





CENTRAL WILLANSON BREEK Breenware

VISION PLAN



ACKNOWLEDGMENTS

Project Team

Nicole Joslin, AIA, LEED AP Executive Director

Marla Torrado, Ph.D. Planning Director

Shavone Otero Community Coordinator

Thomas Medina Community Planner



Community Working Group

Mary Olmstead

Anna Pittala

Steve Prather

Jessica Sager

Nicole Sanford

Greg Stevens

Michael Usher

Esther Weekes

City Departments

Watershed Protection Department Parks and Recreation Department Public Works Office of Sustainability Office of Innovation Housing and Planning Department Equity Office **Amy Belaire, Ph.D.** Texas Director of Science and Strategy Katie Coyne, AICP, ESA, SITES AP Principal-In-Charge

Claire Eddleman-Heath PLA, LEED AP, SITES AP Project Manager

Kari Spiegelhalter Deputy Project Manager

Andrew Wright Landscape Designer



City of Austin Working Group

Christine Chute Canul Parks and Rec. Dept.

Marc Coudert Office of Sustainability

Megan Eckhard Parks and Rec. Dept.

Sydney Garcia* National Parks Service

Leah Gibson Watershed Protection Dept.

Marie Lancaster Watershed Protection Dept.

Gibran Lule-Hurtado* National Parks Service **Justin Stewart** Parks and Rec. Dept

David Trujillo Watershed Protection Dept.

LaJuan Tucker Parks and Rec Dept

Staryn Wagner Watershed Protection Dept.

Katie Wettick Urban Trails

Jessica Wilson Watershed Protection Dept.

LETTER FROM THE COMMUNITY WORKING GROUP

Williamson Creek is a gem crossing West to East in South Austin between Oak Hill and McKinney Falls State Park. Residents of the neighborhoods surrounding Williamson Creek have enjoyed this natural beauty for more than 20 years. Community efforts over a number of years, including trash pick-ups, tree planting and the removal of invasive species, have resulted in improving the health of the creek and supporting the native flora and fauna. Central Williamson Creek Greenway is slowly becoming a more welcoming green space for residents to connect with nature and for nature to thrive.

We are thrilled to envision the future of a place we love so dearly with the Central Williamson Creek Greenway Vision Plan. This Vision Plan represents a 12-month process of both Williamson Creek Working Group (WCWG) formal and creative efforts to engage the community and input derived from public engagement. Community engagement activities included: community members recording their own oral histories through WCWG interviews; virtual community picnics virtual mapping enabling community to propose ideas such as food forest planting and hiking trails in and around the creek; several in-person and socially-distanced "Creek Chats" to engage the community; and a final community picnic to unveil the Vision Plan and offer an opportunity to provide community feedback in 2021.

Implementation of the community's spirited ideas for this plan, in part or entirety, will transform Central Williamson Creek Greenway from its current state to one that will serve nature and the community in the future.

Next steps in this process include: reviewing a final Vision Plan following the consideration of all community comments; presenting this plan to the Environmental Commission and the Parks and Recreation Board; scheduling 2021 Creek Cleanup work days; coordinating invasive species identification and removal; tree planting; identifying funding opportunities to implement the plan; creating the Williamson Creek Hiking Club; and constructing the Williamson Creek Community Labyrinth to increase community activity and overall health.

Thank you to the St. David's Foundation for providing the grant used to draft this Vision Plan, to Community Powered Workshop for facilitating the process, and to Asakura Robinson for co-creating this Vision Plan with us. We also want to thank members of the City of Austin Working Group for their dedication and time. We are excited to move forward with the support of Austin Parks & Recreation and Watershed Protection Departments and their affiliates. Lastly, we would like to thank and acknowledge those longtime friends who have supported and participated in efforts to maintain Williamson Creek since 2005.

Mary Olmstead Anna Pittala Steve Prather Jessica Sager

*Working Group Members from the National Parks Service

Nicole Sanford Greg Stevens Michael Usher Esther Weekes

TABLE OF CONTENTS

Acknowledgments	2
Letter From the Community Working Group	3

1: Project Overview7

Central Williamson Creek Greenway	8
Vision Plan Overview	12
Community Goals	13
The Design Process	14
Opportunities and Constraints	17
Opportunities and Constraints Map	19

2: Central Williamson Creek Vision Plan 21

Overall Vision Plan	22
Vision Plan Elements	24
Vision Plan	27
Meadow Creek Trailhead	33
View Northeast at Tom Donovan Park	36
View Northeast at Heartwood Community Garden	38
View Northeast at Heartwood Community Garden	38
Orland Street Trailhead	41

The Future Central Williamson Creek Is	.44
Articulating Common Goals	.46
Goal #1: A Restored, Biodiverse Greenway	.48
Goal #2: A Community-Centered Greenway	56
Goal #3: An Accessible and Visible Greenway	. 64
Goal #4: An Active and Connected Greenway	. 70

4: Community Engagement......77

Engagement Strategy	78
Digital Engagement	78
In-Person Engagement	82

Community Context
Local Ecology
Greenway Access
Hydrology

6: Implementation.....

Implementation Stream
Ongoing City of Austin Projects
Implementation By Idea
People Experiencing Homelessness

7: Afterword & Appendices......

Afterword
Bibliography
Recommended Plant List
Recommended Materials Criteria
Opinion of Probable Costs Summary
All Toolkit Items
All Community Engagement + Communication

A Guide to Commonly Used Acronyms

CWCG: Central Williamson Creek Greenv
COA: City of Austin
PARD: Parks and Recreation Departmen
WPD: Watershed Protection Departmen
CWG: Community Working Group
CPW: Community Powered Workshop

	. 85
103	
113	
	110
	117
120	
124	
126	
134	
	107
• • • • • • • • • • • •	13/
139	
140	
142	
144	
148	
213	
	93 103 113 120 124 126 134 139 139 140 142 142 148 190

vay

-

-

PROJECT **DVERVIEW**

A Note from Community Powered Workshop (CPW)

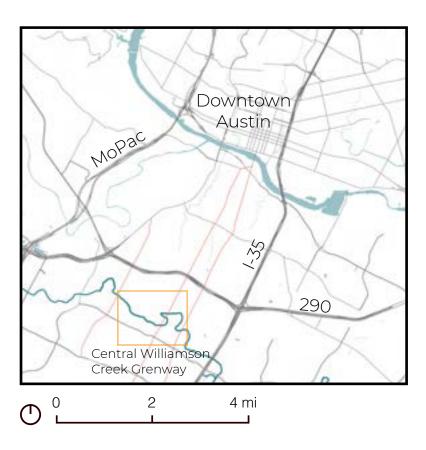
Community Powered Workshop is an Austin-based non-profit architecture and planning organization that works alongside communities to create powerful and equitable places that promote a healthy future and break barriers of systemic injustice through collaborative planning, community driven research and social impact design. We entered this community-led effort to create the Central Williamson Creek Vision Plan in 2017 alongside community members in the Central Williamson Creek area to re-imagine this green space as a resilient, healthy and connected public space. For this Vision Planning process, Community Powered Workshop facilitated the convening of a Community Working Group to bring local voices and perspectives to the table, and a City of Austin Working Group composed of staff from multiple City of Austin departments and the National Parks Service. With the goal to build long-term, collaborative working relationships between community members and public land managers, these working groups place community members and City staff on equal footing in the planning process as a way to balance community priorities that also support a sustainable and healthy environment.

Moving forward, we will continue collaborating with residents of the neighborhoods and City departments to bring the Central Williamson Creek Greenway Vision Plan to life.



CENTRAL WILLIAMSON CREEK GREENWAY

Central Williamson Creek is a stretch of nearly continuous greenway along Williamson Creek in Austin, Texas. This section of the creek, which runs for about two miles between S. Congress Avenue and Menchaca Road, and just north of Stassney Lane is located in a primarily residential area of South Austin. Much of the land directly adjacent to the creek is publicly owned by The City of Austin Parks Department and the City of Austin Watershed Protection Department as a result of a floodplain home-buyout project that transitioned formerly residential land into floodable green space. This land now presents a significant opportunity to create a connected recreational greenway for a park-deficient community in South Austin.







Conservancy, USGS



CENTRAL WILLIAMSON CREEK GREENWAY

Home Buyout Program

The homes in the neighborhood adjacent to and within the Williamson Creek floodplain have experienced repeated destructive flooding over the past two decades, and these floods continue to intensify due to climate change and Austin's rapid growth and land development. Major floods in 1998, 2001, and 2013 prompted a consideration of a buyout program in this area, and in 2015, the first phase of a home buyout program began through a partnership between the City of Austin and the U.S. Army Corps of Engineers. As of 2019, 51 properties have been purchased by the city and demolished to prevent future redevelopment. There are a total of four buyout areas along the project sitealong the project site: the Meadow Creek buyout area, Radham Circle buyout area, the Richmond Tributary buyout area, and the Heartwood buyout area (see map on page 9). The land and floodplain recovered from

this effort is now owned and maintained by the City of Austin's Watershed Protection Department with the goal of maintaining it as an open, floodable space to protect adjoining residences from flooding.

Community-Driven Open Space

In addition to the home buyout properties, Central Williamson Creek is bordered by about 58 acres of undeveloped parkland owned by the Austin Parks and Recreation Department and 16 acres of residential floodplain buyout properties owned by the Austin Watershed Protection Department. This publicly owned land adjacent to the rich biodiverse riparian ecosystem of Williamson Creek presents a unique opportunity to connect residents of South Austin to urban ecological systems, recreation, and gathering spaces.

This opportunity was guickly recognized by residents, and in 2019 community leaders in the Southwood neighborhood partnered with local non-profits and conservation organizations to initiate a series of community engagement and activation events called *Explore! Williamson* Creek. Many community desires emerged, including the desire for a creekside nature trail, social gathering spaces, community gardens, wildlife habitat, and other amenities. The outcome of these activations highlighted the passion community members hold for Williamson Creek and their desire to have a strong voice in the planning and design process. This vision plan process continues this communitydriven effort through an engaged Community Working Group feedback process and a series of Community Workshops.



Section A-A': Central Williamson Creek and Surrounding Context at Radham Circle

Previous Planning Efforts

City of Austin Neighborhood planning documents addressing South Austin acknowledge Williamson Creek as a priority area for parks and recreation.

South Austin Combined

Neighborhood Plan: Create bike lanes on major roads, provide a greenbelt path along Williamson Creek.

Southeast Combined Neighborhood **Plan:** Add more sidewalks, create hike and bike trail along Williamson Creek,

add mixed-use zoning. Southeast Combined Neighborhood

Plan: Maintain Williamson Creek in a natural state, improve pedestrian connections, and develop a new neighborhood park.

VISION PLAN OVERVIEW

This Vision Plan report provides a comprehensive guiding vision for the future of the Central Williamson Creek Greenway. The recommendations in this plan were created through close collaboration with a community working group, the City working group, and feedback from the general public.

Chapter 2 | Pages 21-42

Vision Plan

The Vision Plan chapter presents the overall designs for the Williamson Creek Greenway from S. Congress Avenue to Menchaca Road, along with examples of more detailed concept designs for two trailheads at Orland St and S. 1st Street and at Meadow Creek Circle.

Chapter 3 | Pages 43-76 Developing the Vision

This chapter provides a detailed overview of the four community goals that drove this plan, how they were developed, and each goal's corresponding design strategies utilized in the Vision Plan to achieve those goals.

Chapter 4 | Pages 77-84

Community Engagement

This Vision Plan was developed in close collaboration with community members, and this chapter provides an overview of the digital and in-person community engagement process and outcomes. Chapter 5 | Pages 85-118 Existing Conditions

The Existing Conditions chapter provides an overview of current ecological, hydrological, and social conditions of the creek and its immediate surrounding neighborhood.

Chapter 6 | Pages 119-130

Chapter 6 lays out a three-tiered approach to funding and constructing the Vision Plan designs over time based on project effort and feasibility, and provides maintenance recommendations.

 Image: Constraint of the constraint of the

COMMUNITY GOALS

The following four goals emerged from a design process that listened to and engaged with community priorities through a series of virtual and in-person engagement events, described later in Chapter 4.

-1. A RESTORED, BIODIVERSE GREENWAY

The future Central Williamson Creek Greenway will be a healthy, functioning riparian ecosystem, rich with plant and animal life and free from ecologically destructive invasive species. Volunteer and city ecological restoration efforts, green infrastructure installations, and low-impact trails will preserve the creek's wild character, protect sensitive species, and improve water quality.

2. A COMMUNITY-CENTERED GREENWAY

The future Central Williamson Creek Greenway will be a system of trails, parks, community gardens, and other gathering spaces where neighbors and South Austin residents gather to socialize and exercise. Community-built art, urban agriculture, restoration and other projects along the greenway will create a sense of ownership and pride.

3. AN ACCESSIBLE AND VISIBLE GREENWAY

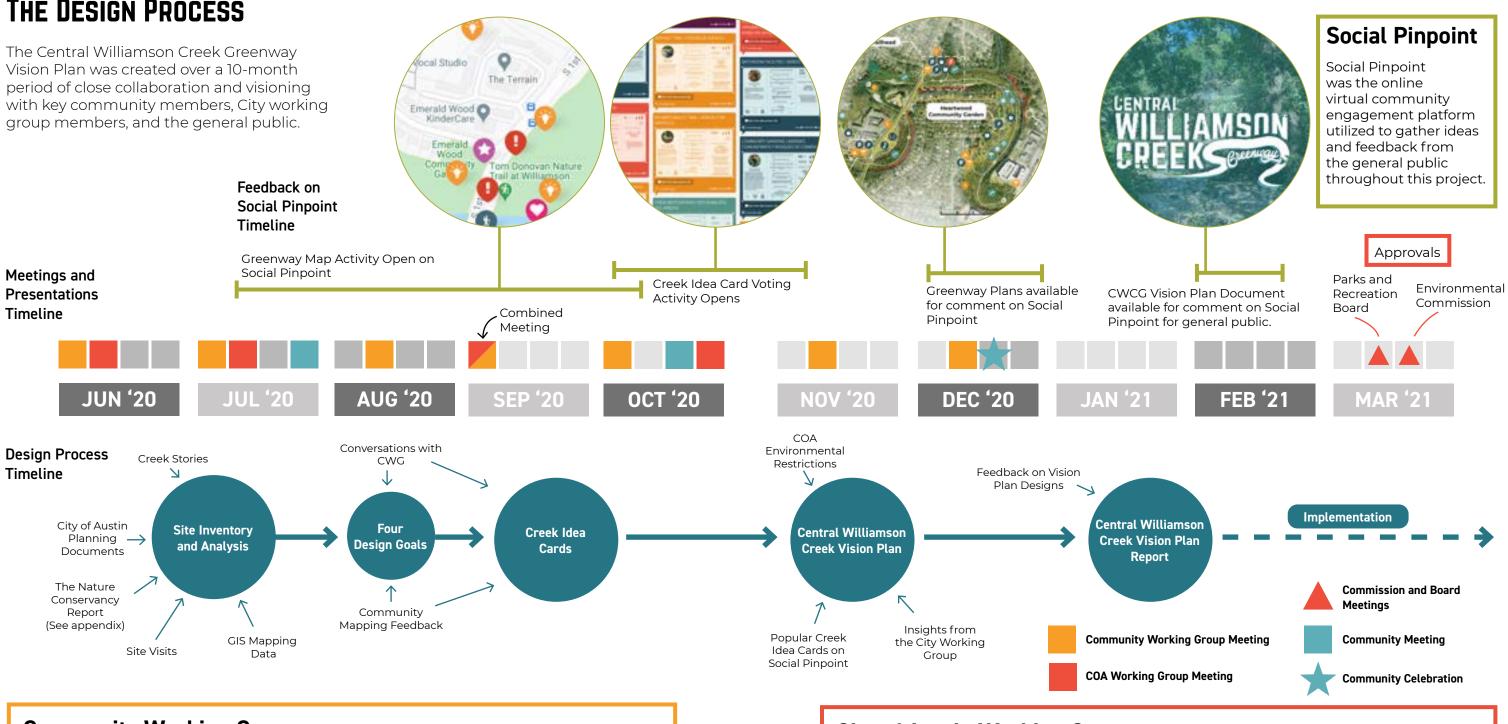
The future Central Williamson Creek Greenway will provide a continuous trail from S. Congress Avenue to Menchaca Road through key land acquisition and low-impact trail construction. Visitors to the greenway will be able to orient themselves through clear wayfinding signage, and learn more about the unique history, ecology, and geology of the creek through educational signage.

4. AN ACTIVE AND CONNECTED GREENWAY

The future Central Williamson Creek Greenway will be an important public health amenity for the neighborhood and the broader Austin community. It will provide a key east-west connection to South Austin neighborhood resources and public transportation. The trail system will connect all communities to the creek and provide accessible creek experiences for those of all abilities. Mountain biking trails, fitness programming, and community gardens along the trail network will further enhance neighborhood health.

THE DESIGN PROCESS

The Central Williamson Creek Greenway Vision Plan was created over a 10-month period of close collaboration and visioning with key community members, City working group members, and the general public.



Community Working Group

The Community Working Group of eight people living in the neighborhoods adjacent to the creek was established to collaboratively envision the future of the creek and to build community capacity for future implementation of this plan. The group was given a stipend for participation and met monthly to praticipate in collaborative visioning activities with the design team and to provide feedback on design deliverables.

City of Austin Working Group

The City of Austin Working Group was formed to create a group of experts who volunteered their time to provide advice on parks, trails planning, and environmental restoration, as well as an understanding of the City of Austin's legal requirements for proposed designs. The City Working Group was comprised of 11 City of Austin staff members, representing the Parks and Recreation Department, the Watershed Protection Department, and Office of Sustainability, and the Urban Trails program. Two members represented the National Parks Service.



OPPORTUNITIES AND CONSTRAINTS

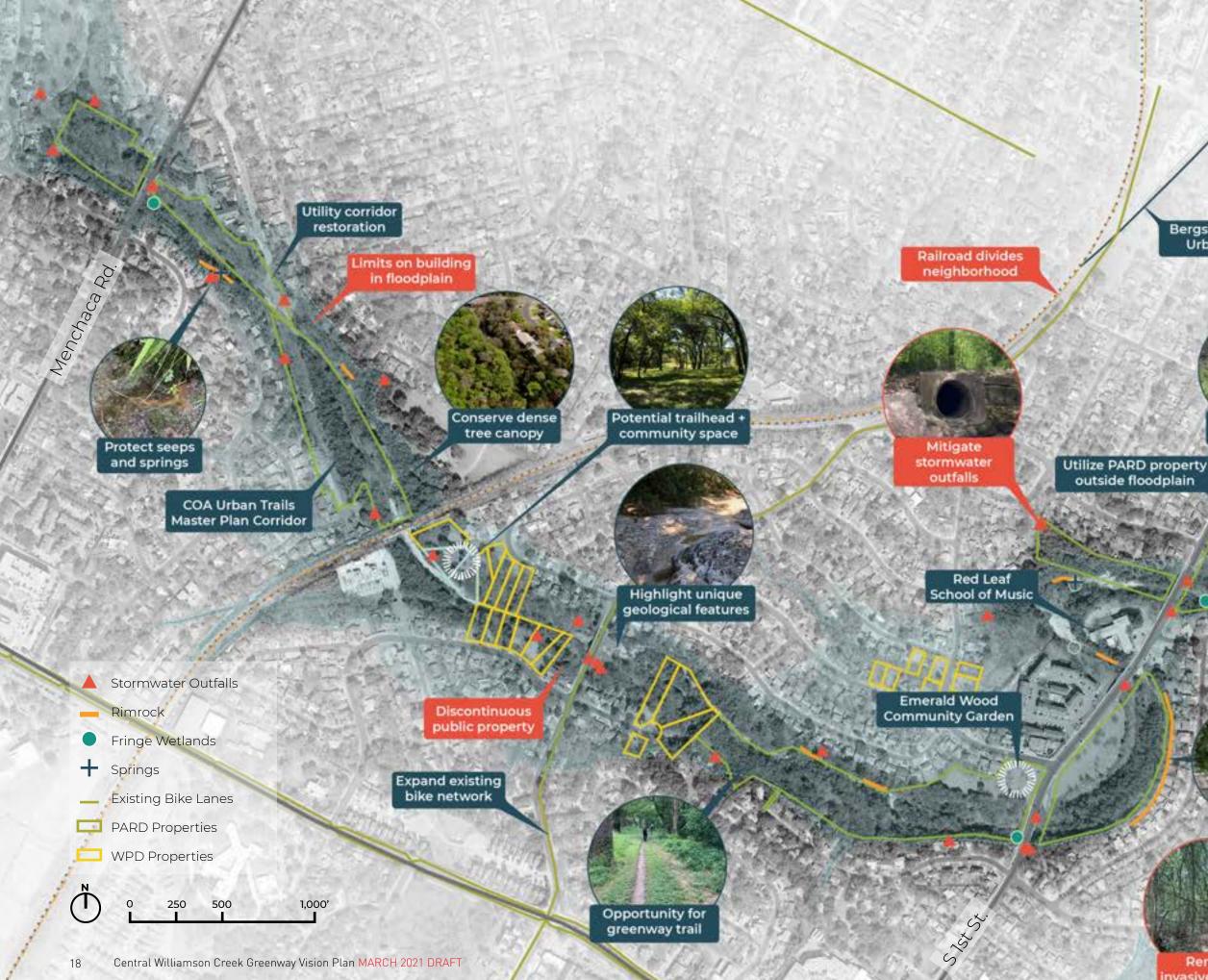
Williamson Creek is a rich ecological and social resource with great potential for increased use by local residents. It provides local residents with a green space for recreation, relaxation, and gathering. The Heartwood and Emerald Wood Community Gardens serve as hubs of community activity. Due to the Watershed Protection Department floodplain buyout program, there are many vacant areas that could provide more opportunities to interact with the creek.

There are considerations and limitations to increased community access to the creek, however. While PARD and WPD own most of the properties along the creek, some sections are privately owned. This poses challenges to the creation of a continuous east-west trail along the creek. Many cityowned properties, meanwhile, are in the Williamson Creek floodplain. In these areas, site improvements must be low-impact and flood safe. In other areas, the creek's rugged terrain and steep slopes limit access.

Floodplains

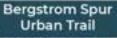
It should be noted that due to a new precipitation study from the National Weather Service known as Atlas-14, the floodplain maps of the entire city will be re-mapped within the next 3-5 years. The floodplains are shown in this document to reflect an estimation of this future update. It reflects these upcoming changes by showing "estimated" 25 year and 100 year flood events. According to the City of Austin's FloodPro "Fully Developed Floodplain" scenario that can be found at https://www.austintexas.gov/floodpro/

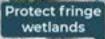
	Many of these challenges also present
	opportunities. Rugged trails can present
	moments to highlight south Austin's
	unique geology. Properties in the
	floodplain can host green infrastructure
У	and floodplain restoration. Community
	members can work together to help
	manage invasive plant species. Each
	obstacle presents unique opportunities for
	creativity, teamwork, and stewardship.
ר	



OPPORTUNITIES AND CONSTRAINTS MAP

Opportunities Constraints





Steep slopes limit access

Congress Ave

Rimrock

Heartwood **Community Garden**

Remove **nvasive** species

CENTRAL WILLIANSON CREEK VISION PLAN



OVERALL VISION PLAN

This Vision Plan design for the Central Williamson Creek Greenway provides a conceptual trail and open space designs for the creek and the Parks and Recreation and Watershed Protection Department-owned land along the length of the creek.

This overall design details the placement and locations of several design components:

1. Trails

Trail Materials

Austin's 2014 Urban Trails Plan identifies Williamson Creek as a Tier 2 trail, indicating that it should be constructed with a paved material. Throughout the community engagement process for this Vision Plan, the community emphasized their desire for natural, low-impact trails along the greenway. This document recommends mulch or bond-mulch trails to align as closely as possible to community desires. However, a City-led preliminary engineering report and corresponding community engagement are zz zrecommended as the next steps in the process to create a balanced approach to trail development.

Trail Placement

Trail placement along the creek was determined by the following factors:

1. Slope

Slope analyses identify changes in elevation in the land. Areas with a shallow slope were prioritized for trail placement because it is difficult for trail users to walk on steep slopes, and creating a trail on steep slopes requires greater ecological disturbance, and potential for erosion. See page 106for a detailed slope analysis.

2. Property Ownership

The trail placement runs primarily along City-owned PARD and WPD property; however, there are several locations where land adjacent to the creek is privately owned. This plan recommends acquiring easements in those properties. In the meantime, trail users must walk in the Cityowned creek bed during dry weather. After rains. trail users must utilize "high water" trails on sidewalks to avoid trespassing on private property. These high water routes are short detours that quickly reconnect to the greenway trail on City-owned property.

3. Sensitive Ecological Features

Central Williamson Creek's biodiversity and unique geological features are a primary draw for visitors; however, these sensitive natural assets must be protected, and are protected legally through the City of Austin's environmental restrictions. According to this code, trails can not be placed within a 50' buffer of a Critical Environmental Feature, which includes seeps, springs, fringe wetlands, and rim rock, without an environmental variance. The placement of the trail along Central Williamson Creek maintains a 50' distance from these features. unless it is absolutely necessaryto to pass within the buffer zone to provide trail connectivity.

4. Neighborhood Connectivity

When considering trail placement, community input on common access points to the creek and identification of existing community assets and resources took high priority. This trail placement identifies a network of access points at key intersections, bridges, neighborhoods, and community resources.

2. Vision Plan Elements

Creek Idea Cards

The Vision Plan Elements, which include features such as signage, community gardens, and community message boards, arose from the Creek Idea Card community engagement process outlined in Chapter 4. This involved the development of 50 Creek Idea cards that were voted up or down in popularity by community members. Both popularity and feasibility were taken into consideration when selecting the final cards to be included in the plan as a Vision Plan Element. Each Element corresponds with one of the four overall goals, which can be identified by their color. See pages 24-25 for a full list of Vision Plan Elements and the goals they support.

3. Example Trailheads

Site Selection

Detailed conceptual designs for two key trailheads are included in this plan. The purpose of these designs are to show examples of how activated trailheads and community gathering spaces at key nodes along the trail can further social, ecological, and public health goals. These sites were selected based on hydrological, ownership, and social factors.

Meadow Creek Trailhead

This land is buyout property that is owned Stone Berms by WPD. This site was selected to take advantage of funding offered by the Stone berms slow rainwater flow before it department for ecological restoration and enters the creek, helping to remove some tree planting on buyout property, because it sediments and other pollutants before it was the largest continuous piece of buyout enters the creek. property and because it straddles both the north and south sides of the creek.

Orland Trailhead

This land is owned by PARD. It was chosen as an example trailhead because it is out of the floodplain, and can thus have built structures or other features that would otherwise be destroyed if they were in the floodplain.

4. Environmental Features

Ecological Restoration

Significant opportunities exist for multiple types of ecological restoration along Williamson Creek:

- 1. Creek Restoration
- 2. Woodland Restoration
- 3. Wildflower Meadows
- 4. Fringe Wetland Restoration

Opportunities for these four types of restoration are located and identified throughout the Overall Vision Plan. The Chapter 6 Implementation Plan outlines how both volunteer efforts and City-led efforts can work in tandem over time to

achieve restoration goals.

- Reclaimed Brush Berms
- Reclaimed brush berms are neatly stacked piles of fallen branches that provide habitat and cover for small animal species and line paths to improve wayfinding.

VISION PLAN ELEMENTS

These vision plan elements included in this design are a result of the "Creek Cards" community engagement process outlined in Chapters 3 and 4.



Creek & Woodland Restoration



Environmental Signage



Green Infrastructure

Goal Key









Invasive Species Management



Pollinator Nesting Boxes













Fitness Programming

Mountain Biking

Environmental **Education Signage**

Invasive Species Management

Wildflower Planting **Pollinator Nesting** Ø Boxes

ESTIMATED 25 YEAR FLOODPLAIN STIMATED 100 YEAR FLOOD

Trailhead

- **Proposed Nature Trail**
- Dry Creek Trail ----
- Existing Bike Lanes
- **Proposed Bike Lanes** ---
- **High Water Route**
- **Mountain Biking Trail**
- **City Property**
- Stone Berms
- **Reclaimed Branch Berm** 1111
- Tributaries ____
- **Geology Highlight**
- **Fringe Wetland Restoration**
- \bigcirc Seep/Spring
- •••• **Creek + Woodland Restoration**
- **Green Infrastructure** 1.1
- **Rim Rock / CEF**
- Wildflower Meadow
- **Food Forest Trees**

1,000' 500 250

Central Williamson Creek Greenway Vision Plan MARCH 2021 DRAFT 26



Meadow Creek Trailhead



ESTIMATED 25 YEAR FLOODPLAIN

Lansing Dr

nion Pacific Railroad

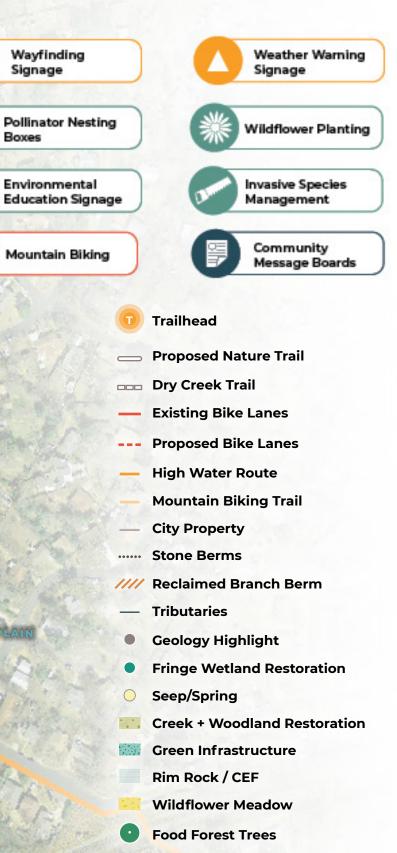


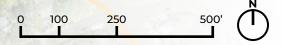
(†) (#)

MENCHACA TO Union pacific















Wildflower Planting

Trailhead

Union Pacific RR

- Proposed Nature Trail
- Dry Creek Trail
- Existing Bike Lanes
- --- Proposed Bike Lanes
- High Water Route
- Mountain Biking Trail
- City Property
- ----- Stone Berms
- //// Reclaimed Branch Berm
- Tributaries
- Geology Highlight
- Fringe Wetland Restoration
- Seep/Spring
- Creek + Woodland Restoration
- Green Infrastructure Rim Rock / CEF
- Wildflower Meadow
- 0
- Food Forest Trees

500'



UNION PACIFIC TO SOUTH 1ST



OODPLAIN

Emerald Wood Community Garden (Existing)

9





MEADOW CREEK TRAILHEAD

A group of contiguous floodplain buyout properties west of Emerald Forest Drive presents an opportunity for a major trailhead and community gathering space. Because these properties are within the floodplain, all site improvements must be low-impact and flood safe. Amenities shown here include a fitness lawn, hammock groves, and a labyrinth, providing spaces for neighbors to gather, relax, and stay healthy. Wildflower meadows, pollinator nesting boxes, and green infrastructure help to conserve and improve the creek environment. Other programming ideas include invasive species management, public art, and expansion of existing seating areas.

