



# **PARKWAY DESIGN GUIDE**

*City of Placentia  
November 3, 2015*

# WHY ARE PARKWAYS IMPORTANT?

1

The parkway is the strip of land between the street and the walkway. In other geographic regions, it is known as tree lawn or planting strip. The parkway and walkway together make up the sidewalk, which is part of the public right-of-way. Street trees are planted in the parkway and are the most important plants in the parkway.

Parkways are important to individual property owners and the City as a whole for the following reasons:

- Parkway provide soil volume needed for healthy mature growth of street trees which produce shade, collect storm water, consume carbon and provide other environmental and health benefits.
- Parkway can collect storm water and irrigation runoff and return it to the groundwater table.
- Parkway provide a buffer between pedestrians on the walkway and cars in the street.
- Parkway improve the curb appeal of your home, potentially increasing its value.
- Parkway enhance the visual quality of the community.

In Placentia, the adjacent property owner is responsible for maintaining all of the parkway.

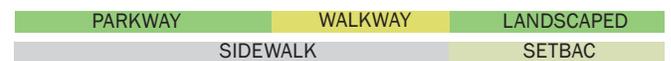
Parkways can be designed in a variety of ways, depending on the individual property owner's design objectives and commitment to maintenance. Ideally, parkways should be designed to require relatively little supplemental water, along with less frequent mowing and fertilizing to reduce their carbon foot-print. Placentia property owners are encouraged to convert their conventional parkways (and front yards if possible) from grass to drought-tolerant sustainable plant materials. This document provides Suggestions on making that transition.



Typical Residential Parkway



Drought Tolerant Plants in Residential Parkway



In Southern California, with continued drought conditions it has become imperative to transition from traditional grass parkways to more sustainable materials to reduce water use and the greenhouse gases generated by lawn mowers. The parkway of the future will be drought-tolerant, collect runoff, and require minimal gas or electric powered maintenance.

## 2

# PARKWAY DESIGN CRITERIA

In order to help reduced water use and still provide storm water infiltration, soil volume for street trees, a buffer between pedestrians and the street, erosion/fugitive dust control, and the visual benefits of landscaped parkways should be:

- As wide as possible up to 8' wide, given minimum walkways widths of 4' in residential zones and 5' in commercial zones.
- At the same elevation as the curb and walkway within 6" of them, for example, soil 2" below edge of curb and walkway elevations and covered with 2" of mulch, so the surface elevations of the walkway or curb and adjacent parkway are the same.
- At least 75% unpaved and either:
  - 1) Have a slight swale that is sloping a few inches to the center at not more than a 3:1 slope to collect storm and irrigation water if the plant materials in the parkway are not walkable, or
  - 2) At the same finished elevation as the walkway if the plant materials in the parkway are walkable.
- Irrigated in a manner that results in no overspray onto the walkway or street, e.g., buried in-line drip.
- At least 50% covered with plant materials that:
  - 1) Does not require mowing more frequently than once every few months,
  - 2) Drought tolerant can survive with irrigation only occasionally from November - March, once a week April - June, and twice a week July- October (for example, plants listed in WUCOLS III<sup>1</sup> as having Moderate, Low or Very Low water use- see Table 1 for examples)
  - 3) Should not exceed a height of 2' within 5' of a driveway/curbcut and excluding trees 4' elsewhere
  - 4) Should not have thorns or sharp edges adjacent to any walkway or curb.
- Where unpaved, covered with a permeable natural material, e.g., mulch, stabilized decomposed granite, gravel, or stones that prevent erosion and dust.

