

# Ballona Creek Bike Path

## Greening the Greenway

**swa**

January 18, 2023

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# **Project Location & Timeline**

# Project Location

Greening the Greenway



# Project Location

## Site Context



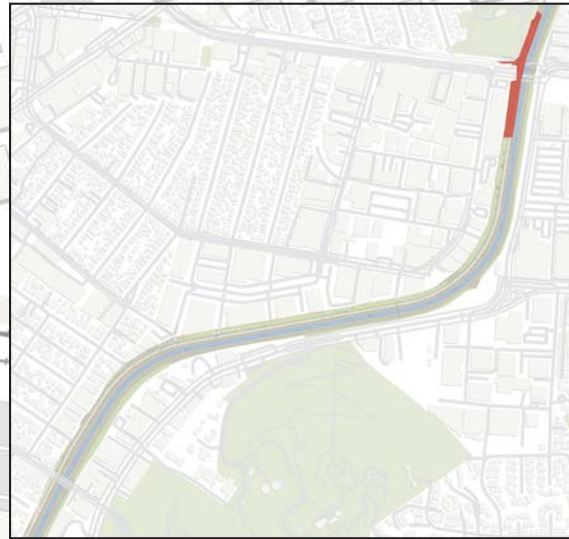
# Project Timeline



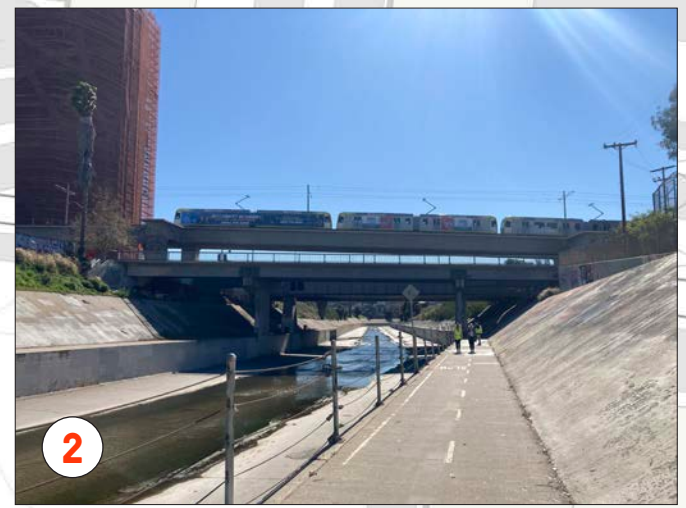
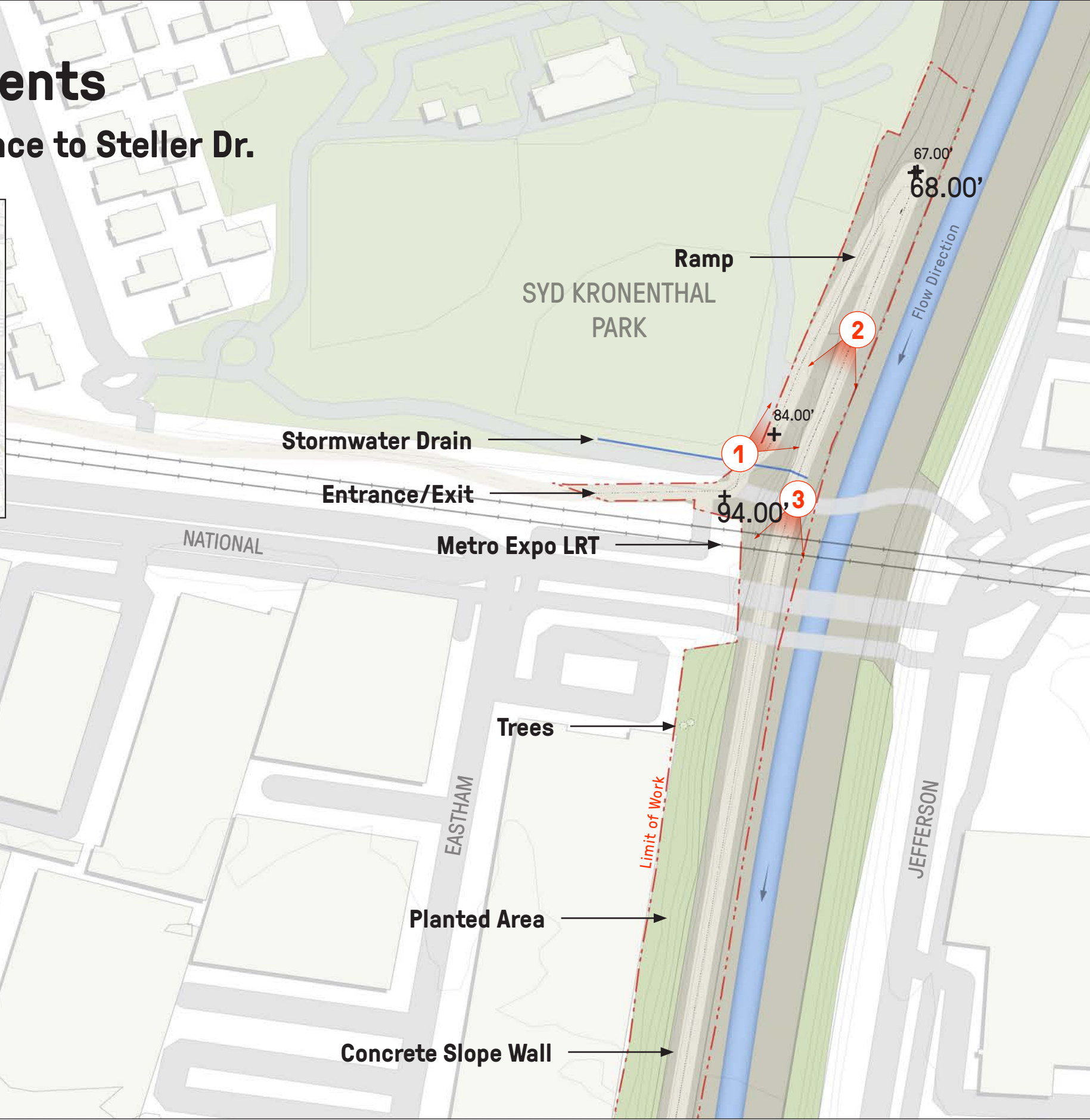
**Existing Elements**

