



## 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 cutsheets, 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/variations 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](http://Landscapeforms.com)



Solano Community College District

**DESIGN STANDARD**  
Division 12 93 00 Benches

**Substitutes Allowed:**

Approved manufacturer or approved equal.

**Associated Design Standards and Construction Specifications**

Install per manufacturer's specifications.

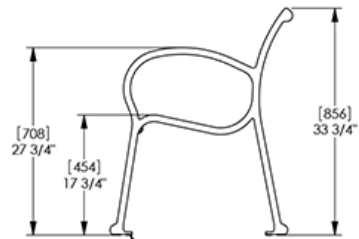
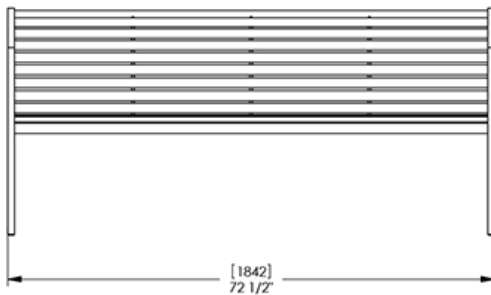
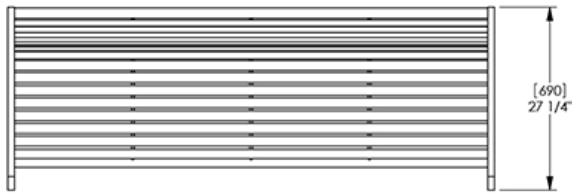


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Bench, 72" Backed, with Horizontal Strap Seat

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GLIDE FOR FREESTANDING UNIT.  
REMOVE TO SURFACE MOUNT.  
(4) Ø3/8 [10] NON-CORROSIVE BOL.  
RECOMMENDED FOR ANCHORING.  
PROVIDED BY OTHERS.

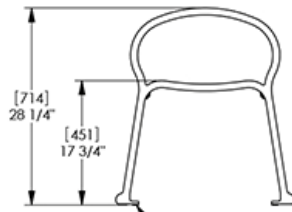
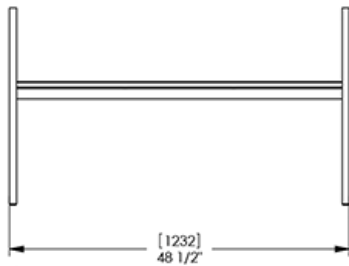
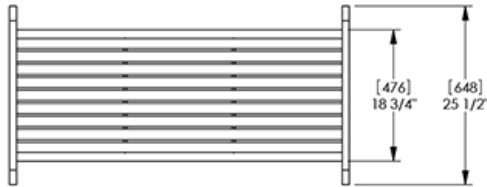


Scarborough™

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GUIDE FOR FREESTANDING UNIT.  
REMOVE TO SURFACE MOUNT.  
(4) Ø3/8 [10] NON-CORROSIVE BOLTS  
RECOMMENDED FOR ANCHORING.  
PROVIDED BY OTHERS.



## **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](http://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](http://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



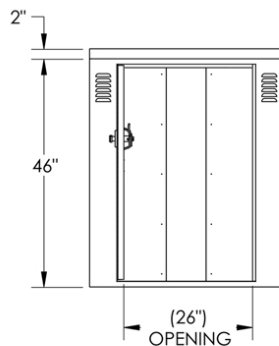
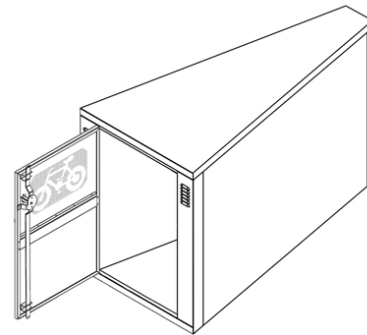
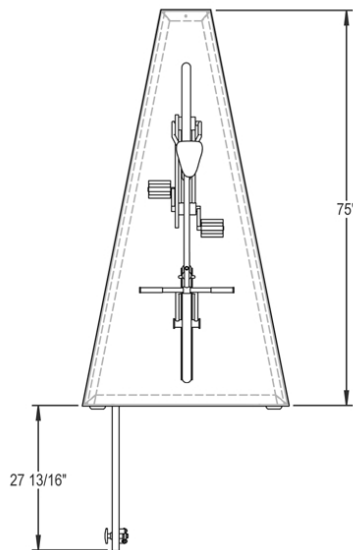


# DURA BIKE LOCKER

A DIVISION OF HANNAN SPECIALTIES INC.

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MODEL : DBLP  
Pie Shaped Bicycle Locker



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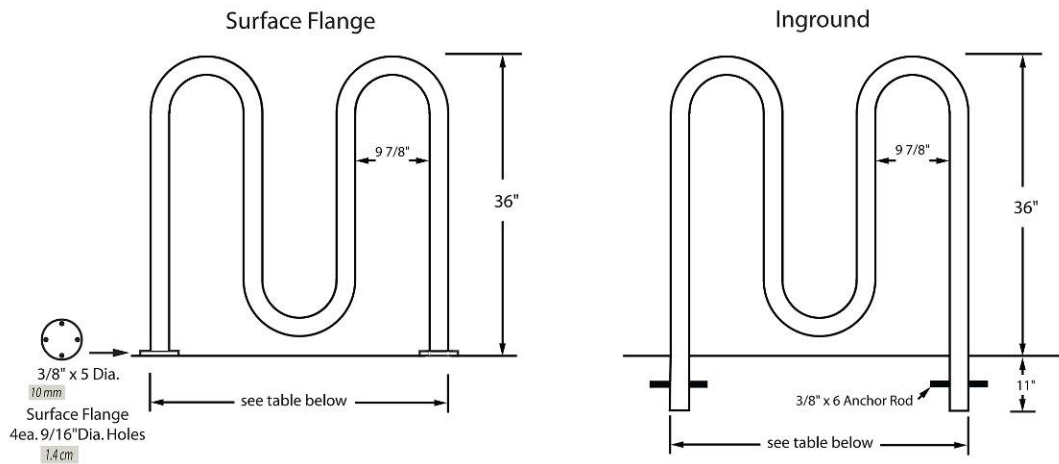
4019 LEOS LN. #3 - CARMICHAEL, CA 95608  
(916) 488-7026 - (800) 722-BIKE (2453)








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Tel: 415.333.6428 Tel: 888.764.2453 Fax: 415.333.2032 E: info@bikeparking.com  
Palmer Group, LLC : 1728 Ocean Avenue #132 San Francisco CA 94112 USA

**Welle™ Multiple Bend  
(Round Pipe)**



WELLE™ MULTI BEND ROUND PIPE RACKS								
Mount :	Item	# of Bends	Bike Capacity	Common		Wide Loop		Model
				Length	Weight	Length	Weight	
-SF (Surface Flange)	H3605	3	5	38"	60 lbs	59"	65 lbs	
-IG (Inground)				96 cm	27 kg	150 cm	29 kg	
Finish :	H3607	5	7	62"	80 lbs	97"	90 lbs	
-G (Galvanized)				157 cm	36 kg	246 cm	41 kg	
-P (Powder Coated)				H3609	7	9	86"	
-SS (Stainless Steel)	218 cm	54 kg	343 cm				59 kg	
Material :	H3611	9	11	110"	135 lbs	173"	150 lbs	
2 3/8" O.D. Pipe 6.03 cm	H3613	11	13	134"	155 lbs	211"	180 lbs	
ASTM A53 Schedule 40 Pipe .154" Wall Thickness				340 cm	70 kg	536 cm	81 kg	
Mandrel - Bent				H3615	13	15	158"	
Optional :	401 cm	81 kg	632 cm				97 kg	
Stainless 304 Alloy Available	H3617	15	17	182"	205 lbs	287"	245 lbs	
				462 cm	92 kg	729 cm	110 kg	





