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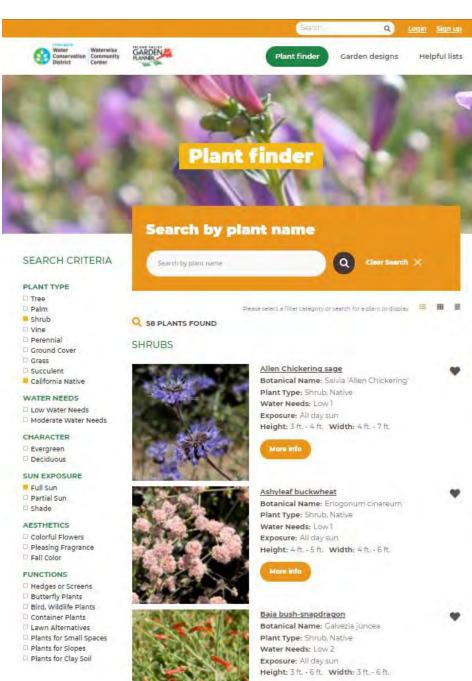




## **Online Resources**

#### **PLAN YOUR GARDEN USING:**

inlandvalleygardenplanner.org



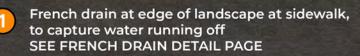
FOR MORE ABOUT GARDEN
DESIGN, PLANT SELECTION,
PLANT CARE TIPS & TRICKS AND MORE
VISIT: inlandvalleygardenplanner.org







CALIFORNIA NATIVE COLOR Small Front Yard Design NOTES:



Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE





A program of the

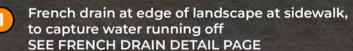
**Chino Basin Water** 

**Conservation District** 

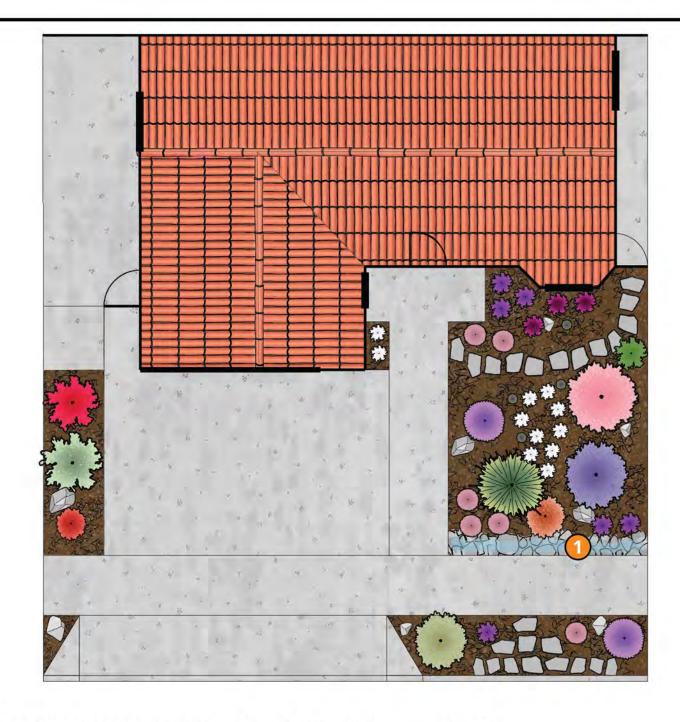
# CALIFORNIA NATIVE COLOR Small Front Yard Design

WITH PLANT LABELS

NOTES:



Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE



#### Perrenials/Shrubs ≤ 4'



Artemisia californica 'Montara' Montara Sagebrush - 5'



*Eriogonum grande var. rubescens* Red Buckwheat - 3'



Penstemon heterophyllus 'Margarita BOP' Margarita Foothill Penstemon - 2'



Salvia spathacea Hummingbird Sage - 2'

Sisryinchium bellum Blue-Eyed Grass - 6"



Verbena 'De La Mina' Lilac Verbena - 3"



Monardella villosa Coyote Mint- 3



*Epilobium canum* California Fuchsia - 3'



**Penstemon Eatonii** Firecracker Penstemon - 3'

#### Shrubs ≥ 5'



Arctostaphylos 'Sunset' Sunset Manzanita - 5'



**Eriogonum cinereum** Ashyleaf Buckwheat - 6'



*Muhlenbergia rigens* Deer Grass - 6'



Salvia 'Allen Chickering' Allen Chickering Sage - 6'



*Isomeria arborea* Bladderpod - 6'



Calliandra Californica Baja Fairy Duster - 5'

#### **NOTES:**

French drain at edge of landscape at sidewalk, to capture water running off SEE FRENCH DRAIN DETAIL PAGE

Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE

A program of the Chino Basin Water

**Conservation District** 

### CALIFORNIA NATIVE COLOR

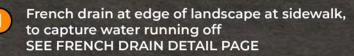




CALIFORNIA NATIVE COLOR Small Front Yard Design

WITHOUT FRONT GRASSES

NOTES:



Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE





# CALIFORNIA NATIVE COLOR Small Front Yard Design WITH PLANT LABELS + WITHOUT FRONT GRASSES

- French drain at edge of landscape at sidewalk, to capture water running off SEE FRENCH DRAIN DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE







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CALIFORNIA NATIVE COLOR Medium Front Yard Design

- 1 Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE





Chino Basin Water
Conservation District

### CALIFORNIA NATIVE COLOR Medium Front Yard Design

with PLANT LABELS

- 1 Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE



#### Perrenials/Shrubs ≤ 4'



Artemisia californica 'Montara' Montara Sagebrush - 5'



Eriogonum grande var. rubescens Red Buckwheat - 3'



Achillea millefolium Common Yarrow - 1.5'



Penstemon heterophyllus 'Margarita BOP' Margarita Foothill Penstemon - 2'



Salvia spathacea Hummingbird Sage - 2'



Sisryinchium bellum Blue-Eyed Grass - 6"



Verbena Lilacina Lilac Verbena - 4'



Monardella villosa Coyote Mint- 3'



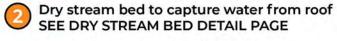
Epilobium canum California Fuchsia - 3'



Penstemon Eatonii Firecracker Penstemon - 3'

#### NOTES:

Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE



Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE

#### Shrubs ≥ 5'



Arctostaphylos 'Sunset' Sunset Manzanita - 5'



Eriogonum cinereum Ashyleaf Buckwheat - 6'



Leymus condensatus 'Canyon Prince' Canyon Prince Wild Rye - 5'



Muhlenbergia rigens Deer Grass - 6'



Salvia 'Allen Chickering' Allen Chickering Sage - 6'



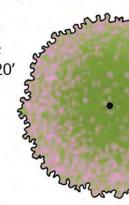
Isomeris arborea Bladderpod - 5'



Calliandra Californica Baja Fariy Duster - 5'

#### **Trees & Large Shurbs**

Chilopsis linearis Desert Willow - 20'



#### **Landscape Elements**



**Stepping Stones** 

Birdbath



Boulders



**Decomposed Granite** 



Woodchip Mulch



A program of the Chino Basin Water **Conservation District** 

#### **CALIFORNIA NATIVE COLOR Medium Front Yard Design**

**PLAN VIEW** 





SCALE: 1/8" = APPX. 1' AT 11x17 PRINT





CALIFORNIA NATIVE COLOR
Medium Front Yard Design
WITHOUT TREES

- 1 Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE





# CALIFORNIA NATIVE COLOR Medium Front Yard Design

WITH PLANT LABELS + WITHOUT TREES

- Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE





CALIFORNIA NATIVE COLOR Large Front Yard Design

- Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE Rain chain replaces roof drain downspout where applicable (optional)





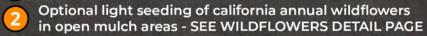
# CALIFORNIA NATIVE COLOR Large Front Yard Design

WITH PLANT LABELS

NOTES:



Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE



Decomposed Granite pathway along curb for car door exit - SEE DECOMPOSED GRANITE DETAIL PAGE Rain chain - replaces roof drain downspout where

applicable (optional)



Perrenials/Shrubs ≤ 4'

**Trees & Large Shurbs** 



Eriogonum grande var. rubescens Red Buckwheat - 3'



Verbena Lilacina Lilac Verbena - 4'

Heteromeles arbutifolia Toyon - 18'



Salvia spathacea Hummingbird Sage - 2'



Penstemon heterophyllus 'Margarita BOP' Margarita Foothill Penstemon - 2'

#### Shrubs ≥ 5'



Arctostaphylos 'Sunset' Sunset Manzanita - 5'



Eriogonum cinereum Ashyleaf Buckwheat - 6'



Artemisia californica 'Montara' Montara Sagebrush - 5'



Leymus condensatus 'Canyon Prince't Canyon Prince Wild Rye - 5'



Muhlenbergia rigens Deer Grass - 6'



Salvia 'Allen Chickering' Allen Chickering Sage - 6'

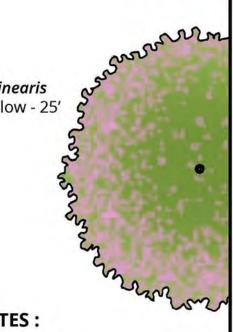


Calliandra californica Baja Fairy Duster - 5'



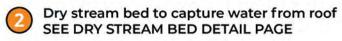
Isomeris arborea Bladderpod - 5'

Chilopsis linearis Desert Willow - 25'



**NOTES:** 

Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE



Rain chain - replaces roof drain downspout where applicable (optional)

Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE



A program of the **Chino Basin Water Conservation District**  CALIFORNIA NATIVE COLOR Large Front Yard Design **PLAN VIEW** 





SCALE: 1/8" = APPX. 1' AT 11x17 PRINT





### CALIFORNIA NATIVE COLOR Large Front Yard Design WITHOUT TREES

- Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas SEE WILDFLOWERS DETAIL PAGE
- Decomposed Granite pathway along curb for car door exit SEE DECOMPOSED GRANITE DETAIL PAGE Rain chain replaces roof drain downspout where applicable (optional)





