



City of Arts & Innovation

City of Riverside

Commercial Landscape & Irrigation Guide

Commercial Landscape & Irrigation
Plan Concepts for Water Efficient Landscaping



**Attachment 8 - Planning Case P18-0608
Proposed Commercial Landscape & Irrigation Guide**

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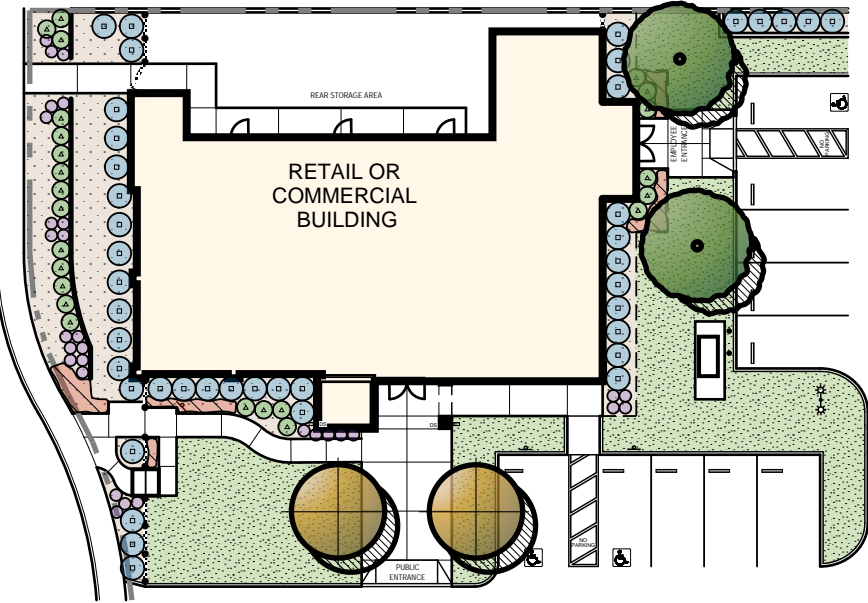
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TRANSFORM YOUR PROPERTY INTO A WATER CONSERVING LANDSCAPE

INEFFICIENT LANDSCAPE

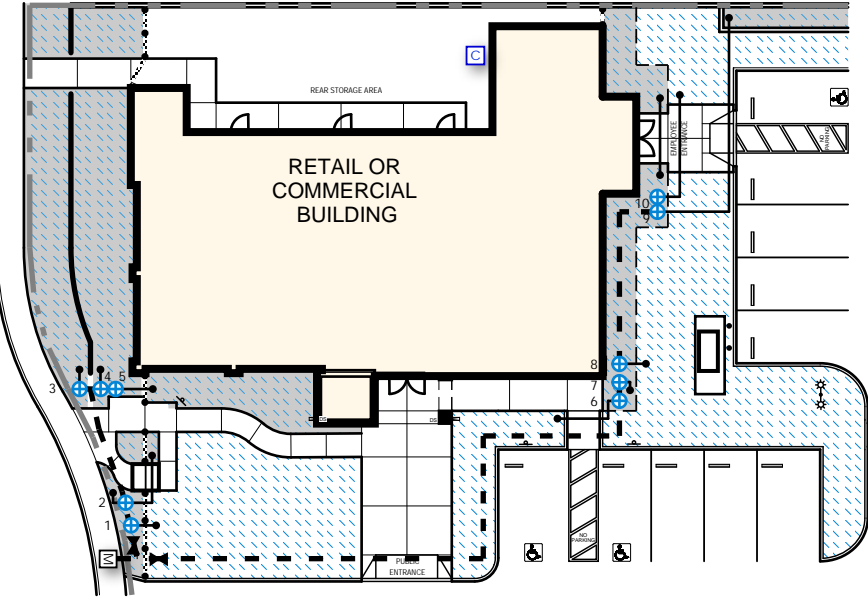


Landscape Design:

This existing planting exhibit is a poor example of a water conserving landscape. It utilizes moderate and/or high water use trees, shrubs and groundcovers. Moisture in the soil provided by irrigation or rainfall is not protected from evaporation by a layer of shredded wood mulch. A large percentage of the landscape area is devoted to non-functional high water use turf.

The turf and the commonly clipped landscape plants require a high level of maintenance. This results in unnecessary costs and green waste.

The landscape design is not responsive to many potential functional uses.



Irrigation Design:

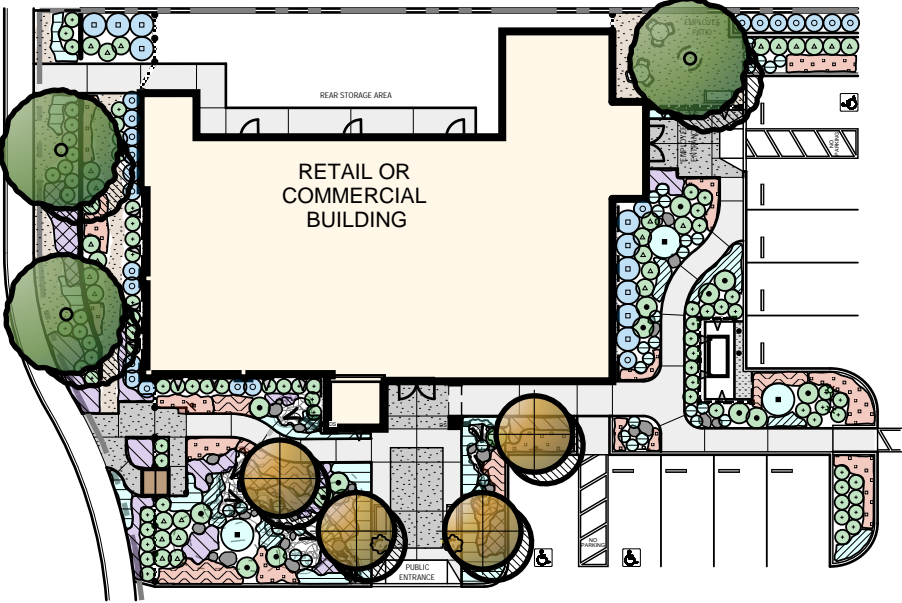
This irrigation system provides the lowest level of efficiency. The traditional controller does not automatically adjust valve run-times for changing seasons or weather events. This often leads to over-watering and watering during rain or wind.

Overhead spray heads are prone to breaking, leaking, and over-spraying the intended planter area. This creates wasteful over-spray and water run-off.

Estimated total water use:
The estimated total water use exceeds the calculated maximum annual water allowance by approximately 69,000 gallons per year. For new or rehabilitated landscapes, this existing exhibit is not in compliance with the City of Riverside's current water use ordinance.