## **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](http://Reliance-foundry.com)

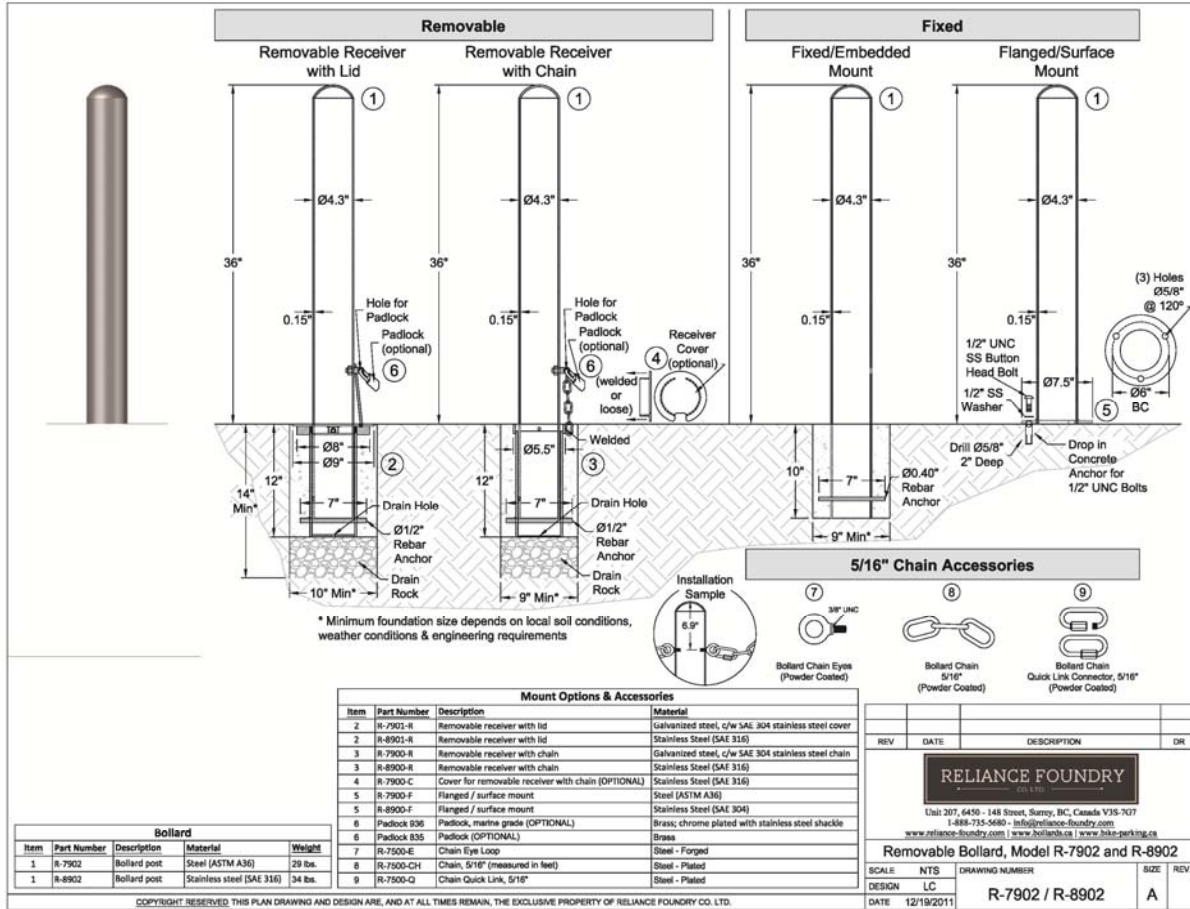
### **Substitutes Allowed:**

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

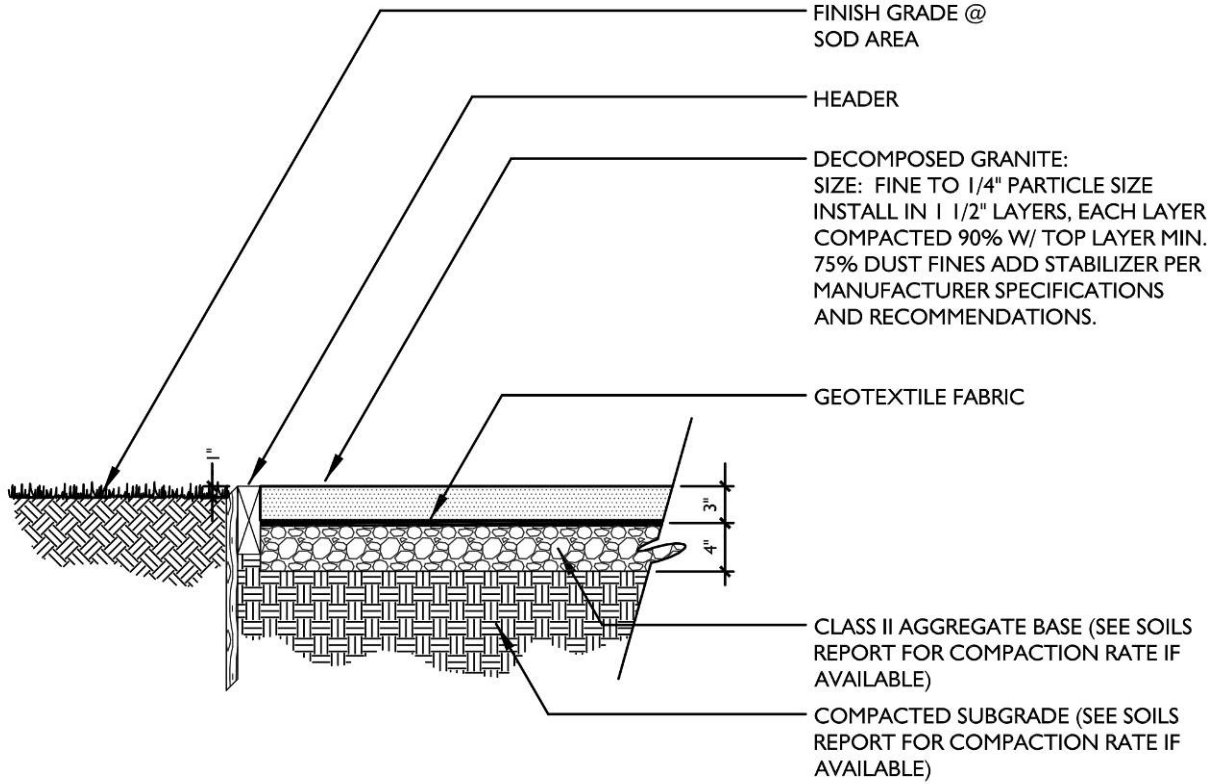
### **Approved Manufacturers:**

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

### **Associated Design Standards and Construction Specifications**

See decomposed granite detail.





## 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




















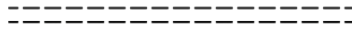


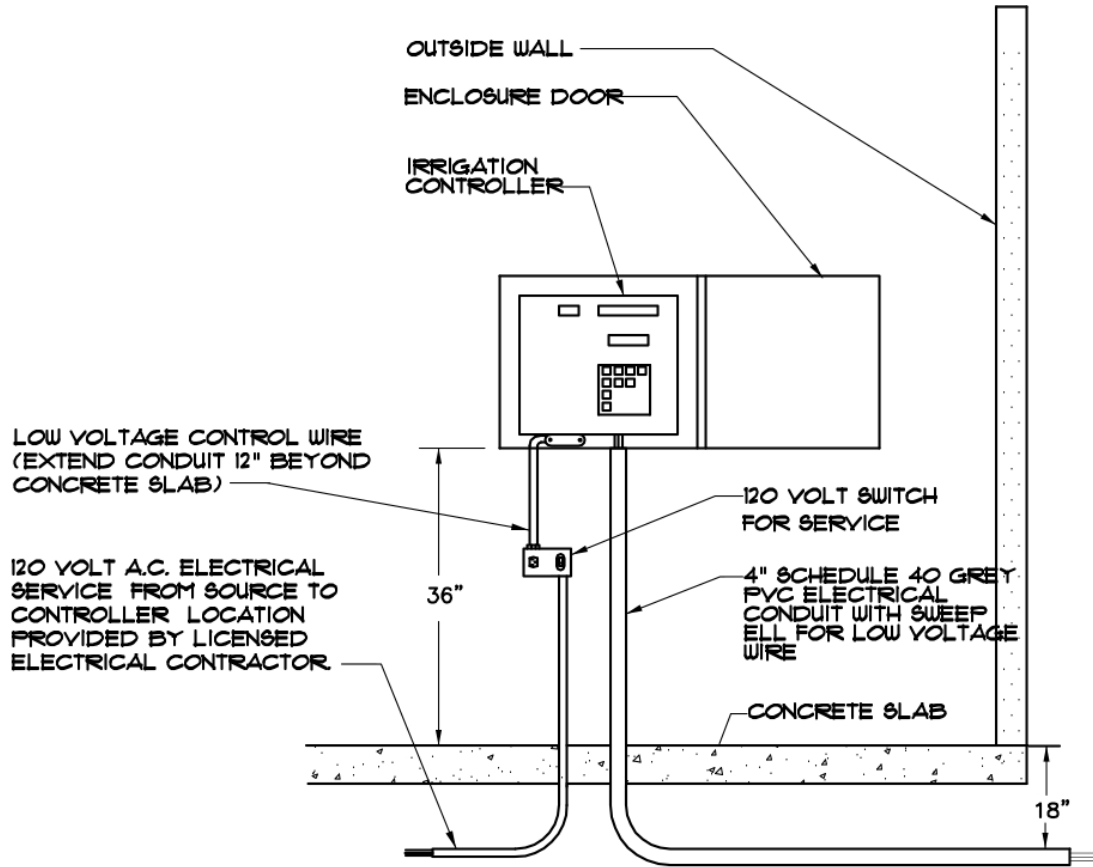
### **IRRIGATION NOTES**

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1. THIS DESIGN IS DIAGRAMMATIC. 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, PAVING, 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 DIAGRAMMATIC 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 PAIGE P7350D 14 AWG SOLID COPPER JACKETED 2-CONDUCTOR DIRECT BURIAL CABLE. 2-WIRE CABLE BETWEEN DECODERS AND SOLENOIDS SHALL BE PAIGE P7351D DTS 14 AWG SOLID COPPER JACKETED 2-CONDUCTOR DIRECT BURIAL CABLE.
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 SHADED WITH BURLAP OR CANVAS.
19. STATIC PRESSURE AT POINT OF CONNECTION IS APPROXIMATELY XX PSI.
20. INSTALL ALL IRRIGATION VALVE BOXES SHALL BE PURPLE FOR USE WITH RECYCLED WATER AND LOADED WITHIN GROUND COVER AREAS ONLY. DO NOT INSTALL WITHIN TURF AREAS. DO NOT LOCATE VALVES AT PEDESTRIAN ENTRY POINTS OR AT PEDESTRIAN CHANGE OF DIRECTION