# CALIFORNIA NATIVE COLOR Large Front Yard Design

WITH PLANT LABELS + WITHOUT TREES

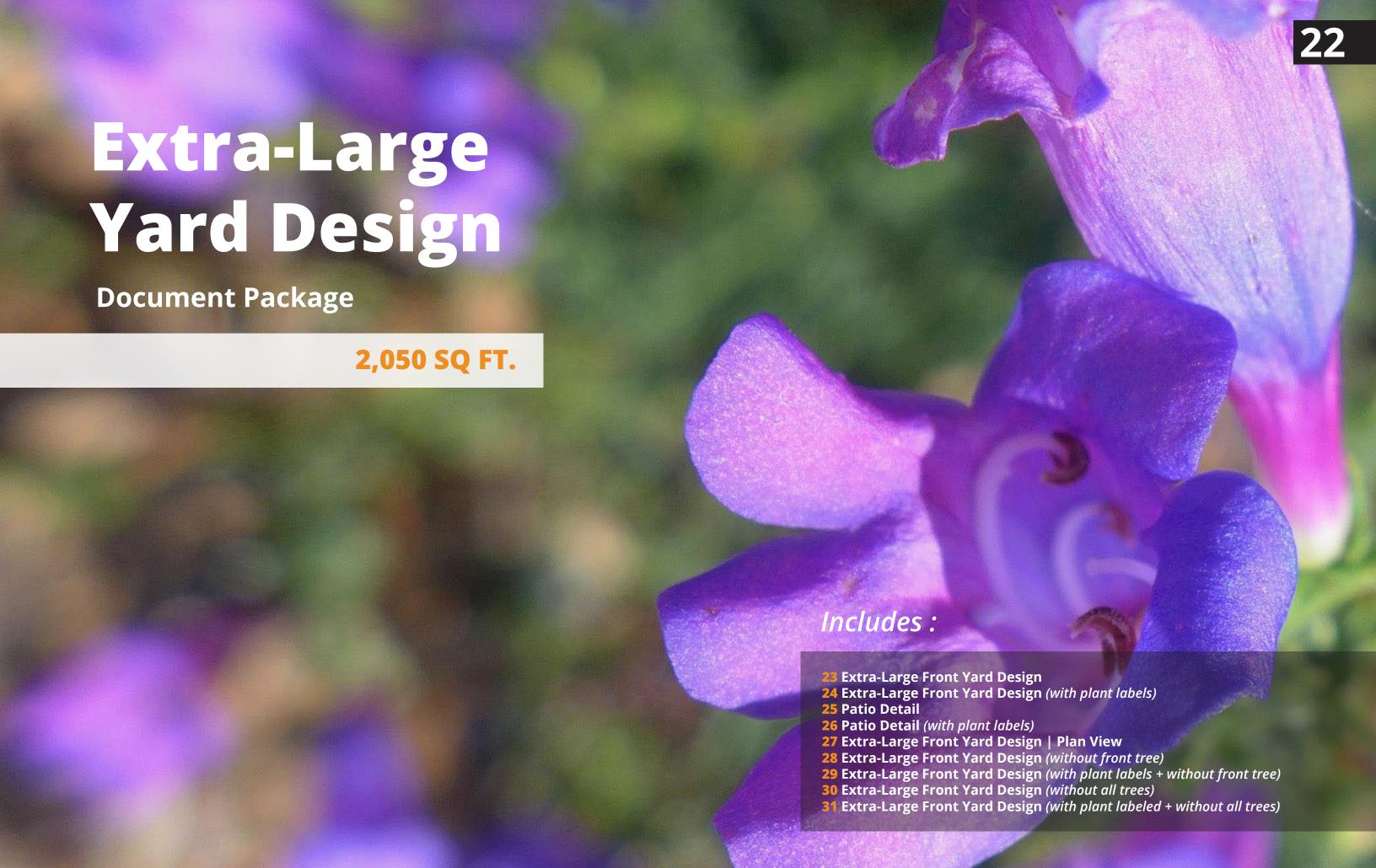
NOTES:

Dry stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE

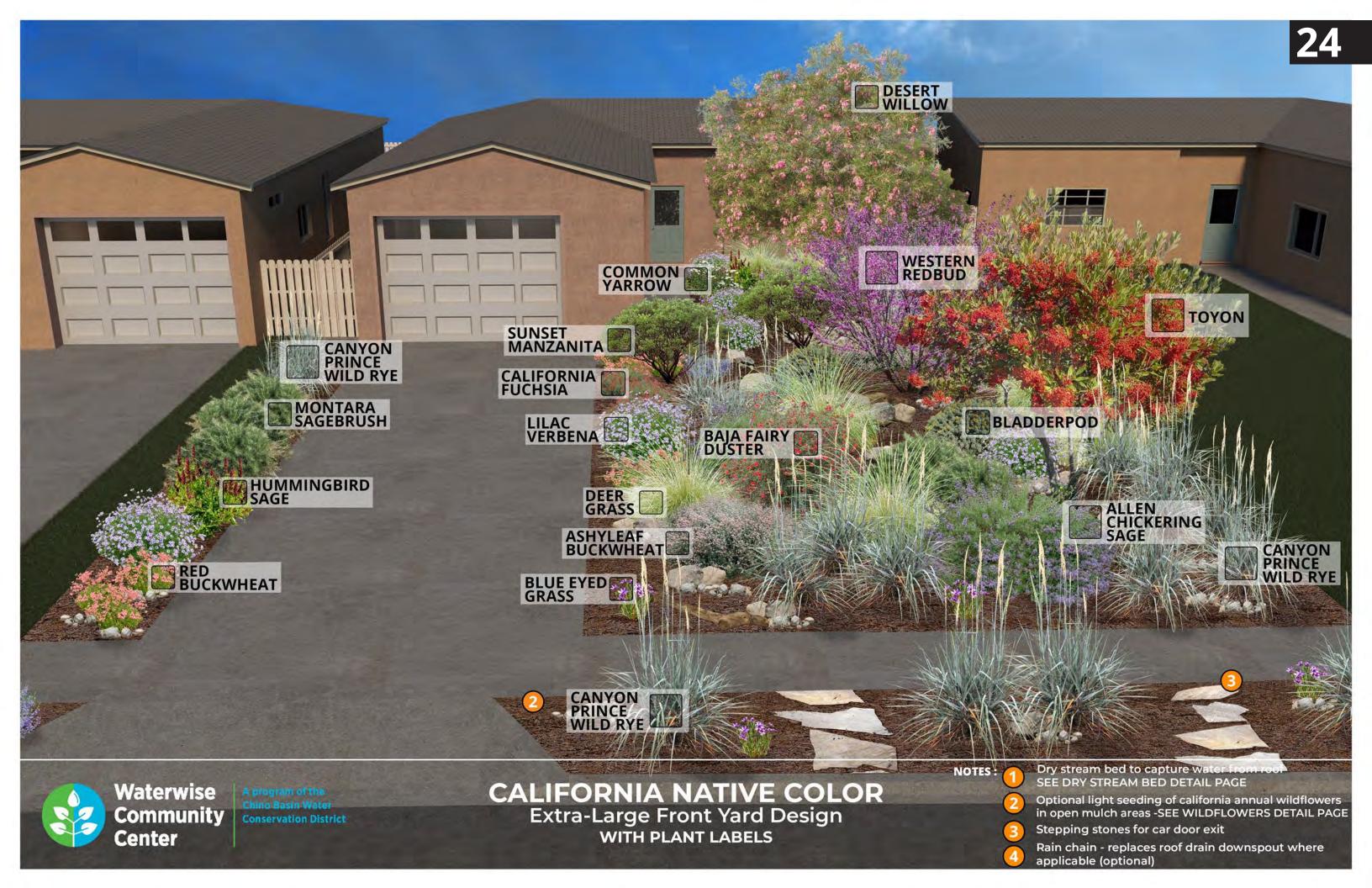
Optional light seeding of california annual wildflowers in open mulch areas - SEE WILDFLOWERS DETAIL PAGE

Decomposed Granite pathway along curb for car door exit - SEE DECOMPOSED GRANITE DETAIL PAGE