> Fitness Programming

> > Public Art

33

SOUTH IST TO SOUTH CONGRESS

Trailhead

- **Proposed Nature Trail**
- **Dry Creek Trail**
- **Existing Bike Lanes**
- **Proposed Bike Lanes**
- **High Water Route**
- **Mountain Biking Trail**
- **City Property** _
- Stone Berms
- 1111 **Reclaimed Branch Berm**
- Tributaries
- **Geology Highlight**
- **Fringe Wetland Restoration**
- Seep/Spring \bigcirc
- · · · · **Creek + Woodland Restoration**
- **Green Infrastructure** 1.55
- **Rim Rock / CEF**
- Wildflower Meadow
- **Food Forest Trees**



BYO Hammock

Music Grove

Grove

Fitness Programming

Community

Outdoor

Classroom

Message Boards





Tom Donovan Nature Trail

(Existing)

Wildflower Planting

Education Signage

Pollinator Nesting Ø Boxes





Heartwood Community Garden (Existing)











Land Acquisition

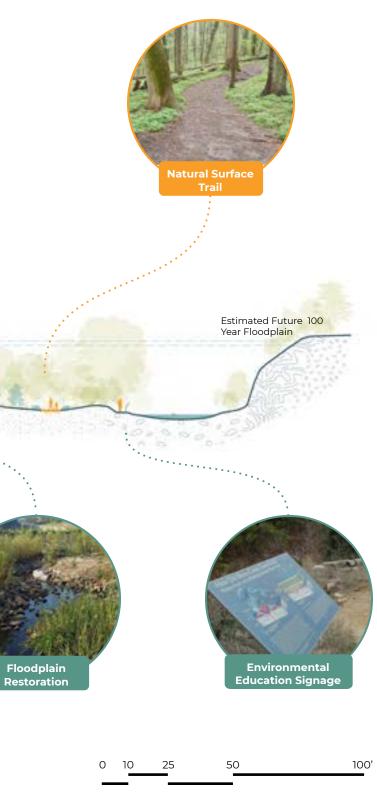
Weather Warning Signage



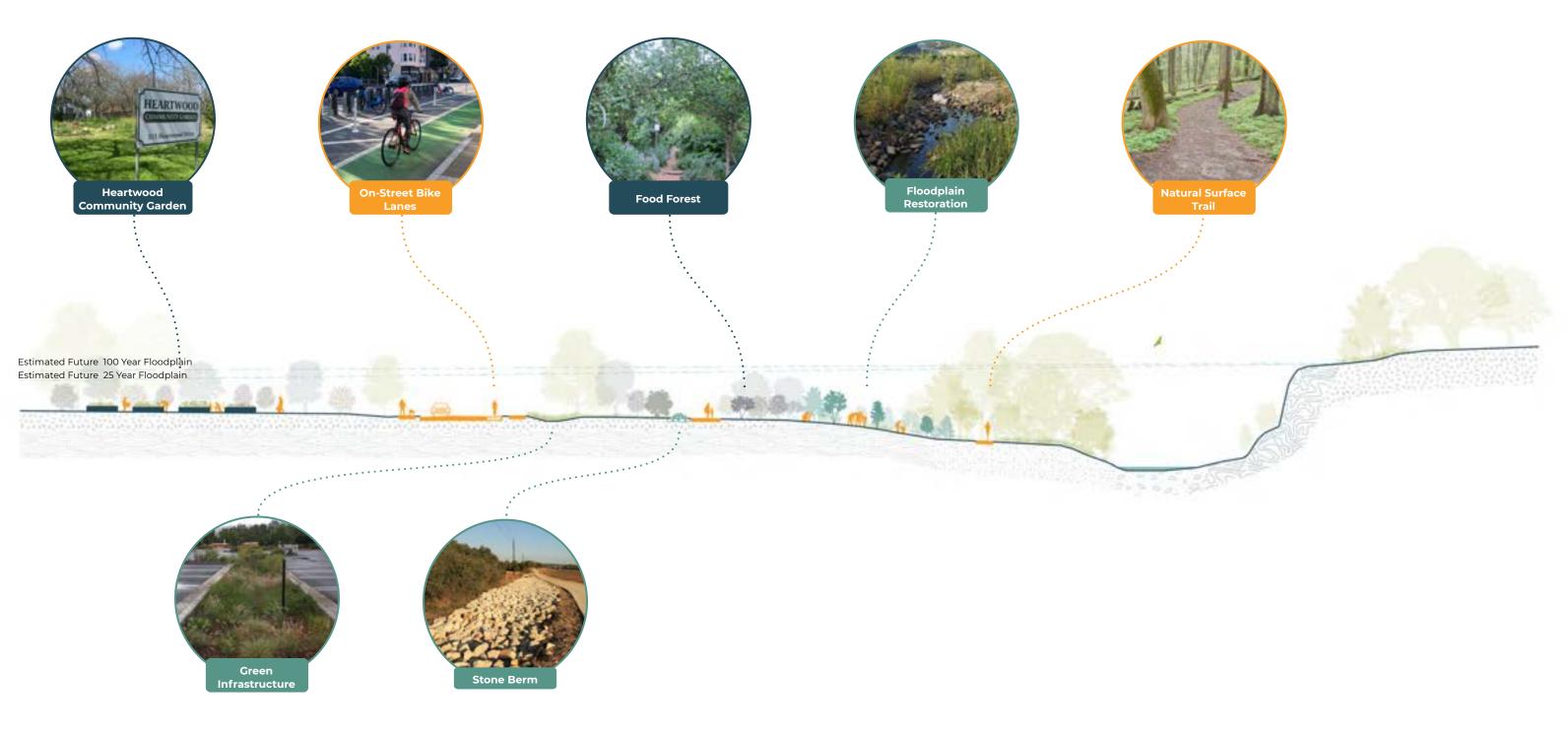
VIEW NORTHEAST AT TOM DONOVAN PARK

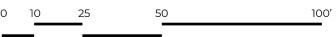
Section A-A':





VIEW NORTHEAST AT HEARTWOOD COMMUNITY GARDEN Section B-B':







Sale - The

ORLAND STREET TRAILHEAD

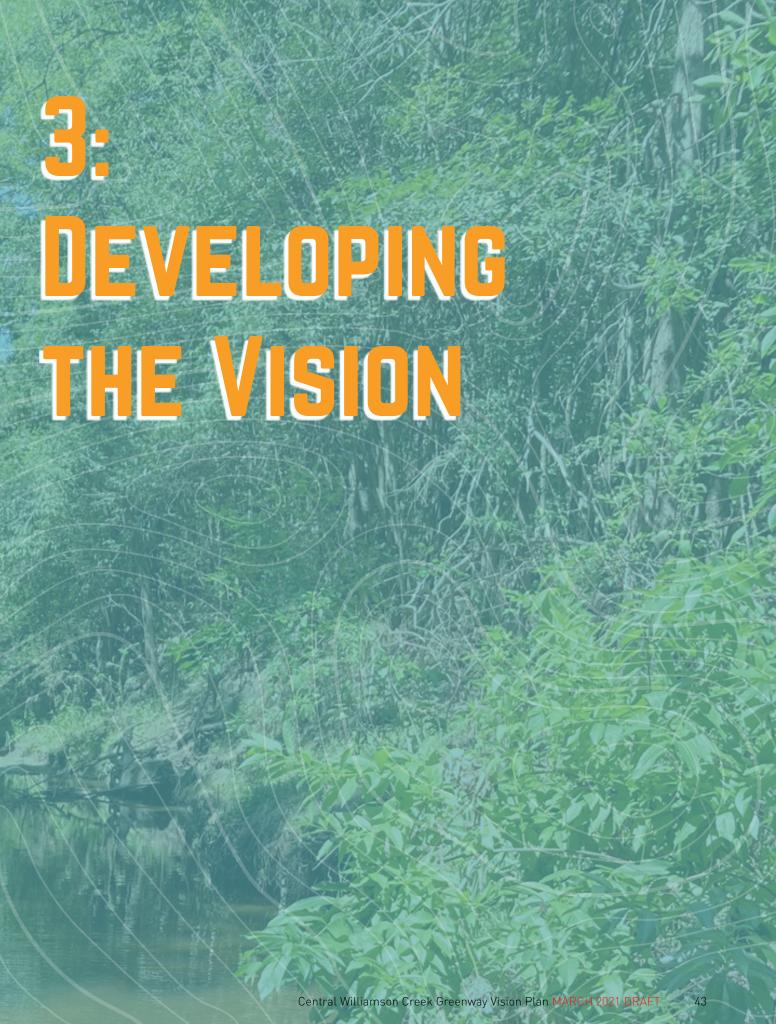
A PARD-owned site at the intersection of South 1st and Orland streets presents opportunities for creek access and amenities. This property includes areas outside of the floodplain, meaning it can accommodate a wider variety of programming and site improvements. This flexibility allows the site to serve as a potential hub for activities such as community gardening, environmental education, nature play, and invasive species management. The site also features a steep descent into the floodplain. A boardwalk or other more extensive site improvements may be necessary to ensure creek access and connectivity.

Nature Play

Invasive Species Management

41

Central Williamson Creek Vision Greenway Vision Plan MARCH 2021 DRAFT



42

THE FUTURE CENTRAL WILLIAMSON CREEK IS ...

RESTORED, BIODIVERSE GREENWAY

DESIGN STRATEGIES

Enhance biodiversity through floodplain restoration

Preserve the creek's wild character

Reveal ecology through environmental education experiences

Balance access with conserving floodplain ecology

AN ACCESSIBLE AND VISIBLE GREENWAY

DESIGN STRATEGIES

Integrate accessible creek experiences

Connect to public transportation and community resources

Create activities for all ages

DESIGN STRATEGIES

Support community-built projects

Create inviting gathering spaces at key nodes

Integrate community agriculture and agroforestry

COMMUNITY-CENTERED GREENWAY

Central Williamson Creek Greenway Vision Plan MARCH 2021 DRAFT 44

DESIGN STRATEGIES

Connect all communities to the creek

Orient through clear wayfinding

Reveal the creek's ecology and history

Prioritize key land acquisition for trail connectivity



ACTIVE AND CONNECTED **GREENWAY**

Central Williamson Creek Greenway Vision Plan MARCH 2021 DRAFT

ARTICULATING COMMON GOALS

The four primary goals and design strategies were developed in close conversation and collaboration with the Central Williamson Creek Community Working Group, The City of Austin Working Group, and the general public. This community engagement process is described in greater detail in Chapter 4.

Creak Idea Cards

"Creek Idea Cards" were used as part of the community engagement process on the digital platform Social Pinpoint and at in-person, socially distanced events to gain an understanding of the types of programs, trails, amenities, and other uses the Community Working Group and general public desired along the trail. These idea cards were organized into four categories, each helping to achieve one of the four main goals of the project.

Idea Card Placement

The most popular idea cards were selected by the community using a digital voting activity on Social Pinpoint. After this process, the design team placed the cards along the greenway using information from existing conditions, comments on the cards, other community engagement outcomes, and conversations with the Community Working Group.

Idea Card Key

1. A Restored, Biodiverse Greenway 2. A Community-Centered Greenway 3. An Accessible and Visible Greenway 4. An Active and Connected Greenway



Example Idea Card

Name and Description -

This section provides a general overview of the toolkit item.



Limitations



Goals ⊢

These icons indicate which visioning goals the toolkit item supports. From left to right, the goals are "Conserve the Creek Environment," "Represent the Community, and "Make the Greenway Visible and Accessible." A darkened icon indicates that the toolkit item supports the goal.

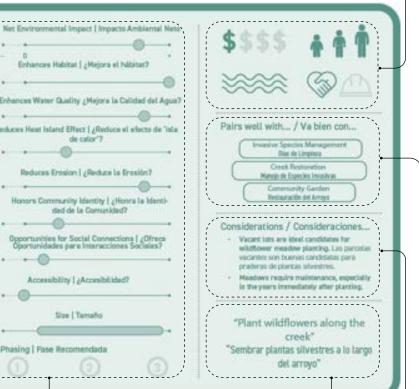
Sliders

implemented.

Colors

Each toolkit item is color-coded to one of four different categories: Green for nature, blue for community, orange for access and connectivity, and red for active recreation.

From top-left to bottom-right, these icons indicate the relative cost (low to high), appropriate age-groups (child, youth, adult), flood suitability, and whether the item could be implemented by community volunteers or by a professional contractor.



These sliders provide a detailed overview of the various strengths, weaknesses, and opportunities presented by each toolkit item, as well as the appropriate phase or phases during which the item could be

Community Voices

Toolkit items were developed through community input and feedback. This section displays comments and guotes from community members relevant to the toolkit item

Considerations

Each toolkit item comes with its own unique design considerations. Look here for important comments, caveats, and information

Pairings-

The success and viability of each toolkit item is strengthened when paired with other complementary items. This section provides some suggested pairings.

GOAL #1: A RESTORED, BIODIVERSE GREENWAY

DESIGN STRATEGIES:

Enhance biodiversity through floodplain restoration

Williamson Creek and its floodplain are home to an abundance of aquatic and terrestrial creatures. However, this habitat is threatened by large swaths of invasive species. Floodplain restoration, including the removal of invasive species, and planting of native species, will increase biodiversity.

Toolkit Items:



Preserve the creek's wild character

Central Williamson Creek Greenway will be kept as natural as possible. This reflects the desires of the neighboring community to have as little impact as possible on the ecology of the creek and to preserve the sense of wilderness in the heart of South Austin.

Toolkit Items:

NATURAL TRAILS (WILDFLOWER PLANTING) CREEK RESTORATION

Reveal ecology through environmental education experiences

Educational experiences along the greenway will facilitate the discovery of the unique ecology, hydrology, and geology of the creek environment.

Toolkit Items:

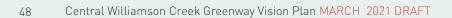
ENVIRONMENTAL EDUCATION) (OUTDOOR CLASSROOM)

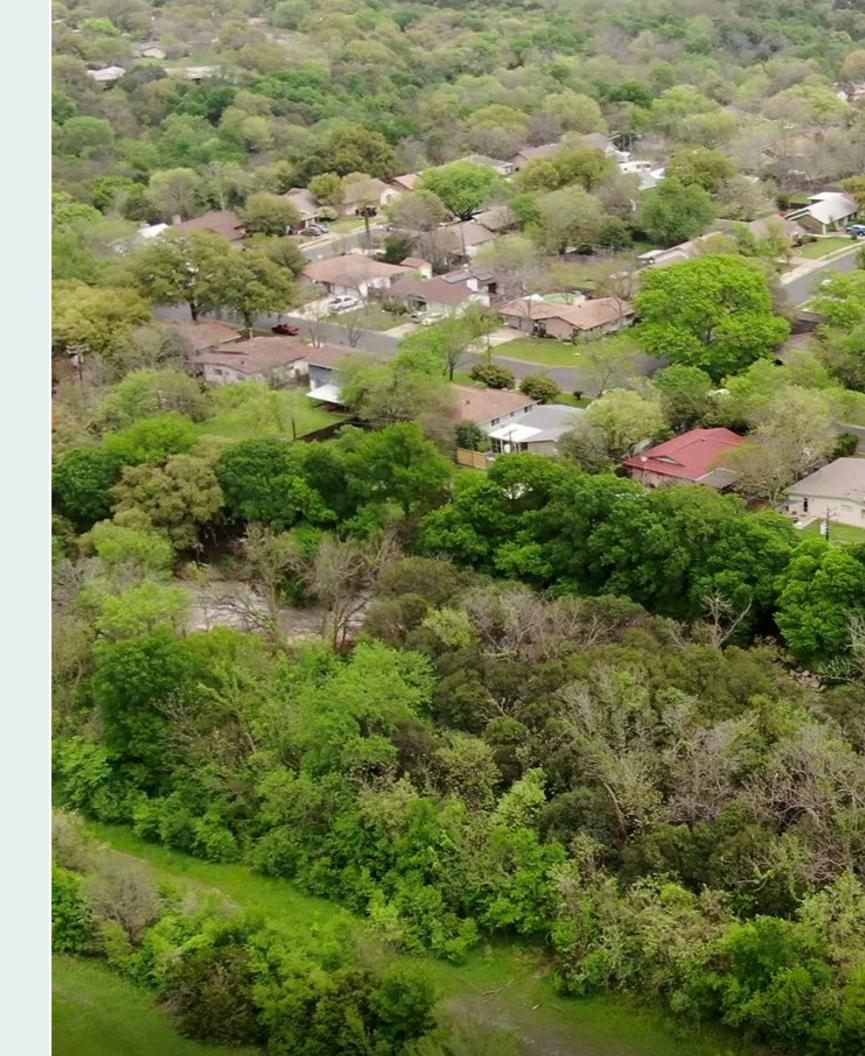
Balance access with conserving floodplain ecology

The trails along Williamson Creek will maintain a safe distance from critical environmental features, such as seeps and springs, fringe wetlands, and rim rock. Low-impact trail materials and interventions will be prioritized.

Toolkit Items:









19 Dr



Emerald Wood Dr

5155

Education Signage



Goal 1 prioritizes the ecological functioning of Williamson Creek and its floodplain, as well as community-based environmental education experiences. Habitat-creation strategies, including pollinator nesting boxes for bees, bats, and nesting birds, and multiple types of restoration, may be paired with educational signage that explains the ecology and hydrology of the creek and its importance to urban wildlife. Reclaimed branch berms and stone berms slow the flow of water, create habitat, and delineate trail and property edges using natural materials. Green infrastructure infiltrates and filters water before it enters the creek.

LEGEND

Menchaca Ro.

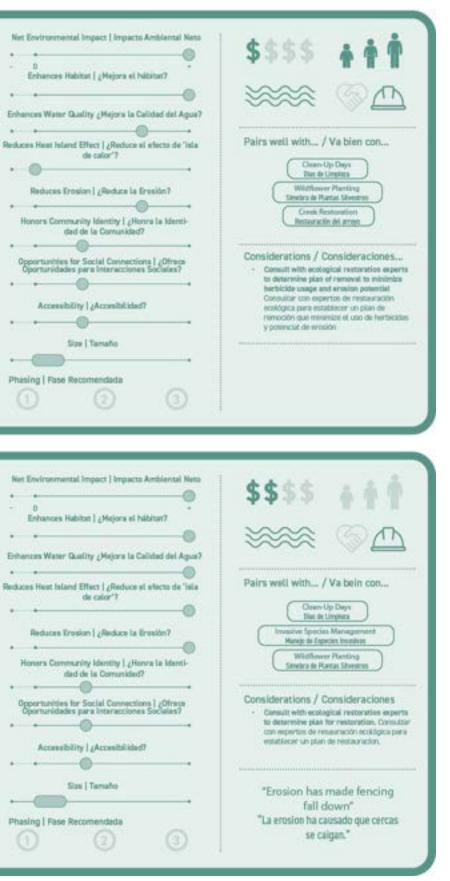
- **Proposed Trail** \bigcirc
- Dry Creek Trail
- **Stone Berms**
- **Reclaimed Branch Berm** ////
- Tributaries
- **Geology Highlight**
- **Fringe Wetland Restoration**
- **Creek + Woodland Restoration** · . · .
- **Green Infrastructure**
- Rim Rock / CEF
- Wildflower Meadow
- Est. 25-Year Floodplain
- Est. 100-Year Floodplain

A RESTORED, BIODIVERSE GREENWAY

51

Creek Idea Cards





<image/> <section-header><section-header><section-header><text><text></text></text></section-header></section-header></section-header>	Net Environmental Impact Impacta Ambiental Nets	\$\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$ \$	Free infrastructure Recen infrastructure Infrastructure Verde Recen infrastructure Verde Recen infrastructure verde, includes frater polluted stormwater and infiftrate villamson Creek. La infrastructura verde, incluyendo formanientas como jardines de agua, boswates, 'y pavimento permesoble, es una manera de fittrar agua de lluvia, contaminada antes de que llegue al Arroyo Williamson.	Net Environmenta 0 Enhances Hat Enhances Water Qu 0 Reduces Heat Island 0 Reduces Eron 0 0 0 0 0 0 0 0 0 0 0 0 0
	Phasing Fase Recomendada			Phesing Fase R
Pollinator Nesting Boxes Cajas de Nidos para Polinizadores Many nesting bee species in build nests in aboveground cavities or tunnets in	Net Environmental Impact Impacto Ambiental Neta 0 Enhances Habitat ¿Hejora el hábitat? Enhances Water Quality ¿Hejora la Calidad del Agua? Enhances Water Quality ¿Hejora la Calidad del Agua? Reduces Heat Island Effect ¿Reduce el efecto de 'Isla de calor'? Reduces Erosion ¿Reduce la Erosión?	\$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$ \$\$\$ \$\$\$ \$	Water Storage Almacenamiento de Agua Water storage installations, such	Net Environment
wood or plant stems. Pollinator Nesting Boxes provide nesting resources to bees through the use of hollow bamboo rods or drilled holes in wood. Muchas especies de abejas crean sus colonias en nidos pre-construidos sobre la tierra, o en tuneles de madera o tallos de plantas. Las Cajas de Nidos para Polinizadores proveen nidos para abejas usando bambo hueco o tubos de madera huecos.	Honers Community Identity ¿Honers is Identi- dad de la Comunidad? Opportunidades para Interacciones Sociales? Accessibility ¿Accessibilidad?	Considerations / Considerationes • These boose can be hand-made by the community or bought. Estis capres pueden ser creates a meno por la comunitad o comprados. *Add Pollinator Nesting Boxies to help Native Bees, Potentially Sponsored by a local business.	as rain barrels or underground cisteras, that are used to store water stormwater that runs off roots or other surfaces during a rainfall. Instalaciones de almacenamiento de agua, tales como barriles de agua o cisternas bajo la tierra, que se utilizan para almacenar agua de lluvia que baja de los tejados u otras superficies durante lluvias.	Honers Comm. dar Coportunidades Coportunidades Coportunidades
	Size Tamaho Phasing Fase Recomendada () (2) (3)	or individuals" Añadir cajas de nidos para Polinizadores para ayudar a las abejas nativas. Potencial- mente auspiciadas por comercios locales o individuos."		Phasing Fase Re



GOAL #2: A COMMUNITY-CENTERED GREENWAY

DESIGN STRATEGIES:

Support community-built projects

Improvements to the Central Williamson Creek Greenway have historically been initiated and completed by passionate community members. These community-led projects will be encouraged with funding from local grantgiving organizations.

Toolkit Items:

LABRYINTH

PUBLIC ART

Create inviting gathering spaces at key nodes

Investments in community gathering spaces at PARD and WPD properties will establish new opportunities for community connection and togetherness at trailheads, community gardens, restoration sites, and outdoor education areas along the greenway.

Toolkit Items:

HAMMOCK GROVES BENCHES

GATHERING SPACES

Integrate community agriculture and agroforestry

There are currently two community gardens along Central Williamson Creek Greenway. As the neighborhood grows, there will be increased interest in establishing more gardens. Much of the buy-out land represents a significant opportunity for groves of fruit and nut trees.

Toolkit Items:

COMMUNITY GARDENS FOOD FOREST





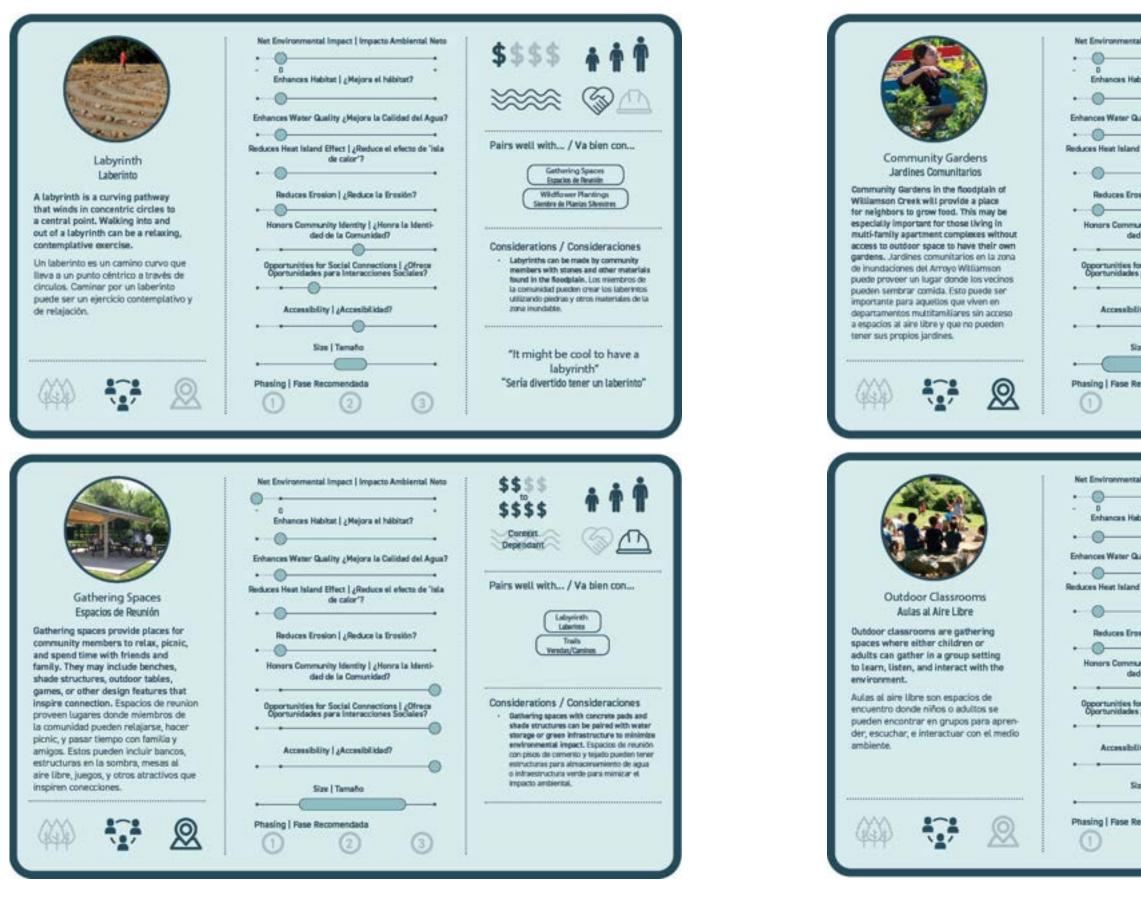
GOAL 2: A COMMUNITY-CENTERED GREENWAY

Goal 2 focuses on the community and social aspects of the greenway. Community-built projects, such as food forests, community gardens, and labyrinths, are placed at major trailheads to create places for social connectedness in the neighborhood. Visitors to the greenway can learn about local events at Community Message boards, where organized volunteer opportunities can be posted.





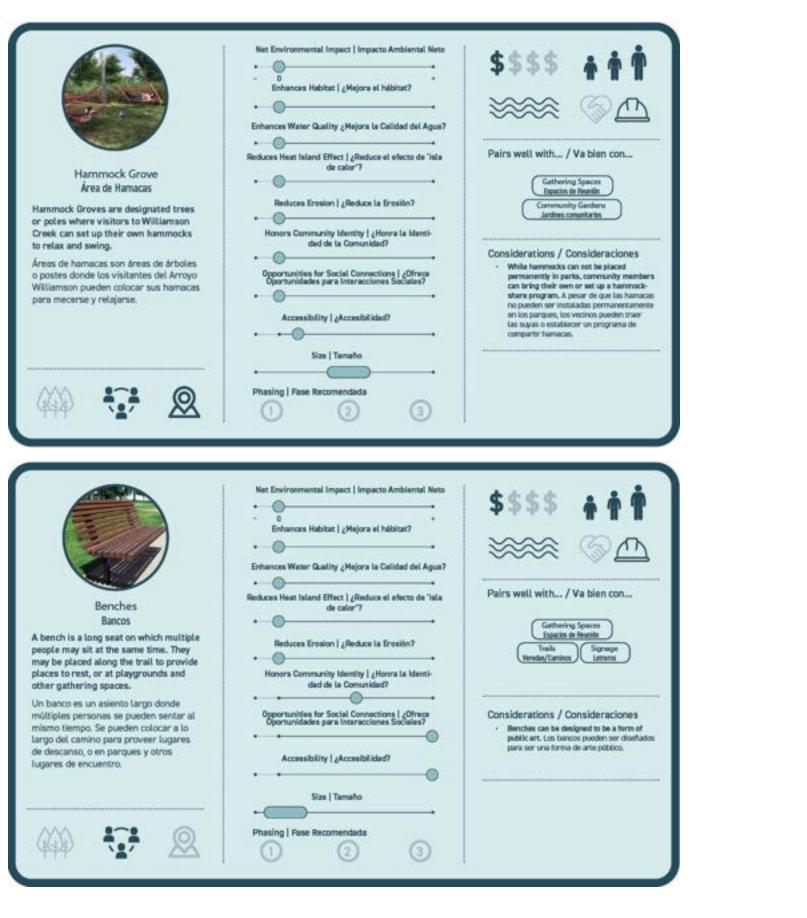
Creek Idea Cards

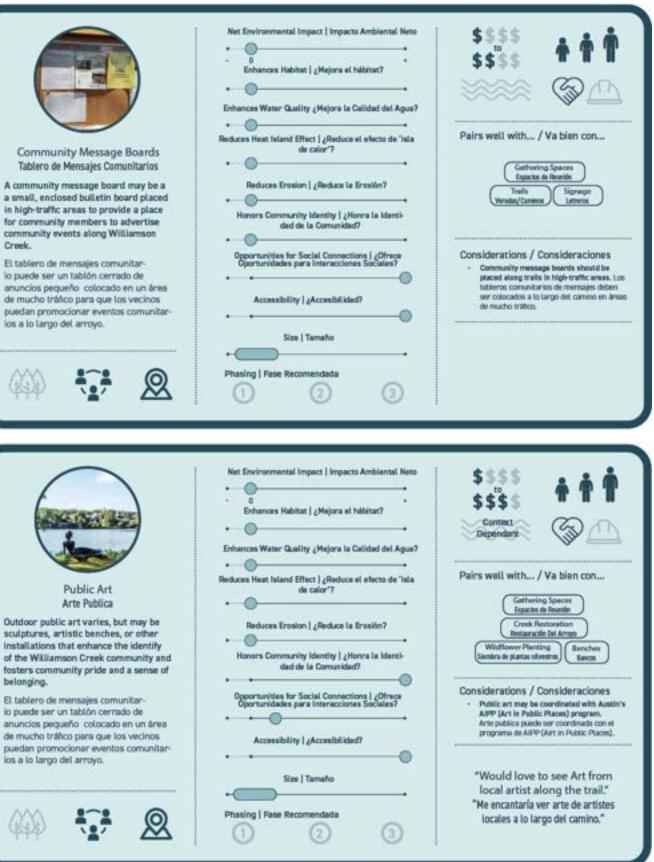


mpact Impacto Ambiental Neto	\$\$\$\$ 4 4 4
t ¿Mejora el hábitat?	
د Mejora la Calidad del Agua?	
ect ¿Reduce el efecto de 'isla calor'7	Pairs well with / Va bien con
I ¿Reduce la Brosión?	Public Art Benches Arte Riblica Gathering Spaces Espaces in Results
identity ¿Honra la Identi- la Comunidad?	Considerations / Consideraciones
ccial Connections Offrees a Interacciones Socialien?	Community gardees should placed so they are easily accessible by local neighborhoods. Los jardines comunitarios deben ser accesibles a los vecindarios locales.
(Accessibilitied?	"If people push hard enough
Tamatio	for community gardens, these two areas are good for urban
)→	farming" "Si la gente genera presión, estas dos
	Annes and business provide the
2 3	áreas son buenas para jardines comunitarios y agricultura urbana."
(2) (3) mpact Impacto Ambiental Neto et ¿Mejora el hábitar?	
2 3 npact Impacto Ambiental Noto nt ¿Mejora el hábitar? ty ¿Mejora la Calidad del Agua?	comunitarios y agricultura urbana."
(2) npact Impacto Ambiental Neto nt ¿Mejora el hábitat? ty ¿Mejora la Calidad del Agua? htt ¿Reduce el efecto de l'alla a calor??	comunitarios y agricultura urbana."
(2) (3) mpact Impacto Ambiental Noto et ¿Mejora el hábitan?	comunitarios y agricultura urbana."
(2) npact Impacto Ambiental Neto at ¿Hejora el hábitar? ty ¿Hejora la Calidad del Agua? het ¿Reduce el efecto de 'Isla a calor'? n ¿Reduce la Erosión? y Identity ¿Henra la Identi-	comunitarios y agricultura urbana."
2 3 spect Impacto Ambiental Neto t ¿Mejora el hábitar? ty ¿Mejora la Calidad del Agus? ect ¿Reduce el efecto de 'isla s calor? t ¿Reduce la Erosión? t ¿Reduce la Erosión? t ¿Reduce la Erosión? t ¿Reduce la Erosión? ta Comunidad?	comunitarios y agricultura urbana."
apact Impacts Ambiental Neto apact Impacts Ambiental Neto a ¿Mejora el hábitar? b / ¿Mejora la Calidad del Agua? a calor? b / ¿Reduce la Erosión? c identity ¿Honra la Identi- la Comunidad? ccial Connections ¿Ofreca a Intersociones Socialer?	comunitaries y agricultura urbana."
apact Impacts Ambiental Nets apact Impacts Ambiental Nets a ¿Mejora el habitar? b / ¿Mejora la Calidad del Agua? b / ¿Reduce la Erosión? c / Identity ¿Honra la Identi- la Comunidad? c / Identity / Identity	comunitaries y agricultura urbana."

da

10







Creek.

Outdoor public art varies, but may be sculptures, artistic benches, or other installations that enhance the identify of the Williamson Creek community and fosters community pride and a sense of belonging.

El tablero de mensajes comunitarlo puede ser un tablón cerrado de anuncios pequeño colocado en un área de mucho tráfico para que los vecinos puedan promocionar eventos comunitarios a lo largo del arroyo.



GOAL #3: AN ACCESSIBLE AND VISIBLE GREENWAY

DESIGN STRATEGIES:

Connect all communities to the creek with low-impact trails

Central Williamson Creek Greenway is a local recreational amenity that should be easily accessible to all surrounding communities through a distributed network of clear, visible trailheads and trails that minimize impacts to the environment.

Toolkit Items:



Orient through clear wayfinding

Continuous signage along the creek and at trailheads will orient visitors as they enter the creek and make their way along the trail or to neighborhood resources, such as community gardens, schools, and convenience stores.

Toolkit Items:

SIGNAGE

Reveal the creek's hydrology, ecology, and history

Central Williamson Creek Greenway has an abundance of interesting natural features, such as rim rock, fringe wetlands, evidence of past volcanic activity. Educational signage along the trail will reveal their stories.

Toolkit Items:

ENVIRONMENTAL EDUCATION

Prioritize key land acquisition for trail connectivity

Land acquisition from private property owners adjacent to the creek will create a continuous, connected trail along the Central Williamson Creek Greenway.

Toolkit Items:

LAND ACQUISITION





GOAL 3: AN ACCESSIBLE AND VISIBLE GREENWAY

Goal 3 highlights the community desire to make the greenway easily accessed and easy to enter from the street. Well-distributed wayfinding signage both on the street and in the greenway will help visitors orient themselves. Weather warning signage will warn community members of predicted storm events and fastflowing water in the creek. Land acquisition will increase accessibility of the greenway, so visitors can use one, continuous path from S. Congress Avenue to Menchaca

Creek Idea Cards



GOAL #4: AN ACTIVE AND CONNECTED GREENWAY

DESIGN STRATEGIES:

Connect to Public Transportation and Community Resources

Completion of a continuous trail along Williamson Creek provides an enormous opportunity for an east-west trail connection throughout south Austin. This trail will connect the surrounding neighborhoods to existing and future destinations, such as bus stops, convenience stores, schools, community gardens, and other community resources.

Toolkit Items:

(BIKE RACKS) (MOUNTAIN BIKING TRAILS)

Design for Accessible Creek Experiences

Central Williamson Creek will provide ADA-accessible creek experiences for those of all abilities.

Toolkit Items:



Integrate Activities for All Ages

Trailheads and other community gathering spaces will include active and educational activities for all ages, from outdoor classrooms for children to environmental education signage for all ages. At large trailheads, lawns will provide open spaces for all-ages community events and fitness programs.

Toolkit Items:

FITNESS PROGRAMS





Emerald Wood

5155

GOAL 4: AN ACTIVE AND CONNECTED GREENWAY

Goal 4 prioritizes active recreation along the greenway and how trail connections to neighborhood bike routes, adjacent urban trails, and neighborhood resources can make Central Williamson Creek Greenway a key east-to-west hike and bike trail that makes active transportation easy and improves community health. The creation of a "high water route" along urban streets (shown in orange) ensures that the trail will be usable even when the creek is flowing after a rain.

LEGEND

Menchaca Rd.

