CITY OF SARATOGA COMMUNITY DEVELOPMENT DEPARTMENT

REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS *(2014)*

It is essential that all applicable items below are submitted with the application to avoid delays.

1. **COVER SHEET** – Include all of the following information (regardless of duplication elsewhere
   a. **Assessor's Parcel Number**
   b. **Address** of Project
   c. **Owner's Name**
   d. **Project contact Information** Name, Address, Email, Telephone Number
   e. **Date** of drawing and *subsequent revisions*
   f. **Irrigation water source** (e.g. municipal, well, recycled),
   g. **Retail water purveyor** (if applicable)
   h. ****Authorized Plan Preparer's** Name, Address Telephone Number, and Credentials (see below)
   i. **Authorized Plan Preparer's Statement**: "The Landscape and Irrigation Plans comply with City Code Article 15-47 and the Water-Efficient Design Criteria provided in the *City of Saratoga Requirements for Landscape and Irrigation Plans* document" [see pg. 3 & 4 of this document]

      **The landscape design portion shall be prepared by, and bear the signature of, a licensed landscape architect, licensed landscape contractor, or any other person authorized by the State of California to design a landscape.

      **The irrigation design portion shall be prepared by, and bear the signature of, a licensed landscape architect, certified irrigation designer, licensed landscape contractor, or any other person authorized by the State of California to design an irrigation system.

   j. **Landscape Area Summary Table**

Total Landscape Area: _____sf Turf Area: _____sf Non-Turf Plant Area: _____sf Special Landscape Area: _____sf Water Feature / Wet Surface: _____sf	*Landscape area*: All planting areas, turf, and water features in a landscape installation. *Turf area*: Ground cover surface consisting of non-native grass species that is customarily mowed. *Special landscape area:* An area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, and/or water features using recycled water.

   k. **Plant Restriction Certification Table.** (Any NO answers will require a water budget)

☐ **Yes -** At least 80% of non-turf areas are native or low water use plants, as classified by WUCLOS
☐ **Yes -** Total turf area does not exceed 25% of landscape area, or 1,250 sf, whichever is less
☐ **Yes -** Plants with similar water needs are grouped within hydrozones
☐ **Yes -** Irrigation for each hydrozone is controlled by a separate valve
☐ **Yes -** Systems are designed & maintained to minimize water waste (e.g., runoff, overspray)
☐ **Yes -** Low-volume irrigation is utilized in non-turf areas
☐ **Yes -** Overhead (spray) irrigation only occurs between 8:00pm and 10:00am
☐ **Yes -** A minimum of 8 inches of non-compacted topsoil is in planted areas
☐ **Yes -** Soil additives (e.g., compost, fertilizer) is as needed per soil conditions /plant selection
☐ **Yes –** 2"+ mulch is applied on all exposed plant area soil surfaces, except direct seeding areas

2. **Landscaping**. The landscape portion of the Plan shall include the following at a minimum:

   a. Directional Arrow and Scale
   b. Identification of pertinent site factors such as sun exposure, microclimate, drainage, topography, stormwater features, etc.
   c. Proposed grading
   d. Existing landscape features to be removed
   e. Property lines, setbacks, footprint of all structures, and underground/above-ground utilities
   f. All proposed and existing to remain hardscape (both pervious and impervious surfaces)
   g. Percent of hardscape in the front setback area
   h. All proposed and existing to remain fencing, walls, retaining walls, etc.
   i. All proposed and existing to remain water features and wet surface areas (e.g., spa, fountain)
   j. Common name and trunk diameter of all existing trees whose trunk circumference is greater than six (6) inches, measured 54 inches above grade
   k. Special landscape areas (planting areas, turf, and water features in a landscape installation)
   l. Location, type, and application depth of mulch
   m. Layout/spacing of proposed plantings based on species and size at maturity (legend symbol)
   n. General notes, planting notes
   o. Delineate and label each hydrozone, and identify the water needs category as low water, moderate water, high water, or mixed (low/moderate), as defined by the Department of Water Resources Water Use Classifications of Landscape Species (WUCOLS)
   p. Table with the following information for all plants to be installed as part of project:
      (1) Legend symbol
      (2) Common name
      (3) Botanical name
      (4) Container size
      (5) Quantity
      (6) Type (e.g. grass, succulent, shrub)
      (7) Water needs category as defined by WUCOLS
      (8) Unique physical specifications (e.g., bare-root, field-potted, multi-trunk)
      (9) Seed mix, if applicable

3. **Irrigation.** The irrigation portion of the Plan shall include the following at a minimum:
   a. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices
   b. Static water pressure at the point of connection to the public water supply
   c. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (pressure per square inch) for each station
   d. Irrigation schedule
   e. Location and size of separate water meters for landscape (if applicable)

4. **Water Budget.** For projects not meeting the plant type restriction, a water budget is required and shall adhere to the requirements in City Code Section 15-47.030, including but not limited to:
   a. The water budget must be completed by an authorized certified professional
   b. The MAWA, ETWU, and reference evapotranspiration adjustment factor (ETAF) shall be calculated using the equation provided on the Water Efficient Landscape Worksheet
   c. The sum of the ETWU calculated for all hydrozones shall not exceed the MAWA
   d. The plant factor used shall be from WUCOLS
   e. All water features shall be calculated as a high water use
   f. All Special Landscape Areas and their water use shall be included in the water budget
   g. Irrigation system efficiency shall be greater than or equal to 70%
   h. Effective precipitation (25% of annual precipitation) and the alternative MAWA equation provided on the Water Efficient Landscape Worksheet may be used in tracking water use

