATER AND LOCATED WITHIN GROUNDCOVER AREA ONLY. DO NOT INSTALL WITHIN TURF AREAS. DO NOT LOCATE VALVES AT PEDESTRIAN ENTRY POINTS OR AT PEDESTRIAN CHANGE OF DIRECTION.
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LOW VOLUME IRRIGATION SHALL BE TORO DL2000 SERIES PC DRIP Emitter TUBING PART NUMBER: RSP-410-000-E 1.00 GPH EMITTERS 15˝ ON CENTER PURPLE DRIPLINE PIPE WITH TORO DL2000 COMPRESSION FITTINGS (OR EQUAL) INSTALLED 4˝ COVER BELOW SOIL LEVEL. INSTALL DRIPLINE PER TORO DRIPLINE INSTALLATION GUIDELINES AND DETAILS:

STATION NUMBER
GALLONS PER MINUTE
VALUE SIZE

MAINTLINE: 2 ˝ DIAMETER AND LARGER CLASS 315 PURPLE PVC PLASTIC PIPE. 2˝ DIAMETER AND SMALLER 1120–SCHEDULE 40 PVC PLASTIC PIPE. FITTINGS SHALL BE SCHEDULE 40 PVC SOLVENT WELD. 18˝ COVER.

LATERAL LINE: 1120–200 PSI PURPLE PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12˝ COVER.

SLEEVE: 1120–SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC PLASTIC FITTINGS. 24˝ COVER UNDER ROADWAY PAVING, 18˝ UNDER CONCRETE PAVING.
WALL MOUNT CONTROLLER

NTS
2 GATE VALVE INSTALLATION
FLOW SENSOR INSTALLATION
4.10.2014

DESIGN STANDARD
Solano Community College District
Division 32 84 00 Irrigation

REMOTE CONTROL VALVE WITH FLOW CONTROL
PVC SCHEDULE 80 THREADED UNION (2)
PVC MALE ADAPTER
LATERAL LINE
FINISH GRADE
14"x18" RECTANGULAR PLASTIC VALVE BOX PLASTIC WITH BOLT DOWN LID. VALVE LID SHALL BE PERMANENTLY INSCRIBED "MASTER CONTROL VALVE"
24 VOLT WIRE PROVIDE SPEARS DB-400 WIRE CONNECTORS AT ALL SPLICES AND 36" OF EXCESS WIRE
FLUSH IN LAWN OR 1" ABOVE FINISH GRADE IN SHRUB OR GROUND COVER AREA
VALVE I.D. TAG
SCHEDULE 80 PVC FITTINGS (AS REQUIRED)
BRICK (4-TOTAL)
PVC MAIN LINE TO POINT OF CONNECTION
PEA GRAVEL-4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
U.P.C/ APPROVED SCHEDULE 40 PVC TEE

4 MASTER CONTROL VALVE INSTALLATION

NTS
REMOTE CONTROL VALVE INSTALLATION

14"x18" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. 1 REMOTE CONTROL VALVE PER BOX. VALVE LID SHALL BE PERMANENTLY INSCRIBED "CONTROL VALVE" AND WITH THE CONTROLLER STATION NUMBER.

24 VOLT WIRE PROVIDE 8 PEARS DS-400 WIRE CONNECTORS AT ALL SPLICES AND 36" OF EXCESS WIRE.

FLUSH IN LAWN OR 1" ABOVE FINISH GRADE IN SHRUB OR GROUND COVER AREA.

VALVE I.D. TAG

SCHEDULE 80 PVC FITTINGS (AS REQUIRED)

BRICK (4-TOTAL)

PVC MAIN LINE TO POINT OF CONNECTION

PEA GRAVEL 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)

U.P.C/ APPROVED SCHEDULE 40 PVC TEE

REMOTE CONTROL VALVE WITH FLOW CONTROL

PVC SCHEDULE 80 THREAD UNION (2)

PVC MALE ADAPTER

LATERAL LINE

FINISH GRADE

PVC MAIN LINE
NOTES:
1. ONE CONNECTOR HANDLES 10 AWG, 12 AWG AND 14 AWG WIRES.
2. WIRE CONNECTORS WILL ACCEPT THREE WIRE OR TWO WIRE CONNECTIONS.
3. MANUFACTURED BY SPEARS, MODEL DS-400.