<sup>1</sup> WUCOLS, an acronym for Water Use Classification of Landscape Species, can be downloaded at <http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf>



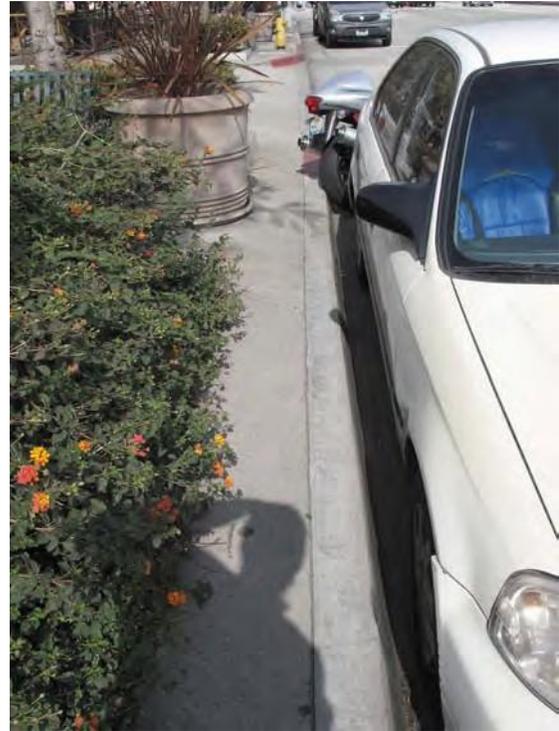
For parkways adjacent to curbside parking, if the parkway planting is not walkable (see Table 1 for examples of plants that are walkable) , a means of access from the curb to the walkway should be provided . It may vary with the adjacent use and street characteristics, for example:

- On heavily trafficked streets (major and minor arterials), an 18” wide paved, walkable strip along the back of the curb that is at the same finished elevation as the curb should be provided.
- Where there are striped curbside parking spaces, a path across the parkway should be provided every two cars between two marked spaces.
- Adjacent to single-family homes and low-density multi-family housing (2 to 4 units/5,000 SF lot) it suggested that stepping stones or a walkway across the parkway should be provided every 50 feet.

Where there is no curbside parking and the parkway is not walkable it is suggested, that a path or stepping stones should be provided every 50 feet.

As specified on page 2, plants with thorns should not be planted adjacent to any walkway where someone might come in contact with the thorns.

A “landing strip” at the curb allows easy access from parked cars.



A path across the parkway completes access from parked cars to the walkway.



# 3

## DESIGNING YOUR PARKWAY

### WHAT'S YOUR TYPE?

#### Type 1 Parkway - Low-Maintenance, Walkable Plants

If you want a parkway that requires minimal design and maintenance, install walkable plants. Table 1 lists some examples. Most of the grasses listed do not require mowing. Sedge, Buffalo and Grama Grass can be mowed a few times a year to maintain a lawn-like appearance.

#### Type 2 Parkway - Low-Growing, Low-Maintenance Plants

If you want a parkway that requires a little more design and the addition of a walkway or stepping stones, but still requires minimal maintenance, plant low-growing grasses and/or groundcover. There are many choices; Table 2 lists some of them. Your parkway might be meadow-like in appearance with a mix of grasses and perennials, including some from Table 1 and some from Table 2.

#### Type 3 Parkway - Complement Your Front Yard

If you want a parkway that is an extension of your sustainable, non-lawn front garden, use low- to medium-height grasses, shrubs and perennials. There are many plant choices with this parkway type. Table 3 lists some reliable drought-tolerant natives that are taller - but still less than 3 feet tall - that can be mixed in with plants in Table 2.

Note: there are many other plants that are suitable for parkways, which you can find in the on-line resources. Email us your parkway success stories and we will add them to the parkway list.

#### Type 4 Parkway – Synthetic Turf Installation

If you want a parkway that has synthetic turf, Table 4 provides detail on preferred synthetic turf installation.

For recommended parkway trees, see separate tree guideline policy.

### DIGGING IN

#### Preparing Your Parkway Soil

The most important thing you can do to ensure your parkway's success is to prepare the soil. Soil preparation saves you money in the long run because it reduces the need to replace plants, lowers water use and reduces fertilizer applications.

- Remove all existing turf - let it die and dig it out.
- Remove enough soil to create the swale described on page 2 and then remove 2-3" more.
- Till the parkway soil to depth of one foot.
- Amend it with compost.