EXISTING
COMMERCIAL LANDSCAPE AND IRRIGATION
REFER TO SHEET 2 AND 3

WATER CONSERVING LANDSCAPE

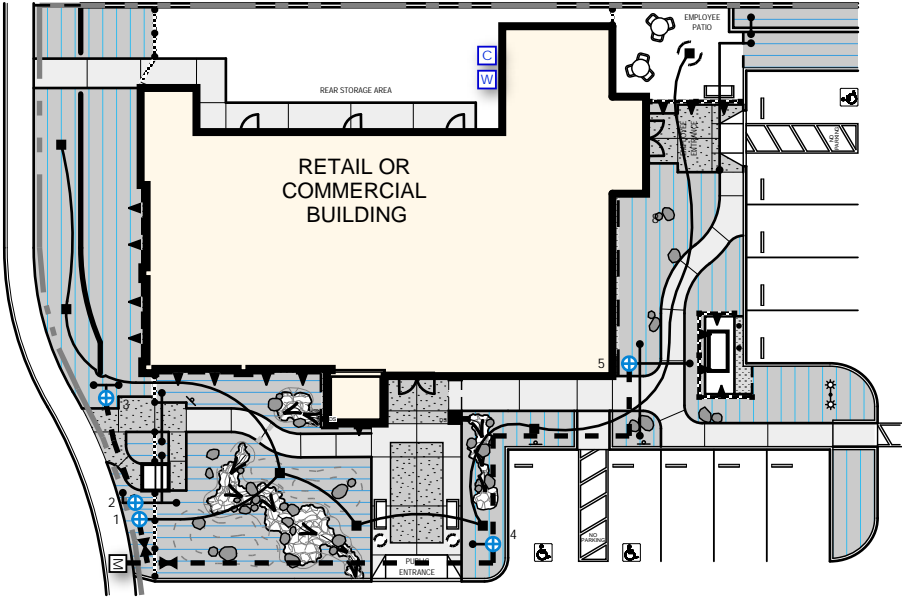


Landscape Design:

This exhibit is a very good example of a water conserving landscape. It consists of low water use trees, vines, shrubs and groundcovers. A 3" layer of shredded wood mulch has been applied to protect the soil's moisture from evaporation. All turf areas have been removed.

With a naturalized landscape design maintenance costs are greatly reduced. There is no turf to mow and the plants require only seasonal maintenance.

The landscape has also been put to work. It provides a welcoming and functional space for staff and clients. The added cobble and gravel bioswale areas naturally capture and filter the roof downspout waste water. An ADA compliant walkway has been provided to connect building entrances and adjacent buildings.



Irrigation Design:

This irrigation system provides a high level of efficiency. A weather based "smart" controller automatically adjusts valve run-times for specific plant water requirements throughout the changing seasons and weather events.

Sub-surface dripline in the shrub planter areas and bubblers at the trees apply irrigation water directly to the plant's root zone. This eliminates wasteful overspray and water run-off.

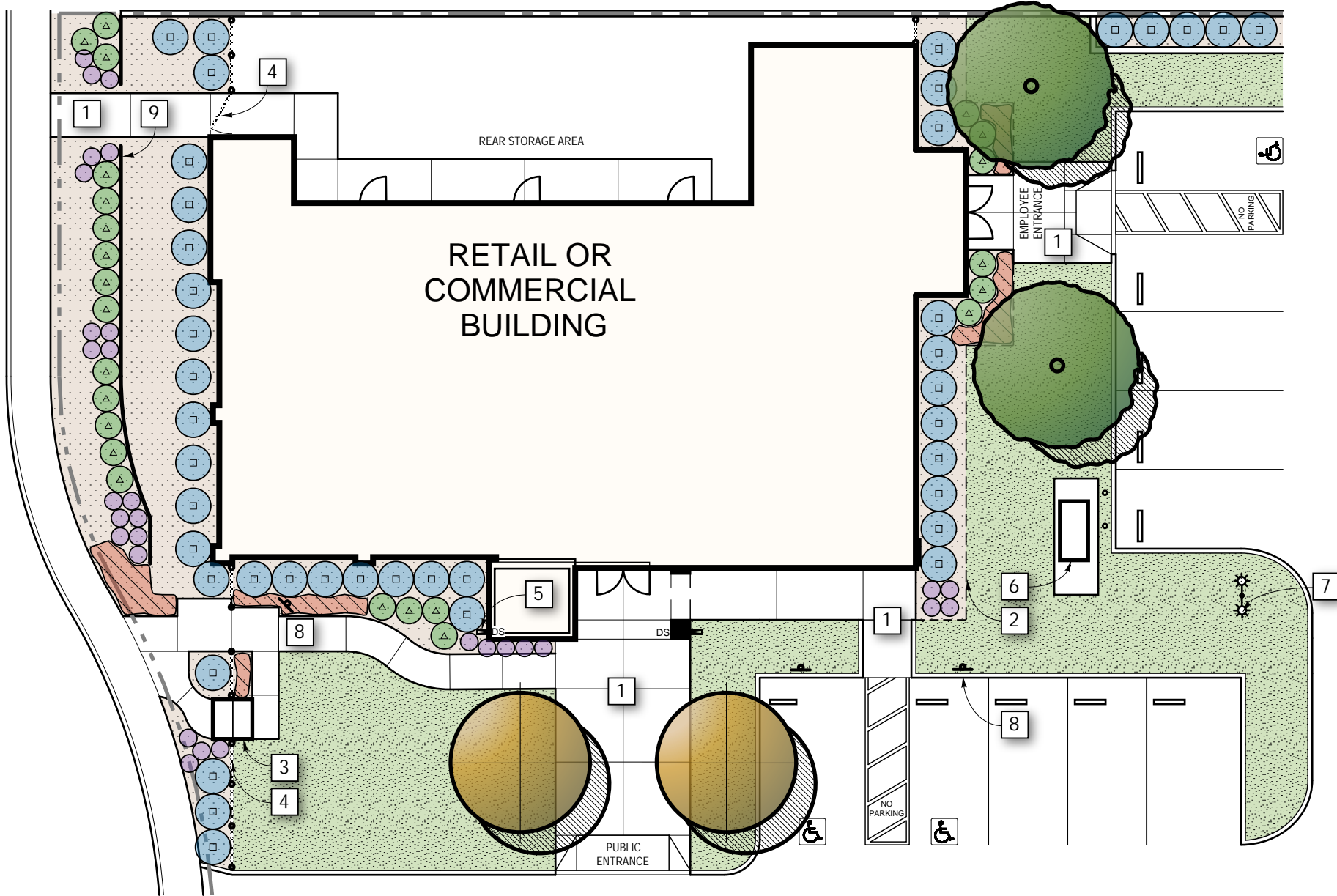
Estimated total water use:
This irrigation design results in a 77% reduction of water use over the existing irrigation exhibit.