WIRE CONNECTION

NTS
NOTES:

1. CENTER BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.

2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.

3. SET RCY AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.

4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.

5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.

6. ALL VALVE BOXES SHALL HAVE BOLT DOWN LIDS.

7. VALVE LID SHALL BE PERMANENTLY INSCRIBED "CONTROL VALVE" AND WITH THE CONTROLLER STATION NUMBER.

VALVE BOX INSTALLATION
8 1" QUICK COUPLER IN BOX

NTS
SHRUB BUBBLER INSTALLATION

NOTE: INSTALL ONE BUBBLER WITHIN PLANTING BASIN ON EDGE OF ROOTBALL AT A MAXIMUM OF 6 IN. FROM TRUNK OF SHRUB.
FINISHED SURFACE OF MULCH

TRENCH WIDTH

FINISHED GRADE

BLUE WARNING TAPE

NATIVE TRENCH BACKFILL

PIPE ZONE AND BEDDING BACKFILL, SEE SPECS.

3" MIN.

LATERAL PIPE, SIZE PER IRRIGATION PLAN

3" MIN.

UNDISTURBED NATIVE SOIL

DIRECT BURIAL LOW VOLTAGE CONTROL WIRES TAPED AND BUNDLED EVERY 10' COMMON TRENCHED WITH MAINLINE

2' MIN.

MAIN LINE, SIZE PER IRRIGATION PLAN

2' MIN.

TYPICAL COMBINATION TRENCH

NTS
CURB, WALK OR HEADER BOARD

FINISH GRADE

TORO POP-UP SPRAY HEAD

NOTE: CONTRACTOR MAY NOT INSTALL PIPE TO SIDE INLET IF CHECK-O-MATIC (COM) OPTION HAS BEEN SPECIFIED

MANUFACTURED SWING JOINT

LATERAL TEE

LATERAL PIPE

POP-UP SPRAY HEAD INSTALLATION
ROOT WATERING SYSTEM WITH GRADE SWING JOINT AND BUBBLER

NOTE:
1. ONE BUBBLER PER TREE TO BE PLACED UPHILL SIDE OF ROOTBALL.

TREE BUBBLER INSTALLATION

12
DESIGN STANDARD for Pedestrian Asphalt Paving

Purpose:

The purpose of this document is to standardize asphalt paving in pedestrian areas. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and safety of paving on campus.

Design Standard:

- To be used for secondary, tertiary or service paths and roads
- All asphaltic concrete to be restrained with metal header or min. 6” concrete mowband

Associated Design Standards and Construction Specifications

- Asphaltic concrete to be 1/4 in. maximum aggregate, minimum course thickness: 2 in.
- Aggregate base to be Class 2 aggregate base 3/4 in. maximum aggregate size
- Nails shall be hot dipped galvanized
CONCRETE PAVING

ASPHALT PAVING W/SEAL COAT

STEEL HEADER

FINISH GRADE @ SHRUB OR GROUND COVER AREA

CLASS II AGGREGATE BASE

COMPACTED SUBGRADE

PEDESTRIAN A.C. PAVING

SCALE: 1/2" = 1'-0"
10' x 4" x 14GA
10' x 4" x 12GA
10' x 4" x 1 3/16"
10' x 4" x 1/4"
10' x 5" x 3/16"
10' x 5" x 1/4"
10' x 6" x 14GA
10' x 6" x 12GA
10' x 6" x 1 3/16"
10' x 6" x 1/4"

- BLACK
- BROWN
- GREEN
- UNFINISHED GALVANIZED
- UNFINISHED RAW STEEL

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER’S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER’S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. FOR ORDERING DIVIDE NUMBER OF FEET NEEDED BY 9.33 TO OBTAIN THE NUMBER OF 10’ PIECES NEEDED.
5. CONTRACTOR’S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info
REFERENCE NUMBER 1023-003.
6" CONCRETE MOWBAND

SCALE: 1" = 1'-0"
DESIGN STANDARD for Pedestrian Concrete Paving

Purpose:

The purpose of this document is to standardize concrete paving in pedestrian areas. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and safety of paving on campus.

