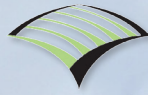
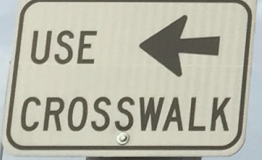


Douglas Blvd



WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS



JULY 2016

Roseville Commercial Turf Conversion



PROJECT STAFF AND CONTACT

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RESEARCH GOALS

Research Goals

The goal of the turf conversion project is to gather information about commercial corridors to identify and document opportunities for turf reduction and replacement as well as landscape improvements with protection of heritage trees and shrubs while promoting efficient water use. Specific Plans for each area of Roseville were analyzed in preparation of field research and documentation. The site specific areas of in-field analysis included:

- Washington Boulevard South of Blue Oaks Boulevard
- Pleasant Grove Boulevard at Roseville Parkway
- East Roseville Parkway North of Douglas Boulevard
- East Roseville Parkway South of Douglas Boulevard
- Eureka Road South of Douglas Boulevard
- Eureka Road North of Douglas Boulevard
- Sierra College Boulevard North of Douglas Boulevard
- Douglas Boulevard from Sierra College Boulevard to Interstate 80
- Blue Oaks Boulevard at Foothills Boulevard

Why is the analysis of commercial turf area important?

This analysis is a response by the City of Roseville to 4 years of drought. This analysis will act as a horticultural resource for private property owners. The areas identified in the exhibits are established landscapes that were installed and designed in an era where water efficiency was less of a factor. These older landscapes have drawn scrutiny and increased requests to convert non-functional turf to water efficient landscapes. The city also realizes that a change in the landscape is an opportunity to provide a consistent look and feel for major roadway corridors. Planning for change will ensure the aesthetic value of Roseville's quality of life, while also responding to residents' request to be more water conscious.

AREAS OF ANALYSIS

Each of the areas analyzed are examples of an over maintained monoculture plant pallet, with excessive use of turf due in large part to the prescriptive nature of Roseville's Specific Plans. Despite observing different sites throughout Roseville, the same plant species and maintenance practices were observed in all cases. For a turf conversion to be successful, these practices will need to change.

Strict maintenance regimens have been adopted and applied to all of the observed landscapes. The results of this is un-natural geometrically shaped plant material that reduces the plants' ability to reach mature height without structural flaws and require tremendous inputs and haul off efforts, in addition to bare soil that is unable to absorb and retain natural and applied moisture.

In order for the turf conversion program to be successful, implementation of non-commercial pruning practice (for trees, shrubs, and other woody plants), should be considered to replace some current maintenance practices, letting plants "do their own thing" and grow naturally. By so doing, cost of maintenance can be more effectively utilized. Refer to appendix for basic pruning and maintenance suggestions.

The intent of the turf conversion program is to replace non-functional areas of turf with low water using shrubs and groundcover. The original design intent of the Specific Plans for areas of Roseville was to use turf as a consistent ground plane landscape treatment. While a variety of groundcovers are proposed by the Conversion Plan, limited numbers of varieties of plants should be used at each site, carrying forward the intent of the Specific Plans to create consistency.

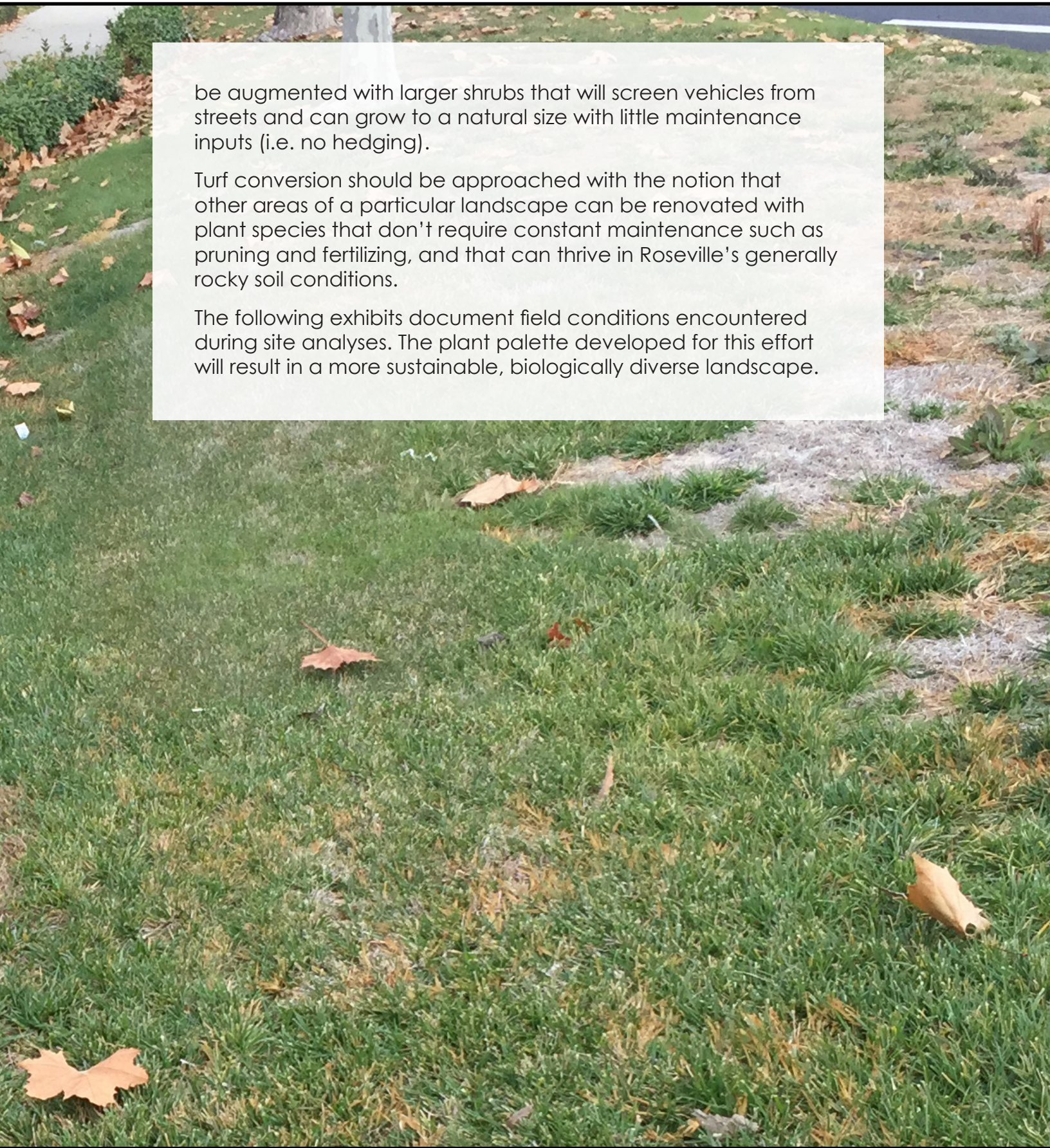
For instance, only one type of groundcover should be selected for the areas between curb and meandering sidewalk. This will lend to cohesion and visual uniformity. For safety and visibility, taller shrubs are not envisioned in parkway strips. Areas behind sidewalks and adjacent to parking areas or other site features would ideally be landscaped with the same groundcover, and

AREAS OF ANALYSIS

be augmented with larger shrubs that will screen vehicles from streets and can grow to a natural size with little maintenance inputs (i.e. no hedging).

Turf conversion should be approached with the notion that other areas of a particular landscape can be renovated with plant species that don't require constant maintenance such as pruning and fertilizing, and that can thrive in Roseville's generally rocky soil conditions.

The following exhibits document field conditions encountered during site analyses. The plant palette developed for this effort will result in a more sustainable, biologically diverse landscape.



TYPES OF IRRIGATION OBSERVED

Site analysis included the following:

-Method of irrigation: Identify irrigation type/
types used in commercial turf areas
(Rotator, Rotor, Spray Head, Sub-Surface)

+ +
+ +
+ + +
+ +
+ +
+ + +
+ +
+ + +
+ +
+ +

DRIP



Diagram of an overhead irrigation system showing a grid of overlapping circular spray patterns.

OVERHEAD



Diagram of a sub-surface irrigation system showing parallel lines representing the layout of the pipes.

SUB-SURFACE



TYPES OF IRRIGATION OBSERVED

-Type of water used: Confirmed use of potable or recycled water on site, and future possibility of converting the system to recycled water.



-Maximum width of turf area: Used to demonstrate the varying sizes of turf areas.

