

City of Tulare Landscape Design & Construction Standards for City Maintained Projects 01-30-2024

Soil Modification

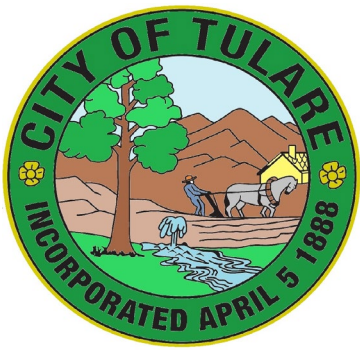
1. Soil samples shall be taken by the Contractor and recommendations from the laboratory shall be provided to the City for their approval & records.
2. 1.5" thick layer of Certified compost shall be spread over all planting beds and incorporated to a depth of 12".
3. The finished grade of all planting areas shall be between 1-2" below the adjacent pavement after settlement.
4. The Contractor shall provide all product delivery receipts of the amendments to the City for their records.

Irrigation

1. The backflow prevention device shall be a Wilkins-Zurn 375 XLB or approved equal and located in a V.I.T cold rolled steel cage or approved equal with a freeze blanket. The backflow prevention device shall be installed on a 4" thick concrete pad with PVC Sch. 40 sleeves twice the size of the galvanized pipe through the concrete. The galvanized pipe shall be wrapped with 10 mil pipe wraps.
2. The booster pump (if required) shall be single phase 230 power from Site One Landscape or approved equal.
3. A water hammer arrestor shall be a Watts 1" lead free surge arrestor; model # LF15M2-F or approved equal located between the backflow prevention device and master valve or booster pump and master valve, whichever is applicable.
4. The master valve shall be a Hunter ICV normally open irrigation valve or approved equal.
5. The flow sensor shall be a CST T Series or approved equal.
6. The irrigation mainline shall be Sch. 40 PVC for all pipes less than 2.5" in size. For pipes larger than 2.5" it shall be Class 200 bell gasketed.
7. Lateral line pipes shall be Class 200 for all sizes.
8. Detectable irrigation locator tape shall be placed six inches (6)" directly above the mainline for its entire run.
9. All irrigation wire shall be located in 1.5" Sch. 40 PVC electrical conduit.
10. Irrigation wire shall be 2-wire that is compatible with the irrigation controller manufacturer.
11. All irrigation wire connections shall be made with 3M DBR/Y-6 grease packs or approved equal.



12. The irrigation mainlines and main lateral line headers shall be located no further than two feet (2') from the adjacent pavement. If the planting area is less than six feet (6'), the mainline and main lateral line header shall be located no further than one foot (1') from adjacent pavement.
13. All mainline changes in direction shall be reinforced with thrust blocks.
14. All irrigation piping located under pavement shall be placed in Sch. 40 PVC two times the diameter of the pipe being sleeved. Sleeving under vehicular paving shall be to a depth of two feet (2') below the top of pavement and sleeving under pedestrian paving shall be to a depth of one foot (1') below the top of pavement. All sleeving shall extend one foot (1') past the edge of pavement on either side.
15. Resilient wedge cast iron gate valves with a square operating nut shall be located on the mainline system where there is a tee in the irrigation mainline or prior to the mainline crossing vehicular pavement.
16. Hunter 1" locking quick coupler valves or approved equal shall be located every five hundred feet (500') on the mainline eighteen inches (18") off of the mainline.
17. Remote control irrigation valves shall be Hunter 1" ICV's or approved equal with a Sch. 80 tru-union ball valve on the inflow side and a Sch. 80 union on the outflow side.
18. All non-overhead remote-control irrigation valves shall have a Rainbird X CZ-PRB-100-COM pressure regulator and filter or approved equal installed on the outflow side of the remote-control irrigation valve.
19. All irrigation valves, surge arrestors, quick couplers, gate valves, flow sensors, master valves, filter/pressure regulators, pull boxes and mainline stub outs shall be located in tan valve boxes. Quick couplers and pull boxes shall be located in circular valve boxes. All other equipment shall be located in rectangular valve boxes. The boxes shall be located on four (4) bricks and have 1/4" welded wire mesh placed at the bottom with 2" of pea gravel or approved equal installed. All valve boxes shall be branded, and irrigation valves shall have valve ID tags.
20. Trees shall be irrigated with two (2) Hunter 10" RWS systems with a .25 bubbler or approved equal.
21. Shrubs and vines shall be irrigated with one (1) Salco 2GPH emitter or approved equal for one (1) and five (5) gallon plants and two (2) Salco 2GPH emitters or approved equal for shrubs 15 gallon and larger. Emitters shall be installed on Hunter 1/2" x 12" swing joints or approved equal.
22. Active turf play areas shall be irrigated with Hunter MP rotators on PRS 40 bodies or Hunter I-20's on Hunter 12" swing joints or an approved equal.
23. All vine and shrub irrigation zones shall have one (1) GPH flush/indicator valve on a Rainbird six inch (6") pop up or approved equal installed on either end of the irrigation zone.
24. The irrigation controller shall be a Hunter wall mounted ACC2 2-wire decoder controller or approved equal. Wall mounted assemblies shall be located inside a wall mounted strong box or pedestal mounted strong box. SB-16SS/SB-18SSW by V.I.T or approved equal. Pedestal mounted controllers shall be on a minimum 4" concrete pad.