# Existing Elements

## National Blvd. Entrance to Steller Dr.



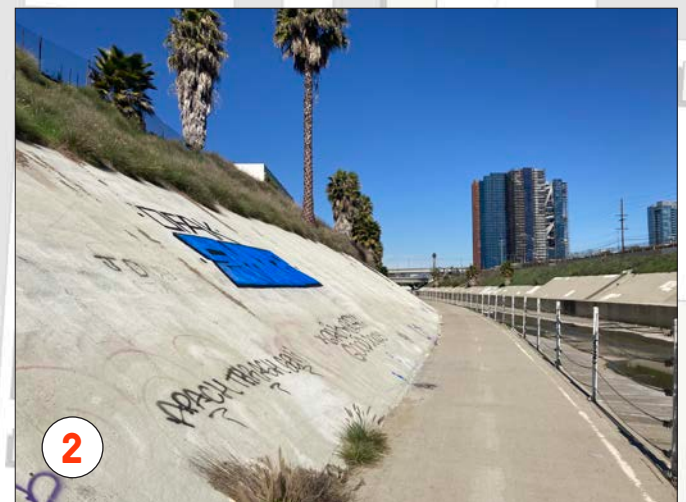
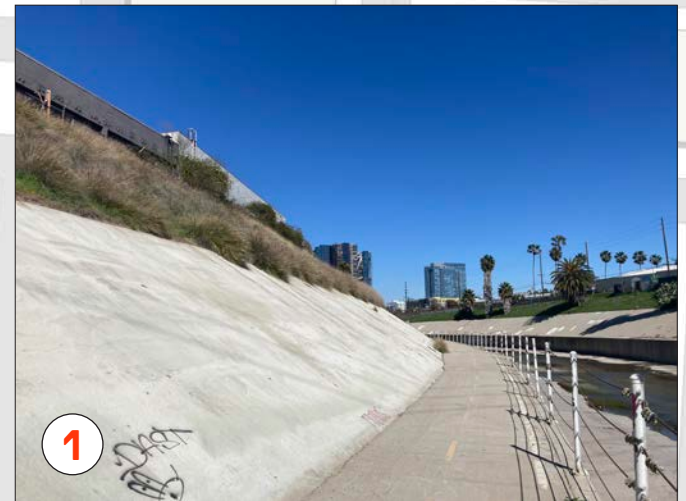
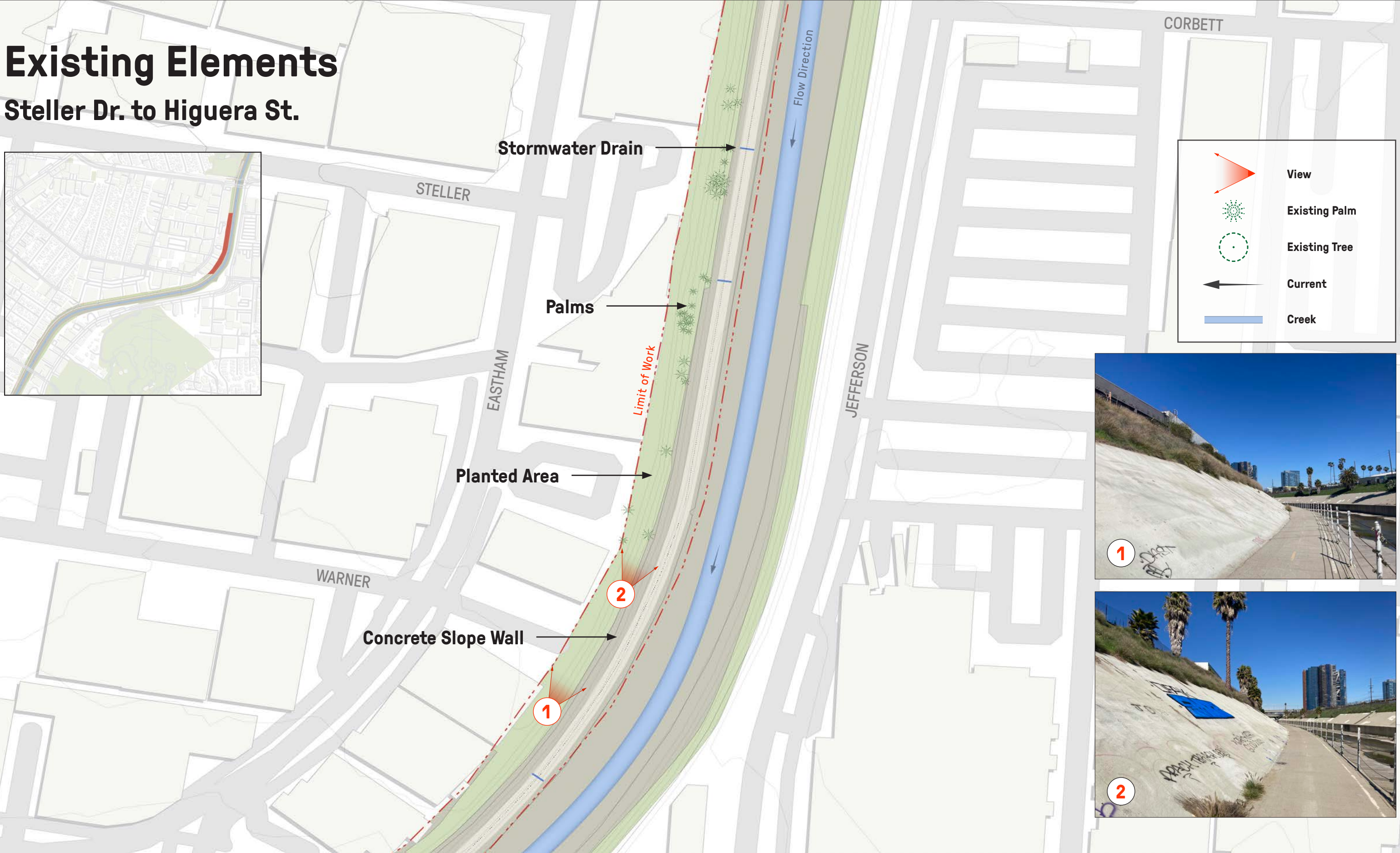
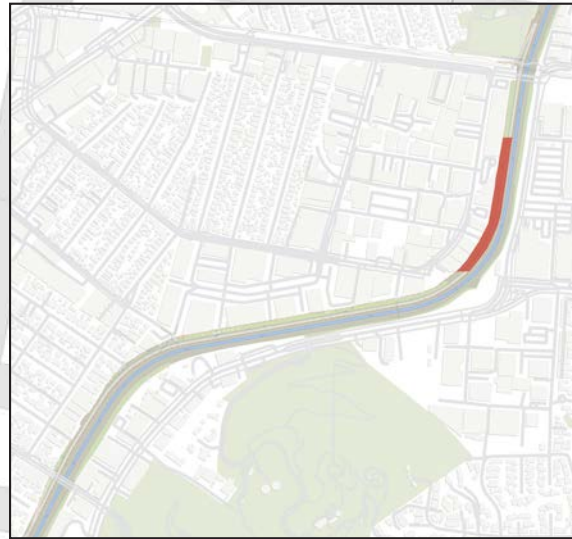
	Existing Palm
	Existing Tree
	Circulation
	Current
	Stormwater Infrastructure
	View





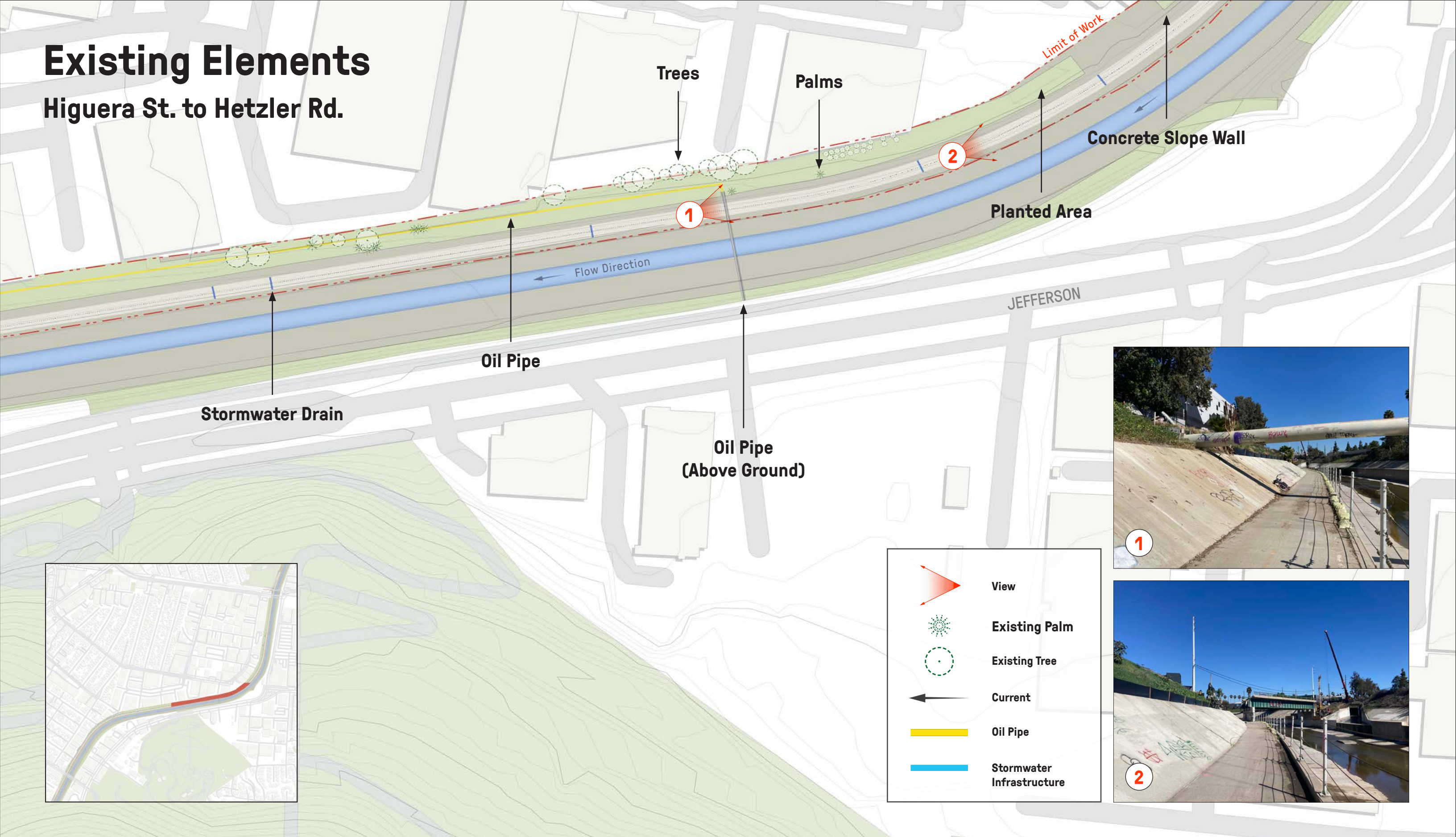
# Existing Elements

## Steller Dr. to Higuera St.



# Existing Elements

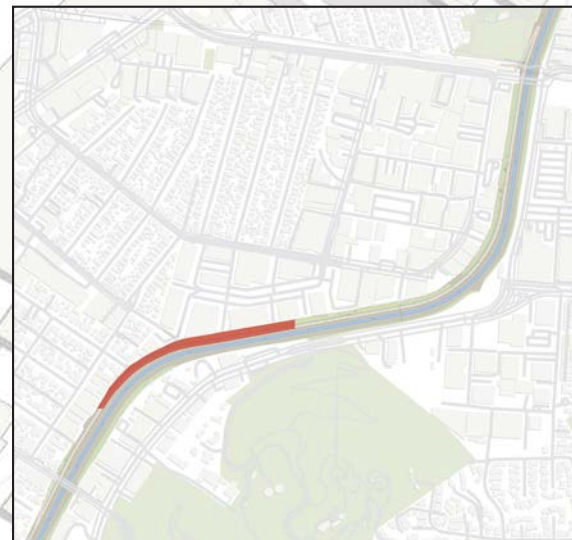
Higuera St. to Hetzler Rd.