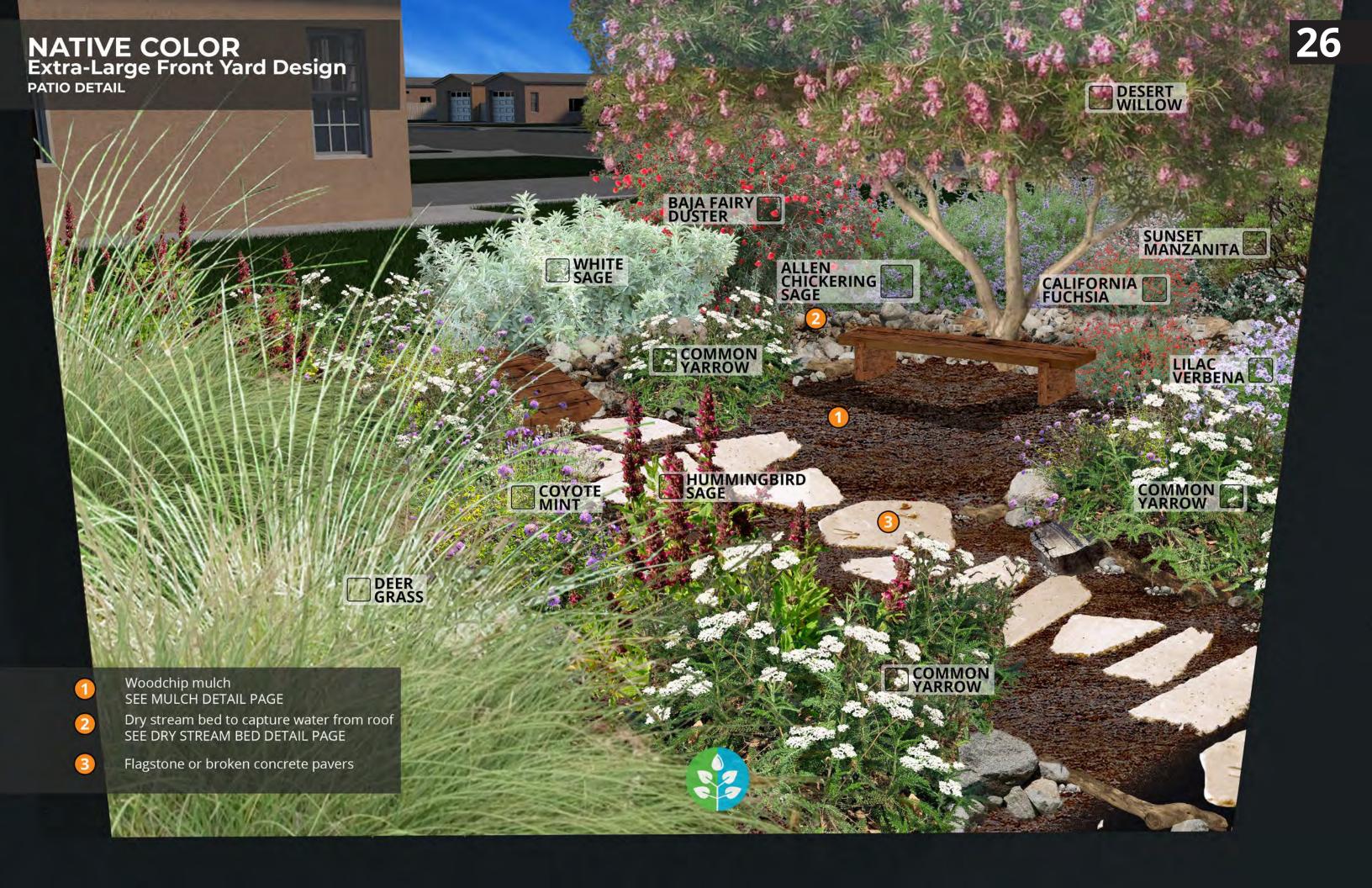
Rain chain - replaces roof drain downspout where applicable (optional)













NOTES:

Optional light seeding of california annual wildflowers in open mulch areas
SEE WILDFLOWERS DETAIL PAGE

Ory stream bed to capture water from roof SEE DRY STREAM BED DETAIL PAGE

Rain chain - replaces roof drain downspout where applicable (optional)

**Trees** 

Cercis Occidentalis Western Redbud - 10'

Chilopsis linearis Desert Willow - 15'

Heteromeles arbutifolia Toyon - 15'

#### Perrenials/Shrubs ≤ 4'

- Achillea millefolium
  Common Yarrow 1.5'
- Sisryinchium bellum Blue-Eyed Grass - 6"
- Epilobium canum
  California Fuchsia 3'
- Eriogonum grande var. rubescens Red Buckwheat - 2'
- \*\* Salvia spathacea

  Hummingbird Sage 2'



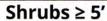
Monardella villosa Coyote Mint - 2.5'

Leymus condensatus
'Canyon Prince'
Canyon Prince Wild Rye - 4'

Penstemon heterophyllus 'Margarita BOP'

Margarita Foothill Penstemon - 2'

*Verbena 'De La Mina'* Lilac Verbena - 4'





*Arctostaphylos 'Sunset'* Sunset Manzanita - 5'



*Artemisia californica 'Montara'* Montara Sagebrush - 5'

Calliandra californica Baja Fairy Duster - 5'



**Eriogonum cinereum** Ashyleaf Buckwheat - 6'



*Isomeris arborea* Bladderpod - 5'



Salvia 'Allen Chickering' Allen Chickering Sage - 6'



A program of the Chino Basin Water Conservation District

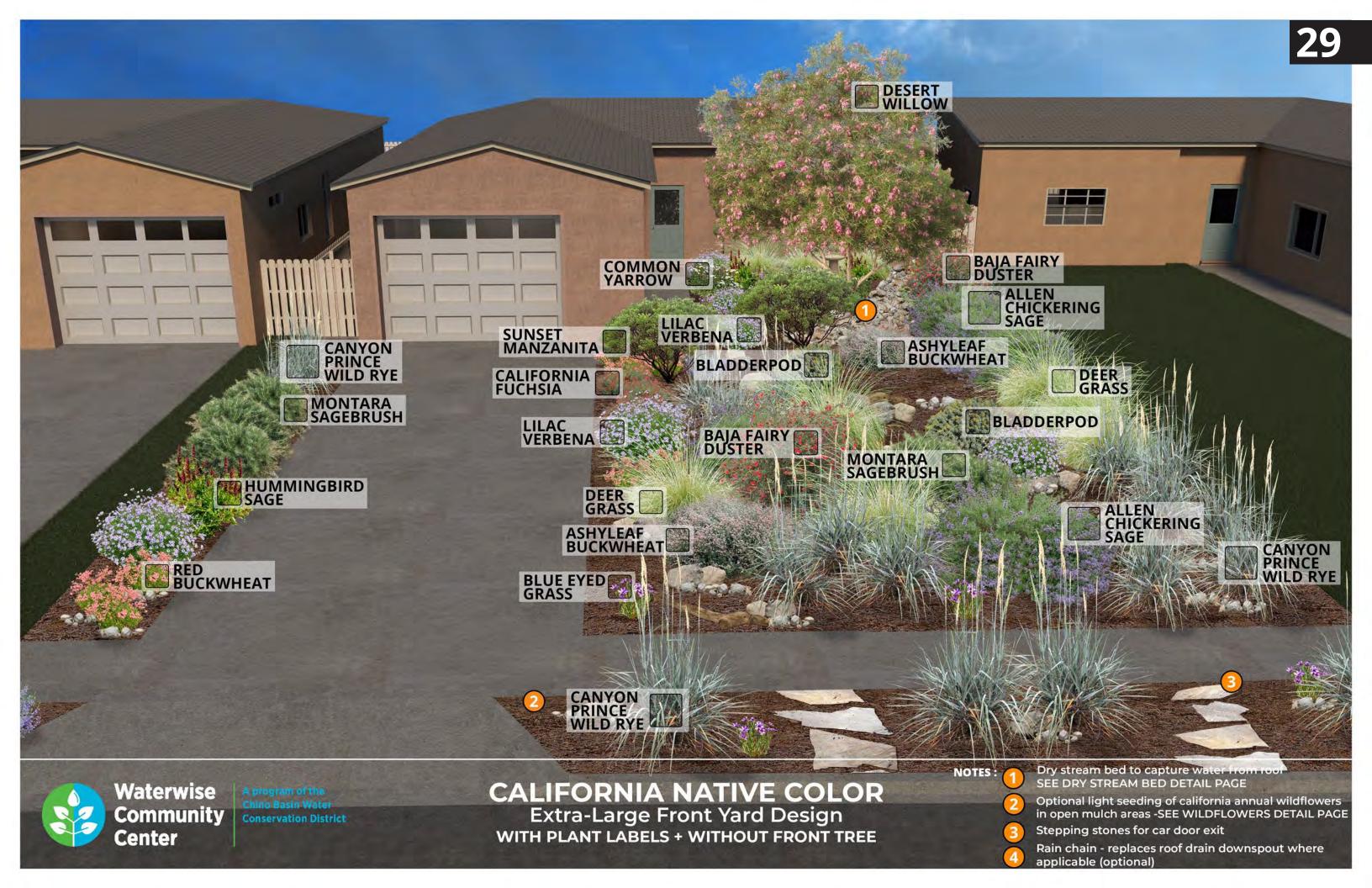
### CALIFORNIA NATIVE COLOR Extra-Large Front Yard Design





SCALE: 1/8" = APPX. 1' AT 11x17 PRINT









CALIFORNIA NATIVE COLOR Extra-Large Front Yard Design WITHOUT TREES

- Dry stream bed to capture water from SEE DRY STREAM BED DETAIL PAGE
- Optional light seeding of california annual wildflowers in open mulch areas -SEE WILDFLOWERS DETAIL PAGE
- Stepping stones for car door exit
- Rain chain replaces roof drain downspout where applicable (optional)



Community Center

**Conservation District** 

WITH PLANT LABELS + WITHOUT TREES

- Optional light seeding of california annual wildflowers in open mulch areas -SEE WILDFLOWERS DETAIL PAGE
- Stepping stones for car door exit
- Rain chain replaces roof drain downspout where applicable (optional)

# Detail Pages



BOXES WITH ICON:
MEANS IT IS USUALLY IN
BLOOM SOMETIME THIS SEASON

garden style :
CA NATIVE COLOR

#### COLORFUL COLLECTION OF UNIQUE CALIFORNIA NATIVES

With focus on color, this style creates great food sources for a diverse group of pollinators, butterflies, and birds!

