



## MEETING AGENDA

TxDOT Bicycle Advisory Committee (BAC)  
October 11, 2019 - 9:30 A.M.  
200 East Riverside Dr., Bldg 200, Classroom D  
Austin, Texas 78704  
Teleconference instructions below

1.	Call to Order.
2.	Safety briefing.
3.	Introduction of new BAC members.
4.	Approval of minutes from July 15, 2019, BAC meeting. (Action)
5.	Report from TxDOT's Public Transportation Division Director regarding statewide bicycle/pedestrian matters.
6.	Update on Bikeway Design Effort – Phase I Areas of Concurrence. (Action)
7.	Discussion on Texas Transportation Commission charge to review and make recommendations on expanding the charge of the BAC to address a wider range of related transportation service options, including pedestrian options and personal mobility devices.
8.	Presentation on FHWA Bikeway Selection Guide.
9.	Presentation on Paso del Norte Trail: Improving access, connectivity, and health one mile at a time.
10.	Update from committee members on local and statewide issues.
11.	Public comment – public comments will only be accepted in person.
12.	Discussion of agenda items for future BAC meetings. (Action)
13.	Adjourn. (Action)

I certify that I have reviewed this document and that it conforms to all applicable *Texas Register* filing requirements.

CERTIFYING OFFICIAL: Becky Blewett, Deputy General Counsel, (512) 463-8630.

## BAC Members

Karla Weaver, Chair, Dallas/Ft. Worth  
Bobby Gonzales, Vice Chair, El Paso  
Clint McManus, Houston  
David Ham, Midland  
Eva Garcia, Brownsville  
Frank Rotnofsky, Laredo  
Jeff Pollack, Corpus Christi  
Mike Schofield, Austin  
Rick Ogan, San Angelo  
Shawn Twing, Amarillo  
Trent Brookshire, Tyler

## TxDOT Technical Staff

Eric Gleason, Director, Public Transportation Division (PTN)  
Donna Roberts, Program Services Section Director, PTN  
Bonnie Sherman, Bicycle & Pedestrian Program Manager, PTN  
Noah Heath, Bicycle & Pedestrian Planner, PTN  
Carl Seifert, Transportation Planner (Contractor), Jacobs

\* \* \*

## Teleconference instructions:

Event address for attendees:

<https://txdot.webex.com/txdot/onstage/g.php?MTID=e7d6fe5b94b361b260ce48501e03e9733>

Event number/Access code: 731 219 945

Event password: Bac1011

To receive a call back, provide your phone number when you log-in, or call the number below and enter the access code (above).

United States TOLL: +1-415-655-0003

## MINUTES FOR ADOPTION

Bicycle Advisory Committee – Teleconference Meeting  
200 E. Riverside Drive, Austin TX 78704 – Classroom D  
July 15, 2019

### **BAC Committee Members Present and Participating:**

#### In-Person:

Karla Weaver, *Dallas/Fort Worth, Chair*

Robert Gonzales, *El Paso, Vice Chair*

Billy Hibbs, *Tyler*

David Ham, *Midland*

Jeffrey Pollack, *Corpus Christi*

Frank Rotnofsky, *Laredo*

#### Via telephone:

DawnElla Rust, *Nacogdoches*

### **TxDOT Present and Participating:**

Marc Williams, Deputy Executive Director, TxDOT (ADM)

Eric Gleason, Director, Public Transportation Division (PTN)

Donna Roberts, Program Services Section Director (PTN)

Bonnie Sherman, Statewide Bicycle / Pedestrian Coordinator (PTN)

Noah Heath, Statewide Bicycle / Pedestrian Planner (PTN)

### **Also Present and/or Participating:**

Carl Seifert, Jacobs Engineering Group

Dr. Michael Manser, Texas Transportation Institute

Victoria Zuber, High Street Consulting

### **AGENDA ITEM 1: Call to Order.**

Karla Weaver calls the meeting to order at 9:31 A.M.

### **AGENDA ITEM 2: Safety Briefing.**

Bonnie Sherman provided a safety briefing beginning at 9:32 A.M.

### **AGENDA ITEM 3: Approval of Minutes from July 15, 2019 BAC Meeting (Action).**

Karla Weaver introduced this item at 9:32 A.M.

**MOTION** Billy Hibbs moved to approve the April 15, 2019 BAC meeting minutes.

**SECOND** Frank Rotnofsky seconded the motion.

The motion passed unanimously at 9:32 A.M.

### **AGENDA ITEM 4: Report from TxDOT's Public Transportation Division Director regarding statewide bicycle/pedestrian matters.**

Eric Gleason delivered the Director's report beginning at 9:34 A.M.

Eric Gleason provided updates on committee member appointments, recognized Billy Hibbs and DawnElla Rust for their service on the Committee, provided update on FY2019 Call for Projects, and volunteer opportunities for BAC members.

Comments: Eric Gleason, Karla Weaver, Donna Roberts, Billy Hibbs, DawnElla Rust, David Ham, and Robert Gonzales

**AGENDA ITEM 5: Presentation on Bikeway Design Effort: Phase I Recommendations (Action).**

Bonnie Sherman presented the item at 9:40 A.M.

Questions/Comments: Billy Hibbs, Jeffrey Pollack, Bonnie Sherman, Karla Weaver, Marc Williams, Eric Gleason

**MOTION** Robert Gonzales moved to approve areas of concurrence and moving forward with prioritizing the areas of concurrence as identified by the committee.

**SECOND** David Ham seconded the motion.

The motion passed unanimously at 10:02 A.M.

**AGENDA ITEM 6: Presentation on Bicycle Tourism Trails Prioritization Update. (Action).**

Victoria Zuber presented this item at 10:12 A.M.

No action taken at this time.

Questions/Comments: Karla Weaver, Victoria Zuber, Bonnie Sherman, and Frank Rotnofsky.

**AGENDA ITEM 7: Presentation on Texas Pedestrian Safety Coalition.**

Dr. Michael Manser presented the item at 10:25 A.M.

Questions/Comments: Karla Weaver, Michael Manser, and Frank Rotnofsky.

**AGENDA ITEM 8: Brainstorm ideas for FY 20 quarterly BAC meeting agenda topics.**

Karla opened the item at 10:43 A.M. Committee members brainstormed ideas for potential presentation topics to the BAC in the upcoming fiscal year (FY 2020).

Questions/Comments: Jeffrey Pollack, Billy Hibbs, Bonnie Sherman, Frank Rotnofsky, Donna Roberts, Karla Weaver, Eric Gleason, David Ham, Marc Williams, Robert Gonzales, and DawnElla Rust.

**AGENDA ITEM 9: Update from committee members on local and statewide issues.**

Karla Weaver introduced this item at 10:55 A.M.

Reports from BAC Members including: Billy Hibbs, Eric Gleason, David Ham, Jeffrey Pollack, Frank Rotnofsky, Robert Gonzales, Karla Weaver, and DawnElla Rust.

**AGENDA ITEM 10: Public comment – public comments will only be accepted in person.**

Karla Weaver introduced Teri Kaplan, former TxDOT employee, at 11:10 A.M. Ms. Kaplan commented on several agenda items.

Karla Weaver introduced Robin Stallings, Bike Texas, who spoke about the upcoming Texas Trails and Active Transportation Conference.

Questions/Comments: Karla Weaver, Marc Williams, and Teri Kaplan.

**AGENDA ITEM 11: Adjourn. (Action)**

Meeting adjourned at 11:20 A.M.