MAX.
100'
FEET WIDE

-Use value: Value assigned to represent the benefits of turf beyond aesthetics. The value is based on a 1-10 scale:

- 1-3: No/Low recreation space, Exceeds 3:1 slope, inappropriate placement
- 4-7: Buffer for Pedestrians, max 3:1 slope, mixed with other planting
- 8-10: High recreation opportunities, minimum slope, visible signs of use

TURF
1-10
USE VALUE

TURF:70% (example)

SHRUBS: 30%(example)



Groundplane landscape ratio at observed landscape frontages

WASHINGTON BOULEVARD @ ROSEVILLE PARKWAY



Excessive turf



Short lived poplar trees



Struggling Redwoods



TURF 90%

WASHINGTON BOULEVARD



TURF

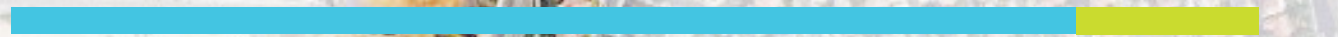
5

USE VALUE



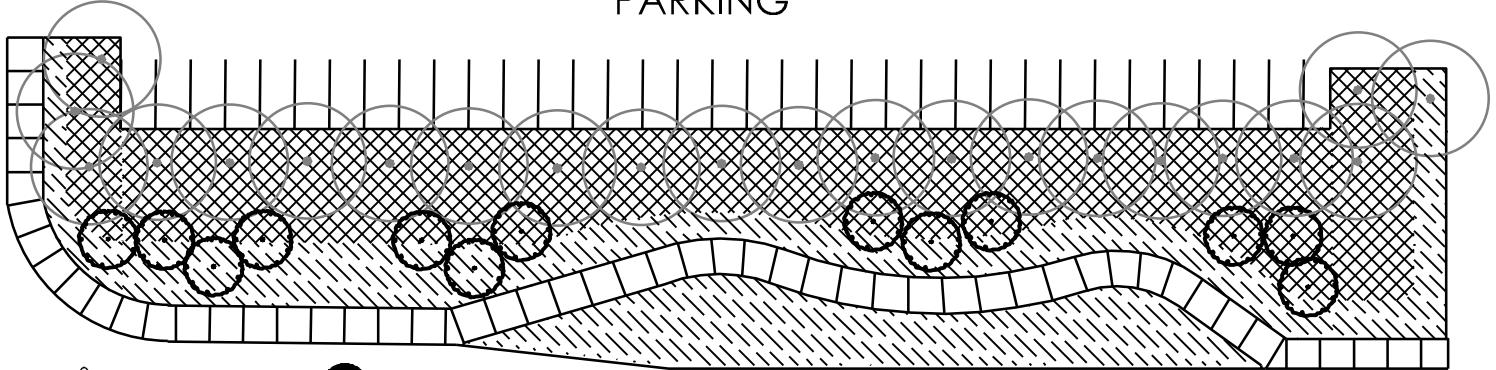
MAX.
25'x290'
FEET WIDE

SHRUBS 10%



WASHINGTON BOULEVARD PRECEDENT STUDY

PARKING



WASHINGTON BOULEVARD

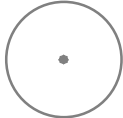
CONCEPT PLANT SCHEDULE



ACCENT TREES

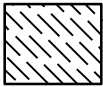
ARBUTUS X 'MARINA' / ARBUTUS MULTI-TRUNK
 PRUNUS ILICIFOLIA LYONII / CATALINA CHERRY

15 GAL LOW
 15 GAL LOW



EXISTING TREES

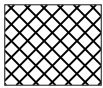
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



6'-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
 CONVULVULUS SABATIUS / GROUND MORNING GLORY

1 GAL LOW
 1 GAL LOW



1'-3'

RIBES VIBURNIFOLIUM / EVERGREEN CURRANT
 ROSA X 'FLOWER CARPET CORAL' / ROSE
 SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON

5 GAL LOW
 5 GAL LOW
 5 GAL LOW

NOTES

1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

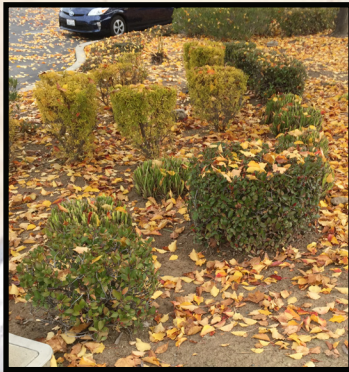
PLEASANT GROVE BOULEVARD @ ROSEVILLE PARKWAY



Monoculture tree species



Surface roots



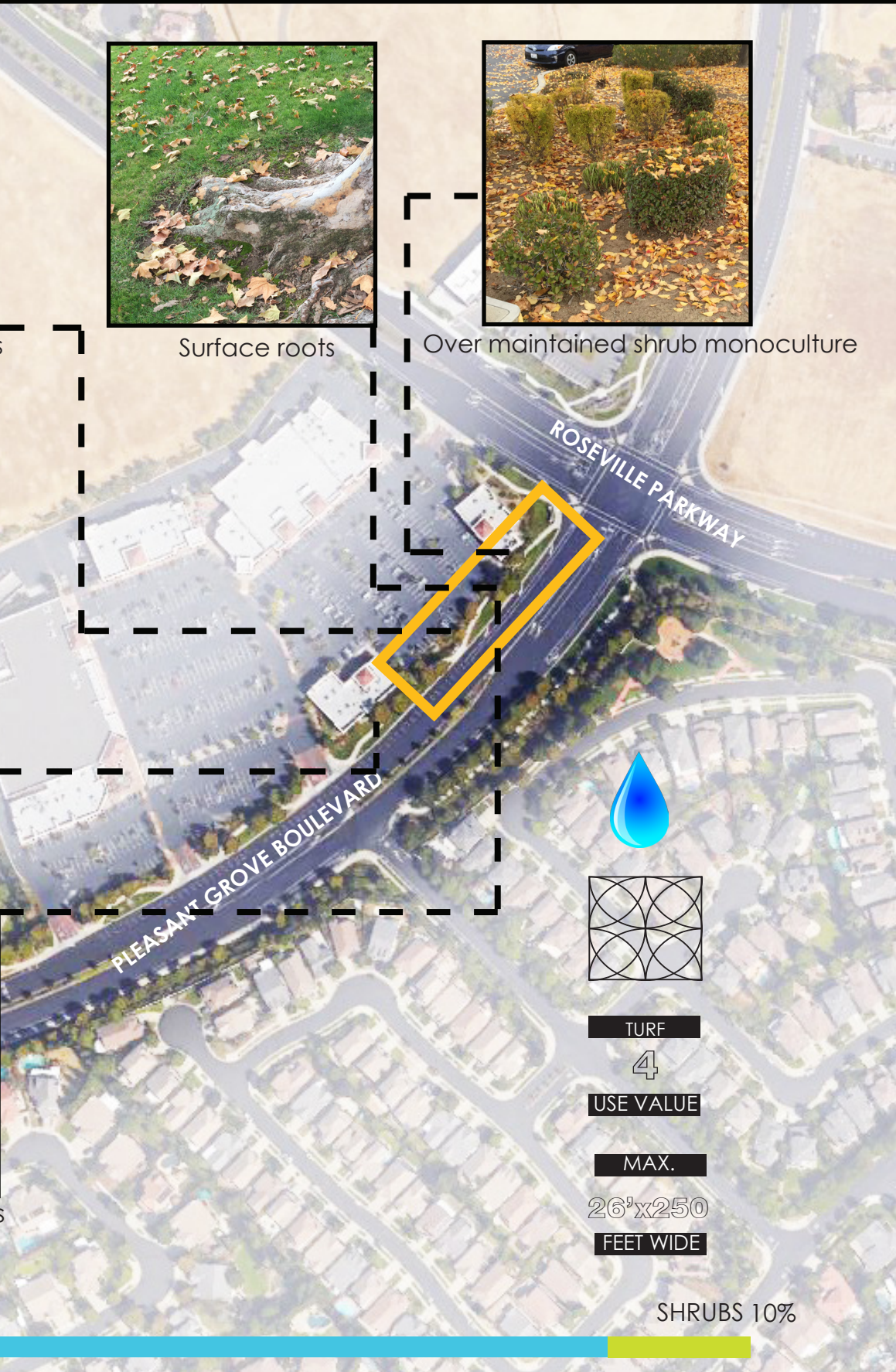
Over maintained shrub monoculture



Drought-affected turf



Over maintained plants



TURF

4

USE VALUE

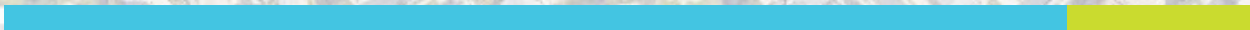
MAX.

26'x250

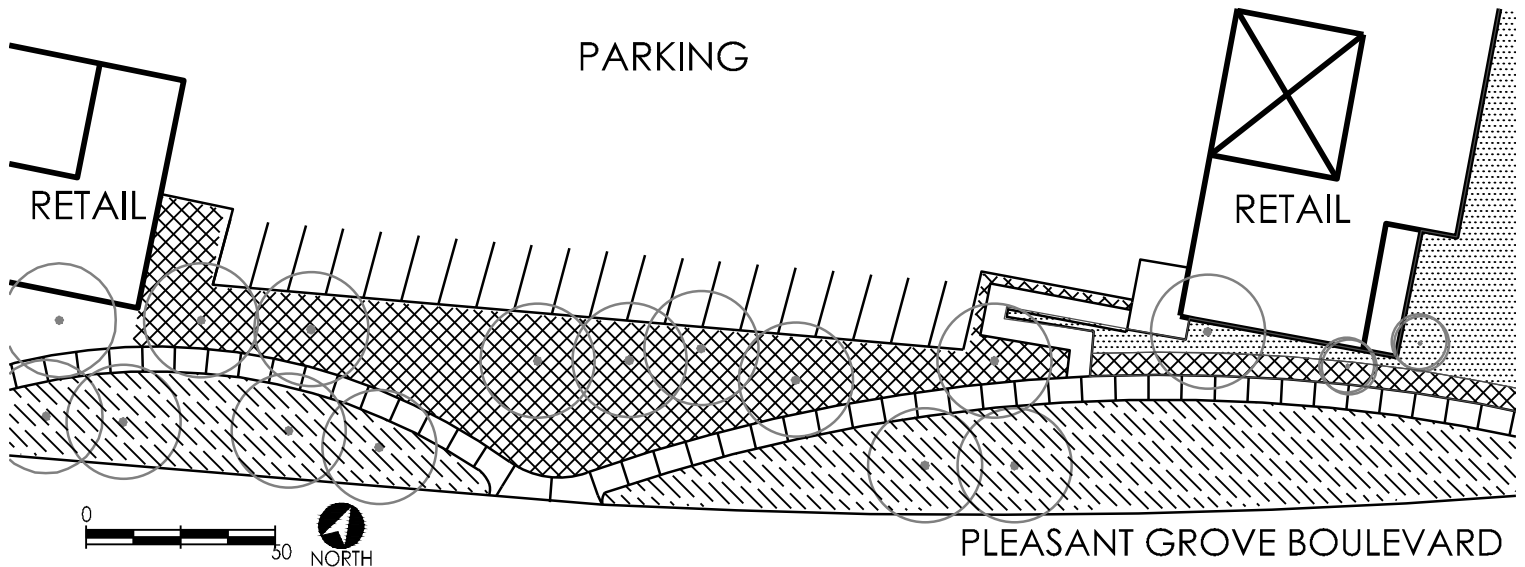
FEET WIDE

TURF 90%

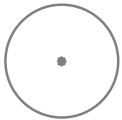
SHRUBS 10%



PLEASANT GROVE BOULEVARD PRECEDENT STUDY



CONCEPT PLANT SCHEDULE



EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



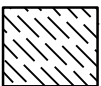
EXISTING ACCENT TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