Design Standard:

- 4” thick for Standard Pathways with rebar reinforcement
- #3 at 16” thick for paths with occasional vehicular traffic
- #4 @ 12” thick for fire truck access
- Poured-in-place concrete
- SRI Reflectance rating 0.3 minimum

Approved Manufacturers:

- L.M. Scofield Co. Chromix Admixture
  - Medium broom with 1 ½” troweled edge
  - No color specified
  - Phone: (800) 800-9900
- Portland Cement. ASTM C150, Type 1, natural color
- Specialty finishes: exposed aggregate, stamped concrete

Substitutes Allowed:

Approved manufacturer or approved equal
Associated Design Standards and Construction Specifications

2. American Concrete Institute, (ACI).
3. California Building Code (CBC)
5. American National Standards Institute, (ANSI).
EXPANSION JOINT W/DOWELS 36" O.C. ALONG EXPANSION JOINT. ALL JOINTS TO OCCUR AT 24" O.C. MAX., AT MATERIAL INTERFACES, AND AS SHOWN ON DRAWINGS.

HOLD FINISH GRADE OF PLANTING AREAS 1" BELOW FINISH GRADE OF ADJACENT CONCRETE FLATWORK

THICKENED EDGE

PAVING JOINTS:
LOCATE AS SHOWN ON PLANS

TROWEL JOINTS:
½ DEPTH OF THE SLAB

SCORE JOINTS:
½" WIDE SAW CUT. X THE DEPTH OF THE SLAB

NOTE: FOR ALL BASE, STEEL, DOWEL AND REFRACTOR INFORMATION, REFER TO CONTRACTOR'S REPORT.

CONTRACTOR TO PROVIDE MOCKUP OF ALL PAVING COLORS, FINISHES, AND JOINTS FOR REVIEW AND APPROVAL.

PEDESTRIAN CONCRETE PAVING

SCALE: 1" = 1'-0"
DESIGN STANDARD for Pavers

Purpose:

The purpose of this document is to standardize the use of pavers in pedestrian areas. This design standard ensures the quality of maintenance, reliability, and safety of pavers on campus.

Design Standard:

- Pavers to be used in specialty spaces for a decorative element

Approved Manufacturers:

- Pavers
  Manufacturer: Basalite, basalite.com
  Phone: (707) 678-1901
  Model: Cityscape Series
  Davis Color Options: Dune, Pebble, Taupe and Pewter

- Permeable Paver
  Manufacturer: Basalite, basalite.com
  Phone: (707) 678-1901
  Model: SF Rima Series
  Davis Color Options: Dune, Pebble, Taupe and Pewter

- Edge Restraint – provide edge restraints installed around the perimeter of all interlocking concrete paving unit areas
  Manufacturer: Snap Edge Corporation supplied by Genest Concrete Works, Inc.
  Phone: (800) 932-3343
  Model: Snap Edge
Substitutes Allowed:

Approved manufacturer or approved equal

Associated Design Standards and Construction Specifications

   1) ASTM C 33, Standard Specification for Concrete Aggregates.
   4) ASTM C 140, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
   6) ASTM C 936, Standard Specification for Solid Concrete Interlocking Paving Units.
   7) ASTM C 979, Standard Specification for Pigments for Integrally Colored Concrete.
   8) ASTM D 698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,000 ft-lbf/ft³ (600 kN-m/m³)).
   9) ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
   10) ASTM D 2940, Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports.

b. Interlocking Concrete Pavement Institute (ICPI):
   1) ICPI Tech Spec Technical Bulletins

Install per manufacturers specifications.
NOTES:
1. CONTRACTOR TO VERIFY PAVERS SHALL HAVE POSITIVE DRAINAGE.
2. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION
3. HOLD FG OF PLANTING AREAS 1" BELOW FG OF PAVING
4. CONTRACTOR TO PROVIDE 10'X 10' MOCK UP OF ALL PAVERS FOR OWNERS REVIEW AND APPROVAL PRIOR TO INSTALLATION.
5. ALL PAVERS SHALL BE SEALED WITH MATTE SEALER.
6. MFR: SEAL N LOCK SPECS (813) 852-1500.
7. CONTRACTOR TO COORDINATE LAYOUT AND LOCATIONS OF ALL UTILITIES PRIOR TO START OF CONSTRUCTION. ALL UTILITY BOXES, DRAINS, LIGHT POLES, ETC. SHALL BE CENTER IN BANDS AND FIELDS WHERE POSSIBLE AND SQUARE TO PAVING PATTERN.
8. FOR VEHICULAR SECTION 80MM PAVER MINIMUM.
9. PROVIDE 6" -- PERFORATED SUBRAIN AT LOW POINT OF PAVER FIELD, S.C.D.