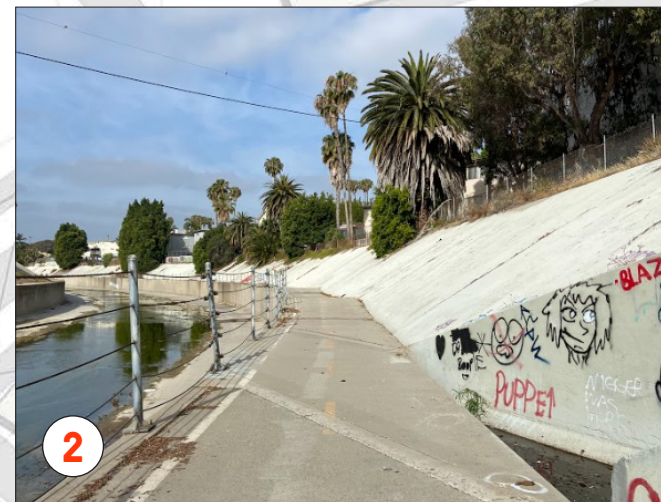
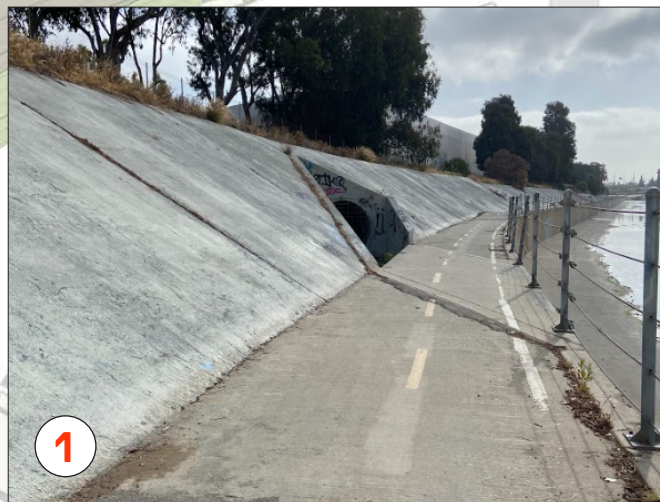
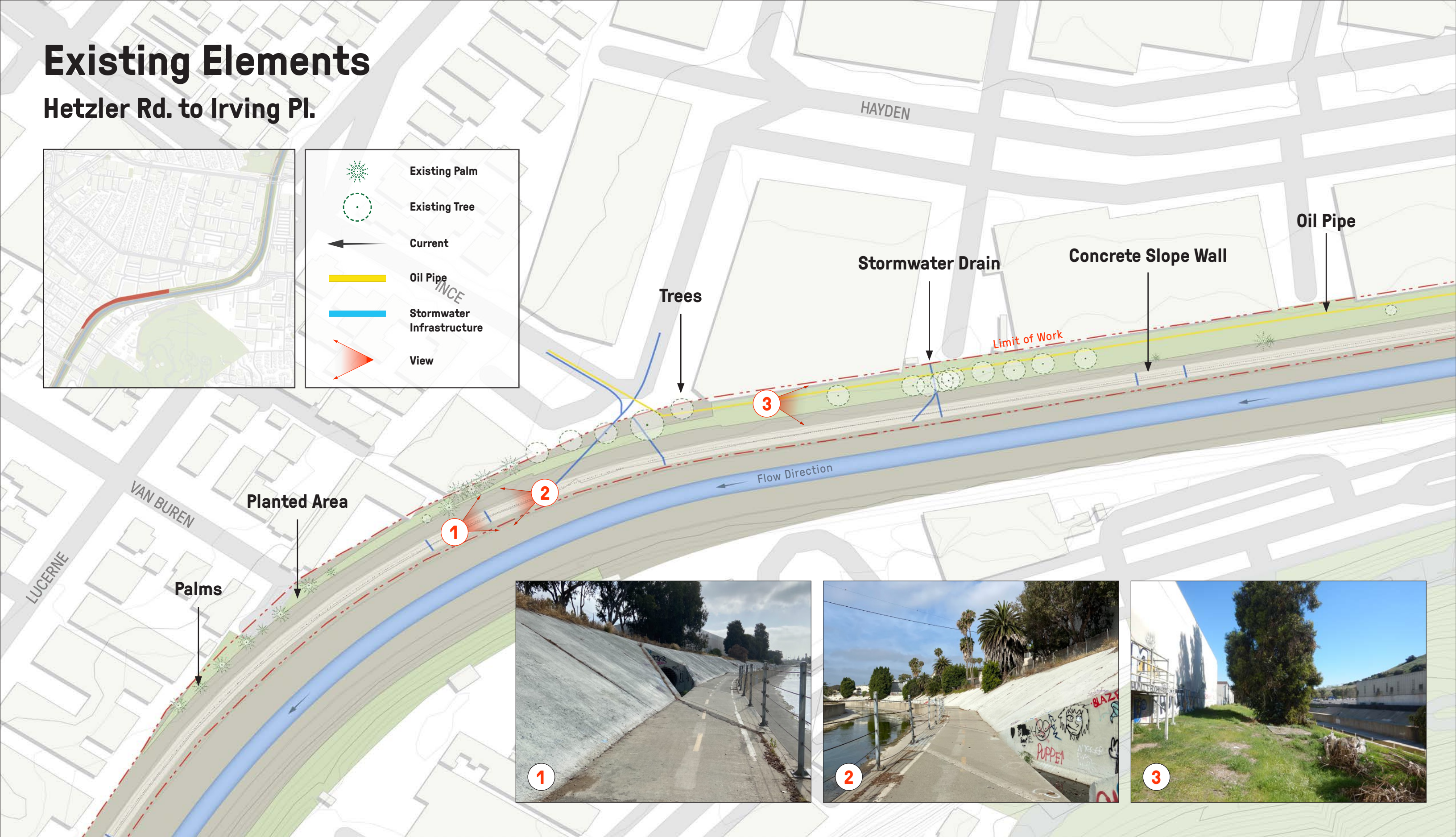
	View
	Existing Palm
	Existing Tree
	Current
	Oil Pipe
	Stormwater Infrastructure

# Existing Elements

Hetzler Rd. to Irving Pl.

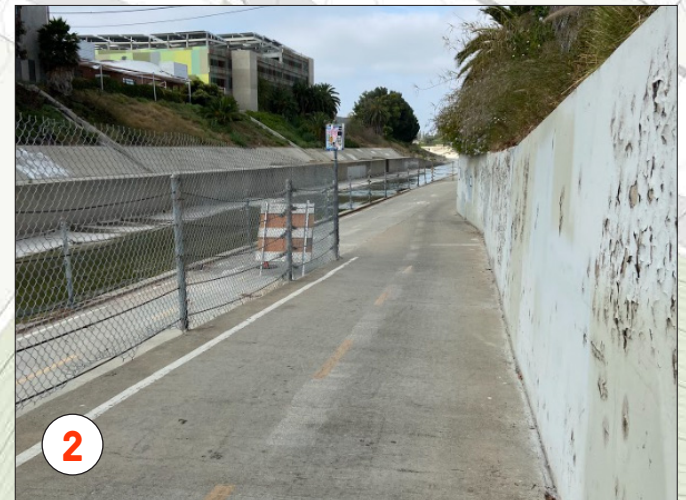
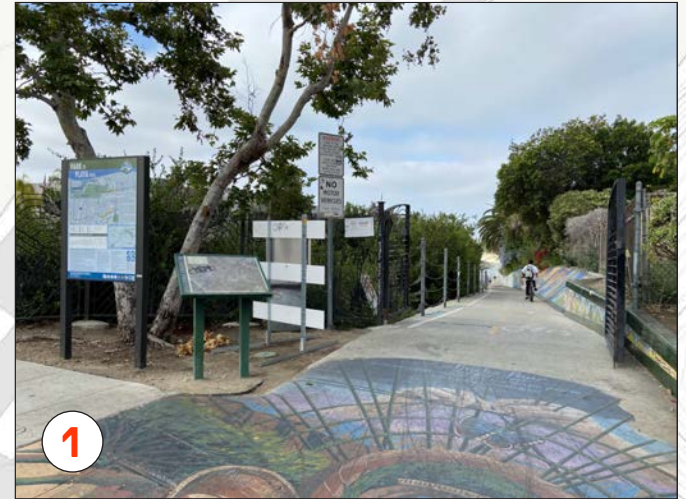
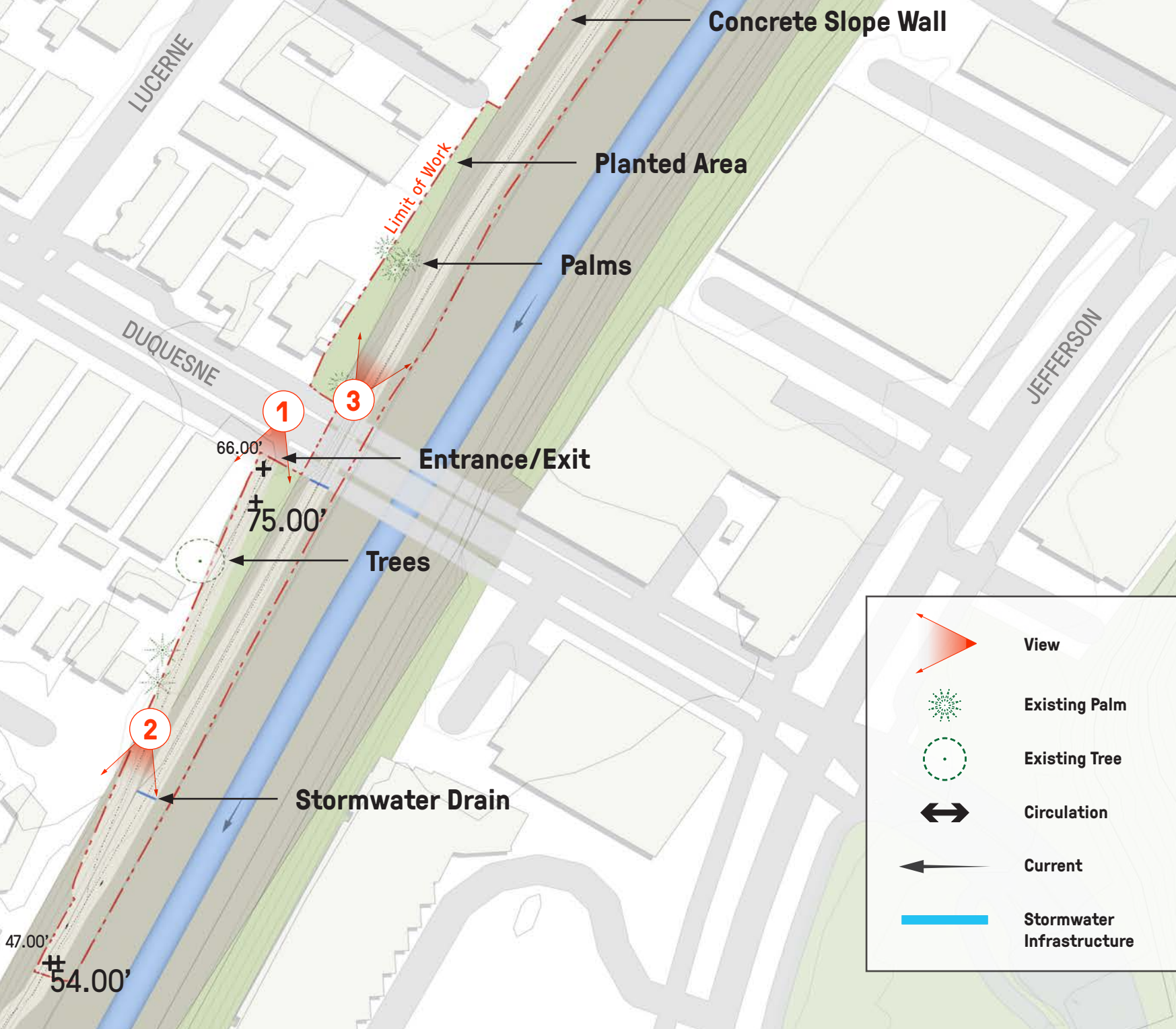
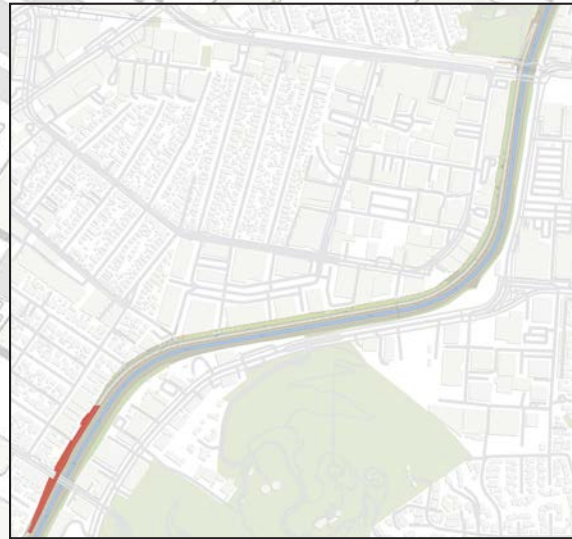