Prepared by:

Approved by:

\_\_\_\_\_  
Noah Heath  
Public Transportation Division

\_\_\_\_\_  
Karla Weaver  
Chair, Bicycle Advisory Committee





# TXDOT PROJECT DEVELOPMENT PROCESS PHASE 1 AREAS OF CONCURRENCE

Minor Modification and Prioritization Feedback

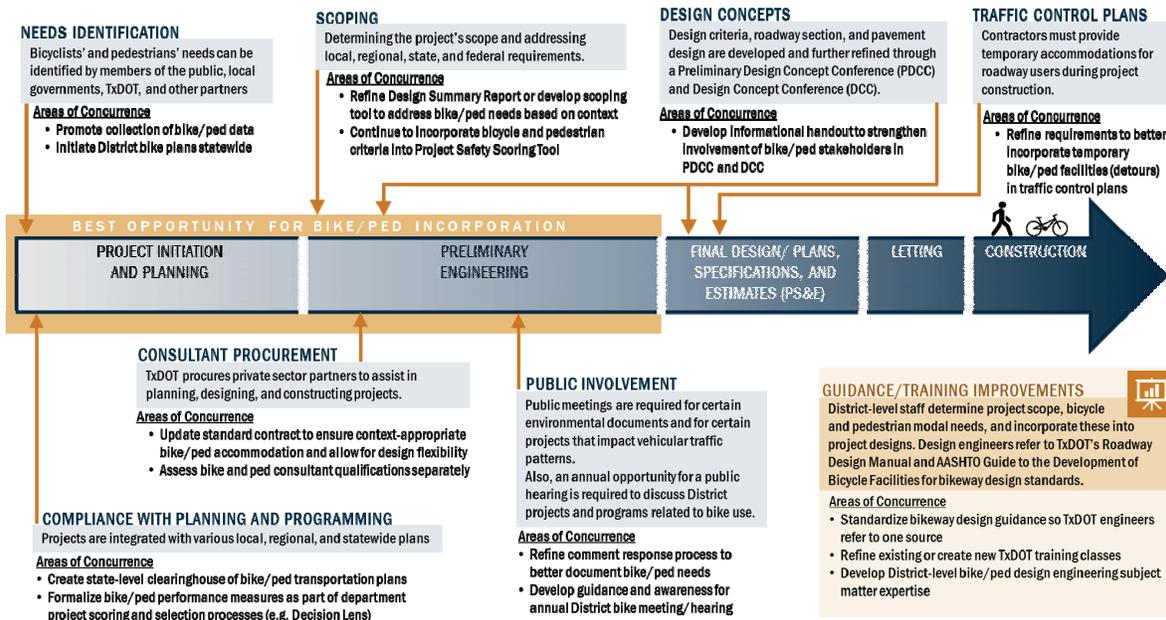
October 11, 2019

## Presentation agenda



- 1 Minor revision to Areas of Concurrence
- 2 Feedback on Prioritization of Areas of Concurrence
- 3 Discussion
- 4 Action

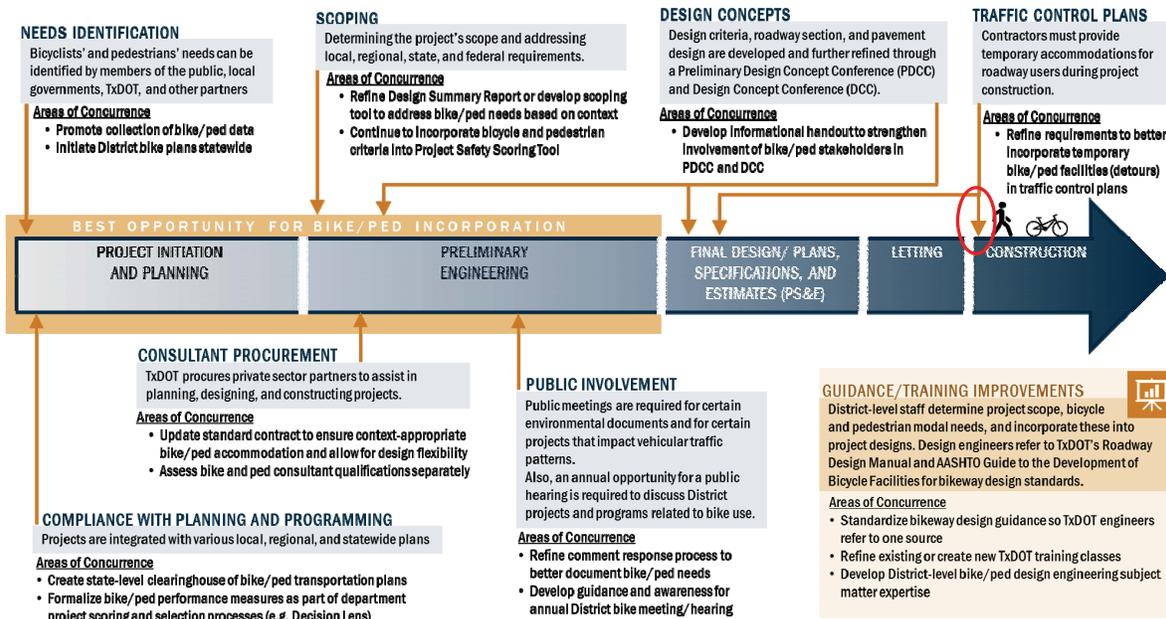
## Phase 1: Areas of Concurrence (previously approved)



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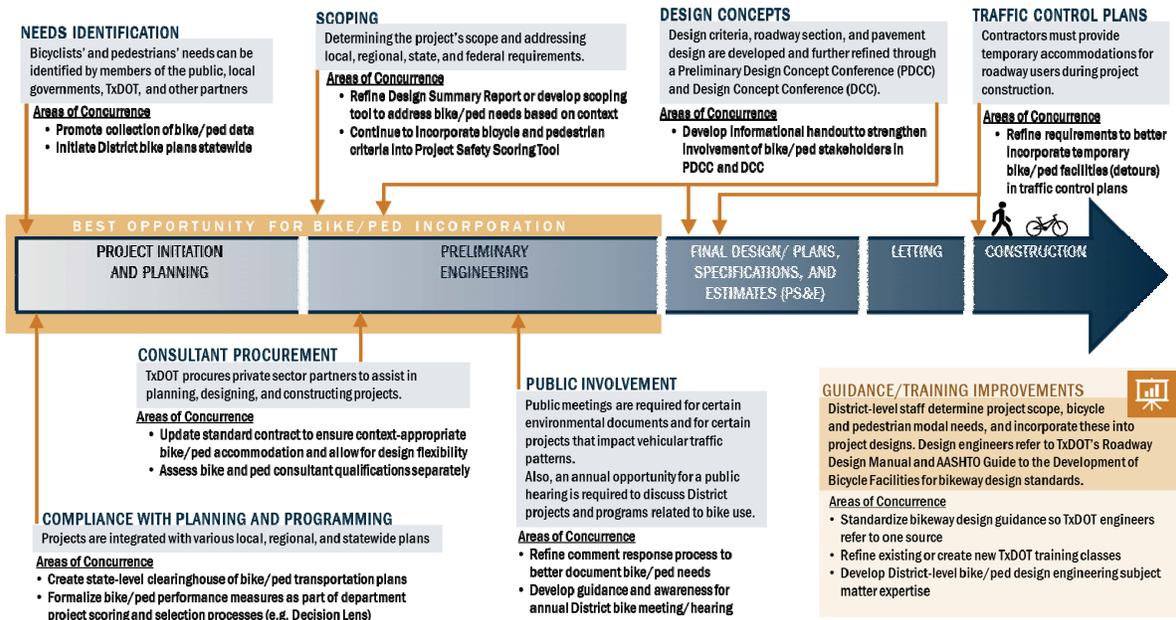
## Phase 1: Areas of Concurrence with proposed modification for Action



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## Phase 1: Areas of Concurrence with proposed modification for Action



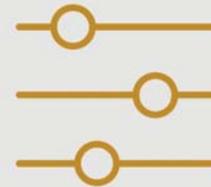
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## General prioritization of Areas of Concurrence

### Goal:

To understand BAC priorities/level of importance to help inform future implementation strategies for Areas of Concurrence



### Details:

BAC members were asked to complete a survey indicating their priorities for Areas of Concurrence. For each Area of Concurrence, BAC members were provided a general understanding of 1) level-of-effort and 2) estimated time to complete.

**NOTE:** TxDOT must balance existing responsibilities mandated by FHWA and the Texas Transportation Commission with new ones. Agreeing on a priority level is not a promise for completion.