#### Watering Your Drought-Tolerant Parkway

Too much water can kill drought-tolerant plants. So, don't over-water, especially in clay soil. The best approach is to water only when the soil is dry at a depth of 3" to 4". Or, turn on your in-line drip irrigation three times a week (45 minutes each time) to establish your parkway (first 3 months); then, once it is established, once a week from October through March and twice a week from April through September.

#### On-Line Resources

Use these resources see images, recommended spacing, and detailed descriptions of these plants and others:

- bewaterwise.com
- theodorepayne.org
- elnativo.com
- smggrowers.com
- monrovia.com
- sunset.com and *Sunset Garden Book*
- California Native Plants for the Garden* Bornstein et al.
- [www.gswater.com](http://www.gswater.com)
- [www.ylwd.com](http://www.ylwd.com)

#### Table Legend

- N = California or Southwest native
- L= Low water use
- M = Moderate water use
- o.c. = on center

**Table 1. Example Type 1 Walkable Plants - No Path Required**

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
Low Water Use/Low or No Mow Turf or Grass-like Perennials				
<i>Buchloe dactyloides</i> UC Verde™	UC Verde™ Buffalo Grass	N, L	6" x 6"	winter dormant (brown)
<i>Bouteloua gracilis</i> 'Hachita'	'Hachita' Blue Grama Grass	N, L	6" x 6"	
<i>Carex pansa</i> ( <i>C. praegracilis</i> )	California Meadow Sedge	N, M	6" x 9"+	Grows in shade or sun
Low-Growing Perennials (12 inches or less)				
<i>Achillea millifolium</i> cultivars	Achillea cultivars	L	12" x 3'	mow 3-4x/year
<i>Chamaemelum nobile</i>	Chamomile	M	8" x 12"	
<i>Dymondia margaretae</i>	Dymondia	L	3" x 6"	slow growing

Other untested ideas: there are several lawn substitute seed mixes, including Fleur de Lawn and Ecology Lawn, that may work.

*Buchloe dactyloides* UC Verde™



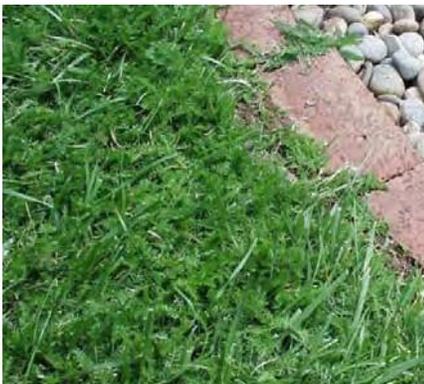
*Bouteloua gracilis* 'Hachita'



*Carex pansa* (*C. praegracilis*)