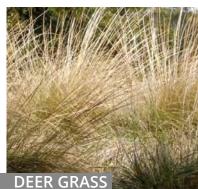
33

PLANT NAME	SPRIN	G SUMMER	FALL	WINTER
TOYON				
WESTERN REDBUD	•			
ALLEN CHICKERING SAGE	•			
MARGARITA FOOTHILL PENSTEMON	•			
SUNSET MANZANITA	•			
MONTARA SAGEBRUSH			₩	
CANYON PRINCE WILD RYE	€			
ASHYLEAF BUCKWHEAT	•		₩	
RED BUCKWHEAT	•			
HUMMINGBIRD SAGE				
BLUE-EYED GRASS	₩			
DEER GRASS	₩			
LILAC VERBENA	•			
COMMON YARROW	₩			
BAJA FAIRY DUSTER				
DESERT WILLOW	•			
CALIFORNIA FUSCHIA				
BLADDERPOD	<b>\$</b>			
COYOTE MINT				

PLANT TEXTURES
Photography credit
for plant images:
Robert Perry











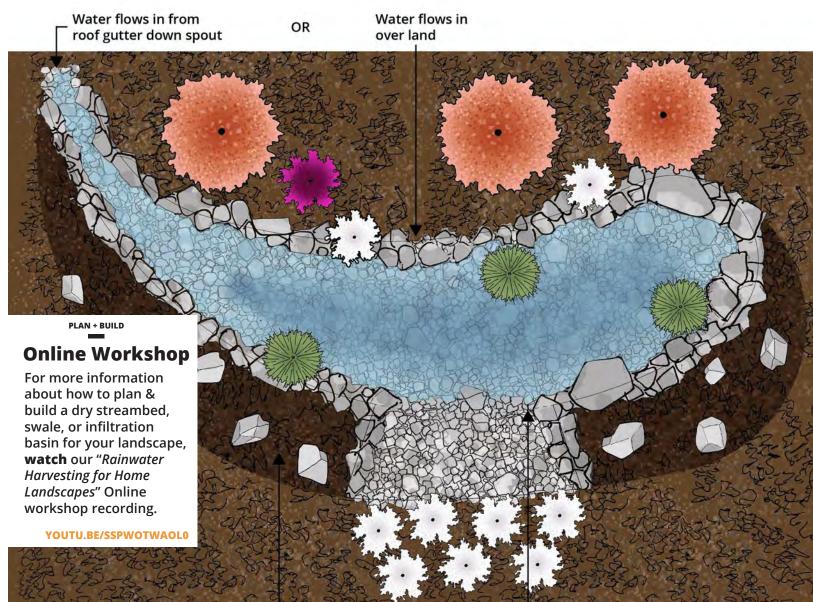




### **DRY STREAMBED**

WITH BERM DETAIL BIRD'S EYE VIEW





DRY STREAMBED WITH **BERM DETAIL BIRD'S EYE VIEW** 

Berm created with soil from excavation, to increase pooling depth on slope

Overflow point, slightly lower than top of berm, directs excess water. "Armor" overflow area with gravel / stone to prevent erosion

For more information about Berms, see next page!

**IMAGE TAKEN AT** THE THEODORE **PAYNE FOUNDATION NATIVE PLANT GARDEN TOUR** [nativeplantgardentour.org]



#### **DRY STREAMBED**

A dry streambed features rocks and gravel covering much of its surface and may or may not INFILTRATION BASIN have plants in the part that accumulates water.

#### **SWALE**

often called a 'swale', is a however, can sometimes be a (like a dry stream!). bit confusing because the same word can be used to refer to other types of structures that move water.

The term 'infiltration basin' is used for a landscape feature very similar to a dry streambed or a swale, but it usually refers Dry streambeds do not need to A similar landscape feature, to a feature that is shaped be as large as the ones featured more like a rounded oval basin in the illustrated drawings on sunken area that accumulates that holds and infiltrates water, the following pages, but the water, but does not contain any while a dry streambed or swale or many rocks. The term swale, is usually longer and narrower

#### **MATERIALS**

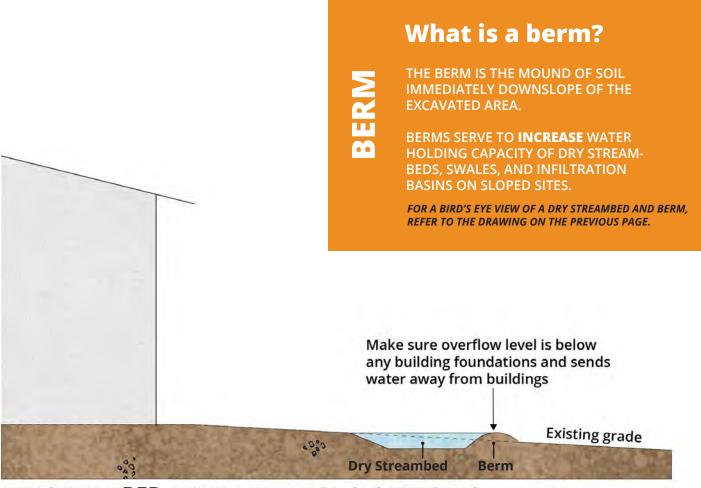
The gravel, rocks, and boulders used in dry streambeds are usually purchased from landscape material yards or construction materials yards. For a list of businesses that sell this type of material in the western San Bernardino County area, see our:

**Local Landscape Suppliers List:** cbwcd.org/suppliers

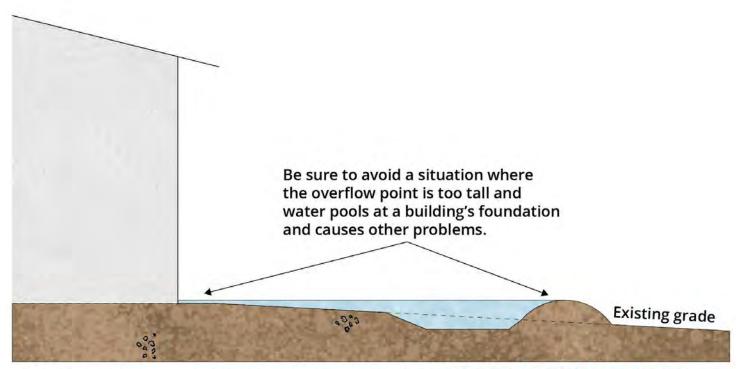
#### **PLANNING**

depicted scale in the drawings helps to show the relevant information. The photos on this page provide some "real world" examples of residential-scale dry streambeds. The illustrated details on the next page can also be applied to swales without rock and to infiltration basins.

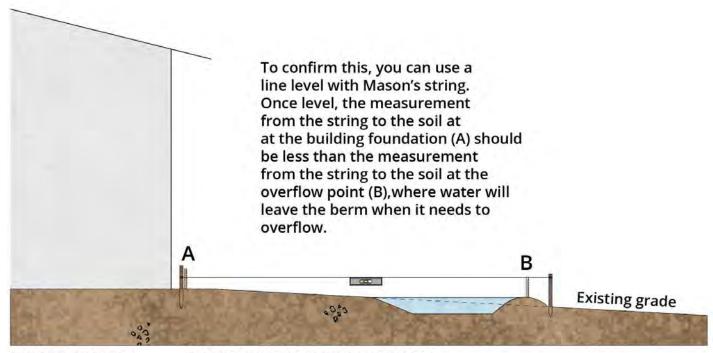




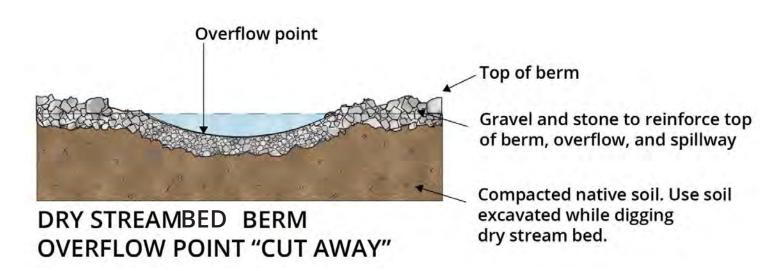
DRY STREAMBED BERM DETAIL FOR SLOPED SITES

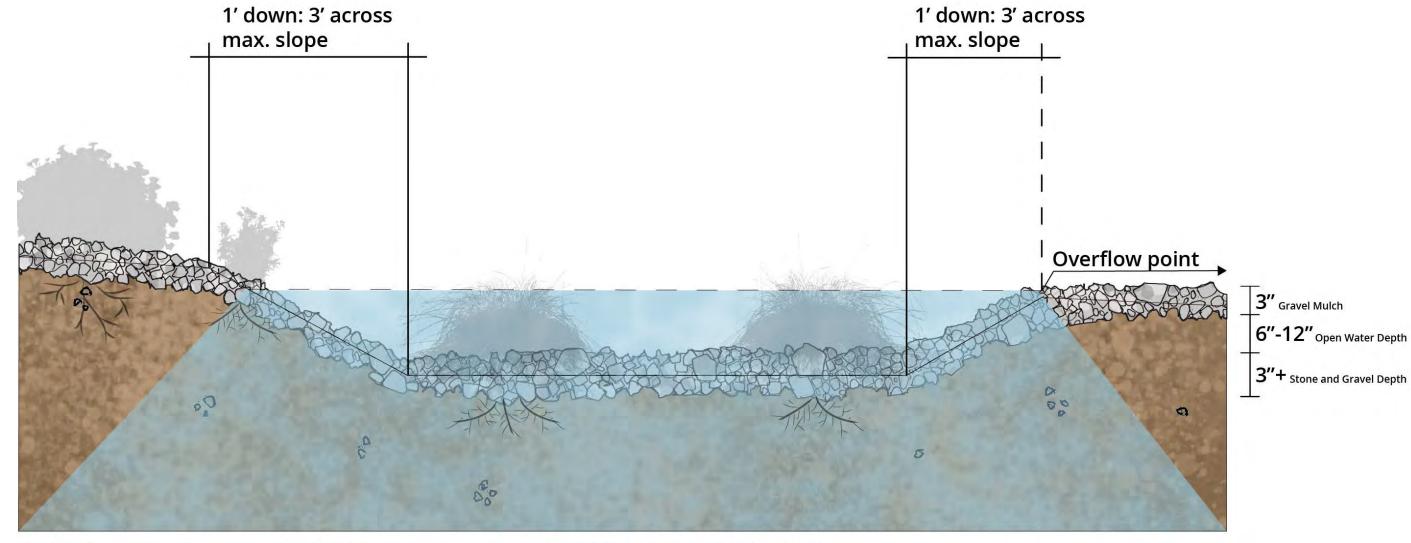


DRY STREAMBED WITH BERM - TOO TALL - AVOID THIS SITUATION!