The estimated total water use is well below the calculated maximum annual water allowance by over 26,000 gallons per year. For new or rehabilitated landscapes, this alternate exhibit is in compliance with the City of Riverside's current water use ordinance.

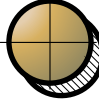



ALTERNATE
COMMERCIAL LANDSCAPE AND IRRIGATION
REFER TO SHEET 4 AND 5



The landscape and irrigation designs presented in this guide are diagrammatic and are intended to convey general concepts. A licenced Landscape Architect or Landscape Contractor shall be consulted prior to landscape plan submittal to the City.



PLANTING LEGEND:










-  Evergreen Tree
-  Deciduous Tree
-  Background Shrub
-  Midground Shrub
-  Foreground Shrub
-  Exposed Soil
-  Groundcover
-  Turf, cool season variety
56% of total landscape area

Landscape Design:

This existing planting exhibit is a poor example of a water conserving landscape. It utilizes moderate and/or high water use trees, shrubs and groundcovers. Moisture in the soil provided by irrigation or rainfall is not protected from evaporation by a layer of shredded wood much. A large percentage of the landscape area is devoted to non-functional high water use turf.

The turf and the commonly clipped landscape plants require a high level of maintenance. This results in unnecessary costs and green waste.

FEATURE LEGEND:

-  1 Concrete paving entrances and walkways
-  2 Landscape header
-  3 Overhead structure with bulletin board
-  4 Tubular steel fencing and gate
-  5 Roof downspout concrete pad
-  6 Transformer on concrete pad
-  7 Site lighting
-  8 Site and parking signage
-  9 Masonry wall with signage

The landscape design is not responsive to many functional uses:

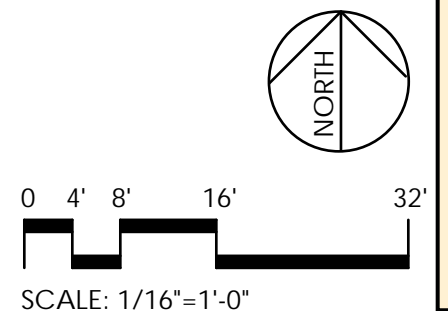
- welcome clients to the establishment
- provide attractive signage or display opportunities
- provide outdoor areas with seating for staff and customers
- provide edible landscape plants to be enjoyed
- capture and naturally drain roof waste water
- provide connective ADA compliant walkways between entrances and adjacent buildings

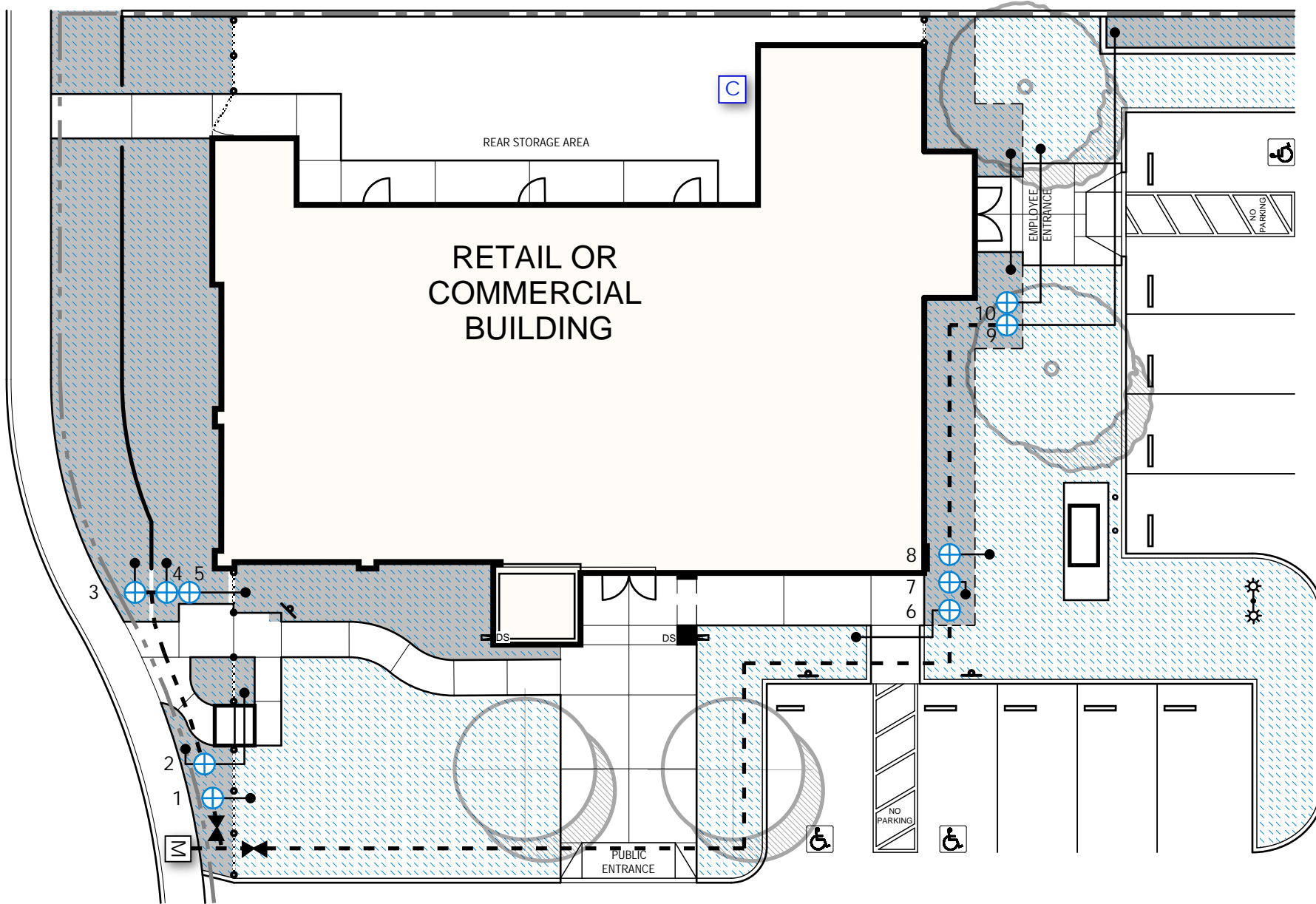


COMMERCIAL LANDSCAPE AND IRRIGATION GUIDE


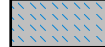



CITY OF RIVERSIDE

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND RIVERSIDE PUBLIC UTILITIES





IRRIGATION LEGEND:

-  Turf Irrigation
Overhead spray heads
-  Planter Irrigation
Overhead spray heads
-  Irrigation Control Valves
-  Irrigation Controller
-  Irrigation Point of Connection
Which may include the Water Meter, Backflow, Gate Valve, Pressure Regulator, Master Valve, and/or Flow Sensor

Irrigation Design:

This irrigation system provides the lowest level of efficiency. The traditional controller does not automatically adjust valve run-times for changing seasons or weather events. This often leads to over-watering and watering during rain or wind.