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# Areas of Concurrence prioritization survey



Potential Level of Effort for Bikeway Design Areas of Concurrence: Project Development Process

Group	# Areas of Concurrence	Anticipated Duration	Level of Effort	Responsible TxDOT Party	
A	Promote collection of bicycle and pedestrian data	On-going	Medium	TPP, TRF, PTN, Districts	Continue to identify, develop bike/ped data levels
B	Refine comment response process to better document bikeway needs	Medium	Low	TPP, Districts	Develop guidance on bikeways issues needs
C	Develop guidance and awareness for annual District bicycle meeting/hearing	Medium	Low	TPP, PTN, Districts	Compile and distribute bicycle meeting/hearing
D	Formalize bicycle and pedestrian performance measures as part of department project scoring and selection processes (e.g. Decision Lens)	Medium	Medium	TPP, PTN	Incorporate bicycle & pedestrian performance project prioritization (e.g. measure performance)
E	Initiate District bicycle plans statewide	Long	High	Districts, TPP, PTN	A potential pilot to get various forms
F	Create a state-level clearinghouse of bicycle and pedestrian transportation plans	Medium	High	TPP, Districts, PTN	This clearinghouse is regional transportation network via clearinghouse
G	Update standard contract to ensure context-appropriate bicycle and pedestrian accommodation and allow for design flexibility	Short	Low	PEPS, CSD, DES, PTN	Modify TxDOT standard regarding bicycle and roadway projects
H	Assess bicycle and pedestrian consultant qualifications separately	Short	Low	PCPS, DES, PTN	Update consultant profiles and pedestrian consultant consensus
I	Refine Design Summary Report or develop scoping tool to address bicycle and pedestrian needs based on context	Medium	Medium	DES, PTN	TxDOT Design Summary project: Develop profile of bicycle and pedestrian projects
J	Continue to incorporate bicycle and pedestrian criteria into Project Safety Scoring Tool	On-going	Low	DES	Support current effort incorporation in Proj under development
K	Develop informational handouts to strengthen bicyclist and pedestrian involvement at Preliminary Design Concept Conference (during early project development) & Design Concept Conference (during detailed design phase)	Low	Low	DES, TPP, PTN	Design Concept Conf scopes in which design; Develop guidance pedestrian standards
L	Refine requirements to better incorporate temporary bicycle and pedestrian facilities (detours) in traffic control plans	Long	Medium	DES, CST	Develop guidance to pedestrians in construction
M	Develop District-level bicycle and pedestrian design engineering subject matter expertise	Long	High	Districts, DES, TRF, PTN	Coordinate with other collaboration and key pedestrian design

## Bikeway Design Effort

### Prioritization for Phase 1 Areas of Concurrence

From September 2018 to July 2019, TxDOT and BAC members worked together to analyze TxDOT's planning and project development processes to identify opportunities to address bicyclists' and pedestrians' needs in TxDOT projects. At the July 2019 BAC meeting, BAC members endorsed 15 recommendations or Areas of Concurrence to better incorporate safe bicycle/pedestrian infrastructure in TxDOT project development processes. You will find two reference PDFs in the introductory email that display these results:

1. Project Development Timeline with AoCs.pdf
2. Phase 1\_AreasofConcurrence\_Compared.pdf

Please take a few moments to assist TxDOT-PTN by prioritizing the following Areas of Concurrence. The results of this prioritization exercise will help inform future implementation strategies.

\* 1. Please refer to the PDFs attached to the introductory email for details about each Area of Concurrence.

To indicate importance, please rank the 15 Areas of Concurrence from "1" (most important) to "15" (least important).

- 1 A) Promote collection of bike/ped data
- 2 B) Refine comment response process to better document bikeway needs
- 3 C) Develop guidance and awareness for annual District bike meeting/hearing
- 4 D) Formalize bike/ped performance measures as part of department project scoring and selection processes
- 5 E) Initiate District bicycle plans statewide
- 6 F) Create a state-level clearinghouse of bike/ped transportation plans

**Duration**

- 1 year: Green
- 2-3 years: Yellow
- More than 3 years: Orange
- Activity in-process: Blue

**TxDOT Database:**

- CSD = Contract Services
- CST = Construction
- DES = Design
- HRD = Human Resources
- PEPS = Professional Engineering Procurement Services
- PTN = Public Transportation
- TPP = Transportation Planning and Programming
- TRF = Traffic Safety

# Areas of Concurrence: Tentative Prioritization Order Based on BAC Input



#	Areas of Concurrence
1	Standardize bikeway design guidance so TxDOT engineers refer to one source
2	Continue to incorporate bicycle criteria into Project Safety Scoring Tool
3	Initiate District bicycle plans statewide
4	Develop District-level bike/ped design engineering subject matter expertise
5	Update standard contract to ensure consistent bike/ped accommodation and allow for design flexibility
6	Refine DSR or develop scoping tool to address b/p needs based on context
7	Promote collection of bike/ped data
8	Refine requirements to better incorporate bike/ped facilities (detours) in traffic control plans
9	Formalize bike/ped performance measures as part of department project scoring and selection processes (e.g. Decision Lens)
10	Refine existing or create new TxDOT training classes
11	Create a state-level clearinghouse of bike/ped transportation plans
12	Assess bike and ped consultant qualifications separately
13	Refine comment response process to better document bikeway needs
14	Develop informational handouts to strengthen b/p involvement at PDCC & DCC
15	Develop guidance and awareness for annual District bike meeting/hearing

## Areas of Concurrence: Tentative Prioritization Order Based on BAC Input



#	Areas of Concurrence	Items underway=
1	Standardize bikeway design guidance so TxDOT engineers refer to one source	
2	Continue to incorporate bicycle criteria into Project Safety Scoring Tool	
3	Initiate District bicycle plans statewide	
4	Develop District-level bike/ped design engineering subject matter expertise	
5	Update standard contract to ensure consistent bike/ped accommodation and allow for design flexibility	
6	Refine DSR or develop scoping tool to address b/p needs based on context	
7	Promote collection of bike/ped data	
8	Refine req'ts to better incorporate temporary b/p facilities (detours) in traffic control plans	
9	Formalize bike/ped performance measures as part of department project scoring and selection processes (e.g. Decision Lens)	
10	Refine existing or create new TxDOT training classes	
11	Create a state-level clearinghouse of bike/ped transportation plans	
12	Assess bike and ped consultant qualifications separately	
13	Refine comment response process to better document bikeway needs	
14	Develop informational handouts to strengthen b/p involvement at PDCC & DCC	
15	Develop guidance and awareness for annual District bike meeting/hearing	

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## Discussion



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## Please send additional questions and comments to:



### **Bonnie Sherman, AICP**

TxDOT – Public Transportation Division  
Statewide Bicycle and Pedestrian Coordinator  
[Bonnie.Sherman@txdot.gov](mailto:Bonnie.Sherman@txdot.gov)  
(512) 486-5972

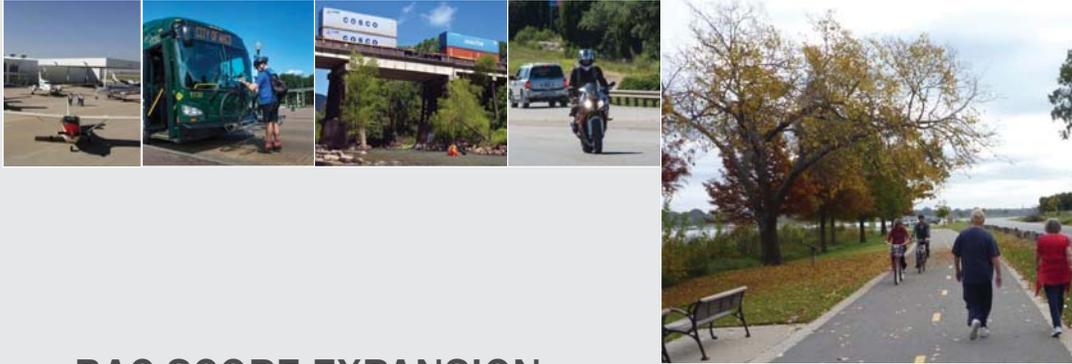
### **Noah Heath, AICP**

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Bicycle and Pedestrian Planner  
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### **Carl Seifert, AICP**