DRY STREAMBED OVERFLOW BERM DETAIL



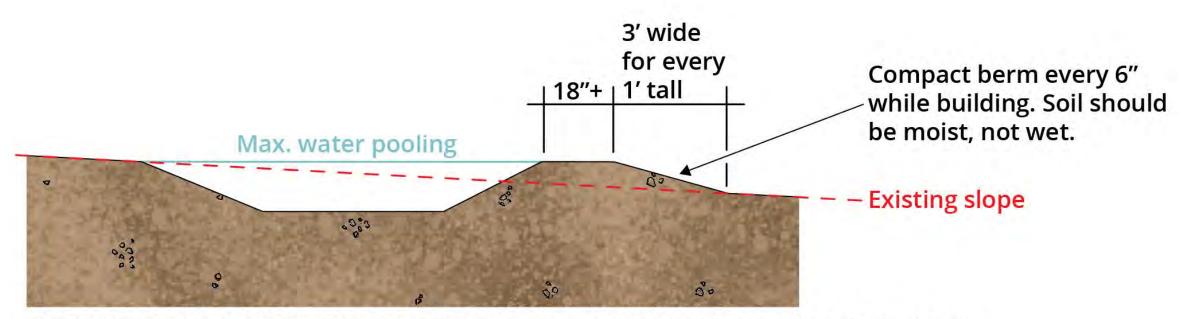


#### DRY STREAMBED TYPICAL DETAIL (WITH NO BERM NEEDED)



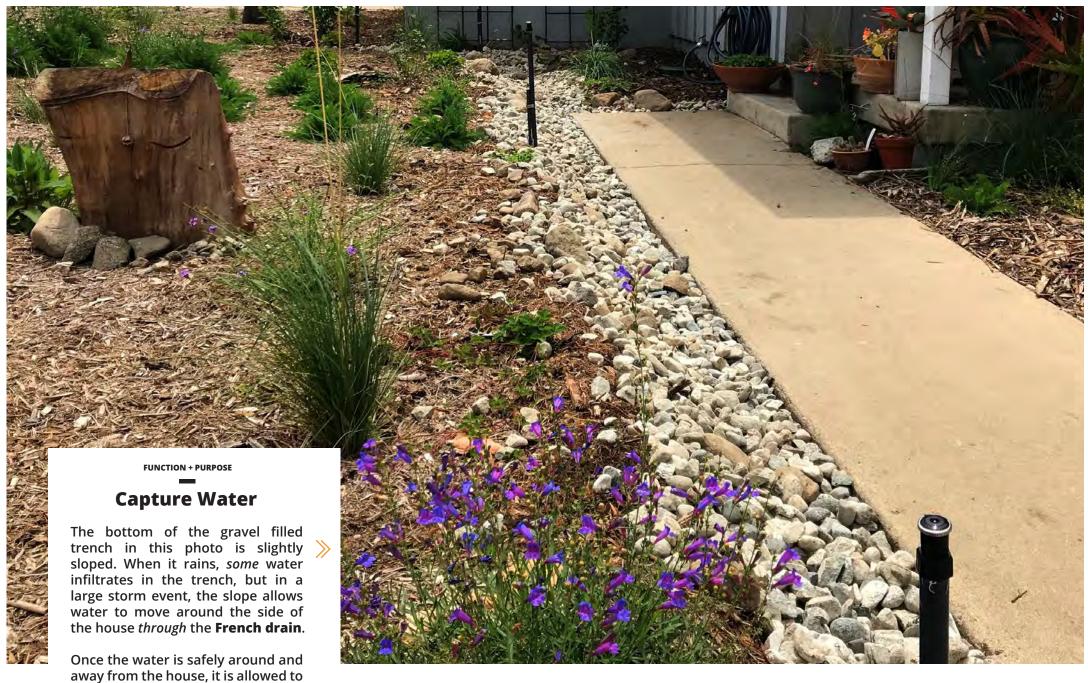


Note: Dry streambeds and infiltration basins should usually only be used in landscape areas w/ less than 8% slope (Approx. 2" over 2' or more accurately 7-3/4" over 8'). To confirm this, you can use a line level, stakes, and a measuring tape, as shown in the "Dry streambed overflow berm detail." Note: The area draining into the dry streambed can be steeper. The area of dry streambed, berm, and immediately downslope are what should be 8% slope or less.



DRY STREAMBED /INFILTRATION BASIN ON GENTLE SLOPE BERM WIDTH DETAIL AND NOTES



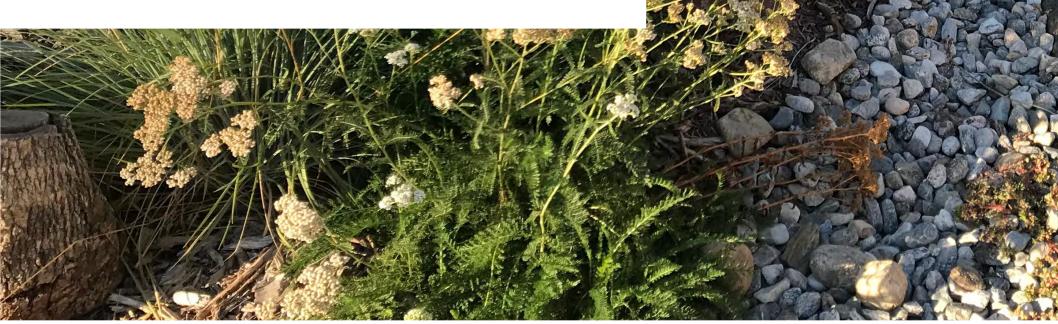


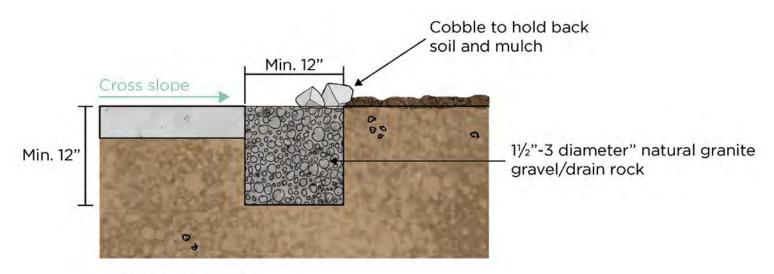
drain in a larger dry streambed in

the backyard.

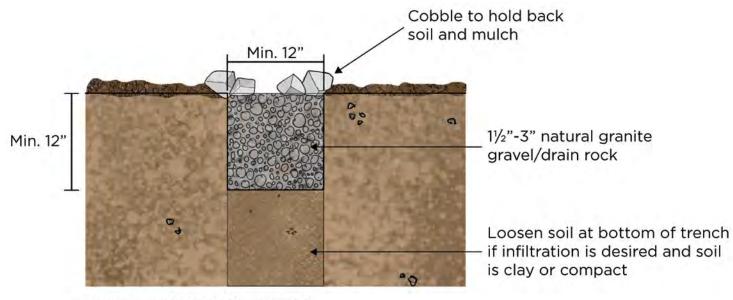
#### **MATERIALS**

Cobble or small boulders can be mixed into the top layer of gravel or at the edges of a French drain for a more natural look. The gravel and cobble used in French drains is often purchased from a Landscape Materials Yard or Building Materials Yard. For business that sell these products in the western San Bernardino County area, see our Local Landscape Suppliers
List: cbwcd.org/suppliers

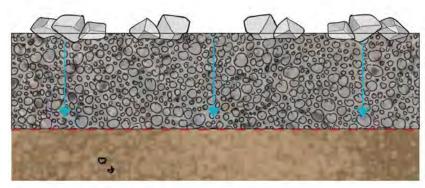




FRENCH DRAIN ALONG PAVEMENT

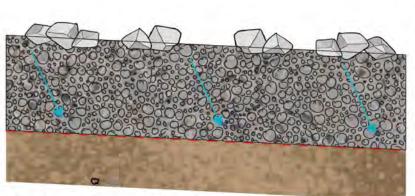


FRENCH DRAIN DETAIL IN LANDSCAPE



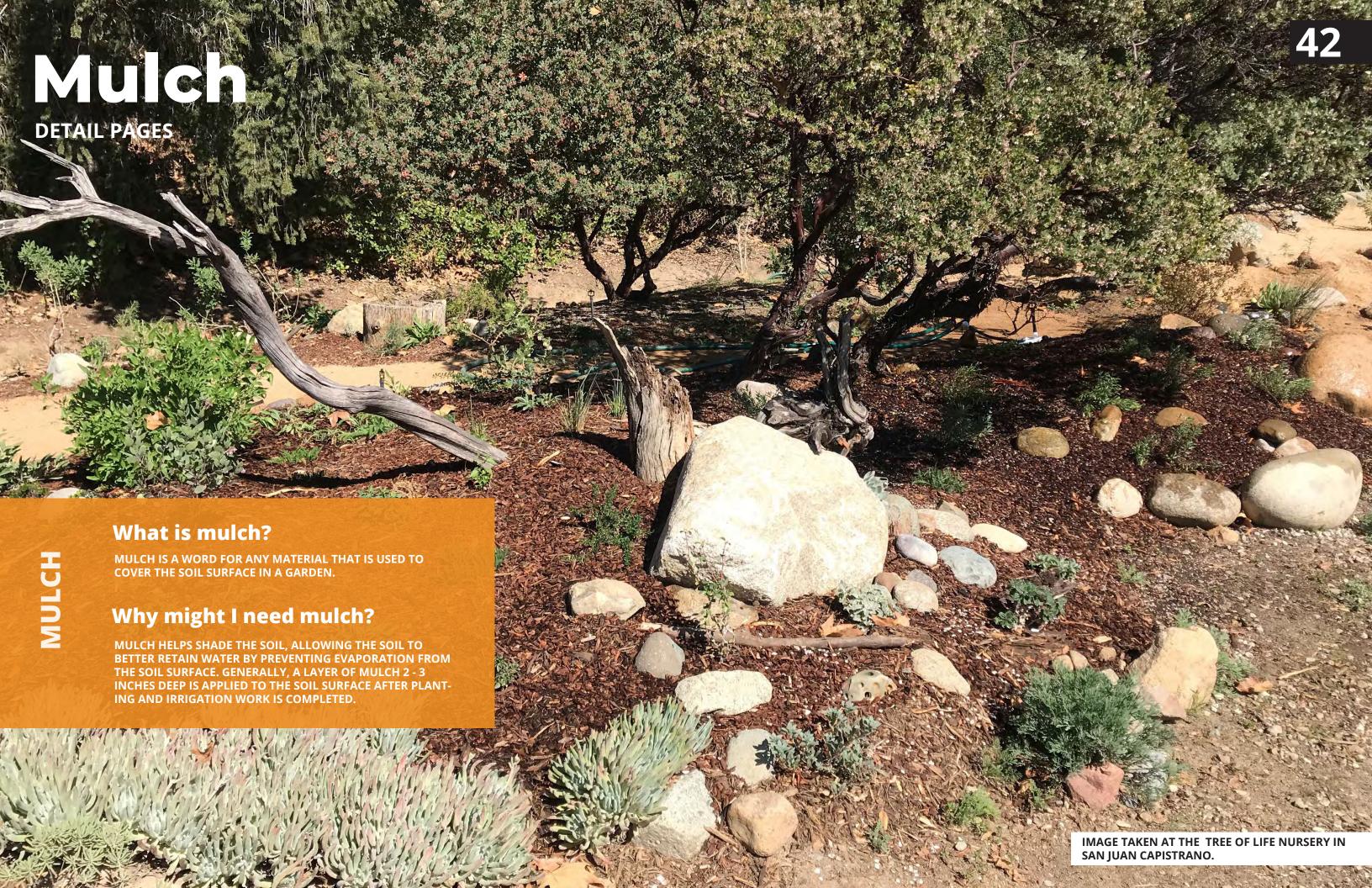
Level bottom to infiltrate water at bottom of french drain

