



► **BEACH STRAWBERRY**

FRAGARIA CALIFORNICA / FRAGARIA CHILOENSIS

- Forms lush, compact mat 4-6" high.
- Glossy dark green leaves and white flowers.
- Mow or cut back annually to force new growth.



► **GERMANDER OR WALL GERMANDER**

TEUCRIUM CHAMAEDRYIS OR T. X LUCIDRYIS

- This plant can be sheared into a neat groundcover or allowed to grow to a full height (about 1').
- Produces lavender flowers in the spring.



► **ASIAN JASMINE OR IVORY STAR JASMINE**

TRACHELOSPERMUM ASIATICUM

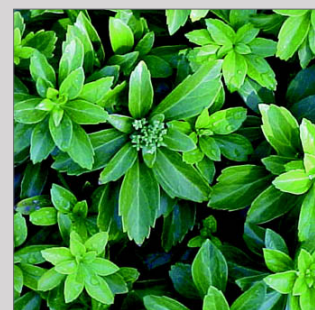
- Evergreen, vining groundcover up to 20' across.
- Has glossy, dark green leaves and pale yellow, pinwheel-shaped flowers with a jasmine scent.



► **SAN DIEGO MARSH ELDER**

IVA HAYESIANA

- This fast-growing native is widely used for slope coverage and erosion control.
- Grows 1 to 2' tall and 4 to 6' across with inconspicuous flowers.
- Summer watering will help maintain a more lush appearance.
- Prune annually.



► **PACHYSANDRA**

PACHYSANDRA TERMINALIS

- Grows slowly but has a crisp, neat growth form.
- New foliage is bright green, changing to dark green with age.
- Small white flowers on 1 to 2" spikes.
- Withstands shade and is widely used under trees.

Note: The species listed are preferred for their dependability, relative low maintenance and drought resistance.

2.3.3.3 GROUNDCOVER & CLIMBING VINES – DESIGN PRINCIPLE

Groundcovers and vines provide functional and aesthetic benefits. Visual effects include consistent form, texture, color and seasonal color. Groundcovers define circulation routes when combined with trees and shrubs, can cover large areas and can facilitate the separation of pedestrians and automobiles. Vines can also function as groundcovers, however they are more effective on walls and / or structures, particularly as a component of a green wall system.

Groundcovers and vines are used to create a consistent carpet of plant material. Mixed species for ornament are not necessarily appropriate for urban design. For groundcovers to be successful they must create a tight, dense planting. Groundcovers require minimal water and maintenance once established, however, they will require adequate water and maintenance until they are established and will tolerate only minimal foot traffic.

Turf, if planted, should be planted on prepared soil from sod or seed using water conserving sod or seed. Seeding allows for greater turf selection but requires approximately six months of regular maintenance to become established. Newly seeded areas require protection from pedestrians and must be kept moist until the seed germinates.

For recommended groundcover and climbing vines, please see Fig. 16 (left).

RECOMMENDED PERENNIAL GRASSES

FIG. 17



► SAN DIEGO SEDGE *CAREX SPISSA*

- This large sedge has a form similar to that of an ornamental grass.
- Produces gray leaves to 5 feet tall and yellow, grass-like flowers in the spring.



► CALIFORNIA FESCUE *FESTUCA CALIFORNICA*

- Flowering stalks rise to 5' above large clumped grass (2-3' tall) in late spring, early summer.
- Striking appearance and good adaptability, with clumps holding their shape well throughout the year.



► DEER GRASS *MUHLENBERGIA RIGENS*

- This large, perennial, California native has dense clusters of narrow, bright green leaf blades and tall, slender flower stalks.
- Bold enough to be used as a focal point of the garden.
- Once established, is extremely drought tolerant.



► GIANT WILD RYE *LEYMUS CONDENSATUS*

- Large clumping grass 4-5' across and reaches 6-8' tall in bloom.
- Distinct silver-gray foliage.
- Prune annually to encourage new growth.



► BLUE OAT GRASS *HELICTOTRICHON SEMPERVIRENS*

- Evergreen, bright blue-gray, with narrow leaves in fountain-like clump.
- Grows 2-3' high and wide.
- Stems bear straw-colored flower clusters.

Note: The species listed are preferred for their dependability, relative low maintenance and drought resistance.

2.3.3.4 PERENNIAL GRASSES – DESIGN PRINCIPLE

Perennial grasses, like shrubs, are varied and versatile planting materials. Grasses provide numerous shapes, colors and textures. Grasses can be ornamental and / or massed to define space and can also frame and / or screen views, noise and wind. Grasses are also elemental in stormwater treatment and management and help to clean the air. Specific to urban design, grasses must be carefully selected and located to not create unsafe conditions (eg. define spaces that are not defensible and feel unsafe). Grasses can, however, help to unify districts visually and create continuous pedestrian-scale spaces that link commercial and non-commercial streets and neighborhoods. Grasses also make the urban environment more comfortable and safe by providing beauty and amenity. For recommended perennial grasses, please see Fig. 17 (left).

► LOCATION

- Locate grasses to define focal point (eg. specimen planting).
- Locate masses or groups of grasses to be a focus, or for ornament.
- Locate grasses for screening of unsightly views, wind and noise.
- Locate grasses to provide fencing for safety.
- Locate grasses to define access and circulation routes.

► SIZE

Anticipate full growth. However, the installed plant size should be large enough and in quantity to provide the intended effect.