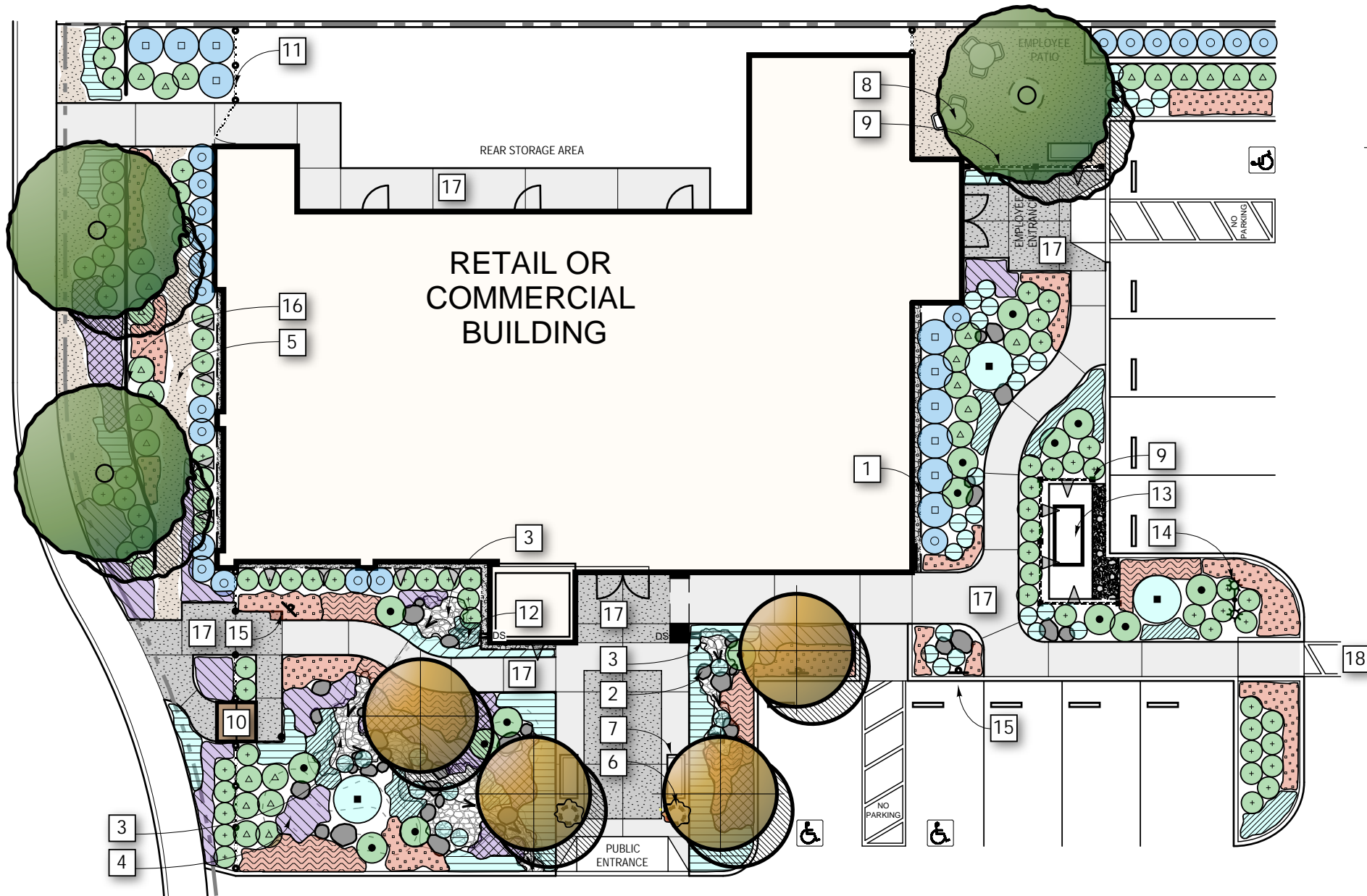
Overhead spray heads are prone to breaking, leaking, and over-spraying the intended planter area. This creates wasteful over-spray and water run-off.

Water Use Calculations:

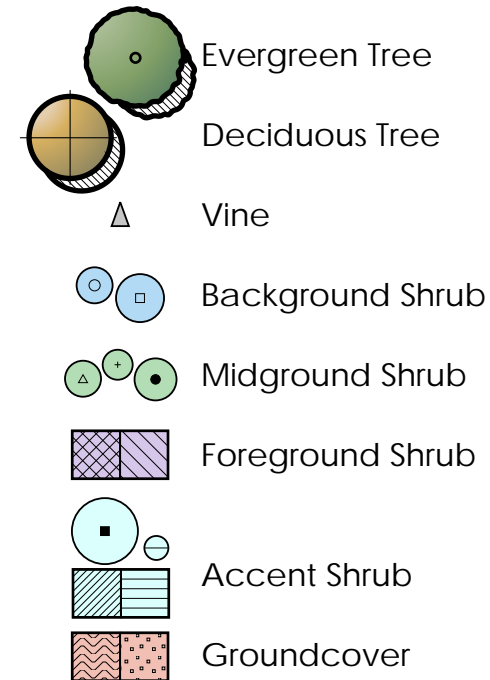
Total square footage of landscape area:	4,500 s.f.
Planter area with moderate water use trees, shrubs and groundcover:	2,000 s.f.
Lawn area with high water use turf:	2,500 s.f.

Estimated total water use: 139,872 gal/yr

The estimated total water use exceeds the calculated maximum annual water allowance by approximately 69,000 gallons per year. For new or rehabilitated landscapes, this Existing exhibit is not in compliance with the City of Riverside's current water use ordinance.



PLANTING LEGEND:



0% Turf in the Landscape

All planter areas covered with 3" layer of shredded wood mulch

Refer to Sheets 8 and 9 for plant recommendations.

Landscape Design:

This exhibit is a very good example of a water conserving landscape. It consists of low water use trees, vines, shrubs, and groundcovers. All turf areas have been removed. A 3" layer of shredded wood mulch has been applied to protect the soil's moisture from evaporation.