PLEASE NOTE THAT FRONT YARD AND EXTERIOR YARD LANDSCAPING
MUST BE INSTALLED PRIOR TO GETTING FINAL BUILDING PERMIT SIGN-OFF

Water-Efficient Design Criteria

The Landscape and Irrigation Plans shall conform to the following criteria:

A) Plant Material:

1) Plants shall be chosen and arranged appropriately based upon the site's climate, soil characteristics, sun exposure, wildfire susceptibility and other factors. Plants with similar water needs shall be grouped within hydrozones.
2) At least 80% of the plants in non-turf landscape areas shall be native plants, or low water using plants, unless the project applicant develops a water budget and the ETWU of the landscaped area does not exceed the MAWA.
3) The turf area shall not be more than 25% of the landscape area, or 1,250 square feet, whichever is lesser in area, unless the project applicant develops a water budget and the ETWU of the landscape area does not exceed the MAWA
4) Turf shall not be planted on slopes greater than 25%.
5) Turf areas shall not be less than eight feet wide.
6) The horticultural attributes of plant species (e.g., mature plant size, invasive roots, and structural attributes) shall be considered, in order to minimize the potential for damage to property or infrastructure (e.g., buildings, septic systems, sidewalks, power lines).
7) Fire-prone plant materials and highly flammable mulches are strongly discouraged. In areas designated wildland urban interface, plants shall be selected, arranged and maintained to provide defensible space for wildfire protection, in conformance with Public Resources Code Section 4291.
8) Installation of invasive plant species shall be prohibited.
9) Existing invasive plants and noxious weeds within or adjacent to the proposed landscape area shall be removed prior to installation.
10) The architectural guidelines, conditions, covenants or restrictions of a common interest development shall not supercede City Code Article 15-47 by either prohibiting low water use plants, or including conditions that have the effect of restricting low water use plants.

B) Soil, Conditioning, and Mulching:

1) At the time of installation, a minimum of eight (8) inches of non-compacted topsoil shall be available for water absorption and root growth in planted areas. This requirement may be waived where a landscape professional has determined that practical limitations (e.g., slope, geotechnical factors), necessitate a lesser soil depth that is viable for chosen plant materials.
2) Soil amendments, such as compost or fertilizer, shall be appropriately added according to the soil conditions at the project site and based on what is appropriate for the selected plants.
3) A minimum two (2)-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas, except in areas of direct seeding application (e.g. hydro-seed).
4) Stabilizing mulching products shall be used on slopes.

C) Hydrozones:

1) Hydrozones shall group plant materials of similar water use, and shall generally demarcate areas of similar slope, sun exposure, soil, and other site conditions appropriate for the selected plants.
2) The flow of water to each hydrozone shall be controlled by a separate valve.
3) Sprinkler heads and other emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
4) Within a hydrozone, low and moderate water use plants may be mixed, but all plants within that hydrozone shall be classified as moderate water use for MAWA calculations. High water use plants shall not be mixed with low or moderate water use plants.

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D) Water Features:

1) Recirculating water systems shall be used for water features.
2) The wet surface area of a water feature shall be counted as a high water use for purposes of a water budget calculation, except as provided in subsection 3, below.
3) The surface area of a pool or spa with a cover shall be counted as a medium water use for purposes of a water budget calculation.

E) Irrigation System:

1) An irrigation system shall meet all the requirements listed in this section and the manufacturers' recommendations.
2) The irrigation system and its related components shall be planned and designed to allow for proper installation, management and maintenance.
3) Dedicated landscape water meters shall be required for landscape areas exceeding 5,000 SF, except for installations where irrigation water is provided by an individual onsite well.
4) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data for irrigation scheduling are required.
5) Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems.
6) The irrigation hardware for each hydrozone shall include a separate valve. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turf.
7) The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions.
8) Low-volume irrigation shall be required in mulched areas, in areas with slope greater than 25%, within 24 inches of a non-permeable surface, or in any narrow or irregularly shaped areas that are less than eight (8) feet in width in any direction.
9) Average irrigation efficiency is assumed to be 70%. Irrigation systems shall be designed, maintained, and managed to meet or exceed 70% average landscape irrigation efficiency.
10) Irrigation shall be scheduled between 8:00 p.m. and 10:00 a.m., unless unfavorable weather prevents it or otherwise renders irrigation unnecessary. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

F) Wildfire Management. The plant list shall exclude plant types that increase wildfire susceptibility. In areas designated wildland urban interface, the plan shall demonstrate that plants have been selected and arranged to provide defensible space for wildfire protection, in conformance with Public Resources Code Section 4291.

G) Storm Water Management. Storm water best management practices shall be incorporated as appropriate into the landscape installation; the details of which shall be shown on the landscape design plan. Installation shall be subject to National Pollutant Discharge Elimination System (NPDES) storm water discharge permit requirements.

H) Grading. If the landscape project area will be graded, then, at a minimum, grading contours and quantities shall be shown on the landscape design plan. Grading shall meet all applicable requirements of the City Code, including permitting requirements for grading in excess of established thresholds. A geotechnical engineer should be consulted prior to the installation of landscaping materials and irrigation hardware on slopes greater than 50%, or in any areas where slope stability may be compromised.