



AGENDA

September 21, 2017

DESIGN COMMITTEE MEETING

4:30 p.m.

Civic Center Meeting Rooms 1 & 2

311 Vernon Street

Roseville, California

1. ROLL CALL

2. CONSENT CALENDAR

2.1. MINUTES OF AUGUST 17, 2017

3. BOARD MEMBER / COMMISSIONER / STAFF REPORT

3.1. WATER EFFICIENT LANDSCAPE DESIGN AND STREETSCAPE PLANTING

Staff has prepared this report to aid in discussion regarding the City's adopted Water Efficient Landscape Ordinance (WELO) and streetscape plantings.
Informational item only. No action required. (Ogden)

4. ORAL COMMUNICATIONS

5. ADJOURNMENT



DESIGN COMMITTEE

Title: MINUTES OF AUGUST 17, 2017

Meeting Date: 9/21/2017
Item #: 2.1.

ATTACHMENTS:

Description

August 17, 2017 Draft Minutes



Design Committee Meeting August 17, 2017 – 4:30 p.m. Draft Minutes

I. ROLL CALL – *Silent*

Committee Members Present

Tracey Mendonsa, Chair
Michael Motroni, Vice-Chair
Daniel Wesp

Committee Members Absent

None

Staff Present

Greg Bitter, Planning Manager
Derek Ogden, Senior Planner
Gina McColl, Associate Planner
Matt Todd, Associate Engineer
Joe Mandell, Sr. Deputy City Attorney
Lupe Nelson, Recording Secretary

II. **CONSENT CALENDAR**

Chair Mendonsa asked if anyone wished to remove any of the items from the Consent Calendar for discussion. Hearing none, Chair Mendonsa asked for a motion to approve the Consent Calendar as listed below:

A. **MINUTES OF JUNE 15, 2017**

MOTION

Committee Member Motroni made the motion, which was seconded by Committee Member Wesp, to approve the Consent Calendar item as submitted.

The motion passed with the following vote:

Ayes: Motroni, Wesp

Noes: None

Abstain: Mendonsa

III. **NEW BUSINESS**

A. **INFILL PCL 229 – DUTCH BROTHERS COFFEE KIOSK – 715 SUNRISE AVE. – FILE # PL17-0101**

Associate Planner, Gina McColl, presented the staff report and responded to questions.

Chair Mendonsa opened the public hearing and invited comments from the applicant and/or audience.

Applicant, Brian Place, Place Industries, Inc., addressed the Committee and responded to questions. He stated he had received a copy of the staff report and was in agreement with staff's recommendations.

Public Comment:

- None

Committee Discussion:

- Good location.
- Approve of the queuing and double stacking of vehicles
- Nice to have an aesthetic pleasing project on this site.

Chair Mendonsa closed the public hearing and asked for a motion.

MOTION

Committee Member Motroni made the motion, which was seconded by Committee Member Wesp, to adopt the four (4) findings of fact for the Design Review Permit and approve the Design Review Permit subject to the seventy-six (76) conditions of approval.

The motion passed with the following vote:

Ayes: Motroni, Wesp, Mendonsa

Noes: None

Abstain: None

IV. REPORTS: COMMISSION/STAFF

Commission Reports

- None

Staff Reports

- The Water Efficient Landscape Design and Streetscape Planting report will be heard at the September Design Committee meeting as Parks and Recreation staff were unable to attend this meeting.

V. ORAL COMMUNICATION

Chair Mendonsa opened the Oral Communication. Hearing none, Chair Mendonsa closed the Oral Communication.

VI. ADJOURNMENT

Chair Mendonsa asked for a motion to adjourn the meeting.

MOTION

Committee Member Wesp made the motion, which was seconded by Committee Member Motroni, to adjourn the meeting.

The motion passed unanimously at 4:43 p.m.



DESIGN COMMITTEE

Title:

WATER EFFICIENT LANDSCAPE DESIGN AND STREETSCAPE
PLANTING

Meeting Date: 9/21/2017

Item #: 3.1.

ATTACHMENTS:

Description

Staff Report

Attachments

**ITEM III-A: REPORT FROM STAFF – WATER EFFICIENT LANDSCAPE DESIGN AND
STREETSCAPE PLANTING**

REQUEST

Staff has prepared this report as background information for the Committee to aid in a discussion regarding the City's adopted Water Efficient Landscape Ordinance (WELO) and streetscape plantings. The Commission has expressed some concern in recent Design Committee Meetings regarding the direction of streetscape plantings. The Committee has expressed a desire to explore the feasibility of maintaining turf areas within streetscape plantings.

BACKGROUND

The drought that spanned water years 2012 through 2016 included the driest four-year statewide precipitation on record (2012-2015) and the smallest Sierra-Cascades snowpack on record (2015, with 5 percent of average). It was marked by extraordinary heat: 2014, 2015 and 2016 were California's first, second and third warmest year in terms of statewide average temperatures. (Drought in California, n.d.) In response to these drought conditions the state took many aggressive steps to conserving water including implementing more water efficient landscaping requirements.

The current Water Efficient Landscape Ordinance (WELO) was adopted by the Council in March of 2016, and reflects changing legislative requirements from the State to aid in water conservation efforts. The ordinance addresses the objectives of the California Department of Water Resources (DWR) model ordinance by incorporating stricter water conservation measures than previous versions. These stricter requirements are listed below.

More efficient irrigation systems

- Dedicated landscape water meters or sub-meters are required for residential landscapes over 5000 sq. ft. and non-residential landscapes over 1000 sq. ft.
- Irrigation systems are required to have pressure regulators and master shut-off valves.
- All irrigation emission devices must meet the national standard stated in the MWELO to ensure that only high efficiency sprinklers are installed.
- Flow sensors that detect and report high flow conditions due to broken pipes and/or popped sprinkler heads are required for landscape areas greater than 5000 sq. ft.
- The minimum width of areas that can be irrigated with overhead spray was changed from 8 feet to 10 feet; areas less than 10 feet wide must be irrigated with subsurface drip or other technology that produces no over spray or runoff.
- Audits are required on 15% of the landscape irrigation stations installed. This equates to about 1 in every 7 homes for new subdivisions within the City.

Limiting the use of high water requiring plants

- The maximum amount of water that can be applied in landscapes was reduced for both residential and non-residential projects. This water allowance reduces the landscape area that can be planted with high water use plants such as cool season turf.

- In non-residential landscapes, planting with high water use plants would not comply with the new ordinance. However, extra water allowance is made for landscapes irrigated with recycled water, as was the case in the previous ordinance.
- Median strips cannot be landscaped with high water use plants, precluding the use of cool season turf. Also because of the requirement to irrigate areas less than ten feet wide with subsurface irrigation or other means that produces no runoff or overspray, the use of cool season turf in parkways will be limited and difficult to maintain.

Reporting requirements

- Reporting for all agencies is due to the DWR by January 31st of each year.

Applicability

The City's Water Efficient Landscape Ordinance applies to the following landscape projects:

- New Construction and Rehabilitated projects requiring a building permit, plan check, or Design Review Permit.
- Developer or Home-Owner provided landscaping less than 2,500 square feet (of planting area) in single-family residential projects (attached or detached) that require a building permit, plan check or Design Review Permit may comply with the prescriptive measures including the following:
 - o Incorporate compost within the soil;
 - o Install climate adapted plants;
 - o Install a minimum of three inch layer of mulch;
 - o Turf shall not comprise greater than 25 percent of the planting area;
 - o The irrigation system shall be operated by an automatic controller and must use either evapotranspiration or soil moisture data and a rain sensor. The controller must also be programmable to eight stations;
 - o Landscape areas less than 10 feet in width shall utilize subsurface irrigation or other water-efficient irrigation technology;
 - o An irrigation schedule shall be provided to the new homeowner; and
 - o Audits shall be provided on 1 in 7 lots or 15% of valves within a landscape.

PROJECT LANDSCAPE DESIGN

When City Staff is reviewing landscape design several considerations must be taken into account. These include but are not limited to:

- Environmental conditions – soil type, drainage, sun exposure
- Plant palettes contained in the City's Specific Plans;
- The City's Community Design Guidelines (CDG);
- WELO requirements;
- Coordination with adjacent projects; and
- Landscape maintenance requirements.

These requirements are balanced during the City's development review process and various City Departments provide input on landscape plans. These reviews usually include the Parks, Recreation & Libraries Department and Environmental Utilities – Water Conservation Division. Typically, landscape design is reviewed during design review for commercial projects or at the improvement plan stage for new residential subdivision maps. The City reviews both commercial and residential projects against any applicable design guidelines contained in the City's CDG or applicable specific plan documents to ensure consistency. In addition, the project designer must ensure their design is water efficient in terms of both plant selection and

irrigation design. As was mentioned above, these requirements have become much more stringent in recent years and have forced landscape designers to look for alternatives to installing turf in many applications.