The landscape has also been put to work. It provides a welcoming and functional space for staff and visitors. The added cobble and gravel bioswale areas naturally capture and filter the roof downspout waste water. An ADA compliant walkway has been provided to connect building entrances and adjacent buildings.

Benefits of a naturalized landscape design:

- Only seasonal maintenance required, costs are greatly reduced
- With no turf to mow, green waste is lessened
- Thriving landscape year round, no undesirable brown turf due to drought watering restrictions
- An attractive landscape can draw in more business

FEATURE LEGEND:

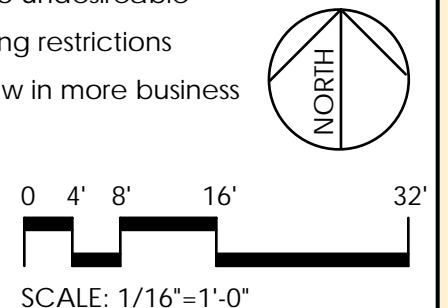
- | | |
|---|--|
| 1 Gravel maintenance areas with aluminum edging | 10 Overhead structure with bulletin board |
| 2 Granite landscape boulders | 11 Tubular steel fencing and gate |
| 3 Cobble and gravel bioswale | 12 Concrete pad and cobble at roof downspout |
| 4 Landscape berming | 13 Transformer on concrete pad |
| 5 Decomposed granite ground cover | 14 Site lighting |
| 6 Decorative pot and planting with sump drain | 15 Site and parking signage |
| 7 Metal benches secured to concrete | 16 Masonry wall with signage |
| 8 Cafe tables | 17 ADA compliant enhanced concrete paving entrances and walkways |
| 9 Trellis fencing for screening | 18 ADA path of travel between buildings |

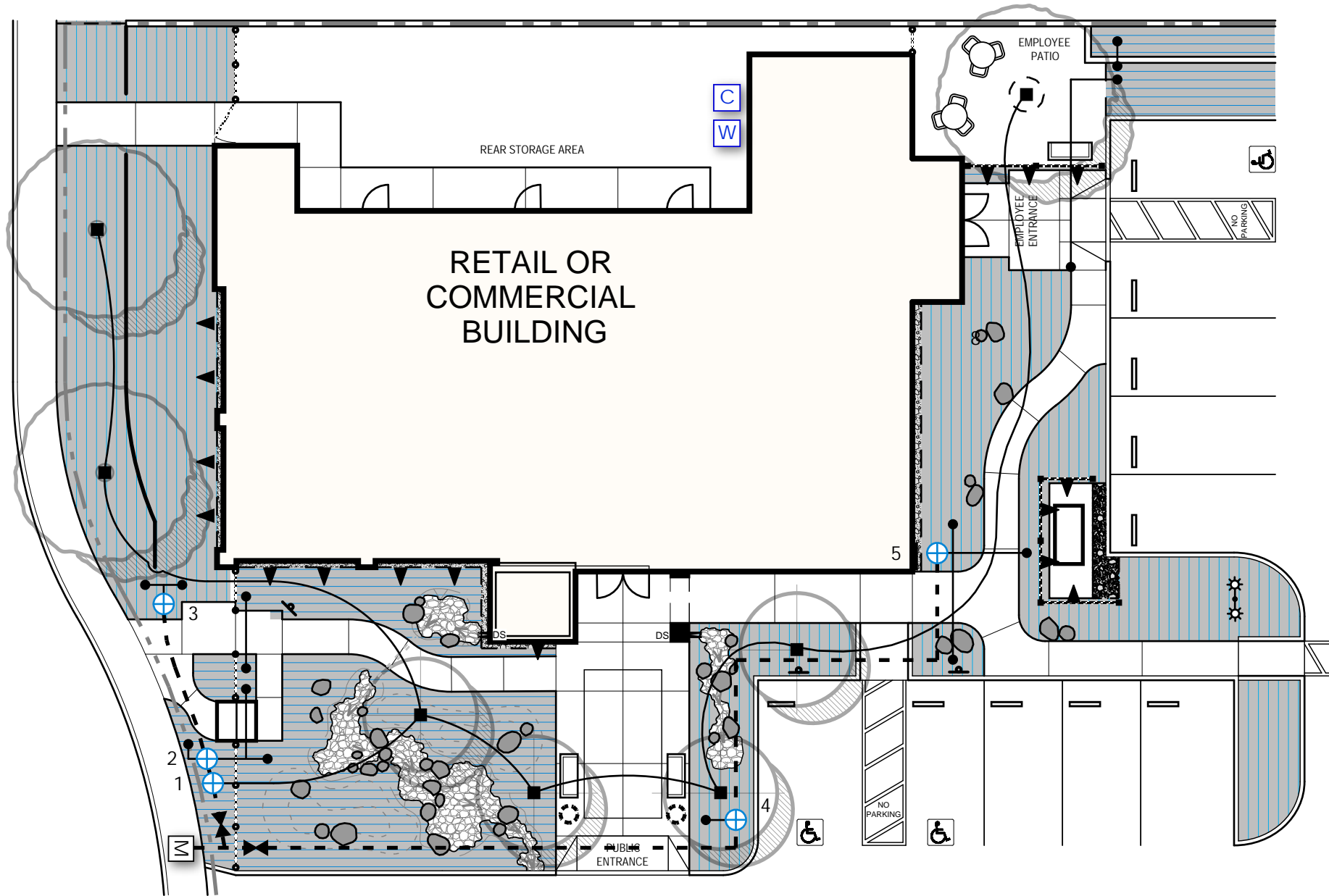


COMMERCIAL LANDSCAPE AND IRRIGATION GUIDE

CITY OF RIVERSIDE

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND RIVERSIDE PUBLIC UTILITIES





Benefits of a low-volume irrigation design:

- Reduced water usage equals lower water bills
- No need to worry about restrictions that limit number of irrigation days or hours
- Eliminates maintenance cost due to overspray damage to windows, paving, paint and building surfaces.

IRRIGATION LEGEND:

- Tree Irrigation
Deep root watering bubblers on separate irrigation control valve.
- ▲ Shrub Planter Areas
Sub-surface dripline emitters typically spaced 12" or 18" on-center, and driplines typically installed 12" or 18" apart, additional drip emitters placed at vines for supplemental irrigation.
- ⊕ Irrigation Control Valves
- C W Irrigation Controller and Weather Sensor
- M Irrigation Point of Connection
Which may include the Water Meter, Backflow, Gate Valve, Pressure Regulator, Master Valve, and/or Flow Sensor

Irrigation Design:

This irrigation system provides a high level of efficiency. A weather based "smart" controller automatically adjusts valve run-times for specific plant water requirements throughout the changing seasons and weather events.