EXISTING LANDSCAPE TO REMAIN AND PROTECT

FIELD VERIFY SIZE AND LOCATION



6"-1'

LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
 RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)
 VINCA MINOR / COMMON PERIWINKLE - (SHADE)

1 GAL	LOW
1 GAL	LOW
1 GAL	LOW



1'-3'

CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
 GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
 GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
 WESTRINGIA FRUTICOSA 'WYNABBIE GEM' / WYNABBIE GEM COAST ROSEMARY

5 GAL	LOW
5 GAL	LOW
5 GAL	LOW
5 GAL	LOW

NOTES

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EAST ROSEVILLE PARKWAY NORTH OF DOUGLAS BOULEVARD



TURF

4

USE VALUE

MAX.

23'x210'

FEET WIDE



Relatively narrow parkway strips



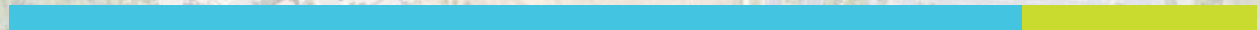
Slopes exceed 3:1



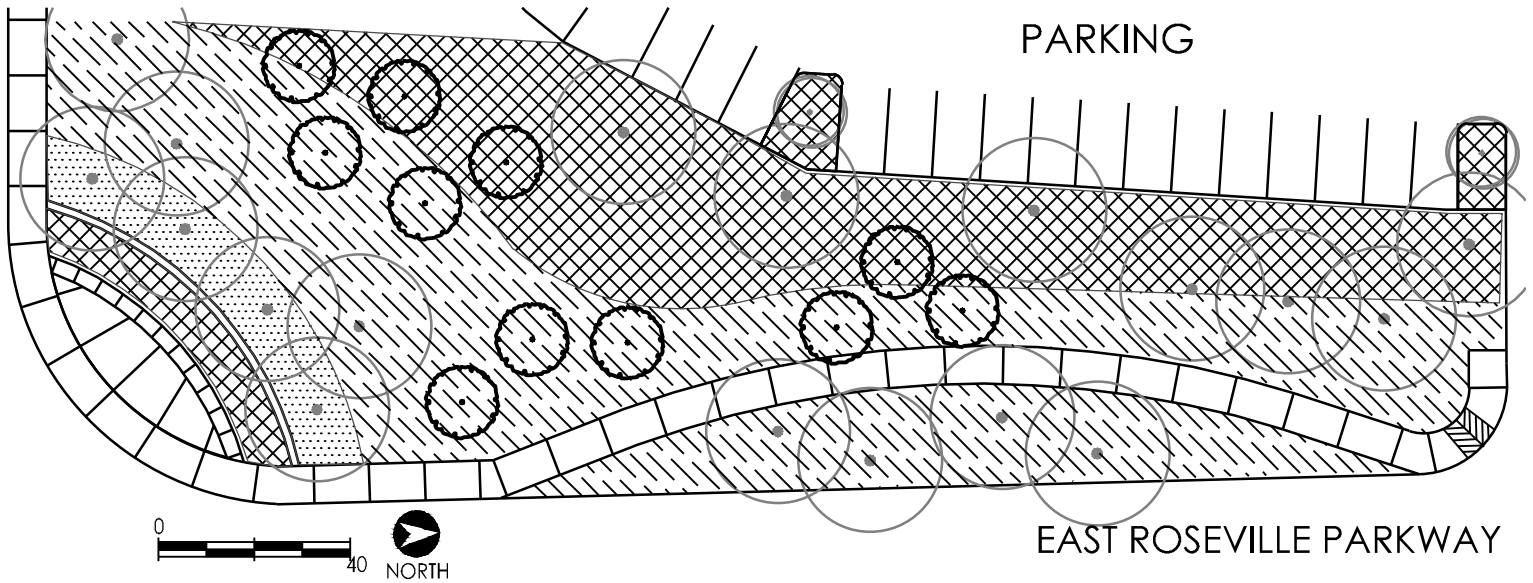
Refurbishment with limited success

TURF 85%

SHRUBS 15%



EAST ROSEVILLE PARKWAY NORTH PRECEDENT STUDY



CONCEPT PLANT SCHEDULE



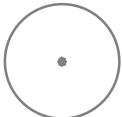
ACCENT TREES

LAURUS NOBILIS / SWEET BAY

OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE

15 GAL LOW

15 GAL LOW



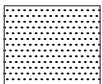
EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



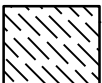
EXISTING ACCENT TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



EXISTING LANDSCAPE TO REMAIN AND PROTECT

FIELD VERIFY SIZE AND LOCATION



6'-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW

CONVOLVULUS SABATIUS / GROUND MORNING GLORY

LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE

1 GAL LOW

1 GAL LOW

1 GAL LOW



1'-3'

RIBES VIBURNIFOLIUM / EVERGREEN CURRANT

ROSA X 'FLOWER CARPET CORAL' / ROSE

SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON

WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL LOW

5 GAL LOW

5 GAL LOW

5 GAL LOW

NOTES

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EUREKA ROAD (SOUTH)



TURF

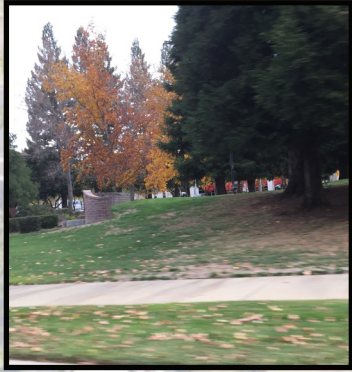
5

USE VALUE

MAX.

15'x175'

FEET WIDE



Slopes exceed 3:1



Broad swaths of turf



Over maintained shrubs



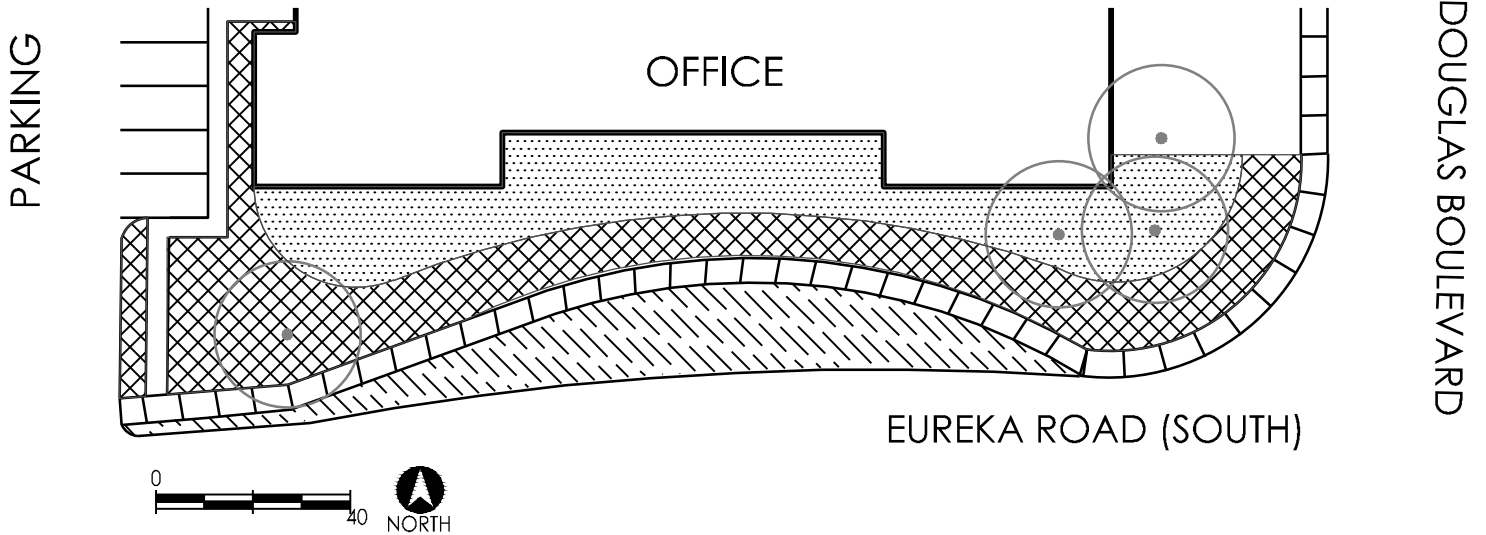
Canopy trees abound

TURF 75%

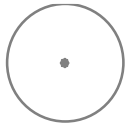
SHRUBS 25%



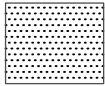
EUREKA ROAD (SOUTH) PRECEDENT STUDY



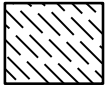
CONCEPT PLANT SCHEDULE



EXISTING TREES
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION

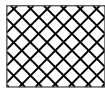


EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



6'-1'
ACACIA REDOLENS 'DESERT CARPET'™ / BANK CATCLAW
LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE

1 GAL LOW
1 GAL LOW



1'-3'
CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
RIBES VIBURNIFOLIUM / EVERGREEN CURRANT

