

Antioch Bicycle Garden Presentation of Conceptual Design

Antioch City Council Meeting
April 8, 2025

ATTACHMENT "A"

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Antioch Bicycle Garden (CCTA Project #31002)

Sponsoring Agency: City of Antioch

Implementing Agency: Contra Costa Transportation Authority (CCTA)

Project Purpose: Installation of a facility for teaching bicycle and pedestrian safety education to encourage the use of pollution-free transportation.

- ▶ Small scale modern streetscape
- ▶ Healthy, fun, outdoor recreation in safe, bicycle-friendly environment
- ▶ Learning stations throughout
- ▶ Group instruction and self guided bicycle education course

Estimated Cost		Funding	
CCTA Project Management	\$274,000	Local Funds	\$1,000,000
Environmental Clearance	\$176,000	SS4A Federal Funds	\$4,000,000
Design	\$550,000		
Right-of-Way Acquisition	\$0		
Construction	\$3,450,000		
Construction Management	\$550,000		
Total	\$5,000,000	Total	\$5,000,000



Project Development Timeline

- ▶ **2020-21:** Project concept and development via City of Antioch, Street Smarts Diablo Program and Contra Costa Transportation Authority
 - City of Antioch - site selection process via Parks and Recreation Commission (PRC) Ad Hoc Committee and City Council Approval
 - Site Location: Prewett Park
- ▶ **2021:** Safe Streets and Roads for All (SS4A) Program grant applications developed in partnership with five project sponsors/Contra Costa Transportation Authority
- ▶ **2023:** SS4A Grant Award (\$4M for Bicycle Garden)
- ▶ **Winter/Spring 2024:** CCTA/City Agreements, Award of Consultant Contracts
- ▶ **Spring/Summer 2024:** Preliminary Design Phase commences
- ▶ **Fall 2024:** Project Outreach and Stakeholder Engagement

City of Antioch/CCTA Partnership

Roles and Benefits of Project Agreement

- ▶ **City of Antioch:** Project Sponsor
- ▶ **CCTA:** Implementing Agency (project/contract management, federal grant funds administration)
- ▶ **TYLin:** Consultant Team (providing design, engineering and environmental services)
 - City is ultimate decision-making authority on project design.
 - CCTA streamlined agreement with FHWA to expedite project delivery
 - SS4A projects must be completed within 5 years (Spring 2029).





Project Funding
Safe Streets and Roads for All (SS4A)
USDOT Grant Program

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Funding: FHWA's Safe Streets and Roads for All Program (SS4A)

Bicycle and Pedestrian Safety Improvements To Improve Equity Countywide in Contra Costa includes the following five projects

- ▶ **Antioch Bicycle Garden (\$4,000,000)**
- ▶ Antioch L Street Pathway to Transit – Bicycle and Pedestrian Improvements (\$13,008,000)
- ▶ Richmond Street Complete Streets Improvements (\$8,003,000)
- ▶ Moraga Road and Canyon Road Complete Streets Improvements (\$3,004,000)
- ▶ San Francisco Bay Trail Gap Closure-Martinez Intermodal Station to Crockett (SS4A Grant: \$925,000)

SS4A GRANT: \$28,940,010

TOTAL PROJECT COSTS: \$46,995,010

PERIOD OF COMPLETION: Jan 2024 - Feb 2028

SS4A – Safe Systems Approach

Objectives

- ▶ Safer People
- ▶ Safer Roads
- ▶ Safer Vehicles
- ▶ Safer Speeds
- ▶ Post-Crash Care





Project Background & Development *Partnerships*

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PROJECT BACKGROUND AND DEVELOPMENT

HOW DID WE GET HERE?