- Proposed Trail
- Dry Creek Trail
- **____** Existing Bike Lanes
- --- Proposed Bike Lanes
- High Water Route
- **2** Distance Markers
- --- Proposed Trail Connections

Lansing Dr

Crosswalk

Future Bergstrom Spur Urban Trail

Creek Idea Cards

<image/> <image/> <text><text><text><text></text></text></text></text>	Net Environmental Impact Impacto Ambiental Neto Impacto Ambiental Impact Amore In Ambiental Neto Impacto Ambiental Impact Amore In Calindad Neto Apon? Impactor Community Impacto In Calindad Neto Impactor Community Impacto In Emilian? Impactor Community Impactor In Emilian? Impactor Community Impactor In Social Compactions I (Offerer Opportunitades parts Internectiones Socialies?) Impactor	Image: Signal	<image/> <image/> <text><text><text><text></text></text></text></text>	Net Environmental
<image/> <image/> <text><text><text><text></text></text></text></text>	Net Environmental Impact impacts Ambiental Nets Britances Habitat ¿Mejora el hibitat? Britances Habitat ¿Mejora el hibitat? Britances Water Quality (Mejora la Calidad del Agus? Britances Habitat Effect ¿Reduce el electo de 'Isla Britances Habitat Effect ¿Reduce la Bresido? Britances Erosion ¿Beduce la Bresido? Britans Community Identity ¿Honra la Identidiad del a Comunidad? Opportunities for Social Comunities? Opportunities for Social Comunities? Mater Y agus Bite Tamafos N/A Phasing Fase Recomendata	<image/>		

spact Impacto Ambiental Neta	\$\$\$\$
t ¿Mejora el hibitat?	
ry ¿Hejora la Calidad del Agua?	
ect ¿Reduce el efecto de "Isla e calor"?	Pairs well with / Va bien con
n) ¿Reduce la Brosión?	Tradis Vendos/Camines Signage Vendos/Camines Parking Lots Estacharamientes
y Identity ¿Honca La Identi- La Comunidad?	(DAKENANDER)
acial Connections ¿Ofrece a Interacciones Sociales?	Considerations / Considerationes + Bite racks sheetd be placed at traitheads and set to parking lats. Aparcalics deten
(Accessibilided)	ser colocados en las entractas a las vies/ camenos y cerca de los estactonamientos de autos.
Terraho	
nendada (2) (3)	



76

ENGAGEMENT STRATEGY

To ensure a process of co-creation of the vision for the Central Williamson Creek Greenway between the consultants and community, an extensive and comprehensive engagement strategy with both the Community Working Group and the general public was planned for this project. However, due to the COVID-19 crisis beginning in March 2020 and continuing throughout the entirety of the project, much of this engagement shifted from in-person to online, digital engagement with some outdoor, socially distanced "creekside" events, where participants could pick up a "creekpack" of engagement activities in English and Spanish. These activities could also be mailed to community members upon request.

DIGITAL ENGAGEMENT

The majority of digital engagement took place using a platform called Social Pinpoint. Virtual Community Working Group and City Working Group meetings were held monthly on Zoom (See schedule on pages 14 - 15). Three public meetings were held on Zoom to demonstrate Social Pinpoint, present designs, and solicit feedback.

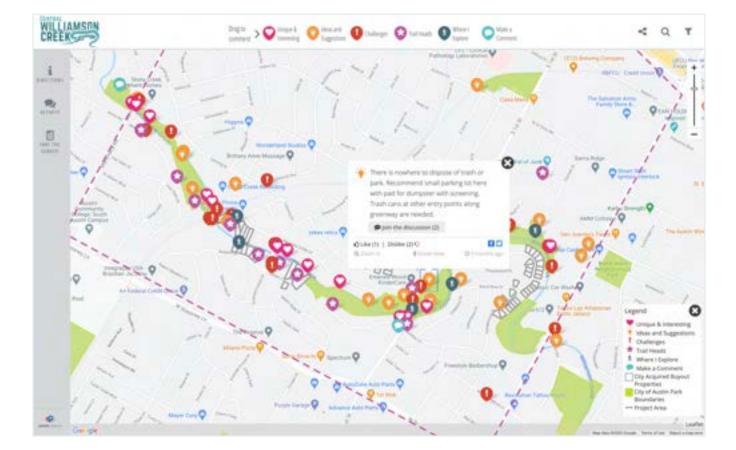
Community Mapping

During the Existing Conditions Phase, community members were asked to use Social Pinpoint to geographically share their ideas, activities, and unique places along the Greenway. Categories included identifying locations for "Unique and Interesting Features," "Ideas and Suggestions," "Trailheads,", and "Challenges." This online mapping activity was open from July 23rd, 2020 to October 13th, 2020.

Toolkit Idea Cards

Findings from the Community Greenway Map and outcomes from the Storytelling (see page 91), conversations with the Community Working Group, and other community engagement activities were then used to craft the four primary goals of the Central Williamson Creek Green Vision Plan.

- 1. A Restored, Biodiverse Greenway
- 2. A Community-Centered Greenway
- 3. An Accessible and Visible Greenway
- 4. An Active and Connected Greenway





These four goals guided the development of 52 unique "Creek Idea Cards," each organized into one of the four goal categories. Community members on the Central Williamson Creek Greenway Social Pinpoint website voted on ideas by adding a thumbs up on ideas they wanted to see at the Greenway or a thumbs down on ideas they did not want to see. After voting closed on November 7th, the design team tabulated the votes, and integrated the highest scoring idea cards into the Vision Plan for the Central Williamson Creek Greenway.

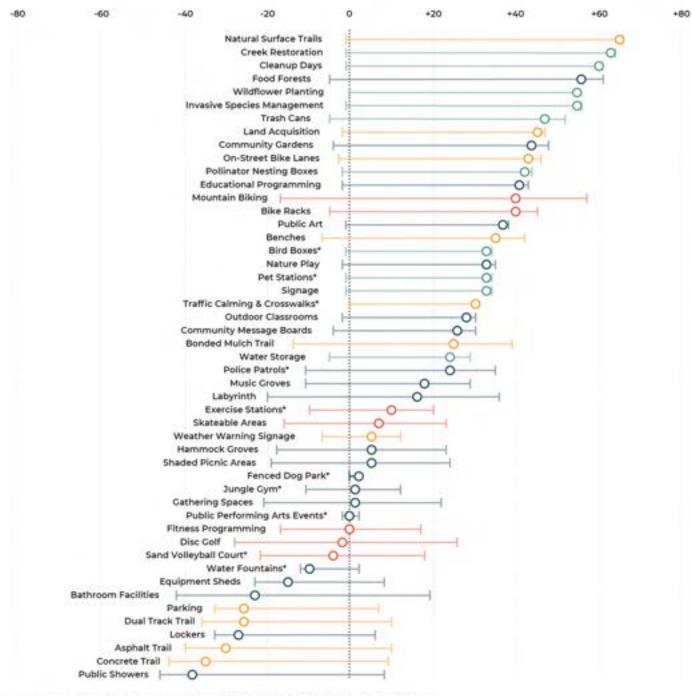
Idea Card Key

- 1. A Restored, Biodiverse Greenway
- 2. A Community-Centered Greenway
- 3. An Accessible and Visible Greenway
- 4. An Active and Connected Greenway

Idea Card Scores

Once the voting period on Social Pinpoint closed, the results were tabulated and summarized. This graphic shows the net score each creek idea card received. Idea

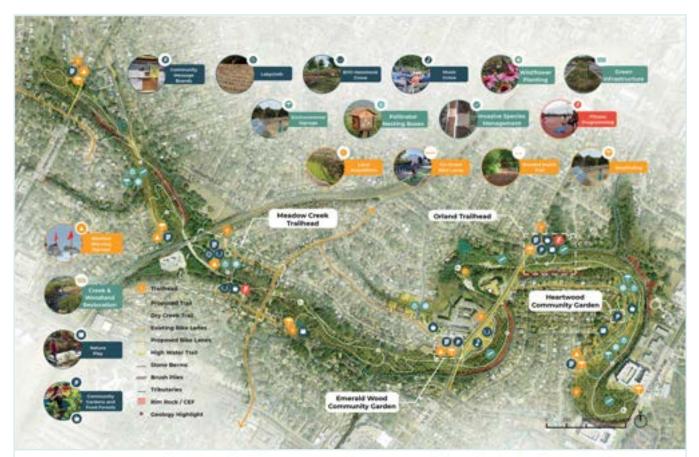
cards received one point when they received a "thumbs up" and one negative point when they received a "thumbs down." The sum of these points produced the net score.



^{*} Indicates ideas added by community members via Social Pinpoint during feedback period

Vision Plan-**Placement of Creek Idea Cards**

After the voting period on Social Pinpoint closed, the idea cards were then placed along the Greenway using information gathered from existing conditions, conversations with both the working group, and insights from the initial Social Pinpoint Greenway Mapping Exercise. A conceptual design for the entire greenway, as well as two trailheads at South 1st and Orland streets and Meadow Creek Drive were available for comment until January 18th, 2021.



ou can download the document from the Site Design section above. 1. Are there any takes you would like to see at locations, we don't currently have shown? 2. Are there any ideas you see that should be removed from their locations because they are not ideal for that location? 3. What do we not have enough off 4. What do we have too much off 5. Are there any other community-led ideal that should be added? 8. What are see misting? 7. Do you see anything that doesn't work?

Comment on the Central Williamson Creek Greenway Vision Plan in the forum below!

IN-PERSON ENGAGEMENT

Due to the COVID-19 crisis, in-person engagement was limited to four "Creek Chats," where Community Powered Workshop and representatives from the Community Working Groupand representatives from the Community Working Group facilitated an in-person version of the Creek idea card activity. These events were socially distanced and held outdoors at picnic tables along Central Williamson Creek.







ICOMPARTE TU VISIÓN HOY!



84



CENTRAL WILLIAMSON CREEK **PROVIDES A PEACEFUL PLACE FOR PEOPLE TO CONNECT WITH NATURE.**

COMMUNITY CONTEXT

Demographics

The Central Williamson Creek area is surrounded by about 11,000 residents, mostly living in single-family homes. This is a diverse community both racially and economically. Fifty-one percent of residents are non-white, with 45% of that group identifying as Hispanic/Latinx. Fortyfive percent of the neighborhood is lowincome and 19% is middle income.¹ This area is considered to be socioeconomically vulnerable, with high levels of linguistic isolation and refugees.

Community Health

According to the Healthy Parks Plan for Travis, Bastrop, and Caldwell Counties, this neighborhood has high rates of adult heart disease, high cholesterol, poor mental health, and prevalence of stroke. These poor health outcomes can be aggravated and compounded by other demographic factors, including the area's high socioeconomic vulnerability. These are important considerations, as parks are critical public health assets that offer free opportunities to be active. Parks and green space can ease depression and anxiety by providing areas to relax and connect with friends and family. They also cool the surrounding environment and filter out air and water pollutants that can harm health.

Prior Engagement

The Central Williamson Creek Vision Plan expands upon a previous community engagement process that began in 2019 through a collaboration between neighborhood community members, Public Green & Wild, The Nature Conservancy, Community Powered Workshop, and the National Parks Service. Engagement efforts were focused in the Middle Williamson Creek buyout area between Union Pacific Railroad and S. 1st Street. The focus area includes the buyout neighborhoods of Meadow Creek Drive and Radham Circle. The engagement process included four community events as part of a series called Explore! Williamson Creek. Three of these events were "Creek Stomps," which involved a short overview on the creek's ecology and hydrology, a guided community hike, and an opportunity for community feedback. The final event invited those who were unable or uninterested in exploring the creek to attend a more traditional focus group format to garner feedback. In addition to these events. the Watershed Protection Department conducted two community feedback surveys at the Richmond Tributary Buyout Area and at Meadow Creek. These surveys were intended to provide feedback to the Watershed Protection Department on how they are currently managing buyout land and how they may manage it in the future to align with community desires. In 2020, the Watershed Protection Department plans on conducting a survey of the Heartwood Buyout area.

^{1.} Low-income is defined as households whose ratio of household income to poverty level was less than 2, calculated from the Census Bureau's American Community Survey.

Prior Engagement Outcomes

Many themes emerged from the Explore! Williamson Creek focus group, creek stomps, and the Richmond Tributary survey from Watershed Protection Department.

Explore Williamson Creek!

Strengths

Nature and Wildlife

- Natural beauty of the creek
- Escape from the city
- Sense of discovery and joy

Recreation

- Place to hike or walk dogs
- Chance to connect with nature
- Opportunities to exercise

Challenges

People experiencing homelessness

Land Management Strategies

- Dislike for unmanaged lots
- Desire for mowing so areas are more aesthetically pleasing

Opportunities

Creek Trail

• Trails that improve connectivity

Community Spaces

• Areas with picnic areas, swings, and amenities

Neighborhood Stewardship

• Community stewardship events

Watershed Protection Dept.

Richmond Tributary Survey

Current Use

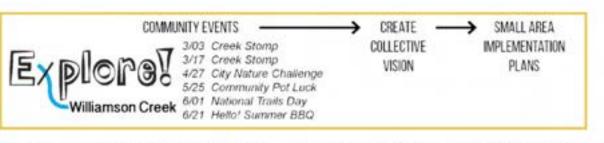
- Area is most commonly used for plant and wildlife observation
- 37% of those surveyed did not use buyout areas for recreation.

Amenities

 65% of survey participants are in favor of adding community amenities, volunteering, and management practices that benefit water quality and habitat for pollinators.

Buyout Landscape Management

- Half of those surveyed are in favor of low-growing meadows to provide clear lines of sight.
- A majority of participants are in favor of mowing areas near the front of lots and allowing native vegetation to grow near the back of lots by the creek.





Map and schedule of Explore! Williamson Creek Events

Community Voices

The planning and design of the Central Williamson Creek Greenway emerges out of a close collaboration with community members and builds upon the previous engagement efforts of *Explore! Williamson Creek.* See Chapter 4 for a more detailed overview of the community engagement process for this vision document. Challenge 1:

Balance conflicting community desires for maintained vs natural open spaces.

Challenge 2:

(2)

 $(\mathbf{1}$

2

3

Balance access with people experiencing homelessness.

Opportunity 1: Trailhead and Community Gathering Space

Opportunity 2: Continuous trail along Central Williamson Creek.

Opportunity 3: Gathering space with community gardens and food forest.

Legend

- Community Garden
- School
- Fresh for Less Site

Community Voice

State State State

"I remember walking along the creek bed and noticing how all the urban noise - traffic, sirens, etc. - were muted."



"Catching turtles, learning to skip rocks, building forts out of the junk that washed in were how I spent my summers with friends."

3



Community Snapshot



COMMUNITY



CENTRAL WILLIAMSON CREEK IS A GREEN RIBBON OF BIODIVERSITY THROUGH SOUTH AUSTIN.

LOCAL ECOLOGY

Williamson Creek stretches across the Environmental Protection Agency's Level 3 Edwards Plateau and Blackland Prairie Ecological Regions. The Edwards Plateau ecoregion is characterized by thin limestone or granite soils and the Blackland Prairie region has thick clay soils. Each of these characteristic soils host different types of native plants, thus the **ecotone² between** these two ecoregions produce conditions that are very biodiverse.

These open spaces surrounding the creek are rich with biodiversity due to the alluvial sediments and availability of water, which create favorable conditions for a broad diversity of plant and wildlife species. The past few years have seen a community effort to document local biodiversity in Williamson Creek using iNaturalist, a citizen science phone app that identifies and records plant and animal sightings. Both native and invasive plants have been documented along the creek. Citizen scientists have recorded more than 305 nature observations of more than 171 species within the Central Williamson Creek Greenway. While the most observed wildlife species by citizen scientists include common species such as raccoons, woodpeckers, and fox squirrels, many sightings record less common species such as Barred Owl (Strix varia), Green Heron (*Butorides virescens*), and American Basketflower (Centaurea americana).

Havhurst's Scallopwing and Buttonbush



The wildflowers along Williamson Creek provide habitat and forage for urban wildlife.



Roseate Skimmer Dragonfly

^{2.} Ecotone - A region of transition between two biological communities.

Vegetation

Vegetation along Williamson Creek and in its floodplain is dominated by large areas of woody vegetation interspersed with intermittently mowed wildflower meadows in buyout parcels owned by the Watershed Protection Department. Patches of fringe wetlands, especially near seeps and springs, are scattered throughout floodplain. Many areas along the creek are dominated by invasive woody and herbaceous vegetation, most notably stands of Glossy Privet, Giant Reed, and Chinese Tallow. Areas dominated by invasive species should become high priority areas for invasive species management per the City of Austin Invasive Species Management Plan published in 2012.

Challenge 1:

(1

(1

2

3

Balance sensitive ecology with community access and recreation.

(2)Challenge 2:

Balance invasive species removal with erosion control.

Opportunity 1: Educational wildflower meadow pocket parks at buyout areas.

Opportunity 2: Context-sensitive ecological restoration and habitat creation.

Opportunity 3: Invasive species management of Ligustrum and invasive grasses.



iNaturalist, USGS



Legend

- Creekbed soils
- Alluvial soils
- Tree Canopy
- -- Project Boundary

iNaturalist

iNaturalist is a popular citizen-science app that allows users to document and share plant and animal observations. These observations are geolocated and provide researchers with valuable information about the spatial distribution and ecology of plant and animal species.

Residents and community members of Williamson Creek have used iNaturalist to document the creek's biodiversity through both individual initiative and organized community "bio-blitzes." The map on the right shows the results of these efforts.

Wildlife

The plant and habitat diversity in Williamson Creek allow for a broad range of fish, amphibian, bird, and mammal species to thrive. iNaturalist and previous field surveys conducted by The Nature Conservancy included spiny softshell turtle, green heron, great blue heron, cedar waxwings, and chimney swift sightings. In September 2018, two wildlife cameras were installed in the Central Williamson Creek Greenway with the Austin Wildlife Watch project and Austin park rangers. These cameras documented deer, raccoons, opossums, and coyotes.

Legend

- iNaturalist Wildflower Observation
- \bigcirc iNaturalist Plant Observation
- iNaturalist Wildlife Observation \bigcirc
- Creeks
- -- Project Boundary



Data sources: City of Austin, iNaturalist, USGS



INATURALIST OBSERVATIONS

Vegetative Inventory

This map was compiled by a series of field surveys completed by The Nature Conservancy intended to document existing vegetation. This inventory will be used to develop a site plan that protects healthy, native vegetation and removes and manages invasive species. In future plan development, patches of native plants and fringe wetlands along the creek may be designated as Vegetation and Soil Protection Zones (VSPZs) as part of the SITES Certification process.



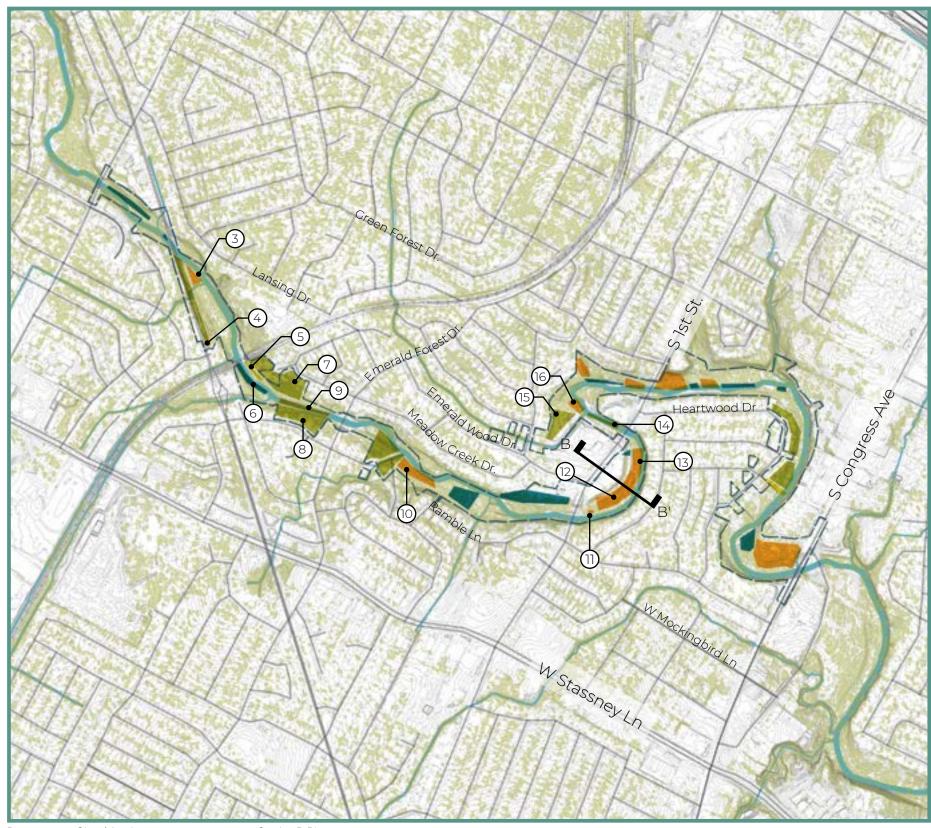
Native wetland fringe along Williamson Creek.

Legend Invasive

- Mowed
- Mixed invasive/native
- Native
- Tree Canopy
- Creeks
- -- Project Boundary

Patch	Description

Patch	Description
1	Ash and Hackberry predominate/canopy. Pecans, American Elm, Boxelder dispersed. Some Lilu, Nandina
2	Dense giant ragweed, under power lines
3	Ligustrum, canopy, evidence of some management activities
4	Johnsongrass/Forb, Juvenile Woody (hackberry, cedar elm, pecan) under powerlines
5	Bamboo thicket, some Oaks
6	Dense red oaks along bank
7	Buyout area mowed, large cedar elms, a few pecans, a few live oaks
8	Buyout area mowed, some large DBH trees
9	Ligustrum along bank, some cedar elms
10	Ligustrum, canopy and understory. Towards east, more oaks and cedar elms mixed into canopy
11	Bamboo cluster
12	Grow zone east of trail; ligustrum understory, few cypress and Viburnum near bank. Few large pecans
13	Numerous young cedar elms
14	Yard for apartments, large native trees as partial canopy along bank
15	Detention Pond adjacent Richmond Trib, some forbs/wildflowers
16	Mostly Ligustrum NW of Richmond trib, heritage pecan tree, a few hackberries
	Unnumbered parcels to be classified



Data sources: City of Austin, The Nature Conservancy, USGS

Section B-B' on pp. 24-25



ECOLOGY AND BIODIVERSITY

Common Native Herbaceous Plants

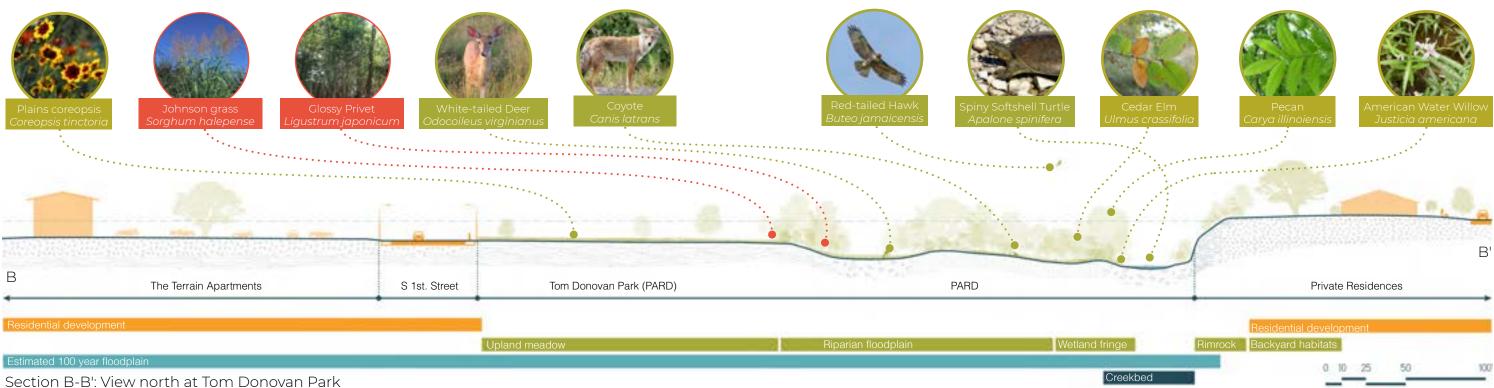
- American Water Willow (Justica americana)
- Western Ragweed (Ambrosia psilostachya)*
- Flame Acanthus (Anisacanthus quadrifidus var. wrightii)
- Illinois Bundleflower (*Desmanthus illinoensis*)
- Inland Seaoats (Chasmanthium latifolium)
- Plains Coreopsis (Coreopsis tinctoria)
- Pigeonberry (*Rivina humilis*)
- Purple Threeawn (Aristida purpurea)
- Sideoats Grama (Bouteloua curtipendula var. curtipendula)
- Silver Bluestem (Bothriochloa laguroides ssp. torreyana)

Common Native Tree Canopy

- American Elm (Ulmus americana)
- Ashe Juniper (Juniperus ashei)
- Black Willow (Salix nigra)
- Box Elder (Acer negundo)
- Cedar Elm (*Ulmus crassifolia*)
- Hackberry (Celtis laevigata)
- Live Oak (*Quercus fusiformis*)
- Pecan (Carya illinoiensis)
- Texas Red Oak (Quercus texana)

Common Invasive Herbaceous Plants

- Bamboo (*Phyllostachys aurea*)
- Barnyardgrass (Echinochloa crusgalli)
- Bermuda Grass (Cynodon dactylon)
- Garden Cornflower (Centaurea cyanus)
- Giant Reed (*Arundo donax*)
- Johnsongrass (*Sorghum halepense*)
- Perennial Ryegrass (Lolium perenne)
- Prickly Lettuce (Lactuca serriola)
- Rescuegrass (Bromus catharticus)
- Silky Bluestem (*Dichanthium* sericeum)
- Tropical Lantana (*Lantana camara*)

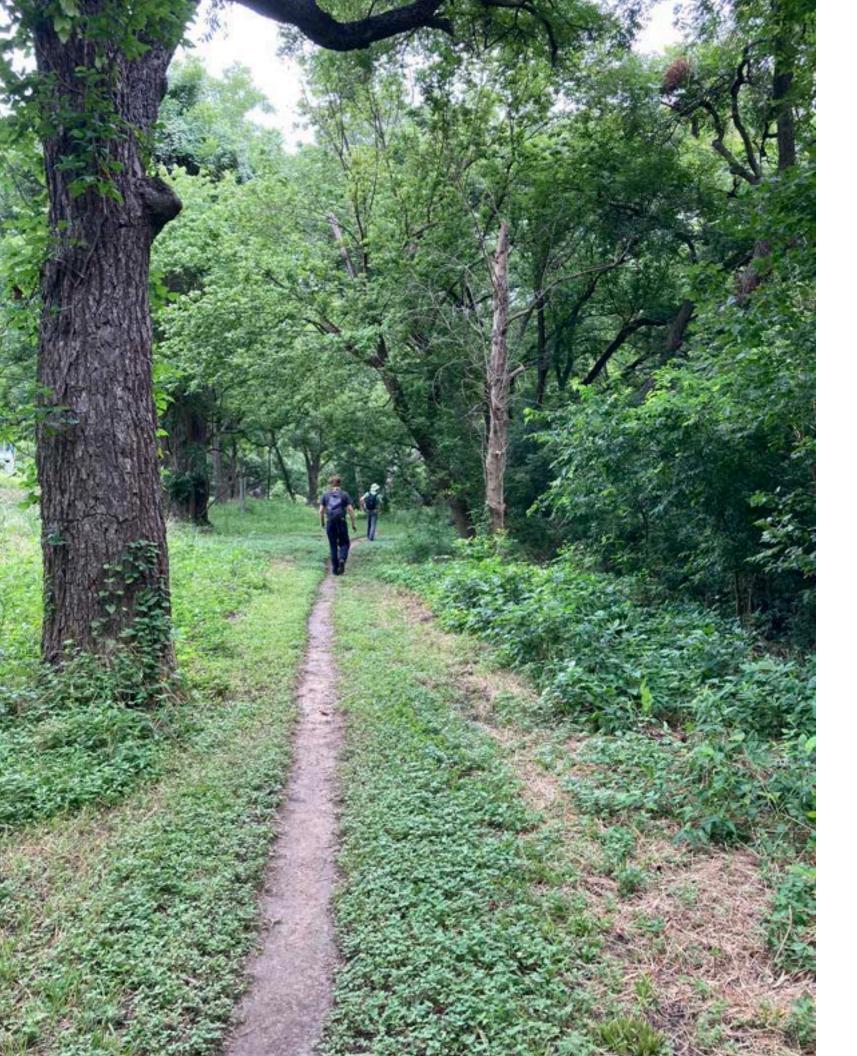


Common Invasive Tree Canopy

- Chinaberry (*Melia azedarach*) •
- Chinese Privet (*Ligustrum senense*
- Chinese Tallow (*Sapium sebiferum*)
- Glossy Privet (Ligustrum japonicum)
- Nandina/heavenly bamboo (Nandina domestica)
- Tree of Heaven (Ailanthus altissima)

Note - Invasive species are defined by the National Invasive Species Council as "nonnative (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health." However, even native species may be aggressive and outcompete other species, causing ecological harm.

Native plant species with an * next to their names indicates that these plants are aggressive and may harm biodiversity in the Williamson Creek ecosystem.



CENTRAL WILLIAMSON CREEK IS EASY TO GET TO BY BUS, BIKE, AND ON FOOT.

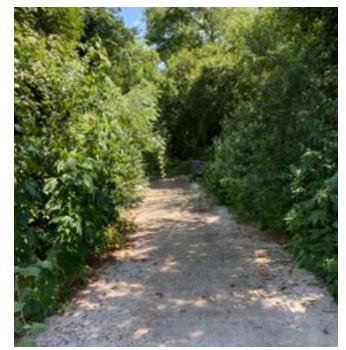
GREENWAY ACCESS

Neighborhood Access

The neighborhoods along Central Williamson Creek have a robust sidewalk network, creating good pedestrian connectivity for the adjoining neighborhoods. Emerald Forest Drive provides a dedicated bike lane for traveling in the north-south direction, and StassneyLane provides a bike lane for travelling in the east-west direction. In the future, the CAMPO 2035 plan hopes to augment S. Congress Avenue S. 1st Street, and MenchacaRoad to become safe, designated "bike corridors." In the meantime, the surrounding neighborhood roads of mostly low-traffic residential homes offer a safe alternative to high-traffic thoroughfares like S. Congress Avenue and Menchaca Road. The City of Austin Urban Trail Network is actively working on a plan to develop the abandoned Bergstrom Spur Right-of-Way as an urban trail. The 2014 City of Austin Urban Trails Plan also proposes the creation of additional car-free regional connections via the Williamson Creek Greenway and the Union Pacific right-ofway. Central Williamson Creek is served by the 1, 3, 10, 311, and 801 bus.

Creek Access

Access to the creek itself can be a challenge. Many informal trails and entrances have been created by community members. However, they occur sporadically through the greenway and do not provide a connected path along the entirety of the Central Williamson Creek Greenway. Access to these informal trails are frequently found at the mowed, grassy buyout parcels and under the bridges where S. 1st Street, S. Congress Avenue, and Menchaca Road cross Williamson Creek.



Creek entrance from the north side of S. Congress Avenue



South 1st Street is a common access point to Williamson Creek



This major entryway along S.1st Street is adjacent to a large, grassy park and the Emerald Wood Community Garden.

Legend

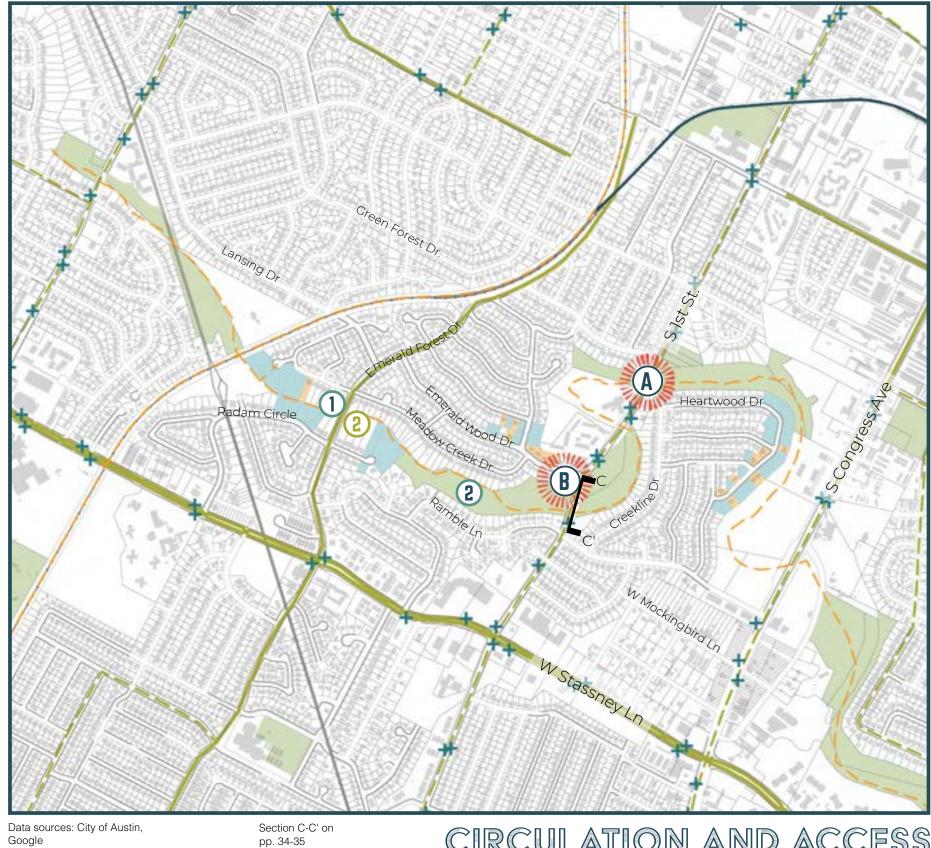
- Community-Identified Access Points
- + CMTA Bus Stops
- Bicycle Lanes
- - CAMPO 2035 Bicycle Corridors
- – COA Urban Trails (2014 Plan)
- ---- Bergstrom Spur (In Progress)
- Sidewalks
- Floodplain Buyout Lots (Owned by Watershed Protection Dept.)
- Floodplain Buyout Lots (Eligible)
- COA Parks (Owned by Parks and Recreation Dept.)