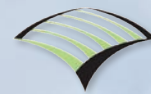
RESPONSE TO REQUEST TO CONVERT TURF AREAS

In many areas of the City, turf has been used as a main planting feature of the streetscape. Due to the drought restrictions that were put into place in recent dry summer seasons, many of these turf areas could not survive the hot summer months. As a result, property owners have requested City Staff review plans to convert their high water using turf areas into more drought tolerant planting types. The conversion of landscape in a random fashion has caused concern for Planning Staff. The concern was that a parcel by parcel conversion of the landscape along street frontages would create a random patchwork and the City would lose the aesthetic qualities of these landscape corridors. This is especially important given the City's large investment into the specific plan process and coordinated streetscapes that have been installed as a result.

In response to numerous requests over the past several years to convert turf areas, City Staff worked with a consultant to formulate a coordinated approach to responding to these requests. City Staff solicited bids and accepted a proposal from Wood Rodgers to develop a set of reference materials and coordinated planting palettes for many of the City's arterial roadways. These materials are attached to this Staff report (Attachment 1). In short, the plans that were developed replace turf areas with more water efficient plant and tree species and address irrigation design as well. The materials discuss how to effectively transition between turf plantings and more water efficient plantings. This is done to avoid the random patchwork City Staff has tried to avoid. Staff has been utilizing these materials to help guide the conversion of turf areas and create a consistent streetscape appearance.

Attachment

1. Roseville Commercial Turf Conversion



WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

Douglas Blvd



JULY 2016

Roseville Commercial Turf Conversion

PROJECT STAFF AND CONTACT

Prepared by Wood Rodgers, Inc.

John Nicolaus, FASLA
California Landscape Architect NO. 3266
916.503.5094

Robert Campos, Landscape Designer
916.503.5096

3301 C Street, Suite 100 B
Sacramento, California 95816

CITY OF ROSEVILLE STAFF ACKNOWLEDGMENTS

John Shannon
Water Efficiency Specialis

Tara Gee
Park Planning & Development Superintendent

Greg Bitter
Planning Manager

Derek Ogden
Senior Planner

Lauren Hocker
Associate Planner

Bobby Alvarez
Water Conservation Administrator

Dion Louthan
Parks, Recreation & Libraries Director

Dominick Casey
Assistant City Manager

Rob Jensen
City Manager

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).

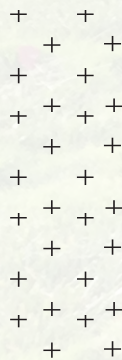
Turf conversion should be approached with the notion that other areas of a particular landscape can be renovated with plant species that don't require constant maintenance such as pruning and fertilizing, and that can thrive in Roseville's generally rocky soil conditions.

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



OVERHEAD



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.



POTABLE



-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

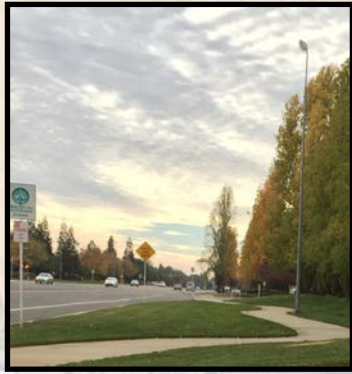
TURF:70% (example)

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.

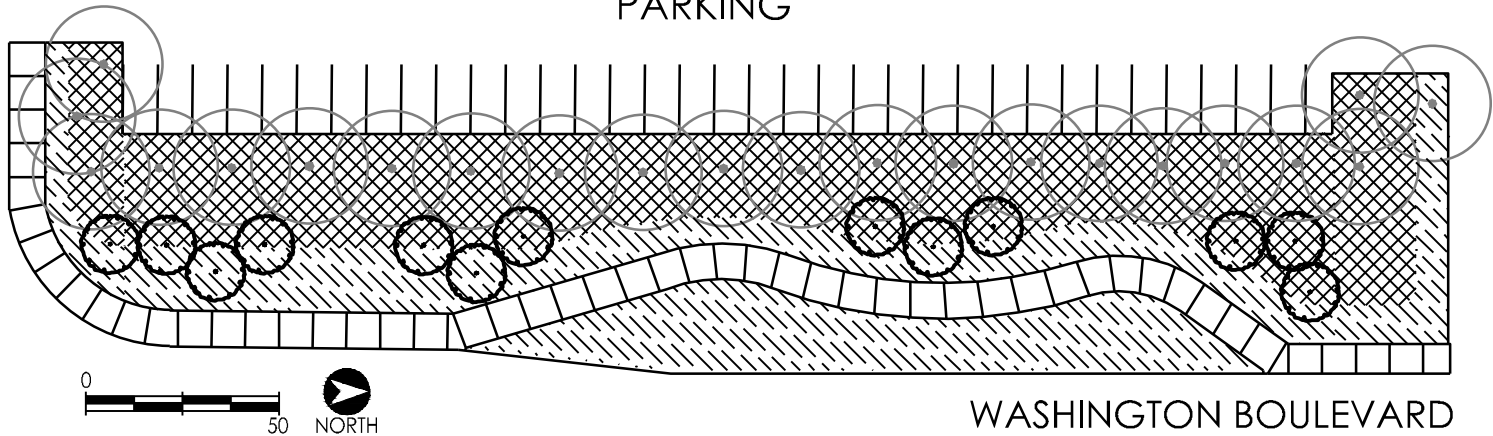
25'x290'

FEET WIDE

SHRUBS 10%

WASHINGTON BOULEVARD PRECEDENT STUDY

PARKING



CONCEPT PLANT SCHEDULE

	<u>ACCENT TREES</u> ARBUTUS X "MARINA" / ARBUTUS MULTI-TRUNK PRUNUS ILICIFOLIA LYONII / CATALINA CHERRY	15 GAL 15 GAL	LOW LOW
	<u>EXISTING TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>6'-1'</u> ACACIA REDOLENS "DESERT CARPET" TM / BANK CATCLAW CONVOLVULUS SABATIUS / GROUND MORNING GLORY	1 GAL 1 GAL	LOW LOW
	<u>1'-3'</u> RIBES VIBURNIFOLIUM / EVERGREEN CURRANT ROSA X "FLOWER CARPET CORAL" / ROSE SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON	5 GAL 5 GAL 5 GAL	LOW LOW LOW

NOTES

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

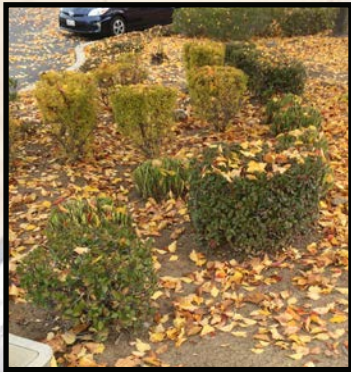
PLEASANT GROVE BOULEVARD @ ROSEVILLE PARKWAY



Monoculture tree species



Surface roots



Over maintained shrub monoculture



Drought-effected turf



Over maintained plants

TURF 90%

SHRUBS 10%



TURF

4

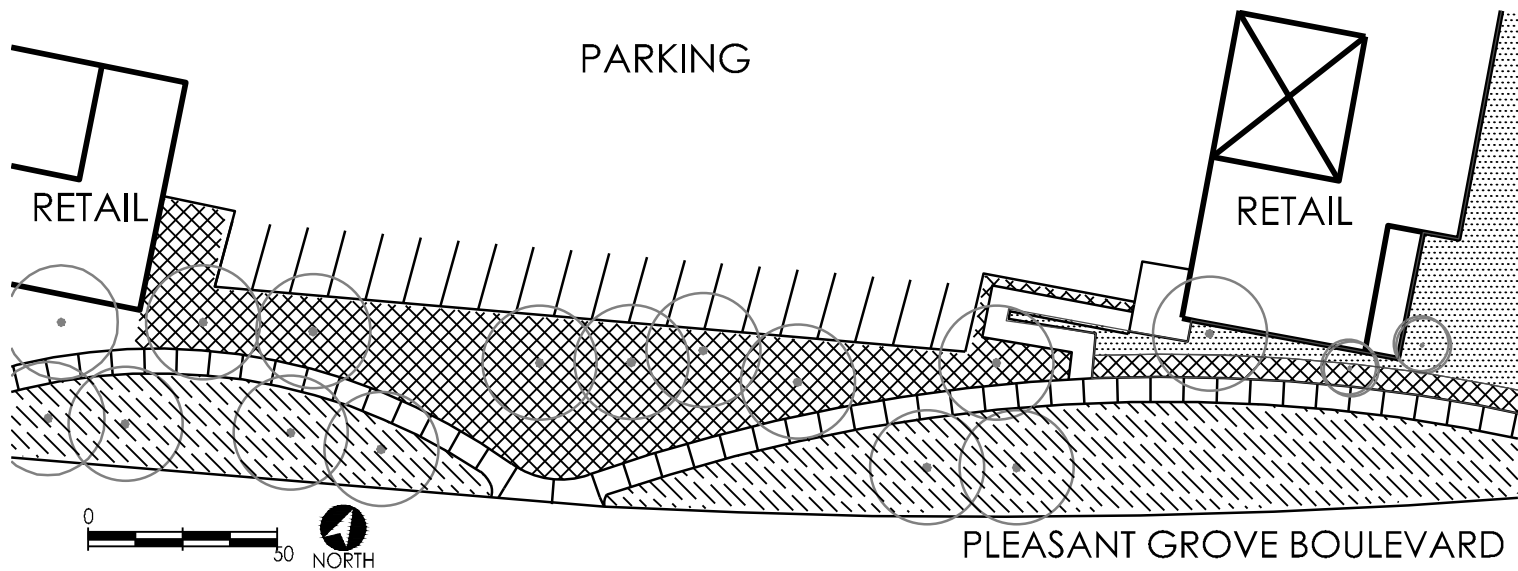
USE VALUE

MAX.