**IRRIGATION LEGEND**

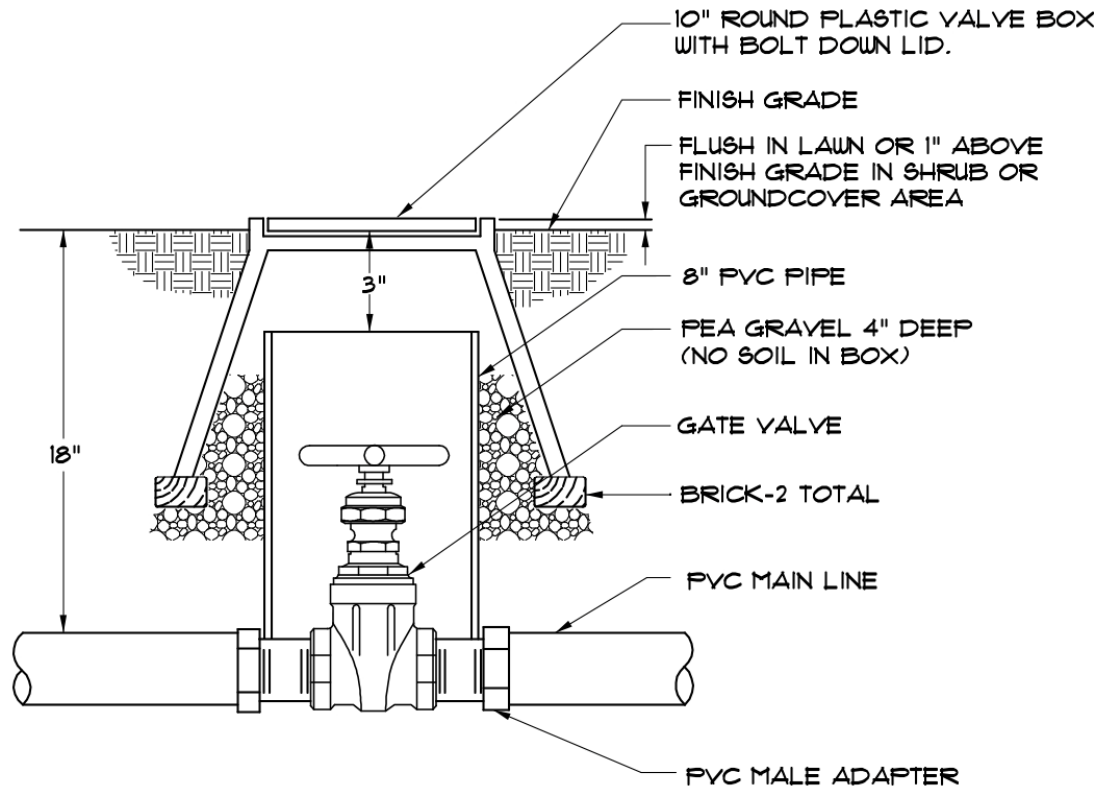
SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	GPM	RADIUS
	I-40-SS-R SERIES	HUNTER POP-UP ROTOR SPRAY WITH PURPLE COVER FOR TURF	50	VARIES	VARIES
	570Z-4P-PR COM-OT-E-15F,H,Q,T	TORO 4" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	3.6,1.65,.85,2.0	15'
	570Z-4P-PR COM-OT-E-12F,H,Q,T	TORO 4" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	2.2,1.1,.50,1.5	12'
	570Z-4P-PR COM-OT-E-10F,H,Q,T	TORO 4" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	1.5,.79,.39,1.0	10'
	570Z-4P-PR COM-OT-E-8H,Q,T	TORO 4" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	.50,.25,.75	8'
	570Z-12P-PR COM-OT-E-15F,H,Q,T	TORO 12" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	3.6,1.8,.90,1.85	15'
	570Z-12P-PR COM-OT-E-FH,Q,T	TORO 12" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	2.6,1.3,.65,1.5	12'
	570Z-12P-PR COM-OT-E-10F,H,Q	TORO 12" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	1.6,.79,.39	10'
	570Z-12P-PR COM-OT-E-8HQ,T	TORO 12" POP-UP SPRAY HEAD WITH PRECISION SERIES NOZZLES	30	.79,.39,1.0	8'
	RWS-BCG-1402	RAINBIRD ROOT WATERING SYSTEM -TREES	30	.50	-
	LF-40	TORO LOW FLOW FLOOD BUBBLER ON FLEX RISER FOR SHRUBS	30	4 GPH	-
	2000 SERIES	GRISWOLD BRASS REMOTE CONTROL VALVE			
	T-113	NIBCO GATE VALVE (LINE SIZE) IN ROUND BOX			
	33DNP	RAINBIRD QUICK COUPLING VALVE WITH PURPLE VINYL LOCKING COVER			
	ACC-1200-SS / ACM-600	HUNTER ACC SERIES CONTROLLER WITH EXPANSION MODULES 12 TO 42 STATION. WALL MOUNT INSIDE STAINLESS STEEL WALL MOUNT LOCKING CABINET. INCLUDES HUNTER SOLAR SYNC ET SENSOR.			
		LOW VOLUME IRRIGATION SHALL BE: TORO DL2000 SERIES PC DRIP EMITTER TUBING PART NUMBER: RGP-418-05-E 1.00 GPH EMITTERS 18" 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 VALVE SIZE			
		MAINLINE: 2 1/2" 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.			