FRENCH DRAIN LEVEL BOTTOM



FRENCH DRAIN SLOPED BOTTOM

Sloped bottom will infiltrate water in place in small rain events and infiltrate some water in place while moving the rest of the water to the end of the french drain in larger rain events. Often this extra water is moved into an area that can better fit a larger dry stream bed or infiltration basin.



#### WOODCHIP MULCH

Woodchip mulch is either a combination of ground tree trimmings or a specific product produced from trees (often bark) manufactured for use in the landscape.



It is often one of the more economical ways to cover the soil in a newly planted garden, especially if it can be picked up for free from local mulch giveaway programs:

- The Waterwise Community Center gives away woodchip mulch at our headquarters in Montclair (See cbwcd.org/mulch).
- If a large quantity of mulch is needed, some local community members have been successful obtaining free ground tree trimming mulch though the chipdrop app. If you are considering this, be sure to read all the information on the chipdrop website to be confident it matches your needs and expectations.

#### **ALLOW LEAVES TO JOIN!**

For California native plantings, an approximately 2" layer of woodchip mulch may be appropriate when installing new landscapes, but it is best to allow plants to "self-mulch" with their own leaves or chopped-up prunings from native plants in your garden after that, if possible.

#### **MIXING IT UP!**

Consider adding some gravel, small boulders, and a few branches or logs either during construction or over time for a naturalistic look. Deep repeated applications of imported woodchip mulch to native plantings can sometimes cause long-term problems, especially if they are over-watered.

#### WOODCHIP MULCH IN YOUR LANDSCAPE

- Fruit trees and most temperate or tropical-climate plants prefer a **deeper mulch** layer of 3" for smaller plants and 4" for trees.
- Be sure to maintain the woodchip mulch at least 3" away from the bases and stems of woody plants and shrubs. Wet mulch up against stems can cause rot and encourage disease.

#### **BENEFITS IN TYPES OF SOILS**

Woodchip breaks down over time, adding organic matter to the soil. This is great for fruit trees and plants that like **rich soil**, and it can help improve the drainage of *heavy clay* and *compacted soils*. California native and waterwise plants in *well-draining soils* may not care about additional organic matter though.

#### "TOUCH-UP"

As woodchip mulch breaks down, additional woodchip mulch generally needs to be added every few years which can be costly or require large amounts of work in large yards. In yards with California native plants, one might decide to "touch up" the woodchip mulch in pathway areas every few years, but allow the planting areas to "self-mulch" with dropped leaves and chopped up trimmings.



### TYPES OF MULCH

Below are the most *common* types of mulch used in gardens. These pages contain information about the best ways to **use** each.

- WOODCHIP MULCH
- **GRAVEL MULCH**
- **DECOMPOSED GRANITE MULCH**
- **MIXING IN COBBLE & BOULDERS**



GARDEN IN RANCHO CUCAMONGA MIXING SIZES OF GRAVEL AND BOULDERS, FLAGSTONE, AND AN AREA OF DECOMPOSED GRANITE MULCH IN THE BACKGROUND

#### **GRAVEL MULCH**

Gravel mulch is appropriate for *California native and waterwise* plants from dry, sunny areas, including most succulents and desert plants.

Gravel mulch applied to large areas and all one size (for example an entire yard of ¾" gravel) tends to look "industrial" and potentially unattractive. Mixing sizes of gravel and choosing to work with the types

of gravel and rock that naturally occur in your area usually results in a much more attractive project.



#### **HOT CLIMATE PRECAUTIONS**

Remember that large areas of gravel in our hot climate can **absorb lots of heat** and, if light colored, can create lots of glare in the summer. Remember to *mix in* some heat-tolerant trees or large shrubs in your design if you are using all gravel mulch to provide some shade and structure to your landscape, which will help with these potential issues.



# DECOMPOSED GRANITE MULCH

#### «

#### WHAT IT IS

Decomposed granite is a natural product that is much smaller than gravel, and almost similar to a very sandy soil. It is similar to the natural soil of some southern California mountain areas, and it can make an appropriate mulch layer for low water and native plants from hot sunny areas and succulent gardens.

#### **SLIPPERY SLOPE!**

Decomposed granite erodes easily during rain when on slopes, so is best applied to relatively **flat landscape areas** only.

#### **PURCHASING D.G. MULCH**

Decomposed granite can be purchased "with binder" and "without binder." The binder is a product, usually naturally derived, that allows it to be compacted and form a hard and relatively resilient walking surface when properly installed. Decomposed granite with binder is usually used for pathways and patio spaces, while decomposed granite without binder is used for mulching planted areas.

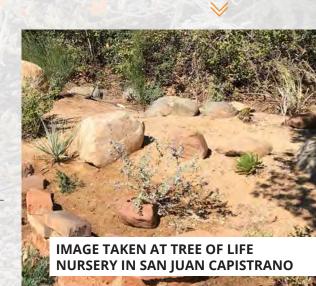
#### **LONG-TERM**

As a mineral mulch, decomposed granite has the advantage of not needing to be renewed, like woodchip mulch needs, but it can have problems with weed seeds germinating and growing in it.

#### **MIXING IN COBBLE & BOULDERS**

Cobble and boulders of a stone type local to your area are often a nice addition to the garden surface, added among whatever type of mulch you choose, to achieve a **natural** looking effect.

ly purchased at landscape materials yards and charged by the pound. Delivery is available for a fee. For larger quantities, cobble is usually purchased in metal baskets on palettes, while larger boulders can be selected individually.



# DECOMPOSED GRANITE MULCH IN GARDEN OF SUCCULENTS MIXED WITH CALIFORNIA NATIVE AND MEDITERRANEAN PLANTS IN A RESIDENTIAL FRONT YARD [located in Pasadena, CA]

# TYPES OF PATHWAYS

Below are the *most common* types of pathways and some information about the types of materials with which they might be used:

#### **DECOMPOSED GRANITE**

GRAVEL

#### **PATHWAY TYPES BENEFITS**

**Decomposed granite** and **gravel** are popular choices for pathways and patio areas in California native and waterwise gardens. *Compared* to concrete, brickwork, and other paving, they are less expensive options that have a nice, **natural feel** in the landscape. They are also permeable surfaces:

When it rains, they can absorb most of the rainfall in place, allowing it to soak into the soil below, rather than runoff and have to be dealt with elsewhere, as is the case with traditional paved surfaces like concrete.

#### **MATERIALS**

Materials for **decomposed granite** or **gravel** pathways are usually purchased from landscape materials yards or building materials yards. *Edging* and *permeable landscape fabric* are usually purchased from landscape and irrigation materials suppliers.

For lists of these businesses in the western San Bernardino County area, see our **Local Landscape Suppliers list**: cbwcd.org/suppliers

#### WALK-ABILITY

Decomposed granite pathway in a newly planted garden showing the path and a narrow "walking strip" to allow car doors to open and people to walk along the curb to the central path. If the parking strip planter was wider, a wider walking strip might be desirable.

#### **STABILITY OF D.G. PATHS**

Decomposed granite pathways and patios are usually constructed with "stabilized" decomposed granite, which is most often mixed in by the supplier and ordered as "stabilized." This additive, usually naturally derived, allows the decomposed granite to be moistened immediately after spreading it out, and compacted with a tamper. This forms a hard, resilient surface with some of the characteristics of harder paving, while retaining a natural feel.

