

Environmental Stewardship Program

# Landscape Design:

Developing an Earth Kind landscape for homes and businesses can pose unique challenges. Wise plant selection and careful attention to improving environmental conditions through soil preparation, proper after-planting care, and efficient irrigation practices are essential. There are no hard and fast rules, since conditions vary from location to location. Some experimentation will be necessary, but by following some basic Earth Kind principles your chances for success will be greatly increased.

### **Planning:**

The starting point for every successful Earth Kind landscape is a good plan, preferably on paper and not just in your mind. The process involved in drawing up a landscape design will 1) help you understand, organize, and develop the site for the best use and enjoyment; 2) create a visual relationship between the house/ business and the site 3) reduce



the overall maintenance level and 4) preserve and protect the environment.

A professional landscape designer or architect can greatly assist you in the design process. Help can be as simple as generating ideas for your site to as detailed as a completed blueprint design and help with installation.

The steps involved in drawing up a plan begin with a base plan. The base plan (a scale drawing) includes all the major features of the property, including the house, property lines, easements, existing walks, drives, fences, trees, etc. The base plan should also indicate compass and prevailing wind directions. Once this plan is completed, you can place tracing paper over it and sketch many possible ideas and solutions to your landscape needs and problems.

To help organize your thoughts, list which things are needed to satisfy your requirements and life-style. Study your site to determine where shade and wind protection are needed; where privacy is desired; and which open views to be preserved. Main areas for development may include a children's play area, a work or service area, outdoor entertaining, and the area that the public will see and use. Realize any potential limitations of your site and plan accordingly.

Earth Kind uses research-proven techniques to provide maximum gardening and landscape enjoyment while preserving and protecting our environment.

The objective of Earth Kind is to combine the best of organic and traditional gardening and landscaping principles to create a new horticultural system based on realworld effectiveness and environmental responsibility.

The principal goals of Earth Kind include:



- The safe use and handling of fertilizers & pesticides
- Reduction of yard wastes entering urban landfills

As your interest and knowledge in these areas grows you will have an increased awareness of the many programs, practices and activities that are Earth Kind. Working together we can make a difference in conserving and protecting our valuable natural resources.

> For more information see our Web site:

### EarthKind.tamu.edu



When considering how to develop the site, don't be guided by a stereotyped concept that landscaping should consist of introduced broadleaf evergreen trees and shrubs, arranged in traditional or formal ways. Be sure to preserve, as much as possible, any existing vegetation, including trees, shrubs, vines, and grasses. These native plants are naturally adapted to the site conditions. Every effort should be made to incorporate them into the design wherever possible.



Keep in mind that a landscape is not just a group of plants arranged in a certain way. Design is a problem-solving process. By applying known principles of

design to parking, pedestrian circulation, and creation of privacy and outdoor living areas, an environment that is functional and attractive can be developed.

An existing site can be greatly improved through creative placement of attractive structures, such as shelters or gazebos; decks and paths of treated wood, brick, or decorative pavers; a strategically placed sculpture; or a small water feature.



#### **Soil Preparation:**

Nearly every soil can be improved to increase plant health and conserve water. Both sandy soils and heavier clay soils benefit from the addition of large quantities of organic matter, such as shredded pine bark, peat, rice hulls, and compost. This will increase the soil's ability to absorb and store both water and nutrients in a form available to the plants. A 4-inch layer of organic matter, mixed in with the soil at planting time, will aid in the establishment of shrubs and trees. Flower beds and gardens can be amended every time they are replanted. In sandy soil, strategic planting areas can be modified by incorporating top soil or loam. Make a gradual transition from sand to loam by mixing the first layer of top soil with the sand.

#### **Plant Selection:**

There are a number of native plants that have been adapted for use in home and commercial landscapes. There are also a wide range of highly adapted non-native species that have been identified as Earth Kind. These plants have good drought tolerance, and exhibit resistance characteristics to insects and diseases. When used appropriately, native and adapted plants can assist in reducing landscape water consumption. Also, since these plants are a little tougher than most, they don't require the use of potentially harmful chemical fertilizers and pesticides. You will find much more information on plant selection on our web site: aggie-horticulture.tamu.edu.



### Maintenance:



#### Watering

All plants must receive very good care during the first year or two after planting. They must not suffer a setback due to lack of water. A well-designed irrigation system is essential for continued care of the landscape.

Drip or trickle irrigation is an Earth Kind method to increase watering efficiency in many parts of the landscape. Drip systems apply water under low pressure, slowly delivering water through emitters, bubblers, or spray heads to the root zone of the plants, without waste from over-watering, runoff, or applying water where there is no root system. For areas with high salt content in the water,

drip irrigation allows better use of this water, since less salt is applied to the plants. Drip systems are ideal for shrubs, perennial and annual flower beds, vegetable gardens, and for establishing trees.

Seek professional irrigation advice for sprinkler systems, and experiment with available drip irrigation products in small sections of the landscape to become familiar with this water-saving technique.

#### **Mulches**

The use of mulch conserves moisture, and aids in establishment and maintenance of plants. Mulch is a layer of material covering the soil surface around plants. Organic mulches, such as pine bark, compost, wood chips, and grass clippings, not only conserve moisture but increase the organic content of the soil as they decompose. Organic mulches need to be periodically replenished. Inorganic mulches include lava rock, limestone, pea gravel, and permeable landscape fabrics (not sheet plastic).

Mulch around plants reduces evaporation of water from the soil and keeps the soil temperature more moderate, thus creating a more favorable growing environment. Mulch also suppresses



weed growth which competes with plants for water, nutrients, and light.



#### Fertility

Most native and adapted plants require little supplemental fertilization to grow and survive. However, judicious applications of slow-release or organic fertilizers in the spring can help maintain healthy plants which will be less prone to stress or injury due to heat, drought, or cold. Slow-release fertilizers are available over a longer period of time, and are less prone to leaching through porous sand. Lawn grasses will need frequent, light applications to remain vigorous and dense.

See the Earth Kind Web site for more ways to preserve and protect the environment...



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