*Achillea millifolium* cultivar mowed



Chamomile



*Dymondia margaretae*



**Table 2 Example Type 2 Low-Growing, Low-Maintenance Plants - Path Required**

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
Low-Growing Grasses or Grass-like Perennials (18 inches or less)				
<i>Carex divulsa</i> (C. tumicola)	Berkeley Sedge	N, M	12" x 2'	
<i>Festuca glauca</i> 'Siskiyou Blue' & other var.	Blue Fescue	M	12" x 12"	
<i>Pennisetum alopecuroides</i> 'Little Bunny'	Little Bunny Fountain Grass	L	12" x 12"	
<i>Sesleria autumnalis</i>	Autumn Moor Grass	M	15" x 2'	
Low-Growing Perennials/Succulents (18 inches or less)				
<i>Achillea millifolium</i> 'Terra Cotta'	Yarrow Terra Cotta & other cultivars	L	12" x 4'	mow 1/year for meadow
<i>Aptenia cordifolia</i> /A. cordifolia 'Red Apple'	Heartleaf Ice Plant	L	6" x 12"	
<i>Delosperma cooperi</i>	Trailing Ice Plant	L	8" x 15"	
<i>Drosanthemum floribundum</i>	Rosea Ice Plant	L	8" x 15"	
<i>Dudleya hassei</i>	Santa Catalina Live Forever	N, VL	8" x 18"	
<i>Erigeron karvinskianus</i> & E.glaucus	Santa Barbara & Seaside Daisy	N,M	12" x 2'	
<i>Fragaria vesca</i> ssp. <i>Californica</i> or <i>F. chiloensis</i>	Woodland or Coastal Strawberry	N, M	8" x 2'	Grows in shade
<i>Gazania rigens leucolaena</i>	Gazania (grayish lvs.)	M	6" x 2'	
<i>Gazania linearis</i> 'Colorado Gold'	Colorado Gold Gazania (green lvs)	M	6" x 2'	
<i>Hypericum calycinum</i>	Creeping St. Johnswort	M	12" x 12"	Clip yearly; likes shade
<i>Iris douglasiana</i> & 'Pacific Coast Hybrids'	Douglas & Pacific Coast Iris	N, M	12" x 18"	Mix with grasses
<i>Lantana</i> Patriot series cultivars	Dwarf Lantana	L	12" x	
<i>Lessingia filaginifolia</i> 'Silver Carpet'	Beach Aster	L	12" x 4'	
<i>Monardella villosa</i>	Coyote Mint	N, VL	15" x 2'	
<i>Nepeta mussinii</i> (N. faassenii)	Catmint	M	15" x 18"	
<i>Osteospermum fruitcosum</i>	Trailing African Daisy	L	6" x 18"	
<i>Oenothera caespitosa</i> & other species	Tufted evening primrose	N,L	12" x 2'	
<i>Rosmarinus officinalis</i> 'Huntington Carpet' or other prostrate varieties	Prostrate Rosemary	L	18" x 2'	
<i>Scaevola aemula</i> varieties	Fairy Fan Flower		8" x 2'+	
<i>Senecio serpens</i> , <i>S. mandraelicus</i>	no common name	L	12" x 2'	
<i>Thymus</i> species	Thyme	M	8" x 2'	
<i>Verbena peruviana</i> & hybrids	Verbena	L	6" x 2'	
<i>Vinca minor</i>	Dwarf Periwinkle	M	12" x 4'	Plant in shade
Low-Growing Shrubs (18 inches or less) - all require regular trimming at parkway edges				
<i>Ceanothus</i> 'Centennial'		N, L	18" x 4'	needs good drainage
<i>Cotoneaster dammeri</i> 'Lowfast', <i>C. salicifolia</i> 'Repens', <i>C. apiculatus</i> 'Tom Thumb'	Groundcover Cotoneaster varieties	M	18" x 4'	
<i>Juniperus horizontalis</i> & <i>J. procumbens</i> var.	Groundcover Juniper varieties	L	6-18" x 4'	see Sunset for list

*Carex divulsa*



*Festuca glauca*



*Sesleria autumnalis*



*Pennisetum 'Little Bunny'*



*Achillea 'Terra Cotta'*



*Apena cordifolia 'Red Apple'*



*Delosperma cooperi*



*Drosanthemum floribundum*



*Dudleya hassei*



*Erigeron glaucus 'Wayne Roderick'*



*Gazania rigens leucolaena*



*Gazania linearis*



*Fragaria chiloensis*



*Hypericum calycinum*



*Iris douglasiana*



*Lantana 'Patriot Rainbow'*



3 DESIGNING YOUR PARKWAY

*Lessingia filaginifolia* 'Silver Carpet'



*Mondardella villosa*



*Nepeta mussinii*



*Osteospermum fruitcosum*



*Oenothera caespitosa*



*Rosmarinus officinalis*



*Scaevola aemula*



*Senecio mandraealiscae*



*Thymus*



*Verbena peruviana* varieties



*Vinca minor*



*Ceanothus* 'Centennial'



*Cotoneaster dammeri*



*Juniperus procumbens*



*Juniperus horizontalis* var.