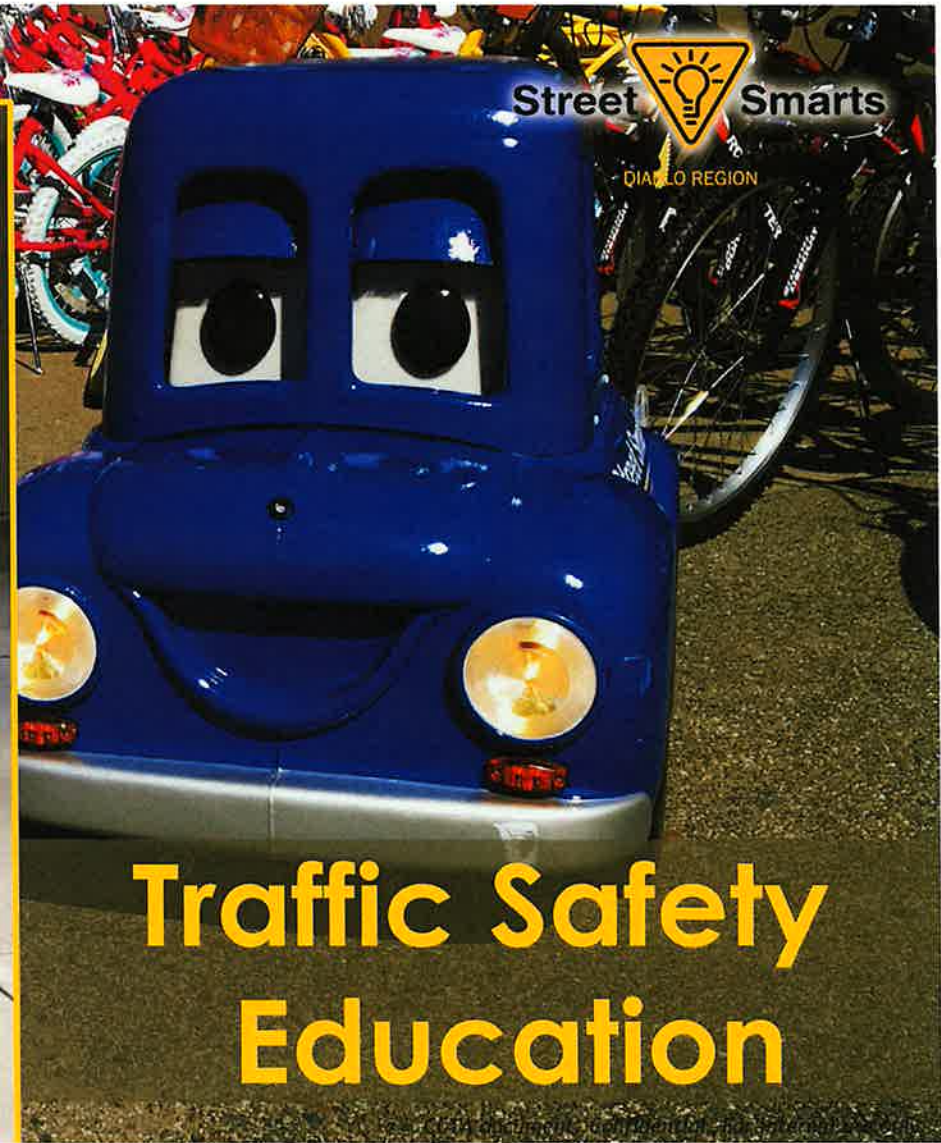
BICYCLE GARDEN CONCEPTUAL ANIMATION

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Street  Smarts
DIABLO REGION