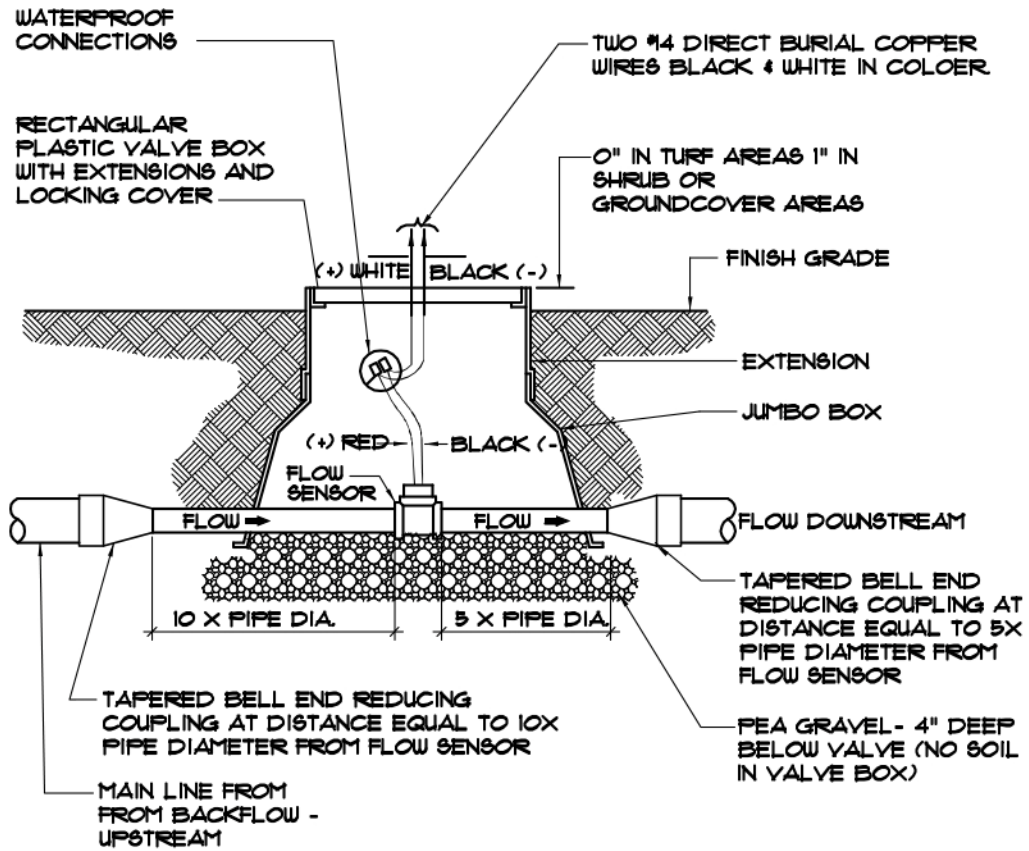
1

**WALL MOUNT CONTROLLER**

NTS

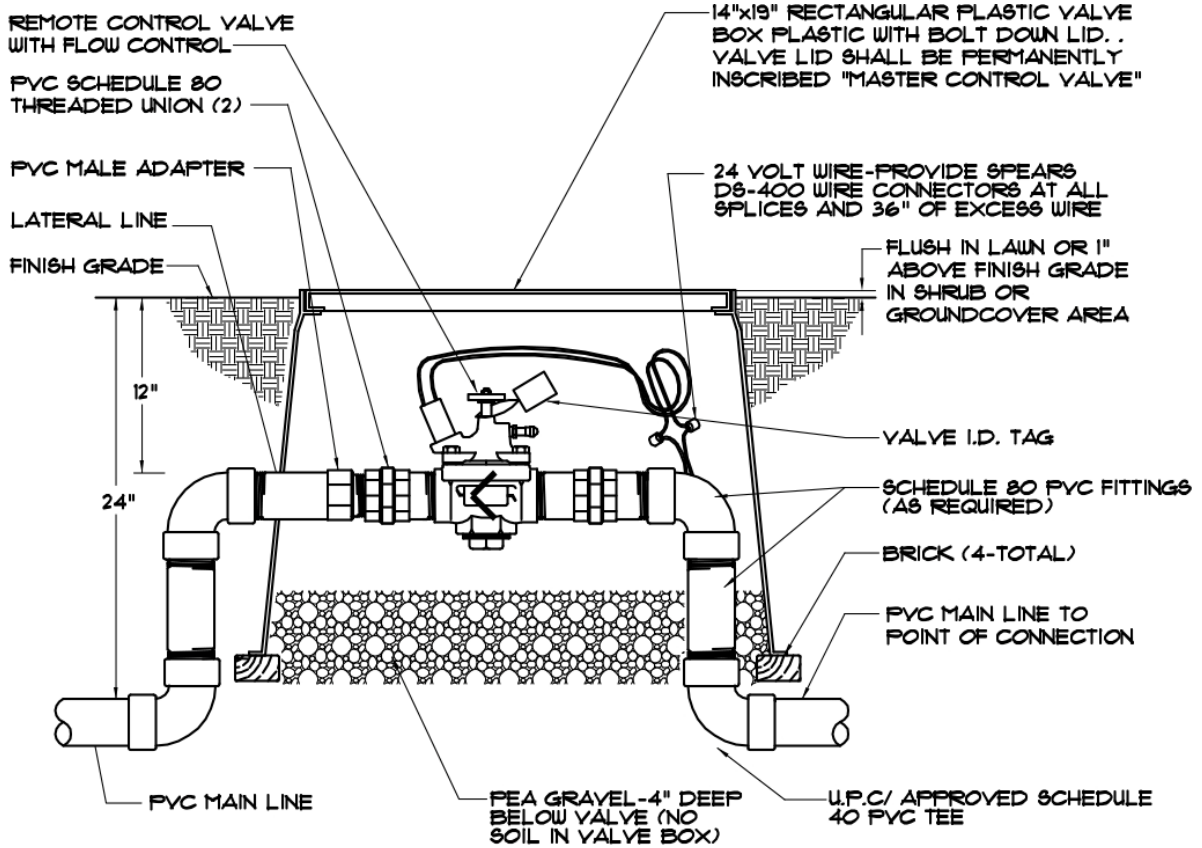


**2** **GATE VALVE INSTALLATION**  
NTS



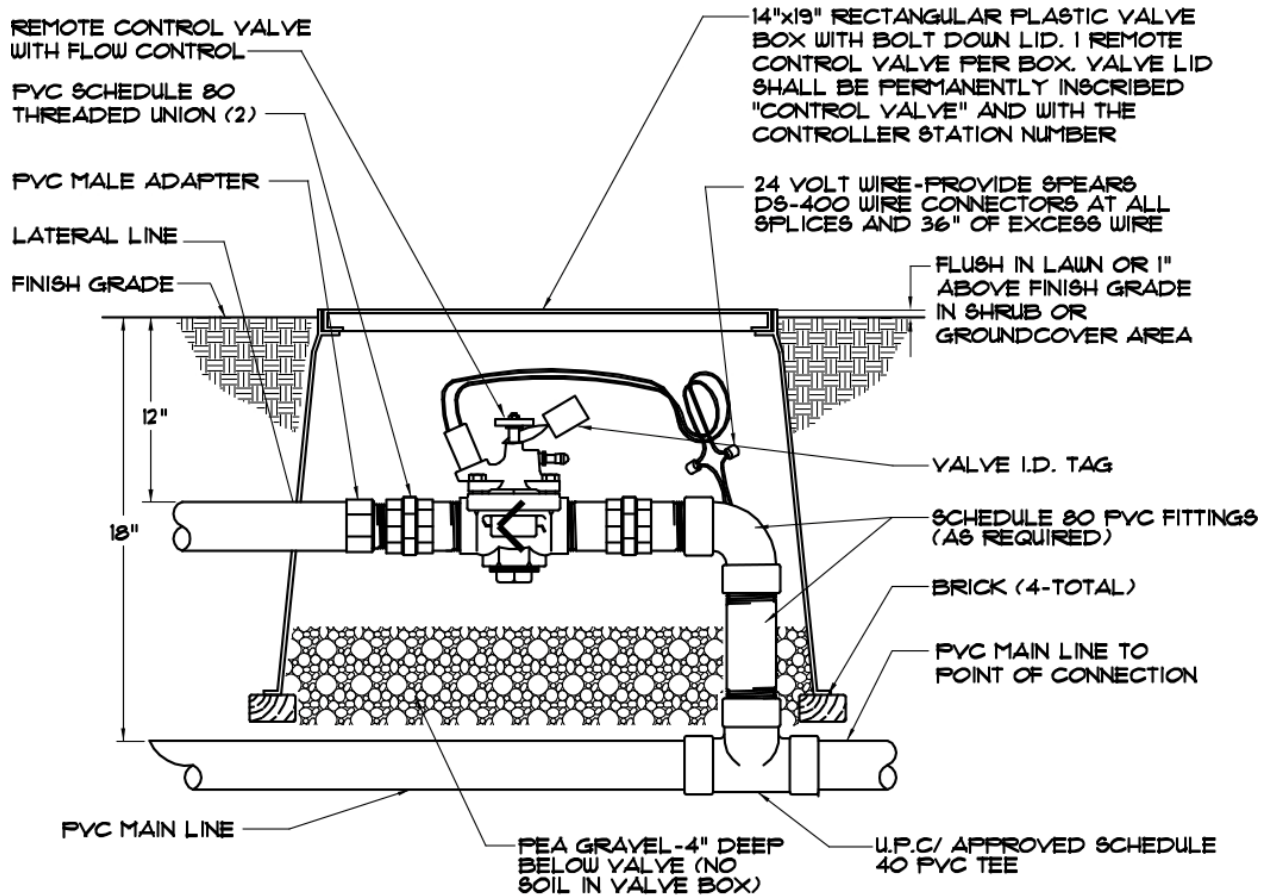
### 3 FLOW SENSOR INSTALLATION

NTS



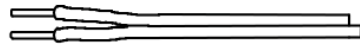
4 **MASTER CONTROL VALVE INSTALLATION**  
NTS





**5** REMOTE CONTROL VALVE INSTALLATION

NTS



STRIP WIRES APPROXIMATELY  
5/8" FROM END



INSERT WIRES THROUGH HOLES  
IN BASE OF BODY



TWIST STRIPPED WIRES TOGETHER  
AND APPLY CRIMP SLEEVE WITH AN  
INDENT TYPE CRIMPING TOOL. PUSH  
WIRES BACK INTO BODY. INVERT  
BODY AND INSERT PLUG INTO BODY  
UNTIL IT SNAPS TIGHT.

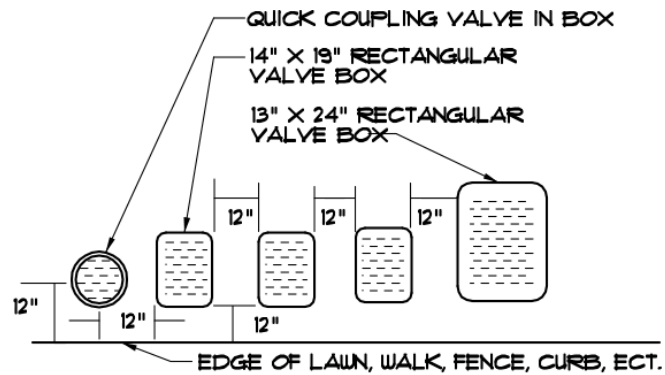
NOTES:

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.

6 WIRE CONNECTION

---

NTS

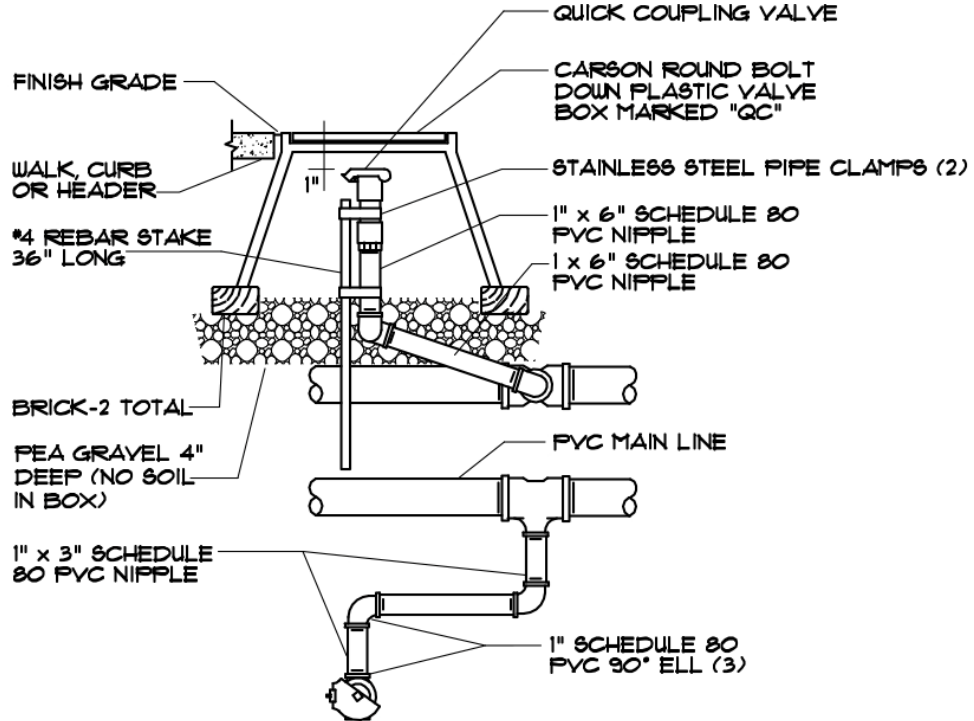


**NOTES:**

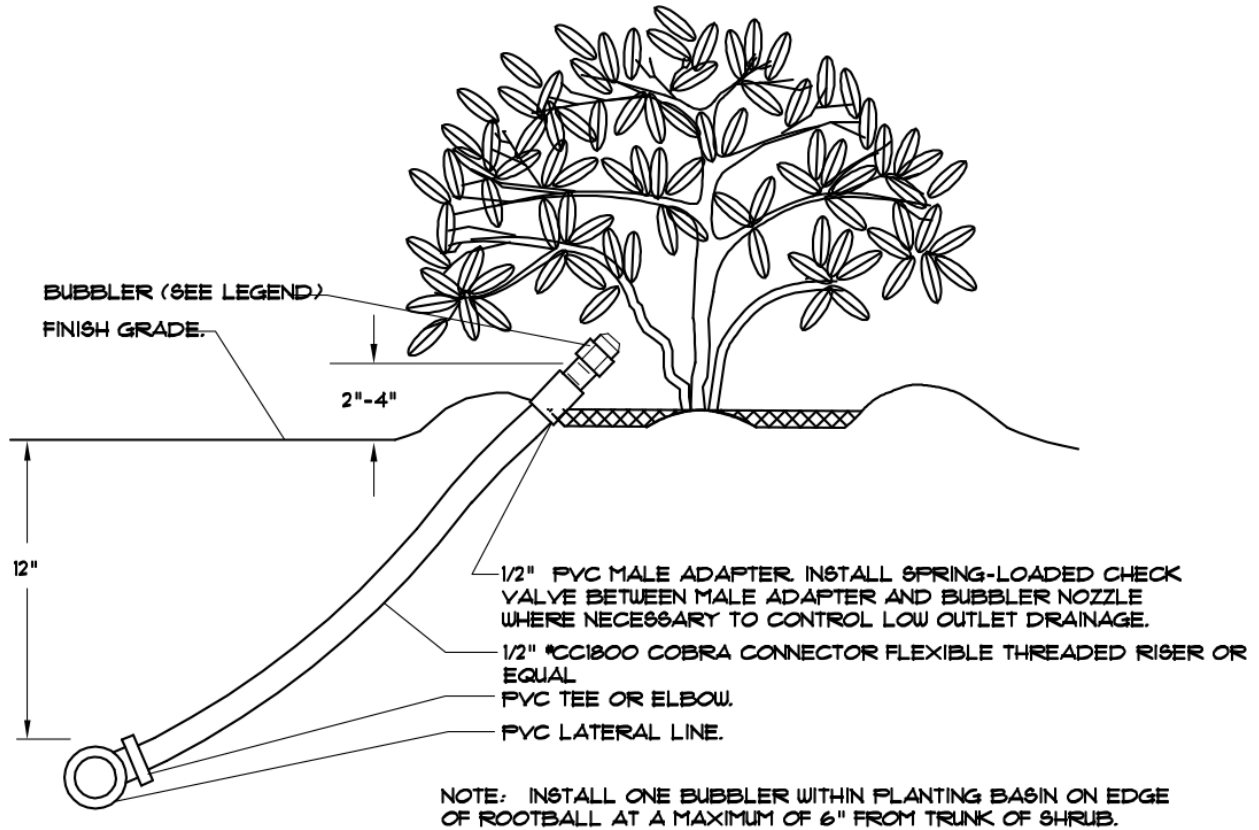
1. CENTER BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND 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.