5 GAL LOW
5 GAL LOW
5 GAL LOW
5 GAL LOW

NOTES

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EUREKA ROAD NORTH OF DOUGLAS BOULEVARD



Turf parkway



Un-used lawn



Shrubs maintained in un-natural forms



Successful slope groundcover planting



Struggling turf in parkway



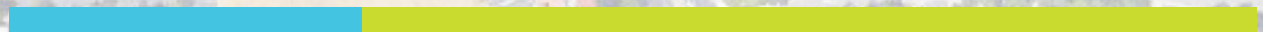
Overmaintained shrubs



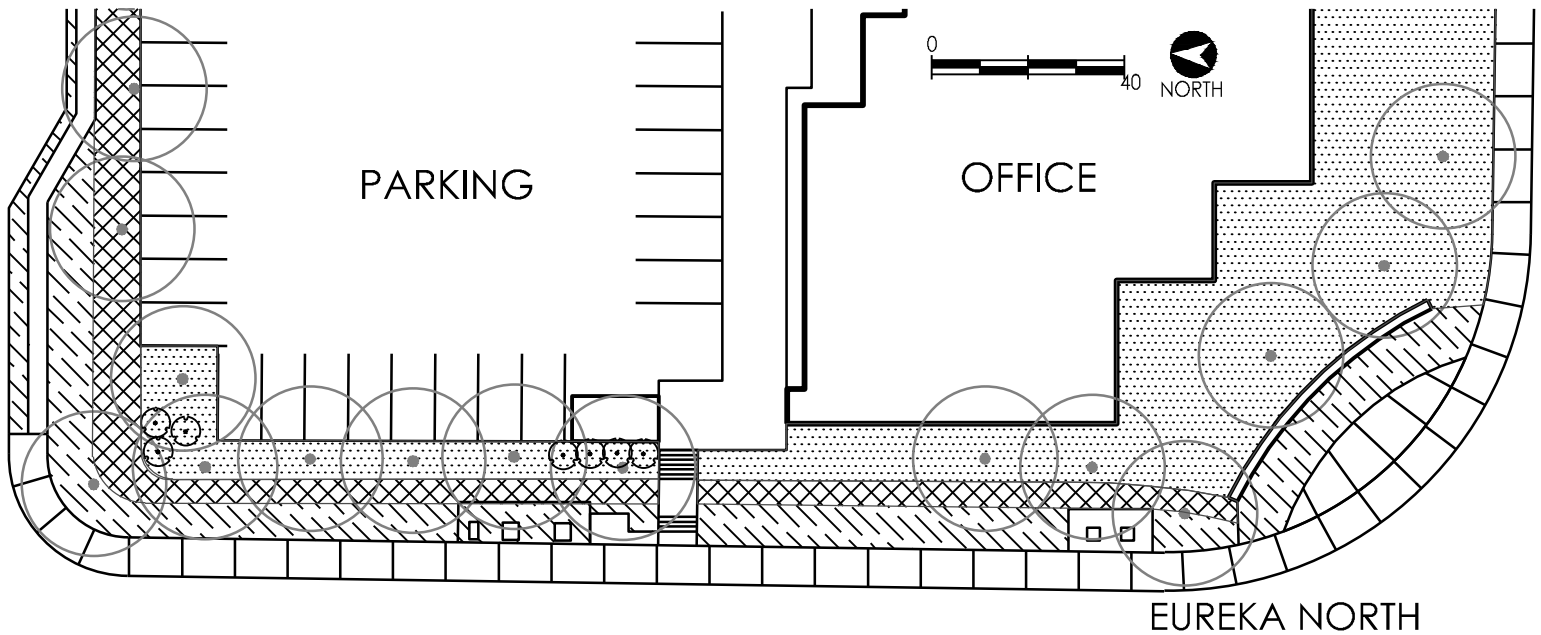
TURF	MAX.
4	12'x55'
USE VALUE	FEET WIDE

TURF 25%

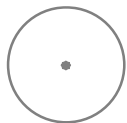
SHRUBS 75%



EUREKA ROAD NORTH PRECEDENT STUDY



CONCEPT PLANT SCHEDULE



EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



EXISTING ACCENT TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



8'-15'

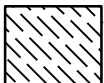
ARCTOSTAPHYLOS DENSIFLORA 'SENTINEL' / MANZANITA
 RHAMNUS ALATERNUS 'JOHN EDWARDS' / ITALIAN BUCKTHORN
 RHAMNUS ALATERNUS 'VARIEGATA' / ITALIAN BUCKTHORN
 ROMNEYA COULTERI / MATILIJ POPPY
 SPIRAEA PRUNIFOLIA 'BRIDALWREATH' / BRIDAL WREATH SPIREA

5 GAL	LOW
5 GAL	LOW
5 GAL	LOW
5 GAL	LOW
5 GAL	LOW



EXISTING LANDSCAPE TO REMAIN AND PROTECT

FIELD VERIFY SIZE AND LOCAION



6'-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
 CONVULVULUS SABATIUS / GROUND MORNING GLORY
 LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
 RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)

1 GAL	LOW
1 GAL	LOW
1 GAL	LOW
1 GAL	LOW



1'-3'

CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
 GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
 GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
 SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
 WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL	LOW
5 GAL	LOW
5 GAL	LOW
5 GAL	LOW
5 GAL	LOW

NOTES

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SIERRA COLLEGE BOULEVARD (NORTH)



Slope groundcover planting



Redwood trees require much water to survive



Slope planting should be allowed to cascade and obscure walls



Drought stressed turf



Sparse erosion control planting

TURF 70%

SIERRA COLLEGE BOULEVARD

DOUGLAS BOULEVARD



TURF

MAX.

5

15'x280'

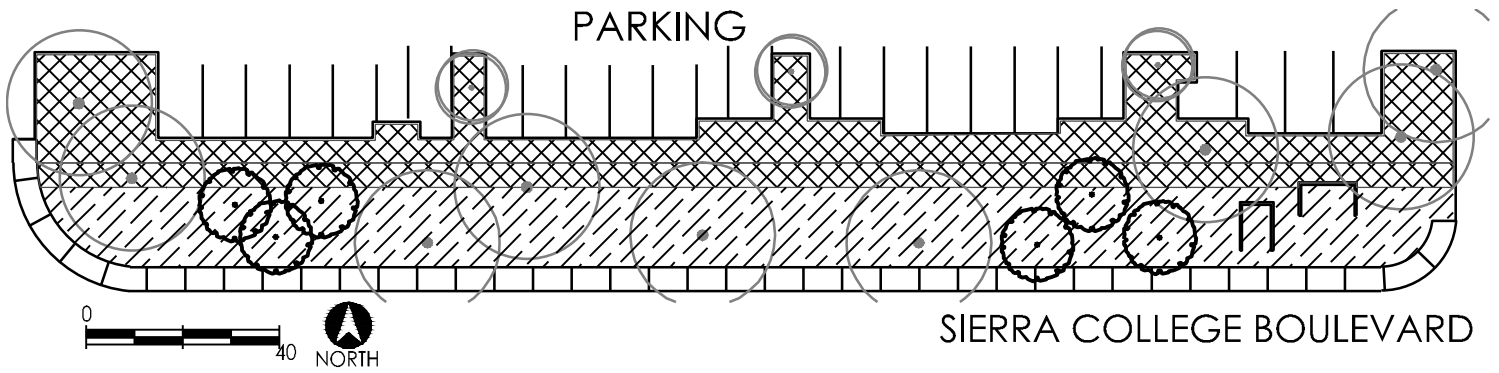
USE VALUE

FEET WIDE

SHRUBS 30%



SIERRA COLLEGE BOULEVARD (NORTH) PRECEDENT STUDY



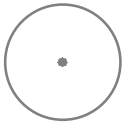
CONCEPT PLANT SCHEDULE



ACCENT TREES

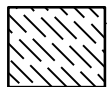
OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE
 PRUNUS ILICIFOLIA LYONII / CATALINA CHERRY

15 GAL LOW
 15 GAL LOW



EXISTING TREES

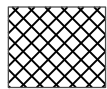
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



6'-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
 LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE

1 GAL LOW
 1 GAL LOW



1'-3'

CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
 GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
 SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
 WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL LOW
 5 GAL LOW
 5 GAL LOW
 5 GAL LOW

NOTES

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DOUGLAS BOULEVARD EAST OF 80