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(512) 486-5974

**JACOBS**



## BAC SCOPE EXPANSION DISCUSSION

Quarterly BAC Meeting  
October 11, 2019

### Presentation agenda



- 1 Direction from Texas Transportation Commission
- 2 Approach
- 3 Background on pedestrian safety and “personal mobility devices”
- 4 Brainstorm



*“The commission charges the committee with the following priorities:*

- 1) Review and make recommendations on expanding the charge of the committee to address a wider range of related transportation service options, including pedestrian options and personal mobility devices; and*
- 2) Review and make recommendations of enhancements to safety and efficiency in the design of bicycle facilities.”*

*Texas Transportation Commission Minute Order 115565 - August 29, 2019*

## Approach



### Facilitate BAC recommendations to the Commission:

- Potential inclusion/exclusion of other non-motorized modes
- Potential impacts on committee composition/function

### Schedule

- October: Introduction and brainstorm
- January: In-depth discussion and draft recommendations
- April: BAC action on recommendations





Current charge of BAC includes:

- Advise the Commission on bicycle issues
- Provide bicyclists’ perspective on TxDOT policies affecting bicycle use, including the design, construction and maintenance of highways.
- Review and make recommendations on items of mutual concern between the department and the bicycling community



Texas Pedestrian trip characteristics	2016 estimates <sup>1</sup>	% of all modes <sup>2</sup>
Daily persons commuting	201,154 people	1.6%
Estimated annual pedestrian trips	2,727,627,320 trips	1%
Estimated annual pedestrian miles of travel	1,854,786,578 miles	0.7%
Estimated annual pedestrian hours of travel	659,176,602 hours	1%

<sup>1</sup> According to FHWA's Scalable Risk Assessment tool. Estimates are based on US Census Bureaus' American Community Survey (ACS) and FHWA's National Household Travel Survey (NHTS). NHTS trips are extrapolated according to analysis year, ACS population, and commute travel estimates.

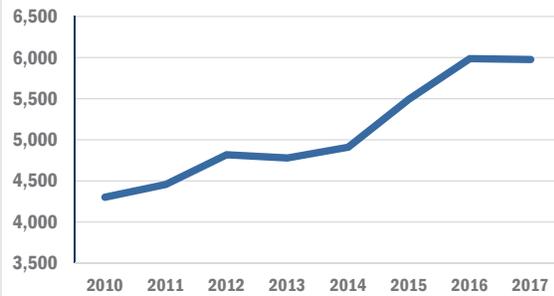
<sup>2</sup> US Census American Community Survey 2017 5-yr data and TxDOT Vehicle Traffic Facts.

## Pedestrians crash statistics

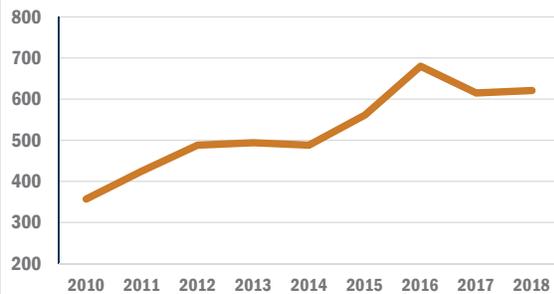


- **Nationwide (2017)**
  - On average a pedestrian is killed **every 88 minutes**
  - Pedestrian fatality rate is **1.84** per 100,000 people
  - Annually, roadway crashes injure **65,000 pedestrians**
  
- **Texas (2018)**
  - **621** crashes resulted in a fatality
  - Pedestrian fatality rate is **2.14** per 100,000 people
  - Annually, roadway crashes injure **5,684 pedestrians** Ped fatalities were **17.1%** of all traffic fatalities
    - **1,116** resulted in serious injuries

Nationwide Pedestrian Fatalities (2010 -2017)



Texas Pedestrian Fatalities (2010 -2018)



## FHWA Pedestrian-Bicycle Focus Areas



- FHWA aims to “aggressively reduce pedestrian deaths”
  - **Texas** = Pedestrian-Bicycle Focus State
  - 5 Texas cities Pedestrian-Bicycle Focus Cities: **Austin, Dallas, Fort Worth, Houston, and San Antonio**
  
- B/P Focus Areas are
  - cities and states with the highest pedestrian and bicycle fatalities and/or fatality rates

### Pedestrian-Bicycle Focus Cities/States 2015



For more information:  
<https://safety.fhwa.dot.gov/fas/>  
[https://safety.fhwa.dot.gov/ped\\_bike/ped\\_focus/focus\\_cities\\_states2015.cfm](https://safety.fhwa.dot.gov/ped_bike/ped_focus/focus_cities_states2015.cfm)

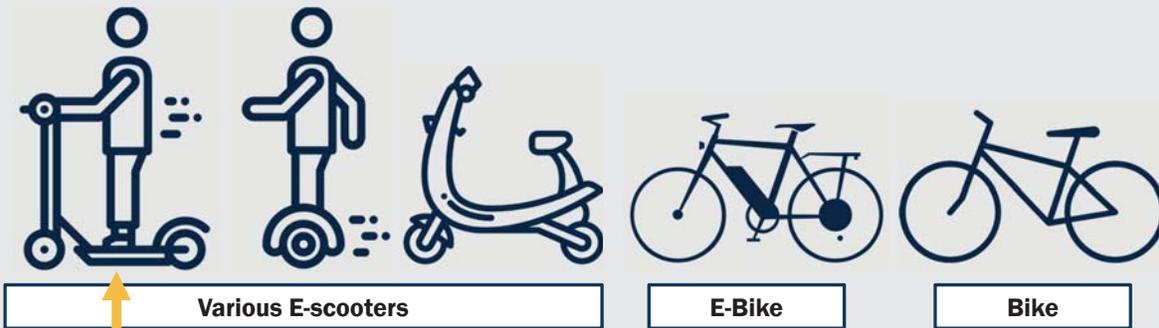
## Pedestrian-related activities proposed in the SDR



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## Scooters, "micromobility", "personal mobility devices", "shared mobility"



**84 million trips** in 2018

... still only 1.9% of all vehicle trips

**38.5 million trips** in 2018

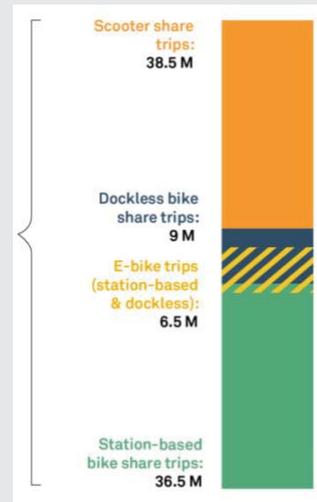
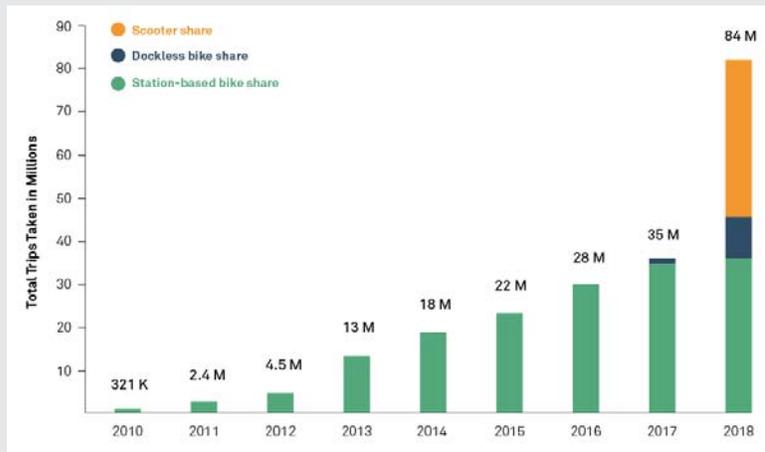
Note: there are more personal mobility devices than those pictured above.