25. The irrigation controller shall be grounded according to the controller manufacturer's specifications and recommendations.
26. The irrigation controller shall be certified after installation by the controller manufacturer or distributor indicating the controller set up meets the following minimum:
 - Flows for each irrigation zone have been learned.
 - Like zones have been placed in the same program.
 - Irrigation schedule has been programmed to run multiple zones based on the design parameters.
 - Flow management has been set up to turn off the system and notify the City and installing Contractor of an unexpected flow or high flow.
 - Communication to the controller manufacturer's online management platform has been set up and both the City and installing Contractor have access (if applicable).
 - The Contractor shall provide in writing a letter from the controller distributor or manufacturer that the irrigation controller has been set up based on the guidelines list above.

Planting

1. Eighty percent (80%) of all plants on the plans shall be considered low or very low under the most current WUCOLS water use for the City of Tulare. Twenty percent (20%) of the plant material may be medium water use.
2. All trees shall be a minimum of 15 gallon in size, vines shall be 5 gallon in size and shrubs 1 gallon in size.
3. Plant substitutions are allowed based on availability with written approval from the Owner and Architect of Record.
4. All plant material shall be reviewed and accepted by the City.
5. All trees located within ten feet (10') of paving, curb or wall shall have an 18" root barrier by Deep Root or approved equal installed five feet (5') in either direction.
6. All trees shall be staked with two (2) 8' lodge poles and secured with rubber cinch-ties.
7. Active play turf shall be Black Jack Bermuda for hydroseed or approved equal and 'Celebration' Bermuda or approved equal for sod.
8. All planting areas shall be mulched with a five (5") thick layer of 'Walk-On' bark.
9. All City maintained landscape areas shall be separated with an 8" concrete mow curbs delineating different landscape & lighting districts, phases of landscape lighting districts and/or City and Non-City owned property.
10. The Contractor shall provide records of the plant material invoices and mulch delivery receipts to the City for their records.



Specialty Items

1. Playground area shall be enclosed and secured with temporary fencing during construction to prevent unauthorized use of playground equipment that has not been approved and inspected by a Certified Playground Inspector.
2. All playground material shall have twelve inches (12") of certified playground mulch installed after settling.
3. All playground equipment installed shall be certified by a 3rd party Certified Playground Inspector.
4. Approved copies of the 3rd party certification shall be provided to the City for their records prior to opening the playground structure for public use.

City Required Inspections

1. Mainline & lateral line sleeving.
2. Mainline pressure test:
 - Testing is required for each segment of mainline made operational within 3 days after charge and before establishment watering begins. Final test of entire mainline will be required at substantial completion.
 - A hydrostatic test pump is used to pressurize the charged irrigation mainline up to 120 PSI or 40 PSI over static mainline pressure (whichever is greater). All angle valves to valve manifolds and isolation valves must remain open. Test is successful if the mainline remains pressurized for three (3) hours with the following maximum allowable loss of 5 PSI.
3. Mainline and lateral line installation.
4. Plant material.
5. Irrigation system operation prior to mulching.
6. Project completion to enter into the maintenance period.
7. Project completion at the end of the maintenance period.
8. The City shall provide a letter in writing to the Contractor indicating the entrance into the maintenance period and a letter in writing showing a completion of the maintenance period for their records.
9. Prior to the end of the maintenance period the Contractor shall provide controller charts and as-built drawings in PDF format to the City for their records.

City Required Maintenance Period

1. The City's maintenance period for landscape and lighting districts shall be one (1) year from the date of receiving a notice of completion in writing from the City.
2. The Contractor is required to inspect the site a minimum of one (1) time each week for the duration of the maintenance period.
3. The Contractor shall provide quarterly inspection reports to the Owner and City for their records.