TURF
3
USE VALUE

MAX.
12'x300'
FEET WIDE



Wrong sized plant species



No vehicle screening



Slopes exceed 3:1

DOUGLAS BOULEVARD

180

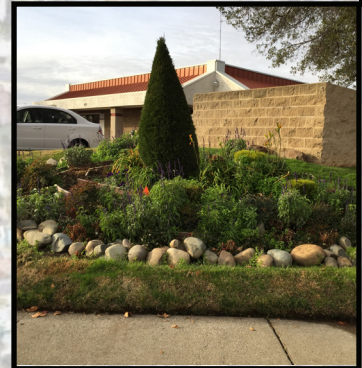
SIERRA GARDENS



TURF 90%

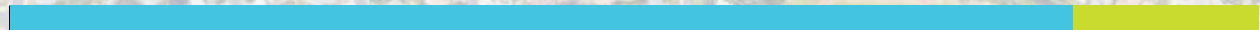


No vehicle screening
by shrubs

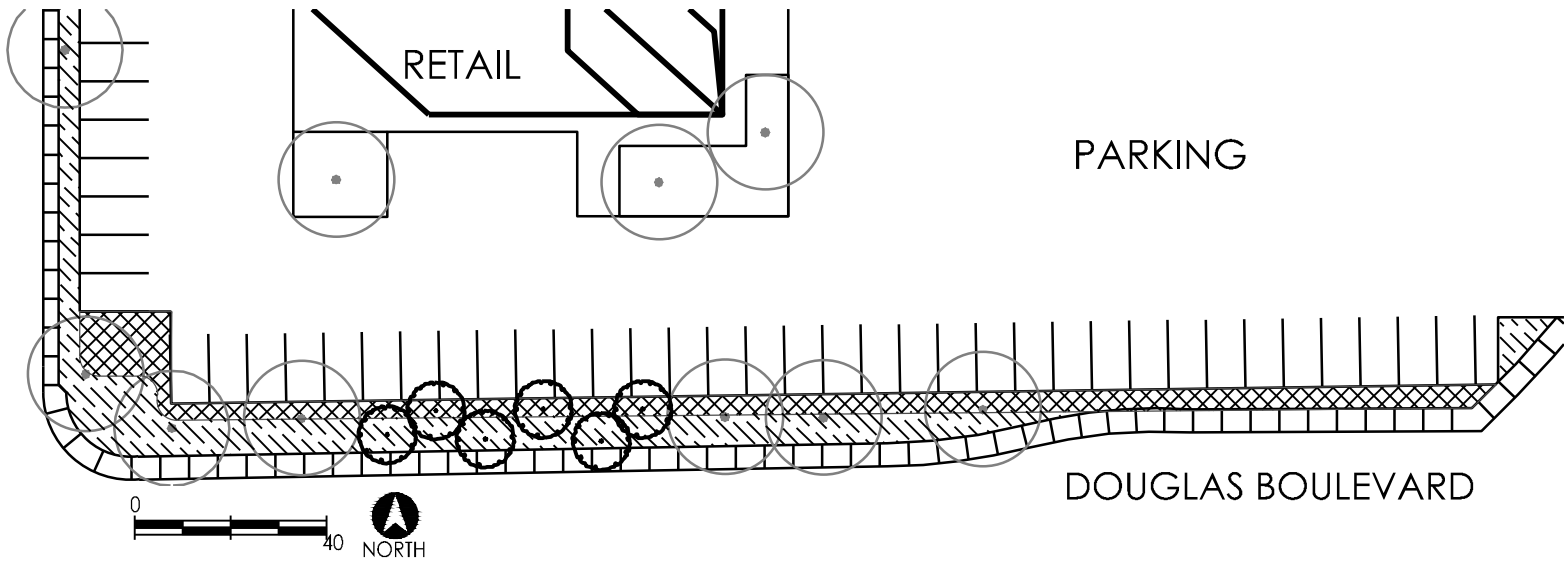


Contrived planting installations

SHRUBS 10%



DOUGLAS BOULEVARD EAST OF 80 PRECEDENT STUDY



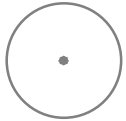
CONCEPT PLANT SCHEDULE



ACCENT TREES

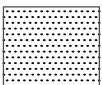
ARBUTUS X 'MARINA' / ARBUTUS MULTI-TRUNK
OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE

15 GAL LOW
15 GAL LOW

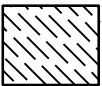


EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



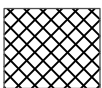
EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



6"-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)

1 GAL LOW
1 GAL LOW
1 GAL LOW



1'-3'

ROSA X 'FLOWER CARPET CORAL' / ROSE
SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL LOW
5 GAL LOW
5 GAL LOW

NOTES

1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

DOUGLAS BOULEVARD EAST OF SIERRA GARDENS



Vast swaths of unusable turf



Native oak



Slopes exceed 3:1

SIERRA GARDENS



DOUGLAS BOULEVARD

EUREKA ROAD



Failed subsurface drip irrigation



Heavy evidence of runoff



Landscape gesture



TURF
4
USE VALUE

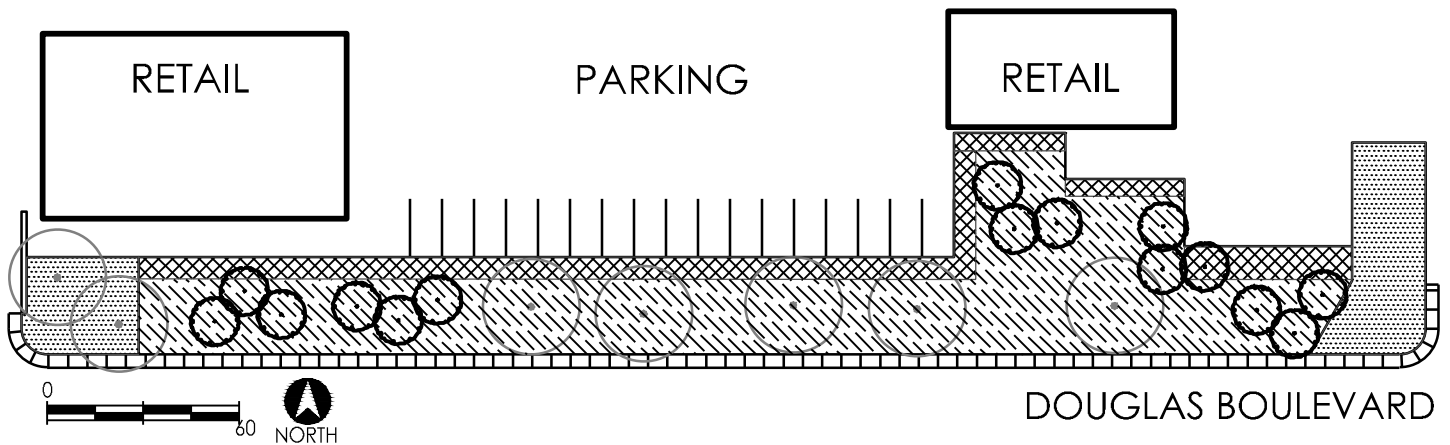
MAX.
30'x330'
FEET WIDE

TURF 70%

SHRUBS 30%



DOUGLAS BOULEVARD EAST OF SIERRA GARDENS PRECEDENT



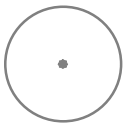
CONCEPT PLANT SCHEDULE



ACCENT TREES

ARBUTUS X 'MARINA' / ARBUTUS MULTI-TRUNK
OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE

15 GAL LOW
15 GAL LOW

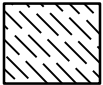


EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



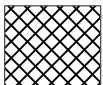
EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



6'-1'

ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)

1 GAL LOW
1 GAL LOW
1 GAL LOW



1'-3'

ROSA X 'FLOWER CARPET CORAL' / ROSE
SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL LOW
5 GAL LOW
5 GAL LOW

NOTES

1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

DOUGLAS BOULEVARD EAST OF EUREKA ROAD



Inaccessible turf



Over pruned shrubs and groundcover



Failed groundcover planting

EUREKA ROAD

DOUGLAS BOULEVARD

EASTROSEVILLE PARKWAY



Failed groundcover planting



Over maintained shrubs in un-natural forms



Slopes exceed 3:1

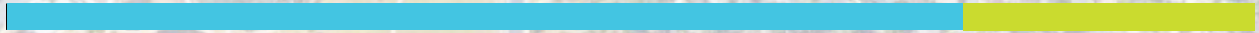


TURF
4
USE VALUE

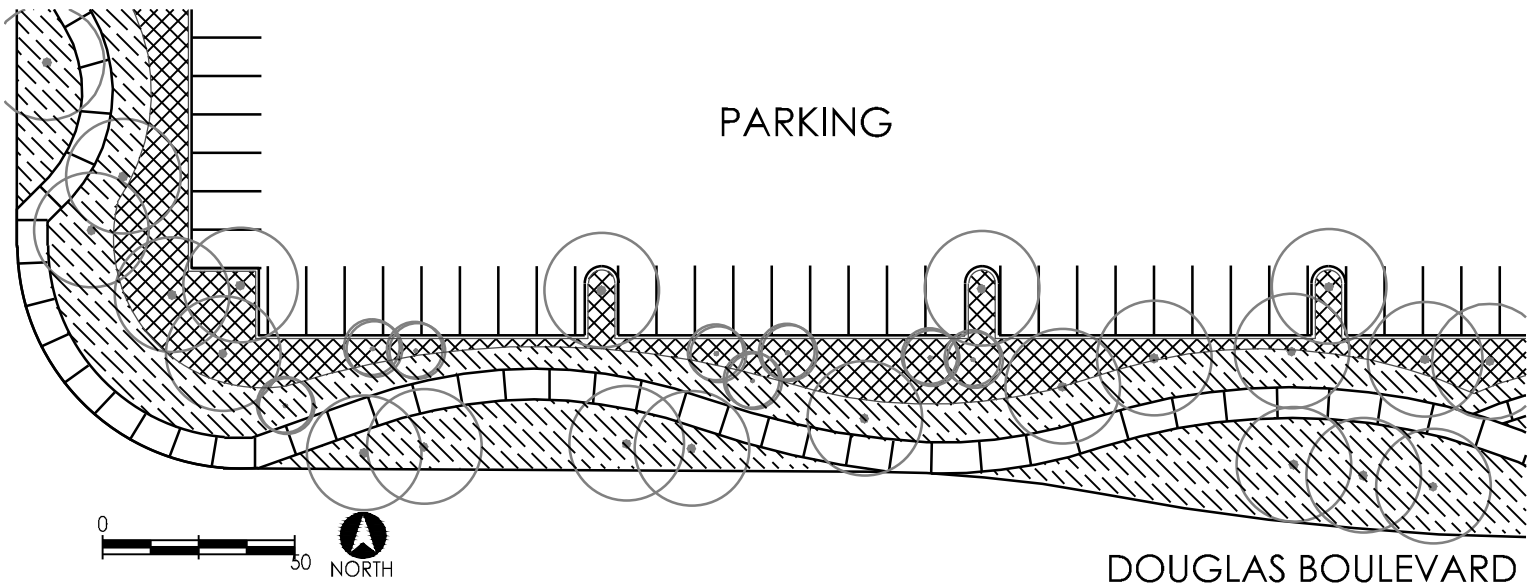
MAX.
23'x600'
FEET WIDE

TURF 80%

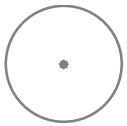
SHRUBS 20%



DOUGLAS BOULEVARD EAST OF EUREKA PRECEDENT STUDY



CONCEPT PLANT SCHEDULE



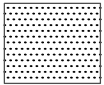
EXISTING TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