PEDESTRIAN INTERLOCKING PAVERS

PEDESTRIAN INTERLOCKING PAVERS

SCALE: 3/4" = 1'-0"
NOTES:
1. CONTRACTOR TO VERIFY PAVERS SHALL HAVE POSITIVE DRAINAGE.
2. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION
3. HOLD FG OF PLANTING AREAS 1' BELOW FG OF PAVING
HOLD FG OF SOD 4' BELOW FG OF PAVING
4. CONTRACTOR TO PROVIDE 10' X 10' MOCK UP OF ALL PAVERS FOR OWNERS REVIEW
AND APPROVAL PRIOR TO INSTALLATION.
5. CONTRACTOR TO COORDINATE LAYOUT AND LOCATIONS OF ALL UTILITIES PRIOR
TO START OF CONSTRUCTION. ALL UTILITY BOXES, DRAINS, LIGHT POLES, ETC. SHALL BE
CENTER IN BANDS AND AREAS WHERE POSSIBLE AND SQUARE TO PAVING PATTERN.
6. INSTALL ALL PAVERS PER ICPI STANDARDS.
7. FOR VEHICULAR SECTION. 80MM PAVER MINIMUM.

VARY: SEE LAYOUT

ASTM NO. 8 STONE JOINT MATERIAL
PERVIOUS PAVER
1" BEDDING COURSE
(TYP. NO. 8
AGGREGATE) PER ICPI
NO. 57 AGGREGATE 3/4"
CRUSHED, PER ICPI

CONCRETE OR
MOWBAND
FLUSH W/ ADJACENT
FLUSH, TYP.

SNAP EDGE PAVER EDGE
NO. 2 AGGREGATE 2 1/2"
CRUSHED, PER ICPI
90% R.C. SUBGRADE

PERMEABLE PAVERS
SCALE: 3/4" = 1'-0"
DESIGN STANDARD for Planting

Purpose:

The purpose of this document is to standardize the benches used throughout the campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and aesthetic value of these objects on campus.

Design Standard:

- No plant material shall be planted until the Landscape Architect has approved its quality and placement.
- Plant trees 5'-0" minimum from paving edges
- Install headerboards between lawn and shrub or groundcover areas and non-landscaped areas
- Mulch all groundcover areas and shrub beds with a layer of recycled bark, 3” deep. Mulch shall be between 1/2” and 1” diameter and between 1” and 2” long.
- Pruning: Under no circumstances will stripping of lower branches (“raising up”) of young trees be permitted. Lower branches shall be retained in a “tipped back” or pinched condition with as much foliage as possible to promote caliper trunk growth (tapered trunk). All pruning shall be made flush to lateral branches, buds, or trunk. “Stubbing” will not be permitted.
- Secure all vines to walls, or trellis, or supports with approved fasteners, allowing for two years growth.
- All slopes greater than 2.5:1 shall be covered with biodegradable jute netting per the manufacturer’s specifications. Overlap all edges a minimum of 2” and secure as required with metal staples
TREE PALETTE

LEGEND

Water Requirements

- Very Low
- Low
- Moderate
- Regular

Spine & Bosque Trees

*Acer Rubrum ‘New World’*
New World Red Maple
Location: Secondary Spines
Height: 35’
Spread: 15’
Deciduous

*Carpinus betulus ‘Frans Fontaine’*
Columnar Hornbeam
Location: Primary Spines
Height: 40’
Spread: 15’
Deciduous
Spine & Bosque Trees Continued...

*Pyrus calleryana ‘Capital’*
Callery Pear
Height: 40’
Spread: 15’
Deciduous

*Pyrus serrulata ‘Amanogawa’*
Amanogawa Japanese Flowering Cherry
Height: 25’
Spread: 12’
Deciduous

*Prunus yedoensis ‘Akebono’*
Akebono Cherry
Height: 25’
Spread: 25’
Deciduous
Spine & Bosque Trees Continued...