Challenge 1: Steep slopes at potential access points at major road crossings.

Challenge 2: Discontinuous publicly owned property along the creek.

Opportunity 1: Easements along private property to allow access.

Opportunity 2: Continuous, accessible trail along entirety of Central Williamson Creek.



CIRCULATION AND ACCESS

Slope

Access to Central Williamson Creek is hindered by the area's rugged topography. In some areas, the creek's erosive force has eaten into its banks, exposing steep rock faces dozens of feet tall. Erosion's effects are less dramatic in other places, but still make it difficult to experience the creek. This map shows the locations of these steep areas, illustrating their relationship to the adjacent street grid and the limitations they place on access to Williamson Creek.



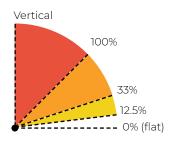
Steep conditions are often due to limestone outcroppings along the creek.

Radam Circle ald wood Dr How Creek Dr B

Data sources: City of Austin, Google

Legend

- Community-Identified Access Points
- Moderate slopes (12.5 33.3%)
- Steep slopes (33.3% 100%)
- Extremely steep slopes (>100%)

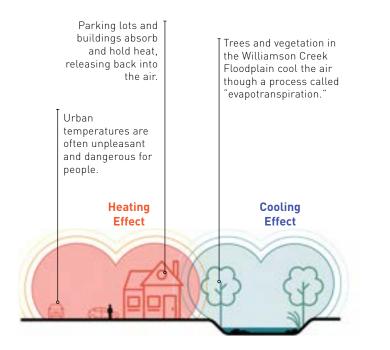




SLOPE

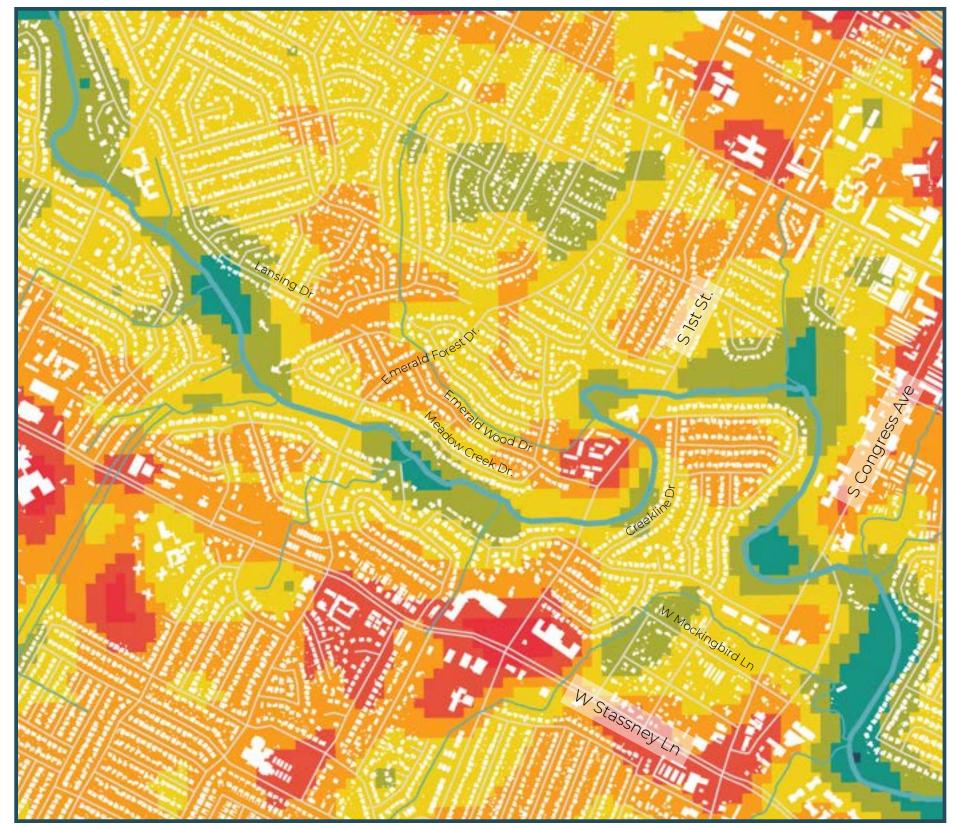
Urban Heat

In the summer and early fall, walking and biking on Austin's hot streets is uncomfortable and puts at-risk groups including the very young, the elderly, and those with pre-existing conditions at risk for heat-related illness. The trees and vegetation along Central Williamson Creek creates a cool ribbon through a hot city. A future hike and bike trail along the creek would provide a safer and more comfortable transportation or exercise route than paved neighborhood streets and sidewalks.



Legend





Data sources: City of Austin, LANDSAT

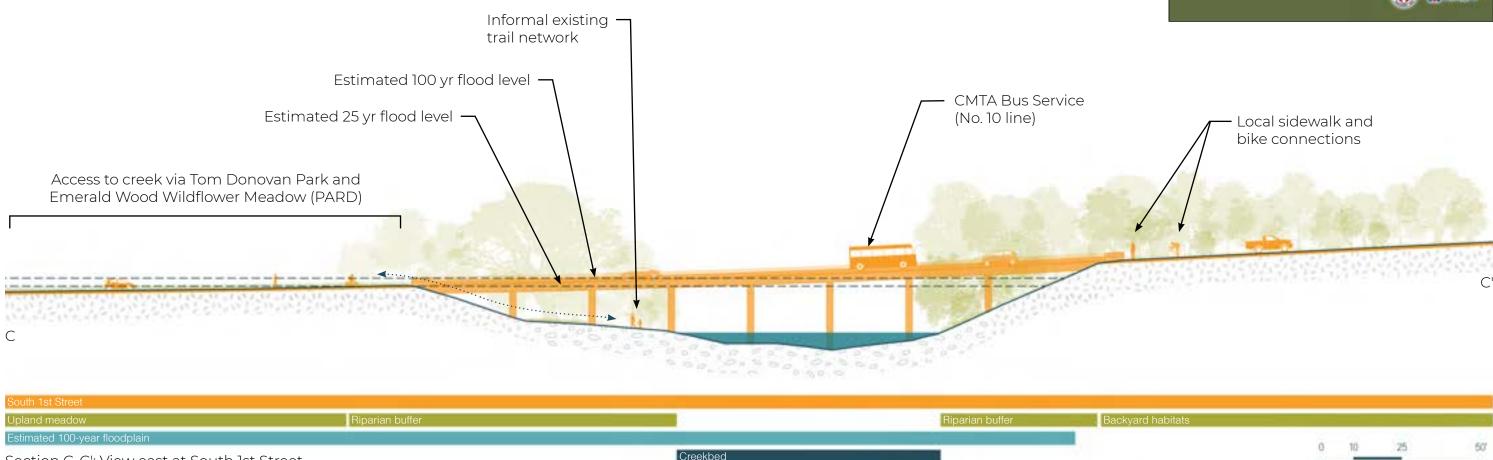
URBAN HEAT ISLANDS

Trailheads

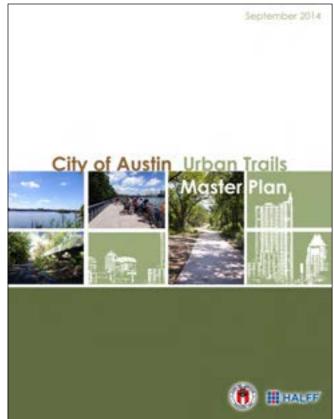
While there are currently no formal trailheads providing access to the Central Williamson Creek Greenway, many community members noted accessing the creek at several bridges that cross the creek. The section below illustrates where the creek flows underneath S. 1st Street bridge. This area presents an opportunity to provide more formalized access to the creek in the future.

Previous Planning Efforts

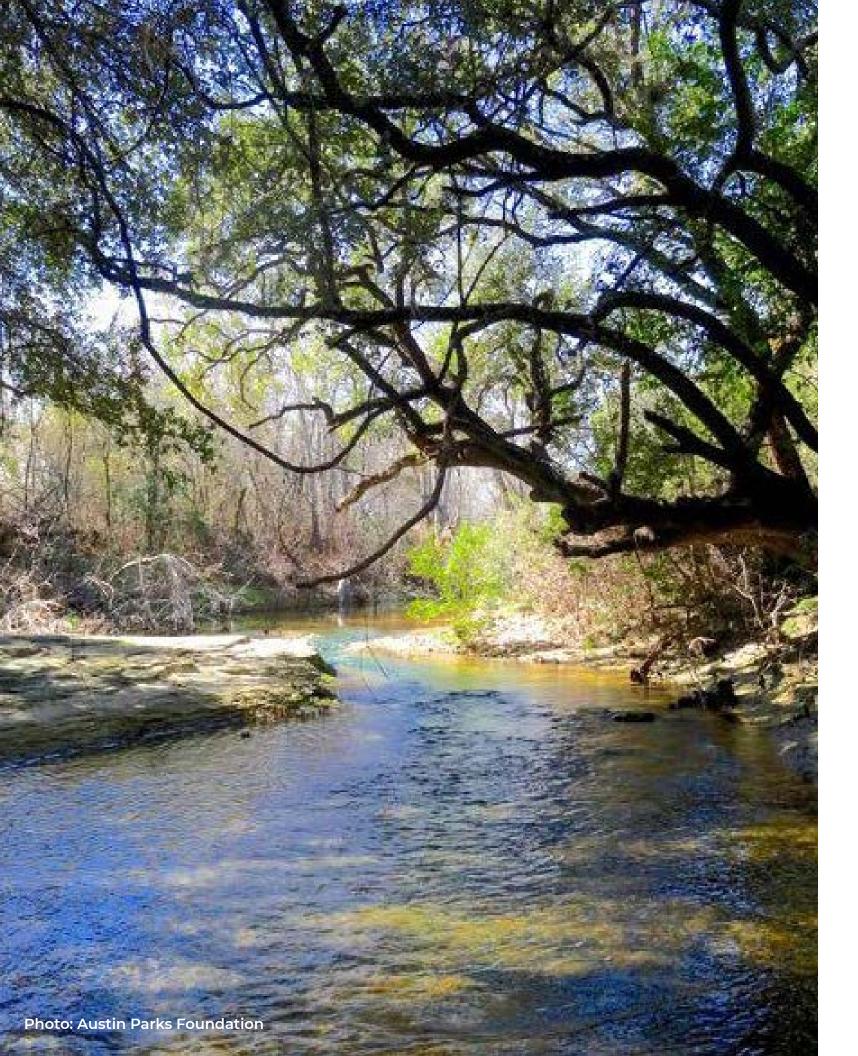
Austin Urban Trails Plan (2014): This plan identifies an opportunity for a trail along the Williamson Creek for three miles from Onion Creek to South Menchaca Road. It rates this trail as a Tier Il priority, due to its proximity to major employers, public and private schools, access to transit, access to public places, and potential for completing gaps in existing on-street sidewalks or bike facilities.



Section C-C': View east at South 1st Street



				2
ard habitats				
	0	10	25	60
	_	_		



CENTRAL WILLIAMSON CREEK IS TRANSFORMED WHEN IT RAINS. HYDROLOGY

Williamson Creek Watershed

Beyond the Greenway Vision Plan area, Williamson Creek stretches almost 19 miles across South Austin from its headwaters just west of the intersection of Highway 71 and Covered Bridge Drive to where it empties into Onion Creek just east of 1-35 at McKinney Falls State Park. This water then flows from Onion Creek into the Colorado River, where it travels across east Texas and empties into the Matagorda Bay and the Gulf of Mexico. The Williamson Creek Watershed, which contains Williamson Creek and its tributaries, covers 30.25 square miles. Thirty percent of the Watershed's land falls within the Edwards Aquifer Recharge Zone, land that is regulated by development code to ensure the continued function and quality of the Edwards Aquifer, a critical underground water source for central Texas The Central Williamson Creek area drains 72.5% of the Williamson Creek Watershed (about 22 square miles). About 34% of the Williamson Creek Watershed is covered by impervious surfaces. Land use within the watershed is comprised by 41% single family homes, 9% apartments and condos, and 9% greenbelts. Tree canopy covers 38% of the watershed, and this high number is likely due to high residential land use and greenbelts within the watershed. A high percentage of trees surrounding the greenbelt may help alleviate some flooding.



Between rainfalls, Williamson Creek almost completely dries out, leaving occasional standing pools of water.





Many seeps and springs arise from the rocky outcropping that runs along both banks of Williamson Creek

Flooding

Austin averages about 34 inches of rainfall per year, with May, June, and October being the wettest months of the year. Rainfall tends to come in intense. short storm events that cause flash floods. Severe rain events can cause dramatic changes in the volume of water flowing through Central Williamson Creek, transforming the space from what is mostly a dry, rocky creekbed into a rapid stream of water. While flooding is an important part of the creek system and provides water flows for plant and animal species, these extreme rainfall patterns pose a threat to those living along Williamson Creek. (Continued on next page.)



- Williamson Creek
- Tributary
- Williamson Creek Watershed

Legend

- Buyout Lots
- Estimated 25-year floodplain
- Estimated 100-year floodplain
- Creeks
- Rimrock
- + Seep/spring

Challenge 1: Help mitigate flooding of homes.

(2) Challenge 2: Balance trail and amenity placement with destructive flood events.

> **Opportunity 1:** Green infrastructure and other floodwater storage opportunities.

(1

Opportunity 2: Education around urban flooding and climate change.

Opportunity 3: Improve stormwater outfalls to better conserve creek water quality.

Wetland

- Stormwater Outfall
- __ Project Boundary
- ----- Watershed Boundary
- Buildings
- Paved Surfaces



FEMA, USGS

This flood risk is exacerbated by climate change and land development in the Williamson Creek watershed, making Central Williamson Creek a highly floodprone area. Major floods in 1998, 2001, 2013, and 2015 prompted a buyout program that has seen 51 properties purchased by the City, demolished, and converted into open space owned by the Watershed Protection Department. This Williamson Creek Flood Risk Reduction program helps to mitigate the risk of damage to property by removing houses that have experienced repeated flooding out of the floodplain and maintaining these areas as floodable open spaces.

Water Quality

The 2017 Watershed Protection Department Integrity Index report found that the Watershed has a very good overall condition for aquatic life, water quality, contact and non-contact recreation, and habitat and sediment quality. However, there are many stormwater outfalls that empty into Williamson Creek, bringing stormwater runoff with pollutants from roads, parking lots, and other impervious surfaces into Williamson Creek. These common pollutants may include pesticides, fertilizers, construction debris, used car oil, and trash.

Critical Environmental Features

The City of Austin defines Critical Environmental Features as natural features that protect and enhance water quality. As of June 2020, The Williamson Creek Watershed has twenty-nine known springs and seeps, fifteen rimrock/bluff locations, and 55 wetland sites. These three images of rimrock, a seep, and a wetland were all found along Central Williamson Creek.

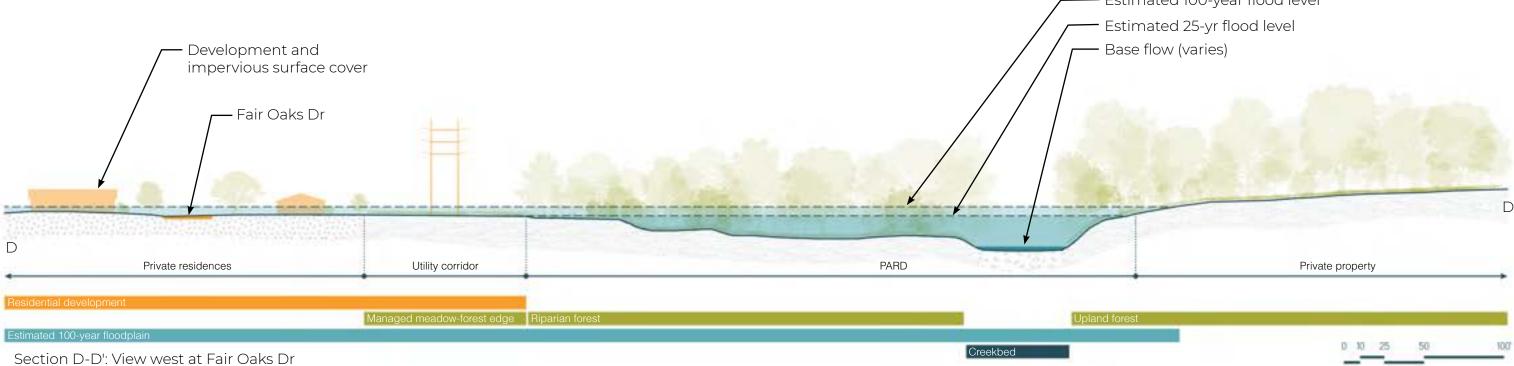
Rimrock

Seep





overland.





Springs and seeps are locations where ground water reaches the surface and begins to flow

Wetland



Wetlands along Williamson Creek are identified by the type of vegetation found within them.

Estimated 100-year flood level



Central Williamson Creek Vision Plan FEBRUARY 2021 DRAFT 119

IMPLEMENTATION STREAM

The Vision Plan encompasses three tiers of project effort and feasibility. Some ideas can have different levels of effort, and therefore may appear in more than one tier. All ideas, once implemented, will have perpetual maintenance requirements following their completion. The "Tiers" are as follows:

Tier 1:

Community-and non-profit-led efforts that are relatively low-cost and easy to install without technical equipment, machinery, or skills.

Tier 2:

Projects led by a city department, most likely the Parks and Recreation Department or Watershed Protection Department, with community volunteer and engagement opportunities.

Tier 3:

Large-scale city-led projects that may be implemented in the long-term by city staff or contractors.

Maintenance

All projects, no matter the size, will require maintenance for ensured community and environmental health and safety. Similar to implementation, these have levels of engagement and operations. As City-owned public land, community-led efforts must be approved by the property owner.

Tier 1 Projects

Community -led collaborations with City of Austin landowners Watershed Protection, and the Parks and Recreation Department. They can involve work and support with non-profits such as Austin Parks Foundation and Keep Austin Beautiful. All projects must have prior approval by City of Austin property owners.

Toolkit Items Include:

- Nature Trails
- Creek and Woodland Restoration
- Fitness Programming
- Food Forest
- Community Gardens
- Mountain Bike Trails
- Invasive Species Removal
- Labyrinth
- Music Grove
- Seating
- Pollinator Nesting Boxes

Maintenance Considerations:

For Tier 1 community and city-partnered projects, a maintenance agreement must be developed and approved by the City of Austin.

Tier 2 Projects

These are City of Austin landowner projects of \$50,000 dollars or less. They are part of the missions and plans of WPD or PARD, but require advocacy from the community. The community may also be involved for portions of these projects such as planting days.

Toolkit Items Include:

- Nature Play
- Green Infrastructure
- Wildflower Meadows
- Community Message Board
- Bonded Wood Mulch Trail
- BYO Hammock Grove

Maintenance Considerations:

Tier 2 projects should be maintained per City code and operations; however, the City may partner with non-profits and community groups to perform maintenance.

Tier 3 Projects

Projects that require long-term study and funding by City of Austin landowners that will total more than \$50,000 dollars and require major construction. Funds and grants may be raised on behalf of the community to implement these projects.. They will have required community engagement on their further development and route to implementation.

Toolkit Items Include:

- Land Acquisition and Easements
- On-street Bicycle Lanes
- Sidewalk-Shared Use Path
- Green Infrastructure (Large Scale)

Maintenance Considerations:

Tier 2 projects should be maintained per City code and operations; however, the City may partner with non-profits and community groups to perform maintenance.







¢ † *

9

TIER 1 - 15,000-30,000* TIER 2 - 206,000 TIER 3 - 320,000

Meadow Creek Trailhead

AREA 2

TIER 1 - 15,000-30,000* TIER 2 - 175,000 TIER 3 - 340,000

Ø *

0

Emerald Wood Community Garden

IMPLEMENTATION STREAM **OPINION OF PROBABLE COST BY AREA**



TIER 1 - 15,000-42,000* TIER 2 - 150,000 TIER 3 - 740,000

* Ø T

0

1

00

Orland Trailhead

Heartwood **Community Garden**

9

00

ONGOING CITY OF AUSTIN PROJECTS

There are several projects in an array of planning and implementation stages adjacent to the Central Williamson Creek Greenway.

Flood Plain Buyout Cleanups

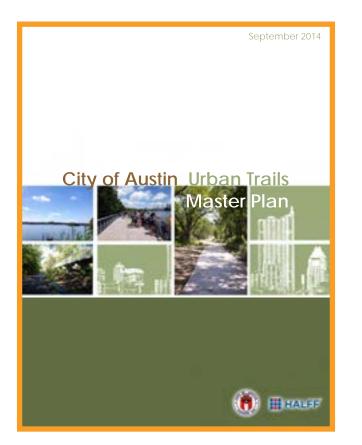
The Watershed Protection Department has several projects underway to clean-up floodplain buyout lots. Such improvements include using split-rail fences to denote property boundaries, and removal of driveway concrete and debris. Buyouts are likely to continue, so additional land may be acquired and require community iput on their mantenance and public use.

2014 Urban Trails Master Plan

The 2014 Urban Trails Master Plan identified Williamson Creek as a location for a Tier II trail. The proposed trail is a 12-foot wide concrete trail. The Urban Trails Master Plan is currently being updated and looking to assess which Tier II trails should be moved to Tier I.

During the community engagement process for Central Williamson Creek Greenway, community members expressed a strong desire for trails within the greenway to be natural trails. This was stated in community meetings and shown in the Creek Ideas Card voting. As such, the Central Williamson Creek Greenway Vision Plan shows primarily nature trails and mountain bike trails with small accessible loops at trailheads. For street biking and connectivity, the Vision Plan proposes a 'High Water Route'-- a series of bike lanes and shareduse paths out of the floodplain that would connect to existing and planned bicycle and sidewalk networks. This would further support an Urban Trail if it moves forward at a later date. The 'High Water Route' could also serve as a framework for a streetside urban trail in the Central Williamson Creek Greenway area.

The next phase for a Tier I trail would be for the City of Austin to commission a Preliminary Engineering Report from a team of consultant licensed engineers and landscape architects. This phase also requires community engagement. The Visioin Plan recommends that the Central Williamson Creek Greenway community leaders and working group to be included as stakeholders in this process.



Middle Williamson Creek Flood Risk Reduction - Engineering Feasibility Study Phase 2

The study reviews methods to reduce flood risk over an area of Williamson Creek between West Gate Blvd and Congress Avenue. Some options requiring construction include: flood walls, which would consist of wall segments protecting specific areas from flooding; channel modifications, which would require excavation at some locations along the creek in order to increase the flow capacity: construction of detention ponds; or a diversion, which would allow water spilling out of the creek to be diverted through underground pipes in order to bypass areas at risk of flooding. The above options are being considered individually or as a combination. Another option considered is voluntary buyouts of homes at risk of flooding. Each of the options is being evaluated for flood reduction effectiveness, cost, as well as environmental impacts. Social impacts will also be evaluated once community engagement is conducted, after the draft feasibility report is available. This community engagement is expected to take place in February or March 2021.

More collaboration with the community is needed so that the creek environment should be improved, conserved and remain natural in appearance.

IMPLEMENTATION BY IDEA

IDEA	Pollinator Nesting Boxes	Invasive Species Management	IDEA	Signage
TIER 1	Many plans for these boxes can be found online. Nest boxes consist of a house with a roof and an infill of material such as bamboo and twigs. The house, roof and post must be wood, sourced from a non-threatened tree species. For more information on materials, refer to the materials appendix. The infill may be constructed from materials found on the greenway- in particular from material	Invasive species removal at the Tier 1 level includes community volunteers leading a Watershed Protection or PARD approved clean-up day, that can also be supported by local non-profits such as Keep Austin Beautiful or the Austin Parks Foundation. Removal will be done by hand only and can include pulling herbaceous noxious weeds such as Johnson Grass, Bermuda Grass, using weed wrenches to remove mid-sized shrubs	TIER 1	Informal trail markers such as cairns may be implemented to mark distances and direction along trail.
	salvaged from the invasive species removal efforts. http://www.xerces.org/sites/default/ files/2018-05/12-015_02_XercesSoc_Nests- for-Native-Bees-fact-sheet_web.pdf	such as Nandina and tree girdling to remove Ligustrum spp. No herbicides or motorized mechanical equipment may be used as part of this effort.	TIER 2	Signage in this tier includes weather warnings, community message boards, educational information, interpretive signs, and trail distance markers. These signs can be up to 6ft in height and must follow the materials guidelines
7		Projects at the Tier 2 level are led by the Watershed Protection Department (WPD) or the Parks and Recreation Department	-	outline in Appendix X.
TIER		(PARD) but can include community volunteers as well as non-proift organizations that contract with WPD or PARD such as The Other Ones Foundation and Texas Conservation Corps. Projects can also include machine removal of invasive trees.	ER 3	This scale of signage will include monument signs and park rules. These signs require a third-party professional fabrication and are often included as a component of a larger project.
TIER 3		Projects in this Tier will be a component of a large -scale project that is greater than \$50,000 in value. Projects will be responsible for removing any invasive material within their limit of construction.	TIE	
MAINTENANCE	In order to keep nest boxes safe for pollinators , the infill materials sticks, bamboo etc must be replaced once a year during the winter between late January to early February. Old infill may be scattered away from the nest box to decompose. Also, box keepers should watch for any infestations and spider webs to ensure bees are safe from predators.	Invasive Species removal sites require continued maintenance. Often the soil has a continued seed bank of invasive species that will emerge following the removal of established plants. Quarterly inspections and seedling removals are recommended to ensure that sites are not recolonized. Addionatlly, native seeds and plugs should be installed at removal areas.	MAINTENANCE	Signs should be made of durable material that will withstand exposure to elements such as cut metal and stone. Detailed educational signage with images should be placed in the shade to reduce fading over time. Maintenance should be performed on signs once a year to remove dirt and graffiti.



(Labyrinth

rns may es and	A labyrnith may be a community -led project with City approval on all aspects of the design. Labyrinths may be constructed of rock berms from native stone quarried within a 100-mile radius of the site. Configuration of a labyrinth should allow water to drain. Stone berms should not be greater than 18-inches in height.
her boards, tive These nd nes	
These sional d as a	While a labyrinth could be designed and constructed as part of a larger project, the Vision Plan recommends community input and engagement. The abyrinth was conceived of as a mindful way to bring community members together.
sure to stone. h hade to ance ce a	Typical maintenance will include a yearly inspection of the Labryinth. Tier 1 Labyrinths will require weed removal and should also be inspected after a flood event. Any shifted material should be restored to its original condition.

IMPLEMENTATION BY IDEA, CONT.

IDEA	Creek + Woodland Restoration	Nature Trail	IDEA	Wildflower Planting
TIER 1	At the Tier I level, community members and non-profits may partner with City approval to plant native trees, perennials and grasses to improve the environment. A list of acceptable species is provided in Appendix X Plant Species.	Nature Trails may be installed with City of Austin approval by community members or community members in partnership with non-profits such Keep Austin Beautiful and Austin Parks Foundation. Nature Trails should consist of a 6-foot-wide pathway. The pathway material should be single grind hardwood mulch that does not contain invasive seeds.	TER 1	coordings should be implemented by Cit
TIER 2	Tier 2 restorations may involve small- scale site grading, planting and temporary irrigation. These projects will be conducted in part by the City of Austin and may also involve non-profits and community volunteers for some aspects of the work.	Projects in the Tier 2 category could be a typical nature trail, but with City of Austin supported installation. Also, Tier 2 includes projects where technical review and skills are required to install nature trails, such as traversing steep slopes. In these cases, City of Austin property owners may work within their department or contract with local trail building non-profits such as the Texas Conservation Corps.	TIER 2	can advocate for meadows.
TIER 3	Tier 3 projects involve large-scale improvements to the environment and creek. The projects may include repairing eroded banks, hydrologic engineering and changes to the creek, soil analysis and improvement and ecological restoration of wetlands and riparian areas.		TIER 3	
MAINTENANCE	Quarterly monitoring, weeding, and invasive species removal are recommended for project sites at all scales. Supplemental water until plants are established are recommended where feasible.	Trails should be maintained per City of Austin standards. Community groups can assist in maintaining trails through cleanup days and replenishing the mulch. After storm events trails should be checked for debris and washout.	MAINTENANCE	requirements to ensure they are

	Music Grove
ty	Tier 1 music grove can involve informal seating areas distanced from private property. Natural elements may be used for seating material such as stumps and boulders between 18-24-inches in height.
d rs	Tier 2 improvements could enhance music grove areas by providing an accessible route in permeable paving and accessible seating.
	Music groves should be maintained biannually to be kept clean and clear.

IMPLEMENTATION BY IDEA, CONT.

	MIPLEMENTATION DI IDEA, CONT.							
IDEA	Community Message Boards	Green Infrastructure	IDEA	Community Gardens	Nature Play			
TIER 1		Recommended that community members who own property consider cisterns or rain gardens with native plants to treat and slow the water entering the greenway.	ER 1	Examples of Food Forest at Tier 1 include expanding existing community gardens wtih Fruit Trees and Food Forest areas. Food forests can also be established, similar to community gardens, by	For safety reasons all play elements must be Tier 2 or higher.			
	Community Message Boards should be constructed of a non-threatened North American hardwood or suitable reclaimed lumber. Design can be	All green infrastructure projects on City of Austin property should have a review by a civil engineer to ensure they are sized correctly. Small-scale green infrastructure	F	working with City of Austin property owners.				
TIER 2	initiated by the community but must be reviewed and finalized by the City of Austin property owner.	such as raingardens, vegetated swales, rock berms and curb cuts are recommended to allow for run off absorption and treatment prior to entering Williamson Creek. Look for opportunities whenever a projects is mobilized, such as a driveway removal at a floodplain buyout or demolition of existing structure. Add excavation work into these plans and keep access to water for establishment of planting.	TIER 2	At the Tier 2 level, City of Austin property owners could work with non-profits and land managers to establish a series of Food Forests within the Greenway. Community engagement would be recommended to optimize longterm maintenance and care.	Tier 2 features include imaginative play elements that do not require safety fall surfacing. Elements may include tree step stones, vine tunnels, and child-sized raised garden beds. These require design, review and approval by City landowners.			
TIER 3	If not already implemented, this should be included into trailhead projects that fall into Tier 3.	The greenway has an opportunity for large scale green infrastructure projects. These projects include diverting stormwater outlets into biofiltration or wetland areas along the creek, and creating larger basins at manholes coinciding with flood plain buyouts. These interventions will require designs by licensed civil engineers and landscape architects and should also function as community and environmental amenities with opportunities	TIER 3	Food forests are a recommended part of large-scale improvements. Maintenance groups must be established for successful implementation.	Tier 3 Nature Play elements include a combination of active and imaginative play elements. Any play element requiring a safety surface will fall in this category. Such elements include balance beams, swings, and climbable elements. Community engagement will be required for these designs.			
MAINTENANCE	Recommended that neighborhood organization or community group partner in responsibility with City of Ausitn property owners. Excellent way to share about upcoming community events and organizations.	for recreation and incorporation of native plants. Green infrastructure elements must be maintained according to City policy listed under the Environmental Criteria Manual.	MAINTENANCE	Maintenance can vary depending on size of Food Forest. At a minimum, plan for watering plants through establishment, quarterly weeding and developing a harvest schedule.	Maintenance varies depending on the play type. All play elements should be maintained by City of Austin.			

IMPLEMENTATION BY IDEA, CONT.

IDEA	Bonded Mulch Trail	A Land Acquisition	IDEA	Fitness Programming	On-Street Bike Lanes
TIER 1		At the Tier 1 scale community members could advocate with the City and land owners to establish easements for parkland or acquire additional buyout properties along the greenway. In particular, community groups partnering with private land owners could establish a series of easements that would allow for more continuous trail and park areas through the greenway.	TIER 1	At the Tier 1 level, this could included hiking groups and non-profit programming in existing open spaces such as yoga in the park. Paid activities require permission from the City of Austin	Nature Trails may be installed with City of Austin approval by community members or community members in partnership with non-profits such Keep Austin Beautiful and Austin Parks Foundation. Nature Trails should consist of a 6-foot-wide pathway. The pathway material should be single grind hardwood mulch that does not contain invasive seeds.
TIER 2			TIER 2	Projects at this level can include maintaining a mowed area for activity use, small grading projects, elements, such as metal bars for pull ups or limestone block or boulders to use as aids in kinesthetic and body weight exercises.	Projects in the Tier 2 category could be a typical nature trail, but with City of Austin supported installation. Also, Tier 2 includes projects where technical review and skills are required to install nature trails, such as traversing steep slopes. In these cases, City of Austin property owners may work within their department or contract with local trail building non-profits such as the Texas Conservation Corps.
TIER 3	Bonded wood mulch trails will be fully accessible routes that require grading and design by professional engineer and landscape architect to implement. Installation must be performed by a third-party contractor.	Tier 3 includes land aquisition by the City, such as additional floodplain buyouts. It also includes dedication of park and trail easements for developments adjacent to the greenway.	TIER 3	This would include commercial-grade activity equipment, such as a hand-cycle or recumbent bike. Equipment of this type must include an accessible route and safety surfacing. Equipment should be located at trailheads out of the floodplain only. Additional community engagement is required for this type of equipment. Smaller elements noted in Tier 2 could also be incorporated into Tier 3 projects.	On-street bike lanes require design and review by Austin Transportation Department. Community members can advocate for bike lanes by contacting the ATD.
MAINTENANCE	Bonded mulch trails should be cleaned yearly by spraying a clear coat material to keep the surface well -bound and prevent wear from eroding the surface layer.		MAINTENANCE		On street bike lanes should be maintained by City of Austin per City standards.