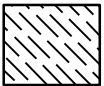
EXISTING ACCENT TREES

FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



EXISTING LANDSCAPE TO REMAIN AND PROTECT

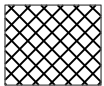
FIELD VERIFY SIZE AND LOCATION



6'-1'

ACACIA REDOLENS 'DESERT CARPET'™ / BANK CATCLAW
 LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
 RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)

1 GAL	LOW
1 GAL	LOW
1 GAL	LOW



1'-3'

ROSA X 'FLOWER CARPET CORAL' / ROSE
 SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
 WESTRINGIA FRUTICOSA 'MUNDI'™ / LOW COAST ROSEMARY

5 GAL	LOW
5 GAL	LOW
5 GAL	LOW

NOTES

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2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

DOUGLAS BOULEVARD EAST OF EAST ROSEVILLE PARKWAY



TURF
4
USE VALUE

MAX.
17'x475'
FEET WIDE



Over pruned shrubs and failed groundcover



Slopes exceed 3:1



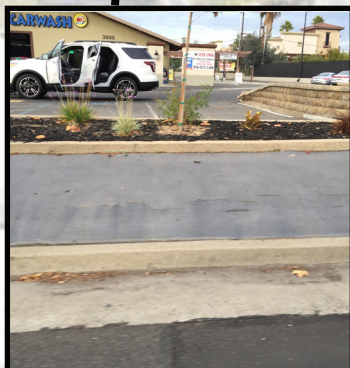
EAST ROSEVILLE PARKWAY

SIERRA COLLEGE BOULEVARD

DOUGLAS BOULEVARD



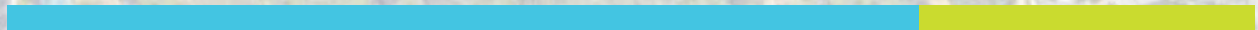
Inaccessible turf



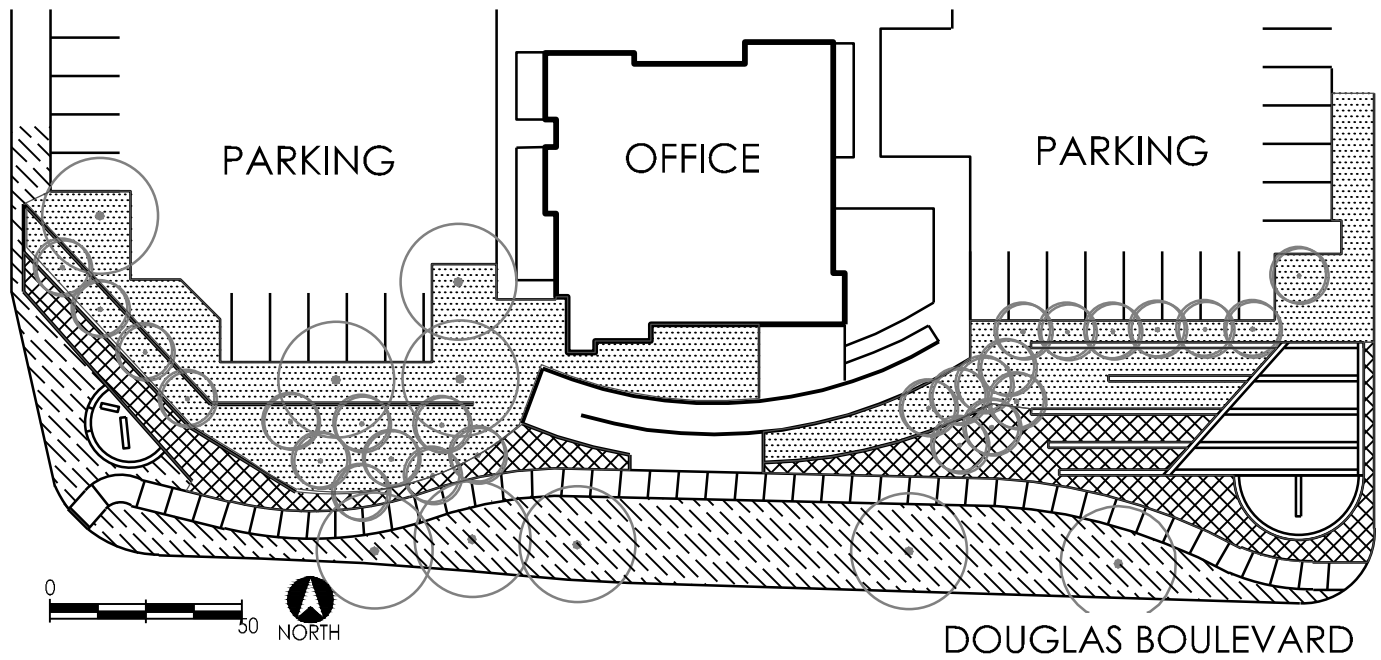
No shrub buffer for vehicles

TURF 75%

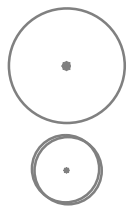
SHRUBS 25%



DOUGLAS BOULEVARD PRECEDENT STUDY

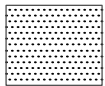


CONCEPT PLANT SCHEDULE

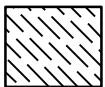


EXISTING TREES
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION

EXISTING ACCENT TREES
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION

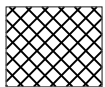


EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



6'-1'
ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW
LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE
RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)

1 GAL	LOW
1 GAL	LOW
1 GAL	LOW



1'-3'
ROSA X 'FLOWER CARPET CORAL' / ROSE
SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

5 GAL	LOW
5 GAL	LOW
5 GAL	LOW

NOTES

1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

BLUE OAKS BOULEVARD @ FOOTHILLS BOULEVARD



Over maintained shrubs and failed groundcover



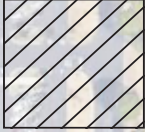
Short lived poplar trees



BLUE OAKS BOULEVARD



Inefficient pop-up impact spray head



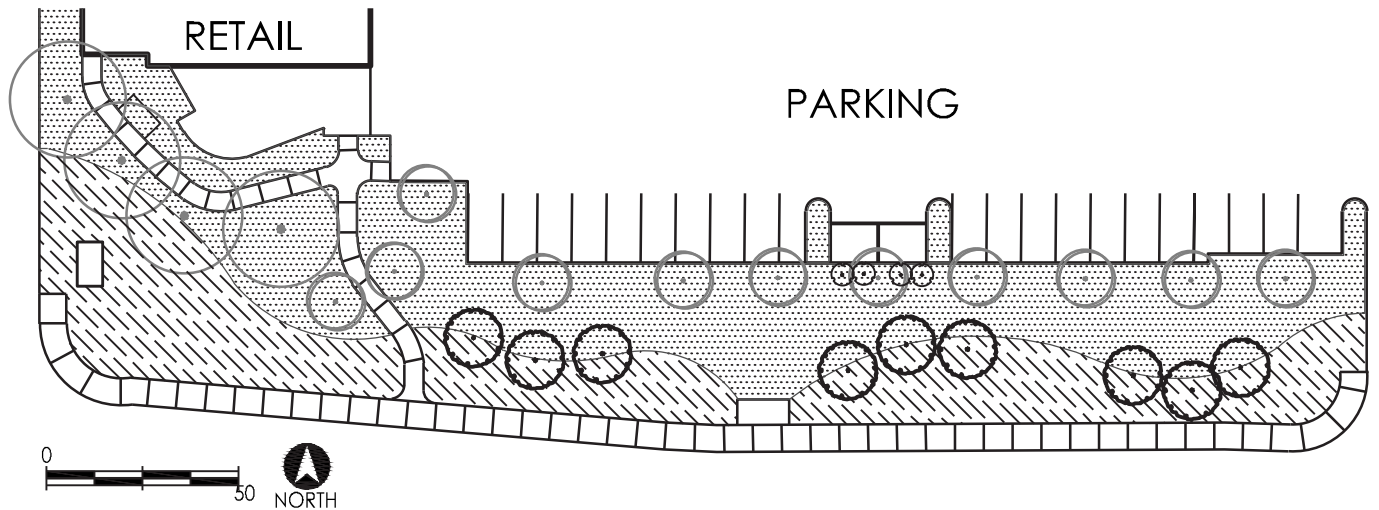
TURF
5
USE VALUE

MAX.
20'x212'
FEET WIDE

TURF 80%

SHRUBS 20%

BLUE OAKS BOULEVARD PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

BLUE OAKS BOULEVARD

	<p><u>ACCENT TREES</u> MAGNOLIA STELLATA / STAR MAGNOLIA MULTI-TRUNK OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE</p>	<p>15 GAL LOW 15 GAL LOW</p>
	<p><u>EXISTING TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION</p>	
	<p><u>EXISTING ACCENT TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION</p>	
	<p><u>8'-15'</u> ARCTOSTAPHYLOS DENSIFLORA 'SENTINEL' / MANZANITA RHAMNUS ALATERNUS 'JOHN EDWARDS' / ITALIAN BUCKTHORN RHAMNUS ALATERNUS 'VARIEGATA' / ITALIAN BUCKTHORN ROMNEYA COULTERI / MATILIJJA POPPY</p>	<p>5 GAL LOW 5 GAL LOW 5 GAL LOW 5 GAL LOW</p>
	<p><u>EXISTING LANDSCAPE TO REMAIN AND PROTECT</u> FIELD VERIFY SIZE AND LOCAION</p>	
	<p><u>6"-1'</u> ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW CONVULVULUS SABATIUS / GROUND MORNING GLORY LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE</p>	<p>1 GAL LOW 1 GAL LOW 1 GAL LOW</p>

NOTES

1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

PLANT MATERIAL LIST

The following plant list has been developed to work in concert with existing landscape elements and create a reliable turf conversion program. The species selected vary in size, color, texture, seasonality and purpose. Standard and multi-trunk trees ranging in height from fifteen to thirty feet will be incorporated into already established landscapes to act as background vertical elements that will provide shade and year round visual interest to each Specific Plan area. All existing trees are to remain and be protected, however the phased removal of Poplars should be considered due to high water requirements and ever expanding root crowns (affecting maintenance and surrounding hardscape).