	Existing Palm
	Existing Tree
	Current
	Oil Pipe
	Stormwater Infrastructure
	View



# Existing Elements

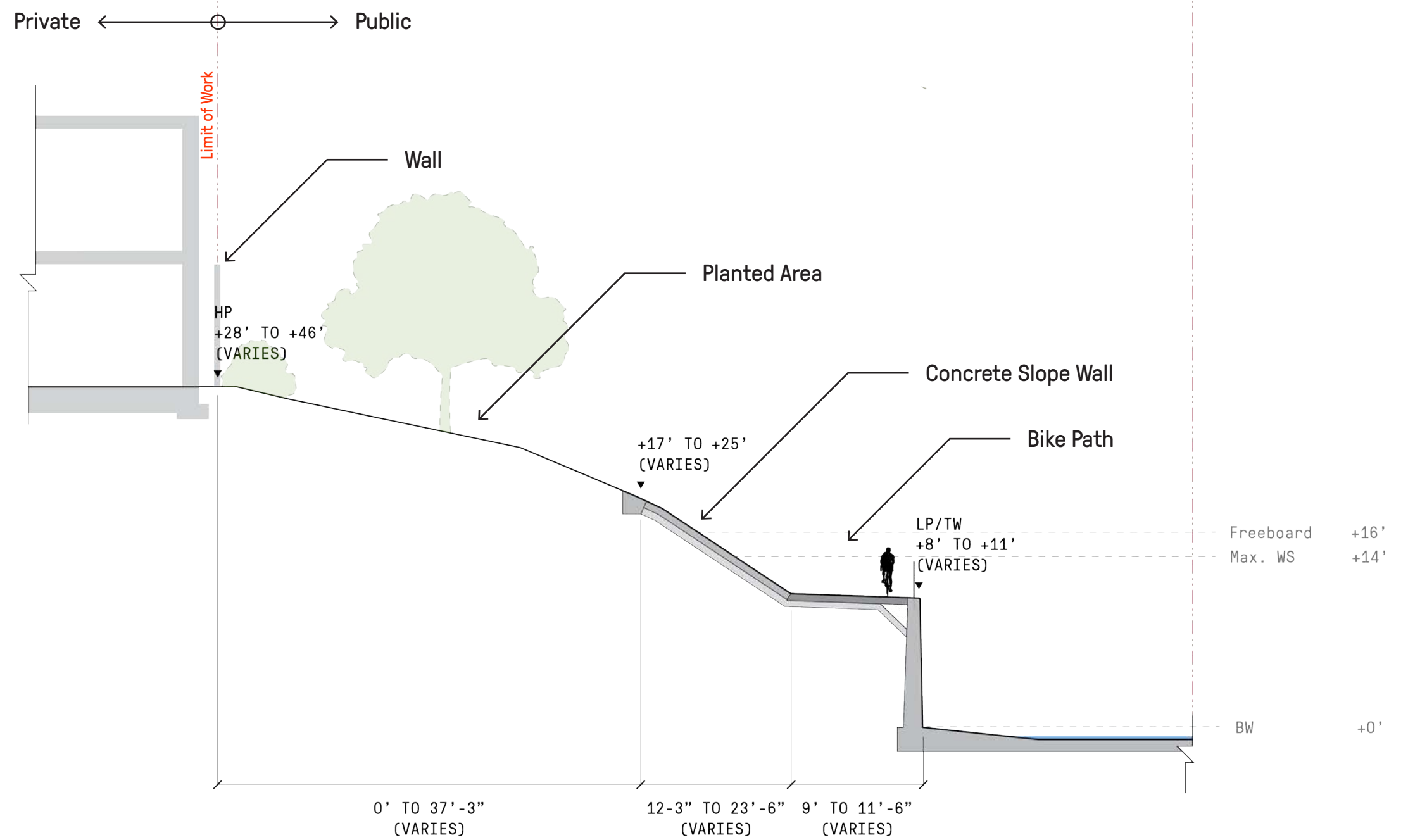
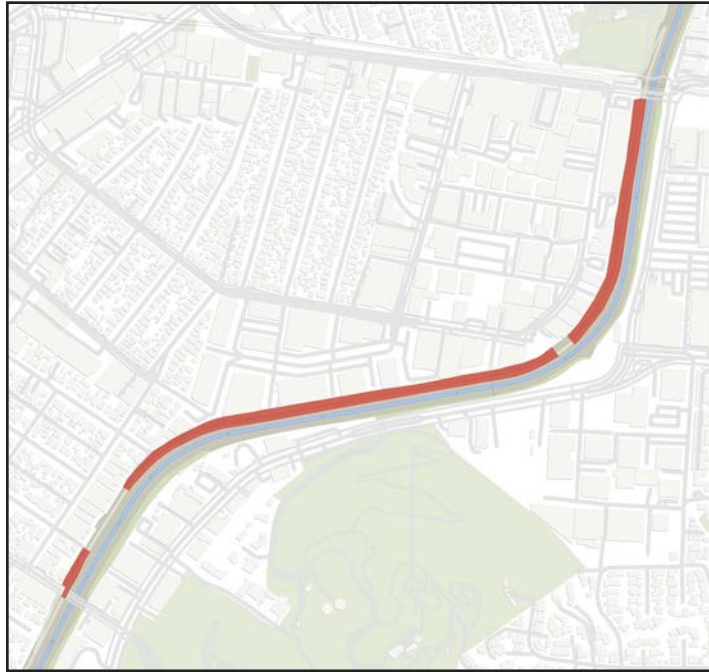
## Irving Pl. to Duquesne Ave. Entrance