PEOPLE EXPERIENCING Homelessness

Austin's parks and open spaces are places where all community members gather to enjoy trails, build social capital, and access Austin's urban nature. Due to the diversity of groups and interests of Austin residents, it is not surprising that conflict may arise between park users. Conflicts between neighborhoods, park users, and unsheltered individuals living in Austin's parks has become an ongoing issue in Austin, and Williamson Creek is no exception. In the past decade, the City of Austin has seen a significant uptick in unsheltered individuals residing in Austin's Parks. This is due to a variety of factors, including Austin's ongoing affordable housing shortage crisis and population growth. In 2019, Austin City Council enacted a set of ordinances that permitted people experiencing homelessness to sit, sleep, lie, and camp in most public spaces. The homelessness crisis was further exacerbated by 2020's COVID-19 crisis, when the number of unsheltered individuals rose 45% from 2019 to 2020¹.

Across the city, residents and park users have voiced concerns over the symptomatic impacts of Austin's housing and homelessness crisis, such as the presence of unsheltered individuals in parks, and their associated tents, belongings, and refuse. There have been many calls to remove encampments in parks and open space. However, this is a short-term response that may only hinder efforts by support services and unsheltered individuals seeking long-term housing solutions. Park clean-ups also strain city department resources, draining time and money away from parks improvements city-wide. The displacement of people experiencing homelessness from parks in this manner

1 https://www.austinecho.org/about-echo/ homelessness-in-austin/ also further entrenches homelessness. After a clean-up, displaced individuals may simply relocate to a new area on public land, making it difficult for organizations that provide support services to locate them to connect them to housing and other resources. When clean-ups dispose of people's belongings, this further burdens unsheltered individuals. They must then use their limited financial means to purchase or procure more blankets, tents, or supplies needed to survive living outdoors and limits their ability to spend money on food, transportation, and shelter.

Fully addressing the causes of homelessness is a complex and long-term undertaking that is outside the scope of this Vision Plan. In the short-term, taking an empathetic and communicative approach may help ameliorate conflicts. At Central Williamson Creek Greenway, the following approaches are recommended:

1. Prioritize project implementation

in areas along Williamson Creek that will not displace people experiencing homelessness, work with the city to implement projects with participation of unsheltered individuals.

2. Post the names and contact information of resources like The Other Ones Foundation (TOOF) to community message boards. Many unsheltered individuals are not aware of community resources available to help them secure shelter, personal hygiene, food, access to the internet, and other necessities.

3. Temporarily employ unsheltered individuals on land improvement projects.

The City of Austin contracts with The Other Ones Foundation (TOOF) on projects like trail-building and invasive species removal. Consider coordinating between the COA and TOOF on appropriate projects along the greenway, including:

- Creation of Nature Trails
- Creek and Woodland Restoration
- Community Gardens
- Invasive Species Removal
- Pollinator Nesting Boxes
- Signage Installation

Invest in neighborhood public education around unsheltered individuals, emphasizing the following ideas:

- Those experiencing homelessness are part of our community.
- It is possible for anyone to experience homelessness.
- Everone is welcome to use public parks and open spaces
- Those experiencing homelessness may face life-long issues, such as poverty, mental health concerns, physical ailments, and/or addiction.
- Public complaints may strain park resources.
- Public complaints that result in displacement may hinder long-term efforts to find housing for unsheltered individuals. homelessness.

4. Educate the neighborhood about the newly expanded Integral Care-EMCOT (Expanded Mobile Crisis Outreach Team) a branch of 911 that responds to all mental health-related 911 calls that do not present an imminent threat to public safety without the involvement of city or county police. Neighbors can be directed to request a mental health professional to resolve conflicts rather than police in an effort to stem the potential for police violence against an unsheltered individual and to better address non-violent crisis with the correct training.

5. Support affordable housing in the

community. Connect with organizations like HousingWorks Austin, Austin Housing Coalition, and Reform Austin.

6. Advocate for trash cans and trash removal services to service these

communities. Support shelterless individuals in taking a land stewardship approach to the spaces they inhabit by providing the resources to remove trash and refuse from the site as well as through educational programs on local ecology and general stewardship principles.

Austin-Based Resources

The Other Ones Foundation Provides employment and case management

Ending Community Homelessness Coalition

Plans community-wide strategies to end homelessness

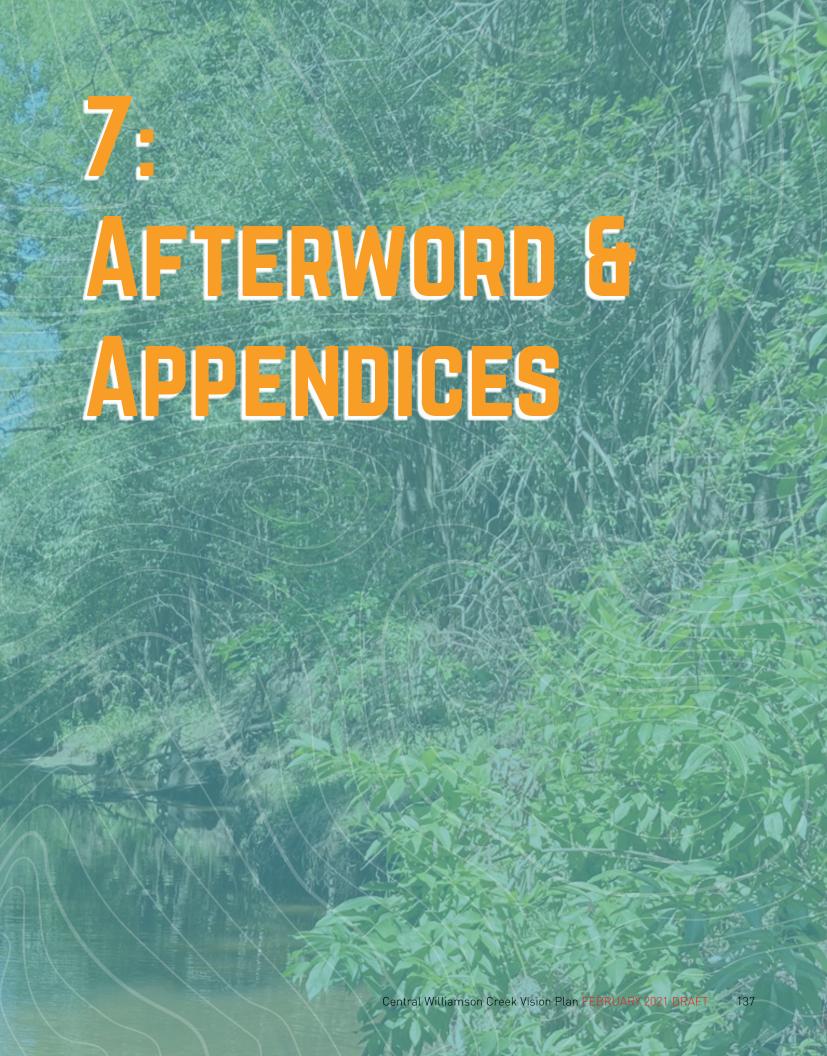
Austin Resource Center for the Homeless City-owned men's shelter

Austin Shelter for Women and Children Emergency shelter for adult women and their dependents

Front Steps Offers emergency shelter

t **United Way for Greater Austin** Connects people to a wide range of services

Mobile Loaves and Fishes Provides food, clothing, hygiene products, and housing





AFTERWORD

The Central Williamson Creek Greenway Vision Plan has been created to guide future greenway improvements and to support fundraising efforts for both communitybuilt and City of Austin-built projects by identifying four primary goals envisioned for the future of the Greenway. These goals, along with their corresponding design strategies, were created from both community input and trail, parks, and ecological design best practices.

Upon approval from the City of Austin's Parks and Recreation Board, this plan is to become a planning document of record, reflecting the desires of the Community Working Group, and the general public to create an ecologically sound and inclusive vision for the future of Central Wililamson Creek Greenway. With strategic investment and further design, Central Williamson Creek Greenway has the potential to become a major asset to the growing neighborhood and Austin Community.

BIBLIOGRAPHY

Capital Area Metropolitan Planning Organization. "CAMPO 2045 Plan," 2020 City of Austin. "City of Austin Urban Trails Master Plan," 2014. City of Austin. "Invasive Species Management Plan," 2014. City of Austin. "South Austin Combined Neighborhood Plan," 2014 City of Austin. "Southeast Combined Neighborhood Plan," 2002. iNaturalist. www.inaturalist.org/. The Nature Conservancy. "Central Williamson Creek Greenway," 2020. Trust for Public Land. "The Healthy Parks Plan." web.tplgis.org/healthyparksplan/.

Page Intentionally Left Blank

Appendix A RECOMMENDED PLANT LIST

Native Texas plants should always be selected for woodland restoration, wetland restoration, wildflower planting, and green infrastructure along the greenway. The following is a short list of example species. Consult resources the Lady Bird Johnson Wildflower Center for more information on plant species selection.

	Forbs	Grasses	Shrubs	Trees
Wetland	American Water-willow (Justica americana) Obedient Plant (Physostegia virginiana), Swamp Milkweed (Asclepias incarnata), Spiderwort (Tradescantia spp.), Rosemallow (Hibiscus laevis), Virginia Iris (Iris virginiana)	Bushy Bluestem (Andropogon glomeratus), Cherokee Sedge (Carex cherokeensis), Purple Threeawn (Aristida purpurea)	Buttonbush (Cephalanthus occidentalis), Globe Mallow (Sphaeralcea ambigua)	Black Wil
Woodland	Turkscap (Malaviscus arboreus), Red Columbine (Aquilegia canadensis), River Fern (Thelypteris kunthii)	Southwestern Bristle Grass (Setaria scheelei), Cherokee Sedge (Carex cherokeensis), Inland Sea Oats (Chasmanthium latifolium)	Virginia Sweetspire (Itea virginica), American Beautyberry (Callicarpa americana), Redbud (Cerces canadensis), Yaupon Holly (Ilex vomitoria), Flame Acanthus (Anisacanthus quadrifidus)	Curly mea Cedar Eln Americar Pecan (Ca Hackberr Elder (Aca (Quercus Oak (Que
Wildflower Meadow	Illinois Bundleflower (Desmanthus illinoensis), Bluebonnet (Lupinus texensis), Black-eyed Susan (Rudbeckia hirta), Zexmenia, Gayfeather (Liatris mucronata), Butterflyweed (Asclepias tuberosa), Standing Cyrpress (Ipomopsis rubra), Horsemint (Monarda citiodora), Plains coreopsis (Coreopsis tinctoria)	Purple threeawn (Aristida purpurea), Sideoats grama (Bouteloua curtipendula), Silver bluestem (Bothriochloa saccharoides), Green Sprangletop (Leptochloa dubia),	N/A, Woody vegetation should be used sparingly in wildflower meadows.	N/A, Woo be used s meadows
Green Infrastructure	Coneflower (Echinacea purpurea), Wax Mallow (Malaviscus arboreus var. drummondii), Bergamot (Monarda fistulosa), Blood Sage (Salvia coccinea), Obedient Plant, Blue Mistflower	Indiangrass (Sorghastrum nutans), Sideoats Grama (Bouteloua curtipendula), Switchgrass (panicum virgatum)	Buttonbush (Cephalanthus occidentalis), Southern Wax Myrtle (Myrica cerifera), American Beauty Berry (Callicarpa americana)	Bald Cyp

/illow (Salix nigra)

nesquite (Hilaira belangeri), Elm (Ulmus crassifolia), can elm (Ulmus americana), (Carya illinoinensis), erry (Celtis occidentalis), Box Acer negundo), Live Oak us virginiana), Texas Red uercus buckleyi)

body vegetation should I sparingly in wildflower ws.

/press (Taxodium distichum)

Appendix B RECOMMENDED MATERIALS CRITERIA

Selecting sustainable and safe materials for construction along Williamson Creek will ensure the continued health of the creek and lessen the environmental impacts of construction and development. Learn more about these strategies through the Sustainable Sites Initiative (sustainablesites.org).

Recommendation	Intent	Strategy 1	Strategy 2	Strategy 3	More Resources
Use sustainable wood sources	Many commonly-used landscape wood products are sourced from thretened tree species or threatened ecosystems. Minimize impact on these species by purchasing sustainably-sourced wood from non-threatened tree species.	Review the Convention on International Trade in Endangered Species (CITES) website to review the status of tree species and ensure that is not threatened with extinction or listed as requiring trade controls to avoid utilization incompatible with their survival. www.cites.org/eng/resources/ species.html	Review the Internationan Union for Conservation of Nature's "Red List of Endangered Species to ensure the species is not in danger of extinction. www.iucnredlist.org.	Use recycled plastic, composite lumber, or another material instead of wood.	
Use salvaged materials and plants	Salvaging landscape materials from on-site or from re-use suppliers like a member of the Building Materials Reuse Assocation is an effective way to divert waste from landfills and conserve financial resources. Salvaged plant materials also conserves native, local plant genetic pools.	Identify salvaged materials suppliers or local demolition and construction projects. Search diirectories of reuse stores here: Building Materials Reuse Association, www.buildingreuse. org Habitat for Humanity's ReStore, www.habitat.org/env/restores.aspx	Get in touch with a local native plant conservation group. Many of these groups "rescue" native plants from construction sites, and may be able to provide locally- sourced salvaged plants.		Green Building Research Guide's searchable database, www.greenguide.com/ exchange/search.html Reuse Development Organization, www.redo. org
Use materials with a high recycled content	Use of new materials with a high recycled content reduces resource extraction and diverts materials away from landfills and into the production of new materials.	Speak with local materials suppliers about products that may help achieve this goal. Examples of some materials include plastic lumber with recycled content, asphalt with recycled asphalt aggregate, and high recycled content steel.	Learn more about recycled products and industry materials recycling. The U.S. EPA Industrial Materials website: www.epa.gov/ industrialmaterials The U.S. EPA's Comprehensive Procurement Guidelines www.epa.gov/cpg		California Department of Resources and Recycling, Recycled Content Products Directory, www.calrecycle. ca.gov/RCP/default.asp

Recommendation	Intent	Strategy 1	Strategy 2	Strategy 3	More Resources
Use regional materials	Sourcing regional landscape materials and plants has many benefits, including reducing the use of fossil fuels used for transportation, supporting local economies, increasing the demand and therefore the future supply of native plants, and supporting regional identity through the use of local materials.	Soils, compost, mulch , boulders, and aggregate sourcing should occur within 50 miles of the project site.	Plant material should be grown and supplied within 250 miles of the site.	The extraction, harvest or recovery, and manufacture of all other materials should occur within 500 miles of the site.	For more information about materials and resources, consult the U.S. Green Building Council's website: leedcasestudies. usgbc.org/materials. cfm?ProjectID=189. JW Thompson and K Sorvig, Sustainable Landscape Construction: A Guide to Green Building Outdoors (Washington, D.C., Island Press, 2000.
Use materials that will not harm the health of Williamson Creek or human health.	Use materials that do not contain chemicals known to harm human health or aquatic health. Prioritize materials that have chemical inventories, life-cycle information and hazard assessments. In addition to eliminating harmful chemical runoff, do not use materials that contribute sediment or aggregate to the creek.	Specify products from manufacturers who can provide chemical inventories covering all chemicals in each life cycle stage of the product. Manufacturers should also report all known hazards and their concentrations.	Use materials without topical finishes or other chemical additives whenever possible.	Learn more about chemicals in building products by consulting Pharos Project's Chemical and Material Library at www. pharosproject.net/material.	United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), www.osha.gov/dsg/ hazcom/ghs.html. Green chemicals standards are listen through NSF/GCI/ANSI 355 Greener Chemicals Products and Processes Information Standard, www.nsf.org/business/ sustainability/product_ greener_chemicals.

Appendix C OPINION OF PROBABLE COSTS SUMMARY P

∅† *





TIER 1 - 15,000-30,000* TIER 2 - 206,000 TIER 3 - 320,000

Meadow Creek Trailhead

AREA 2

TIER 1 - 15,000-30,000* TIER 2 - 175,000 TIER 3 - 340,000

Ø *

0

Emerald Wood Community Garden

IMPLEMENTATION STREAM **OPINION OF PROBABLE COST BY AREA**



TIER 1 - 15,000-42,000* TIER 2 - 150,000 TIER 3 - 740,000

0

17

60

Orland Trailhead

Heartwood **Community Garden**

 $\mathbf{O}\mathbf{O}$

OPINION OF PROBABLE COSTS - AREA 1 - TIER 1

					Comments
Invasive Species Removal					Costs for this phase could be further reduced by partnering with City of Austin or renting equipment. Costs in this section indicate approximate cost to purchase er of community volunteers with approval by the City of Austin property owner.
Weed Wrench	3	EA	\$189.00	\$567.00	
Loppers	4	EA	\$50.00	\$200.00	
Mattock	2	EA	\$50.00	\$100.00	
Shovel - Round Point	4	EA	\$50.00	\$200.00	
Aborist Hand Saw	2	EA	\$75.00	\$150.00	
Tree Paint	10	EA	\$6.00	\$60.00	
Tree Girdler Tool	4	EA	\$222.00	\$888.00	
General Conditions Sub-Total				\$2,165.00	
Seating - Informal, Wilderness					May be boulders or logs adjacent to nature trail where uses can rest. Provide informativolunteers with permission from City of Austin property owners.
Boulders - Existing		EA	\$-	\$-	Community members may not move existing boulders, but may take advantage of the side of the critical environmental feature setback zone.
Logs - Existing		EA	\$-	\$-	Logs may be cut into 4-feet in length or smaller and placed near the trail. No native tr
Logs - Invasive Species Removal		EA	\$-	\$-	Large trees removed in Tier 2 efforts may be reclaimed for informal seating near trail
Seating Sub-Total				\$-	
Nature Trail - 1 mile					Assumes labor by volunteers with permission from City of Austin property owners.
Mulch - Wholesale	293	CY	\$40.00	\$11,733.33	First grind mulch placed 3-inches thick on a 6ft wide nature trail. Collaborate with City
Wood Chipper Rental		DAY	\$400.00	\$-	Cost may be reduced by partnering with local non-profit such as Keep Austin Beautifu
Mulch - Invasive Species		CY	\$-	\$-	Use branches 6-inches or larger. Ensure no branches or seeds are placed into the woo removal may be used to reduce cost of retail mulch.
Nature Trail - 1 mile Sub-Total				\$11,733.33	
Mountain Bike Trail - 1 mile					Assumes labor by volunteers with permission from City of Austin property owners.
Shovel - Round Point	4	EA	\$50.00	\$200.00	No digging over 6-inches to level the trail.
Loppers	4	EA	\$50.00	\$200.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade must
Aborist Hand Saw	2	EA	\$75.00	\$150.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade must
Tree Paint	10	EA	\$6.00	\$60.00	All pruning areas must be covered in tree paint.
Natural Trail - 1 mile Sub-Total				\$610.00	

r a local non profit for use of tools rather than purchasing or equipment. Tier 1 invasive species removal to involve a group

mal seating every 1/8-mile for broader access. Assumes labor by

nem by locating a natural trail nearby so long as the area is out-

trees may be cut by community members to create logs. ail.

City of Austin property owner or non-profit for reduced cost.

iful, or City of Austin property owners PARD or WPD

vood chipper. Grind the mulch twice. Mulch from invasive species

st be washed in bleach between every new tree.

st be washed in bleach between every new tree.

OPINION OF PROBABLE COSTS - AREA 1 - TIER 1 (CONTINUED)

Native Shade Tree	60	Lump	\$-	\$-	Tree Folks NeighborWoods Program
Native Ornamental Tree	60	EA	\$-	\$-	Tree Folks NeighborWoods Program
Mulch	3	CY	\$40.00	\$133.33	Organic, shredded hardwood mulch for trees and display planting areas.
Planting Bed Soil	3	CY	\$65.00	\$216.67	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree pit
Subtotal Planting				\$350.00	

CREEK RESTORATION - PLANTS					Tier 1 Planting for Area 1 includes accent planting at trailheads and restoration planticies removal areas. Community volunteers to collaborate with City of Austin and none Community members and community gardens could learn from local organizations su and save costs. Assumes labor by volunteers with permission from City of Austin pro
Native Grass Live Root Bunch	50	EA	\$20.00	\$1,000.00	Bunches of live roots of native grasses.
Shrub/Cacti	30	EA	\$20.00	\$600.00	1 Gal. containers of native cactii
Native Perennials	200	EA	\$10.00	\$2,000.00	4" pot of native plants planted at trail heads
Vine	30	EA	\$15.00	\$450.00	4" pot native vine to be planted along fences or vertical elements
Mulch	130	CY	\$40.00	\$5,200.00	Organic, shredded hardwood mulch for trees and display planting areas.
Planting Bed Soil	100	CY	\$65.00	\$6,500.00	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree pit
Subtotal Planting				\$15,750.00	

DISCLAIMER ON THE OPINION OF PROBA-

BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

9985 (0.23 acres)	1500 (15%)	8500 (85%)
	500 (5%)	9500 (95%)

I	ts.	

nting with native trees, grasses and perennials at invasive speonprofits to receive wholesale or discounted prices on materials. such as Native Plant Society of Texas to propogate native plants roperty owners.

pits.

OPINION OF PROBABLE COSTS - AREA 1 - TIER 2

	-				
Bonded Hardwood Mulch Loop Trail				\$82,929.88	
At Menchaca Road Trailhead	•	·		\$29,605.11	1/8 mile loop
General Conditions					
Mobilization	1	LS	5%	\$1,357.65	5% of Project Subtotal
Stabilized Construction Access	30	SY	\$15.00	\$450.00	
SWPPP maintenance	3	Month	\$8.00	\$24.00	
Safety and PPE	1	LS	\$500.00	\$500.00	
Job Site Supervision		WK	\$100.00	\$-	projected job duration in weeks
Job Site Fencing and Gate		LF	\$3.80	\$-	Perimeter only
Bond		LS	0.15%	\$40.73	0.15% of Project Subtotal
Insurance		LS	2%	\$543.06	2% of Project Subtotal
Fencing Screen	200	LF	\$2.00	\$400.00	
Fence Sand Bags	20	EA	\$5.50	\$110.00	1 per 10 LF
Tree Protection Fencing					
Temporary Chainlink fence	200	LF	\$3.00	\$600.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	3	Month	\$125.00	\$375.00	
Hardscape					
Bonded Hardwood Mulch	1,980	SF	\$12.50	\$24,750.00	6ft wide hardwood mulch with binder
Grading /Drainage					
Site Grading	147	SY	\$3.10	\$454.67	Grading for accessibility
At Utility Corridor	•	• • • •		\$53,324.77	1/4 mile loop
General Conditions					
Mobilization	1	LS	5%	\$1,357.65	5% of Project Subtotal
Stabilized Construction Access	30	SY	\$15.00	\$450.00	
SWPPP maintenance	3	Month	\$8.00	\$24.00	
Safety and PPE	1	LS	\$500.00	\$500.00	
Job Site Supervision		WK	\$100.00	\$-	projected job duration in weeks
Job Site Fencing and Gate		LF	\$3.80	\$-	Perimeter only
Bond		LS	0.15%	\$40.73	0.15% of Project Subtotal
Insurance		LS	2%	\$543.06	2% of Project Subtotal
Hardscape					

OPINION OF PROBABLE COSTS - AREA 1 - TIER 2 (CONTINUED)

· · ·	1	1	1 1		
Bonded Hardwood Mulch	3,960	SF	\$12.50	\$49,500.00	6ft wide hardwood mulch with binder
Grading /Drainage					
Site Grading	293	SY	\$3.10	\$909.33	Grading for accessibility
Seating -Accessible, Park				\$5,000.00	
Bench	2	EA	\$2,500.00	\$5,000.00	City of Austin PARD benches
Waste Receptables at Trailheads				\$15,000.00	
Litter Receptacles	3	EA	\$2,500.00	\$7,500.00	City of Austin PARD standard
Recycling Receptacles	3	EA	\$2,500.00	\$7,500.00	City of Austin PARD standard
Community Kiosk				\$1,500.00	
Message Board	1	EA	\$1,000.00	\$1,500.00	4ftx6ft wood frame message board with roof
Weather Warning Signage				\$1,800.00	
Metal Post Sign	3	EA	\$600.00	\$1,800.00	Galvanized aluminum post set in concrete, reflective aluminum sign
Geology Interpretive Sign				\$1,000.00	
Metal Sign	1	EA	\$1,000.00	\$1,000.00	Galvanized aluminum post set in concrete, reflective aluminum sign
Wildflower Meadow				\$98,786.11	
At Utility Corridor					Can be done in phases
Soil Removal	1,472	CY	\$10.00	\$14,722.22	
Site Grading	1,472	SY	\$3.10	\$4,563.89	
Wildflower Hydroseed	159,000	SF	\$0.50	\$79,500.00	
Reclaimed Branch Berm				\$-	
Branches 3-inch Diameter		LS	\$-	\$-	
Rock Berm				\$833.33	
9-12-inch Rock	42	CY	\$20.00	\$833.33	Rock berm 1'-6" height max

DISCLAIMER ON THE OPINION OF PROBABLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

OPINION OF PROBABLE COSTS - AREA 1 - TIER 3

Bike Lanes				\$10,600.00	
Jentsch Court					Extension of Jones Road bike lanes east across Menchaca to neighborhood
Striping	530	LF	\$20.00	\$10,600.00	City of Austin standard
Flexible Delineator	35	EA	\$40.00	\$1,413.33	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
Lansing Drive					Extension of Jones Road bike lanes east across Menchaca to neighborhood
Striping	3,400	LF	\$20.00	\$68,000.00	City of Austin standard
Flexible Delineator	227	EA	\$40.00	\$9,066.67	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
High Water Route				\$26,000.00	
Sidewalk on Menchaca to Kings Hwy					Extension of Jones Road bike lanes east across Menchaca to neighborhood
Thermoplastic Pavement Markings	1,300	LF	\$20.00	\$26,000.00	High traffic pavement markings for wayfinding to indicate high water route
Green Infrastructure				\$280,355.46	
Stormwater Quality Feature adjacent to				\$280,355.46	Large stormwater quality feature intercepting stormwater outfall into cree
General Conditions				\$51,331.76	Section to be used when Asakura Robinson is the Prime.
Mobilization		LS	5%	\$13,082.35	5% of Project Subtotal
Stabilized Construction Access	300	SY	\$15.00	\$4,500.00	
SWPPP maintenance	8	Month	\$8.00	\$64.00	
Safety and PPE	8	LS	\$500.00	\$4,000.00	
Job Site Supervision	96	WK	\$100.00	\$9,600.00	projected job duration in weeks
Job Site Fencing and Gate	3,000	LF	\$3.80	\$11,400.00	Perimeter only
Bond		LS	0.15%	\$392.47	0.15% of Project Subtotal
Insurance		LS	2%	\$5,232.94	2% of Project Subtotal
Fencing Screen	1,200	LF	\$2.00	\$2,400.00	
Fence Sand Bags	120	EA	\$5.50	\$660.00	1 per 10 LF
Tree Protection Fencing				\$4,000.00	
Temporary Chainlink fence	1,000	LF	\$3.00	\$3,000.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	8	Month	\$125.00	\$1,000.00	
Demolition				\$10,105.19	
Tree Removal	2	EA	\$10.00	\$20.00	Invasive Species only
Clearing and grubbing of vegetation	14,000	SF	\$0.35	\$4,900.00	
Soil Removal	519	CY	\$10.00	\$5,185.19	

ood trailhead
с.
ood trailhead
с.
ood trailhead
ute
reek

OPINION OF PROBABLE COSTS - AREA 1 - TIER 3 (CONTINUED)

Grading /Drainage				\$88,881.48	
Site Grading	14,000	SF	\$3.10	\$43,400.00	
Landscape Area Drains	2	EA	\$2,000.00	\$4,000.00	Civil to provide connections
Bioinfiltration Media	519	CY	\$80.00	\$41,481.48	
Planting				\$126,037.04	
Ornamental Grass	3,780	EA	\$25.00	\$94,500.00	1 Gal. mix of grasses and perennials- must meet ECM diversity requiremen
Mulch	130	CY	\$65.00	\$8,425.93	3"
Top Soil Fine Grading	156	CY	\$65.00	\$10,111.11	4"
Irrigation	4	ZN	\$2,500.00	\$10,000.00	
Irrigation Meter	1	EA	\$3,000.00	\$3,000.00	2" meter

DISCLAIMER ON THE OPINION OF PROBA-

BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

ents		

OPINION OF PROBABLE COSTS - AREA 2 - TIER 1

IDEA	QUANIIIY	UNII	UNII CUSI	SURIVIAL	Comments
Invasive Species Removal					Costs for this phase could be further reduced by partnering with City of Austin or a local non p ment. Costs in this section indicate approximate cost to purchase equipment. Tier 1 invasive with approval by the City of Austin property owner.
Weed Wrench	3	EA	\$189.00	\$567.00	
Loppers	4	EA	\$50.00	\$200.00	
Mattock	2	EA	\$50.00	\$100.00	
Shovel - Round Point	4	EA	\$50.00	\$200.00	
Aborist Hand Saw	2	EA	\$75.00	\$150.00	
Tree Paint	10	EA	\$6.00	\$60.00	
Tree Girdler Tool	4	EA	\$222.00	\$888.00	
General Conditions Sub-Total				\$2,165.00	
Seating - Informal, Wilderness					May be boulders or logs adjacent to nature trail where uses can rest. Provide informal se by volunteers with permission from City of Austin property owners.
Boulders - Existing	NA	EA	\$-	\$-	Community members may not move existing boulders, but may take advantage of them by outside of the critical environmental feature setback zone.
Logs - Existing		EA	\$-	\$-	Logs may be cut into 4-feet in length or smaller and placed near the trail. No native trees
Log Stumps - Invasive Species Remov-	30	EA	\$-	\$-	Large trees removed in Tier 2 efforts are reclaimed for stumps at outdoor classrooms and
Seating Sub-Total				\$-	
Nature Trail - 1 mile					Assumes labor by volunteers with permission from City of Austin property owners.
Mulch - Wholesale	293	CY	\$40.00	\$11,733.33	First grind mulch placed 3-inches thick on a 6ft wide nature trail. Collaborate with City of
Wood Chipper Rental		DAY	\$400.00	\$-	Cost may be reduced by partnering with local non-profit such as Austin Parks Foundation,
Mulch - Invasive Species		CY	\$-	\$-	Use branches 6-inches or larger. Ensure no branches or seeds are placed into the wood c cies removal may be used to reduce cost of retail mulch.
Nature Trail - 1 mile Sub-Total				\$11,733.33	
Mountain Bike Trail - 1 mile					Assumes labor by volunteers with permission from City of Austin property owners.
Shovel - Round Point	4	EA	\$50.00	\$200.00	No digging over 6-inches to level the trail.
Loppers	4	EA	\$50.00	\$200.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade must be v
Aborist Hand Saw	2	EA	\$75.00	\$150.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade must be v
Tree Paint	10	EA	\$6.00	\$60.00	All pruning areas must be covered in tree paint.
Natural Trail - 1 mile Sub-Total				\$610.00	

profit for use of tools rather than purchasing or renting equipe species removal to involve a group of community volunteers

seating every 1/8-mile for broader access. Assumes labor

by locating a natural trail nearby so long as the area is

es may be cut by community members to create logs. and music grove.

of Austin property owner or non-profit for reduced cost.

on, or City of Austin property owners PARD or WPD

chipper. Grind the mulch twice. Mulch from invasive spe-

washed in bleach between every new tree. washed in bleach between every new tree.

