

Sustainable Landscape for the SMUD Home of the Future
By
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Landscape for the RJ Walter Homes LEED Platinum Home of the Future exemplifies sustainable landscaping in the Sacramento region. The basis of sustainable landscaping is to create functional, maintainable, environmentally sound, cost effective, and aesthetically pleasing outdoor spaces. Key components to sustainability are water and energy conservation. All factors were integral in the creation of this landscape and guided every decision about the design, plant material, irrigation system, drainage, hardscape, lighting, structures, and installation.

A diverse community of low-water use plants was used – both California natives and regionally appropriate plants that will thrive in our natural conditions of moist winters and dry summers. Year-round interest is achieved through the use of color and texture and the use of a variety of trees, shrubs, perennials, and ornamental grasses. Evergreen Strawberry Trees (*Arbutus unedo* 'Compacta') with their yellow and orange/red fruit and burgundy-colored bark, Western Redbud (*Cercis occidentalis*), White Crape Myrtle (*Lagerstroemia* 'Natchez'), Elizabeth Bush Anemone (*Carpenteria californica* 'Elizabeth'), and Eve Case Coffeeberry (*Rhamnus californica* 'Eve Case') will help shade walkways and sides of structures. The City of Folsom's streetscape will be enhanced by the Cork Oak (*Quercus suber*), which will one day provide the much needed shade, cooling the street and the front yard.

Instead of a thirsty lawn, carpets of green are created through the use of groundcovers and ornamental grasses: Emerald Carpet Manzanita (*Arctostaphylos* 'Emerald Carpet'), Elijah Blue Fescue (*Festuca glauca* 'Elijah Blue'), Mexican Feather Grass (*Nassella tenuissima*), and Dwarf Coyote Bush (*Baccharis pilularis*).

A number of plants attract and support wildlife, birds, butterflies, and beneficial insects, such as the Howard McMinn and Emerald Carpet Manzanitas (*Arctostaphylos*), Otto Quast and Grosso Lavenders (*Lavandula stoechas* 'Otto Quast' and *L. x intermedia* 'Grosso'), Bowles Mauve Wallflower, (*Erysimum* 'Bowles Mauve'), Compact Oregon Grape (*Mahonia aquifolium* 'Compacta'), Rosemary (*Rosmarinus officinalis* 'Prostratus'), and California Wild Grape (*Vitis californica*). A Sweet Bay Tree (*Laurus nobilis*), vegetable and herb gardens, and composter will provide further sustainability for the residents of the home.

Consistent with Bungalow-style homes, the inside has been carried outside and the outside is considered part of the living space of the home. On the front porch Tournesol Siteworks' decorative containers with self-watering systems are filled with ornamental grasses and perennials to complement the home's colors. A back patio made of concrete and recycled glass and an overhead shade structure with a vining Yellow Lady Banks Rose (*Rosa banksiae* 'Lutea') will provide a place of respite from the afternoon sun. The meandering dry-creeks created from local river cobble serve dual purposes: Not only are the creekbeds decorative, lending to the feel that the home is one with the earth, but the creekbeds also function as drainage channels, slowing the path of surface water and allowing it to soak into the ground on site instead of running off into the street or alley.

One more key component in the design of the Home of the Future's landscape was to install the right plant in the right place and not over-crowd plants just to make the area look as though it is an instantly mature landscape. This will enable the vegetation to grow to its mature size, in its

natural form, which equates to less or no chemical use to control growth and less pruning, and that means less green waste to the region's landfills. Also, plants are placed two feet from structures to help prevent structural pest issues and water from coming in contact with the home.

A state of the art low-volume irrigation system will be responsible for the efficient and effective use of water to support the plants, delivering water where it is needed, when it is needed. At the heart of the system is the Hunter ET (Evapotranspiration) system including the on-site sensor and Pro-C controller that will automatically analyze the site's micro-climate (solar radiation, temperature, humidity and wind) to determine how fast the plant material and soil are losing moisture then it calculates the irrigation schedule based on each zone's characteristics.

Root Zone Watering Systems are used for each tree to encourage deep rooting that will stay well below hardscape.

Energy-efficient Kichler LED lighting will accentuate plant material in the nightscape, while remaining sensitive to light pollution.

A variety of permeable surfaces are included in the landscape to further retain surface water on the property. Permeable, ADA-approved, pavers (Basalite SF Rima) are used for the main entry walkway and for the walkway near the garage. Exposed aggregate pavers with open joints (in-filled with gravel, sand, or bark) and decomposed granite are materials used for other walkways and patios. Bomanite's state-of-the-art, permeable Grasscrete system was installed for the additional parking space on the side of the garage. While this material is most often used with a grass surface, to keep water from the side of the garage, decomposed granite was used for the surface material instead.

Now that the landscape installation is complete, sustainable maintenance practices will ensure its health, beauty, and functionality. Together, the Home of the Future's landscape and its proper maintenance will contribute to the health of our environment and the protection of our natural resources every day, for years to come.

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