## 7 VALVE BOX INSTALLATION

NTS

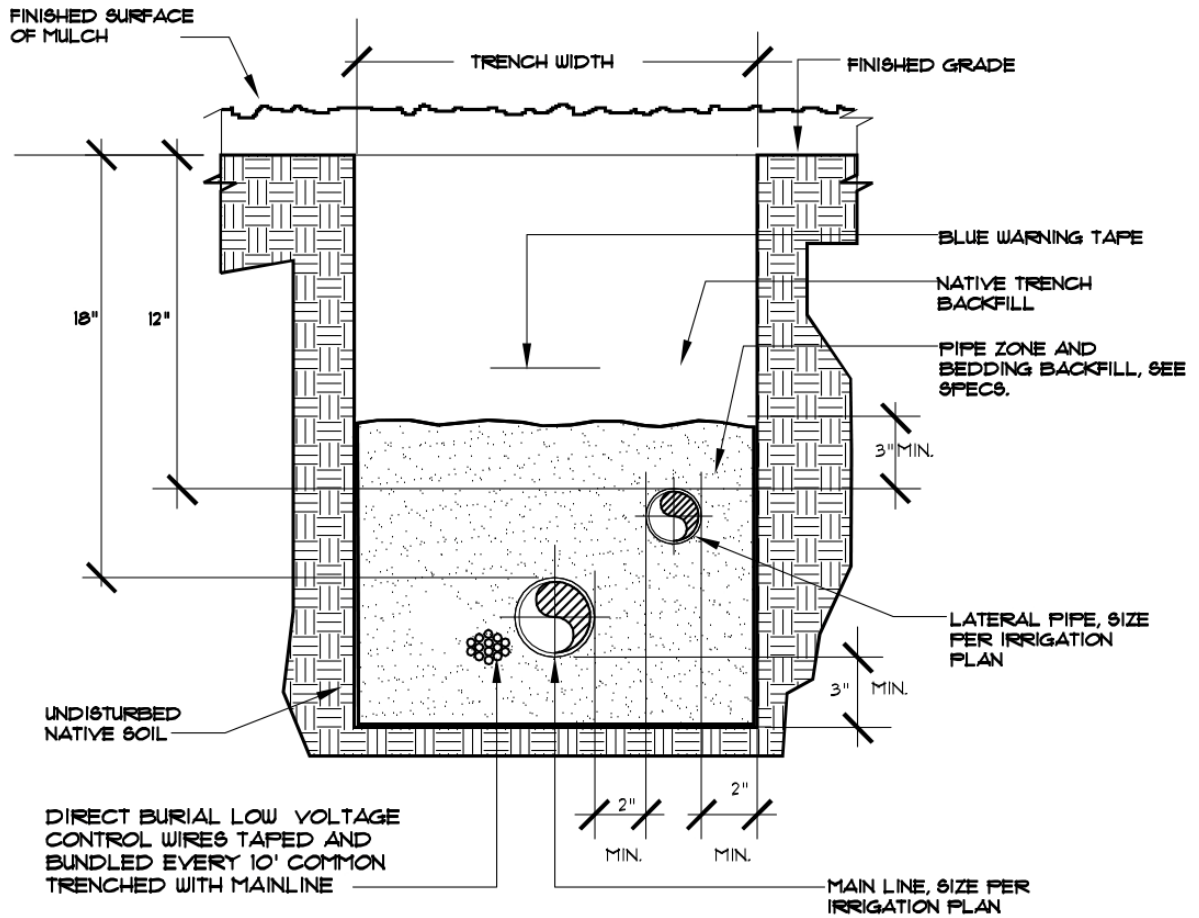


**8** **1" QUICK COUPLER IN BOX**  
NTS

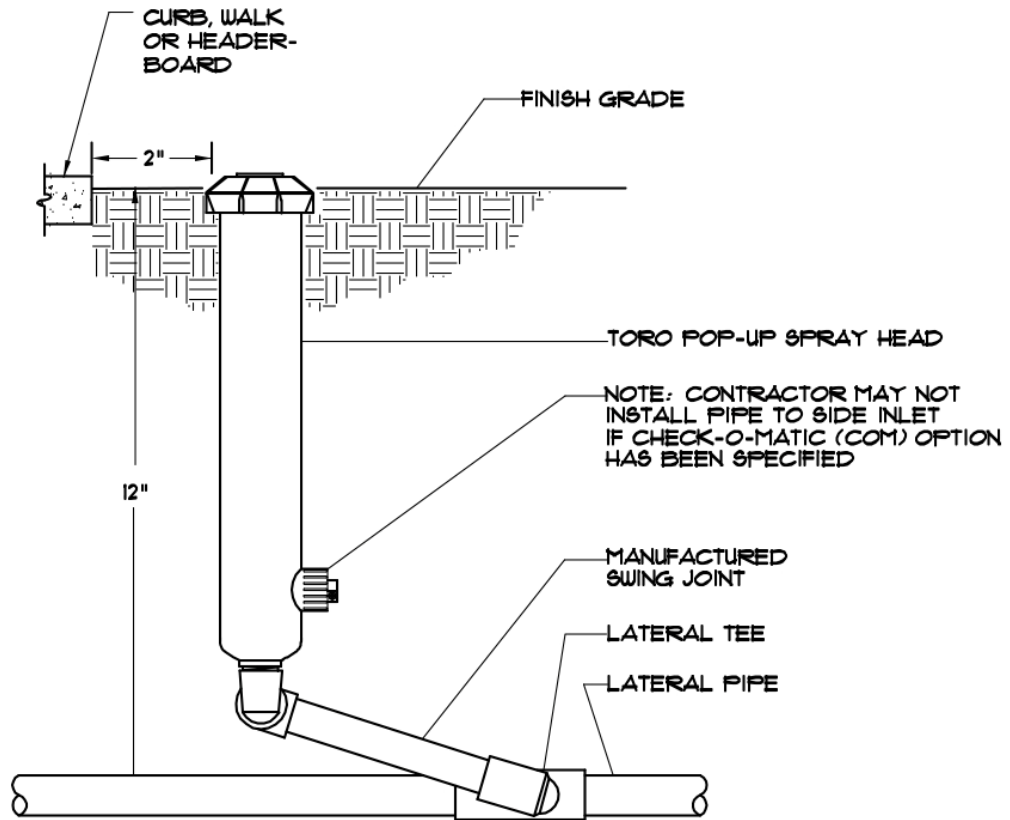


## 9 SHRUB BUBBLER INSTALLATION

NTS

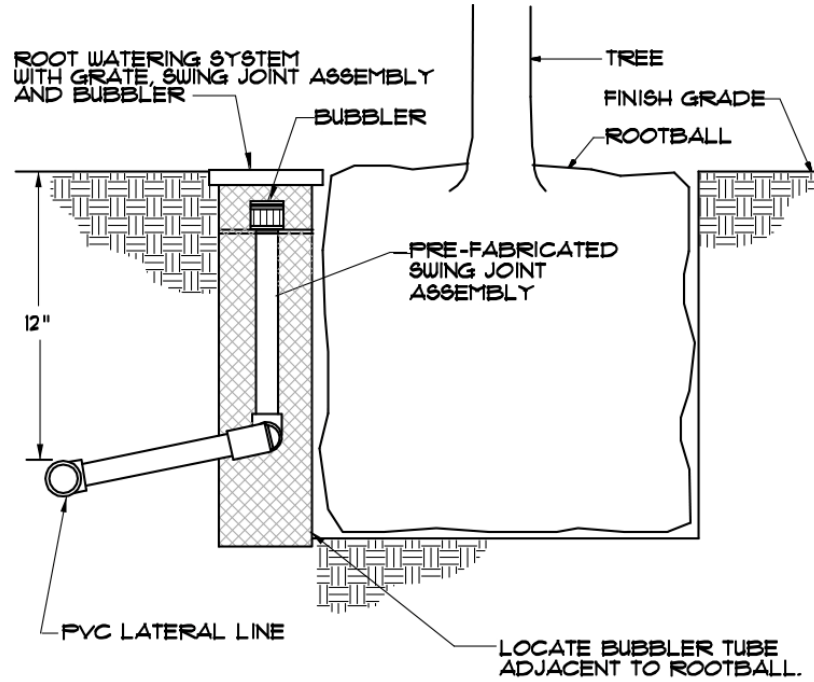


**10** **TYPICAL COMBINATION TRENCH**  
NTS



11 POP-UP SPRAY HEAD INSTALLATION

NTS



**NOTES:**

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

**12** TREE BUBBLER INSTALLATION

---

NTS





## **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

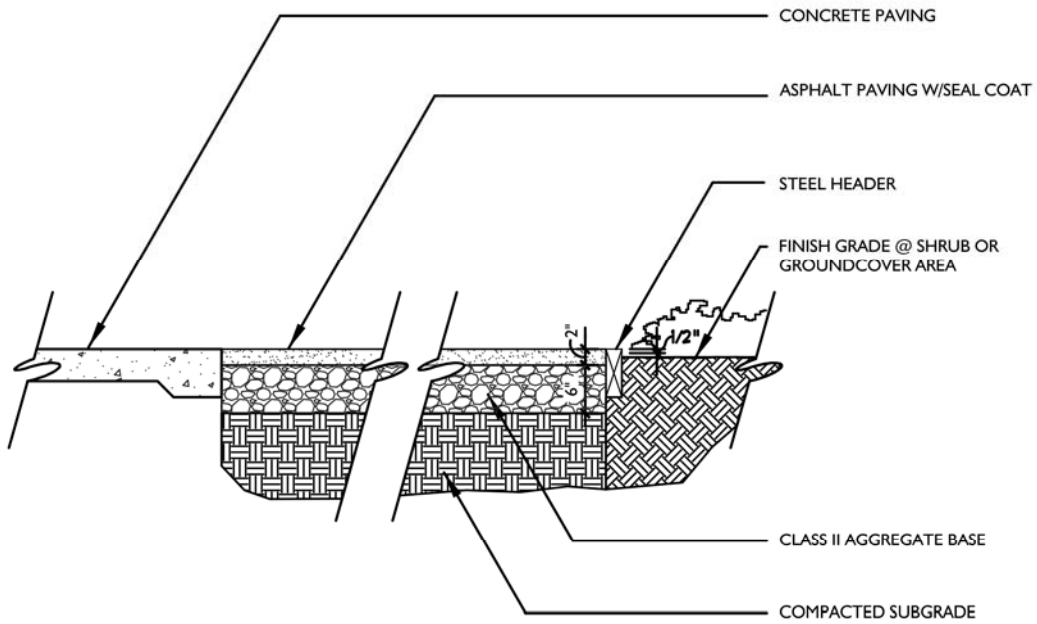


Solano Community College District

**DESIGN STANDARD**

Division 32 12 16 Pedestrian Asphalt Paving





PEDESTRIAN A.C. PAVING

SCALE: 1/2" = 1'-0"