Quecus robur ‘Fastigiata’
Columnar English Oak
Height: 50’
Spread: 15’
Deciduous

Zelkova serrata ‘Musashino’
Zelkova
Location: Tertiary Spines
Height: 40’
Spread: 15’
Deciduous

Canopy/ Shade Trees

Celtis sinensis
Chinese Hackberry
Height: 35’
Spread: 40’
Deciduous
Canopy / Shade Trees Continued...

*Ulmus parvifolia*
Chinese Elm
Height: 50’
Spread: 60’
Deciduous

Parking Lot / Shade Trees

*Pistacia chinensis*
Chinese Pistache
Height: 30’-60’
Spread: 30’-60’
Deciduous

*Platanus acerifolia ‘Columbia’*
London Plane Tree
Height: 50’
Spread: 30’
Deciduous
Parking Lot / Shade Trees Continued...

*Quercus Virginiana*
Southern Live Oak
Height: 40’-60’
Spread: 40’-60’
Evergreen

*Chitalpa tashkenensis*
Chitalpa
Height: 25’
Spread: 20’-30’
Deciduous

*Lagerstroemia indica*
Crape Myrtle
Height: 25’
Spread: 25’
Deciduous
Orchard Tree

*Malus spp.*
Crabapple
Height: 25’
Spread: 25’
Deciduous

Screen Trees

*Calocedrus decurrens*
Incense Cedar
Height: 20’ (40’ with age)
Spread: 10’ (70’ with age)
Evergreen
Screen Trees Continued...

Elaeocarpus decipiens
Japanese Blueberry
Height: 50’
Spread: 25’
Evergreen

Laurus nobilis
Sweet Bay
Height: 30’
Spread: 45’
Evergreen

Podocarpus elongata ‘Ice Blue’
Blue Ice Yellow-Wood
Height: 20’
Spread: 20’
Evergreen
Screen Trees Continued...

*Thuja Plicata*
Western Red Cedar
Height: 60’
Spread: 20’
Evergreen
### PLANTING PALETTE

#### LEGEND

<table>
<thead>
<tr>
<th>Sun/ Shade Requirements</th>
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<tbody>
<tr>
<td>Full Sun</td>
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<td>Partial Sun</td>
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<td>Regular</td>
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**California Native**

### Groundcovers and Vines

- **Acacia redolens**
  - Kinnikinnick Manzanita
  - Height: 1’ to 3’
  - Spread: 4’ to 6’
  - Evergreen

- **Arctostaphylos uva-ursi**
  - Kinnikinnick Manzanita
  - Height: 6” to 1’
  - Spread: 6” to 1’
  - Evergreen

10 01.16.2014
Groundcovers and Vines Continued...

*Campsis radicans*
Trumpet Vine
Fast growing
Deciduous

*Carex pansa*
Dune Sedge
Height: 10”
Spread: 1’
Evergreen

*Ceanothus griseus horizontalis*
Ceanothus
Height: 1’ to 2.5’
Spread: 5’ to 15’
Evergreen

*Cotoneaster horizontalis*
Prostrate Cotoneaster
Height: 2’
Spread: 7’
Evergreen

*Erigeron karvinskianus*
Santa Barbara Daisy
Height: 1’
Spread: 4’
Evergreen
Groundcovers and Vines Continued...

**Ficus pumila**
Creeping Fig  
Fast Grower  
Evergreen

**Gazania hybrids**
Gazania  
Height: 6” to 1’  
Spread: 2’ to 4’  
Evergreen

**Hypericium reptans**
Gazania  
Height: 6” to 1’  
Spread: 2’ to 4’  
Deciduous

**Lantana montevidensis**
Lantana  
Height: 6” to 2’  
Spread: 1’ to 2.5’  
Evergreen

**Leymus condensatus ‘Canyon Prince’**
Giant Wild Rye  
Height: 2’  
Spread: 2’  
Evergreen
Groundcovers and Vines Continued...

*Myoporum parvifolium*
Myoporum  
Height: 6” to 1’  
Spread: 3’ to 9’  
Evergreen

*Pennisetum setaceum ‘Rubrum’*
Purple Fountain Grass  
Height: 3’  
Spread: 3’

*Rosa meidiland*
Meidiland Rose  
Height: 2’ to 4’  
Spread: 3’ to 5.5’  
Deciduous

*Rosa x Noatraum*
Flower Carpet Pink Groundcover Rose  
Height: 2’  
Spread: 3’  
Deciduous

*Rosmarinus officinalis ‘Prostratus’*
Rosemary  
Height: 2’  
Spread: 8’  
Evergreen
Groundcovers and Vines Continued...