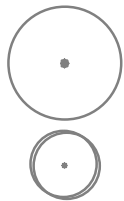
26'x250

FEET WIDE

PLEASANT GROVE BOULEVARD PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

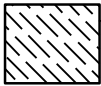


EXISTING TREES
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION

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

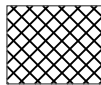


EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



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



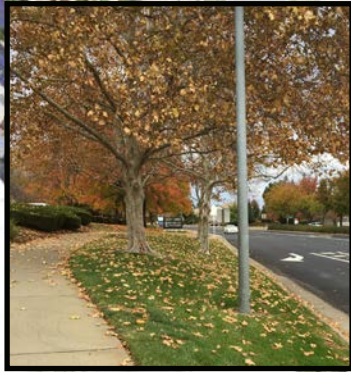
1'-3'
CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
WESTRINGIA FRUTICOSA 'WYNABBIE GEM' / WYNABBIE GEM COAST ROSEMARY

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

NOTES

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

EAST ROSEVILLE PARKWAY NORTH OF DOUGLAS BOULEVARD



Relatively narrow parkway strips



Slopes exceed 3:1



Refurbishment with limited success

TURF 85%



TURF

4

USE VALUE

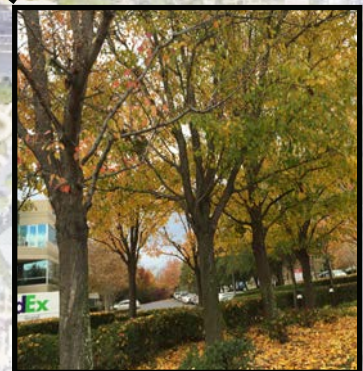
MAX.

23'x210'

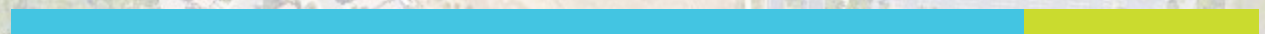
FEET WIDE

EAST ROSEVILLE PARKWAY

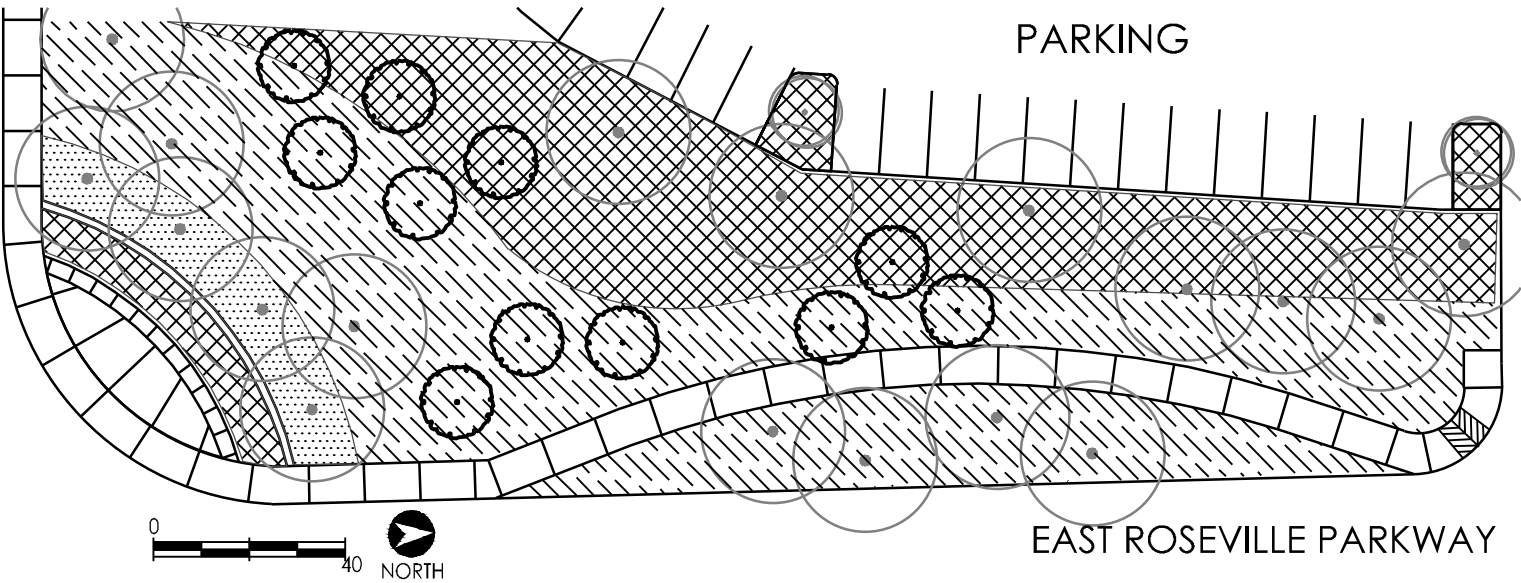
DOUGLAS BOULEVARD



SHRUBS 15%



EAST ROSEVILLE PARKWAY NORTH PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

	<u>ACCENT TREES</u> LAURUS NOBILIS / SWEET BAY OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE	15 GAL 15 GAL	LOW LOW
	<u>EXISTING TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING ACCENT TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING LANDSCAPE TO REMAIN AND PROTECT</u> FIELD VERIFY SIZE AND LOCATION		
	<u>6'-1'</u> ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW CONVOLVULUS SABATIUS / GROUND MORNING GLORY LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE	1 GAL 1 GAL 1 GAL	LOW LOW LOW
	<u>1'-3'</u> RIBES VIBURNIFOLIUM / EVERGREEN CURRANT ROSA X 'FLOWER CARPET CORAL' / ROSE SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	5 GAL 5 GAL 5 GAL 5 GAL	LOW LOW LOW LOW

NOTES

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

EUREKA ROAD (SOUTH)



TURF

5

USE VALUE

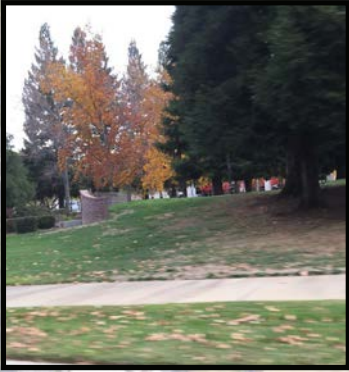
MAX.

