Planning & Building Department



Lafayette, CA 94549 Tel. (925) 284-1976 www.lovelafayette.org

WELO: FOR AGGREGATE LANDSCAPE AREAS >2,501 SQ. FT. LANDSCAPE DOCUMENTATION PACKAGE SUBMITTAL CHECKLIST

PERFORMANCE COMPLIANCE PATHWAY

The Performance Pathway requires more detailed construction documents and specific design requirements for planting, irrigation, and grading. It is intended for larger scale, residential and commercial projects. It also allows more flexibility in design than the Prescriptive Pathway. This checklist is required for projects proposing landscaping (new/modified, retrofit/rehabilitated) ≥ 2,501 sq. ft. to demonstrate compliance pursuant to the Water Efficient Landscaping Ordinance (WELO) (LMC Ch. 6-24.5) and CCR, Title 23, Ch. 2.7. More information regarding WELO requirements can be found at: www.lovelafayette.com/welo

APPLICABILITY

This Pathway applies to public projects, private residential and non-residential landscape projects that require a permit, plan check or design review for the following:

- A new building with an aggregate landscape area ≥ 2,501 sq. ft. (e.g., irrigated planting area, turf/mowed grass, water feature, ponds, fountains, spas, swimming pool
- New landscape ≥ 2,501 sq. ft. such as a park, playground, or greenbelt without an associated building
- Rehabilitated landscape with an aggregate landscape area ≥ 2,501 sq. ft.

DEFINITIONS

- Landscape area includes all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
- Rehabilitated landscape: Re-landscaping project with modified landscape area (all planting area, turf areas, and water features).
- Turf: Ground cover surface of mowed grass (WELO does not apply to artificial turf).
- Water feature: A design element where open water performs an aesthetic or recreational function. Water
 features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where
 water is artificially supplied). The surface area of water features is included in the high water use hydrozone
 of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best
 management practices that are not irrigated and used solely for water treatment or stormwater retention
 are not water features and, therefore, are not subject to the water budget calculation.
- Mass Grading: Extensive site grading over 10,000 sq. ft. in area.

LANDSCAPE DOCUMENTATION PACKAGE		
REQUIRED DOCUMENTS	STANDARDS	
WATER EFFICIENT LANDSCAPE WORKSHEET Plan Sheet(s) #	 Show that the Estimated Total Water Use (ETWU) is below the Maximum Applied Water Allowance (MAWA). Use the ETo values from the Reference Evapotranspiration Table or data from other nearby cities in the CIMIS Reference Evapotranspiration Zones Map, DWR 1999. The evapotranspiration adjustment factor (ETAF) for the landscape project shall not exceed a factor of (0.55 for residential areas) (0.45 for non-residential areas). The plant factor used shall be from WUCOLS or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR). WUCOLS plants database can be found online at: http://ucanr.edu/sites/WUCOLS/ All Special Landscape areas shall be identified on the plans as calculated in the worksheet. ETAF for new and existing (non- rehabilitated) Special Landscape Areas shall not exceed 1.0. Note: All water features shall be included in the high water use hydrozone. All temporary irrigated areas shall be included in the low water use hydrozone. For the purpose of calculating ETWU, the irrigation efficiency is assumed to be 0.75 for overhead spray devices and 0.81 for drip system devices. 	
LANDSCAPE DESIGN PLAN Plan Sheet(s) #	Must be signed by a licensed landscape architect, licensed landscape contractor, or other person authorized to design a landscape. At a minimum, the plan shall identify: Note: "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan." Hydrozones (each), delineate and label by number, letter, or other method Hydrozones (each), delineate and label by number, letter, or other method Hydrozones (each), delineate and label by number, letter, or other method Hydrozones (each), delineate and label by number, letter, or other method Hydrozones (each) as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the landscape shall be included in the low water use hydrozone for the water budget calculation Recreational areas A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants B reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edible plants A reas permanently and solely dedicated to edib	

Must be signed by a licensed landscape architect, licensed landscape contractor, or other person authorized to design the irrigation system.

- The system shall meet all the requirements listed in <u>CA Code of Regulations, Title 23, Ch. 2.7, §492.7</u> and the manufacturers' recommendations.
- The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance.
- This is applicable to landscaped areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period.