2.3.3.5 ANNUALS – DESIGN PRINCIPLE

Annual and perennial flowers are not recommended except in planter pots and or in hanging baskets.



◀ Site furnishings can double as seating and planters.



◀ Seating with lighting.



◀ (Left) Banner pole;
(Right) Green wall.

2.3.4 SITE FURNISHINGS

Site furnishings are functional, attractive and important components of the urban landscape. Site furnishings promote safety by defining circulation routes and activating spaces. Combinations of site furnishings vary with use and will contribute to the definition and potential unity of spaces. A thoughtful composition of furnishings will provide comfort and articulate an aesthetic identity. High quality materials and finishes should be specified to provide beauty, durability and minimize maintenance.

► DESIGN GUIDELINES TYPICAL OF ALL SITE FURNISHINGS

- Design and selection should be complementary to the design intent of the project and vernacular, or other furnishings.
- Design and materials must be durable, high quality and low maintenance.
- Furnishings must be mounted securely to paving or structure and per manufactures specification unless otherwise specified.
- Refer to ADA standards, uniform building code and local code for minimum code requirements.

► DESIGN PRINCIPLES & GUIDELINES SPECIFIC TO INDIVIDUAL URBAN DESIGN ELEMENTS

The following are design principles and guidelines specific to individual urban design elements and in addition to the Design Guidelines Typical of All Site Furnishings previously defined.

2.3.4.1 GATEWAY MARKERS & BANNER POLES

Gateway markers and banner poles should be designed as a component of a unified family of site furnishings that are designed to define a district or neighborhood. The unification of components embraces all furnishings. Vertical elements are commonly the most prominent and include but are not limited to gateway markers, lighting and signage. Design considerations include layout, proportion, selection of materials and detail design. Ultimately, the scale of a design is developed for the pedestrian. However, the mass transit and motor vehicles need to be considered in regard to design speeds and visibility. A variety of scales may also be considered in regard to the program of the space, the architecture and a hierarchy of entrances.

► DESIGN GUIDELINES

- Locate to be unobtrusive yet visible and adjacent to primary circulation.
- See also Design Guidelines Typical of All Site Furnishings.

2.3.4.2 WALLS

Walls primarily facilitate grade change (retaining walls) and definition of space, and they direct or screen views and / or weather. Walls further define circulation and depending on their height, can provide seating opportunities. Safety concerns focus on excessive height and the appropriate safeguards when grade transitions exceed 30". The design and layout of walls in a pedestrian-friendly urban landscape should never create indefensible or unsafe conditions. In addition to environmental benefits, green walls can add interest, ornament, reduce scale and provide continuity when transitioning from urban spaces to buildings.

► DESIGN GUIDELINES

- See Design Guidelines Typical of All Site Furnishings.



◀ Seating on the side, facing activity.



◀ Paving defines scale, order and identity.



◀ Seating, surfacing and tree grates contribute to an area's identity.

2.3.4.3 SEATING

Perhaps more than any other furnishing, seating activates urban spaces. Seating is typically adjacent to pedestrian routes and may provide a place to rest, socialize and enjoy the urban landscape. Seating may be located in shady places, sunny places and oriented towards interesting or scenic vistas. Seating can also function as walls and planters. The dimensions of the following guidelines are included as they are recognized as standards. Creativity is encouraged as long as health, safety and welfare criteria are met.

► DESIGN GUIDELINES

- Seating height: 16" - 18" high.
- Seating depth: 16" for seats without backs and 14" with backs.
- Walls or ledges may be 12" - 20" high and ideally 16" wide.
- Walls designed for seating on both sides should be 30" wide.
- Seating orientation should back to a wall or mass and not to major circulation routes. Additional orientations include back-to-back, face-to-face for conversation and if solitary, perpendicular to circulation routes.
- Locate seating 3' clear of circulation.
- See also Design Guidelines Typical of All Site Furnishings.

2.3.4.4 SURFACING

Paving is an important element in urban design and a component of the framework for organization, articulation and the safe design of spaces. Permeable paving is an environmentally conscious consideration and applicable when site conditions are appropriate. Non-slip textures, colors and patterns that clearly define uses and circulation should be considered. The design concept may consider the paving as neutral background or may be ornate to create a focal point or a pattern to define order, scale and identity. The application may be designed to define a single space or perhaps add continuity to two or more spaces.

► DESIGN GUIDELINES

- Emphasize circulation routes.
- Style (eg. formal, informal, organic).
- Cost and maintenance: material, installation, maintenance.
- Construction and strength / use: rigid or flexible pedestrian, vehicular.
- Bonding and jointing: visual, practical, structural.
- Material selection relative to context.

2.3.4.5 TREE GRATES

Tree grates are an appealing application for protecting trees and maintaining a continuous grade around trees. Their design can include artwork that expresses the local community and should be designed to complement other furnishings and ultimately unify the urban landscape. Special applications may include the articulation of green street planters with specially designed grates to accommodate pedestrian seating, bike racks and other site furnishings.

► DESIGN GUIDELINES

- Tree grates should be at least 6' x 6' and fit the tree planter opening.
- Ideally, the design of the tree grate should relate to the paving pattern and site furnishings. Openings in the design of the tree grate pattern cannot exceed 1/4".
- The design of the tree grate must allow for adequate tree growth.
- Tree grates should be securely attached, but designed for easy removal for maintenance.
- See also Design Guidelines Typical of All Site Furnishings.