Sub-surface dripline in the shrub planter areas and bubblers at the trees apply irrigation water directly to the plant's root zone. This eliminates wasteful overspray and water run-off.

Water Use Calculations:

Total square footage of landscape area:	3,700 s.f.
Planter area with low water use trees, shrubs and groundcover:	3,700 s.f.
Lawn area with high water use turf:	0 s.f.

Estimated total water use: 31,946 gal/yr
Results in a 77% reduction of water use over the existing irrigation exhibit.

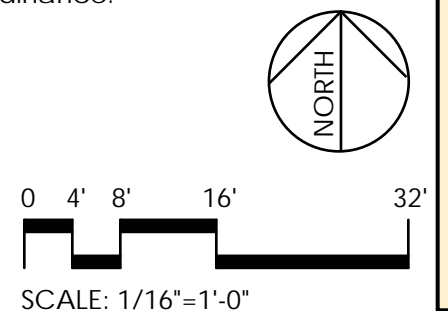
The estimated total water use is well below the calculated maximum annual water allowance by over 26,000 gallons per year. For new or rehabilitated landscapes, this alternate exhibit is in compliance with the City of Riverside's current water use ordinance.



COMMERCIAL LANDSCAPE AND IRRIGATION GUIDE

CITY OF RIVERSIDE

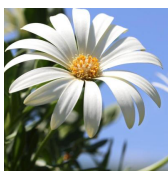
COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND RIVERSIDE PUBLIC UTILITIES



LANDSCAPE DESIGN: A FEW THINGS TO CONSIDER

1. What amount of sun will each area receive throughout the day?
 - a. Full sun - no shade or very little shade, 6 or more hours of sun a day.
 - b. Partial sun - some shade, 4 to 6 hours of sun a day.
 - c. Partial shade - some sun, 2 to 4 hours of sun a day.
 - d. Full shade - no sun or very little sun, 0 to 2 hours a day.
2. What is the eventual height and width of the plant?
 - a. Knowing the mature width of the plant will determine the spacing, and if the plant is suited for its potential location.
 - b. Knowing the mature height of the plant will determine how to locate the plants in the landscape, such as background, midground, foreground. Also, large blank walls can be screened, while low windows can be left unblocked if a plant with the appropriate height is used.
3. What is the soil type?
 - a. Sandy - fast draining, damp soil will not remain in a clump after squeezed by hand.
 - b. Loam - good drainage, damp soil will form broken clumps after squeezed by hand.
 - c. Clay - slow drainage, damp soil will form a tight unbroken clump after squeezed by hand.
4. How will the landscape area be used?
 - a. Displays - creatively design a gravel or decomposed area into the landscape that can be utilized for displays.
 - b. Seating - provide paths, benches and/or seatwalls to provide seating for staff or visitors.
 - c. Edible landscape - incorporate fruit trees, vegetables and/or herbs to provide a purpose to the landscape and add to the enjoyment of those who use it.
5. How can the landscape attract or divert attention?

By utilizing perennials with brightly colored blooms, visitors can be drawn to entrances and key signage. Alternately, if dense or thorny plants are used, visitors will be directed away from areas.



The following regional plant resources provide valuable information to assist you when considering these questions.

- Riverside Citywide Design Guidelines, Appendix E, Section V, Climate Appropriate Plants for the City of Riverside.
- Riverside County Guide to California Friendly Landscaping at www.rctlma.com
- Western Municipal Water District's plant list at www.wmwd.com
- Sunset Western Garden Book.
- Local retail nurseries, seek out knowledgeable staff who can guide you in selecting the right plants for your specific landscape needs.



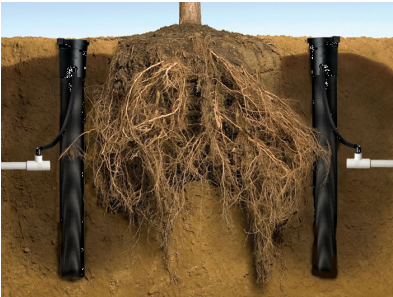
IRRIGATION DESIGN: A FEW THINGS TO CONSIDER

1. What are the different zones of the landscape that effect water use?
Different water use zones should be separated into different valves to allow control over the irrigation run-times based on the following criteria:
 - a. Type of plant material, such as high water use turf, moderate water use trees, low water use trees, moderate water use shrubs, low water use shrubs, edible plants, etc.
 - b. Sun/shade areas.
 - c. Slope/no slope areas.
2. How can an irrigation system be automatically adjusted to conserve water?
 - a. Install a "Smart" automatic controller that uses local weather and evapotranspiration data to adjust valve run times.
 - b. Install a weather sensor (rain, freeze, wind, etc.) that will suspend irrigation during a weather event.



The following are common types of irrigation and a brief explanation of when to use them.

1. Dripline Irrigation
 - a. Drip emitters are manufactured into poly tubing at evenly spaced intervals. Dripline can be installed sub-surface (buried under soil 4" to 6") or on-surface covered with mulch.
 - b. Dripline irrigation is well suited for all zones of the landscape that have plant material spaced evenly. It's output is calculated in gallons per hour (gph). This relatively small output evenly wets the plant's root zone without run-off.
2. Point Source Drip Irrigation
 - a. Drip emitters inserted into blank poly tubing at plant locations. Poly tubing can be installed sub-surface or on-surface covered with mulch. The drip emitters would be placed above grade over the plant's root zone.
 - b. Point source irrigation is suited for plant material that is spaced sporadically. It's output is calculated in gallons per hour (gph). This relatively small output evenly wets the plants root zone without run-off.
3. Bubbler Irrigation
 - a. Bubblers inserted into blank poly tubing at plant locations. Poly tubing can be installed sub-surface or on-surface covered with mulch. The bubbler is placed above grade within the plant's root zone.
 - b. Bubbler irrigation works well with larger plants or trees that require a greater amount of irrigation water. The output is calculated in gallons per minute (gpm). This relatively larger output can deliver irrigation water directly to the plants root zone. Several manufactures have pre-assembled bubbler systems with mesh tubes capped with grates to be installed sub-surface to deliver irrigation directly to the plant root zone.
4. Overhead Spray Irrigation
 - a. Spray nozzles can be installed on pop-up bodies or on fixed risers. Fixed risers should be used in areas out of view and/or away from traffic, such as the middle or top sections of a slope.
 - b. Overhead spray irrigation is best suited for large turf areas and large slope areas. The output is calculated in gallons per minute (gpm). Heads should be spaced at the nozzle's specified radius to achieve full and even irrigation coverage. Overhead spray heads are required to be setback 24" from non-permeable hardscape that does not drain entirely to an adjacent landscape area. Care should be taken in proper placement and maintenance to avoid wasteful overspray and run-off.