**Existing Sections**

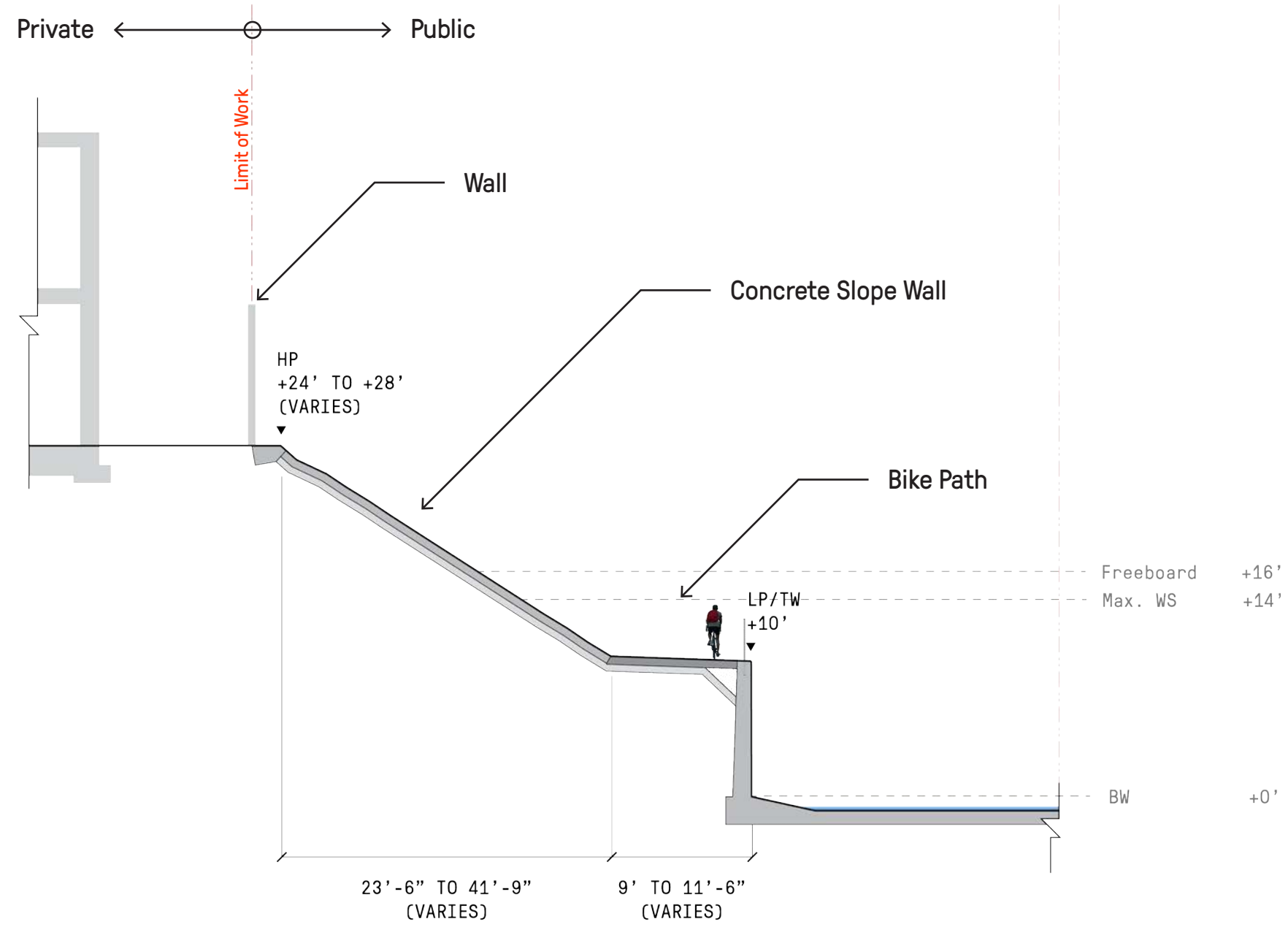
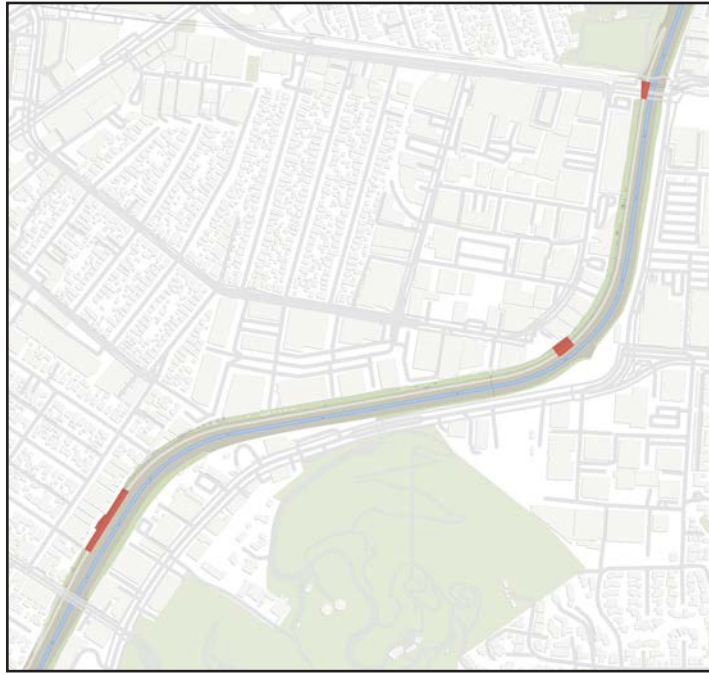
# Existing Sections

## Typical Section of Path with Planted Area



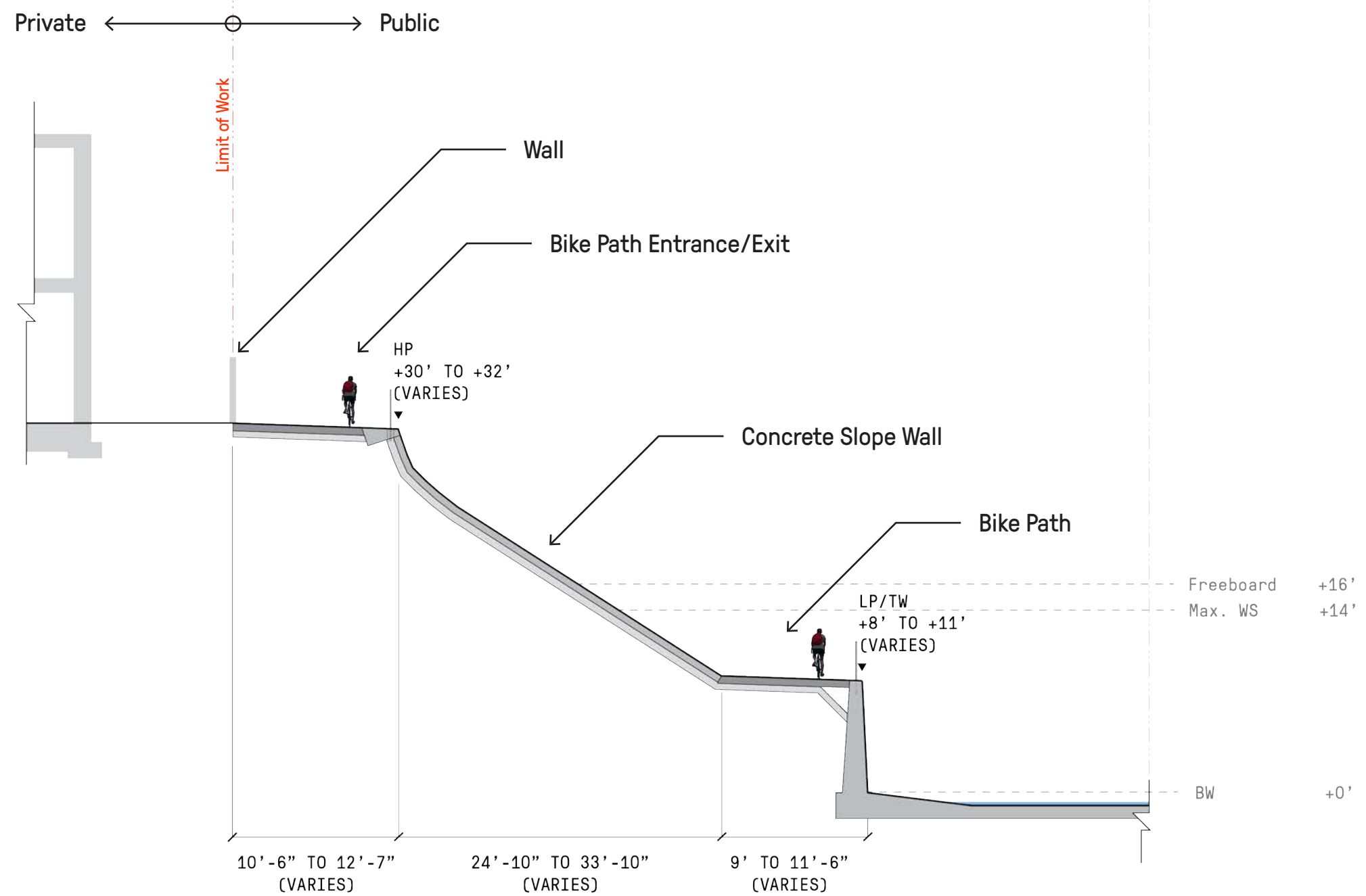
# Existing Sections

## Typical Section of Path without Planted Area



# Existing Sections

## Typical Section of Path at Entries

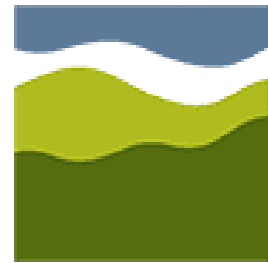




# Grant Proposal Goals

# Grant Proposal & Goals

## Original Grant Details



STATE OF CALIFORNIA  
**BALDWIN HILLS**  
CONSERVANCY

Culver City's Mobility & Traffic Engineering Division applied for a grant from the Baldwin Hills Conservancy in August of 2020. Culver City met the various environmental goals of the grant, such as improving the watershed, connecting wildlife habitats, encouraging non-motorized transport, and mitigating climate change. The grant was awarded with the following goals:

# Grant Proposal Goals

## Greening the Greenway

1



**Bike Path  
Enhancements**

**\$192,500**

2



**Expanded  
Urban Forest**

**\$530,000**

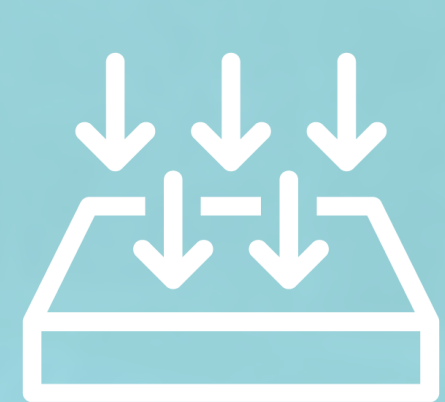
3



**Solar-  
Powered Lighting**

**\$435,000**

4



**Permeable  
Surfacing**

**\$1,186,100**

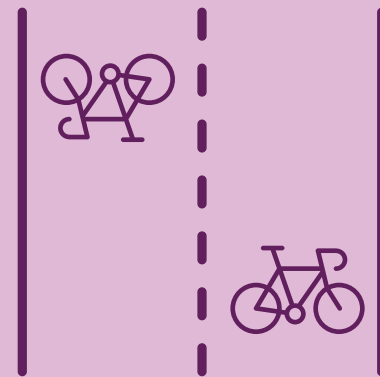
# 1 Bike Path Enhancements

Improving Safety & Experience

## ADA Accessibility Improvements



## Improve Bike Path Paving & Marking



## Increase Wayfinding Signage



## Community Impact

Improving Bike Path conditions will attract more users. More Bike Path users means less vehicle miles traveled & less air pollution.