OPINION OF PROBABLE COSTS - AREA 2 - TIER 1 (CONTINUED)

	U	-~	ψι υ.υυ	ψυυ.υυ	ZAHAO NUUYII Jawii Allantic Ucual Unit calcu
Fasteners	3	EA	\$10.00	\$30.00	3-inch Wood Screws
Dried bamboo	0	LS	\$-	\$-	Harvest from invasive species removal
Drill Bit	1	EA	\$12.00	\$12.00	3/8 Drill Bit
4x4 Wood Post	1	EA	\$24.00	\$24.00	4x4x8 Rough Sawn Atlantic Cedar - untreated cut to 3ft length
Subtotal Planting				\$126.00	
CREEK RESTORATION - TREES					Tier 1 Planting for Area 2 tree plantings include small 5 gallon trees sourced from Tree source. Community members and community gardens could also partner with non profit labor by volunteers with permission from City of Austin property owners.
Native Shade Tree	60	Lump	\$-	\$-	Tree Folks NeighborWoods Program
Native Ornamental Tree	60	EA	\$-	\$-	Tree Folks NeighborWoods Program
Mulch	3	CY	\$40.00	\$133.33	Organic, shredded hardwood mulch for trees and display planting areas. To reduce cost,
Planting Bed Soil	3	CY	\$65.00	\$216.67	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree pits.
Subtotal Planting				\$350.00	

CREEK RESTORATION - PLANTS					Tier 1 Planting for Area 1 includes accent planting at trailheads and restoration planting species removal areas. Community volunteers to collaborate with City of Austin and non materials. Community members and community gardens could learn from local organiza native plants and save costs. Assumes labor by volunteers with permission from City of
Native Grass Live Root Bunch	50	EA	\$20.00	\$1,000.00	Bunches of live roots of native grasses.
Shrub/Cacti	30	EA	\$20.00	\$600.00	1 Gal. containers of native cactii
Native Perennials	200	EA	\$10.00	\$2,000.00	4" pot of native plants planted at trail heads
Vine	30	EA	\$15.00	\$450.00	4" pot native vine to be planted along fences or vertical elements
Mulch	130	CY	\$40.00	\$5,200.00	Organic, shredded hardwood mulch for trees and display planting areas. To reduce cost,
Planting Bed Soil	100	CY	\$65.00	\$6,500.00	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree pits.
Subtotal Planting				\$15,750.00	

DISCLAIMER ON THE OPINION OF PROBABLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

e Folks NeighborWoods Program or a similar non-profit fits to propogate native trees for the greenway. Assumes

st, community members may apply for a grant from Austin

ng with native trees, grasses and perennials at invasive onprofits to receive wholesale or discounted prices on zations such as Native Plant Society of Texas to propogate of Austin property owners.

st, community members may apply for a grant from Austin

OPINION OF PROBABLE COSTS - AREA 2 - TIER 2

ltem	Quantity	Unit	Unit Cost	Extension	Comments
Bonded Hardwood Mulch Loop Trail				\$29,605.11	
At Meadow Creek Trailhead				\$29,605.11	1/8 mile loop
General Conditions					
Mobilization	1	LS	5%	\$1,357.65	5% of Project Subtotal
Stabilized Construction Access	30	SY	\$15.00	\$450.00	
SWPPP maintenance	3	Month	\$8.00	\$24.00	
Safety and PPE	1	LS	\$500.00	\$500.00	
Job Site Supervision		WK	\$100.00	\$-	projected job duration in weeks
Job Site Fencing and Gate		LF	\$3.80	\$-	Perimeter only
Bond		LS	0.15%	\$40.73	0.15% of Project Subtotal
Insurance		LS	2%	\$543.06	2% of Project Subtotal
Fencing Screen	200	LF	\$2.00	\$400.00	
Fence Sand Bags	20	EA	\$5.50	\$110.00	1 per 10 LF
Tree Protection Fencing					
Temporary Chainlink fence	200	LF	\$3.00	\$600.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	3	Month	\$125.00	\$375.00	
Hardscape					
Bonded Hardwood Mulch	1,980	SF	\$12.50	\$24,750.00	6ft wide hardwood mulch with binder
Grading /Drainage					
Site Grading	147	SY	\$3.10	\$454.67	Grading for accessibility
Food Forest				\$14,000.00	
Meadow Creek Trailhead on Meadow	1	EA	\$7,000.00	\$7,000.00	
Meadow Creek Trailhead on Radam Circle	1	EA	\$7,000.00	\$7,000.00	
Seating - Informal, Wilderness				\$8,000.00	
Boulders	20	EA	\$400.00	\$8,000.00	4x6 Limestone boulders. Refer to materials list for additional requiremer
Waste Receptables at Trailheads				\$25,000.00	
Litter Receptacles	5	EA	\$2,500.00	\$12,500.00	City of Austin PARD standard
Recycling Receptacles	5	EA	\$2,500.00	\$12,500.00	City of Austin PARD standard
Community Kiosk				\$1,500.00	
Message Board	2	EA	\$1,000.00	\$1,500.00	4ftx6ft wood frame message board with roof
Weather Warning Signage				\$2,400.00	

nts.	
nts.	
	nts

OPINION OF PROBABLE COSTS - AREA 2 - TIER 2 (CONTINUED)

Metal Post Sign	4	EA	\$600.00	\$2,400.00	Galvanized aluminum post set in concrete, reflective aluminum sign
Geology Interpretive Sign				\$4,000.00	
Metal Sign	4	EA	\$1,000.00	\$4,000.00	Galvanized aluminum post set in concrete, reflective aluminum sign
Wildflower Meadow				\$105,620.37	
At Meadow Creek Trailhead				\$18,638.89	
Soil Removal	278	CY	\$10.00	\$2,777.78	
Site Grading	278	SY	\$3.10	\$861.11	
Wildflower Hydroseed	30,000	SF	\$0.50	\$15,000.00	
At Emerald Wood Floodplain Buyouts				\$46,597.22	May be done in phases by each lot.
Soil Removal	694	CY	\$10.00	\$6,944.44	
Site Grading	694	SY	\$3.10	\$2,152.78	
Wildflower Hydroseed	75,000	SF	\$0.50	\$37,500.00	
At Emerald Wood Floodplain Buyouts				\$40,384.26	May be done in phases.
Soil Removal	602	CY	\$10.00	\$6,018.52	
Site Grading	602	SY	\$3.10	\$1,865.74	
Wildflower Hydroseed	65,000	SF	\$0.50	\$32,500.00	
Reclaimed Branch Berm				\$-	
Branches 3-inch Diameter		LS	\$-	\$-	
Rock Berm				\$833.33	
9-12-inch Rock	42	CY	\$20.00	\$833.33	Rock berm 1'-6" height max

DISCLAIMER ON THE OPINION OF PROBA-BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

OPINION OF PROBABLE COSTS - AREA 2 - TIER 3

		<i>,,</i>		•	
Bike Lanes				\$99,733.33	
Radam Circle				\$27,200.00	
Striping	1,200	LF	\$20.00	\$24,000.00	City of Austin standard
Flexible Delineator	80	EA	\$40.00	\$3,200.00	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
Meadow Creek Circle Drive				\$15,866.67	
Striping	700	LF	\$20.00	\$14,000.00	City of Austin standard
Flexible Delineator	47	EA	\$40.00	\$1,866.67	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
Emerald Wood Drive				\$56,666.67	
Striping	2,500	LF	\$20.00	\$50,000.00	City of Austin standard
Flexible Delineator	167	EA	\$40.00	\$6,666.67	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
High Water Route				\$88,000.00	
Emerald Wood Drive					
Thermoplastic Pavement Markings	2,500	LF	\$20.00	\$50,000.00	High traffic pavement markings for wayfinding to indicate high water route
Radam Circle					
Thermoplastic Pavement Markings	1,200	LF	\$20.00	\$24,000.00	High traffic pavement markings for wayfinding to indicate high water route
Meadow Creek Circle Drive					
Thermoplastic Pavement Markings	700	LF	\$20.00	\$14,000.00	High traffic pavement markings for wayfinding to indicate high water route
Green Infrastructure				\$149,610.28	
Rain Garden on Meadow Creek Circle				\$149,610.28	Series of raingardens intercepting stormwater from MeadowCreek Drive b
General Conditions				\$51,331.76	Section to be used when Asakura Robinson is the Prime.
Mobilization		LS	5%	\$13,082.35	5% of Project Subtotal
Stabilized Construction Access	300	SY	\$15.00	\$4,500.00	
SWPPP maintenance	8	Month	\$8.00	\$64.00	
Safety and PPE	8	LS	\$500.00	\$4,000.00	
Job Site Supervision	96	WK	\$100.00	\$9,600.00	projected job duration in weeks
Job Site Fencing and Gate	3,000	LF	\$3.80	\$11,400.00	Perimeter only
Bond		LS	0.15%	\$392.47	0.15% of Project Subtotal
Insurance		LS	2%	\$5,232.94	2% of Project Subtotal
Fencing Screen	1,200	LF	\$2.00	\$2,400.00	
Fence Sand Bags	120	EA	\$5.50	\$660.00	1 per 10 LF
Tree Protection Fencing				\$4,000.00	
Temporary Chainlink fence	1,000	LF	\$3.00	\$3,000.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	8	Month	\$125.00	\$1,000.00	

С.
с.
с.
oute
ute
oute
ve before entering the storwamter inlet

OPINION OF PROBABLE COSTS - AREA 2 - TIER 3 (CONTINUED)

	1				
Tree Removal	2	EA	\$10.00	\$20.00	Invasive Species only
Clearing and grubbing of vegetation	5,200	SF	\$0.35	\$1,820.00	
Soil Removal	193	CY	\$10.00	\$1,925.93	
Grading /Drainage				\$35,527.41	
Site Grading	5,200	SF	\$3.10	\$16,120.00	
Landscape Area Drains	2	EA	\$2,000.00	\$4,000.00	Civil to provide connections
Bioinfiltration Media	193	CY	\$80.00	\$15,407.41	
Planting				\$54,985.19	
Ornamental Grass	1,404	EA	\$25.00	\$35,100.00	1 Gal. mix of grasses and perennials- must meet ECM diversity requireme
Mulch	48	CY	\$65.00	\$3,129.63	3"
Top Soil Fine Grading	58	CY	\$65.00	\$3,755.56	4"
Irrigation	4	ZN	\$2,500.00	\$10,000.00	
Irrigation Meter	1	EA	\$3,000.00	\$3,000.00	2" meter
Stormwater Quality Feature on Radam				\$133,031.39	Large stormwater quality feature intercepting stormwater outfall that cur
General Conditions				\$51,331.76	Section to be used when Asakura Robinson is the Prime.
Mobilization		LS	5%	\$13,082.35	5% of Project Subtotal
Stabilized Construction Access	300	SY	\$15.00	\$4,500.00	
SWPPP maintenance	8	Month	\$8.00	\$64.00	
Safety and PPE	8	LS	\$500.00	\$4,000.00	
Job Site Supervision	96	WK	\$100.00	\$9,600.00	projected job duration in weeks
Job Site Fencing and Gate	3,000	LF	\$3.80	\$11,400.00	Perimeter only
Bond		LS	0.15%	\$392.47	0.15% of Project Subtotal
Insurance		LS	2%	\$5,232.94	2% of Project Subtotal
Fencing Screen	1,200	LF	\$2.00	\$2,400.00	
Fence Sand Bags	120	EA	\$5.50	\$660.00	1 per 10 LF
Tree Protection Fencing				\$4,000.00	
Temporary Chainlink fence	1,000	LF	\$3.00	\$3,000.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	8	Month	\$125.00	\$1,000.00	
Demolition				\$4,151.48	

nents	
urrent lets out into Williamson Creek.	
	if needed,

OPINION OF PROBABLE COSTS - AREA 2 - TIER 3 (CONTINUED)

	1	1	1		
Storm Inlet Removal	1	EA	\$500.00	\$500.00	
Small Drain/Inlet Removal	1	EA	\$250.00	\$250.00	
Manhole Removal	1	EA	\$500.00	\$500.00	
Tree Removal	2	EA	\$10.00	\$20.00	Invasive Species only
Clearing and grubbing of vegetation	4,000	SF	\$0.35	\$1,400.00	
Soil Removal	148	CY	\$10.00	\$1,481.48	
Grading /Drainage				\$28,251.85	
Site Grading	4,000	SF	\$3.10	\$12,400.00	
Landscape Area Drains	2	EA	\$2,000.00	\$4,000.00	Civil to provide connections
Bioinfiltration Media	148	CY	\$80.00	\$11,851.85	
Planting				\$45,296.30	
Ornamental Grass	1,080	EA	\$25.00	\$27,000.00	1 Gal. mix of grasses and perennials- must meet ECM diversity requireme
Mulch	37	CY	\$65.00	\$2,407.41	3"
Top Soil Fine Grading	44	CY	\$65.00	\$2,888.89	4"
Irrigation	4	ZN	\$2,500.00	\$10,000.00	
Irrigation Meter	1	EA	\$3,000.00	\$3,000.00	2" meter

DISCLAIMER ON THE OPINION OF PROBA-

BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

nents		

OPINION OF PROBABLE COSTS - AREA 3 - TIER 1

IDEA	QUANIIIY	UNII	UNII CUSI	SURIUIAL	Comments
Invasive Species Removal				\$2,165.00	Costs for this phase could be further reduced by partnering with City of Austin or a local equipment. Costs in this section indicate approximate cost to purchase equipment. Tier volunteers with approval by the City of Austin property owner.
Weed Wrench	3	EA	\$189.00	\$567.00	
Loppers	4	EA	\$50.00	\$200.00	
Mattock	2	EA	\$50.00	\$100.00	
Shovel - Round Point	4	EA	\$50.00	\$200.00	
Aborist Hand Saw	2	EA	\$75.00	\$150.00	
Tree Paint	10	EA	\$6.00	\$60.00	
Tree Girdler Tool	4	EA	\$222.00	\$888.00	
Seating - Informal, Wilderness				\$-	May be boulders or logs adjacent to nature trail where uses can rest. Provide inform labor by volunteers with permission from City of Austin property owners.
Boulders - Existing	NA	EA	\$-	\$-	Community members may not move existing boulders, but may take advantage of th is outside of the critical environmental feature setback zone.
Logs - Existing		EA	\$-	\$-	Logs may be cut into 4-feet in length or smaller and placed near the trail. No native t
Log Stumps - Invasive Species Removal	30	EA	\$-	\$-	Large trees removed in Tier 2 efforts are reclaimed for stumps at outdoor classroom
Nature Trail - 2 miles				\$23,466.67	Assumes labor by volunteers with permission from City of Austin property owners.
Mulch - Wholesale	587	CY	\$40.00	\$23,466.67	First grind mulch placed 3-inches thick on a 6ft wide nature trail. Collaborate with Ci
Wood Chipper Rental		DAY	\$400.00	\$-	Cost may be reduced by partnering with local non-profit such as Austin Parks Found
Mulch - Invasive Species		CY	\$-	\$-	Use branches 6-inches or larger. Ensure no branches or seeds are placed into the wo species removal may be used to reduce cost of retail mulch.
Mountain Bike Trail - 1 mile				\$610.00	Assumes labor by volunteers with permission from City of Austin property owners.
Shovel - Round Point	4	EA	\$50.00	\$200.00	No digging over 6-inches to level the trail.
Loppers	4	EA	\$50.00	\$200.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade mus
Aborist Hand Saw	2	EA	\$75.00	\$150.00	For pruning branches 2-inch diameter in size or less adjacent to the trail. Blade mus
Tree Paint	10	EA	\$6.00	\$60.00	All pruning areas must be covered in tree paint.
Pollinator Nesting Boxes				\$126.00	Assumes labor by volunteers with permission from City of Austin property owners. O boxes.
Wood Boards	6	EA	\$10.00	\$60.00	2x4x8 Rough Sawn Atlantic Cedar - untreated
Fasteners	3	EA	\$10.00	\$30.00	3-inch Wood Screws
Dried bamboo	0	LS	\$-	\$-	Harvest from invasive species removal
Drill Bit	1	EA	\$12.00	\$12.00	3/8 Drill Bit
4x4 Wood Post	1	EA	\$24.00	\$24.00	4x4x8 Rough Sawn Atlantic Cedar - untreated cut to 3ft length

al non profit for use of tools rather than purchasing or renting or 1 invasive species removal to involve a group of community

rmal seating every 1/8-mile for broader access. Assumes

them by locating a natural trail nearby so long as the area

ve trees may be cut by community members to create logs. oms and music grove.

City of Austin property owner or non-profit for reduced cost. ndation, or City of Austin property owners PARD or WPD wood chipper. Grind the mulch twice. Mulch from invasive

ust be washed in bleach between every new tree.

ust be washed in bleach between every new tree.

. Quantities of materials will be sufficient for up to 6 nesting

OPINION OF PROBABLE COSTS - AREA 3 - TIER 1 (CONTINUED)

CREEK RESTORATION - TREES				\$350.00	Tier 1 Planting for Area 2 tree plantings include small 5 gallon trees sourced from non-profit source. Community members and community gardens could also partne way. Assumes labor by volunteers with permission from City of Austin property ow
Native Shade Tree	60	Lump	\$-	\$-	Tree Folks NeighborWoods Program
Native Ornamental Tree	60	EA	\$-	\$-	Tree Folks NeighborWoods Program
Mulch	3	CY	\$40.00	\$133.33	Organic, shredded hardwood mulch for trees and display planting areas. To reduce Austin Parks Foundation.
Planting Bed Soil	3	CY	\$65.00	\$216.67	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree
CREEK RESTORATION - PLANTS				\$15,750.00	Tier 1 Planting for Area 1 includes accent planting at trailheads and restoration pla sive species removal areas. Community volunteers to collaborate with City of Aust es on materials. Community members and community gardens could learn from lo propogate native plants and save costs. Assumes labor by volunteers with permise
Native Grass Live Root Bunch	50	EA	\$20.00	\$1,000.00	Bunches of live roots of native grasses.
Shrub/Cacti	30	EA	\$20.00	\$600.00	1 Gal. containers of native cactii
Native Perennials	200	EA	\$10.00	\$2,000.00	4" pot of native plants planted at trail heads
Vine	30	EA	\$15.00	\$450.00	4" pot native vine to be planted along fences or vertical elements
Mulch	130	CY	\$40.00	\$5,200.00	Organic, shredded hardwood mulch for trees and display planting areas. To reduce Austin Parks Foundation.
Planting Bed Soil	100	CY	\$65.00	\$6,500.00	Organic topsoil from Organics by Gosh or similar to add to planting areas and tree

DISCLAIMER ON THE OPINION OF PROB-ABLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

Tree Folks NeighborWoods Program or a similar
er with non profits to propogate native trees for the green-
wners.

ce cost, community members may apply for a grant from

e pits.

lanting with native trees, grasses and perennials at invastin and nonprofits to receive wholesale or discounted priclocal organizations such as Native Plant Society of Texas to ission from City of Austin property owners.

ce cost, community members may apply for a grant from

e pits.

OPINION OF PROBABLE COSTS - AREA 3 - TIER 2

Item	Quantity	Unit	Unit Cost	Extension	Comments
Bonded Hardwood Mulch Loop Trail				\$29,605.11	
At Orland Trailhead				\$29,605.11	1/8 mile loop
General Conditions					
Mobilization	1	LS	5%	\$1,357.65	5% of Project Subtotal
Stabilized Construction Access	30	SY	\$15.00	\$450.00	
SWPPP maintenance	3	Month	\$8.00	\$24.00	
Safety and PPE	1	LS	\$500.00	\$500.00	
Job Site Supervision		WK	\$100.00	\$-	projected job duration in weeks
Job Site Fencing and Gate		LF	\$3.80	\$-	Perimeter only
Bond		LS	0.15%	\$40.73	0.15% of Project Subtotal
Insurance		LS	2%	\$543.06	2% of Project Subtotal
Fencing Screen	200	LF	\$2.00	\$400.00	
Fence Sand Bags	20	EA	\$5.50	\$110.00	1 per 10 LF
Tree Protection Fencing					
Temporary Chainlink fence	200	LF	\$3.00	\$600.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	3	Month	\$125.00	\$375.00	
Hardscape					
Bonded Hardwood Mulch	1,980	SF	\$12.50	\$24,750.00	6ft wide hardwood mulch with binder
Grading /Drainage					
Site Grading	147	SY	\$3.10	\$454.67	Grading for accessibility
Food Forest				\$14,000.00	
Heartwood Community Garden	1	EA	\$7,000.00	\$7,000.00	
Orland Trailhead	1	EA	\$7,000.00	\$7,000.00	
Seating - Informal, Wilderness				\$16,000.00	
Boulders	40	EA	\$400.00	\$16,000.00	4x6 Limestone boulders. Refer to materials list for additional requirement
Waste Receptables at Trailheads				\$30,000.00	
Litter Receptacles	6	EA	\$2,500.00	\$15,000.00	City of Austin PARD standard
Recycling Receptacles	6	EA	\$2,500.00	\$15,000.00	City of Austin PARD standard
Community Kiosk				\$1,500.00	
Message Board	2	EA	\$1,000.00	\$1,500.00	4ftx6ft wood frame message board with roof
Weather Warning Signage				\$3,600.00	
Metal Post Sign	6	EA	\$600.00	\$3,600.00	Galvanized aluminum post set in concrete, reflective aluminum sign

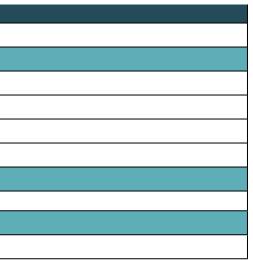
nts.

OPINION OF PROBABLE COSTS - AREA 3 - TIER 2 (CONTINUED)

Geology Interpretive Sign				\$4,000.00	
Metal Sign	4	EA	\$1,000.00	\$4,000.00	Galvanized aluminum post set in concrete, reflective aluminum sign
Wildflower Meadow				\$71,759.72	
At Heartwood Drive Floodplain Buyouts				\$71,759.72	May be done in phases by each lot.
Soil Removal	1,069	CY	\$10.00	\$10,694.44	
Site Grading	1,069	SY	\$3.10	\$3,315.28	
Wildflower Hydroseed	115,500	SF	\$0.50	\$57,750.00	
Reclaimed Branch Berm				\$-	
Rock Berm				\$5,000.00	
9-12-inch Rock	250	CY	\$20.00	\$5,000.00	Rock berm 1'-6" height max

DISCLAIMER ON THE OPINION OF PROBA-BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.



OPINION OF PROBABLE COSTS - AREA 3 - TIER 3

Bike Lanes				\$74,800.00	
Ramble Lane				\$56,666.67	
Striping	2,500	LF	\$20.00	\$50,000.00	City of Austin standard
Flexible Delineator	167	EA	\$40.00	\$6,666.67	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
Meadow Creek Circle Drive				\$18,133.33	
Striping	800	LF	\$20.00	\$16,000.00	City of Austin standard
Flexible Delineator	53	EA	\$40.00	\$2,133.33	Flexible Delineator between bike lane and vehicular lane spaced 15ft o.c.
High Water Route				\$50,000.00	
South 1st Street					
Thermoplastic Pavement Markings	2,500	LF	\$20.00	\$50,000.00	High traffic pavement markings for wayfinding to indicate high water route
Boardwalk				\$120,000.00	
Orland Trailhead					
Wood Boardwalk with Steel Structure	400	LF	\$300.00	\$120,000.00	Boardwalk with 42-inch guardrails to create ADA route to nature trails and
Green Infrastructure				\$613,961.85	
Rain Garden on Heartwood Drive Buyouts				\$94,637.87	Series of raingardens intercepting stormwater from MeadowCreek Drive b
General Conditions				\$51,331.76	Section to be used when Asakura Robinson is the Prime.
Mobilization		LS	5%	\$13,082.35	5% of Project Subtotal
Stabilized Construction Access	300	SY	\$15.00	\$4,500.00	
SWPPP maintenance	8	Month	\$8.00	\$64.00	
Safety and PPE	8	LS	\$500.00	\$4,000.00	
Job Site Supervision	96	WK	\$100.00	\$9,600.00	projected job duration in weeks
Job Site Fencing and Gate	3,000	LF	\$3.80	\$11,400.00	Perimeter only
Bond		LS	0.15%	\$392.47	0.15% of Project Subtotal
Insurance		LS	2%	\$5,232.94	2% of Project Subtotal
Fencing Screen	1,200	LF	\$2.00	\$2,400.00	
Fence Sand Bags	120	EA	\$5.50	\$660.00	1 per 10 LF
Tree Protection Fencing				\$4,000.00	
Temporary Chainlink fence	1,000	LF	\$3.00	\$3,000.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	8	Month	\$125.00	\$1,000.00	
Demolition				\$1,100.56	
Tree Removal	2	EA	\$10.00	\$20.00	Invasive Species only
Clearing and grubbing of vegetation	1,500	SF	\$0.35	\$525.00	
Soil Removal	56	CY	\$10.00	\$555.56	
Grading /Drainage				\$13,094.44	

- i

ite
nd creek
e before entering the storwamter inlet and creek

OPINION OF PROBABLE COSTS - AREA 3 - TIER 3 (CONTINUED)

Grading /Drainage				\$13,094.44	
Site Grading	1,500	SF	\$3.10	\$4,650.00	
Landscape Area Drains	2	EA	\$2,000.00	\$4,000.00	Civil to provide connections
Bioinfiltration Media	56	CY	\$80.00	\$4,444.44	
Planting				\$25,111.11	
Ornamental Grass	405	EA	\$25.00	\$10,125.00	1 Gal. mix of grasses and perennials- must meet ECM diversity requireme
Mulch	14	CY	\$65.00	\$902.78	3"
Top Soil Fine Grading	17	CY	\$65.00	\$1,083.33	4"
Irrigation	4	ZN	\$2,500.00	\$10,000.00	
Irrigation Meter	1	EA	\$3,000.00	\$3,000.00	2" meter
Stormwater Quality Feature on Englewood				\$519,323.98	Large stormwater quality feature intercepting stormwater outfall that cur
General Conditions				\$51,331.76	Section to be used when Asakura Robinson is the Prime.
Mobilization		LS	5%	\$13,082.35	5% of Project Subtotal
Stabilized Construction Access	300	SY	\$15.00	\$4,500.00	
SWPPP maintenance	8	Month	\$8.00	\$64.00	
Safety and PPE	8	LS	\$500.00	\$4,000.00	
Job Site Supervision	96	WK	\$100.00	\$9,600.00	projected job duration in weeks
Job Site Fencing and Gate	3,000	LF	\$3.80	\$11,400.00	Perimeter only
Bond		LS	0.15%	\$392.47	0.15% of Project Subtotal
Insurance		LS	2%	\$5,232.94	2% of Project Subtotal
Fencing Screen	1,200	LF	\$2.00	\$2,400.00	
Fence Sand Bags	120	EA	\$5.50	\$660.00	1 per 10 LF
Tree Protection Fencing				\$4,000.00	
Temporary Chainlink fence	1,000	LF	\$3.00	\$3,000.00	5' ht. per details, with sandbags for stability
Arborist/Forester consultation	8	Month	\$125.00	\$1,000.00	
Demolition				\$22,881.11	
Storm Inlet Removal	1	EA	\$500.00	\$500.00	
Small Drain/Inlet Removal	1	EA	\$250.00	\$250.00	
Manhole Removal	1	EA	\$500.00	\$500.00	
Tree Removal	2	EA	\$10.00	\$20.00	Invasive Species only
Clearing and grubbing of vegetation	30,000	SF	\$0.35	\$10,500.00	
Soil Removal	1,111	CY	\$10.00	\$11,111.11	
Grading /Drainage				\$185,888.89	
Site Grading	30,000	SF	\$3.10	\$93,000.00	

aanta
nents
urrent lets out into Williamson Creek.

OPINION OF PROBABLE COSTS - AREA 3 - TIER 3 (CONTINUED)

Site Grading	30,000	SF	\$3.10	\$93,000.00	
Landscape Area Drains	2	EA	\$2,000.00		Civil to provide connections
Bioinfiltration Media	1,111	CY	\$80.00	\$88,888.89	
Planting				\$255,222.22	
Ornamental Grass	8,100	EA	\$25.00	\$202,500.00	1 Gal. mix of grasses and perennials- must meet ECM diversity requirem
Mulch	278	CY	\$65.00	\$18,055.56	3"
Top Soil Fine Grading	333	CY	\$65.00	\$21,666.67	4"
Irrigation	4	ZN	\$2,500.00	\$10,000.00	
Irrigation Meter	1	EA	\$3,000.00	\$3,000.00	2" meter

DISCLAIMER ON THE OPINION OF PROBA-BLE CONSTRUCTION COST

This opinion of probable construction cost is made on the basis of Asakura Robinson's experience and qualifications, and represents Asakura Robinson's best judgment as an experienced and qualified professional generally familiar with the industry. However, since Asakura Robinson has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Asakura Robinson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost as prepared by Asakura Robinson.

Appendix D ALL TOOLKIT ITEMS





. 0-

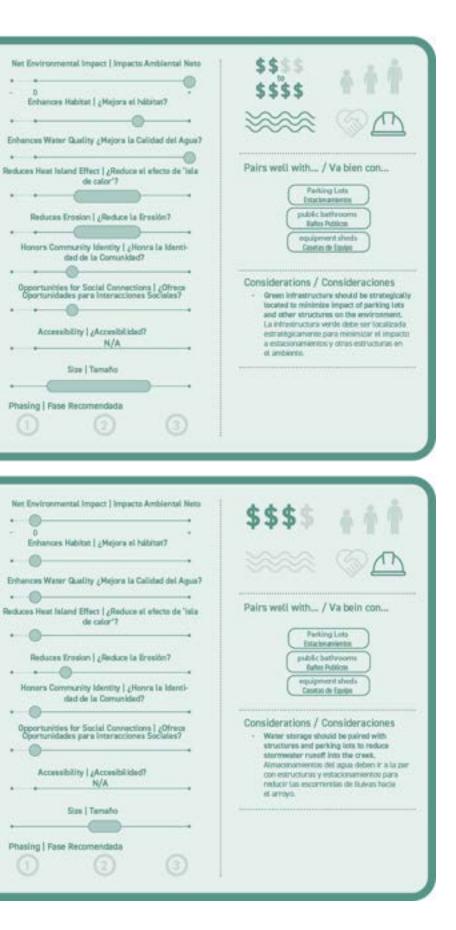
. .

. .