CLIMATE-APPROPRIATE PLANTS FOR THE CITY OF RIVERSIDE

(WATER USE) BOTANICAL NAME - COMMON NAME



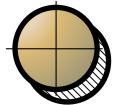
TREES

EVERGREEN

- (L) ARBUTUS UNEDO - STRAWBERRY TREE
- (L) BRACHYCHITON POPULNEUS - BOTTLE TREE
- (L) CALLISTEMON CITRINUS - BOTTLE BRUSH TREE
- (L) MELALEUCA LINARIFOLIA - FLAX LEAF PAPER BARK
- (L) OLEA EUROPAEA - OLIVE TREE
- (L) PINUS ELDARICA - AFGHAN PINE
- (L) QUERCUS AGRIFOLIA - COAST LIVE OAK
- (L) QUERCUS ILEX- HOLLY OAK
- (L) SCHINUS MOLLE - CALIFORNIA PEPPER
- (L/M) EUCALYPTUS SPECIES - EUCALYPTUS *
- (M) CINNAMOMUM CAMPHORA - CAMPHOR TREE
- (M) JUNIPERUS C. 'TORULOSA' - HOLLYWOOD JUNIPER
- (M) LOPHOSTEMON CONFERTUS - BRISBANE BOX
- (M) MAGNOLIA GRANDIFLORA - SOUTHERN MAGNOLIA

PALMS

- (L) WASHINGTONIA ROBUSTA - MEXICAN FAN PALM
- (L) WASHINGTONIA FILIFERA - CALIFORNIA FAN PALM
- (L) PHOENIX DACTYLIFERA - DATE PALM
- (L) PHOENIX CANARIENSIS - CANARY ISLAND DATE PALM
- (M) SYAGRUS ROMANZOFFIANUM - QUEEN PALM



DECIDUOUS

- (L) ALBIZIA JULIBRISSIN - SILK TREE
- (L) CERCIS OCCIDENTALIS - WESTERN REDBUD
- (L) x CHITALPA TASHKENTENSIS 'PINK DAWN' - CHITALPA
- (M) LAGERSTROEMIA INDICA - CRAPE MYRTLE TREE
- SELECT ONLY NATIVE AMERICAN NAMED VARIETIES
- (M) PLATANUS RACEMOSA - CALIFORNIA SYCAMORE

VINES

- (L) BOUGAINVILLEA SPECIES - BOUGAINVILLEA
- (L) LONICERA SPECIES - HONEYSUCKLE*
- (L) MACFADYENA UNGUS-CACTI - CAT'S CLAW
- (L) VITIS SPECIES - GRAPE VINE
- (L/M) CLEMATIS SPECIES - CLEMATIS *
- (M) DISTICTUS BUCCINATORIA - BLOOD RED TRUMPET VINE
- (M) ROSA SPECIES - CLIMBING ROSES
- (M) TRACHELOSPERMUM JASMINOIDES - STAR JASMINE
- (M) WISTERIA SINENSIS - CHINESE WISTERIA

SHRUBS



BACKGROUND:

- (VL/L) AGAVE SPECIES - AGAVE*
- (VL/L) CISTUS SPECIES - ROCKROSE*
- (L) ALYOGYNE HUEGELII - BLUE HIBISCUS
- (L) ARCTOSTAPHYLOS DENSIFLORA 'HOWARD MCMINN' - HOWARD MCMINN MANZANITA
- (L) CAESALPINIA GILLIESII - YELLOW BIRD OF PARADISE
- (L) CEANOTHUS SPECIES - CEANOTHUS
- (L) ELAEAGNUS P. 'FRUITLANDII' - FRUITLAND SILVERBERRY
- (L) FRANGULA CALIFORNICA - COFFEEBERRY
- (L) GREVILLEA 'NOELLII' - NOEL'S GREVILLEA
- (L) HETEROMELES ARBUTIFOLIA - TOYON
- (L) JUNIPERUS SPECIES - JUNIPER*
- (L) LAURUS NOBILIS - SWEET BAY
- (L) LEPTOSPERMUM SPECIES - TEA TREE*
- (L) LEUCOPHYLLUM F. 'COMPACTA' - COMPACT TEXAS RANGER
- (L) NERIUUM O. 'PETITE PINK' OR 'SALMON' - OLEANER
- (L) ROSMARINUS OFFICINALIS - ROSEMARY (UPRIGHT)
- (L) ZAUCHENERIA CALIFORNICA- CALIFORNIA FUCHSIA
- (L/M) SALVIA SPECIES - SAGE*
- (M) BERBERIS SPECIES - BARBERRY

BACKGROUND CONTINUED:

- (M) CAMELLIA SPECIES - CAMELLIA
- (M) CARPENTERIA CALIFORNICA - BUSH ANEMONE
- (M) DODONEA VISCOSA - HOPSEED BUSH
- (M) GARDENIA AUGUSTA - GARDENIA
- (M) HIBISCUS SPECIES - HIBISCUS
- (M) ILEX SPECIES - HOLLY
- (M) LEPTOSPERMUM SCOPARIUM - NEW ZEALAND TEATREE
- (M) MAHONIA AQUIFOLIUM - OREGON GRAPE
- (M) PHORMIUM HYBRIDS - NEW ZEALAND FLAX
- (M) RIBES SPECIOSUM - FUCHSIA-FLOWERING GOOSEBERRY
- (M) ROSA SPECIES - ROSE
- (M) SPIRAEA JAPONICA HYBRIDS - SPIRAEA
- (M) STRELITZIA REGINAE - BIRD OF PARADISE

SYMBOL KEY

WATER USE CLASSIFICATIONS:

- L LOW WATER USE
- M MODERATE WATER USE

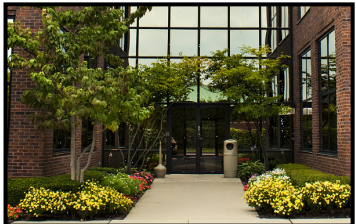
*Water use varies by species or variety, verify water use classification at:

www.ucanr.edu
Water Use Classification of Landscape Species
(WUCOLS), Region 4 South Inland Valley, Riverside

NATIVE SPECIES:

- ALL SPECIES
- SELECT SPECIES

EXAMPLES:



CAREFULLY REVIEW AND SELECT THE RIGHT PLANTS FOR THE RIGHT SPOT TO MAINTAIN THE HEALTH OF THE PLANT AND TO REDUCE THE RISK OF DIEBACK AND/OR DISEASE. REFER TO SHEET 6 FOR ADDITIONAL GUIDANCE.