# COL-MET.

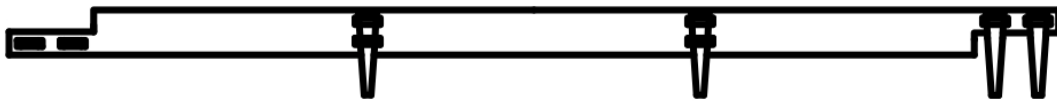
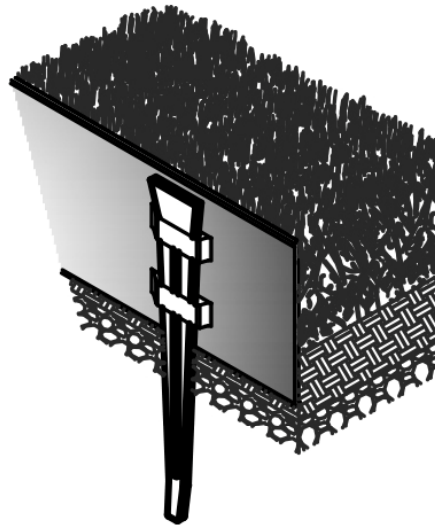
COLLIER METAL SPECIALTIES LTD  
 3333 MILLER PARK SOUTH  
 GARLAND, TX 75042  
 TOLL FREE: 1-800-829-8225  
 PHONE: (972) 494-3900  
 FAX: (972) 494-1605  
 www.colmet.com

SIZE

- 10' x 4" x 14GA
- 10' x 4" x 12GA
- 10' x 4" x 1/8"
- 10' x 4" x 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 1/8"
- 10' x 6" x 3/16"
- 10' x 6" x 1/4"

COLOR/FINISH

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



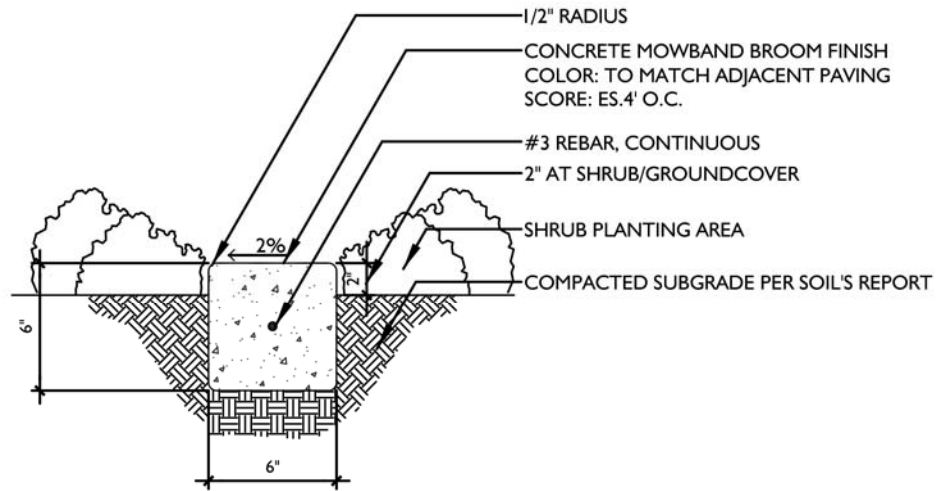
NOTES:

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' PEICES NEEDED.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/info](http://www.CADdetails.com/info)  
 REFERENCE NUMBER 1023-003.

1023-003

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[www.CADdetails.com](http://www.CADdetails.com)



### 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:**

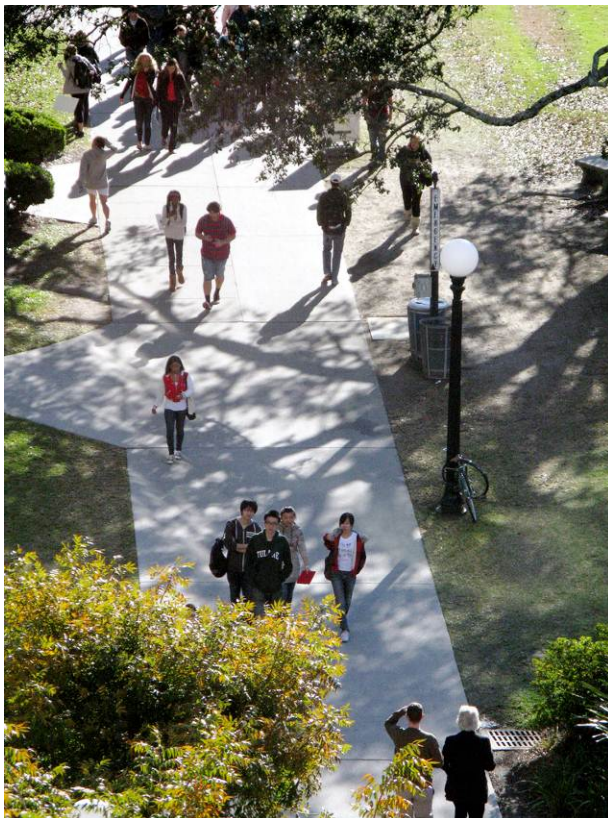
- L.M. Scofield Co. Chromix Admixture
  - Medium broom with 1 ½" troweled edge
  - No color specified
  - Phone: (800) 800-9900
- Portland Cement. ASTM C150, Type 1, natural color
- Specialty finishes: exposed aggregate, stamped concrete

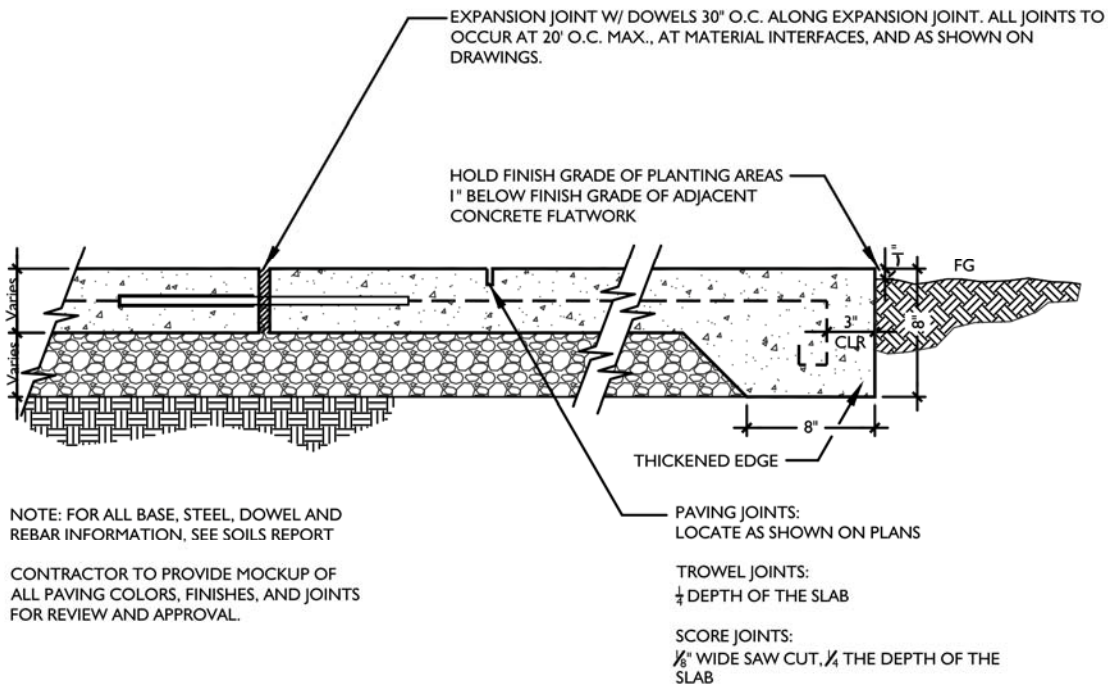
### **Substitutes Allowed:**

Approved manufacturer or approved equal

## Associated Design Standards and Construction Specifications

1. American Society of Testing and Materials, (ASTM).
2. American Concrete Institute, (ACI).
3. California Building Code (CBC)
4. State Standard Specifications, California Department of Transportation.
5. American National Standards Institute, (ANSI).
6. Bay Area Air Quality Management District, Sandblasting Guidelines.





## 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](http://basalite.com)

Phone: (707) 678-1901

Model: Cityscape Series

Davis Color Options: Dune, Pebble, Taupe and Pewter

- Permeable Paver

Manufacturer: Basalite, [basalite.com](http://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

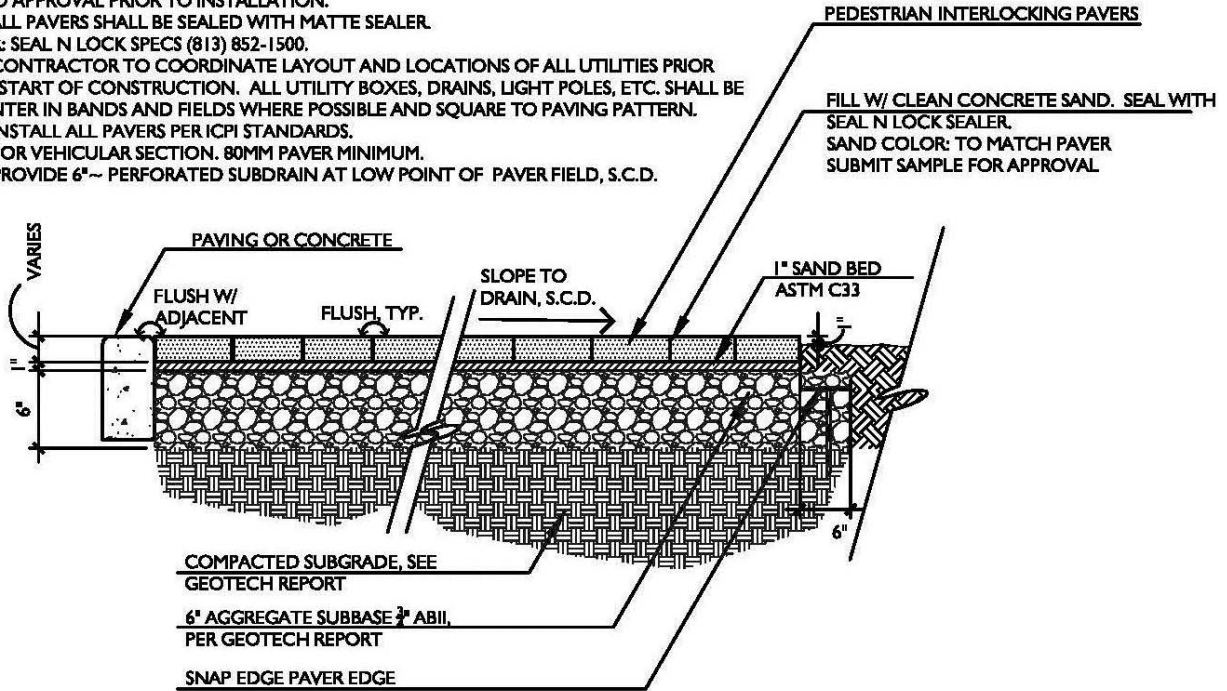
### **Associated Design Standards and Construction Specifications**

- a. American Society for Testing and Materials (ASTM):
  - 1) ASTM C 33, Standard Specification for Concrete Aggregates.
  - 2) C 67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile, Section 8, Freezing and Thawing.
  - 3) ASTM C 136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
  - 4) ASTM C 140, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
  - 5) ASTM C 144, Standard Specification for Aggregate for Masonry Mortar.
  - 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/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 9) ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
  - 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  
HOLD FG OF SOD 1/2" 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.  
MFR: SEAL N LOCK SPECS (813) 852-1500.
6. 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.
7. INSTALL ALL PAVERS PER ICPI STANDARDS.
8. FOR VEHICULAR SECTION. 80MM PAVEMENT MINIMUM.
9. PROVIDE 6" PERFORATED SUBDRAIN AT LOW POINT OF PAVEMENT FIELD, S.C.D.