Source: NACTO

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## E-scooters use has increased rapidly nationwide in recent years



84 million trips

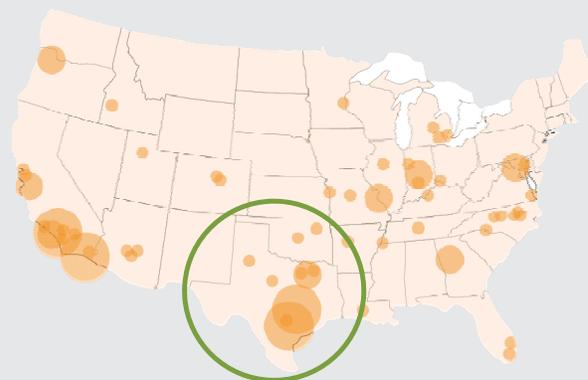
... still only 1.9% of all vehicle trips!

Source: NACTO

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## E-scooter locations and patterns<sup>1</sup>



- Used most frequently:
  - Between 12pm and 6pm
  - Friday, Saturday, and Sunday
- Users most commonly ride either “To/From work” or for “Recreation”
- Average length of E-scooter ride was 1.2 miles and lasted 16 minutes
- Exclusively located in urban/suburban contexts

<sup>1</sup>As indicated by 2018 NACTO shared E-scooter program data analysis and program surveys.

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### Potential benefits

- Providing additional transportation choices
- Encourage higher transit use by mitigating “last-mile problem”
- Replacing cars for short trips
- They’re fun! Getting transportation network users off highways (economic development)

### Potential costs

- Conflicts with pedestrians on sidewalks
- Parking e-scooters on sidewalks, blocking accessibility and creating trip-hazards
- Safety risk associated with roadway use by unskilled riders
- Localized urban congestion
- Equity concerns



- Do you think the BAC should consider these topics?
- Commonalities
- Differences
- Thoughts for future discussion



## Please send additional questions and comments to:



### **Bonnie Sherman, AICP**

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(512) 486-5974  
**JACOBS**

## BIKEWAY SELECTION GUIDE

# FHWA Bikeway Selection Guide

**Lauren Blackburn**  
[lblackburn@vhb.com](mailto:lblackburn@vhb.com)



FEBRUARY 2019

## Purpose of the Guide



The Federal Highway Administration's Bikeway Selection Guide is a resource to help transportation practitioners consider and make informed trade-off decisions relating to the selection of bikeway types.



“ It is intended to supplement planning and engineering judgment. It incorporates and builds upon FHWA’s support for design flexibility to assist transportation agencies in the development of connected, safe, and comfortable bicycle networks that meet the needs of people of all ages and abilities. ”

## Disclaimer

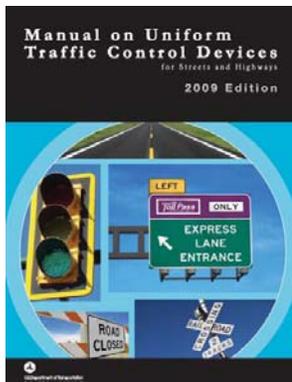
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This guide IS NOT a design guide. It’s sole purpose is to help practitioners make informed decisions for selecting a bikeway.

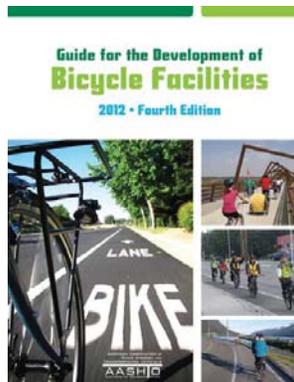
Design guidance for bikeways should be referenced from AASHTO, FHWA, MUTCD, and NACTO sources.



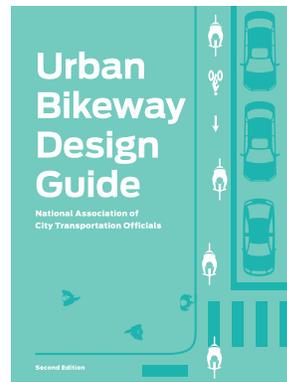
# Chapter 1: Introduction Bikeway Selection Guide Supports



FHWA



AASHTO



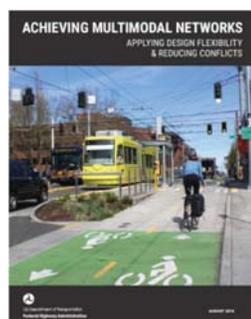
NACTO & ITE



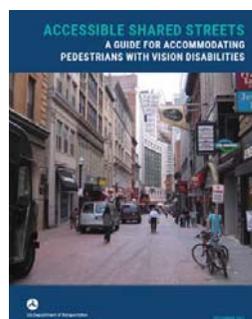
# Chapter 1: Introduction Bikeway Selection Guide Complements



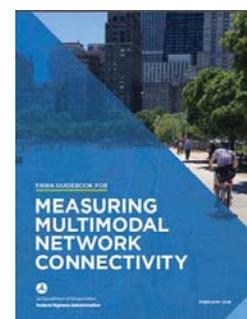
FHWA Separated Bike Lane Planning and Design Guide  
May 2013



FHWA Achieving Multimodal Networks  
August 2016



FHWA Accessible Shared Streets  
September 2017



FHWA Measuring Multimodal Network Connectivity  
February 2018



# Chapter 2: Bikeway Selection Process

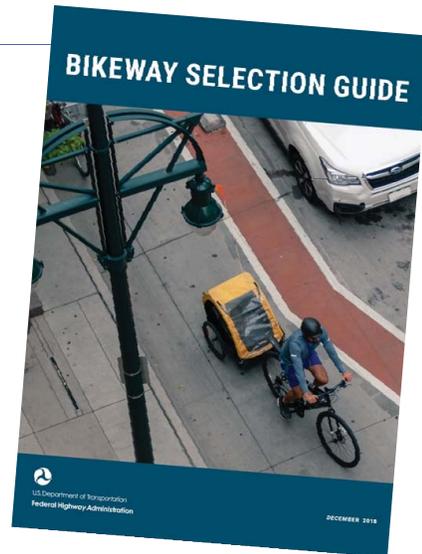
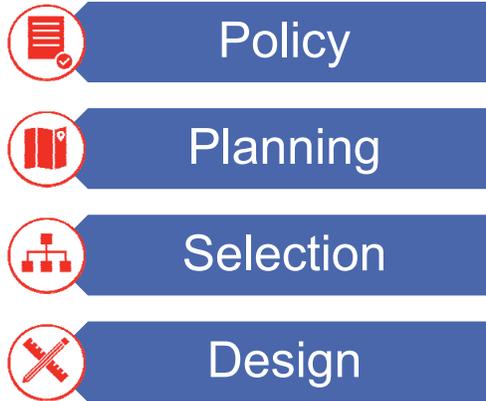
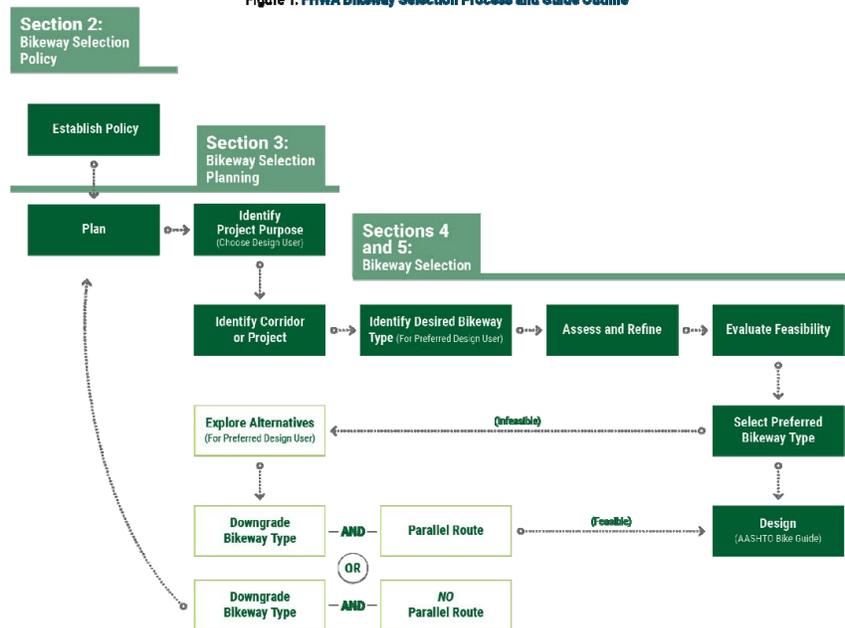


Figure 1: FHWA Bikeway Selection Process and Guide Outline

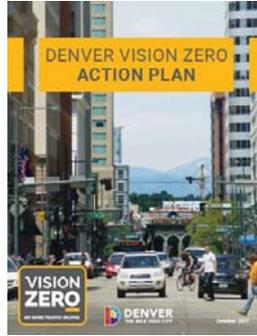


# Chapter 2: Establish Bikeway Selection Policy

## Example:

Define specific goals and expectations for the bicycle network.