COMMERCIAL LANDSCAPE AND IRRIGATION GUIDE

CITY OF RIVERSIDE

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND RIVERSIDE PUBLIC UTILITIES

CLIMATE-APPROPRIATE PLANTS FOR THE CITY OF RIVERSIDE

(WATER USE) BOTANICAL NAME - COMMON NAME

SHRUBS



MIDGROUND:

- (VL/L) CISTUS SPECIES - ROCKROSE*
- (L) AGAVE SPECIES - AGAVE
- (L) ALOE STRIATA - CORAL ALOE
- (L) ANIGOZANTHOS HYBRIDS - KANGAROO PAW
- (L) ARTEMISIA SPECIES - SAGEBRUSH
- (L) BACCHARIS 'CENTENNIAL' - DESERT BACCHARIS
- (L) BERBERIS THUNBERGII - BARBERRY
- (L) CALLISTEMON 'LITTLE JOHN' - DWARF BOTTLE BRUSH
- (L) CEANOTHUS SPECIES - CEANOTHUS
- (L) DIANELLA 'LITTLE REV' - LITTLE REV FLAX LILY
- (L) HESPERALOE PARVIFLORA - RED YUCCA
- (L) JUNIPERUS SPECIES - JUNIPER
- (L) LANTANA SPECIES - LANTANA
- (L) PHLOMIS FRUTICOSA - JERUSALEM SAGE
- (L/M) ACHILLEA SPECIES - YARROW*
- (L/M) HEUCHERA SPECIES - CORAL BELLS*
- (L/M) MUHLENBERGIA SPECIES - MUHLY
- (L/M) PENSTEMON SPECIES - PENSTEMON*
- (L/M) ROSA SPECIES - ROSE*
- (L/M) SALVIA SPECIES - SAGE*
- (M) ASPARAGUS SPECIES - ASPARAGUS
- (M) ASPIDISTRA ELATIOR - CAST IRON PLANT
- (M) DIETES VEGETA - FORT NIGHT LILY
- (M) HEMEROCALLIS HYBRIDS - DAY LILY
- (M) ILEX SPECIES - HOLLY
- (M) MAHONIA AQUIFOLIUM - OREGON GRAPE
- (M) NEPHROLEPIS CORDIFOLIA - SOUTHERN SWORD FERN
- (M) PHORMIUM HYBRIDS - NEW ZEALAND FLAX
- (M) SPIRAEA JAPONICA HYBRIDS - SPIRAEA

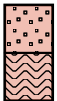


FOREGROUND:

- (L) ALOE 'BLUE ELF' - BLUE ELF ALOE
- (L) ANIGOZANTHOS HYBRIDS - KANGAROO PAW

FOREGROUND CONTINUED:

- (L) BULBINE FRUTENSCEUS - STALKED BULBINE
- (L) CHRISACTINIA MEXICANA - DIAMANITA
- (L) CORREA 'CARMINE BELLS' - AUSTRALIAN FUSHIA
- (L) DIANELLA 'BABY BLISS' - BABY BLISS FLAX LILY
- (L) ECHEVERIA SPECIES - ECHIVERIA
- (L) JUNIPERUS SPECIES - JUNIPER
- (L) LAVANDULA SPECIES - LAVENDER
- (L) PENSTEMON SPECIES - PENSTEMON*
- (L) ROSMARINUS SPECIES - ROSEMARY
- (L) SALVIA SPECIES - SAGE
- (L) TEUCRIUM CHAMAEDRYIS - GERMANDER
- (L/M) ACHILLEA SPECIES - YARROW*
- (L/M) PENSTEMON SPECIES - PENSTEMON*
- (L/M) ROSA SPECIES - ROSE*
- (L/M/H) HEUCHERA SPECIES - CORAL BELLS*
- (M) ASPARAGUS SPECIES - ASPARAGUS
- (M) BERGENIA CORDIFOLIA - HEARTLEAF BERGENIA
- (M) DESCHAMPSIA CAESPITOSA - TUFTED HAIR GRASS
- (M) HEMEROCALLIS HYBRIDS (DWARF) - DAY LILY
- (M) IRIS DOUGLASIANA - PACIFIC COAST IRIS
- (M) MAHONIA AQUIFOLIUM - OREGON GRAPE
- (M) PELARGONIUM (GERANIUM) SPECIES - GERANIUM
- (M) STACHYS BYZANTINA - LAMB'S EAR
- (M) TRACHELOSPERMUM JASMINOIDES - STAR JASMINE



GROUNDCOVER:

- (L) ACHILLEA MILLEFOLIUM - YARROW
- (L) AGAVE SPECIES - AGAVE
- (L) BERBERIS 'CRIMSON PYGMY' - BARBERRY
- (L) DYMONDIA MARGARETAE - DYMONDIA
- (L) JUNIPERUS SPECIES - JUNIPER
- (L) MYOPORUM PARVIFOLIUM - MYOPORUM

GROUNDCOVER CONTINUED:

- (L) LAMPRANTHUS SPECTABILIS - TRAILING ICE PLANT
- (L) ROSMARINUS 'HUNTINGTON CARPET' - ROSEMARY
- (L) SEDUM SPECIES - STONE CROP
- (L) SENECIO MANDRALISCEA - KLEINIA
- (L) TEUCRIUM COSSONII - FRUITY GERMANDER
- (L) ZAUSCHNERIA CALIFORNICA - CALIFORNIA FUCHSIA
- (L/M) ACHILLEA SPECIES - YARROW*
- (L/M) PENSTEMON SPECIES - PENSTEMON*
- (L/M) ROSA SPECIES - ROSE*
- (L/M) SALVIA SPECIES - SAGE*
- (L/M) HEUCHERA SPECIES - CORAL BELLS*
- (M) ARCTOSTAPHYLOS 'EMERALD CARPET' - MANZANITA
- (M) MAHONIA AQUIFOLIUM - OREGON GRAPE

SYMBOL KEY

WATER USE CLASSIFICATIONS:

- L LOW WATER USE
- M MODERATE WATER USE

*Water use varies by species or variety, verify water use classification at:

www.ucanr.edu
Water Use Classification of Landscape Species
(WUCOLS), Region 4 South Inland Valley, Riverside

NATIVE SPECIES:

- ALL SPECIES
- SELECT SPECIES

EXAMPLES:



CAREFULLY REVIEW AND SELECT THE RIGHT PLANTS FOR THE RIGHT SPOT TO MAINTAIN THE HEALTH OF THE PLANT AND TO REDUCE THE RISK OF DIEBACK AND/OR DISEASE. REFER TO SHEET 6 FOR ADDITIONAL GUIDANCE.



COMMERCIAL LANDSCAPE AND IRRIGATION GUIDE

CITY OF RIVERSIDE

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT AND RIVERSIDE PUBLIC UTILITIES