#### **CONSIDERATIONS FOR D.G.**

Decomposed granite surfaces have many positive qualities in a landscape space, however, there are some considerations to be aware of:

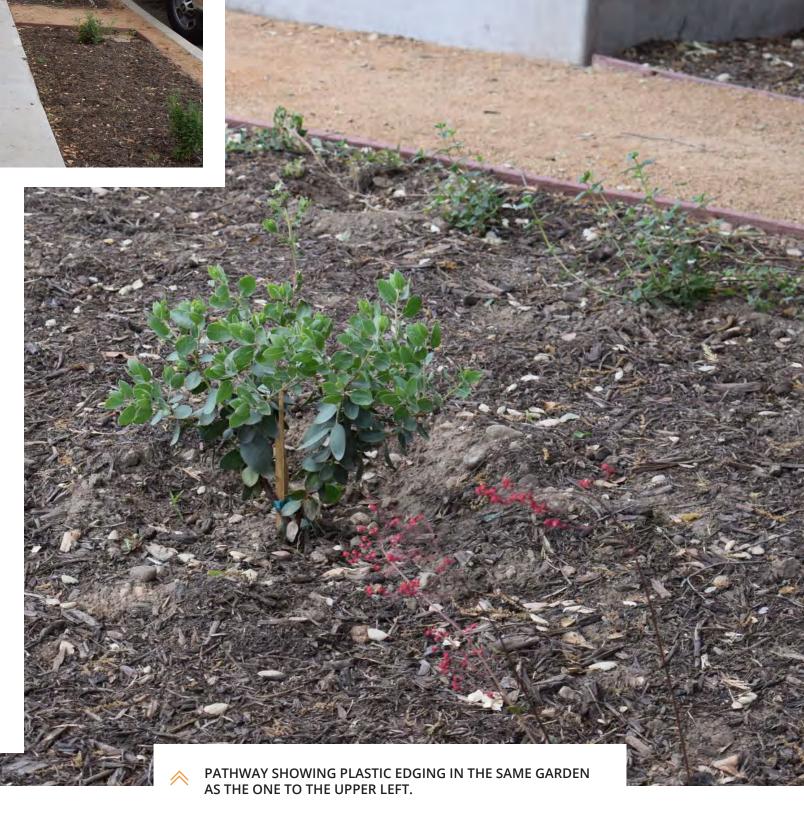
When wet, as in immediately after a rain event, even stabilized decomposed granite acts somewhat like wet, muddy soil. After getting significantly wet, it is best to wait to walk on decomposed granite until it dries some.

**Even with stabilized decomposed granite**, shoes and dog paws can capture bits of the decomposed granite material and track them inside. That can be avoided by not using decomposed granite immediately near the house. If you have a transitional space between the decomposed granite and the house, such as a paved or gravel walk or patio, usually the small bits of decomposed granite will fall off shoes before reaching the door.

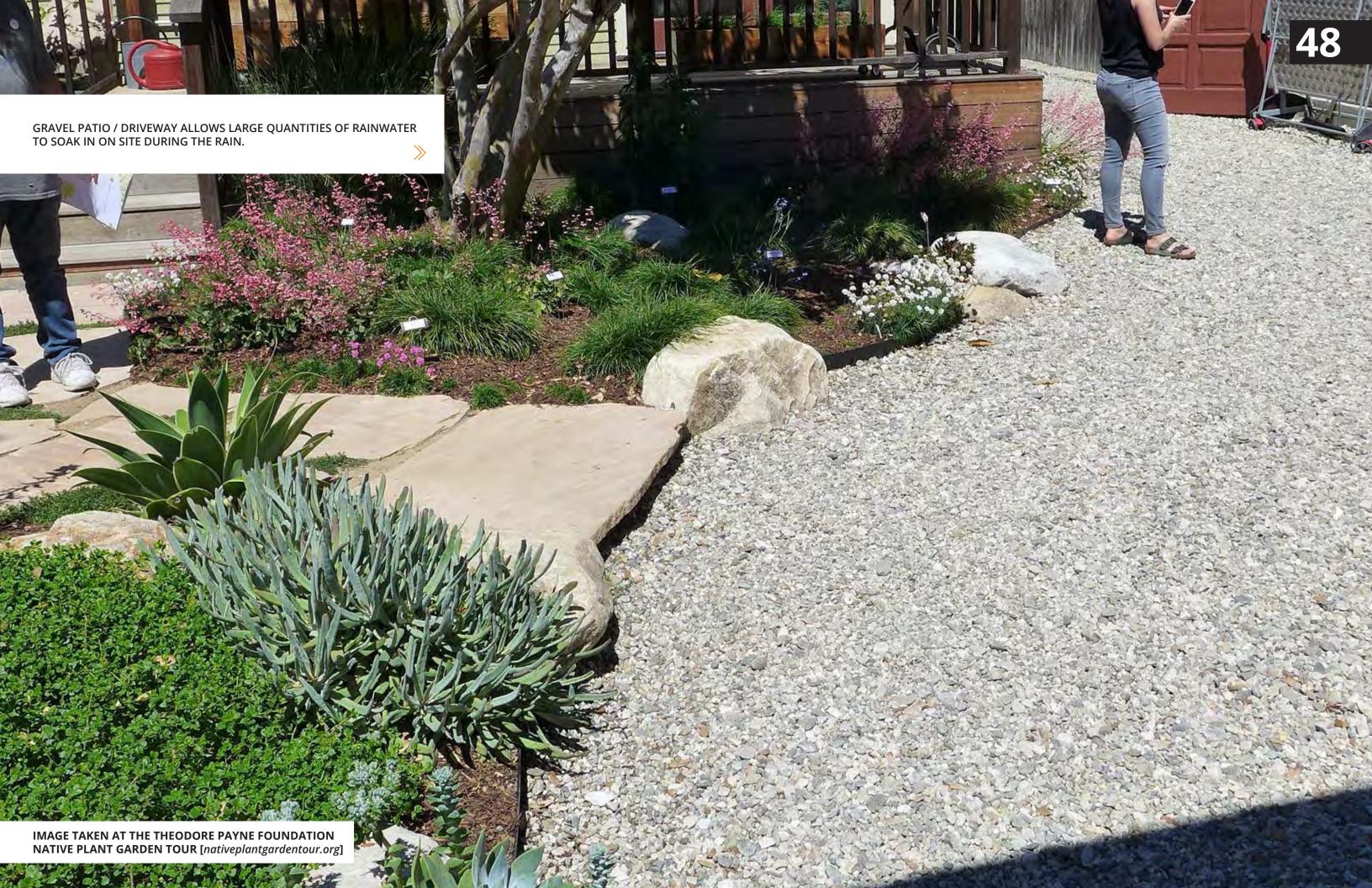
**prone to erosion** on steep slopes, so should generally *not be used for steep* pathways.

#### **EDGING OPTIONS**

Decomposed granite pathways and patios should have metal, plastic, or natural rock edging installed to help retain the edge and allow for proper compaction during installation.



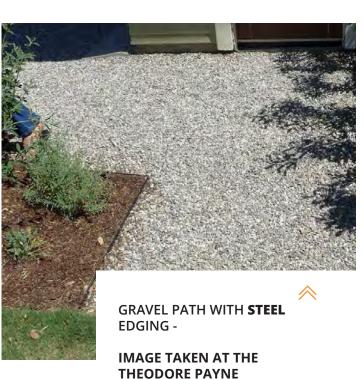




# CONSTRUCTION NOTES

Decomposed granite paths and patios are usually installed with a permeable landscape fabric underneath to keep the decomposed granite and native soil separated over time. Gravel paths and patios may or may not be installed with landscape fabric. It *may help* prevent weeds and *may help* prevent the gravel from sinking into the soil over time, requiring additional gravel. However, it may be unsightly if gravel shifts, exposing the fabric. It might also be a use of additional materials that may not be necessary in residential gardens if there are not weed problems in that area of the landscape.

On these pages are diagrams showing a "cut away" view illustrating the construction of decomposed granite and gravel paths and patios:



FOUNDATION NATIVE PLANT GARDEN TOUR

[nativeplantgardentour.org]

#### DECOMPOSED GRANITE PATHWAY WITH STEEL, ALUMINUM, OR PLASTIC EDGING

**01** Stabilized decomposed granite, compacted on site, 3"**02** Permeable landscape

fabric

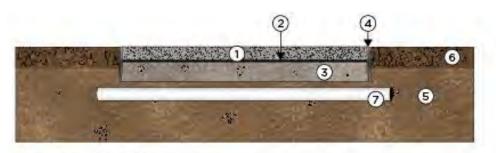
optional. It requires much more work to install this sub-layer and is more expensive, but provides a harder, more resilient installation. This is how decomposed granite is usually installed in high-traffic public spaces and is usually a job for a contractor.

**04** Edging, staked in place. Steel, aluminum, or plastic all work. Steel and aluminum edging generally look better, are more stable, and last longer, but they are much more expensive and more difficult to install.

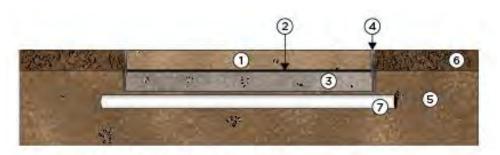
**05** Native soil

**06** Mulch

07 2" or larger PVC pipes installed wherever future irrigation pipes or wiring may need to cross under the pathway, optional. If there is any chance that pipes or wires may need to go under the path in the future, it is much easier to install these "sleeves" of larger diameter pipe when the pathway is being installed. The pipes or wires can then be slid though the sleeves when needed. Covering the ends with unglued PVC caps will keep dirt out of the sleeves.



GRAVEL PATHWAY
WITH STEEL, ALUMINUM, OR PLASTIC EDGING



DECOMPOSED GRANITE PATHWAY
WITH STEEL, ALUMINUM, OR PLASTIC EDGING

## GRAVEL PATHWAY WITH STEEL, ALUMINUM, OR PLASTIC EDGING

**91** Pea gravel or Bird's eye gravel 1-2" *deep* depending on product. Test the depth that feels right to walk on for your gravel choice and preferences.

**02** Permeable landscape fabric, *optional* 

optional. It requires much more work to install this sub-layer and is more expensive, but provides a harder, more resilient installation. This is how pathways are usually installed in high-traffic public spaces and is usually a job for a contractor.

**04** Edging, staked in place. Steel, aluminum, or plastic all work. Steel and aluminum edging generally look better, are more stable, and last longer, but they are much more expensive and more difficult to install.