Traffic Safety Education

Bicycle Garden: 4 Goals

SAFETY



Bicycle Garden: 4 Goals



COMMUNITY HEALTH

Bicycle Garden: 4 Goals



CLIMATE CHANGE

Bicycle Garden: 4 Goals



EQUITY

Program Possibilities

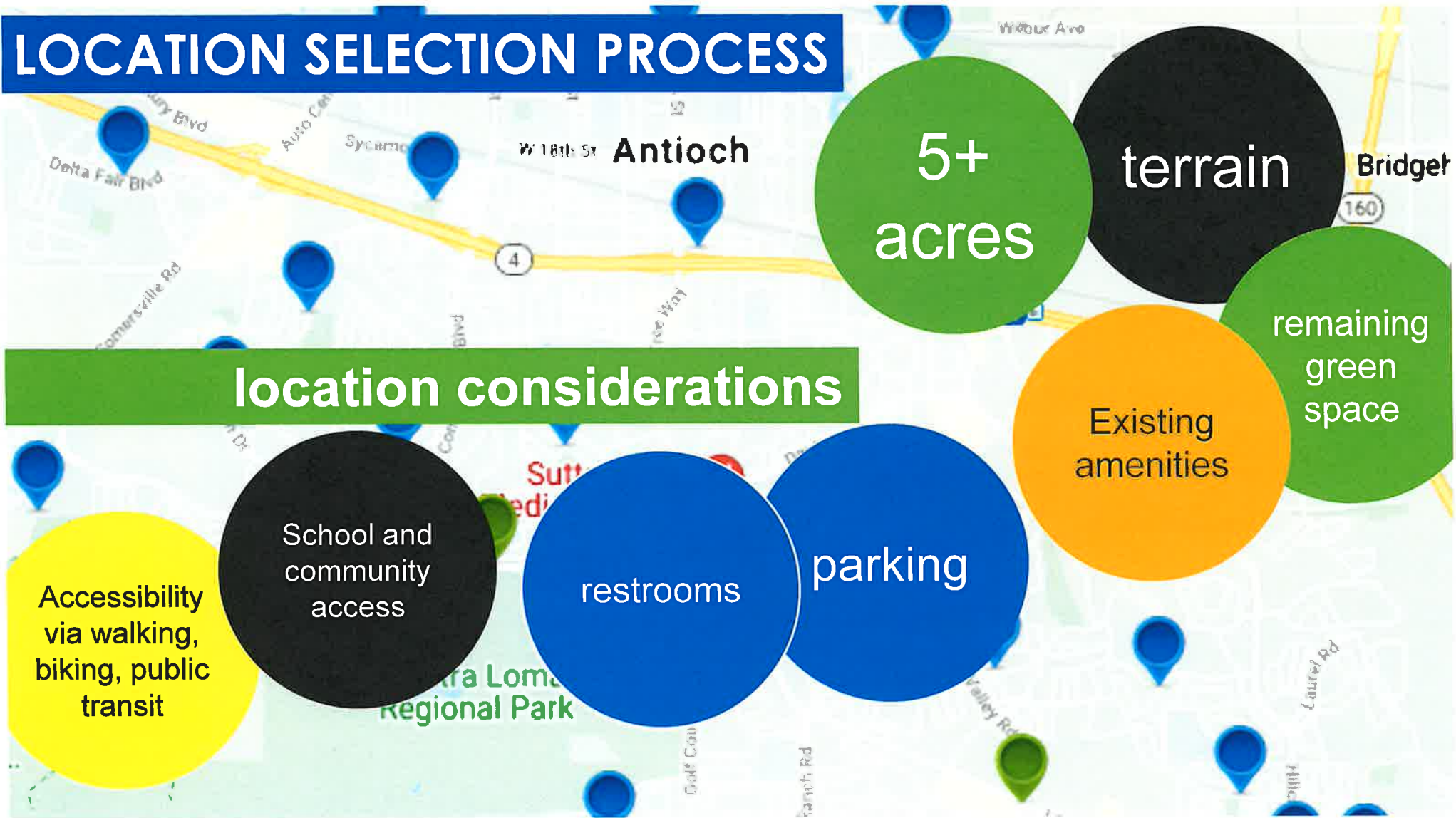
- ☑ School field trips
- ☑ Family workshops
- ☑ Senior classes
- ☑ Inclusive recreation
- ☑ Community events
- ☑ Summer day camps
- ☑ Bike repair workshops
- ☑ Private party rentals
- ☑ Bike to Work Day energizer station



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Street  Smarts
DIABLO REGION

LOCATION SELECTION PROCESS





Prewett Community Park

- ✓ Water Park
- ✓ Skate Park
- ✓ Community Center
- ✓ Library
- ✓ Parking Lot
- ✓ Restrooms
- ✓ BBQ/Picnic
- ✓ Disc Golf course
- ✓ Hiking trails
- ✓ Neighborhood bike trail connections





Conceptual Design

Bicycle Streetscape and Landscape Layouts and Elements

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Recommended Project Elements

Bicycle Streetscape & Safety Educational Features

- ▶ Beginner/Intermediate bicycling skill level areas for intended user groups (primarily youth/school-aged children)
- ▶ One and two-way paved bicycle paths (simulating bike lanes, shared lanes & paths/trails)
- ▶ Roadway striping, high-visibility (green) bicycle pavement markings, crosswalks, roadway directional arrows
- ▶ Traffic, wayfinding and educational/interpretive signage
- ▶ Street name sign network (student/youth collaboration opportunity)
- ▶ Intersection Treatments: Functioning traffic signals, stop, yield and roundabouts, single and multi-lane
- ▶ Roadside Features: Bus stop, “door zone” simulation, traffic safety zone obstacles (such as traffic cones), bus stop/shelter (technology opportunity)
- ▶ Bicycle “Slow Zones” featuring solar-powered radar display signs
- ▶ Host site for Bicycle Safety Education and Training