- Increase bicycling?
- Improve safety?



### Reconfigure streets and intersections to improve safety and operations

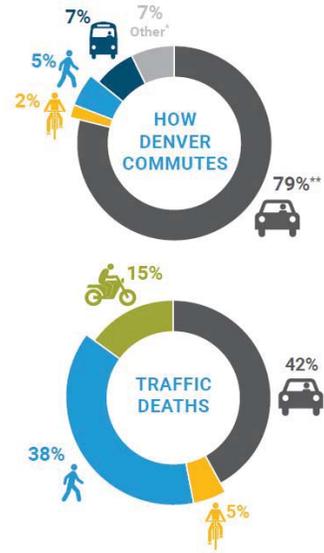
Continue building the enhanced bikeway network and the amenities that support it (bicycle detection, parking), and phase implementation to ensure connectivity.

20 miles of bikeways/year



U.S. Department of Transportation  
Federal Highway Administration

Figure 2: How Denver commutes versus Denver traffic deaths



\* Includes motorcycle commuting

\*\* Includes driving alone and carpooling

Source: U.S. Census Bureau (2011-2015); DPD (2011-2016)

# Chapter 3: Bikeway Selection Planning

## Vision

The Bicycle Network

Target Design User

Bikeway Types

Road Context

Project Type and Purpose

## Bicycle Network Vision Statements

### Massachusetts Department of Transportation Statewide Bike Plan Vision

Massachusetts' integrated and multimodal transportation system will provide a safe and well-connected bicycle network that will increase access for both transportation and recreational purposes. The Plan will advance bicycling statewide as a viable travel option - particularly for short trips of three miles or less - to the broadest base of users and free of geographic inequities.



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# BICYCLIST DESIGN USER PROFILES

## Interested but Concerned

51%-56% of the total population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

## Somewhat Confident

5-9% of the total population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

## Highly Confident

4-7% of the total population

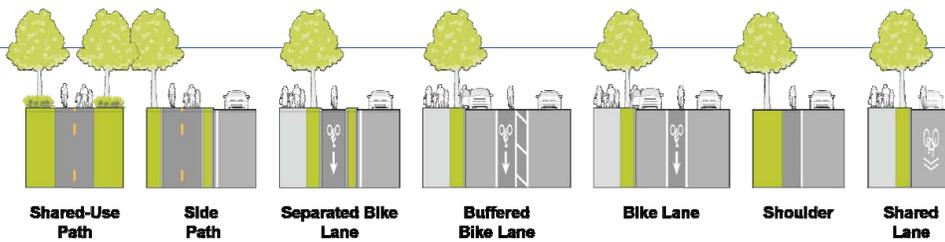
Comfortable riding with traffic; will use roads without bike lanes.



LOW STRESS TOLERANCE

HIGH STRESS TOLERANCE

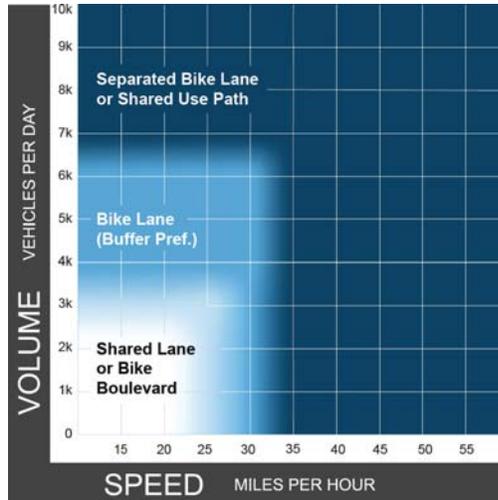
Source: Dill, J., McNeil, N. (2012). *Four Types of Cyclists? Examining a Typology to Better Understand Cycling Behavior and Potential.*



SEPARATION FROM TRAFFIC



# Chapter 4: Bikeway Selection City, Small Town, and Suburban Roadways



Identifies the **preferred** bikeway type.

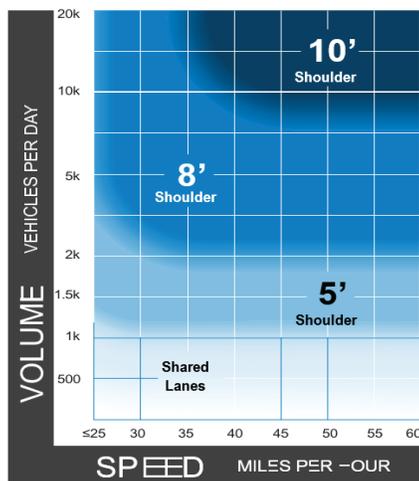
**Design User Assumption:**

Interested but concerned cyclist

**Analysis:**

Bicycle Level of Traffic Stress

# Chapter 4: Bikeway Selection Rural Roadways



Identifies the **preferred** shoulder width.

**Design User Assumption:**

Confident cyclist

**Analysis:**

Bicycle Level of Service

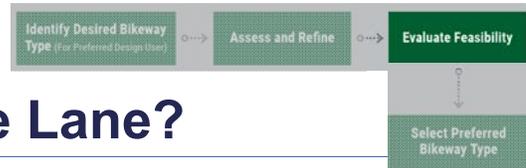
# Assessing and Refining the Desired Bikeway Type



- Motor Vehicle Peak Hour Volumes
- Traffic Vehicle Mix
- Curbside Activity (e.g. deliveries and parking turnover)
- Driveway and Intersection Frequency
- Direction of Operation
- Vulnerable Populations and Equity Considerations
- Network Connectivity Gaps
- Transit Considerations (first- and last-mile connections)



# Evaluating Feasibility Wide Outside Lane or Bike Lane?



15 – 16' Wide Outside Lane



## Wide lanes:

- Do not improve bicycling comfort
- Encourage faster traffic
- Shared lanes have higher bike crash risk

10' – 11' Lane with 5'-6' bike lane



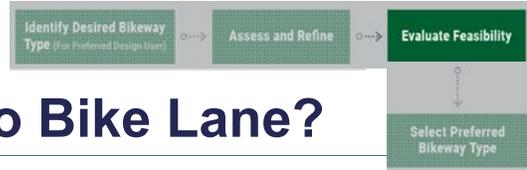
## Narrow lanes with bike lanes:

- Improve bicycling comfort
- Encourage slower traffic
- Have lower bike crash risk
- Generally do not increase motorists crash rates if on 45 mph or less roadways



Source: Longview, TX Bicycle and Pedestrian Plan

# Evaluating Feasibility Door Zone Bike Lane or No Bike Lane?



15 – 16' Wide  
Outside Lane  
adjacent to parking



## Wide lanes:

- Do not improve bicycling comfort
- Encourage faster traffic
- Shared lanes have higher bike crash risk
- Parking increases bike crash risk

10' – 11' Lane  
with 5'-6' bike lane  
adjacent to parking



## Narrow lanes with bike lanes:

- Improve bicycling comfort
- Encourage slower traffic
- May lower bike crash risks compared to wide lanes



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# Evaluating Feasibility Narrow Bike Lane or 2-Way Separated Bike Lane?