# 1 Bike Path Enhancements

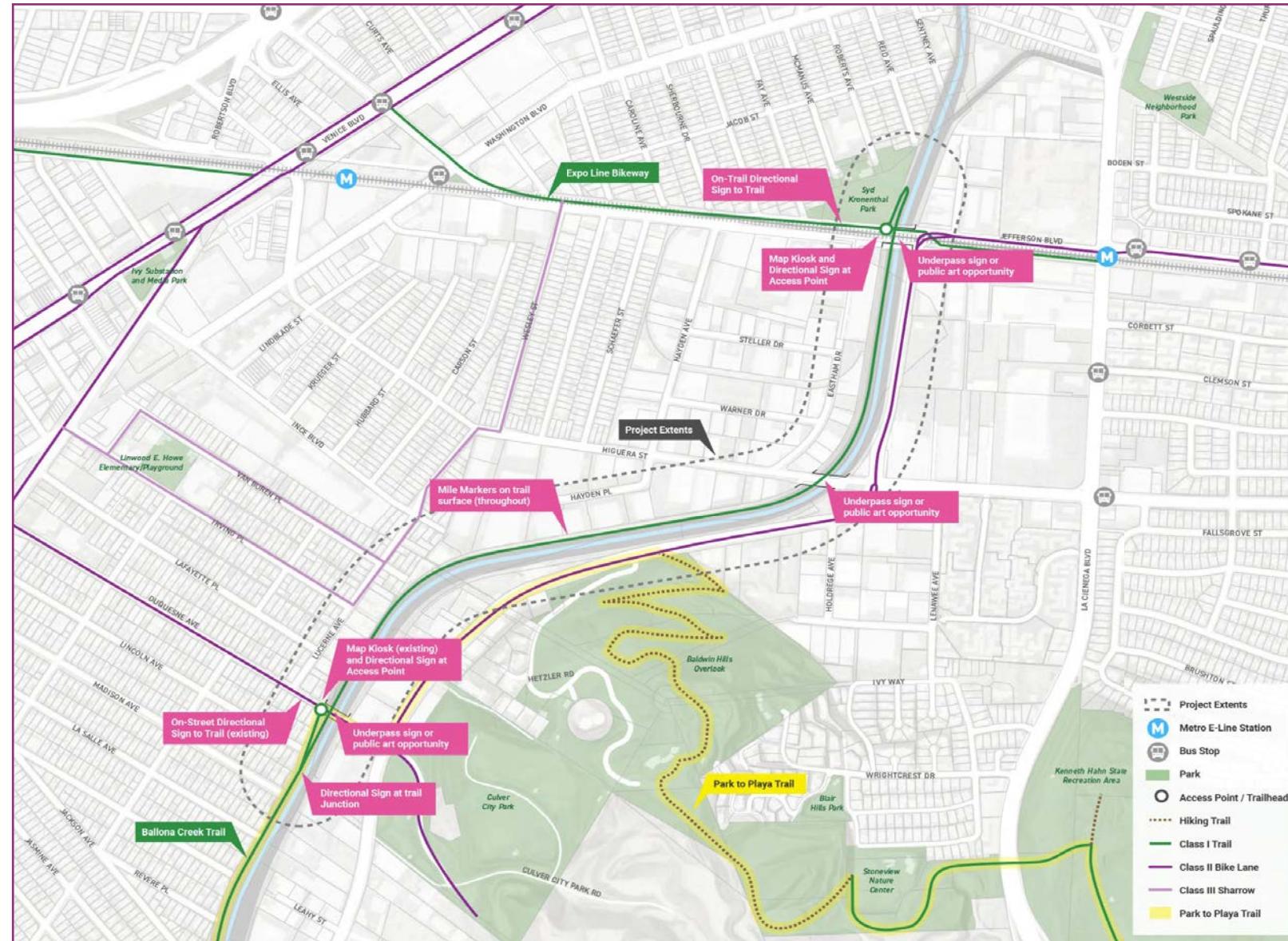
Improve Bike Path Paving & Marking



Paving Improvements

# 1 Bike Path Enhancements

## Increase Wayfinding Signage

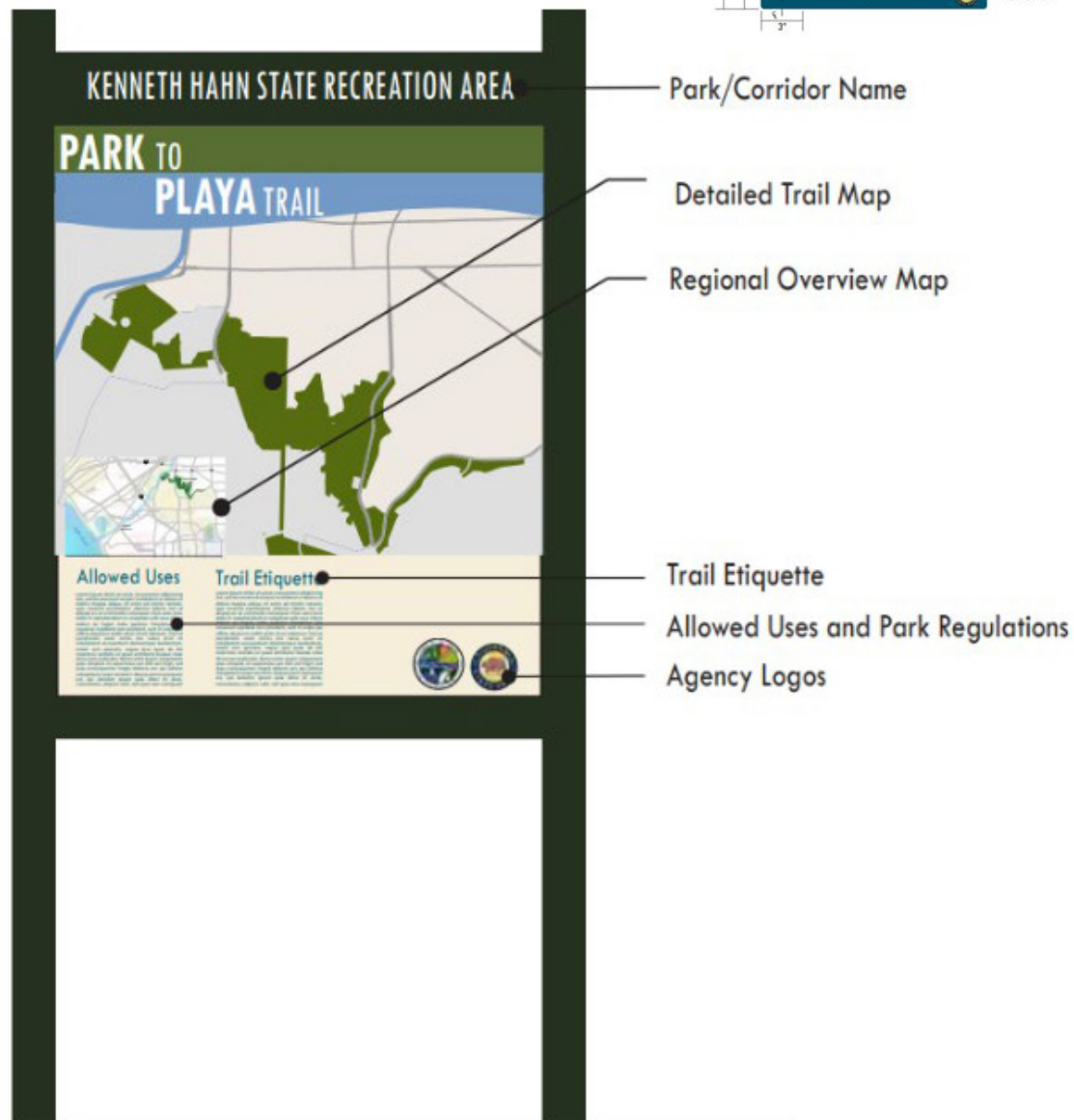


## Recommended Wayfinding Locations

# 1 Bike Path Enhancements

Increase Wayfinding Signage

## Suggested Park to Playa Map Kiosk & Signage



## Possible Mile-Marking Signage



# 1 Bike Path Enhancements

Improving Safety & Experience

## Existing vs Suggested Wayfinding Signage



## Existing vs Possible Underpass Signage





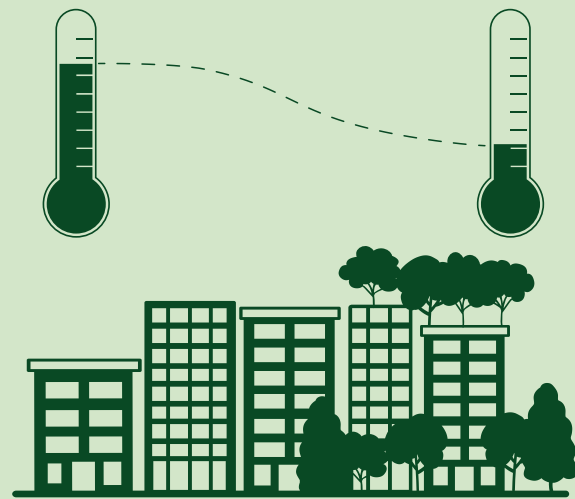
# 2 Expand the Urban Forest

Greening the Ballona Creek Community

## Drought-Tolerant Plantings



## Expand Shade & Reduce UHI Effects



## Improve Air Quality & Increase Carbon Storage



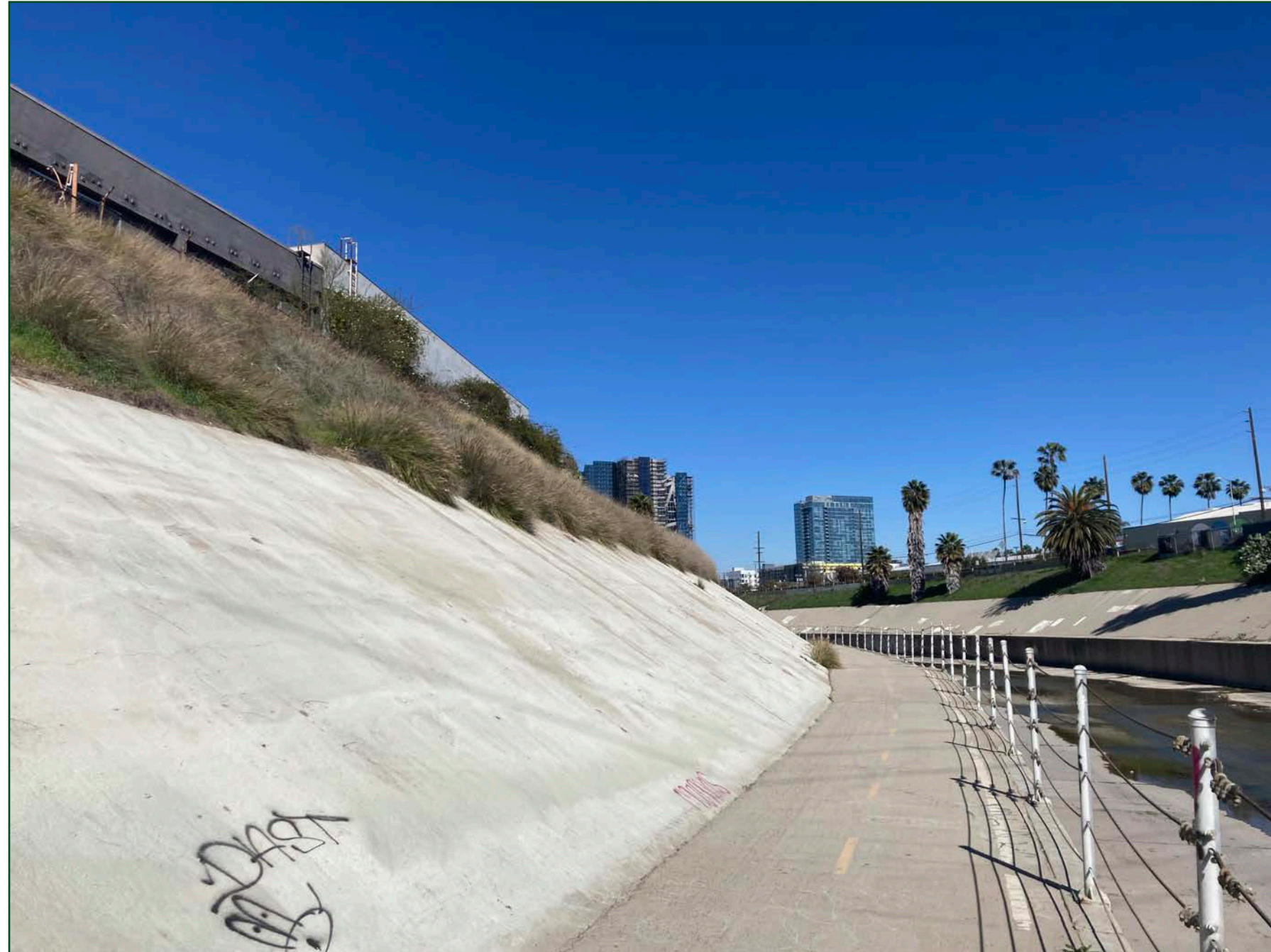
## Community Impact

Introducing trees beside the Bike Path will make it a more attractive route on days that are increasingly hot due to climate change.

# 2 Expand the Urban Forest

## Greening the Ballona Creek Community

### Existing Conditions



# 2 Expand the Urban Forest

## Greening the Ballona Creek Community

### Coast Live Oak

Coast Live Oaks (*Quercus agrifolia*) can be found from Mendocino down to Baja California. They are the only native oak that thrives in coastal environments. At maturity, the height of these long-lived ranges from 30'-80'.



# 2 Expand the Urban Forest

## Greening the Ballona Creek Community

### River She Oak

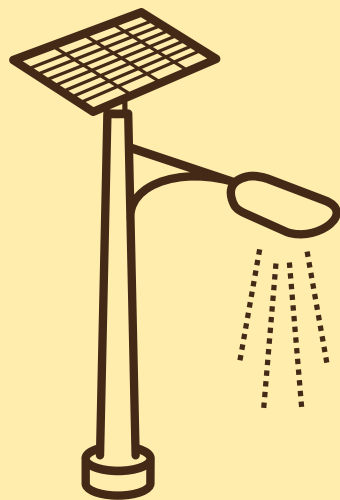