0

Q





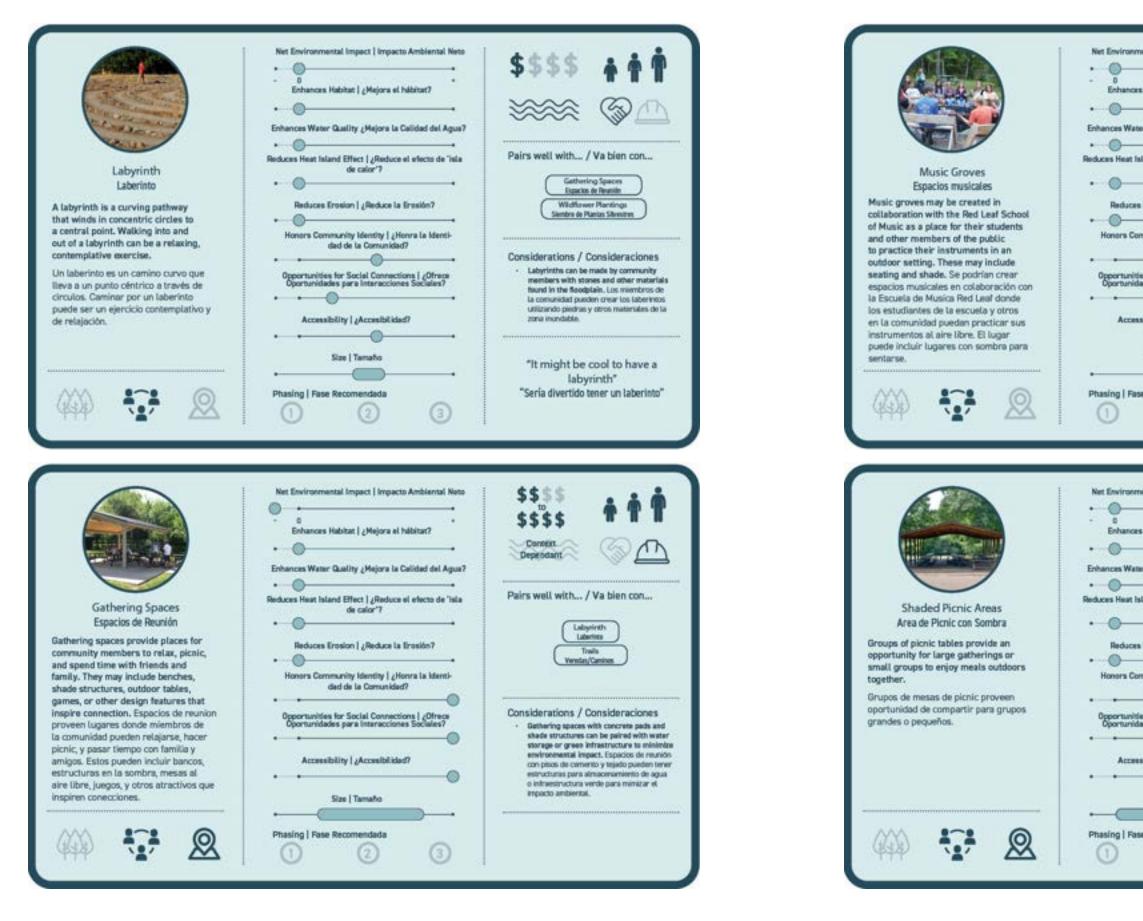


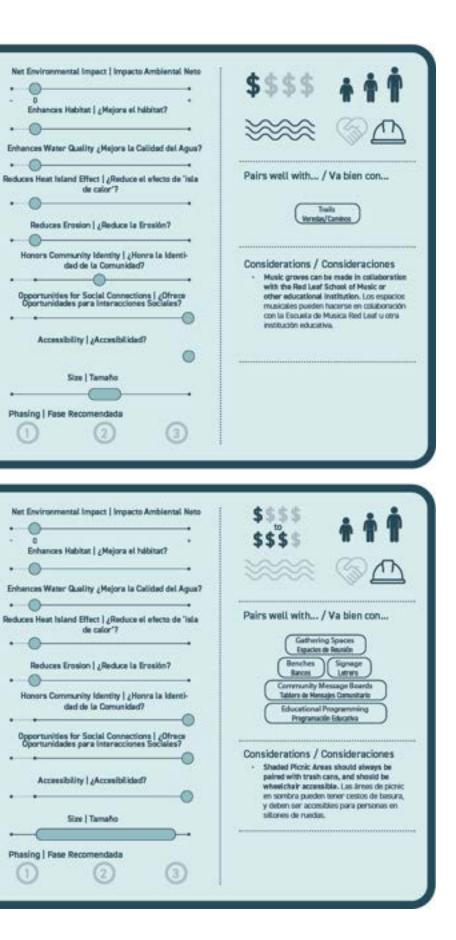




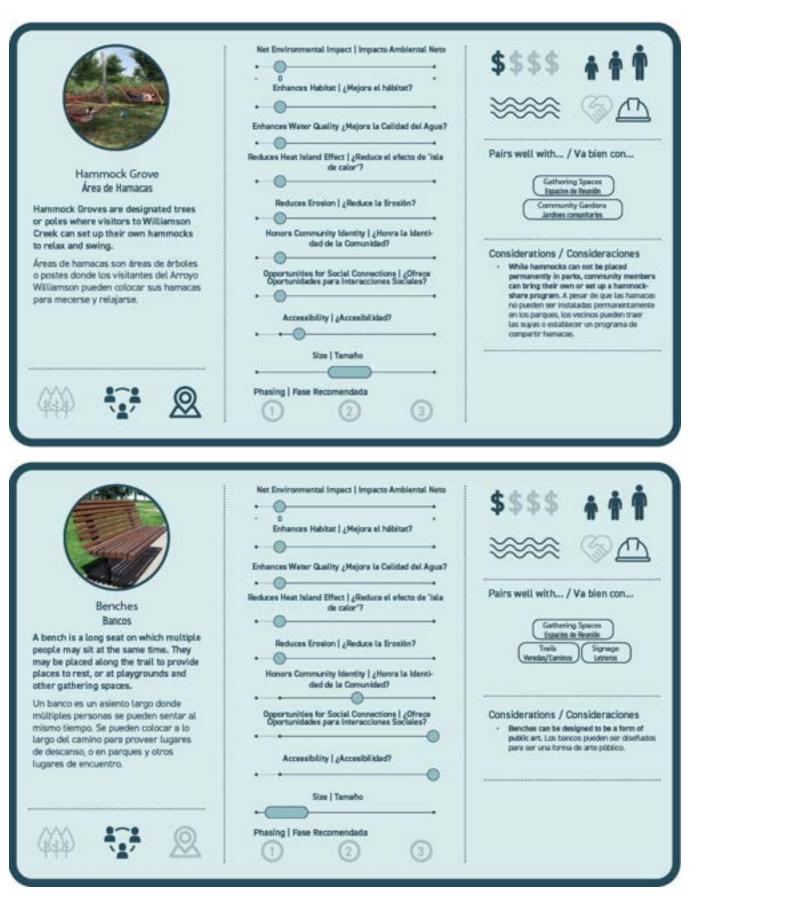
<form></form>		
Indexes Halter plagers in Calified del Agent Calified Connections plackas in beneard on the Calified Connections plackas in beneard on the Calified Connections plackas in beneard Calified Connections plackas in beneard Calified Connections plackas Calified Connections Calified Con	and a second	
 Exhemose Habiter (Majore al Nabiter) Exhemose Weiter Quality (Majore la Calidad del Aguer) Bedoese Heate halond Effect (Reduce al electes de vitals de calor? Bedoese Heate halond Effect (Reduce la Estession) Gooreneres for Social Connections Socialer Gooreneres for Social Connections Socialer Beating Fase Recommendation Beating Fase Recommendations (Resp. al halons) Beating Fase Recommendations (Resp. al halons) Beating Fase Recommendations (Resp. al halons) Beating Accessibility (Accessibilitient) Beating Fase Recommendations (Resp. al halons) Beating Fase Recommendations	Net controlmental impact (impacts Ambiental Nets	**** • * *
 Exhemose Habiter (Majore al Nabiter) Exhemose Weiter Quality (Majore la Calidad del Aguer) Bedeces Heat halond Effect (Reduce al electes de vitals de calor? Bedeces Efficien (Reduce la Efficient) Honres Commentity (Marres la Materi der de la Consultation Oportunities para la fiscación de socialization Consultation of the consultation Bedres Habiter (Majore al Nabiert) Bedres Efficient (Majore al Nabiert) Belling Fase Recommentital Impact Impacto Antisental Rest Bedress Habiter (Majore al Nabiert) Bedress Ha	• •	3333 641
 Particular Street glinetices at electron de leitors de la concentration glinetices for statum glinetices la formation glinetices de la concentration glinetices de la concentration	Enhances Habitat 1 ¿Mejora el hábitat?	
 Particular Street glinetices at electron de leitors de la concentration glinetices for statum glinetices la formation glinetices de la concentration glinetices de la concentration		
 Particular Street glinetices at electron de leitors de la concentration glinetices for statum glinetices la formation glinetices de la concentration glinetices de la concentration	and the second se	
 Bedices Ersain jhease is Ersain Bedices Ersain jhease is Bedices Bedices Ersain jhease Bedices Ersain jhease Bedices Ersain	Enhances Water Quality ¿Hejora La Calidad del Agua?	and the second s
 Bedices Ersain jhease is Ersain Bedices Ersain jhease is Bedices Bedices Ersain jhease Bedices Ersain jhease Bedices Ersain		
 Bedices Ersain jhease is Ersain Bedices Ersain jhease is Bedices Bedices Ersain jhease Bedices Ersain jhease Bedices Ersain	Deck some illesent beilanget Ethiope 1 allestations all advertes die Tatle	Pairs well with / Va bien con
 Referencemental lengent Impacts Andersema later Referencemental l		
Induces Ension (Reduce is Ension?) Honors Community Hamity (Honors is Island: didd's is Consultation?) Opportunities for Social Connections (Office) Essa Tamafo Description Response Description (Response Desco		(unthering spaces
 Honors Community Honority / Honors is Island. Operandicas for Social Connections / Offeer Research Honors Social Connections / Offeer Passing Fase Recommendate Connect to patchwork lots vis the Richmond tobs: This is a state in the second state is there is a Tamafo Brance Honors and a state in the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is there is a long of the second state is the second state		Equation do Reambin
 Honors Community Honority / Honors is Island. Operandicas for Social Connections / Offeer Research Honors Social Connections / Offeer Passing Fase Recommendate Connect to patchwork lots vis the Richmond tobs: This is a state in the second state is there is a Tamafo Brance Honors and a state in the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is the second state is there is a long of the second state is there is a long of the second state is the second state	Reduces Erosten 1 / Reduce 1a Erosión?	Benches creek restoration
Henores Community Hentity jAinway Opcontunities for Social Connections 1 julies Opcontunities for Social		Lances Astauractic del Arrays
Operation were and the same interview of the second sec	and the second sec	
Operation were and the same interview of the second sec	Honors Community Identity ¿Honra la Identi-	Egalget de Diempels al Atre Libre
Accessibility [Accessibility] Accessibility [Accessib	dad de la Comunidad?	
Accessibility [Accessibility] Accessibility [Accessib		and the second sec
Considerations / Considerations Considerations / Considerations Consideratio	Opportunities for Social Connections ¿Ofrege	considerations / Considerationes
Accessibility ¿Accessibilidad? Accessibility ¿Accessibilidad? Preasing Fase Recommendada Preasing Fase Recommendada Comment to patchwork lots vis the Richmond the Donkes shody htts, we could do a the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce registedates ato targe dei ribbaris Ritioned. Be task we could do the Donkes'' Counce ato atom at the Richards Ritioned Angelow Richards Ritioned (Richards la Ritioned de color'') Richards Ritioned (Richards la Ritioned de la Community (Accessibilitied?) Richards Ritioned (Richards la Ritioned de la Community (Accessibilitied?) Richards Ritioned (Richards la Ritioned Richards Ritioned (Richards la Ritioned Ritioned Ritioned (Richards la Ritioned Ritioned Ritioned Rit	Oportunistades para Interacciones Sociales?	 Natural, trails may be ended during float
Accessibility Accessibilities Exis Tamaho Brasing Face Recommendida Phasing Face Recommendida Comment to patchwork lots via the Richmond tob. On these shady lots, we could do a figure 6 mado. Intel, focus on biolowensky, missibonches: 'Comment prepadates also cape of tributers Richmond, Ele sites expode ton softer apode sacer una Spin al 'command, entrante entra sodeworddd, e Instate taxos.' Memory Comment and Report Arguetto Ambiental Nets	• • • • •	our eropioriadas durante terrindos de
Image: Search and	And a state of the second	
site Taesaho Phasing Pase Recommendada Phasing Pase Recommendada Phasing Pase Recommendada this Control second provide a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos de lot tae de de las Communitades para line reconserver (a lot para tae Reconstituint gReckues la threather) Reconstituint gReckues la threather) Reconsti	Accessibility ¿Accessibilidad?	
site Taesaho Phasing Pase Recommendada Phasing Pase Recommendada Phasing Pase Recommendada this Control second provide a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos reports reported a lot targe det intratris & much tae etcos de lot tae de de las Communitades para line reconserver (a lot para tae Reconstituint gReckues la threather) Reconstituint gReckues la threather) Reconsti		and an
Prasting Fase Recommendada Phasting Fase Recommendada Image: Provide the second second on a block wereity, install benches: "Councer proposed and instants on a book on some a second seco		"Connect to petchwork lots via the Richmond
Phasing Fase Recommendada	Size Temaho	trib. On these shady lats, we could do a
And tributine Rithmand. Be explored on somethy are of a sport is norm use higher of can mailing, without e on la tool wondult, e instatur barces." Image: State Property of State Pro		figure 8'mulch treil, focus on blodiversity.
Net Devicemental Inspact Impacts Ambiental Nets Impacts Habiter ¿Hejors el Nabient] Impacts Habiter ¿Hejors el Nabient] Impacts Habit faland Effect ¿Bobuce el el terselor! Impacts Erminn ¿Bobuce el terselor! <td< th=""><th></th><th>install benches." "Colectar propiedades a to targe</th></td<>		install benches." "Colectar propiedades a to targe
Net Devicemental Inspact Impacts Ambiental Nets Impacts Habiter ¿Hejors el Nabient] Impacts Habiter ¿Hejors el Nabient] Impacts Habit faland Effect ¿Bobuce el el terselor! Impacts Erminn ¿Bobuce el terselor! <td< th=""><th>Phasing Fase Recomendada</th><th>del tributario Richmond, En estos espacios con sombra</th></td<>	Phasing Fase Recomendada	del tributario Richmond, En estos espacios con sombra
Net Devicemental Inspact Impacts Ambiental Nets Impacts Habiter ¿Hejors el Nabient] Impacts Habiter ¿Hejors el Nabient] Impacts Habit faland Effect ¿Bobuce el el terselor! Impacts Erminn ¿Bobuce el terselor! <td< th=""><th></th><th>se podris hacer una "legara 8' con manifia, estocarse en la</th></td<>		se podris hacer una "legara 8' con manifia, estocarse en la
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature		The second second as the second
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature		Development and an allocation construction
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature		DAMAGE DAMA I HIGHLY GARDE
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature	0 0 0 1	Excertitions' E storage partor
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature		Excertitions, E Finder Berton.
Britances Habitet ¿Hejors el Nabitet? Entances Habitet ¿Hejors el Nabitet? Entances Haut Island Effect ¿Beduce el entecto de Isla de calor? Reduces Ereston ¿Beduce la Bresilet? Honers Commenting Identity ¿Herera la Islanti de calor? Peirs well with / Va bien con Crese Infrastructure Indentructure Well Materiaturature well Materiaturature		EXCHANGE E FINANE DURING
B Exhances Habitet ¿Hejors el Nábitet? Exhances Habitet ¿Hejors el Calidad del Agua? B Exhances Haut Island Effect ¿Reduce el electe de 'Isla B Calida? B Calida? B Calida? B Calidad del Agua? B Calida? B <		
Erhances Habitel ¿Hejors il Abbitel? Friences Weter Quality (Hejors il Calitad del Agus? Friences Heat Island Effect (Reduce el effect de 'Isla de calor'? Reduces Ereston (Reduce la Breetor? Reduces Ereston Reduce la Breetor? Reduces Ereston (Reduce la Breetor? Reduces Ereston Reduce la Breetor. Reduces Ereston Reduce la Breetor. R		
Enhances Weiter Quality eNegons is Calified del Agus? Broduces Heart Island Effect ¿Beduces el electa de Isla Broduces Eresion ¿Beduce is Bresión? Broduces Eresion ¿Beduces is Bresión? Broduces Eresion ¿Accessibility ¿Accessibility Size Tamañe Phasing Fase Recommendada		
Pairs well with / Va bien con Commission {Reduces at attempts de 'tals de calor'? Reduces Breatin {Reduce ta Breation? Reduces Breatin {Reduce ta Breation? Reduces Communitied? Reduces for Social Connections {Offree? Reduces pare Interacciones Sociale? Reduces pare Interacciones Pare Interaccio	Ner Environmental Impact Impacto Ambiental Nets	
Pairs well with / Va bien con Commission {Reduces at attempts de 'tals de calor'? Reduces Breatin {Reduce ta Breation? Reduces Breatin {Reduce ta Breation? Reduces Communitied? Reduces for Social Connections {Offree? Reduces pare Interacciones Sociale? Reduces pare Interacciones Pare Interaccio	Nen Environmental Impacts Impacts Ambiental Nets	
Pairs well with / Va bien con Commission {Reduces at attempts de 'tals de calor'? Pairs well with / Va bien con Commission {Reduces to the transfer the calor'? Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Pairs well with / Va bien con Commission {Reduces to the transfer Pairs well with / Va bien con Pairs wel	Nen Environmental Impacts Impacts Ambiental Nets	\$\$\$\$ + + +
Reduces Heart Island Effect ¿Reduce et elses de 'Isla Beduces Fresion ¿Reduce la Bresión? Beduces Eresion ¿Reduce la Bresión? Honars Communidades para l'Interne la Islanti- dad de la Comunidad? Opportuntidades para l'Interne la Islanti- dad de la Comunidad? Opportuntidades para l'Interne la Islanti- dad de la Comunidad? Opportuntidades para l'Interneciones Sociales? Accessibility ¿Accessibilidad? Sea Tamaño Phasing Fase Recommendida	Nen Environmental Impacts Impacts Ambiental Nets	\$\$\$\$ + + +
de calor ² de calor ² Reduces Broston { / Beduce la Broston? de da la Comunidades de la Comunidades de la Comunidades para listanociones Sociales? Considerations / Considerationes Deportanties for Social Connections / Offense Opportanties for Social Connections Accessibility / Accessibilitated? Opportanties para listeracciones Social Tamato There is nowhere to dispose of trash or park. Recommend small parking lot here." "No hay donde tirar la basura o estacionarse. Recomendar un pequeño	Nen Environmental Impacts Impacto Ambiental Neto 0 Enhances Habitet ¿Hejons el Nábiten?	\$\$\$\$ + + +
de calor ² de calor ² Reduces Broston { / Beduce la Broston? de da la Comunidades de la Comunidades de la Comunidades para listanociones Sociales? Considerations / Considerationes Deportanties for Social Connections / Offense Opportanties for Social Connections Accessibility / Accessibilitated? Opportanties para listeracciones Social Tamato There is nowhere to dispose of trash or park. Recommend small parking lot here." "No hay donde tirar la basura o estacionarse. Recomendar un pequeño	Nen Environmental Impacts Impacto Ambiental Neto 0 Enhances Habitet ¿Hejons el Nábiten?	\$\$\$\$ + + +
Reduces Ensation { ¿Bodace la Ensation? Beduces Ensation { ¿Bodace la Ensation? Honers Communitées? Opportunctions for Social Connections ¿Ofrem? Opportunctides para Interacciones Sociales? Accessibility ¿Accessibilidads? Sate Tansato Phasing Fase Recommendata	Ner Environmental Impact Impacto Ambiental Neto D Enhances Habitet ¿Hejors el hábitet? Enhances Weer Quality ¿Hejors la Calibled del Agua?	\$\$\$\$ • • • •
Reduces Enssion ¿Reduce la Enssion? Industra Community Identity ¿Honra la Identi- dad de la Comunidad? Opportunities for Social Connections ¿Ofrem Opportunities para linteracciones Sociales? Opportunities for Social Connections ¿Ofrem Opportunities para linteracciones Sociales? Accessibility ¿Accessibilidad? Size Tamaño Fhasing Fase Recommendata	Nen Environmental Impact Impacto Ambiental Neto 0 Enhances Habitat ¿Hejora el Nábitat? Enhances Weter Quality ¿Hejora la Calidad del Agua? Meduces Heat Island Effect ¿Reduce el efecto de 'Isla	\$\$\$\$ • • • •
Reduces Enssion ¿Reduce la Enssion? Industra Community Identity ¿Honra la Identi- dad de la Comunidad? Opportunities for Social Connections ¿Ofrem Opportunities para linteracciones Sociales? Opportunities for Social Connections ¿Ofrem Opportunities para linteracciones Sociales? Accessibility ¿Accessibilidad? Size Tamaño Fhasing Fase Recommendata	Nen Environmental Impact Impacto Ambiental Neto 0 Enhances Habitat ¿Hejora el Nábitat? Enhances Weter Quality ¿Hejora la Calidad del Agua? Meduces Heat Island Effect ¿Reduce el efecto de 'Isla	\$\$\$\$ • • • •
Considerations / Considerations Considerat	Nen Environmental Impact Impacto Ambiental Neto 0 Enhances Habitat ¿Hejora el Nábitat? Enhances Weter Quality ¿Hejora la Calidad del Agua? Meduces Heat Island Effect ¿Reduce el efecto de 'Isla	\$\$\$\$ * * * **** Pairs well with / Va bien con
dad de la Consultado? Considerations / Considerations / Considerations Opportuntidades para listanociones Sociales? Opportuntidades para listanociones Sociales? Accessibility / ¿Accessibilidads? Sate Tamaño Sate Tamaño Phasing Fase Recomendaida Considerations / Conside	Nen Environmental Impact Impacto Ambiental Neto Brhances Habiter ¿Hejors el Nábiter? Enhances Weter Quellity ¿Hejors la Calitidad del Agun? Reduces Heat Island Effect ¿Reduce el efecto de 'Isla de calor'?	\$\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
dad de la Consultado? Considerations / Considerations / Considerations Opportuntidades para listanociones Sociales? Opportuntidades para listanociones Sociales? Accessibility / ¿Accessibilidads? Sate Tamaño Sate Tamaño Phasing Fase Recomendaida Considerations / Conside	Nen Environmental Impact Impacto Ambiental Neto Brhances Habiter ¿Hejors el Nábiter? Enhances Weter Quellity ¿Hejors la Calitidad del Agun? Reduces Heat Island Effect ¿Reduce el efecto de 'Isla de calor'?	\$\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
dad de la Consultado? Considerations / Considerations / Considerations Opportuntidades para listanociones Sociales? Opportuntidades para listanociones Sociales? Accessibility / ¿Accessibilidads? Sate Tamaño Sate Tamaño Phasing Fase Recomendaida Considerations / Conside	Nen Environmental Impact Impacto Ambiental Neto Brhances Habiter ¿Hejors el Nábiter? Enhances Weter Quellity ¿Hejors la Calitidad del Agun? Reduces Heat Island Effect ¿Reduce el efecto de 'Isla de calor'?	\$\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Pertiag shauld be pared with greas Opportunctions for Social Connections 1, Offrem Opportunctions for Social and Proven is transmeter Connections Socializer? Preside and the parent is the weaking into Accessibility ¿Accessibilided? Size Tensels Size Tensels Preside and the parent is the social and parent is the parent is the parent is the parent is the social and proven is the social and proven is the parent is the social and proven is the social and provent is the social and proven is the social and proventies of tranships of the social and provent and proventies of tranships of the social and provent a	Ner Environmental Impect Impecto Ambiental Nets	\$\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Opportunities for Social Connections I / Ofrem Opertunities for Social and Powers in them weating into Opertunities para Interactiones Socialer? Interaction to cappare starmseter result and powers in them weating into the oresk. Estaconamentos von a to par con infraestructure vorde para cappare ecorrentia y prevent que las memore linguam at arrays. Accessibility ¿Accessibilidad? "There is nowhere to dispose of trash or park. Recommend small parking lot here." Phasing Fase Recomendata "No hay donde tirar la basura o estacionarse. Recomendar un pequello	Nen Environmental Impact Impacto Ambiental Neto D Enhances Habiton ¿Hejora el Nábitan? Polaces Water Quality ¿Hejora la Calitiad del Agun? D Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 Padaces Erosion ¿Reduce la Erosión? Honers Community Identity ¿Hence la Islanti-	\$\$\$\$ \$\$\$\$ Seese bringebruchung Bairs well with / Va bien con Geses bringebruchung
Accessibility ¿Accessibilided? Accessibility ¿Accessibilided? Size Tamaño Phasing Fase Recomendada Phasing Fase Recomendada	Nen Environmental Impact Impacto Ambiental Neto D Enhances Habiton ¿Hejora el Nábitan? Polaces Water Quality ¿Hejora la Calitiad del Agun? D Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 Padaces Erosion ¿Reduce la Erosión? Honers Community Identity ¿Hence la Islanti-	\$\$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$\$\$ \$
Accessibility ¿Accessibilided? Accessibility ¿Accessibilided? Size Tamaño Phasing Fase Recomendada Phasing Fase Recomendada	Nen Environmental Impact Impacto Ambiental Nets 0 Enhances Habiton ¿Hejora el Nábitan? 0 Enhances Water Quality ¿Hejora la Calitiad del Agun? 0 Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 0 Reduces Enseion ¿Reduce la Enseión? 0 Honers Community Identity ¿Hence la Islanti- de de la Comunitad?	\$\$\$\$ \$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$\$\$\$\$ \$
Accessibility ¿Accessibilided? Size Tamaño Phasing Fase Recomendada Phasing Fase Recomendada	Nen Environmental Impact Impacto Ambiental Nets 0 Enhances Habiton ¿Hejora el Nábitan? 0 Enhances Water Quality ¿Hejora la Calitiad del Agun? 0 Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 0 Reduces Enseion ¿Reduce la Enseión? 0 Honers Community Identity ¿Hence la Islanti- de de la Comunitad?	\$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$ \$
Accessibility ¿Accessibilided?	Nen Environmental Impact Impacto Ambiental Nets 0 Enhances Habiton ¿Hejora el Nábitan? 0 Enhances Water Quality ¿Hejora la Calitiad del Agun? 0 Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 0 Reduces Enseion ¿Reduce la Enseión? 0 Honers Community Identity ¿Hence la Islanti- de de la Comunitad?	\$\$\$\$ Image:
San Tanato San Tanato Phasing Fase Recommendada Phasing Fase Recommendada Phasing Fase Recommendada	Nen Environmental Impact Impacto Ambiental Nets 0 Enhances Habiton ¿Hejora el Nábitan? 0 Enhances Water Quality ¿Hejora la Calitiad del Agun? 0 Reduces Heat Island Effect ¿Reduce el electo de 'Isla de calor'3 0 Reduces Enseion ¿Reduce la Enseión? 0 Honers Community Identity ¿Hence la Islanti- de de la Comunitad?	\$\$\$\$ Image:
Size Tanaho of trash or park. Recommend small parking lot here." Phasing Fase Recomendada estacionarse. Recomendar un pequello	Ner Environmental Impact Impacto Ambiental Neto C Enhances Habitet ¿Hejors el hábitet? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Meduces Enseion ¿Reduce el electo de 'Isla de calor'? Reduces Enseion ¿Reduce la Enseión? Honers Community Identity ¿Henra la Identi- ded de la Comunidad? Oportunites for Social Connections ¿Ofrem Oportunites for Social Connections ¿Ofrem	\$\$\$\$ Image:
Size Tanaho of trash or park. Recommend small parking lot here." Phasing Fase Recomendada estacionarse. Recomendar un pequello	Ner Environmental Impact Impacto Ambiental Neto C Enhances Habitet ¿Hejors el hábitet? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Meduces Enseion ¿Reduce el electo de 'Isla de calor'? Reduces Enseion ¿Reduce la Enseión? Honers Community Identity ¿Henra la Identi- ded de la Comunidad? Oportunites for Social Connections ¿Ofrem Oportunites for Social Connections ¿Ofrem	\$\$\$\$ Image:
Phasing Pase Recomendada strain a basura o estacionarse. Recomendar un pequeño	Ner Environmental Impact Impacto Ambiental Neto C Enhances Habitet ¿Hejors el hábitet? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Enhances Weter Quellity ¿Hejors la Calibled del Agua? Meduces Enseion ¿Reduce el electo de 'Isla de calor'? Reduces Enseion ¿Reduce la Enseión? Honers Community Identity ¿Henra la Identi- ded de la Comunidad? Oportunites for Social Connections ¿Ofrem Oportunites for Social Connections ¿Ofrem	\$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$\$\$ \$
Phasing Pase Recomendada "No hay donde tirar la basura o estacionarse. Recomendar un pequeño	Nen Environmental Impact Impacto Ambiental Nets	\$\$\$\$ \$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$\$ \$
estacionarse. Recomendar un pequeño	Nen Environmental Impact Impacto Ambiental Nets	\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$\$ \$
estacionarse. Recomendar un pequeño	Nen Environmental Impact Impacto Ambiental Nets	\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$ \$
	Ner Environmental Impact Impacto Ambiental Nets	\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$ \$\$\$\$\$\$ \$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$ \$
	Nen Environmental Impact Impacto Ambiental Neno D Enhances Habiton ¿Mejora el Ndbitan? Polances Weter Quality (Mejora la Calibiad del Agua? Polaces Heat Island Effect ¿Reduce el electo de lala de calor'? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Opportunities for Social Connections ¿Ofmer Oppromities for Social Connections Sociales? Accessibility ¿Accessibilidad? Stan Tamaho Phasing Fase Recomendada	\$\$\$\$ ••••••••••••••••••••••••••••••••••••
	Nen Environmental Impact Impacto Ambiental Neno D Enhances Habiton ¿Mejora el Ndbitan? Polances Weter Quality (Mejora la Calibiad del Agua? Polaces Heat Island Effect ¿Reduce el electo de lala de calor'? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Opportunities for Social Connections ¿Ofmer Oppromities for Social Connections Sociales? Accessibility ¿Accessibilidad? Stan Tamaho Phasing Fase Recomendada	\$\$\$\$ ••••••••••••••••••••••••••••••••••••
	Nen Environmental Impact Impacto Ambiental Neno D Enhances Habiton ¿Mejora el Ndbitan? Polances Weter Quality (Mejora la Calibiad del Agua? Polaces Heat Island Effect ¿Reduce el electo de lala de calor'? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Peduces Environ ¿Reduce la Environ? Opportunities for Social Connections ¿Ofmer Oppromities for Social Connections Sociales? Accessibility ¿Accessibilidad? Stan Tamaho Phasing Fase Recomendada	\$\$\$\$ ••••••••••••••••••••••••••••••••••••

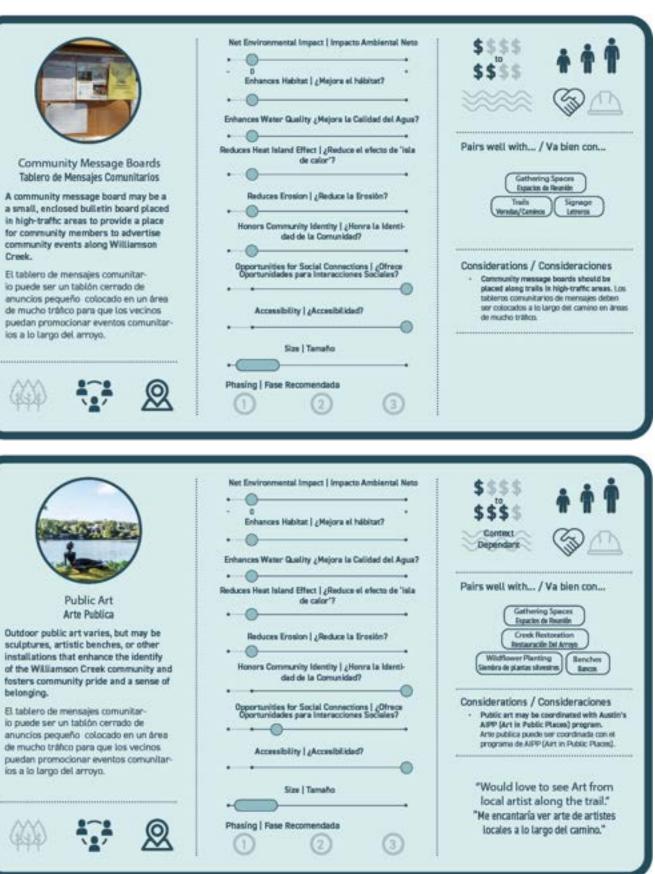






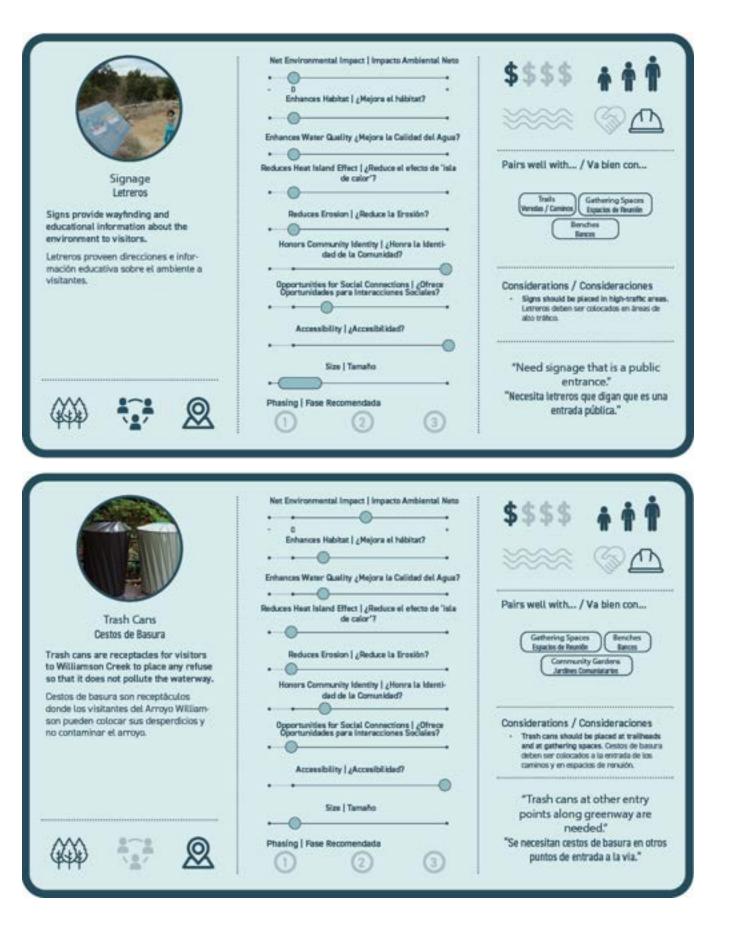
(1

















ogramming in de Ejercicios	Net Environmental Impact Impacto Ambiental Neta 0 Enhances Habitat ¿Mejora el habitat? Enhances Water Quelity ¿Mejora la Calidad del Agua? Meduces Heat Island Effect ¿Reduce el efecto de 'Isla de calor'?	SSSS SSSS Dependent Pairs well with / Va bien con
ning may include a anned group activities nuctors, including ses, community hikes,	Reduces Erosion ¿Reduce la Brosión? • O Honars Community Identity ¿Honra la Identi- dad de la Commidad?	
rcicios pueden arledad de actividades s por un instructor, aminatas comunitar-	Opportunides for Social Connections ¿Ofrece Opportunidedes para Interactiones Sociales? Accessibility ¿Accessibilided? Size Temato	Considerations / Consideraciones • Fitness programming can be coordinated with local germs or PARD. Programmación de ejercices puede ser coordinato con germación locales o PARD.
2	N/A Phasing Fase Recomendada	

Fitness

Appendix E ALL COMMUNITY ENGAGEMENT + COMMUNICATIONS

The following pages detail additional community engagement outlets and activities that were available for the public to participate in throughout the course of the project.

These include:

Social Pinpoint - Creek Idea Cards

Social Pinpoint - Public Comment

Storytelling

Creek Chats

Creek Packs

Flat Stanley Activity

Virtual Creek Stomps

iNaturalist Photos

Virtual Community Picnics and

Celebrations

Website

Newsletter

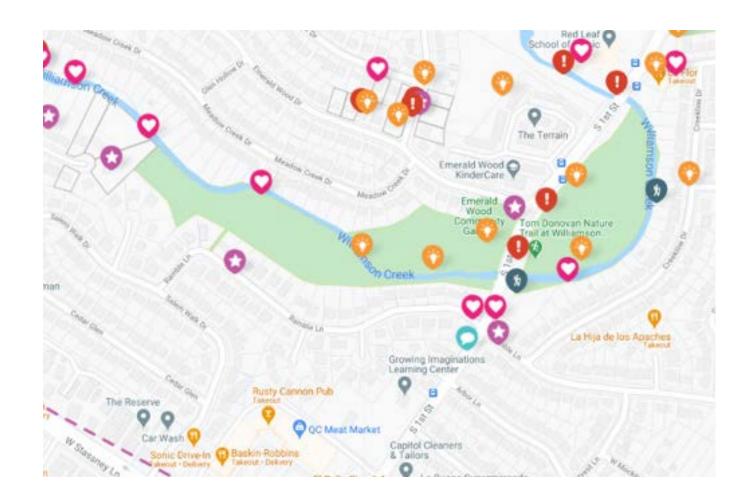
Central Williamson Creek Greenway Facebook Page

Conversation Toolkits

Creek Stomp Journals

Social Pinpoint - Virtual Map

Creek Idea Cards.



The interactive map on Social Pinpoint provided the opportunity to geographically share ideas, activities, and unique places along the Greenway. The map helped to shape the

Social Pinpoint - Creek Idea Cards

The Creek Idea Cards were based on ideas shared by the Williamson Creek Community. The idea cards were posted to Social Pinpoint, a community engagement platform, and categorized hierarchically through public vote as a way to prioritize which ideas would be included in the Vision Plan.



Social Pinpoint - Public Comment

Participants provided feedback on the Vision Plan drafts through Social Pinpoint, a virtual engagement platform.



Comment on the Project Overview & Vision Plan Chapters in the forum below!

You can download the document from the Vision Plan section above. There is a 500 character limit per comment. but feel free to leave multiple comments to share your feedback. 1. What other context for the project may have been missed?

2. Do you see anything that doesn't work, or that you'd like to see included?

3. Anything else you'd like to provide feedback on?

Storytelling

Storytelling activities were employed to help ensure that the Vision Plan represented the full spectrum of experiences and hopes held by those who live and explore along the greenway, including audio stories to preserve and share personal accounts about Central Williamson Creek, the green spaces that surround it, and what it means to residents. A series of audio stories were produced as well as an animation by <u>Kiln Pictures</u> in partnership with community members of Central Williamson Creek Greenway, <u>Community Powered</u> <u>Workshop</u>, and <u>The Nature Conservancy</u> and illustrates how the Vision Planning process centered community voices.

Contributors:

- Alfred Mcleod
- Allison Mclean
- Barbara Mead
- Darin Banduch
- Dave Bradshaw
- Genoi Strola
- Kate Mason-Murphy
- Kelly Davis-Burns
- Mark Branson
- Mary Olmstead
- Melody Plate
- Nicole Sanford
- Steve Prather
- Tom Donovan
- Tom Paolini
- Ryan and Haley Flener
- Russell Julian



"I've always enjoyed birds. My father was a birder; my grandmother, she knew her birds."