**Table 3 Example Type 3 Medium Height, Drought Tolerant Plants - Path and More Maintenance Required**

Botanical Name	Common Name	Water Use	Height x Spacing	Notes
<b>18" to 36" Tall Grasses</b>				
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	L	2' x 2'	
<i>Leymus condensatus</i> 'Canyon Prince'	Canyon Prince Wild Rye	N, L	2' x 3'	
<i>Nasella tenuissima</i> ( <i>Stipa tenuissima</i> )	Mexican Feather Grass	N, V L	2' x 2'	
<i>Pennisetum orientale</i>	Oriental Fountain Grass	L	18" x 18"	
<i>Pennisetum setaceum</i> 'Eaton Canyon'	Dwarf Red Fountain Grass	L	2' x 3'	
<b>18" to 36" Tall Perennials/Succulents</b>				
<i>Aloe</i> 'Blue Elf' & other small varieties	Blue Elf Aloe	L	18" x 18"	
<i>Anigozanthos</i> 'Bush Pearl', 'Bush Ranger' & 'Bush Devil'	Kangaroo Paws varieties		2' x 2'	
<i>Limonium perezii</i>	Statice	L	2' x 3'	+ flower height
<i>Lomondra longifolia</i> 'Breeze' & 'Little Con'	Lomondra cultivars	M	2' x 3'	
<i>Penstemon heterophyllus</i> 'Margarita BOP'	Foothill Penstemon	N, M	18" x 18"	
<i>Phormium</i> 'Tom Thumb' & 'Jack Spratt'	Small Flax hybrids	M	2' x 2'	
<b>18" to 36" Tall Shrubs</b>				
<i>Arctostaphylos densiflora</i> 'Pacific Mist'		N, L	2' x 6'	
<i>Artemisia pycnocephala</i> 'David's Choice'	David's Choice Sandhill Sagebrush	N,	2' x 3'	
<i>Ceanothus gloriosus</i> 'Anchor Bay'		N, L	2' x 6'	
<i>Cistus salvifolius</i>	Sageleaf Rockrose	L	2' x 3'	
<i>Iva hayesiana</i>	Poverty Weed	N, VL	2' x 3'	
<i>Lantana montevidensis</i>	Trailing Lantana	L	2' x 3'	Cut back yearly
<i>Lantana</i> 'Gold Rush', 'New Gold' & 'Chapel Hill Yellow'			2' x 3'	Monrovia
<i>Mimulus</i> hybrids inc. 'Jelly Bean Yellow'	Shrubby Monkeyflower hybrids	N, L	2' x 3'	
<i>Rosa</i> Flower Carpet varieties	Groundcover Roses	M	2' x 3'	Monrovia
<i>Salvia apiana</i>	White Sage	N, VL	3' x 4'	
<i>Salvia</i> 'Bee's Bliss'	Bee's Bliss Sage	N, L	2' x 4'	
<i>Verbena lilacina</i> & <i>V. lilacina</i> 'De La Mina'	Lilac Verbena	N, L	3' x 3'	

*Helictotrichon sempervirens*



*Leymus condensatus* 'Canyon Prince'



*Nasella tenuissima*



*Pennisetum orientale*



*Pennisetum setaceum* 'Eaton Canyon' Aloe 'Blue Elf'



*Anigozanthos* 'Bush Pearl'



*Limonium perezii*



*Lomondra longifolia* 'Breeze'



*Penstemon heterophyllus* 'Margarita BOP'



*Phormium* 'Jack Spratt'



*Arctostaphylos densiflora* 'Pacific Mist'



*Artemisia pycnocephala* 'David's Choice'



*Ceanothus gloriosus* 'Anchor Bay'



*Cistus salvifolius*



*Iva hayesiana*



*Lantana montevidensis*



*Lantana* 'Gold Rush'



*Mimulus* 'Jelly Bean Yellow'



White Flower Carpet Rose



Red Flower Carpet Rose



Amber Flower Carpet Rose



*Salvia apiana*



*Salvia* 'Bee's Bliss'



*Verbena lilacina*



## 4 EXAMPLES

### Good Examples of Type 1 Parkway (Walkable Plants)



California Meadow Sedge (*Carex pansa*) can manage with little or no supplemental water from November - April and irrigation once a week the rest of the year. It can be mowed a few times a year for a more lawn-like appearance.