River She-Oaks (*Casuarina cunninghamiana*) at maturity can reach heights above 60'. Once established, these Australian natives are known to be fast-growing, drought-tolerant, hardy, and long-lived trees.



# 3 Solar-Powered Lighting Options

Increasing Safety & Usability

## Install Solar-Powered Lighting



## Increased Security & Visibility



## Reduce Energy Use & Light Pollution



## Community Impact

Added lighting will expand the Bike Path's usable hours as well as improve user safety & security overall.

# 3 Solar-Powered Lighting Options

## Increasing Safety & Usability

### Pole Lighting

<b>Model</b>	Green Frog Systems STEALTH-V5
<b>Watts</b>	50W
<b>Lumens</b>	9,350lm
<b>Light Temp</b>	4000K / 3000K (Optional)
<b>Dark Sky Compliance</b>	Yes, but does not have formal certification
<b>Battery</b>	Backup: 54 hours
<b>Material</b>	Die-cast aluminum chassis with TIGER Drylac® marine grade powder coating and stainless steel fixtures
<b>Fixture</b>	2-3/8" OD tenon pole mount bracket
<b>Mounting</b>	10-26'
<b>Warranty</b>	10 years (Battery) / 5 years (Unit) / 25 years (Solar Panel)
<b>HQ</b>	Dallas, TX
<b>Notes</b>	Approved for Bike Path use by City of LA
<b>ROM</b>	360° motion sensing



# 3 Solar-Powered Lighting Options

## Increasing Safety & Usability

### Underpass Lighting

**Model** Green Frog Systems 50-MSL Solar Shelter Light

**Watts** 7W / 15W

**Lumens** 1,402lm / 2,805lm

**Light Temp** 4000K / 3000K (Optional)

**Dark Sky Compliance** Yes, but does not have formal certification

**Battery** Backup: 54 hours

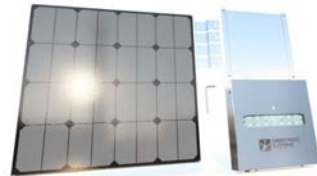
**Material** Die-cast aluminum chassis with TIGER Drylac® marine grade powder coating and stainless steel fixtures