*Sedum rupestre*
Stonecrop
Height: 6” to 1’
Spread: 1’ to 1.5’
Evergreen

*Teucrium fruticans*
Shrubby Germander
Height: 3’
Spread: 13’
Evergreen

*Trachelospermum jasminoides*
Star Jasmine
Height: 2’
Spread: 10’
Evergreen

*Westringia fruticosa ‘Snow Flurry’*
Snow Flurry Westringia
Height: 5’
Spread: 9’
Evergreen
Low Shrubs

*Agave attenuata*
Fox Tail Agave
Height: 4’ to 5’
Spread: 6’ to 8’
Evergreen

*Arbutus unedo ‘Compacta’*
Compact Strawberry Bush
Height: 35’
Spread: 35’
Evergreen

*Bergenia cordifolia*
Bergenia
Height: 1’ to 2’
Spread: 1.5’ to 2.5’
Evergreen

*Carex divulsa*
Sedge
Height: 1’ to 1.5’
Spread: 1’ to 2.5’
Evergreen

*Coleonema pulchrum ‘Sunset Gold’*
Breath of Heaven
Height: 1.5’ to 2.5’
Spread: 2.5’ to 4’
Evergreen
Low Shrubs Continued...

*Coprosma kirkii ‘Variegata’*
Coprosma Height: 1’
Height: 1’ to 2’
Spread: 5’
Evergreen

*Festuca glauca*
Blue Fescue
Height: 6” to 1’
Spread: 10” to 1’
Evergreen

*Helictotrichon sempervirens*
Blue Oat Grass
Height: 2’ to 3’
Spread: 2’ to 3’
Evergreen

*Heuchera hybrids*
Coral Bells
Height: 1’ to 1.5’
Spread: 1.5’ to 2’
Evergreen

*Liriope muscari*
Lilyturf
Height: 6” to 1’
Spread: 1’ to 1.5’
Evergreen
Low Shrubs Continued...

*Yucca glauca*
Soapweed Yucca
Height: 4’
Spread: 3’ to 4’
Evergreen

*Tulbaghia violacea ‘Silver lace’*
Society Garlic
Height: 2’
Spread: 1’
Evergreen
Intermediate Shrubs

*Abelia grandiflora ‘Kaleidoscope’*
Kaleidoscope Abelia  
Height: 2’ to 3’  
Spread: 3’ to 4’  
Evergreen

*Berberis thunbergii*
Barberry  
Height: 4’ to 6’  
Spread: 4’ to 6’  
Deciduous

*Calamagrostis acutiflora ‘Karl Foerster’*
Karl Foerster  
Height: 2’ to 3’  
Spread: 2’ to 3’  
Evergreen

*Callistemon viminalis ‘Little John’*
Bottlebrush  
Height: 2.5’ to 3’  
Spread: 3’ to 3.5’  
Evergreen

*Cistus purpureus*
Rockrose  
Height: 3.5’ to 4’  
Spread: 3.5’ to 4’  
Evergreen
Intermediate Shrubs Continued...

*Coleonema puchellum*
Pink Breath of Heaven
Height: 3’ to 4.5’
Spread: 3’ to 4.5’
Evergreen

*Escallonia bifilda*
White Escallonia
Height: 8’-12’
Spread: 10’-15’
Evergreen

*Euonymus fortunei ‘Canadale Gold’*
Canadale Gold Wintercreeper
Height: 3’ to 4’
Spread: 3’ to 3.5’
Evergreen

*Hemerocallis hybrids (evergreen)*
Daylily
Height: 2’ to 3’
Spread: 2’ to 3’
Evergreen
Intermediate Shrubs Continued...

