



IRRIGATION AND LANDSCAPE DESIGN STANDARDS

The following criteria shall be implemented in all private development constructed Community Facilities Districts (CFDs); private development constructed public improvements and publicly constructed Capital Improvement Project (CIP) designs:

1. Irrigation and landscape designs shall comply with the City of San Marcos Municipal Code Chapter 20.82, Water Efficient Landscape Ordinance.
2. The work shall include all requirements set forth in the City's Irrigation & Landscape Special Provisions, Standard Plan Notes, Standard Drawings, Approved Materials List and these design standards.
3. The landscape architect for CIP projects must be aware that CFDs can be part of a CIP and therefore must use CFD materials and equipment in their design.
4. The title "landscape architect" shall not be referenced on the plan notes or in the Special Provisions of any CIP project. For CIP projects, the City is the sole point of contact with the contractor and the landscape architect will be utilized on an as-needed basis as determined by the City.
5. All trees used on the project shall conform to and meet the specifications of the City of San Marcos Approved Tree List.
6. Irrigation systems shall be designed (sized) to accommodate City watering window requirements. Contact the Public Works Manager, Parks & Landscape Division, (760) 752-7550 ext. 3224, for this information. The landscape architect shall provide written confirmation to the Public Works Department for watering window requirements.
7. City of San Marcos irrigation and landscape standard drawings shall be used for the project and shall be shown on the plans.
8. The City's Approved Materials List shall be used to specify materials used on the project. **There shall be no substitutions.** Materials not included in the approved materials list are subject to Public Works Department approval.
9. All projects shall have dedicated water and electrical services located within the CFD or CIP boundaries at locations approved by the Public Works Department. Private sources of water and electrical will not be allowed, nor will connection to existing or future traffic signal or street light circuitry.
10. Pop-up type sprinkler heads are required within 10 feet of walkways, hardscape, paving, trails, walls, fences, concrete-lined ditches, and toes of slope.
11. Drip irrigation shall be used for all trees and all shrub and ground cover areas with 4:1 slope or flatter grades. Tree and shrub drip systems shall be independent, dedicated systems.
12. Above ground irrigation systems are not permitted unless specifically approved (excessively rocky areas) by the Public Works Department. Above ground sprinkler heads, when approved, shall be supported with staking kits.



13. Pressure mainlines shall be at bottom of slopes.
14. Quick couplers shall be installed at 150 foot intervals.
15. Isolation valves are required at each manifold of two or more valves. Isolation valves on mainlines shall be installed at 150 foot intervals or as approved by the Public Works Department.
16. Marlex fittings are not permitted.
17. Water conserving check valves, low precipitation heads, and pressure regulators are required.
18. There shall be a 24 inch maintenance buffer in all median planted areas: six inch top of curb plus an additional 18 inch concrete band.
19. Mow curbs shall be installed at the limits of CFD and CIP projects.
20. Medians narrower than six feet in width (curb face to curb face) shall not have planted material.
21. Plans shall indicate the number of trees and their species, area measurements in square feet for each landscaped area (i.e. slopes, parkways, medians, open space, parks, etc.)
22. Turf areas shall not be steeper than a 4:1 slope.
23. Master valves are required between all backflow prevention devices and flow sensors.
24. CIP irrigation controllers shall be manufactured by Calsense as specified in the approved materials list. The landscape architect shall contact Mark Huntzinger, Calsense Product Specialist at (760) 580-1827.
25. Irrigation controllers shall be installed inside of public buildings (i.e. restrooms or maintenance buildings) when public buildings are part of the CIP or CFD. When public buildings are not included in the CIP or CFD, controllers shall be installed within the CIP or CFD project limits. Controller cluster control units (CCUs) shall not be installed in well pump buildings unless located far enough away from mechanical equipment such that the mechanical equipment does not interfere with CCU operation.
26. Plans shall indicate precipitation rates and gallons per minute for each remote control valve at each valve symbol.
27. Plant palate is subject to Public Works Department approval.
28. Vertical tree well drains shall not be used. See City of San Marcos Standard Drawings for tree well drain system.
29. All public playground equipment supplied to a project shall comply with all applicable provisions of the current "Handbook for Public Safety" published by Consumer Product Safety Commission (CPSC) and the American Society of Testing and Materials F1487-98, "Standard Consumer Safety Performance Specifications for Playground Equipment for Public Use". All products shall bear the certification seal of the International Play Equipment Manufacturers Association. All designs shall meet or exceed the most current edition of the Americans with Disabilities Act (ADA) "Final Guidelines for Play Areas". All manufacturers must be certified by the International Organization for Standardization.
30. Decomposed granite pavements shall be constructed utilizing stabilizer and polymer-based surface coating (see Approved Materials List.).
31. Decomposed granite paving shall not be used on grades steeper than six percent.



32. Install removable bollards at all paved trail entrances and DG trail entrances when not adjacent to paved trails.
33. When required, approved dog drinking fountains shall be used.