15'x175'

FEET WIDE

DOUGLAS BOULEVARD

EUREKA ROAD



Slopes exceed 3:1



Broad swaths of turf



Over maintained shrubs

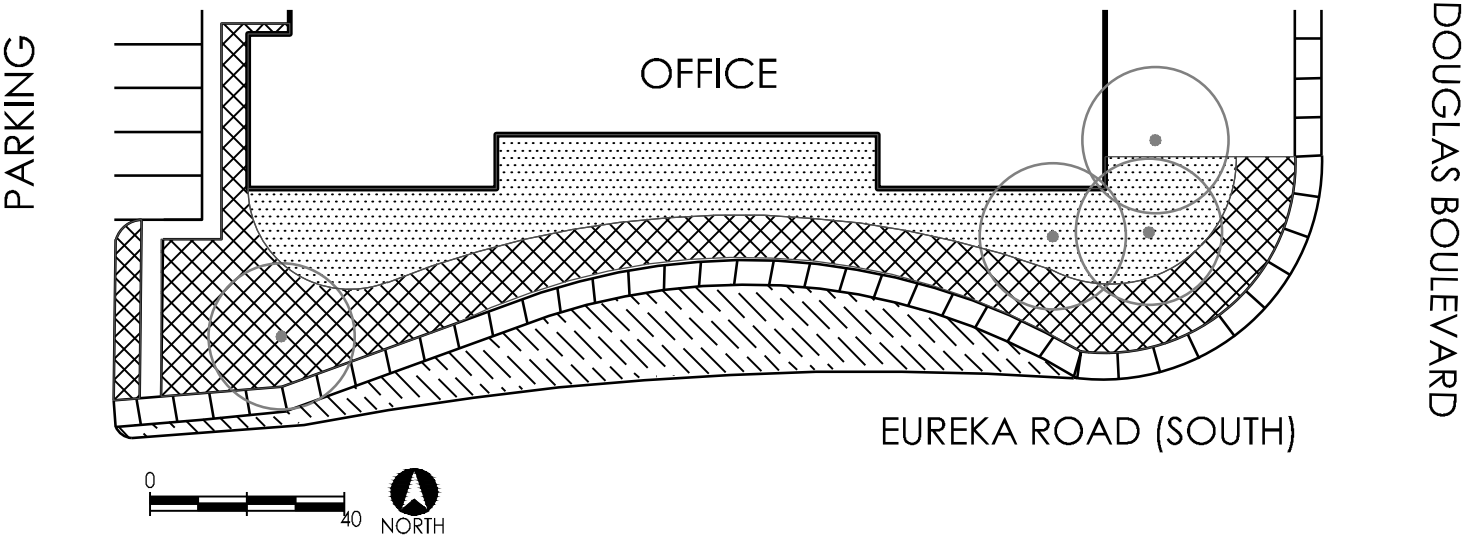


Canopy trees abound

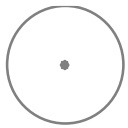
TURF 75%

SHRUBS 25%

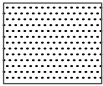
EUREKA ROAD (SOUTH) PRECEDENT STUDY



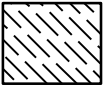
CONCEPT PLANT SCHEDULE



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

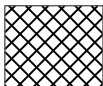


EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



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

1 GAL	LOW
1 GAL	LOW



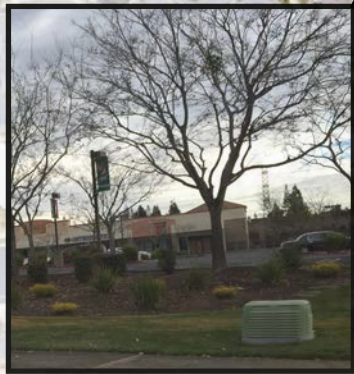
1'-3'
CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
RIBES VIBURNIFOLIUM / EVERGREEN CURRANT

5 GAL	LOW
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.

EUREKA ROAD NORTH OF DOUGLAS BOULEVARD



Turf parkway



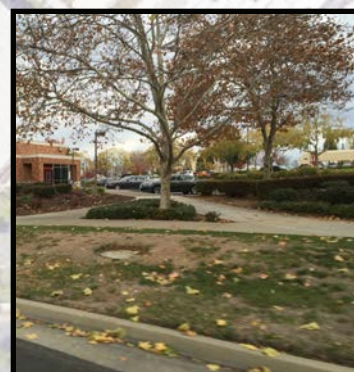
Un-used lawn



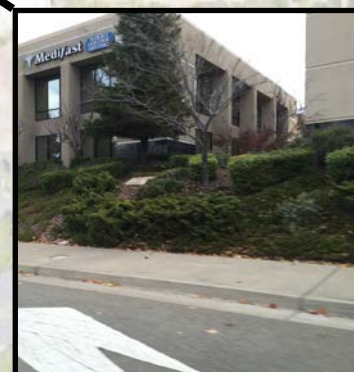
Shrubs maintained in un-natural forms



Successful slope groundcover planting



Struggling turf in parkway



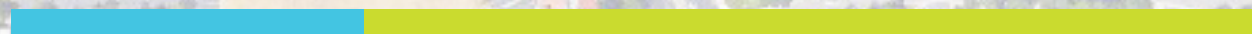
Overmaintained shrubs



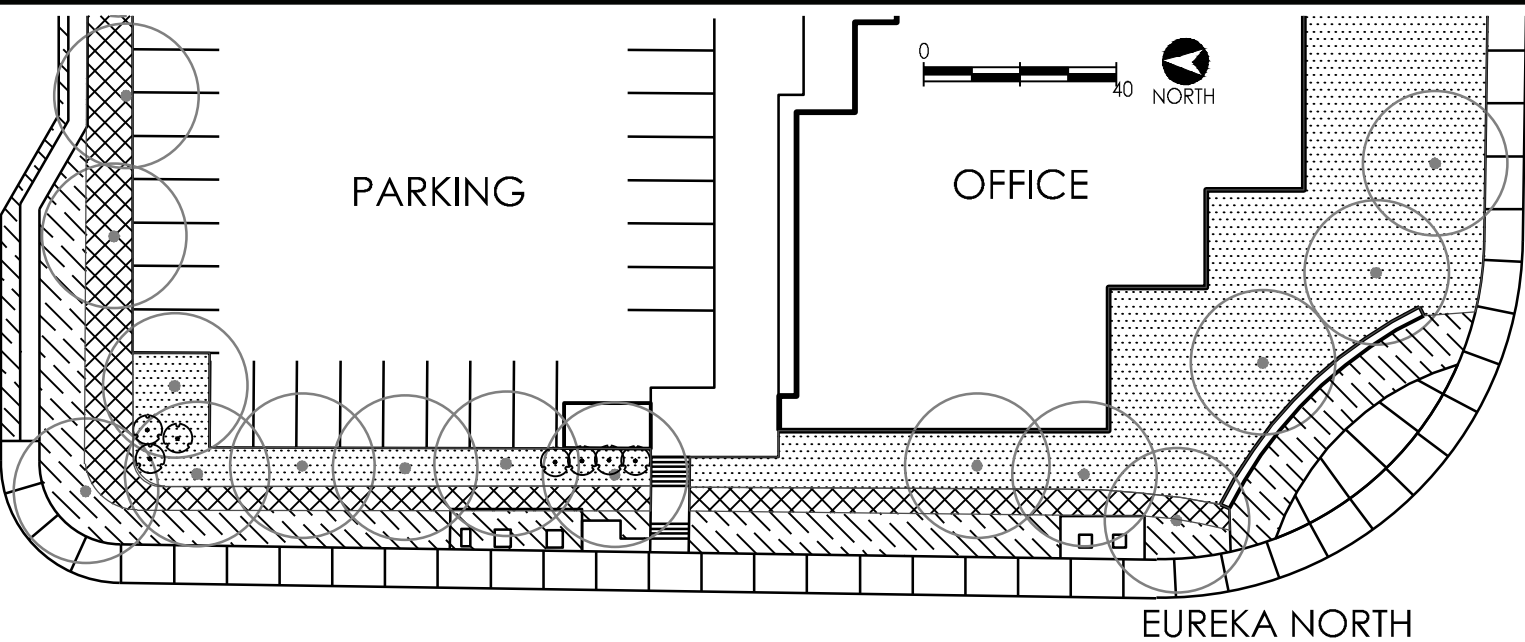
TURF	MAX.
4	12'x55'
USE VALUE	FEET WIDE

TURF 25%

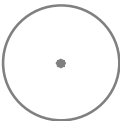
SHRUBS 75%



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

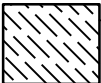


8'-15'
ARCTOSTAPHYLOS DENSIFLORA 'SENTINEL' / MANZANITA
RHAMNUS ALATERNUS 'JOHN EDWARDS' / ITALIAN BUCKTHORN
RHAMNUS ALATERNUS 'VARIEGATA' / ITALIAN BUCKTHORN
ROMNEYA COULTERI / MATILIJ POPPY
SPIRAEA PRUNIFOLIA 'BRIDALWREATH' / BRIDAL WREATH SPIREA

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
CONVOLVULUS 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