Juncus Patens
California Gray Rush
Height: 1’ to 2’
Spread: 1’ to 2’
Evergreen

Lomandra longifolia
Mat Rush
Height: 2’ to 4’
Spread: 2’ to 4’
Evergreen

Miscanthus sinensis
Japanese Silver Grass
Height: 2’ to 4’
Spread: 2’ to 4’
Deciduous

Nassella teniusima
Mexican Feather Grass
Height: 1’ to 3’
Spread: 1’ to 3’
Evergreen

Olea europaea ‘Montra’
Little Olive
Height: 6’ to 8’
Spread: 4’ to 5’
Evergreen
Intermediate Shrubs Continued...

*Phormium hybrids ‘Maori Maiden’*
New Zealand Flax
Height: 2’ to 3’
Spread: 3’ to 4’
Evergreen

*Phormium ‘Jack Spratt’*
New Zealand Flax
Height: 1’ to 2’
Spread: 1’ to 2’
Evergreen

*Phormium ‘Wings of Gold’*
Mexican Feather Grass
Height: 3’ to 4’
Spread: 2’ to 3’
Evergreen

*Pittosporum tobira ‘Variegata’*
Mock Orange
Height: 4’ to 5’
Spread: 4’ to 5’
Evergreen

*Rhamnus californica ‘Seaview’*
Dwarf Coffeeberry
Height: 2’
Spread: 4’
Evergreen
Intermediate Shrubs Continued...

**Rhaphiolepis indica ‘Spring Rapture’**
Indian Hawthorn
Height: 4’ to 5’
Spread: 4’ to 5’
Evergreen

**Rosa knockout ‘Pink’**
Pink Knockout Rose
Height: 3’ to 4’
Spread: 3’ to 4’
Deciduous

**Rosemary officinalis ‘Irene’**
Trailing Blue Rosemary
Height: 2’ to 3’
Spread: 6’ to 8’
Evergreen

**Salvia gregii**
Autumn Sage
Height: 2’ to 3’
Spread: 2’ to 3’
Evergreen

**Senecio cineraria**
Dusty Miller
Height: 2’
Spread: 2’
Evergreen
Intermediate Shrubs Continued...

*Viburnum davidii*
Indian Hawthorn
Height: 2’ to 3’
Spread: 3’ to 4’
Evergreen

☀️💧
Background and Screen Shrubs

Acanthus mollis  
Bear’s Breech  
Height: 4’ to 6’  
Spread: 4’ to 6’  
Evergreen

Ceanothus ‘Joyce Coulter’  
Ceanothus  
Height: 2’ to 5’  
Spread: 10’ to 12’  
Evergreen

Dodonaea viscosa ‘Purpurea’  
Hopseed Bush  
Height: 8’ to 12’  
Spread: 6’ to 10’  
Evergreen

Escallonia exoniensis ‘Fradesii’  
Pink Princess Escallonia  
Height: 5’ to 6’  
Spread: 5’ to 6’  
Evergreen

Loropetalum chinense  
Chinese Fringe Flower  
Height: 6’ to 10’  
Spread: 6’ to 10’  
Evergreen

24 01.16.2014
Background and Screen Shrubs Continued...

- **Myrtus communis**
  - Myrtle
  - Height: 4’ to 6’
  - Spread: 3’ to 5’
  - Evergreen
  - ☀️ ☀️

- **Phormium hybrids ‘Yellow Wave’**
  - New Zealand Flax
  - Height: 4’ to 6’
  - Spread: 4’ to 6’
  - Evergreen
  - ☀️

- **Rhus integrifolia**
  - Lemonade Tree
  - Height: 6’ to 10’
  - Spread: 10’ to 15’
  - Evergreen
  - ☀️ ☀️

- **Rhapiolepis x ‘Montic’**
  - Indian Hawthorn
  - Height: 20’ to 25’
  - Spread: 8’ to 10’
  - Evergreen
  - ☀️ ☀️

- **Westringia fructicosa ‘Morning Light’**
  - Coast Rosemary
  - Height: 3’ to 4’
  - Spread: 3’ to 4’
  - Evergreen
  - ☀️
DESIGN STANDARD for Site Lighting

Purpose:

The purpose of this document is to standardize vehicular and pedestrian lighting on campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and safety of these objects on campus.