The other contributing factor to a successful turf conversion is soil amending and finish grading. While turf is a successful plant type in shallow, unfertile soil, fertility testing will need to occur and amendments added to assure the success of newly installed alternatives.

The selected shrubs are deciduous and evergreen. Plant materials vary in flowering time, fall color, form and size. This wider range of plant heights will allow for more opportunities for interaction at the pedestrian level and create a more interesting backdrop for motorists. The groundcovers were selected for their low growing profile, ability to reduce erosion and have lower labor requirements throughout the growing season. The large shrubs/trees were selected to add variety to already established landscape specimens. However, planting of these trees should be well thought out and root growth should also be considered. Per the Community Design Guidelines Planning and Redevelopment Department (section CC-68) the following minimum planter widths (measured inside curbs) should be provided:

- Eight feet for large canopy trees (may be reduced to five feet with deep root barriers and irrigation)
- Six to eight feet for medium to large canopy trees
- Six feet for medium to small canopy trees
- Four feet for small canopy trees

PLANT MATERIAL LIST - ACCENT TREES



Olea E. San Gabriel
(Fruitless multi-trunk)
15'x15'
Evergreen



Arbutus 'Marina' (multi)
20'x20'
Evergreen



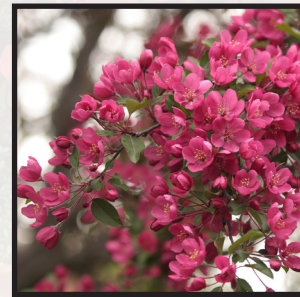
Acer r. 'October Glory'
40'x40'
Deciduous



Prunus lyonii
15'x10'
Evergreen



Laurus nobilis
15'x10'
Evergreen



Malus 'Prairiefire'
15'x10'
Deciduous



Magnolia stellata
15'x15'
Deciduous

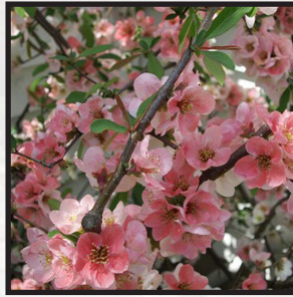
G O U
T TO
VE W



PLANT MATERIALS LIST - SHRUBS



Arctostaphylos 'Sentinel'
8'x8'
Evergreen



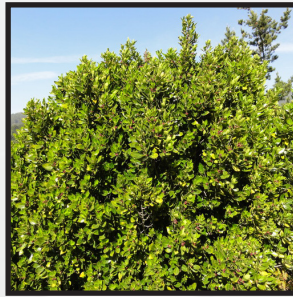
Chaenomeles x SP
7'x7'
Deciduous



Romneya coulteri
8'x8'
Deciduous



Rhamnus A. 'Varegatta'
10'x7'
Evergreen



Rhamnus A. 'John Edward'
10'x10'
Evergreen



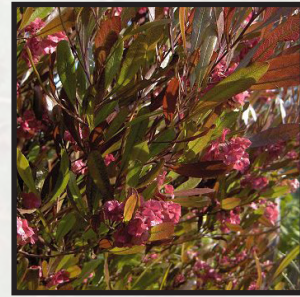
Spirea p. Bridal Wreath
10'x8'
Deciduous



Tecoma capensis
15'x15'
Evergreen



Viburnum o. 'Sterile'
10'x5'
Deciduous



Dodonaea viscosa
15'x10'
Evergreen

PLANT MATERIALS LIST - SHRUBS



Elaeocarpus decipens
'Little Emperor'
8'x8'
Evergreen



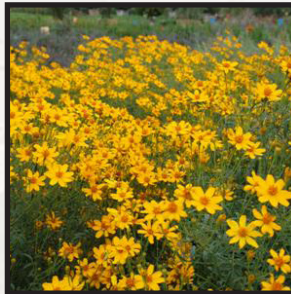
Forsythia 'New Hampshire'
5'x5'
Deciduous



Grevillia 'Superb'
5'x7'
Evergreen



Rosa 'Sally Holmes'
6'x6'
Deciduous



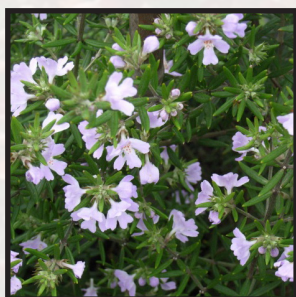
Tagetes lemonii
5'x5'
Evergreen



Teucrium fruticans
4'x4'
Evergreen



Viburnum f. 'Snowflake'
7'x7'
Deciduous

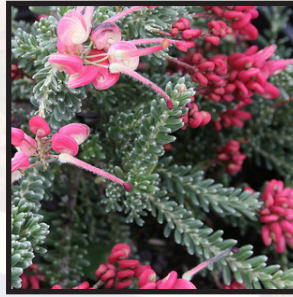


Westringia f. Wynaabbie Gem'
5'x6'
Evergreen

PLANT MATERIALS LIST - LOW SHRUBS



Cistus p. 'Sunset'
3'x5'
Evergreen



Grevillea 'Coastal Gem'
2'x4'
Evergreen



Grevillea 'Bronze Rambler'
2'x7'
Evergreen



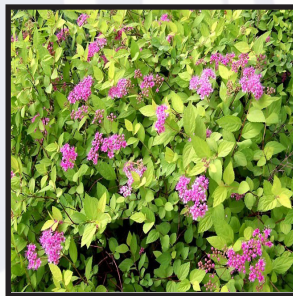
Rosa carpet
2'x4'
Deciduous



Rosa drift
2'x4'
Deciduous



Ribes viburnifolium
2'x6'
Evergreen



Spirea J. 'Gold Mound'
2'x3'
Deciduous



Westringia F. 'Mundi'
1'x4'
Evergreen



Santolina chamaecyparissus
2'x2'
Evergreen

PLANT MATERIALS LIST - GROUNDCOVER / TURF ALTERNATIVES

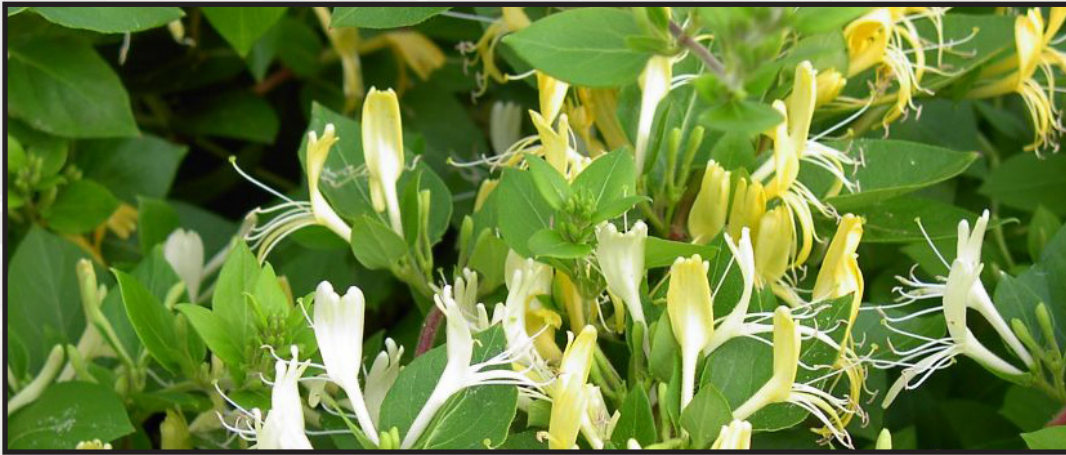


Acacia redolens 'Desert Carpet'
24"x 10' / Evergreen / 8' spacing
Desert Carpet® is a clone, trademarked by Mountain States Wholesale Nursery, which maintains a height of only 24". It has thick, leathery, grey-green phyllodes. It blooms in the spring with small yellow puffball flowers. Prostrate Acacia is adaptable to alkaline and slightly saline soils. In coastal areas it grows with little or no irrigation, however in Roseville some summer irrigation will be necessary.



Myoporum parvifolium
10"x5' / Evergreen / 3' spacing
This fast growing plant grows to 2' tall and will spread up to 10'. It has bright green leaves held close to the stem and small white flowers in summer. Plant in full sun to light shade. Irrigate occasionally once established. Hardy to at least 18-20 degrees F. It has been reported that this plant is rabbit proof. A great plant for slope erosion control.