Dymondia (*Dymondia margaritae*) (Ranglely Ave.) is a low growing, walkable groundcover

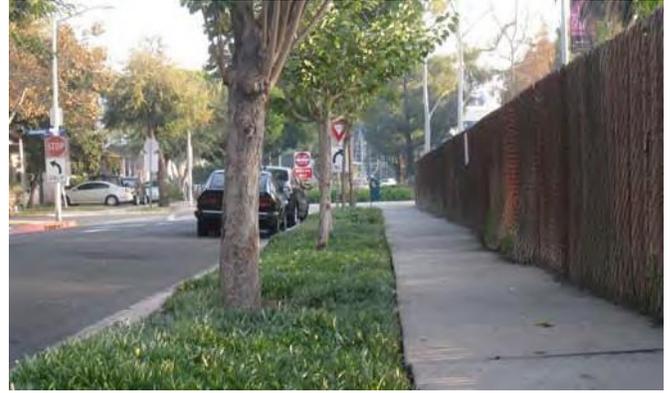


UC Verde Buffalo grass (*Buchloe dactyloides* UC Verde™) is a drought-tolerant cultivar of Midwest native Buffalo grass.



Regularly mowed Yarrow (*Achillea millifolium*) is lawn-like.

**Good Examples of Type 2 Parkway**



#### 4 EXAMPLES

Berkeley Sedge (*Carex divulsa*) (Westmount Drive) requires very little care and similar water to California Meadow Sedge.



Autumn Moor Grass (*Sesleria autumnalis*) requires very little care and similar water to the Sedges.

Gazanias (Norwich Dr.) are a reliable relatively drought-tolerant groundcover that tolerates light traffic.



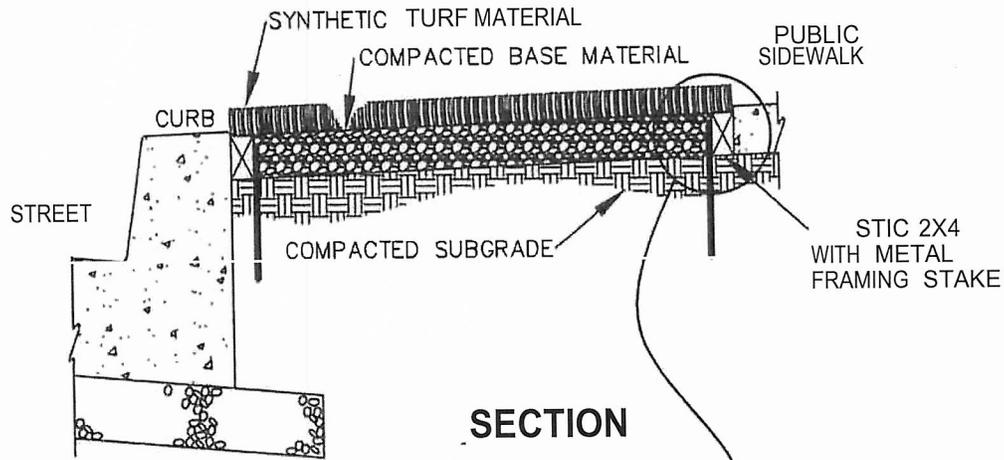
A prostrate Rosemary like 'Huntington Carpet' (Pointsettia Dr.).