PRC Comments & Recommendations

Bicycle Streetscape & Safety Educational Features

- ▶ Include pump track (if cost feasible) or designate a space for future addition
- ▶ Agility areas should be located in same general area of the park
- ▶ Support for marked, in-roadway agility elements such as affixed traffic cones, “pothole” simulation, and railroad track crossing
- ▶ Consider incorporating multi-surface path areas (in addition to pavement) such as gravel, decomposed granite and dirt
- ▶ Provide opportunities for community partnering, sponsorship and stewardship of park elements as part of design process or via future City programs

Conceptual Streetscape Plan



► Streetscape Elements

Intersection Types

Signalized (1)



Signalized (2)



Yield Controlled



Roundabout



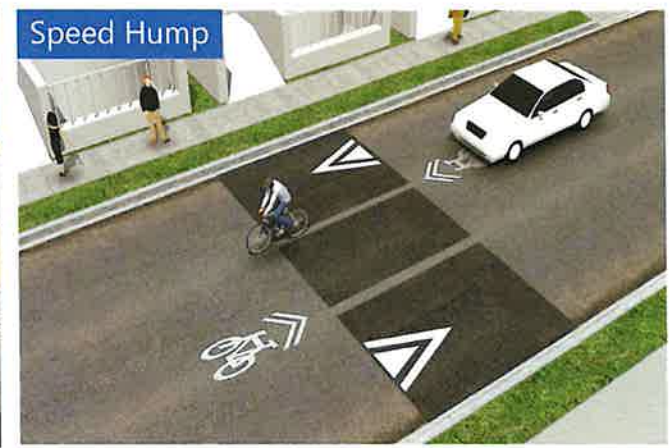
Stop-Controlled



Railroad Crossing



► Streetscape Elements



► Streetscape Elements - Agility



Sources:

1. Pump track: [Reeves Park, Columbus, KS](#)
2. Ramps: [Bike Playground, Newton, CT](#)
3. Bumps: [Aston Traffic Park, Australia](#)
4. Cones: [Bentonville Bike Playground, AR](#)
5. Obstacles: [The Avenue's Traffic Park and Playground, Australia](#)

Conceptual Landscape Plan



- DRINKING WATER FOUNTAIN AND BOTTLE FILLER
- NATURALISTIC PLANTING AREA - CA NATIVE PLANT
- BENCH, TYP.
- DECOMPOSED GRANITE WALKWAYS, TYP.

- DROUGHT TOLERANT SHRUBS AND GROUND COVER, TYP.
- NATURALISTIC PLANTING AREA - CA NATIVE PLANTS
- PRIMARY LANES - TREE ALLEE (36" BOXES)

- FLOWERING ACCENT TREES (15 GAL.), TYP.
- CONCRETE PATHWAY
- BIKE AIR/REPAIR STATION
- DRINKING WATER FOUNTAIN AND BOTTLE FILLER
- WAYFINDING SIGN
- RESTROOM

- EXISTING PATHWAY
- EXISTING ADA RAMP AND STAIRS
- EXISTING ENTRANCE FROM PARKING LOT

- PICNIC AREA
- PICNIC TABLES, TYP.
- PICNIC SHADE CANOPY
- PLAY AREA SHADE CANOPY
- PLAY STRUCTURE
- NATURALISTIC PLANTING AREA - CA NATIVE PLANTS

EXISTING PARKING

ENTRANCE

THE ANTIOCH BIKE GARDEN PLANTING CONCEPT:
 The primary lanes are lined with formal trees and underplanting, representing main city streets; while the winding roads and the outskirts are planted with informal plants, representing suburban streets and the natural landscape of California foothills

An aerial photograph of a park area. A winding path, possibly a trail, is visible, surrounded by lush green trees and vegetation. In the background, a large building with a blue roof is partially visible. The overall scene is bright and sunny, with a clear blue sky.