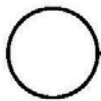
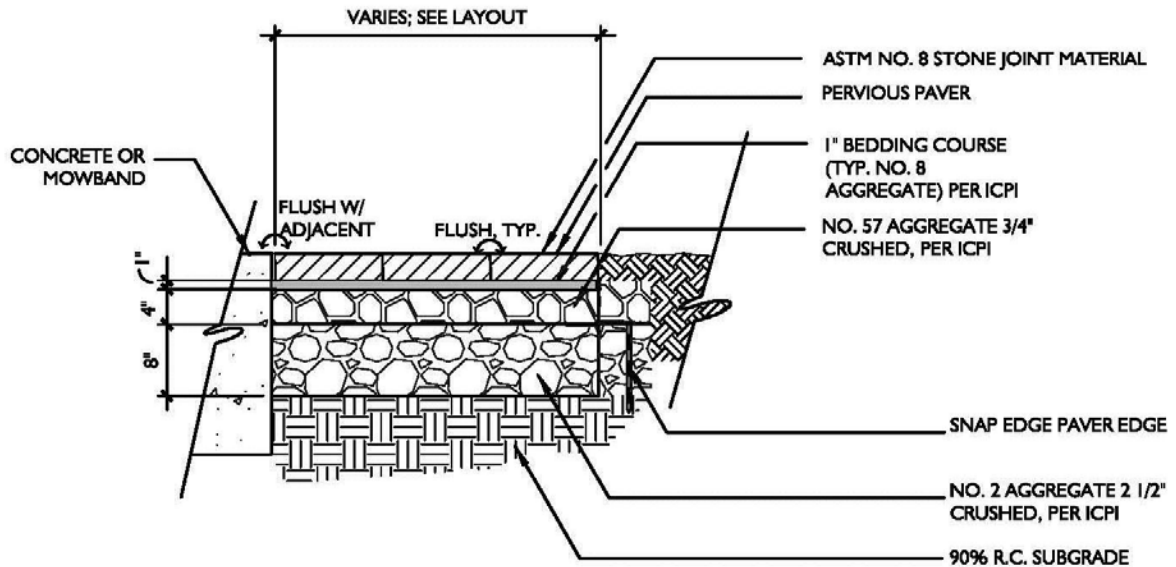


**PEDESTRIAN INTERLOCKING PAVERS**

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 1/4" 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 FIELDS WHERE POSSIBLE AND SQUARE TO PAVING PATTERN.
6. INSTALL ALL PAVERS PER ICPI STANDARDS.
7. FOR VEHICULAR SECTION. 80MM PAVER MINIMUM.



**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...**



*Quercus 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



**Accent & Entry Trees**



*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





Solano Community College District

**DESIGN STANDARD**  
32 90 00 – PLANT LIST

**Screen Trees Continued...**



*Thuja Plicata*  
Western Red Cedar  
Height: 60'  
Spread: 20'  
Evergreen












## PLANTING PALETTE

### LEGEND

#### Sun/ Shade Requirements

- Full Sun 
- Partial Sun 
- Shade 

#### Water Requirements

- Very Low 
- Low 
- Moderate 
- Regular 

#### 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



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



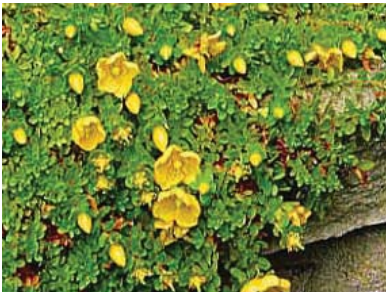
Groundcovers and Vines Continued...



*Ficus pumila*  
Creeping Fig  
Fast Grower  
Evergreen



*Gazania hybrids*  
Gazania  
Height: 6" to 1'  
Spread: 2' to 4'  
Evergreen



*Hypericum 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



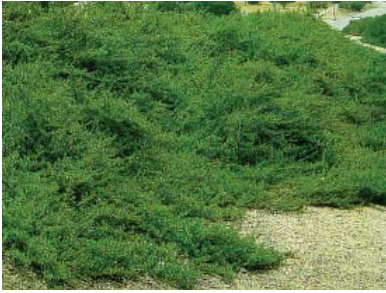
*Carex divulsa*  
Sedge  
Height: 1' to 1.5'  
Spread: 1' to 2.5'  
Evergreen



*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





Solano Community College District  
**Intermediate Shrubs Continued...**



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



*Dietes vegata 'Variegata'*  
 Fortnight Lily  
 Height: 3' to 4'  
 Spread: 3' to 4'  
 Evergreen



*Escallonia bifida*  
 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 tenuisima*  
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...



*Raphiolepis 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 officinilis* '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





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



*Rhapsodopsis x 'Montic'*  
Indian Hawthorn  
Height: 20' to 25'  
Spread: 8' to 10'  
Evergreen



*Westringia fruticosa '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:

- 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



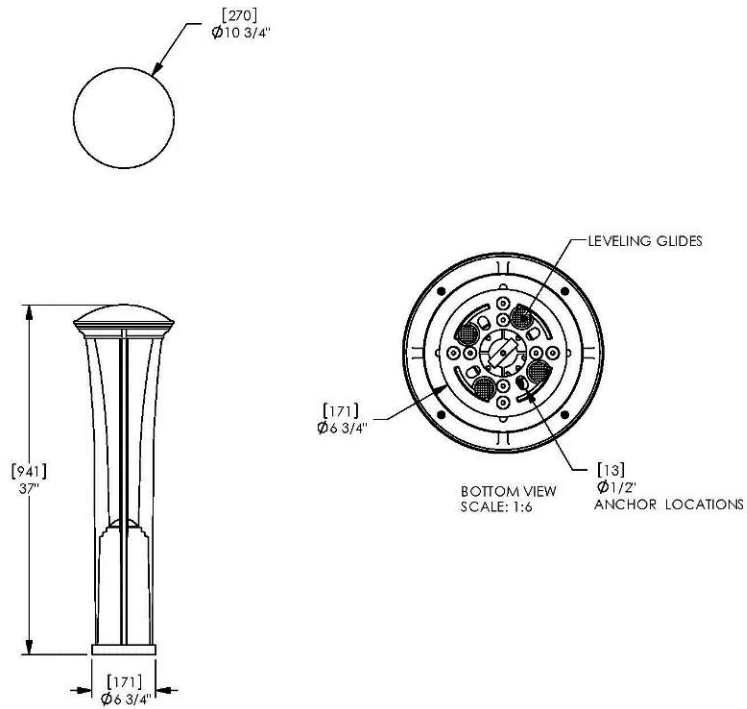
Hawthorne

Product Drawing

landscapeforms®

Pathway Light 3ft, Surface Mount

www.landscapeforms.com Ph: 800.521.2546



Drawing: HW140-01  
Date: 3/14/2012  
Dimensions are in Inches[mm]  
U.S. Patent No.: D652,977

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## **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**

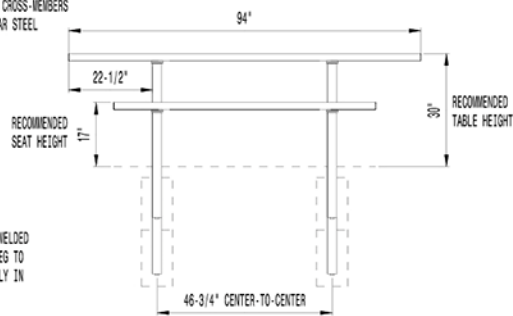
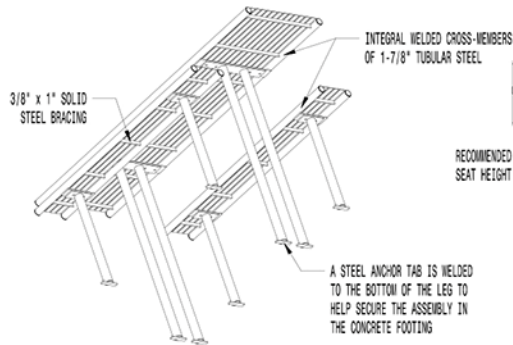
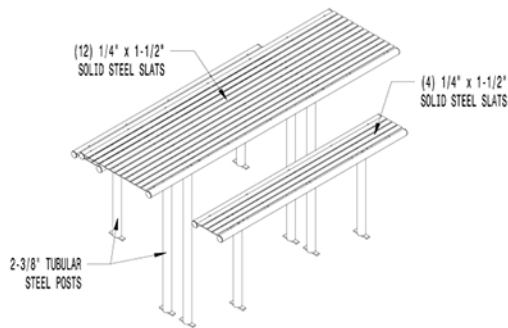
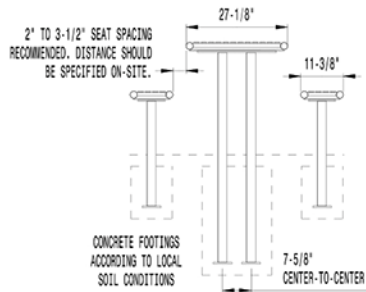
Install per manufacturer's specifications.