Design Standard:

- Parking lots, major walkways, pathways, stairs, and intersections should be sufficiently lit to meet safety standards
- State minimum photometric foot candles for various areas must be met
- Provide adequate lighting for safety without over lighting
- Night sky friendly

Approved Manufacturers:

Vehicular Lighting:

- Manufacturer: Lumec
  - Model: 20’ pole with double and single luminaire, MPTCRC,
  - Base: P805AE
  - Bracket: CR double banner bracket
  - Color: GR sandtext
  - Phone: (510) 638-3800

Pedestrian Lighting:

- Manufacturer: Lumec
  - Model: 15’ tapered pole, with luminaire MPTCRC
Base: TM6V
Color: GR sandtext
Phone: (510) 638-3800

Pathway Lighting
Manufacturer: Landscape Forms, Inc., Hawthorne.
Model: Hawthorne
Color: Stormcloud
Phone: (800) 430-6206
Mount: Surface

Substitutes Allowed:
Approved manufacturers or approved equal

Associated Design Standards and Construction Specifications
Install per manufacturers specifications
Vehicular Lighting
Pedestrian Lighting
Pathway Lighting
DESIGN STANDARD for Tables and Chairs

Purpose:
The purpose of this document is to standardize the tables and chairs used for group seating. This design standard ensures the quality of maintenance, reliability, and safety of tables and chairs on campus.

Design Standard:

- Must allow clearance for pedestrian movement around tables and chairs
- Should be placed in a variety of settings, with some shade
- Must be ADA compliant

Approved Manufacturers:

- Victor Stanley; FBF-56 Streetsites Series, 8' Steel Table and (2) 6' Benches
  - Color: Powder coat grey
  - Mount: In-Ground
- Victor Stanley; A-I-424 Anthrosites Series, all metal
  - Color: Powder coat grey
  - Mount: In-Ground

Substitutes Allowed:

Approved manufacturer or approved equal

Associated Design Standards and Construction Specifications

Install per manufacturer’s specifications.
DESIGN STANDARD
Division 12 93 00 Tables and Chairs

Product may be patented. Visit VICTORSTANLEY.COM for details.
DESIGN STANDARD for Trash and Recycling Receptacles

Purpose:

The purpose of this document is to standardize the trash, waste, and recycling receptacles used throughout all the campuses.

Design Standard:

- Trash and recycling should be placed together
- Place at main entrances to buildings, plazas, and pedestrian walkways
- Place with other site furniture for functional and organized gathering areas

Approved Manufacturers:

- Landscape Forms: Scarborough Litter Receptacle with 30-gallon side opening, Vertical strap, with Lock
  - Finish: Pangard II® polyester
  - Color: powder coat Stormcloud
- Landscape Forms: Scarborough Receptacle with 30-gallon side opening, Vertical strap, dual use
  - Finish: Pangard II® polyester
  - Color: powder coat Stormcloud

Substitutes Allowed:

Approved manufacturer or approved equal.

Associated Design Standards and Construction Specifications

Install per manufacturer’s specifications
DESIGN STANDARD for Tree Grates

Purpose:
The purpose of this document is to standardize the tree grates used throughout the campus. This design standard achieves the purpose of ensuring the quality of maintenance, reliability, and aesthetic value of these objects on campus.

Design Standard:
- Can be used in high traffic areas or where space is limited

Approved Manufacturers:
- IronSmith. Metro Tree Grate, ½” slots, with anti-theft hardware
  - Material: Cast aluminum
  - Finish: Brushed

Substitutes Allowed:
Ironsmith Metro Tree Grate or approved equal

Associated Design Standards and Construction Specifications
Install per manufacturer specifications
4892
METRO
Tree Grate

48" x 48" Tree grate in
two sections for pedestrian loads only

1/2" Maximum slot opening for A.D.A.
compliance and pedestrian safety

Cast from 100% recycled
gray iron
or Aluminum
or Brass alloy C854
Yellow brass

Tree opening:
12", 17", 22", 27"
Grates can be ordered
with or later expanded
to these openings.
Please specify when ordering.

Finish: Unfinished or
Black Dip, or
Enamel paint, or
Polyurethane paint, or
Powder coat,
Paint undercoat
available.

Specify finish and color

Use frame model: 4800F

Weight:
Iron = 29lbs / 134 kg
Aluminum: 105 lbs / 48 kg

DO NOT SCALE DRAWING

IRONSMITH
41-701 Corporate Way #3
Palm Desert, CA 92260
(800) 338-4766
(760) 776-5080 Fax