Recommended Project Elements

Landscaping and Park Amenities

- ▶ Restroom
- ▶ Picnic area, playground, benches and tables
- ▶ Mature trees – need for abundant shade
- ▶ Native and low-maintenance plants, naturalistic planting areas, drought-tolerant landscaping, irrigation
- ▶ Water fountains
- ▶ Pedestrian-scale Lighting
- ▶ Shade structure(s)
- ▶ Access Connections - Mokelumne Trail and Antioch Community Center
- ▶ Bicycle parking, bicycle air/repair station

PRC - Comments & Recommendations

Landscaping and Park Amenities

- ▶ Consider additional restroom (if cost feasible)
- ▶ Park Entrance: Kiosk/informational station, identifying art piece/sculpture
- ▶ Water misting station
- ▶ Stressed need for abundant shade
- ▶ Trees Species: California natives such as coast live, valley and blue oaks, redbud, ironwood, and cottonwoods. Consider a mix of small and medium size trees at planting to control costs and ensure healthy tree establishment
- ▶ Native and low-maintenance/drought tolerant grasses and plants, naturalistic planting areas
- ▶ Consult with Maintenance staff through design process regarding operations and costs

BIKE GARDEN PRECEDENT IMAGES



TRAINING CONES



METAL BIKE RACK - SPIRAL



METAL BIKE RACK - ROLLING HILLS



BIKE REPAIR STATION

PICNIC AREA



TREE SHADED PICNIC AREA



CANOPY SHADED PICNIC AREA



CANOPY SHADE FOR INDIVIDUAL PICNIC TABLES

SITE FURNISHING



SAFETY LIGHTING



PLAY EQUIPMENT



CANOPY SHADED PLAY AREA



WAYFINDING, ENTRY AND EDUCATIONAL SIGNAGE



PLANTING



FORMAL TREE ALLEY - MAIN LIMES



NATURALISTIC AREA - INSPIRED BY CALIFORNIA FOOTHILLS



DROUGHT TOLERANT CALIFORNIA NATIVE AND CLIMATE ADAPTED PLANTS



GROUNDCOVER OPTIONS



ALLEE TREES - 36" BOXES



TRADE TREE



LUM TREE



LAWN



BUNYON (USE OF 21 GROUNDCOVER)

TREES AT NATURALISTIC PLANTING AREA - 24" BOXES



WILLOW CALIFORNIAN



CASTLE ROCK CALIFORNIAN



CALIFORNIA REDWOOD - CALIFORNIAN



PIKE PINE

FLOWERING ACCENT TREES - 15 GAL CONTAINERS



COYOTE SPRING TREE



WHITE TREE



REBLOOM CALIFORNIAN

▶ Park Amenities

PLAY EQUIPMENT



PICNIC AREA



TREE SHADED PICNIC AREA



CANOPY SHADED PICNIC AREA

▶ Park Amenities

- Repair station
- Public restroom
- Benches
- Shaded picnic areas
- Bike racks
- Playground



► Landscape Elements - Trees

TREES AT NATURALISTIC PLANTING AREA



VALLEY OAK - CA NATIVE



COAST LIVE OAK - CA NATIVE



CATALINA IRONWOOD - CA NATIVE



PINE TREE

FLOWERING ACCENT TREES



CHINESE FRINGE TREE



MYRTLE TREE



REDBUD - CA NATIVE

ALLEE TREES



OLIVE TREE



ELM TREE

► Landscape Elements

PLANTING



FORMAL TREE ALLEE - MAIN LANES



NATURALISTIC AREA - INSPIRED BY CALIFORNIA FOOTHILLS



DROUGHT TOLERANT CALIFORNIA NATIVE AND CLIMATE ADAPTED PLANTS

Workshop Series - Fall 2024

- ▶ **Community Workshop No. 1**
Thursday, October 17, 2024, 6:00 p.m. - 8:00 p.m.
Antioch Community Center
 - Introduced Project, solicited preliminary feedback on project elements and conceptual layout options
- ▶ **Community Workshop No. 2**
Saturday, November 16, 2024, 10:00 am - Noon
Antioch Senior Center
 - Provided updates on project development, solicited feedback on refined elements and layout options.