**Mounting** Hardware provided by GFS (exact parts TBC)

**Warranty** 10 years (Battery) /  
5 years (Unit) /  
25 years (Solar Panel)

**HQ** Dallas, TX

**Notes** Panel is separate from light and can be placed as desired (in sunny location), then connected to light



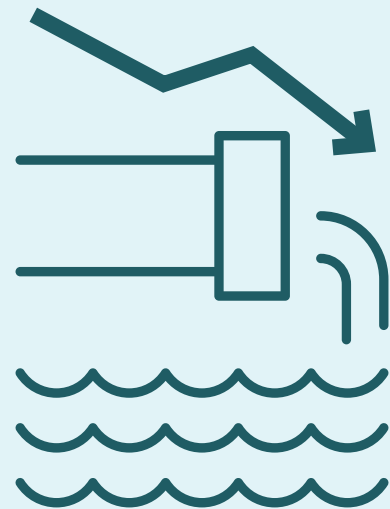
# 4 Permeability & Infiltration

Improving Health of the Watershed

**Replace Existing PCC Path With Pervious Concrete**



**Reduce Contaminated Water Runoff**



**Improve Groundwater Recharge**



**Community Impact**

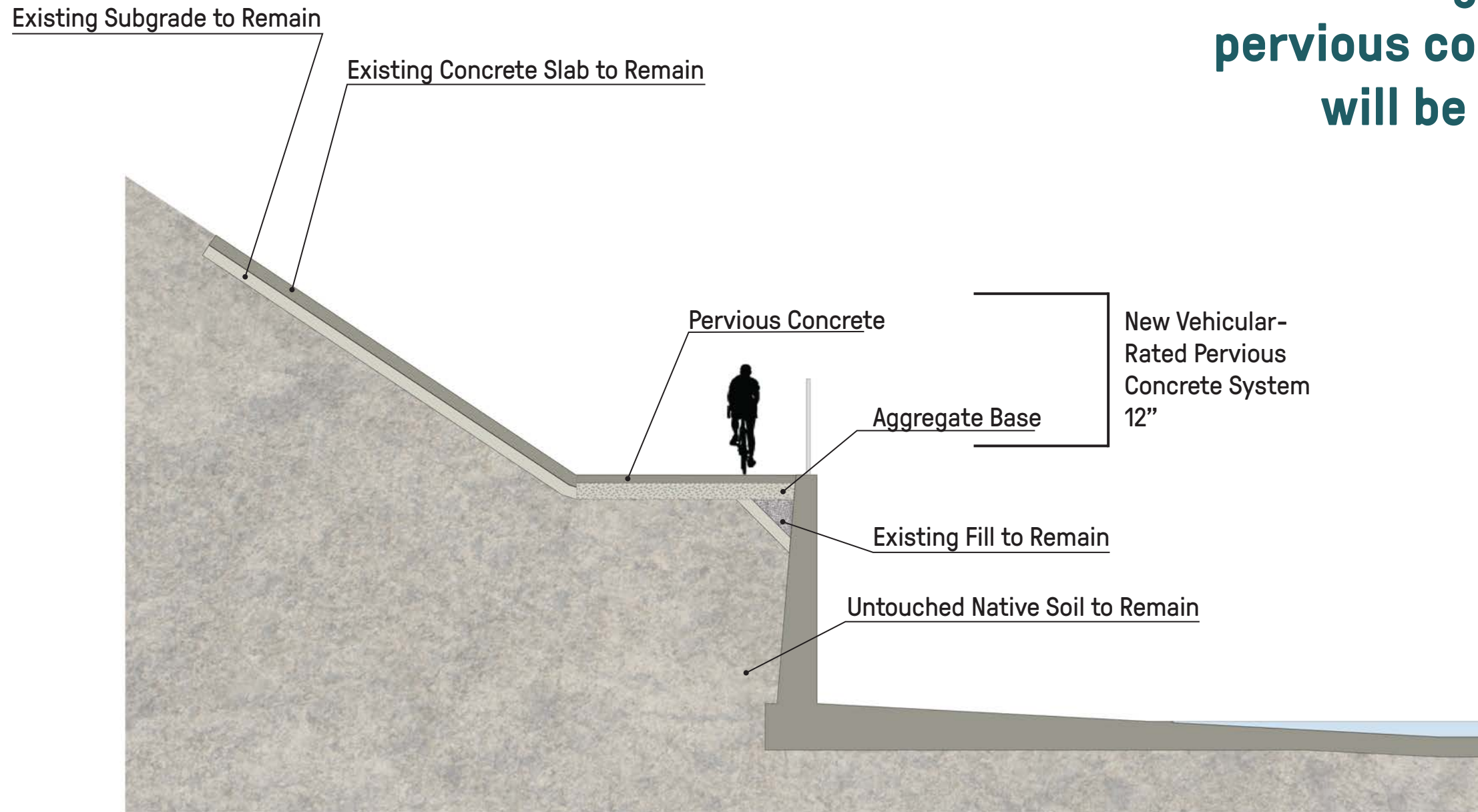
Introducing permeable surfacing & more paths of infiltration will benefit the entire watershed.



# 4 Permeability & Infiltration

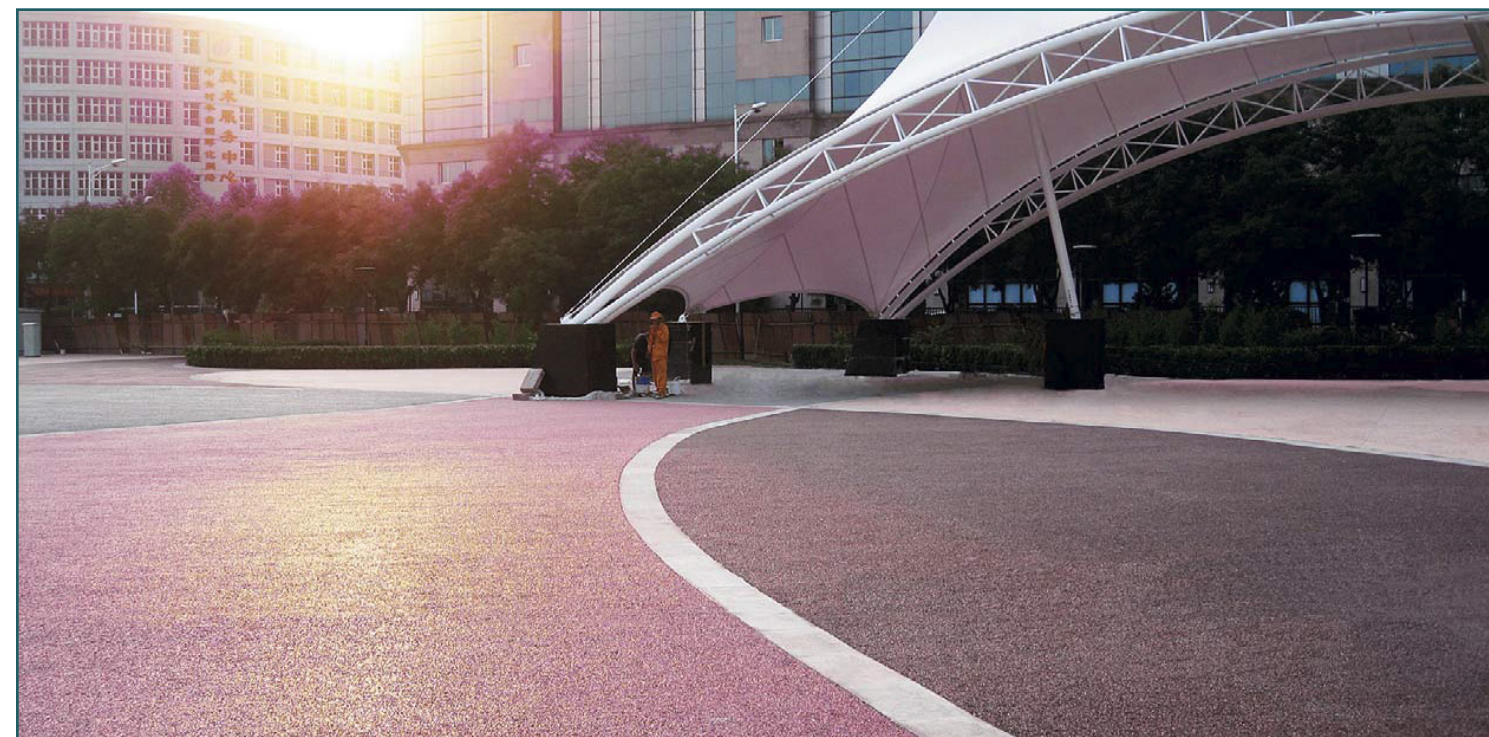
Improving Health of the Watershed

**If budget allows,  
perVIOUS concrete system  
will be employed**



# 4 Permeability & Infiltration

## Improving Health of the Watershed



**Pervious Concrete:** 5 to 8” material depth with a stone reservoir layer. Thicker depth is required compared to standard concrete, resulting in roughly double the cost. Maintenance requires periodic vacuuming to prevent clogging. Requires a 7-day cure for installation.

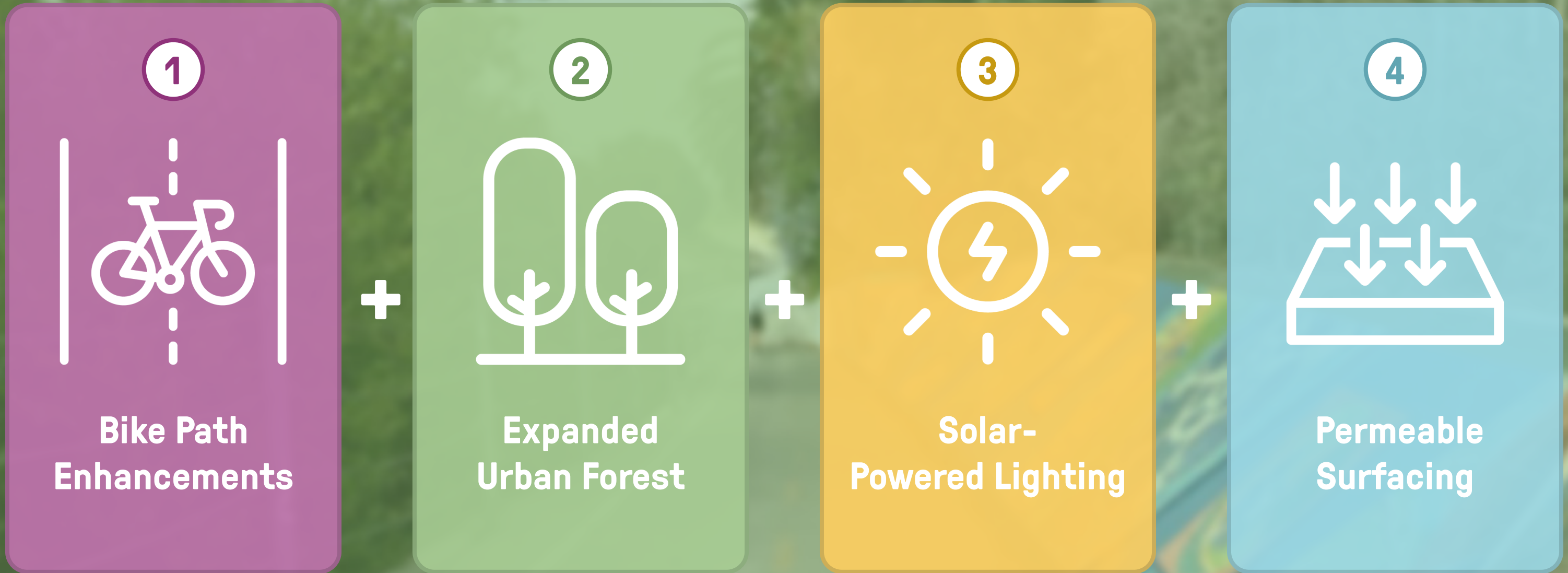
**Advantages:** Durability. High surface albedo. Low-cost life cycle and the lowest maintenance option long-term. Highest runoff reduction potential. Range of color options.

**Disadvantages:** Higher upfront costs. More texture and surface resistance than conventional concrete.

**Conclusion**

# Conclusion

## Greening the Greenway



= Improved user experience 