**05** Native soil

**06** Mulch

2" or larger PVC pipes 07 installed wherever future irrigation pipes or wiring may need to cross under the pathway, optional. If there is any chance that pipes or wires may need to go under the path in the future, it is much easier to install these "sleeves" of larger diameter pipe when the pathway is being installed. The pipes or wires can then be slid though the sleeves when needed. Covering the ends with unglued PVC caps will keep dirt out of the sleeves.

#### **DECOMPOSED GRANITE PATHWAY WITH COBBLE EDGING**

Stabilized decomposed granite, compacted on site, 3" Permeable landscape fabric

03 Compacted road base, 3," optional. It requires much more work to install this sub-layer and is more expensive, but provides a harder, more resilient installation. This is how decomposed granite is usually installed in high-traffic public spaces and is usually a job for a contractor.

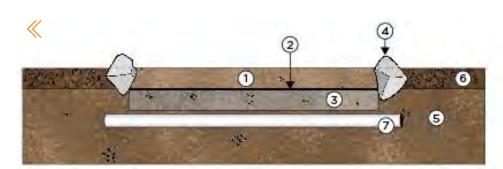
River rock / granite cobble and / or small boulders

Native soil

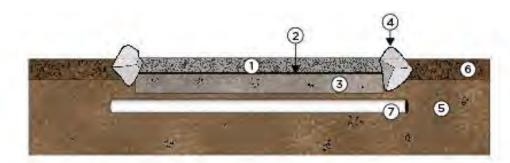
07 2" or larger PVC pipes installed wherever future irrigation pipes or wiring may need to cross under the pathway, optional. If there is any chance that pipes or wires may need to go under the path in the future, it is much easier to install these "sleeves" of larger diameter pipe when the pathway is being installed. The pipes or wires can then be slid though the sleeves when needed. Covering the ends with unglued PVC caps will keep dirt out of the sleeves.







DECOMPOSED GRANITE PATHWAY WITH COBBLE EDGING



PEA GRAVEL PATHWAY WITH COBBLE EDGING



#### **PEA GRAVEL PATHWAY** WITH COBBLE EDGING

Pea gravel or Bird's eye gravel 1-2" deep depending on product. Test the depth that feels right to walk on for your gravel choice and preferences.

**02** Permeable landscape fabric, optional

Compacted road base, 3," optional. It requires much more work to install this sub-layer and is more expensive, but provides a harder, more resilient installation. This is how pathways are usually installed in high-traffic public spaces and is usually a job for a contractor.

04 River rock / granite cobble and / or small boulders

Native soil

Mulch 06

2" or larger PVC pipes **07** installed wherever future irrigation pipes or wiring may need to cross under the pathway, optional. If there is any chance that pipes or wires may need to go under the path in the future, it is much easier to install these "sleeves" of larger diameter pipe when the pathway is being installed. The pipes or wires can then be slid though the sleeves when needed. Covering the ends with unglued PVC caps will keep dirt out of the sleeves.



#### WHERE TO BUY

Many retailers of California native wildflowers also sell mixes of different wildflower seeds and can help you select which mixes might be best to try in your situation.

Mixes can be a lot of fun, because even with the same seed mix, different spaces in your yard and the weather in different years can result in a different mix of flowers!

In **our area**, local retailers include:

- O1 Grow Native Nursery at the California Botanic Garden in Claremont
- O2 Theodore Payne Foundation in Sun Valley
- Tree of Life Nursery in San Juan Capistrano
- Peaceful Valley Farm Supply,
  online (if ordering from Peaceful
  Valley, be sure you are ordering
  California native wildflower seeds
  or mixes as they sell seeds from many
  other areas as well)

#### **PLANTING SEEDS**

California native wildflowers must be seeded into your garden in fall though early winter. Immediately before the first rains is usually a perfect time to do it. To spread seed, lightly sprinkle your seeds into the desired area, being careful not to spread seeds too closely to small new plantings, because the wildflowers tend to grow very quickly and may shade small adjacent plants. Seed can be spread directly on open soil or on top of a mulched garden surface.

Wildflowers will sprout up best in **open soil** or in **lightly mulched** gardens (1-2").

You can either leave the seeds on the surface, or very *lightly* rake them into the soil or mulch, ideally settling them only 1/8"-1/4" or so into the soil.

After seeding you can either just let the rain water them, or, for more control and to help guarentee good **growth**, you can water occasionally, usually no more than once per week when the weather is dry, until they get **established**.

"Established" means it has grown significantly.

Wildflowers are great for empty spaces in the landscape!

MIX INTO YOUR LANDSCAPE
OR EDGES OF PATHWAYS TO
GET SEASONAL POPS OF
COLOR LIKE THIS
CLARKIA

Clarkias growing in a very narrow strip of soil without enough room for most planting options.

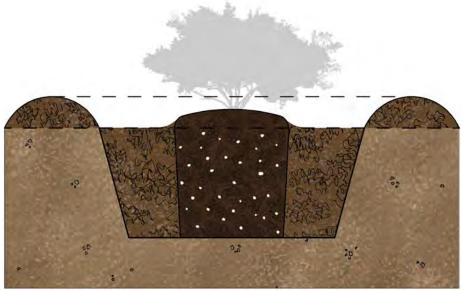


Wildflowers will grow though the fall and winter, then bloom in the spring. If desired, blooms can be extended with an occasional irrigation in the spring.

After blooms fade, allow seeds to ripen to feed seed-eating birds. If you live in an urban wildland interface area and wildfire is a concern, remove spent wildflowers before they dry. If you live in an urban area without this concern, you may choose to allow plants to dry out and drop seed naturally. Some will be eaten by birds, and some will usually regrow the following season. After seeds drop you may either chop up plants to add to the mulch layer, compost them if you do not mind wildflower seeds in your compost, or place them in your green bin.



Installation, and Establishment of California Native and Waterwise Gardens cbwcd.org/youtube



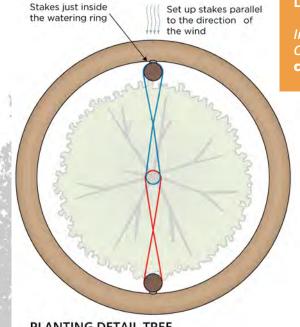
**PLANTING FOR 1 & 5 GALLON PLANTS** 

Watering ring to 2" above top of root ball



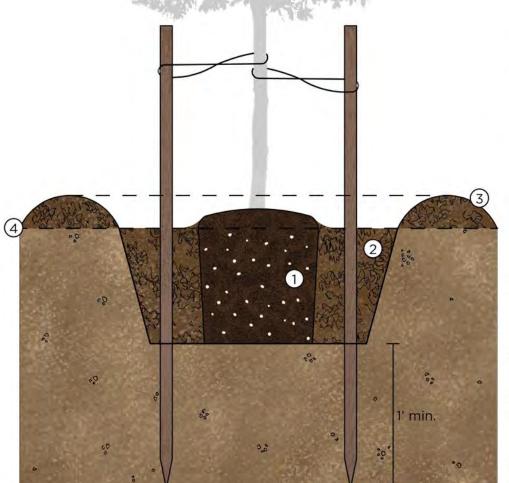
Top of roof ball 1-2" above surrounding soil level

Dig hole slightly less deep than and twice as wide as root ball. Usually backfill with native soil only. No fertilizer is needed! Add up to 1/4 compost only if soil is extremely rocky or very heavy clay.



PLANTING DETAIL TREE **OVERHEAD VIEW** 

**NOTE**: PROPER STAKING AND TYING OF TREES THAT REQUIRE STAKING IS ESSENTIAL TO ESTAB-LISH A STRONG TREE THAT HAS THE BEST CHANCE OF RESTING DAMAGE DURING STRONG WINDS.



PLANTING DETAIL 5 AND 15 GALLON TREES

#### TREE STAKES

In most situations, tree stakes should be firmly inserted into the soil about two feet from the main trunk of the tree, parallel with the main direction of winds on the site, and should use "figure eight" shaped ties with proper tree tie material and tree stakes, available from a local landscape supply store. For local locations in the western San Bernardino County area, see our Local Landscape **Suppliers List:** 

#### cbwcd.org/suppliers

A post pounder will be needed to properly install tree stakes.

#### TREE TIES

Ties should be applied as low on the trunk as possible to support the tree as needed, but also allowing the tree to move in the breeze to establish strength. If the tree came with a stake attached to it in the nursery pot, remove it during the process of properly setting these longer-term stakes and ties. **Remove** stakes and ties as soon as the tree has developed the strength to stand on its own, often after 1-2 years, depending on the size and structure of the tree at the time of planting. The stakes and ties are like a crutch, and they should be on *no longer* than they need to be so that the tree can continue to better develop structural strength on its **own**.



Key for image to the right, (#) Planting detail for 5 and 15 gallon trees

LIGHTLY LOOSEN OR SHAVE ROOT BALL TO ENSURE ROOTS GROW OUTWARD AND DO NOT CIRCLE (SEE **ONLINE WORKSHOP MENTIONED ON PREVIOUS PAGE** FOR MORE DETAILS)

**NATIVE SOIL BACKFILL** 

**BUILD "WATERING RING" TO ALLOW FOR AT LEAST 1-2"** TREE WHEN FULL

STURDY AND COMPACTED "WATERING RING" TO ALLOW FOR DEEP IRRIGATION THOUGH THE DEPTH OF THE ROOT BALL AFTER PLANTING. IF YOU WILL BE CONTINUING TO WATER WITH A HOSE, BE SURE TO MAINTAIN THIS WATERING RING SO IT CONTINUES TO BE ABLE TO HOLD ENOUGH WATER. Watering ring min. 1"-2" above top of root ball 1-2" 1-2"

Top of root ball 1-2" above surrounding soil level

Dig hole slightly less deep than and twice as wide as root ball. Usually backfill with native soil only. No fertilizer is needed! Add up to 1/4 compost only if soil is extremely rocky or very heavy clay.