HOW IT WORKS
Picture a miniature city streetscape with a small-scale versions of real-life traffic features like traffic signals, road signs, street markings, bus stops, bike lanes, train tracks, and roundabouts. The learning will be self-guided, free, and open to the public.

Bicycle Garden

at Prewett Park

The City of Antioch and the Contra Costa Transportation Authority are partnering to build a one-of-a-kind facility for teaching bicycle and pedestrian safety education and encouraging the use of pollution-free transportation. It will provide a healthy, fun, outdoor recreation in a safe, car-free environment. The project is funded in part by a grant from the USDOT's Safe Streets for All (SS4A) Program.

GET INVOLVED
The Bicycle Garden will be located at Prewett Community Park to the east of the Antioch Community Center. The City of Antioch is seeking input on the design of this revolutionary park feature. We invite you to share your thoughts on the design elements of the Bicycle Garden.

Visit: antiochca.gov/recreation/bicycle-garden

Community Design Workshops
Thursday, October 17th, 6pm - 8pm
Antioch Community Center, 4703 Lone Tree Way
Saturday, November 16th, 10am - Noon
Antioch Senior Center, 415 W. 2nd Street

Scan the QR code:



Watch 3D video at: ccta.net/active_studies/antioch-bike-garden/



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What We Heard...

Bicycle Streetscape & Safety Elements

- ▶ Support for Intersection Treatments: operating traffic signals, stop and yield controls, railroad xing
- ▶ Traffic, Wayfinding and Interpretive/Educational Signage
- ▶ Street Name Sign Network
- ▶ Emphasis on Bike Path (Class I) and Bike Lane (Class II) standard and high-visibility (green) markings. Little support for shared lane (“sharrow”) markings.
- ▶ Bicycle Parking Areas (racks)
- ▶ Bus Shelter/bench, bus door zone/bike rack apparatus
- ▶ Pump Track (if cost feasible)
- ▶ Consider educational components specific to e-bikes
- ▶ Provide areas for various skill sets

What We Heard...

Landscaping and Park Elements

- ▶ Strong support for a restroom, benches, picnic area, multiple water fountains, misters.
- ▶ Low-maintenance landscaping and mature trees to provide ***abundant shade***.
- ▶ Restroom is a necessity
- ▶ Playground and Picnic areas for non-cyclists, provide multi-use for all to enjoy
- ▶ Shade structures or canopies, particularly at picnic area
- ▶ Provide bike parking/racks at multiple locations including entrance, restroom and picnic/playground areas
- ▶ Pedestrian-scale lighting along entirety of pathway network

What We Heard...

Access, Connectivity, Other

- ▶ Support for connectivity to the Mokelumne Trail and existing sidewalk pathway around periphery of Community Center
- ▶ Wayfinding signage to entry/exit points of facility
- ▶ Message board or kiosk at entry to post events
- ▶ Consider Security cameras
- ▶ Establish sponsorship opportunities to support or contribute to bike garden amenities and/or maintenance
- ▶ Explore opportunities to better-integration with adjacent Community Center/Library