At a minimum, the plan shall identify:

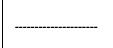
- Location and size of landscape meters (private submeter or dedicated customer service meter).
- Location, type, and size of all irrigation components.
 (controllers, moisture sensing devices, rain switches, pressure regulators, main lines, lateral lines, quick couplers, sprinkler heads, backflow prevention devices)
- Static pressure at point of connection.
- Valve stations flow rate (gallons per minute), application rate (inches per hour) and design operating pressure (pounds per square inch) for each zone/station.
- Location of recycled water systems.
- The following statements:
 - "I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."
 - "Pressure regulating devices are required if water pressure is below or exceeds the recommended pressure of the specified irrigation devices"
 - "Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur."
 - O "Irrigation system is designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas."
 - O "An irrigation audit report shall be completed at the time of final inspection."
 - O "A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes."
- Automatic irrigation controllers that are ET-based or soil moisture-based
- Sensors that shut off the irrigation controller during unfavorable weather conditions sensors for rain, freezing temperatures (if necessary), and wind (if necessary)
- Location and size of water meters for landscape (if a separate water meter is installed)
- Manual shut-off valve (gate, ball, butterfly valve) located as close as possible to the point of connection
- Master shut-off valve. Exception: Individual control of individually pressurized sprinklers in a system with low pressure shut down features
- Projects with 5,000 sf or greater total landscape area have flow sensors
- Check that a dedicated water meter or submeter for the landscape is installed as applicable. Applicability:
 Non-residential: > 1,000 sq. ft. landscape area. At 5000 sq. ft. dedicated service meters are installed by supplier on new landscapes (see Water Code 535)

Residential: > 5,000 sq. ft. landscape area

- Cross-check landscape plan and irrigation plan to verify that low volume irrigation (drip) are used in mulched
 planting areas (no spray irrigation)
- Check that planting areas less than 10 feet in width are irrigated with subsurface irrigation or other means that
 produce no runoff or overspray
- Check irrigation plans to verify that no sprinklers (spray or rotors) are located within 24 inches of non-permeable surface
- Irrigation plans show trees are on separate valves (separate tree valve is optional, but recommended)
- Irrigation plans show biotreatment areas are on separate valves
- Irrigation design matches hydrozones shown on Hydrozone and/or Landscape Design Plan

☐ IRRIGATION DESIGN PLAN





	The grading plan shall be signed by a licensed professional and designed to minimize soil erosion, runoff, and water waste. Incorporate the worksheet into the plans.
GRADING DESIGN PLAN	At a minimum, the plan shall contain:
	Finished configurations and elevations
	Height of graded slopes
Plan Sheet(s) #	Drainage patterns
	Pad elevations
	Finish grade
	Stormwater retention improvements, if applicable
	The following are highly recommended:
	The following are highly recommended: Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-
	permeable hardscapes
	Avoid disruption of natural drainage patterns and undisturbed soil
	Avoid soil compaction in landscape areas
	No mass grading is proposed.
SOIL MANAGEMENT	
REPORT	The report shall contain the following:
	Soil texture
Plan Sheet(s) #	Infiltration rate determined by laboratory test or soil texture infiltration rate table
rian sheet(s) "	pH Total soluble salts
	Sodium
	Percent organic matter
	 Recommendations (e.g., incorporate compost at a minimum of 4 cubic yards per 1,000 sf, OR at a rate sufficient to bring soil
	organic matter up to 6% by dry weight).
	Mass grading is proposed.
	The report will be submitted after construction with the Certificate of Completion Package.
<u>AGREEMENTS</u>	
☐ I agree to comp Documentation	oly with the requirements of the WELO Performance Compliance Pathway and submit a complete Landscape
	-
·	with the criteria of WELO and applied them for the efficient use of water in the:
Landscape Des	ign Plan, Irrigation Design Plan, and Grading Design Plan
	wner will be provided/have a certificate of completion, certificate of installation, irrigation schedule and a idscape and irrigation maintenance at the time of final inspection.
☐ Lagree to subn	nit a Certificate of Completion filled out and certified by either the designer of the landscape plans, irrigation
	censed landscape contractor for the project at the time of final inspection.
μ, σ σ	
Name & Signature	e by (circle below) Date
•	ct, licensed landscape contractor, landscape designer
-	uthorized by the Permitted Practice in CA, dependent
on landscape occu	pancy type(specify)