VICTOR  STANLEY™

Create a timeless moment.™

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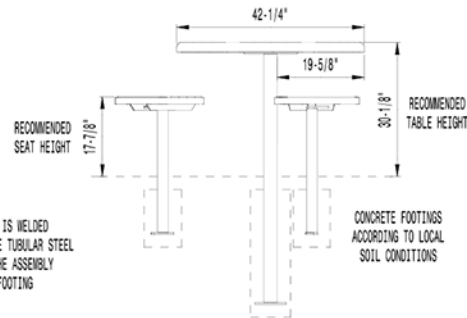
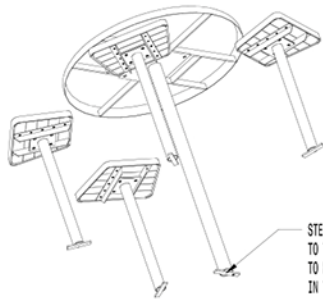
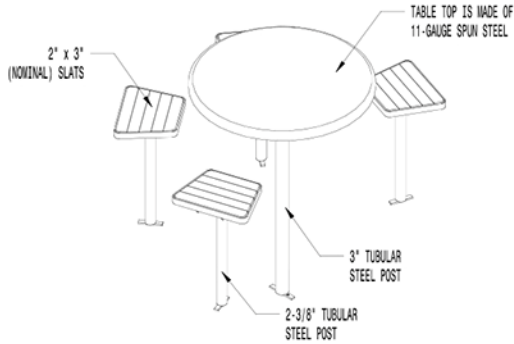
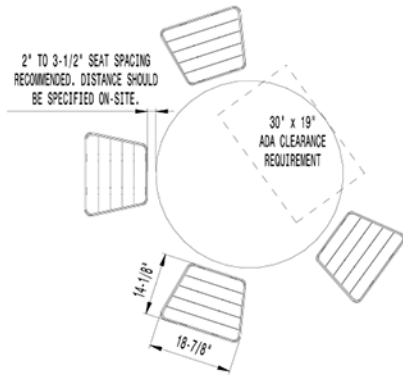
STANDARD ALL STEEL TABLE  
SHOWN: STANDARD 8-FOOT LENGTH (ADA COMPLIANT)  
STANDARD IN-GROUND MOUNT



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Create a timeless moment.™

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A-I-424

ANTHRO-SITES™ SERIES

STEEL TABLE, BACKLESS SEATS WITH WOOD SLATS  
SHOWN: STANDARD IN-GROUND MOUNT  
STANDARD ADA CONFIGURATION

TABLE TOP  
AVAILABLE WITH OPTIONAL UMBRELLA HOLE  
MOUNTING  
STANDARD IN-GROUND (AS SHOWN) AND SURFACE MOUNT



## **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

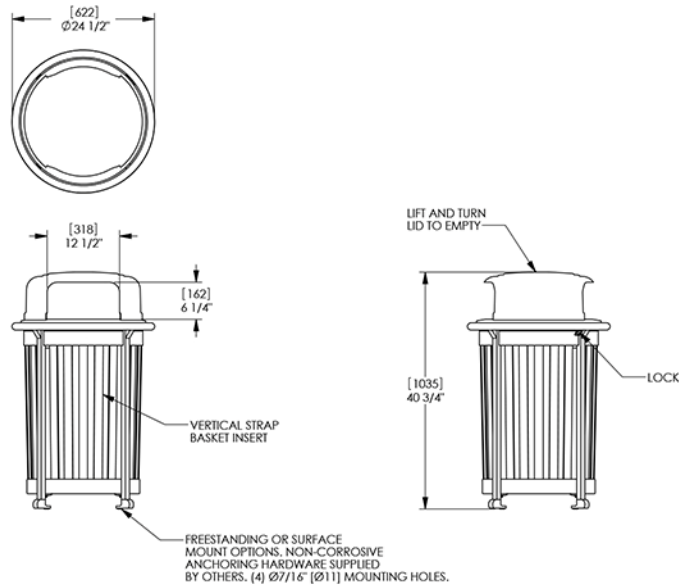


Scarborough™

Litter Receptacle, Side Opening, 30 Gallon, Vertical Strap, with Lock

landscapeforms®

www.landscapeforms.com Ph: 800.521.2546



Scarborough™

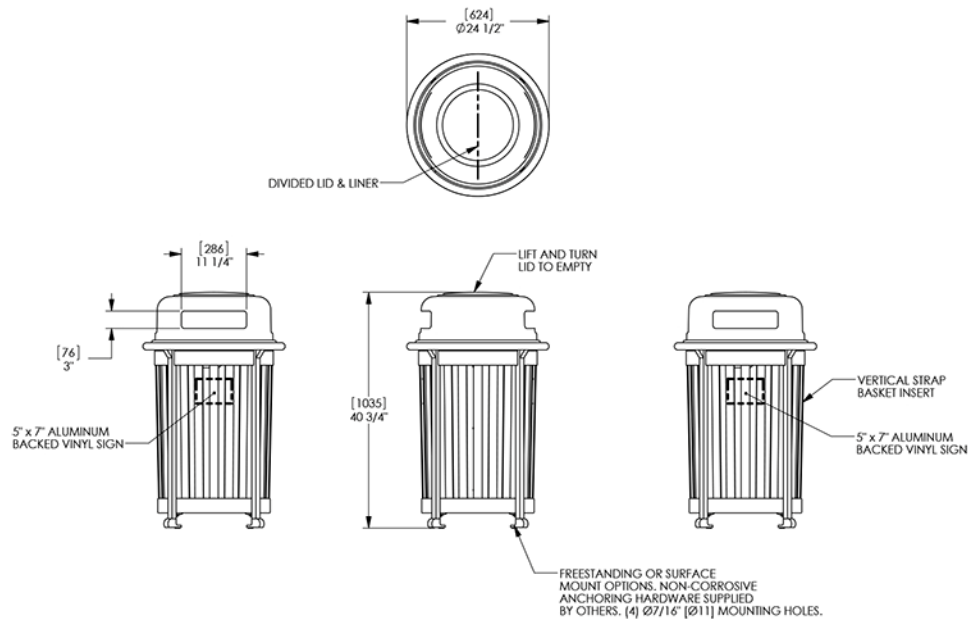
Receptacle, 30 Gallon, Side Opening, Vertical Strap, Dual Use, Two Slot Openings

Product Drawing

www.landscapeforms.com

Date: 12/11/2013

Ph: 800.521.2546







## **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:**

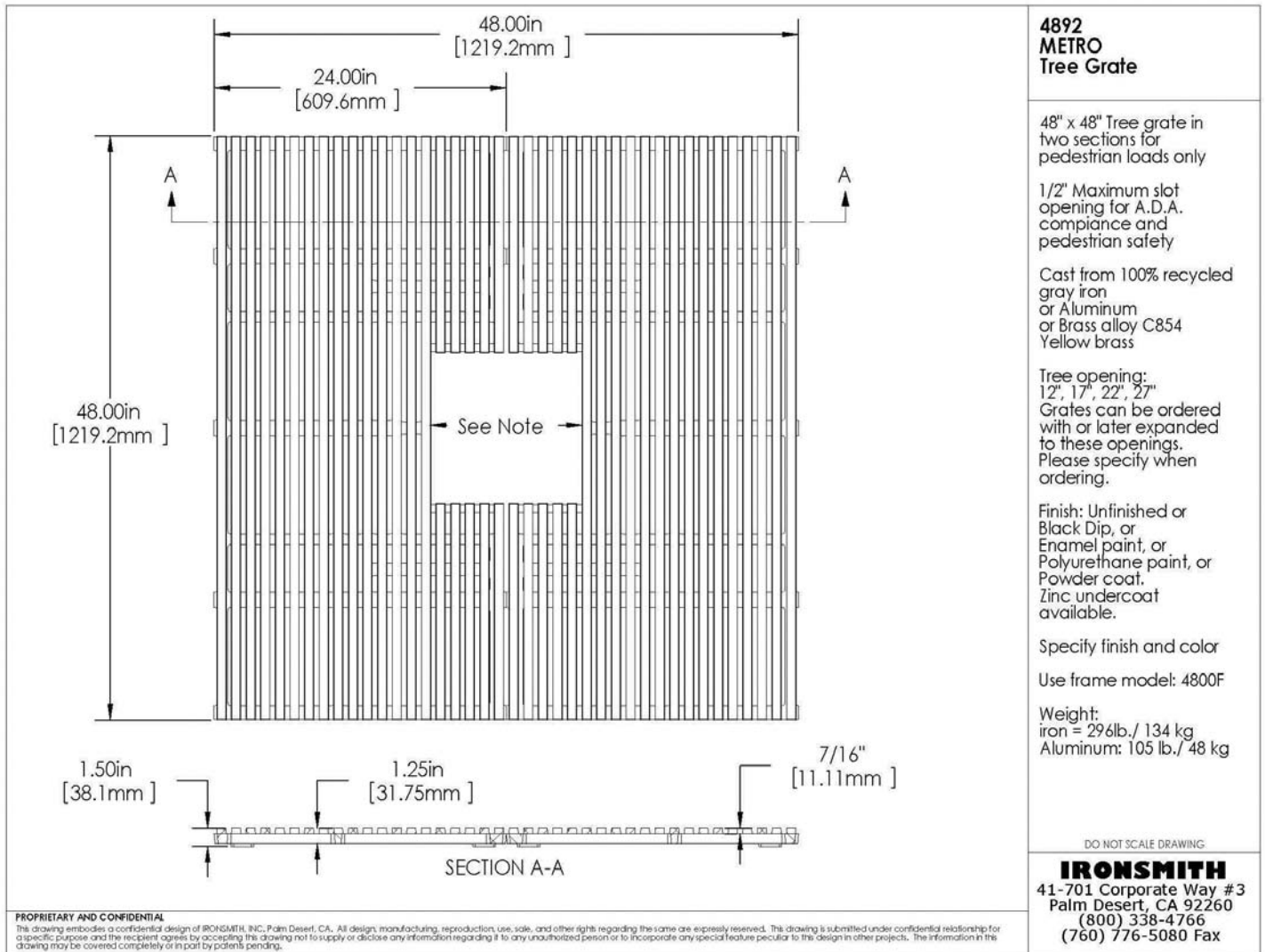
- IronSmith. Metro Tree Gate, ½" slots, with anti-theft hardware
  - Material: Cast aluminum
  - Finish: Brushed

### **Substitutes Allowed:**

Ironsmith Metro Tree Gate or approved equal

### **Associated Design Standards and Construction Specifications**

Install per manufacturer specifications



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