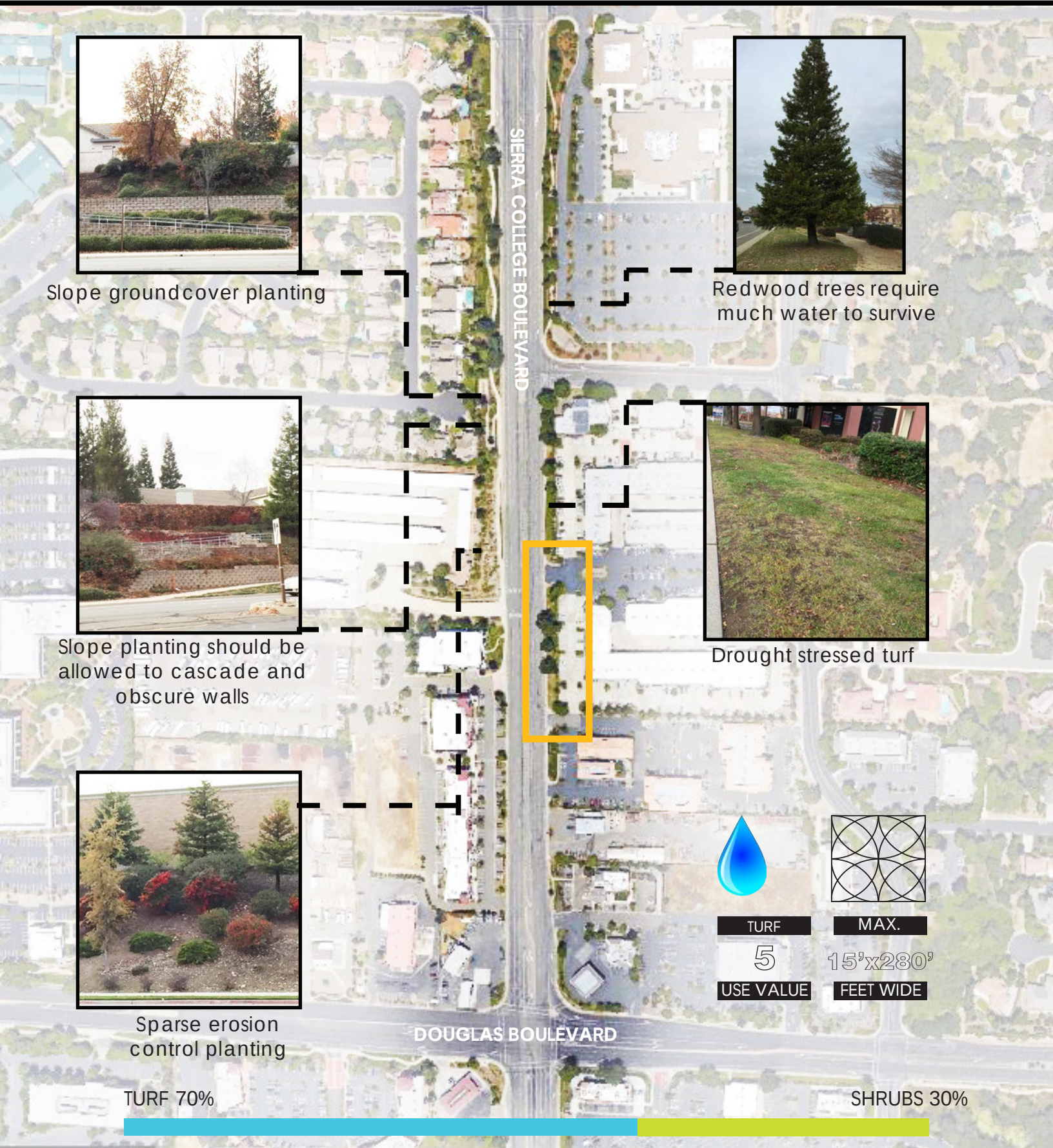
1'-3'
CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE
GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA
GREVILLEA X 'BRONZE RAMBLER' / GREVILLEA
SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON
WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY

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

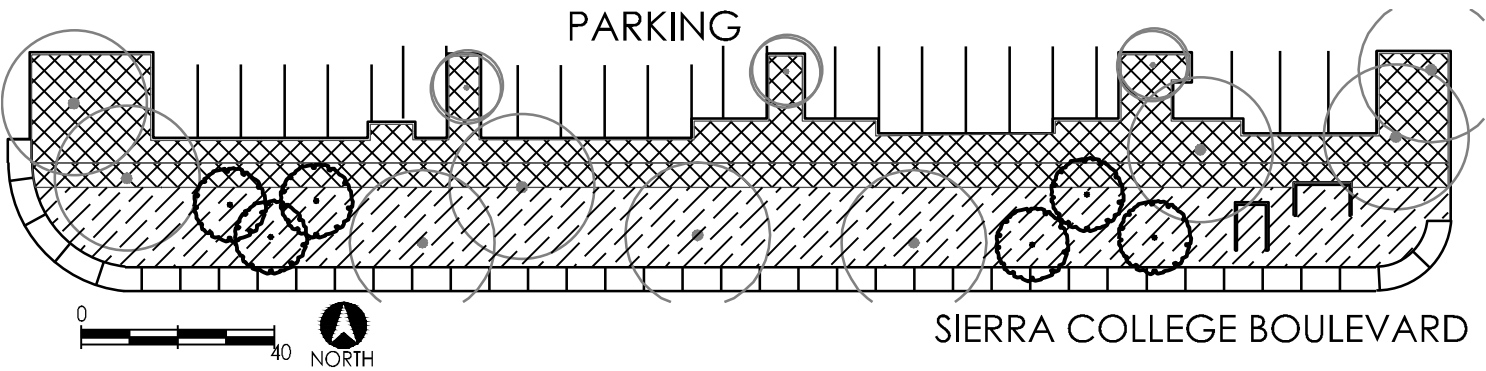
NOTES

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

SIERRA COLLEGE BOULEVARD (NORTH)



SIERRA COLLEGE BOULEVARD (NORTH) PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

	<u>ACCENT TREES</u>		
	OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE	15 GAL	LOW
	PRUNUS ILICIFOLIA LYONII / CATALINA CHERRY	15 GAL	LOW
	<u>EXISTING TREES</u>		
	FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>6"-1'</u>		
	ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW	1 GAL	LOW
	LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE	1 GAL	LOW
	<u>1'-3'</u>		
	CISTUS PULVERULENTUS 'SUNSET' / ROCKROSE	5 GAL	LOW
	GREVILLEA LANIGERA 'COASTAL GEM' / COASTAL GEM GREVILLEA	5 GAL	LOW
	SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON	5 GAL	LOW
	WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	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 80



TURF

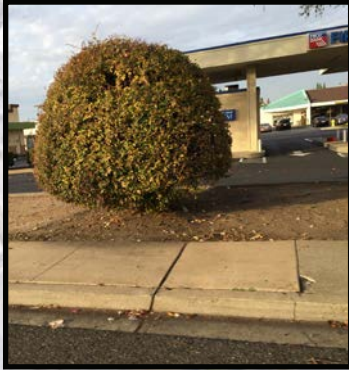
3

USE VALUE

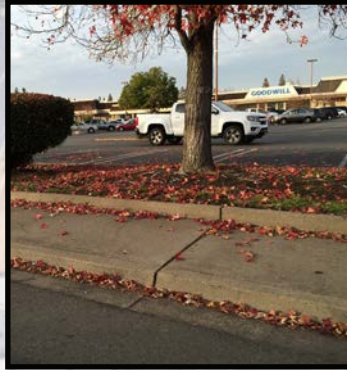
MAX.

12'x300'