## Narrow Bike Lanes:

- Improve bicycling comfort for Confident bicyclists
- Do not accommodate Interested but Concerned bicyclists



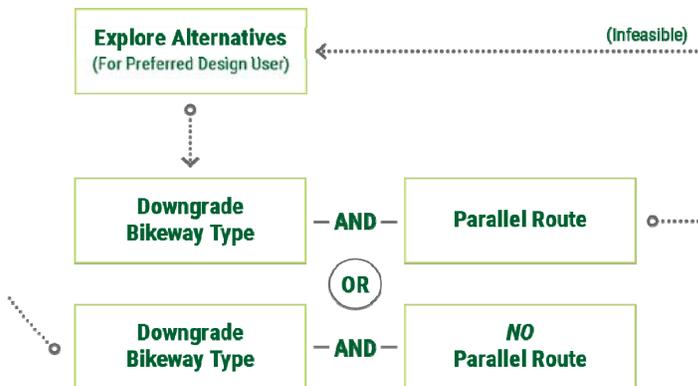
## 2-Way Separated Bike Lanes:

- Improve bicycling comfort for all bicyclists increasing use
- Has higher rate of bicycle crashes compared to 1-way separated bike lanes due to contra-flow movement



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## Preferred bikeway is “infeasible”



Downgrading Bikeway has potential impacts:

- Suppressed bicycling
- Reduced safety from:
  - Sidewalk bicycling
  - Shared lane or constrained bikeway dimensions



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## Workshops

Group discussion and exercises – reviewing examples

Develop an Action Plan for applying the Guide

Questions – Technical Needs?

- Best practices for considering parking
- Tools for selecting bikeways at intersections
- Integration in Planning Programs and Design Manuals



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# Paso del Norte Trail

A county-wide linear trail for the El Paso region



- Spur economic development
- Provide recreational opportunities
- Improve community health
- Enhance transportation options

## Vision for PDN Trail



Arizona Grand Canal Trail



Katy Trail - Dallas

Urban Land Institute Rendering for Franklin Canal



Atlanta Beltline

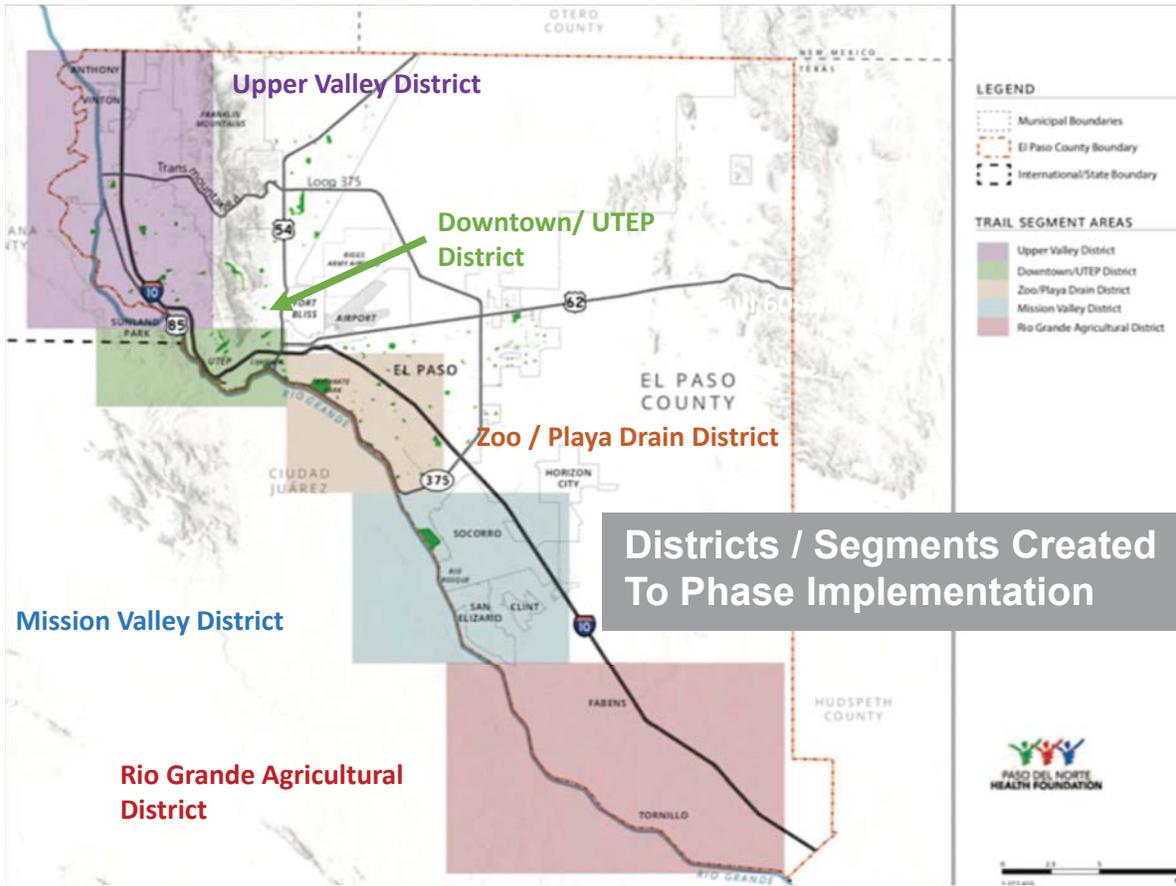


## Why PDNHF?

- The **mission of the Paso del Norte Health Foundation** is to lead, leverage and invest in initiatives, programs and policies that **promote health and prevent disease** in the Paso del Norte region.
- **After receiving a request from the County of El Paso**, the Health Foundation decided to **support a master plan** for the development of a 68-mile county-wide multipurpose trail
- The project builds on work **originally envisioned as part of the Rio Grande Riverpark & Trail System in the 2000s**.



- Funded by the Paso del Norte Health Foundation
- Technical assistance provided by the National Park Service Rivers, Trails and Conservation Assistance Program
- Developed between May 2017 and October 2018 with extensive public outreach, including social media, public meetings, interviews with community and agency stakeholders, and a community survey
- Developed in cooperation with multiple stakeholder organizations including government, schools, neighborhood associations, private businesses and nonprofit organizations



## Trail Progress



# Regional Partnerships / Collaborative Development

The trail leveraged funding for trail development from:

- Paso del Norte Health Foundation
- El Paso Metropolitan Planning Organization
- Texas Department of Transportation
- Community Development Block Grant Program (CDBG)

With partnership support from:

- The City of El Paso
- El Paso Water
- The County of El Paso
- El Paso Water Improvement District No. 1.



## Roadmap for Implementation: Next Steps

- **Funded:** Strategic Implementation Plan for Downtown to Playa Drain segment
- **Funded:** Team to manage Paso del Norte Trail Advisory Board, which meets five times per year
- **Funded:** Team to promote trail on social media and website, and identify & apply for funding
- **Funded:** Team to secure endorsements from multiple entities
- **In Process:** Applying for grants to support construction, amenities, programming, etc.
  - CMAQ, TASA, Recreational Trails Program, CDBG, etc.



## Trail Amenities



## Benefits of Trails



Trails and outdoor recreation opportunities are an excellent way for people to get outdoors, exercise, and explore their neighborhoods.

## Benefits of Trails

Additionally, trails:

- Provide **healthy opportunities** for walking, biking, and more
- Offer **connections** from communities to local businesses, places of employment, and other destinations
- Encourage additional **economic development and investment** in areas adjacent to the trail.
- Celebrate the region's **culture** by weaving together history, natural areas, and neighborhoods.
- Become a **community asset** and attraction drawing tourists interested in exploring long distance trails

## Health Benefits of Trails

- In southeastern Missouri, 55% of trail users are exercising more now than before they had access to a trail.
- A North Carolina State University study found that 57% of respondents they likely would exercise more if the trail were created.
- The power of physical activity to **improve mood and prevent disabilities** and chronic diseases is especially pronounced for older adults
- **Exercising helps:**
  - prevent heart disease
  - control weight, cholesterol levels, and diabetes
  - slow bone loss associated with advancing age
  - lower the risk of certain cancers
  - reduce anxiety and depression