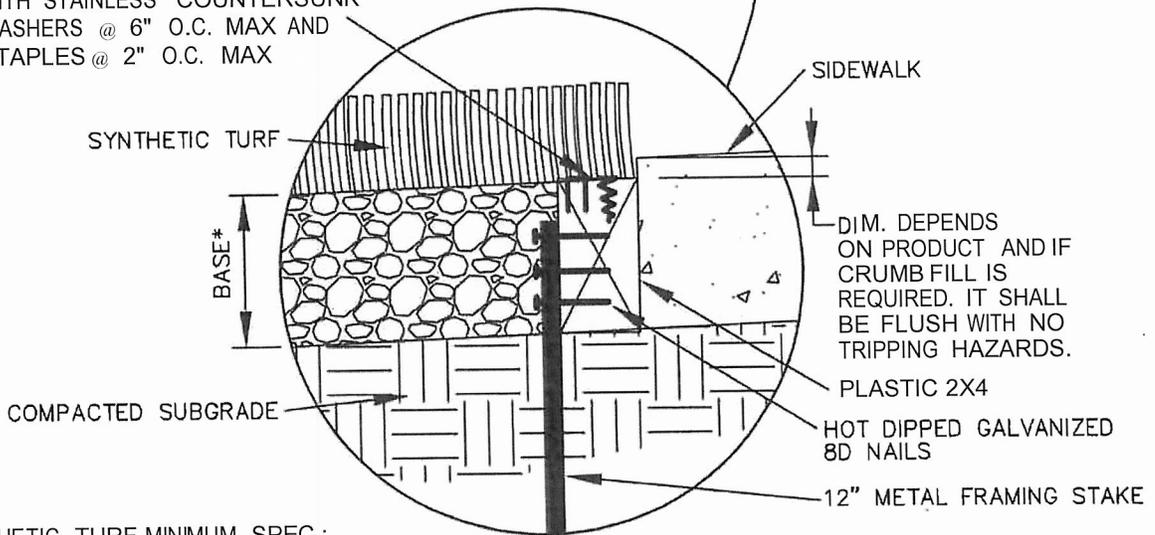
Blue Fescue (*Festuca* cultivars) (Dorrington Ave.) require good drainage and tolerate some shade.



Dwarf Periwinkle (*Vinca minor*) is a good choice for a shady parkway.



STAINLESS STEEL SCREWS  
WITH STAINLESS COUNTERSUNK  
WASHERS @ 6" O.C. MAX AND  
STAPLES @ 2" O.C. MAX



- SYNTHETIC TURF MINIMUM SPEC.:
- MINIMUM THREE COLORS FOR MATERIAL
  - TWO COLORS FOR BLADES, PLUS DIFFERENT COLOR FOR THATCH
  - BACKING MATERIAL MUST HAVE DRAIN HOLES MAXIMUM 6" O.C.
  - MINIMUM 15 YEAR WARRANTY FOR TURF AND INSTALLATION
  - MINIMUM 80LB MATERIAL
  - MUST HAVE APPEARANCE OF NATURAL TURF AND THREE DIMENSIONAL ("3D") QUALITIES
  - TURF SAMPLE SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO INSTALLATION

\*BASE: MATERIAL AND DEPTH PER MANUFACTURER.

NOTE: OWNER SHALL GUARANTEE THAT THE TURF MATERIAL AND INSTALLATION MATERIAL WILL NOT BECOME A TRIPPING HAZARD OR BECOME WEATHERED IN APPEARANCE. MATERIAL SHALL BE REPLACED PRIOR TO THOSE CONDITIONS OCCURRING. REPLACEMENT MATERIAL AND INSTALLATION METHODS THERE OF SHALL BE APPROVED IN ADVANCE. INSPECTION IS REQUIRED DURING AND AFTER INSTALLATION.

SYNTHETIC TURF SHALL NOT BE INSTALLED WITHIN 15 FEET OF EXISTING PARKWAY TREE OR 8 FEET FROM PROPOSED TREE, UNLESS SPECIFICALLY APPROVED BY THE TREE MAINTENANCE SUPERVISOR.

## SYNTHETIC TURF INSTALLATION DETAIL FOR PARKWAY

APPROVED:

**CITY OF PLACENTIA**  
DEPARTMENT OF PUBLIC WORKS  
2015