FEET WIDE



Wrong sized plant species



No vehicle screening



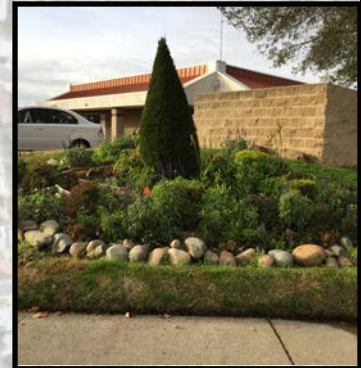
Slopes exceed 3:1

DOUGLAS BOULEVARD

SIERRA GARDENS



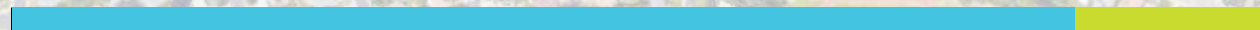
No vehicle screening
by shrubs



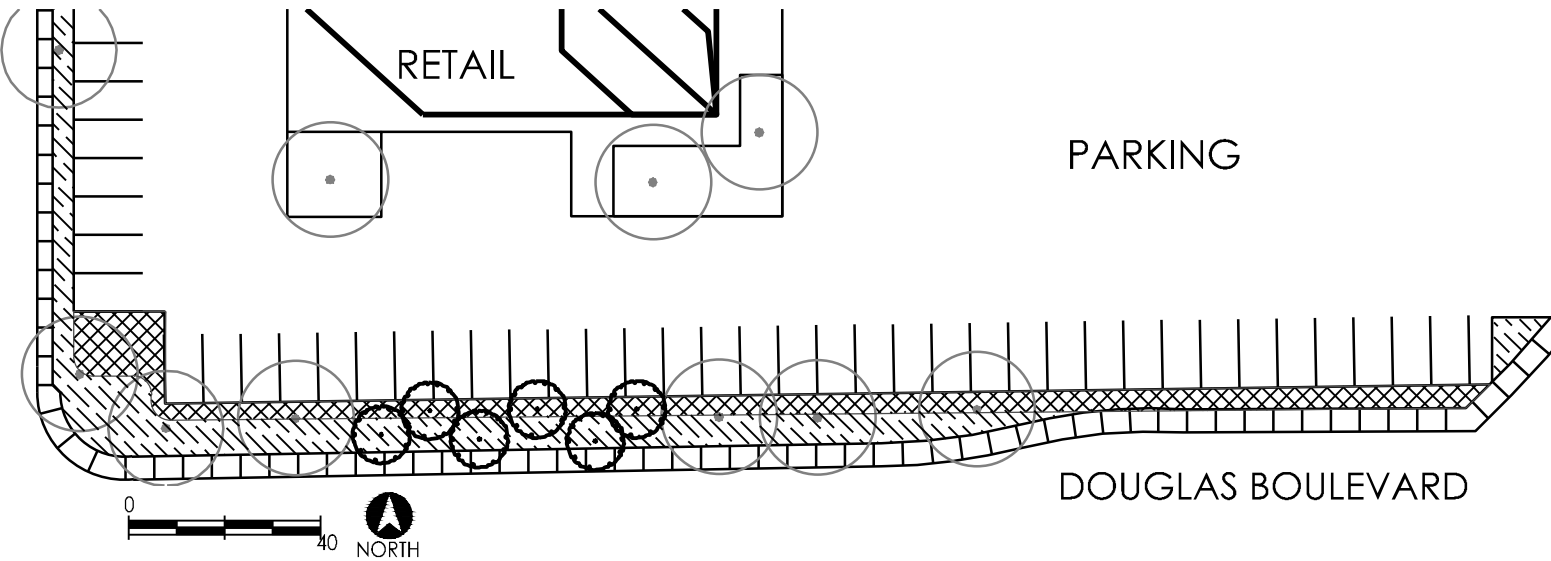
Contrived planting installations

TURF 90%

SHRUBS 10%



DOUGLAS BOULEVARD EAST OF 80 PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

	<u>ACCENT TREES</u>		
	ARBUTUS X 'MARINA' / ARBUTUS MULTI-TRUNK	15 GAL	LOW
	OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE	15 GAL	LOW
	<u>EXISTING TREES</u>		
	FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING LANDSCAPE TO REMAIN AND PROTECT</u>		
	FIELD VERIFY SIZE AND LOCATION		
	<u>6'-1'</u>		
	ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW	1 GAL	LOW
	LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE	1 GAL	LOW
	RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)	1 GAL	LOW
	<u>1'-3'</u>		
	ROSA X 'FLOWER CARPET CORAL' / ROSE	5 GAL	LOW
	SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON	5 GAL	LOW
	WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	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

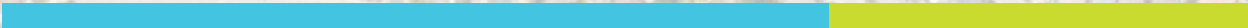


TURF
4
USE VALUE

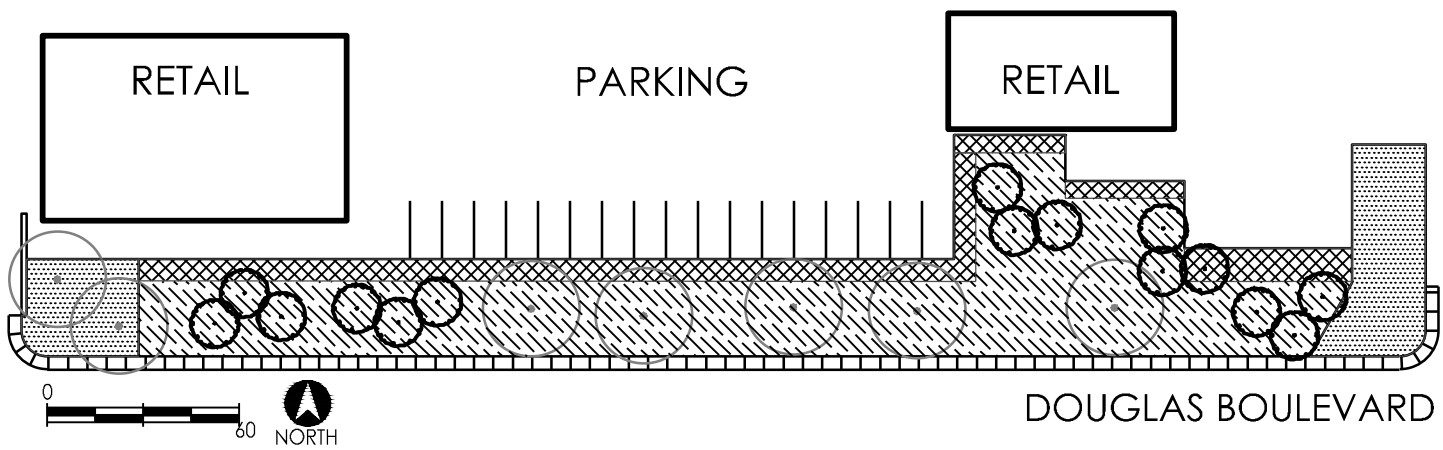
MAX.
30'x330'
FEET WIDE

TURF 70%

SHRUBS 30%



DOUGLAS BOULEVARD EAST OF SIERRA GARDENS PRECEDENT



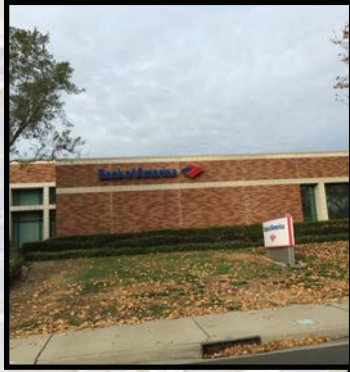
CONCEPT PLANT SCHEDULE

	<u>ACCENT TREES</u> ARBUTUS X 'MARINA' / ARBUTUS MULTI-TRUNK OLEA EUROPAEA 'SAN GABRIEL' / SAN GABRIEL FRUITLESS OLIVE	15 GAL 15 GAL	LOW LOW
	<u>EXISTING TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING LANDSCAPE TO REMAIN AND PROTECT</u> FIELD VERIFY SIZE AND LOCAION		
	<u>6'-1'</u> ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)	1 GAL 1 GAL 1 GAL	LOW LOW LOW
	<u>1'-3'</u> ROSA X 'FLOWER CARPET CORAL' / ROSE SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	5 GAL 5 GAL 5 GAL	LOW LOW 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

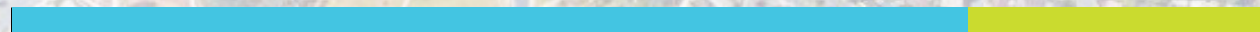


TURF
4
USE VALUE

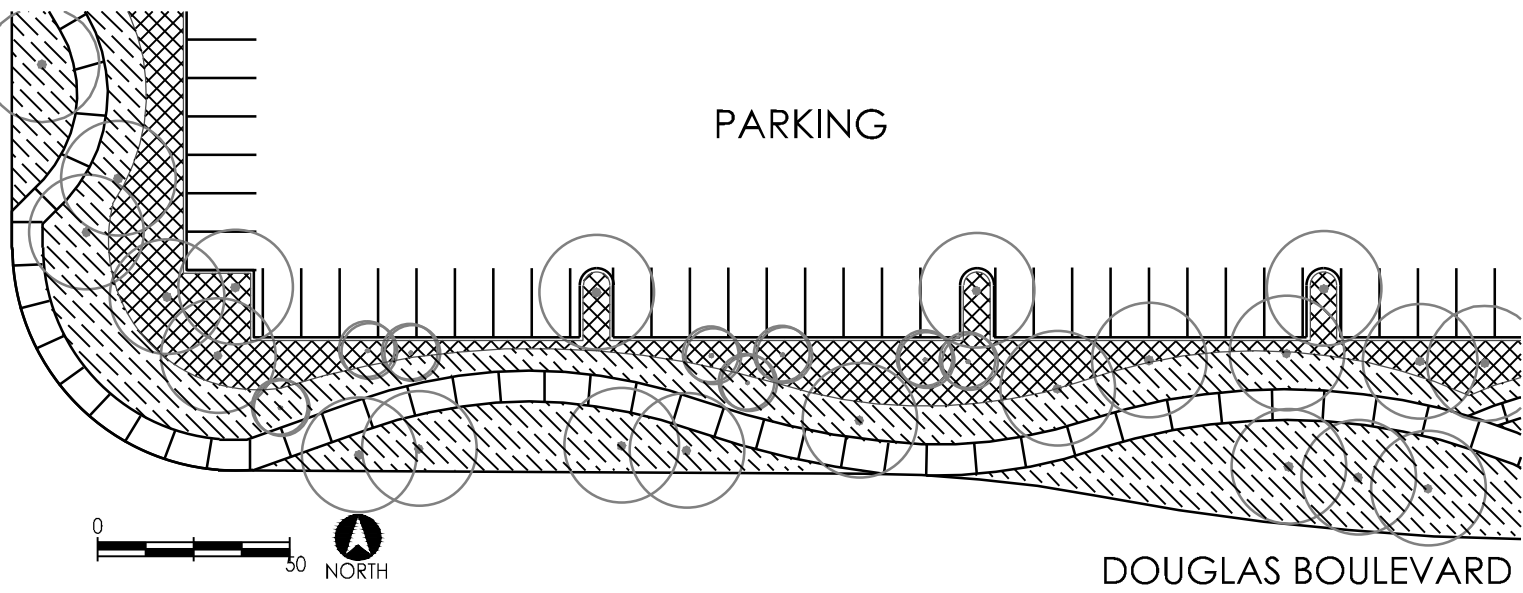
MAX.
23'x600'
FEET WIDE

TURF 80%

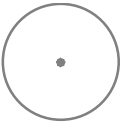
SHRUBS 20%



DOUGLAS BOULEVARD EAST OF EUREKA PRECEDENT STUDY



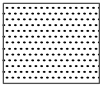
CONCEPT PLANT SCHEDULE



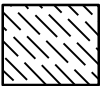
EXISTING TREES
FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION



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

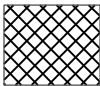


EXISTING LANDSCAPE TO REMAIN AND PROTECT
FIELD VERIFY SIZE AND LOCATION



6'-1'
ACACIA REDOLENS 'DESERT CARPET' 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

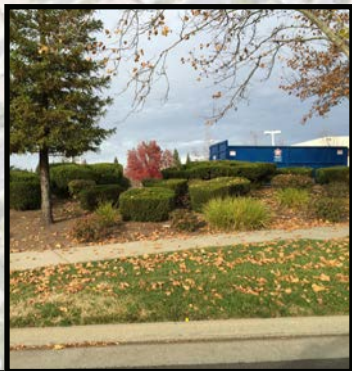
1. THIS IS THE MINIMUM, BASELINE TEMPLATE.
2. SUPPLEMENTAL PLANTING IS ENCOURAGED.
3. REFER TO PLANT MATERIAL IN APPENDIX FOR ADDITIONAL SUGGESTIONS.

DOUGLAS BOULEVARD EAST OF EAST ROSEVILLE PARKWAY



TURF
4
USE VALUE

MAX.
17'x475'
FEET WIDE



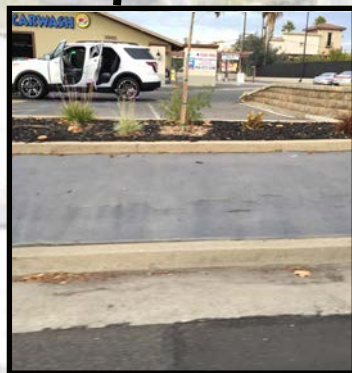
Over pruned shrubs and failed groundcover



Slopes exceed 3:1



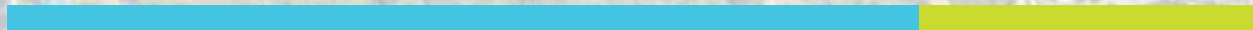
Inaccessible turf



No shrub buffer for vehicles

TURF 75%

SHRUBS 25%

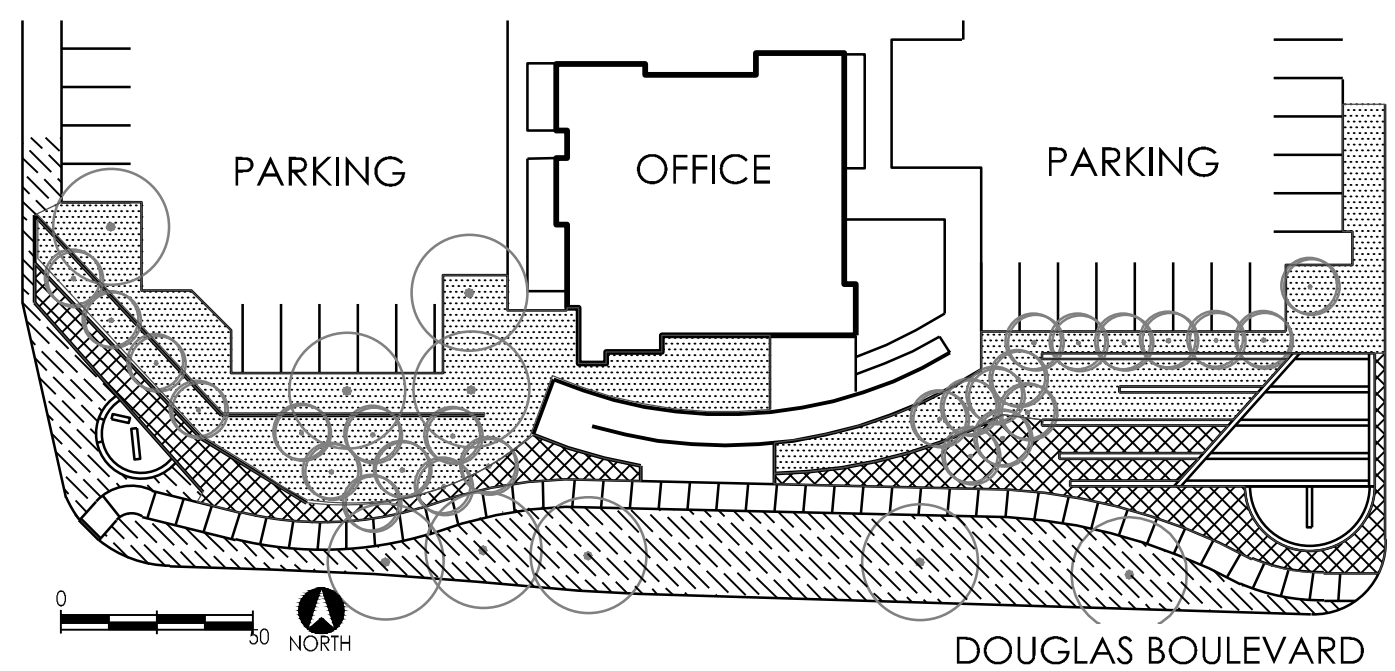


EAST ROSEVILLE PARKWAY

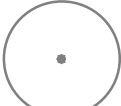
DOUGLAS BOULEVARD

SIERRA COLLEGE BOULEVARD

DOUGLAS BOULEVARD PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

	<u>EXISTING TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING ACCENT TREES</u> FIELD VERIFY SPECIES, VARIETY, SIZE AND LOCATION AND ROOT CROWN CONDITION		
	<u>EXISTING LANDSCAPE TO REMAIN AND PROTECT</u> FIELD VERIFY SIZE AND LOCATION		
	<u>6"-1'</u> ACACIA REDOLENS 'DESERT CARPET' TM / BANK CATCLAW LONICERA JAPONICA 'HALLIANA' / HALLS HONEYSUCKLE RUBUS PENTALOBUS 'EMERALD CARPET' / BRAMBLE - (SHADE)	1 GAL 1 GAL 1 GAL	LOW LOW LOW
	<u>1'-3'</u> ROSA X 'FLOWER CARPET CORAL' / ROSE SANTOLINA CHAMAECYPARISSUS / LAVENDER COTTON WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	5 GAL 5 GAL 5 GAL	LOW LOW LOW