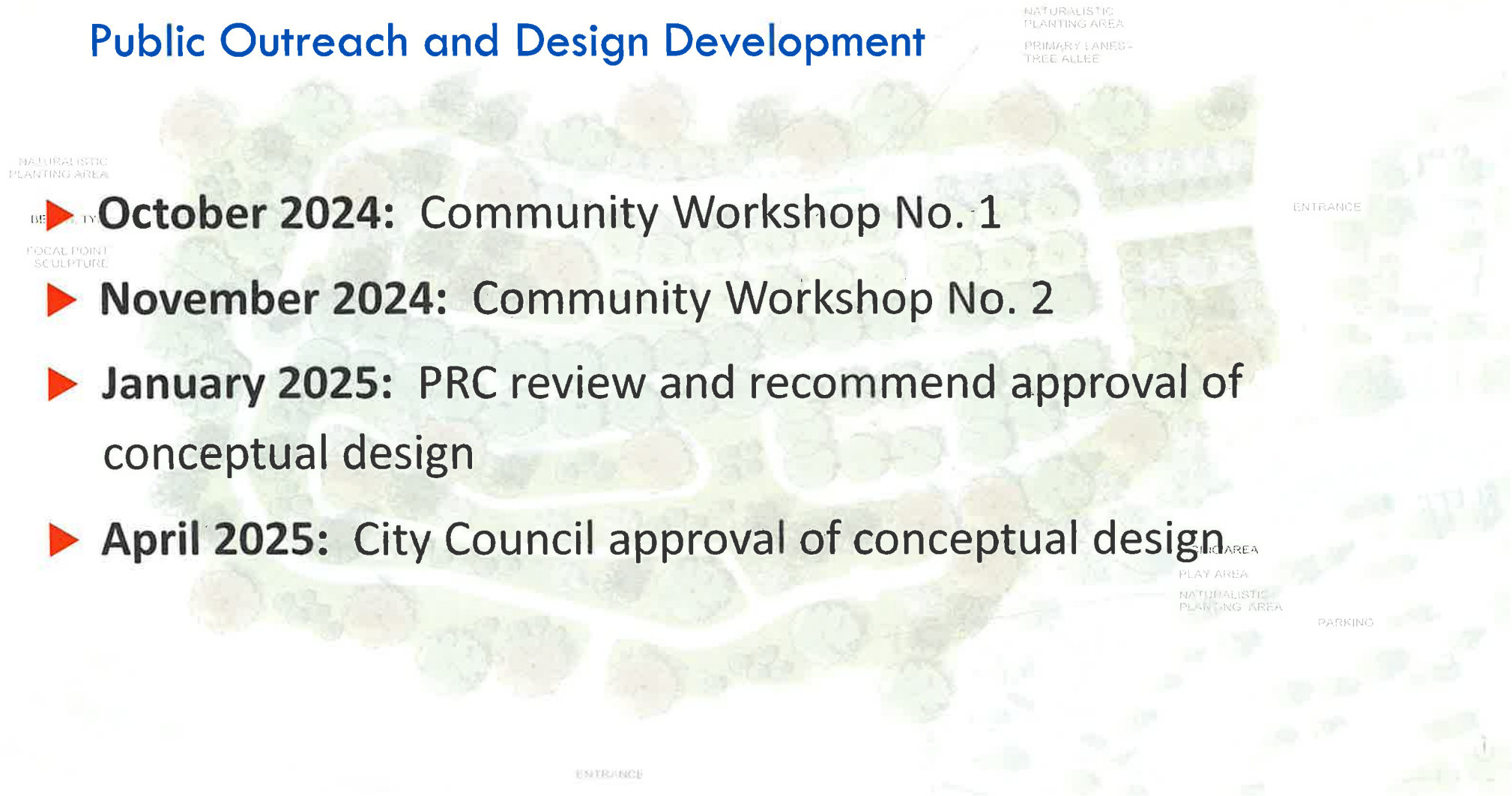
Schedule

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Public Outreach and Design Development



- ▶ **October 2024:** Community Workshop No. 1
- ▶ **November 2024:** Community Workshop No. 2
- ▶ **January 2025:** PRC review and recommend approval of conceptual design
- ▶ **April 2025:** City Council approval of conceptual design

Design & Construction

- 
- The background of the slide is a detailed landscape design plan. It shows a central area with winding paths and various zones. Labels on the plan include: 'NATURALISTIC PLANTING AREA' (top right), 'PRIMARY LANES TREE ALLEE' (top right), 'ENTRANCE' (top right), 'ENTRANCE' (bottom center), 'PICNIC AREA' (bottom right), 'PLAY AREA' (bottom right), 'NATURALISTIC PLANTING AREA' (bottom right), and 'PARKING' (bottom right). On the left side, there are labels for 'NATURALISTIC PLANTING AREA', 'BENCH, TYP', 'FOCUS SCULPTURE', and 'FOCUS SCULPTURE'. A red arrow points from the text 'May 2024' to the 'NATURALISTIC PLANTING AREA' label on the left.
- ▶ **May 2024:** Project Kick-off - begin Environmental and Design phases
 - ▶ **Fall 2024:** Public Outreach and Stakeholder Engagement
 - ▶ **Summer 2025:** Complete Environment Clearance and Final Design (PS&E)
 - ▶ **Fall/Winter 2025:** Begin Construction
 - ▶ **Summer/Fall 2026:** Complete Construction, Open to Public
 - ▶ **2027:** Project Closeout



Thank You

Project Site:

Prewett Community
Park

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