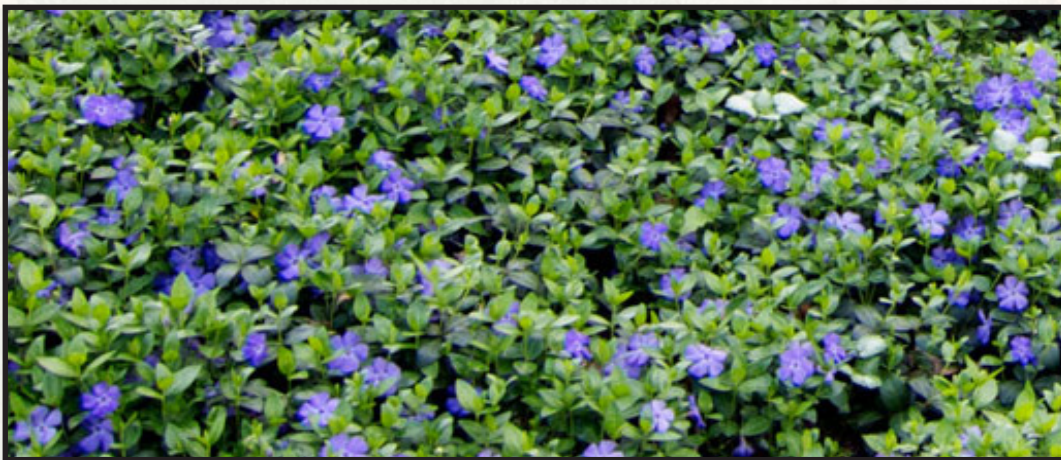
PLANT MATERIALS LIST - GROUNDCOVER / TURF ALTERNATIVES



Lonicera japonica 'Halliana'

12"x 15' / Evergreen / 10' spacing

A very vigorous vine or groundcover that will quickly cover large areas - as much as 30 feet. It benefits from pruning and thinning. Give same growing requirements as the species. It is hardy to USDA Zone 4 and noted as tolerating temperatures as low as 10F.



Vinca minor

6"x2' / Evergreen / 1' spacing

Shade loving groundcover used in hard to plant spots. Its evergreen trailing stems look good year-round. It makes a good groundcover for shrub plantings.

PLANT MATERIALS LIST - GROUNDCOVER / TURF ALTERNATIVES



Convolvulus sabatius

12"x 12" / Evergreen / 2' spacing

A trailing groundcover with a woody base and herbaceous stems that rarely reaches up to 1 foot tall and usually hugs the ground and spreads 3 feet in diameter or better with soft green rounded 1 1/2 inch long leaves. Light blue funnel-shaped flowers bloom throughout the year in areas with mild winters but blooms heaviest from spring through fall. Plant in full sun to light shade with well-drained soil and occasional water tolerates soils with alkaline conditions well and will grow in heavier clay soil so long as it drains and is not over watered.



Rubus pentalobus 'Emerald Carpet'

6"x3" / Evergreen / 2' spacing

Shade loving groundcover with small tough evergreen leaves. This low growing drought tolerant plant is a great option for slope stabilization in dry shade areas.

APPENDIX : BEST MANAGEMENT PRACTICES

As shown in the site analysis photos, all of the observed landscapes are over maintained and, in many cases, completely barren of shrubs or groundcovers because the original landscape failed and was not replaced. Recommended species have been selected for their durability and size appropriateness in commercial settings. As with groundcover selections, shrub selections should be limited so as to contribute to the consistent look envisioned by the Specific Plans.

Multiple instances of incorrect shearing were observed. Shearing as a method of size control is acceptable for certain plant material because it encourages a “high growth output” response from the plant. However, this high growth output response is not desirable when maintaining plant material that naturally grows well beyond its maintained size. The constant shearing and fast growth from plants results in more energy and water being consumed to heal and produce foliage/soft wood. The cycle of keeping a plant actively producing foliage reduces its effectiveness as a drought tolerant plant. Most drought tolerant plants limit growth activity through the hot summer months to minimize water consumption, and do not perform well if constantly sheared.

The following pages are a description of basic considerations that should be made when updating your landscape. Maintenance will vary based on size of the project area, irrigation type and design (plant material selected). All new landscape should receive a 3” layer of bark mulch to discourage weed growth, prevent erosion and improve overall soil moisture.

PRUNING: ART NOT GEOMETRY

Pruning is done to improve/maintain plant health, control growth, increase flowering, remove dead, diseased and dangerous branches. Thinning is the most commonly used method of pruning. This method allows for controlled growth without inhibiting the natural form of the plant. It also provides the opportunity to remove any dead, damaged or diseased plant material.



Thinning is done by removing a branch to its point of origin or junction. When removing to a junction the remaining branch must be $\frac{1}{3}$ of the thickness of the branch being removed.

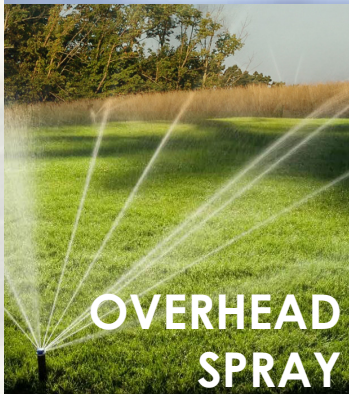


Heading is a method of pruning back branches to a twig or bud to encourage growth from lateral buds. This method of pruning is less desirable for established material and should be used on young plants and plants in need of rejuvenation.



Sheering is done to manicure plants outer foliage creating a uniform surface. This method of maintenance should only be used on plant material known to respond well to this.

IRRIGATION: DRIP, BUBBLE AND SPRAY IN THE LANDSCAPE



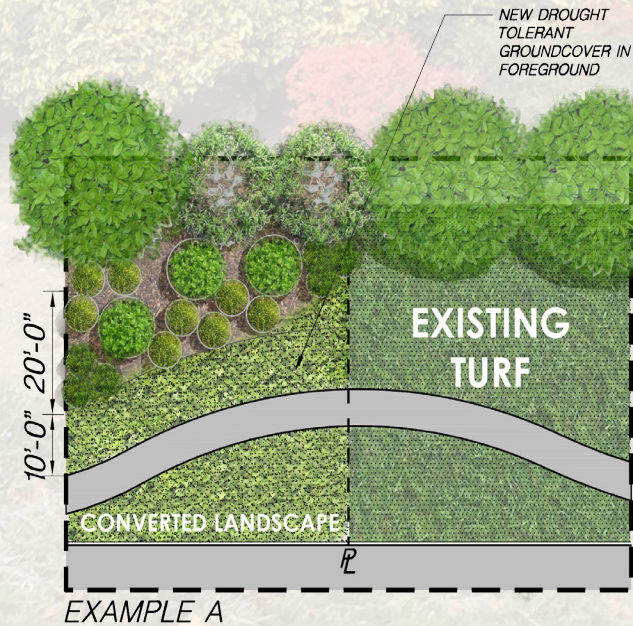
Drip irrigation is a method of administering water directly to the root zone of a plant. Drip irrigation is highly efficient and very customizable, allowing for extended watering periods that encourage greater percolation while minimizing erosion. Minimal excess water also discourages weed growth. Drip irrigation systems are made up of many required components. Be sure to refer to manufacturer's specifications or consult a licensed contractor or landscape architect.

Bubblers are emitters that irrigate a localized area with a comparably high output of water in a minimal amount of time. Bubblers are extremely versatile and can be used to irrigate all types of plants except turf. Most bubblers can also be adjusted, so that water distribution can be adapted to specific site and planting conditions.

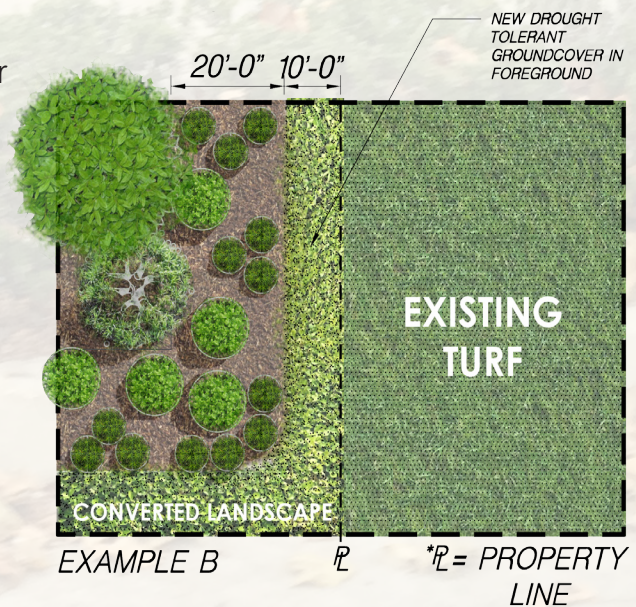
Overhead spray is the least efficient method, but the most reliable one for irrigating turf. New technologies have been developed to increase distribution and efficiency, and some products are so efficient that they have achieved the designation of 'micro-spray' and can be used in nearly all applications. The ability of these new spray heads to irrigate more efficiently has renewed interest in applying these products to new and renovated landscapes.

AHEAD OF THE CURVE: PLANTING BEFORE YOUR NEIGHBOR

The opportunity to increase the biological value of a landscape by converting turf to drought tolerant plant materials will be embraced by many, while others will take their time to convert. To the right are examples of how property owners converting landscapes can do so using simple offsets to create planting zones and smooth transitions to their neighbors. These zones can be modified to fit a specific property, planting density, and plant palette. A 10' offset from the adjacent turf area or delineation of property line will result in a groundcover zone. This zone creates a visual transition from turf to the new, converted turf landscape. The 20' wide shrub zone creates depth and allows for more than just one variety of plant to be used. Any planting in this area should be in clumps of 3-5 shrubs and planting in rows should be avoided as this would create a visual barrier to the property beyond. Outside of these two zones, accent trees should be planted outside the dripline of existing trees.



EXAMPLE A



EXAMPLE B

*P = PROPERTY LINE