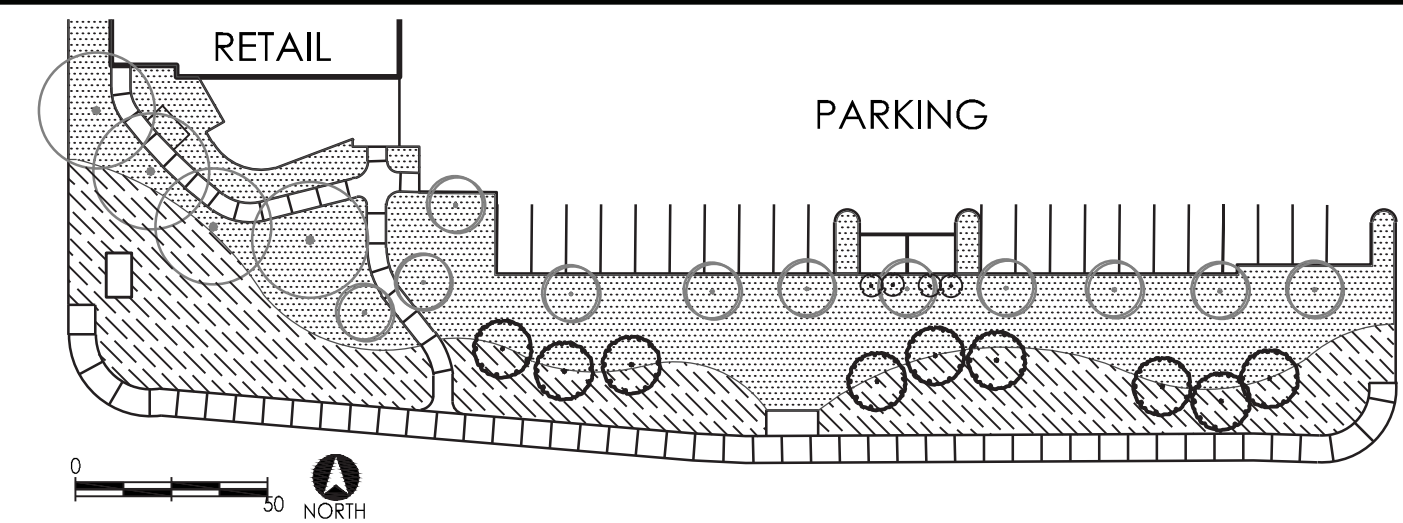
NOTES

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

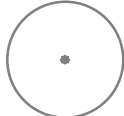


BLUE OAKS BOULEVARD PRECEDENT STUDY



CONCEPT PLANT SCHEDULE

BLUE OAKS BOULEVARD

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

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



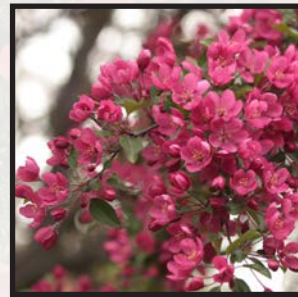
Acer r. 'October Glory'
40'x40'
Deciduous



Prunus lyonii
15'x10'
Evergreen



Laurus nobilis
15'x10'
Evergreen



Malus 'Prairiefire'
15'x10'
Deciduous

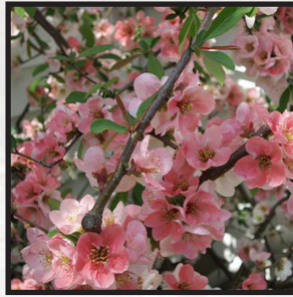


Magnolia stellata
15'x15'
Deciduous

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



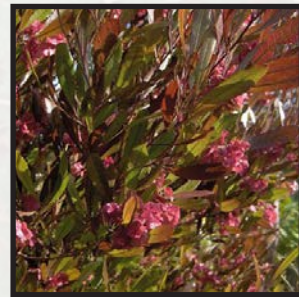
Spirea p. Bridal Wreath
10'x8'
Deciduous



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



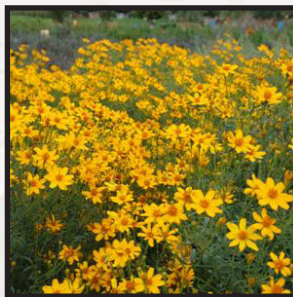
Forsythia 'New Hampshire'
5'x5'
Deciduous



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

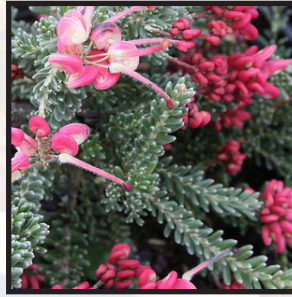


Westringia f. Wynaabbie Gem'
5'x6'
Evergreen

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.

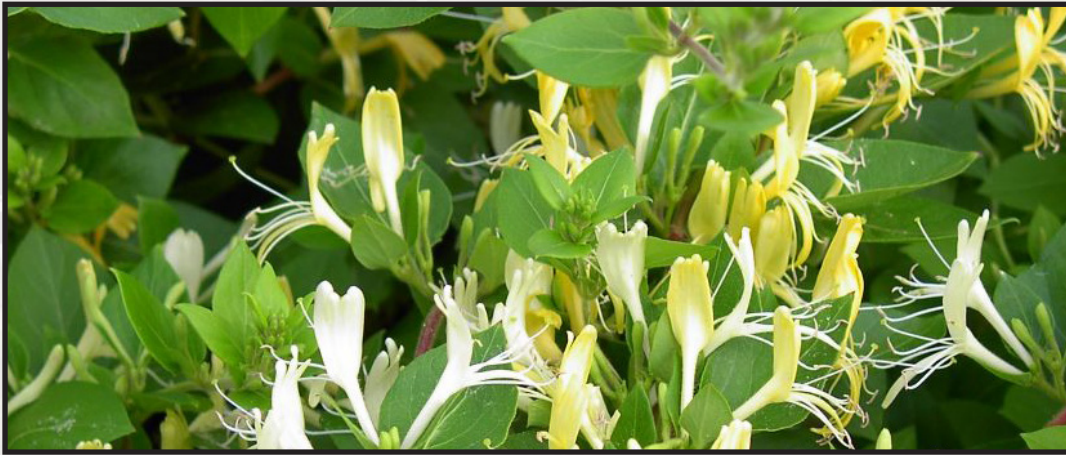


Myoporum parvifolium

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.

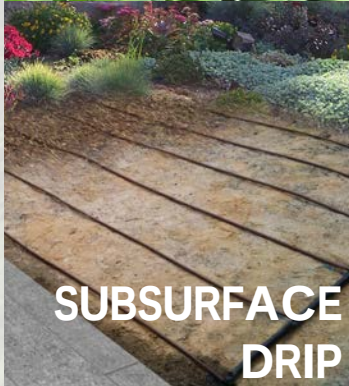


Shearing is done to manicure plants outer foliage creating a uniform surface. This method of maintenance should only be used on plant material known to respond well to this.

IRRIGATION: DRIP, BUBBLE AND SPRAY IN THE LANDSCAPE



DRIP



**SUBSURFACE
DRIP**



BUBBLER



**OVERHEAD
SPRAY**

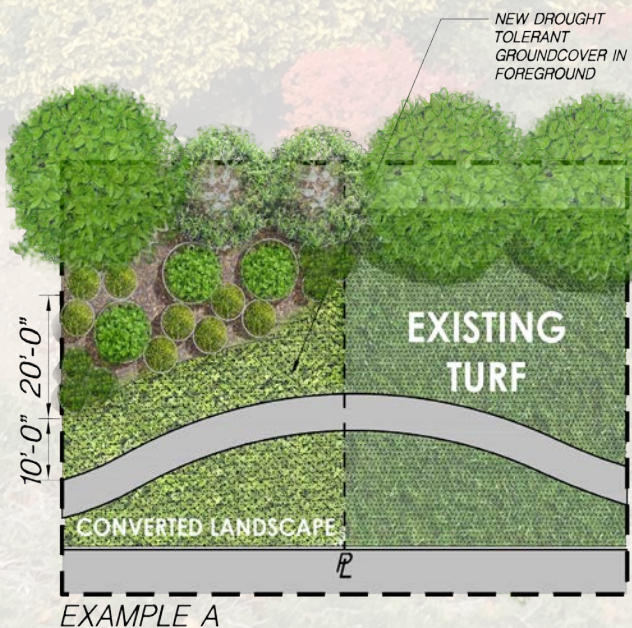
Drip irrigation is a method of administering water directly to the root zone of a plant. Drip irrigation is highly efficient and very customizable, allowing for extended watering periods that encourage greater percolation while minimizing erosion. Minimal excess water also discourages weed growth. Drip 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.

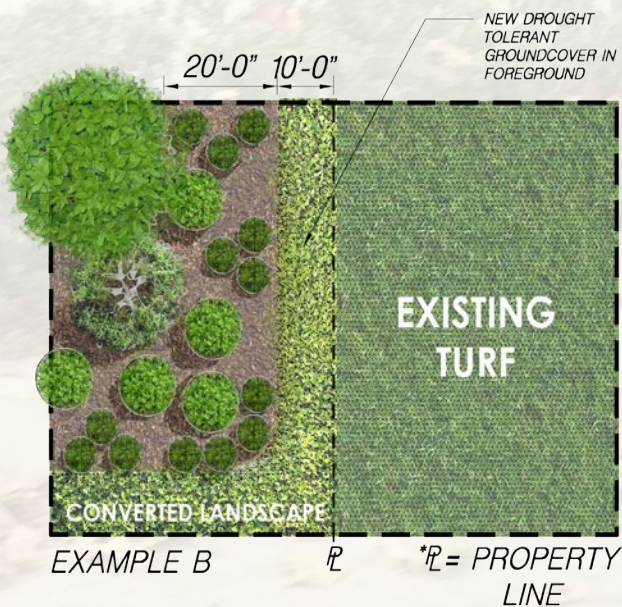
Overhead spray is the least efficient method, but the most reliable one for irrigating turf. New technologies have been developed to increase distribution and efficiency, and some products are so efficient that they have achieved the designation of 'micro-spray' and can be used in nearly all applications. 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