"It's like having a little park in the city"



"We would dog paddle in the rapids when we had a good rain"



"After they put in the sewage system, our creek completely died"



"Improving any park is just a matter of involving your neighbors"

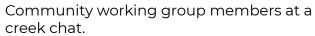


"I couldn't live in any other place"

Creek Chats

The weekly Creek Chats were provided in two formats - through Zoom and at a sociallydistanced outdoor pop-up space. Members from the Community Working Group, Community Powered Workshop and Asakura Robinson were available for in-depth community conversations about questions, ideas and ways to get involved.







CWCG Vision Plan Yard Sign

Creek Packs

future of the Greenway.



Creek Packs were distributed at Creek Chats.



Toolkit item activities at the Creek Chats



Creek Packs were distributed at Creek Chats.

Creek Packs were available at Creek Chat pop-ups or upon request and included printed engagement activities and tools available in English and Spanish as a guide to shaping the



Creek Pack



Flat Stanley is an educational project that uses paper cut-outs to tell stories about people and places. Participants created their story of Flat Stanley's future in the Creek by taking photos of them in different scenes to document their experiences along the Greenway.

GOAL: Flat Stanley is an educational project that uses paper cut-outs to tell stories about people and places. Create the story of Flat Stanley's future in the Creek by taking photos of them in different scenes along the Creek to describe their adventures in different places. Pair Flat Stanley with found or created objects and materials to indicate emotions or experiences.

MATERIALS NEEDED

Flat Stanley – you can find templates available online to print at home or create your own version of Flat Stanley or request a mailed hard copy by emailing info@ centralwilliamsoncreek.org

- Found objects
- Materials to indicate emotions or experiences
- Camera to take photos

ACTIVITY

- 1: Think about the spaces you visit along the Creek today.
- 2: Create the story of Flat Stanley's future experiences in the Creek.
- 3: Using Flat Stanley plus any found or created objects/materials, create 3 scenes of creek experiences. Consider using other elements to indicate emotions or experiences, (e.g. sunshine indicates likes, rain clouds indicate dislikes.)
- 4: Describe Stanley's adventure. Explain the

meanings of the objects/materials you found or created and why you chose them. Describe the scene and why you chose to take the photo there.

5: Share your 3 scenes through photos and text below or on the Central Williamson Creek Greenway Facebook page.













Virtual Creek Stomps

Community members filmed and narrated their physical experiences of the Creek as Virtual Creek Stomps to document creek conditions and inspire others to explore the creek.



"...we even had a gray fox that came up one summer that we fed every evening"



Armadillo skeleton captured by Jessica



Creek captured by Landscape Architecture team and City of Austin staff



Trash and debris along the creek captured by Jessica



Wetland plants captured by Landscape Architecture team and City of Austin staff



Railroad bridge captured by Greg and Anna



Waterfall captured by Watershed Protection Department





Tunnels and skating area captured by Greg and Anna

iNaturalist Community Photos

Participants shared their Greenway experience by documenting plants, animals, nature, and places through the iNaturalist, a nature app that helps to identify plants and animals. These observations were geolocated and provided valuable information about the spatial distribution and ecology of plant and animal species throughout the Greenway.



Map of iNaturalist sightings in the Central Williamson Creek Greenway



Stereum ostrea False Turkey-tail



Hyles Lineata White-lined Sphinx



Coccinellidae Lady Beetles



Chrysomela texana Red-headed Willow Leaf Beetle



Gaillardia pulchella Indian Blanket





Spinus psaltria Lesser Goldfinch





Tecoma stans Yellow Trumpetflower

Virtual Community Picnics and Celebrations

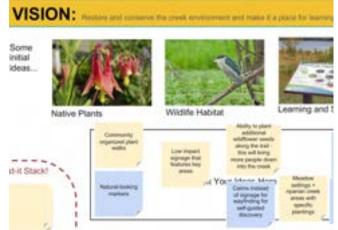
Community-wide, family-friendly virtual picnics hosted on Zoom included interactive sessions led by members of the Community Working Group to engage their neighbors in the Vision Planning process by demonstrating activities and sharing updates. The "Green Ribon Celebration" in December 2020 celebrated the release of the plan to the public for comment.



Community Picnic

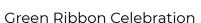


Green Ribbon Celebration





Community Picnic



Website

The website www.centralwilliamsoncreek.net shared the history and background of the project, community stories, engagement activities and information on the project area, process, partners and documents, including drafts of the Vision Plan. The website will continue to serve as a transparent method of sharing ways to get involved in the implementation of the Vision Plan.





community can enjoy.



English



GET INVOLVED

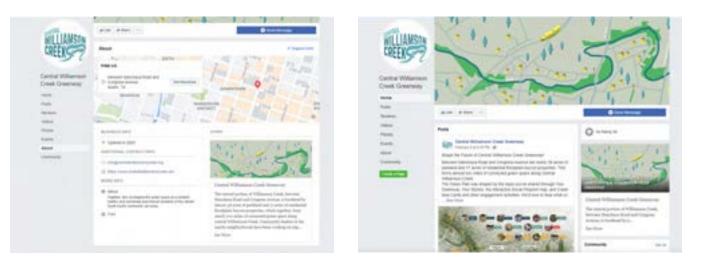
Newsletter

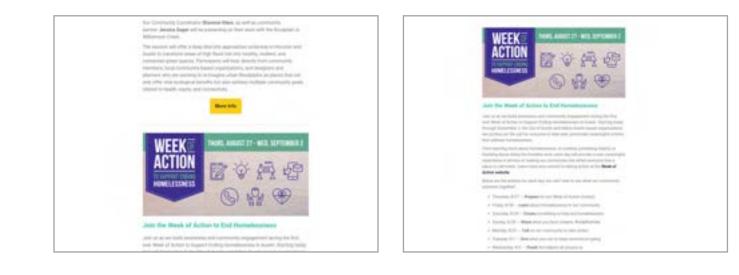
The newsletter served as a primary communication outlet to share ways to get involved, events, Vision Plan updates, blog posts and community stories.

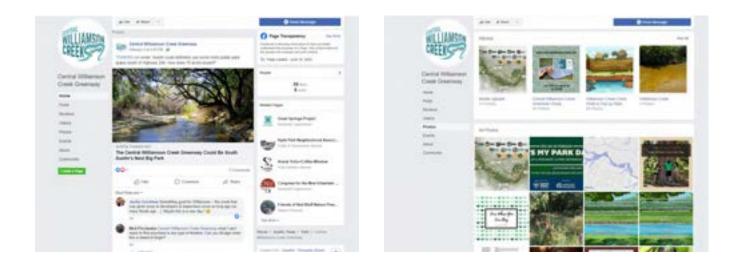


Facebook

Creek Greenway Facebook page.







Community events and updates to the Vision Plan were posted to the Central Williamson

Conversation Toolkits

The Toolkit was created for anyone wanting to facilitate a conversation with their neighbors to re-imagine the Central Williamson Creek Greenway as a community space, capturing opinions, perceptions, and stories. The prompts provided helped individuals think through the future of the Greenway or host meaningful conversations with family and friends.



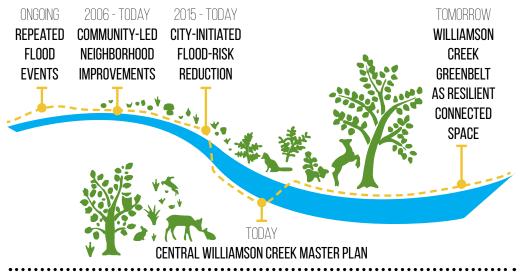
COMMUNITY CONVERSATION TOOLKIT

WHY ARE WE DOING THIS?

Floodplains in Texas cities are expanding as storms become more intense and more frequent with climate change. As a result, urban communities increasingly face the dual challenge of protecting human lives and sustainably managing flood-prone urban landscapes.

Williamson Creek in South Austin has been continually ravaged by floods over the last two decades. As a result, the City of Austin and U.S. Army Corps of Engineers partnered on a buyout process beginning in 2015. With 17.8 acres of flood buyout properties, combined with 58.3 acres of underutilized park-land, the central portion of Williamson Creek represents an opportunity to *re-imagine this floodplain* as a resilient collective and connected space in partnership with an ethnically and socioeconomically diverse community.

WHERE HAVE WE BEEN & WHERE ARE WE GOING?



Williamson Creek Greenway

a community-led vision for a resilient and connected urban floodplain

.....



OBJECTIVE:

This toolkit is made for anyone wanting to participate in a conversation about Central Williamson Creek Greenway and how it could be re-imagined as a community space in the future, sharing opinions, perceptions, and stories.

HOW TO:

The following prompts are intended for you or to help facilitate a conversation with family, friends, and neighbors. Please record your conversation as well as any important or recurring points. You may cover all four themes during your conversation or focus on a specific topic, it's up to you!

COMMUNITY CONVERSATION THEMES:

THEME 1: Current Creek Perceptions THEME 2: Creek Likes **THEME 3: Creek Challenges THEME 4:** Implementing Our Vision

MATERIALS INCLUDED IN THIS TOOLKIT:

- Guide for Creek Conversations
- Neighborhood & Creek Map

SHARE YOUR CONVERSATION TOOLKIT RESULTS:

- Email a photo or scan to info@ centralwilliamsoncreek.org
- Mail to Community Powered Workshop, 1023 Springdale Road, #13F, 78721

COMMUNITY CONVERSATION TOOLKIT | 2

.....



The information collected through this process will be aggregated to form an overall vision for Central Williamson Creek Greenway. Your personal information will not be shared outside of the project group and you will not be contacted other than to keep you plugged into the process. If you have any questions or concerns please feel free to reach out to us at info@centralwilliamsoncreek.org.

CONVERSATION FACILITATOR:

Name: Phone/Email: Address:

CONVERSATION PARTICIPANTS:

Name

Williamson Creek Greenway

Future Phone/Email **Address** Volunteer

COMMUNITY CONVERSATION TOOLKIT | 3



CURRENT CREEK PERCEPTIONS

Share experiences had in Central Williamson Creek Greenway and the surrounding area and how you currently feel about the creek.

GUIDING QUESTIONS:

- If you have spent time in Central Williamson Creek Greenway, what brought you there and how did you get there (actual entry point)? (e.g. walking, walking the dog, meeting with friends on a path near my street, etc.)
- If no, is there a particular reason why you don't go there?
- Describe the creek in one word.

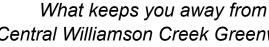
MAP IT:

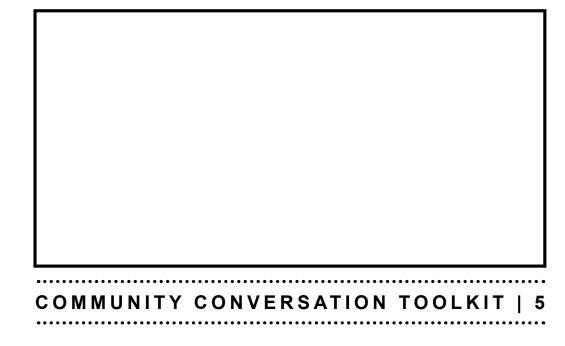
- Using the map of the area, mark the spots you have visited before using a circle
- Do you have any stories you are willing to share about being in that space?
- If you have not visited, are there any stories you might have heard about specific spaces of the creek?



CREEK PERCEPTIONS OTES

How do you spend time in Central Williamson Creek Greenway?





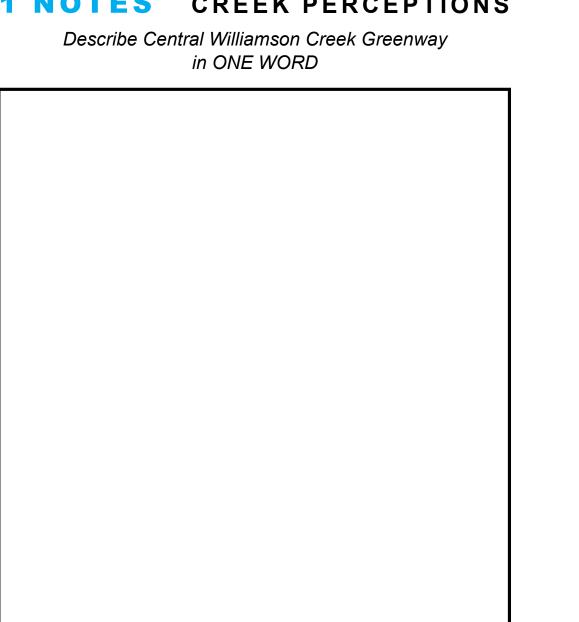
COMMUNITY CONVERSATION TOOLKIT | 4

.....

Central Williamson Creek Greenway?



NOTES **CREEK PERCEPTIONS**





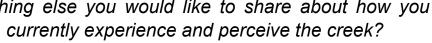
Stories about Central Williamson Creek Greenway

Anything else you would like to share about how you



COMMUNITY CONVERSATION TOOLKIT | 6

.....





2 CREEK LIKES

Share details about things and spaces you like along Central Williamson Creek Greenway.

GUIDING QUESTIONS:

- What 3 words describe a place that makes you feel comfortable and a sense of belonging.
- Where along Central Williamson Creek Greenway might you be able to feel that?
- If not, how do you think these feelings could be achieved in Central Williamson Creek Greenway?

MAP IT:

• Using the map of the area, ask people to mark the spots they are most likely to feel comfortable and a sense of belonging in Central Williamson Creek Greenway with a triangle.



NOTES

Places that make you feel comfortable and belonging in 3 words

COMMUNITY CONVERSATION TOOLKIT | 8

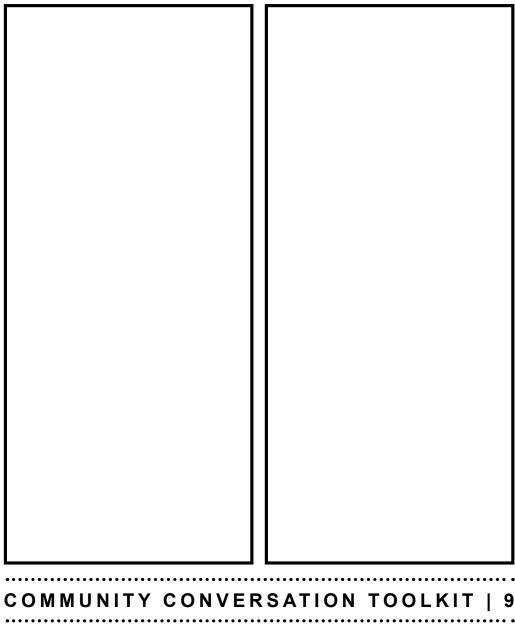
.....

Williamson Creek Greenway

a community-led vision for a resilient and connected urban floodplain

CREEK LIKES

Spaces in Central Williamson Creek Greenway that make you feel this way





2 NOTES

CREEK LIKES

Ways Central Williamson Creek Greenway could provide a greater sense of comfort and belonging for the neighborhood





Anything else you would like to share about what you like about the creek?

COMMUNITY CONVERSATION TOOLKIT | 10





3 CREEK CHALLENGES

Share details about what you see as challenges along Central Williamson Creek Greenway.

GUIDING QUESTIONS:

- What challenges do you have in experiencing Central Williamson Creek Greenway as a neighborhood amenity?
- Are these concerns and challenges shared by other neighbors or are there others you have heard?
- How do you think the challenges you have identified could be overcome?

MAP IT:

• Using the map, mark areas that pose

significant challenges with a square.

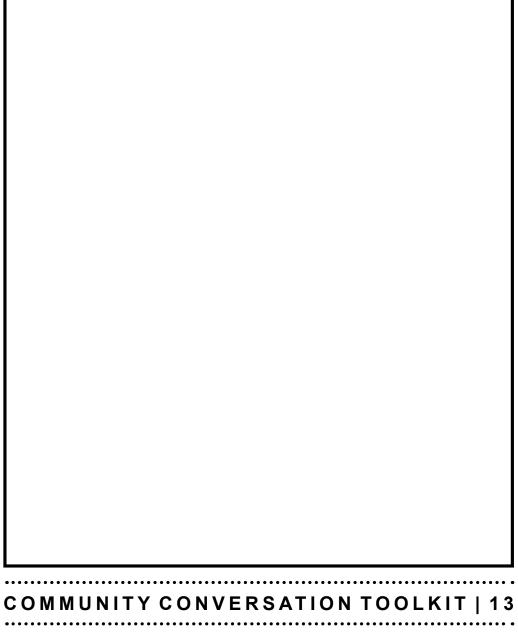


NOTES **CREEK CHALLENGES**

Concerns and Challenges seeing or experiencing Central Williamson Creek Greenway as a neighborhood amenity

COMMUNITY CONVERSATION TOOLKIT | 12

Williamson Creek Greenway





3 NOTES CREEK CHALLENGES

Ways these challenges or concerns could be overcome

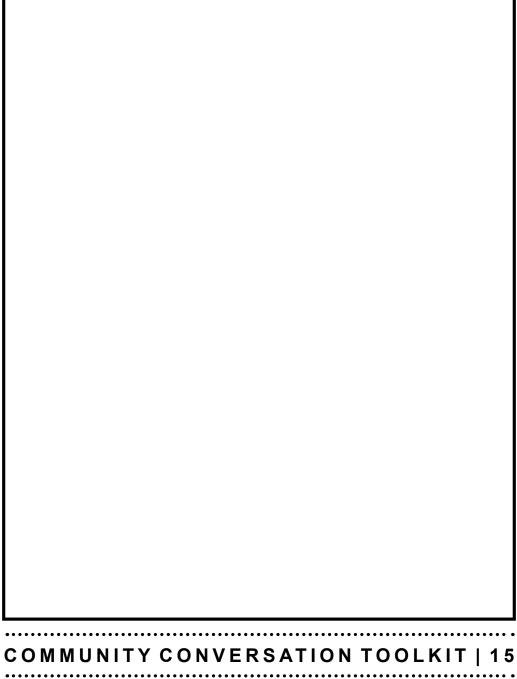


Anything else anyone would like to share about creek concerns or challenges?

COMMUNITY CONVERSATION TOOLKIT | 14

.....

Williamson Creek Greenway





IMPLEMENTING OUR VISION

Share information about what you would like to see in Central Williamson Creek Greenway.

GUIDING QUESTIONS:

- What type of activities would you like to engage in or see other people engaging in along Central Williamson Creek Greenway? Are there specific locations you have in mind?
- If stewardship means caring for Central Williamson Creek Greenway, how do you see you and your neighbors as stewards?
- How do you think the neighborhood can collectively work towards implementing a shared vision for Central Williamson Creek Greenway?

MAP IT:

- Using the map, mark areas along the creek where your vision would be most impactful or where you
- would like to see specific activities happen with a star.



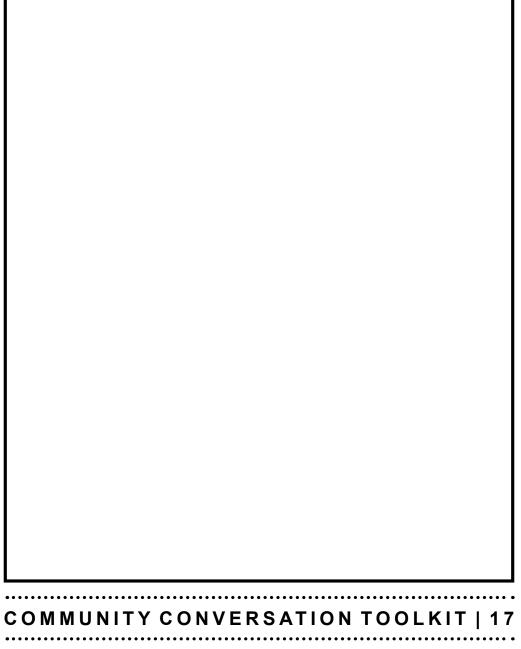
NOTES

Types of activities you would like to see along the creek & locations you have in mind

COMMUNITY CONVERSATION TOOLKIT | 16

Central Williamson Creek Vision Plan MARCH 2021 DRAFT 246

FUTURE VISION

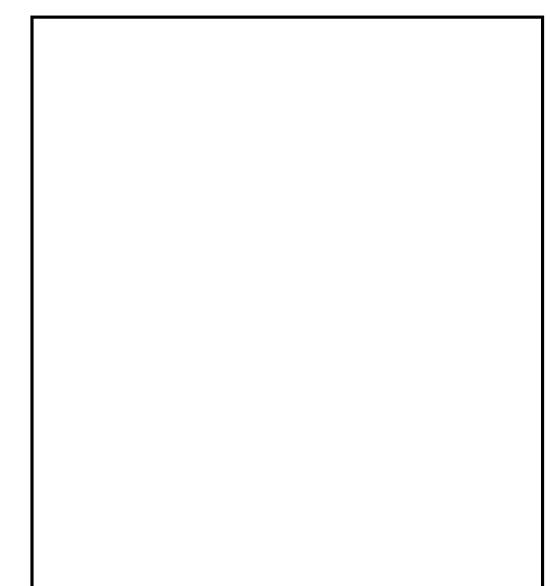




4 NOTES

FUTURE VISION

Ways you and your neighbors can be stewards of the creek





COMMUNITY CONVERSATION TOOLKIT | 18

.....

Williamson Creek Greenway

Ways you and your neighbors can collectively work towards implementing a shared vision

COMMUNITY CONVERSATION TOOLKIT | 19



CONGRATULATIONS, YOU COMPLETED THE TOOLKIT!

... but you're not done yet. Please share the results of your conversation back so they can be included in the community vision!

Ways to share your conversation toolkit results:

- Email a photo or scan to info@ centralwilliamsoncreek.org
- Mail to Community Powered Workshop, 1023 Springdale Road, #13F, 78721

If you have any additional questions or concerns please contact us at info@centralwilliamsoncreek.org

This toolkit was developed by Community Powered Workshop in partnership with Public, Green & Wild, The Nature Conservancy, and the National Park Service.

This partnership came from a resident-identified need for a comprehensive community vision for public access to the growing stock of publicly owned land along Williamson Creek for the benefit of neighborhood residents.



Creek Stomp Journals

The Creek Stomp Journal was provided to create a common method for documenting hikes along the creek to share with neighbors and inform the vision planning process.



Multi-functional green spaces are critical components of urban resilience and they contribute largely to the health and well-being of nearby residents. Those residents and community leaders (you!) have an important role to play in the future of this community greenspace.

Community members from across the Central Williamson Creek area are actively engaged in a planning process to envision a healthy and resilient future for the Greenway.

This Creek Stomp Journal was created to provide a common method for documenting hikes along the creek to share with neighbors and inform the vision planning process. Your submissions will be shared on the project website: www.centralwilliamsoncreek.org.

We invite you to use this journal to record your creek stomps and send them back to us however is most convenient for you:

email: info@centralwilliamsoncreek.org mail: 1023 Springdale Road, #13F, 78721 or call to coordinate pick up at 512-220-4254

Please visit www.centralwilliamsoncreek.org for other ways to get involved including:









Y(Y(rec

Have suggestions for other ways you'd like to get involved with the Greenway planning process? Let us know at info@centralwilliamsoncreek.org!



VIRTUAL EVENTS

COMMUNITY CONVERSATION TOOLKITS

COMMUNITY PHOTOS find us on the iNaturalist app

YOUR GREENWAY, YOUR STORIES record your story today!

DATE/TIME:

ENTRY & EXIT POINTS:

TRANSIT

TYPE:

DIFFICULTY:

DISTANCE:

AMENITIES:

Conditions

Creek	dry	0	Ο	Ο	0	0	wet

Obstacles few 0 0 0 0 0 many

- Trail poor 0 0 0 0 0 clear
- Navigation easy 0 0 0 0 0 hard
 - Bikeable easy 0 0 0 0 0 hard
 - Activity none 0 0 0 0 0 a lot
 - Wildlife none 0 0 0 0 0 a lot
- Vegetation invasive O O O O O o native

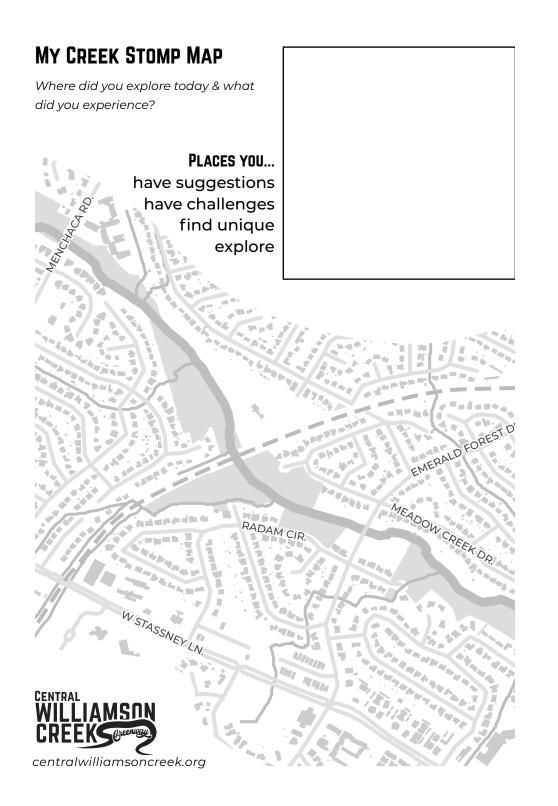


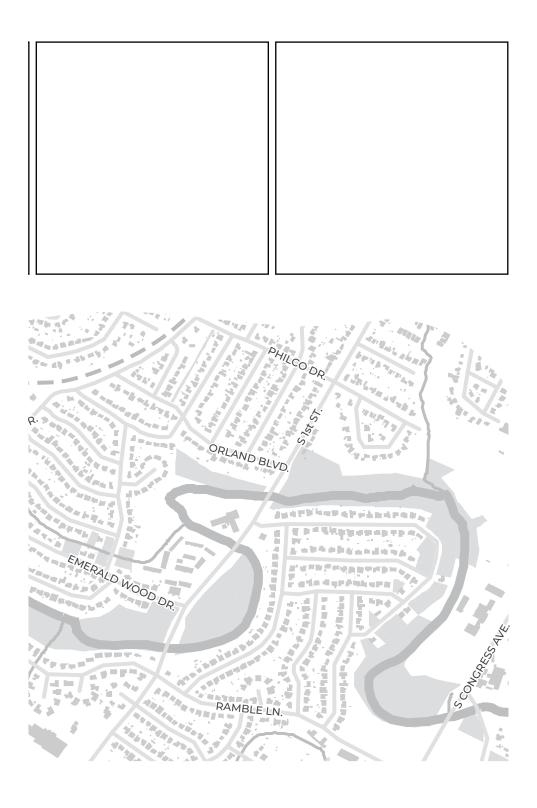
centralwilliamsoncreek.org

What do your neighbors need to know about this part of the creek?

NOTES ABOUT YOUR CREEK STOMP:

What was the best & worth part of your Creek Stomp today? What do you hope for the future of this part of the creek?





DATE/TIME:

ENTRY & EXIT POINTS:

TRANSIT

TYPE:

DIFFICULTY:

DISTANCE:

AMENITIES:

Conditions

Creek dry 0 0 0 0 0 wet

Obstacles few 0 0 0 0 0 many

- Trail poor 0 0 0 0 0 clear
- Navigation easy 0 0 0 0 0 hard
 - Bikeable easy 00000 hard
 - Activity none 0 0 0 0 0 a lot
 - Wildlife none 0 0 0 0 0 a lot

Vegetation invasive O O O O O o native

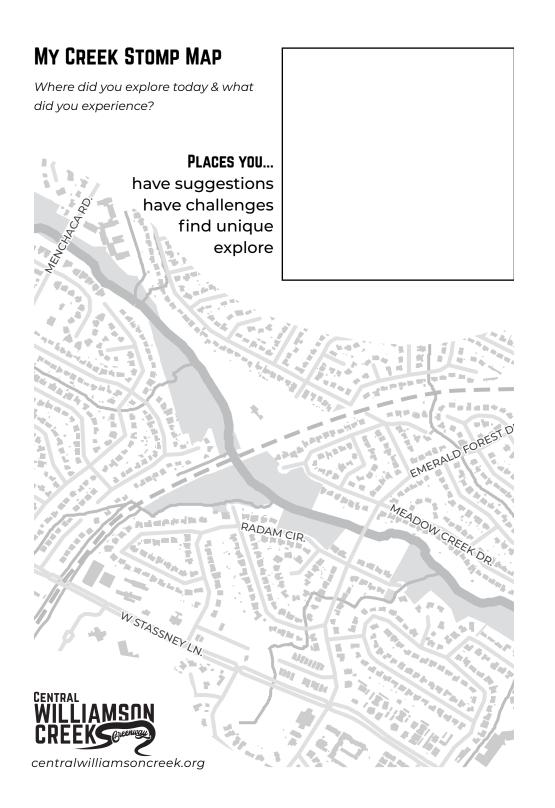


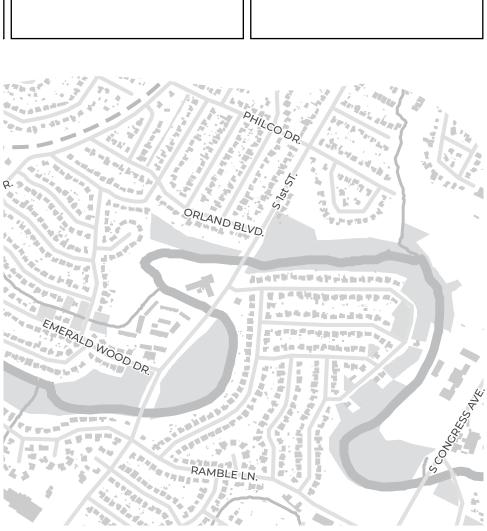
centralwilliamsoncreek.org

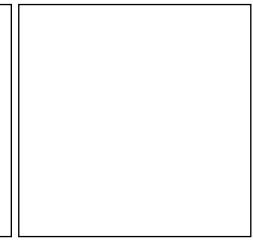
 What do your neighbors need to know about this part of the creek?

 NOTES ABOUT YOUR CREEK STOMP:

 What do you hope for the future of this part of the creek?







DATE/TIME:

ENTRY & EXIT POINTS:

TRANSIT

TYPE:

DIFFICULTY:

DISTANCE:

AMENITIES:

Conditions

Creek	dry	0	Ο	Ο	0	0	wet

Obstacles few 0 0 0 0 0 many

- Trail poor 0 0 0 0 0 clear
- Navigation easy 0 0 0 0 0 hard
 - Bikeable easy 0 0 0 0 0 hard
 - Activity none 0 0 0 0 0 a lot
 - Wildlife none 0 0 0 0 0 a lot
- Vegetation invasive O O O O O o native

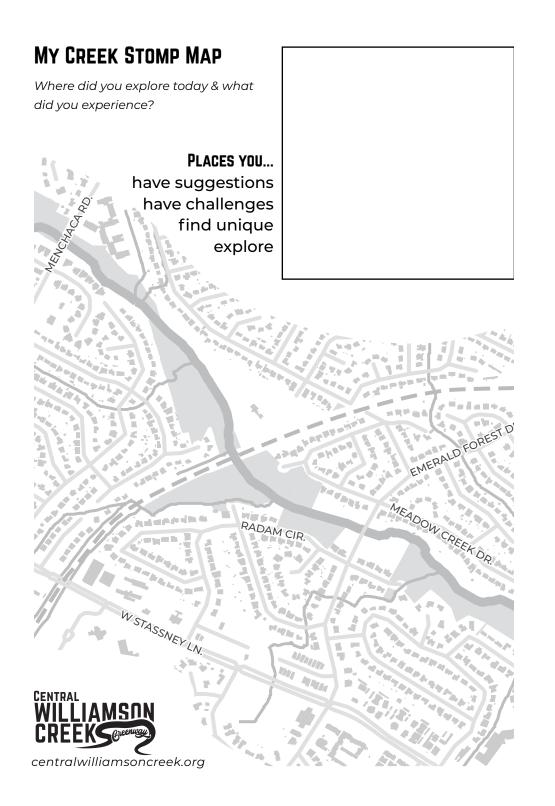


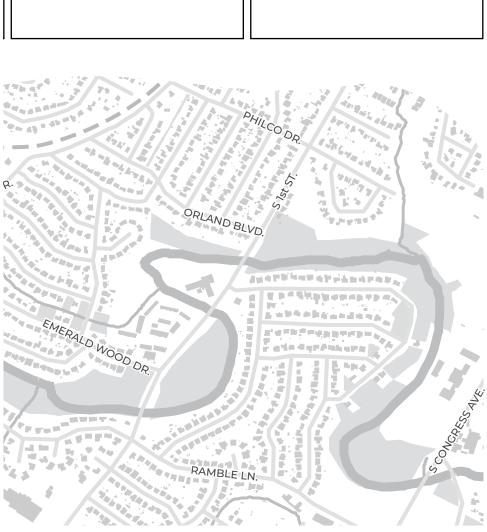
centralwilliamsoncreek.org

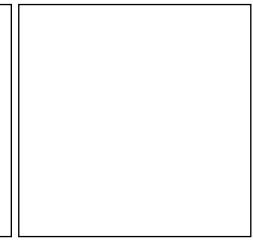
What do your neighbors need to know about this part of the creek?

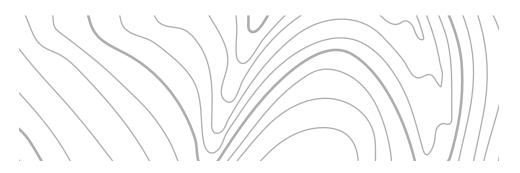
NOTES ABOUT YOUR CREEK STOMP:

What was the best & worth part of your Creek Stomp today? What do you hope for the future of this part of the creek?









"The Peace of Wild Things"

When despair for the world grows in me and I wake in the night at the least sound in fear of what my life and my children's lives may be, I go and lie down where the wood drake rests in his beauty on the water, and the great heron feeds. I come into the peace of wild things who do not tax their lives with forethought of grief. I come into the presence of still water. And I feel above me the day-blind stars waiting with their light. For a time I rest in the grace of the world, and am free.

by Wendell Berry