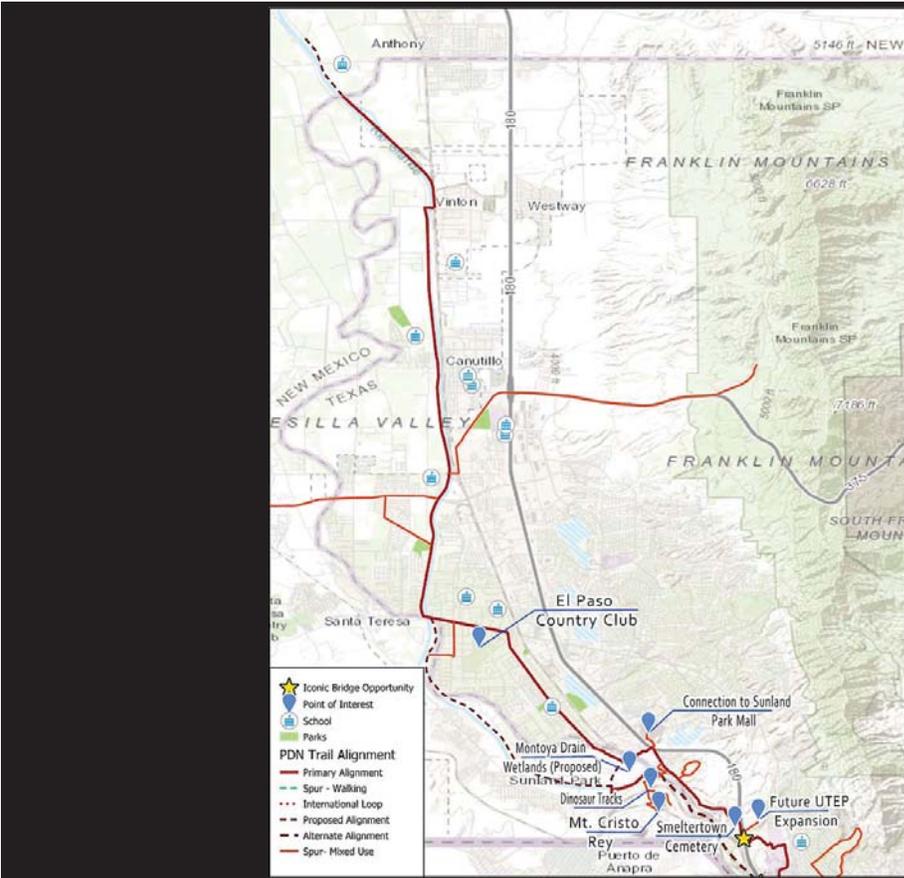


Mark I. Ivy and Roger L. Moore, "2000 Cary Greenway Neighbor Study: Assessing Landowner Attitudes Towards Proposed Greenway Trail Development," North Carolina State University, Department of Parks, Recreation and Cultural Resources, April 2, 2001.  
Centers for Disease Control and Prevention and the President's Council on Physical Fitness and Sports, *Healthy People 2010, Conference Edition (2000)*, Section 22—Physical Activity and Fitness.

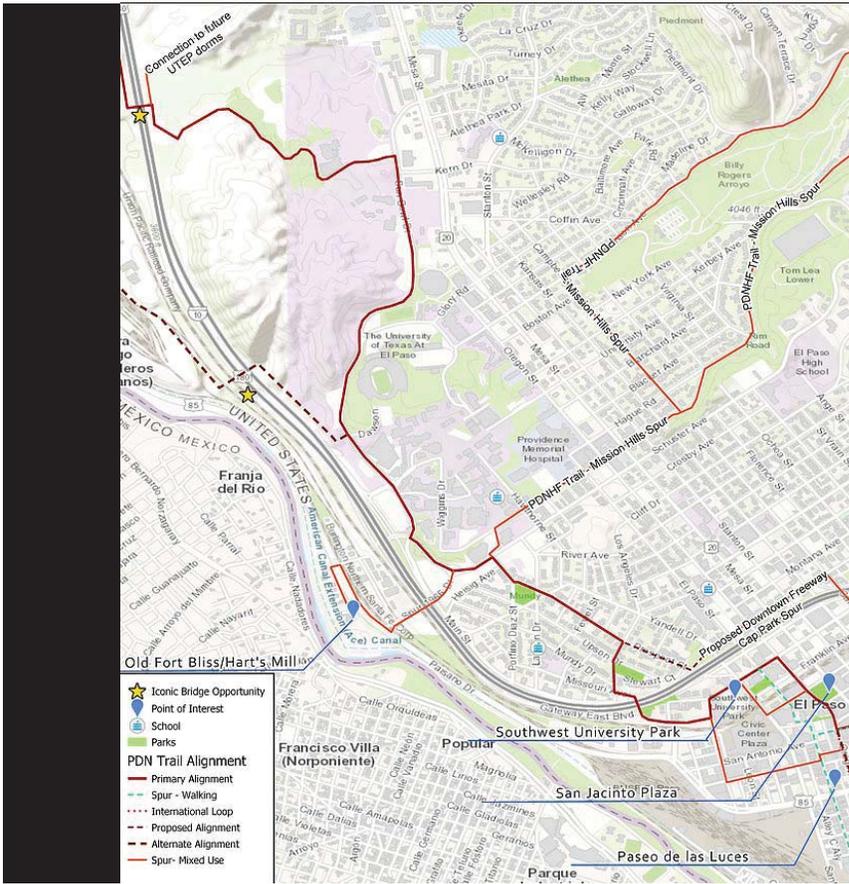
Lars Bo Andersen, Peter Schnohr, Marianne Schroll and Hans Ole Hein, *Arch Intern Med.*, Vol. 160



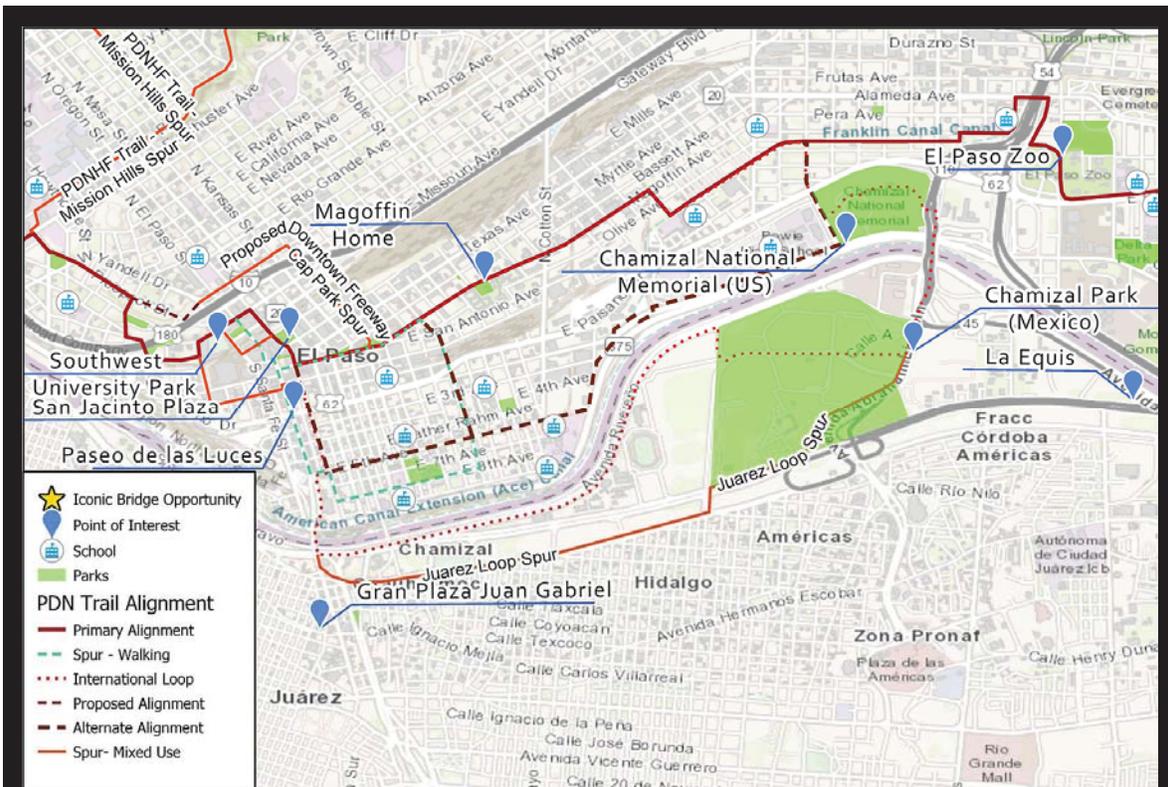
Thank you!



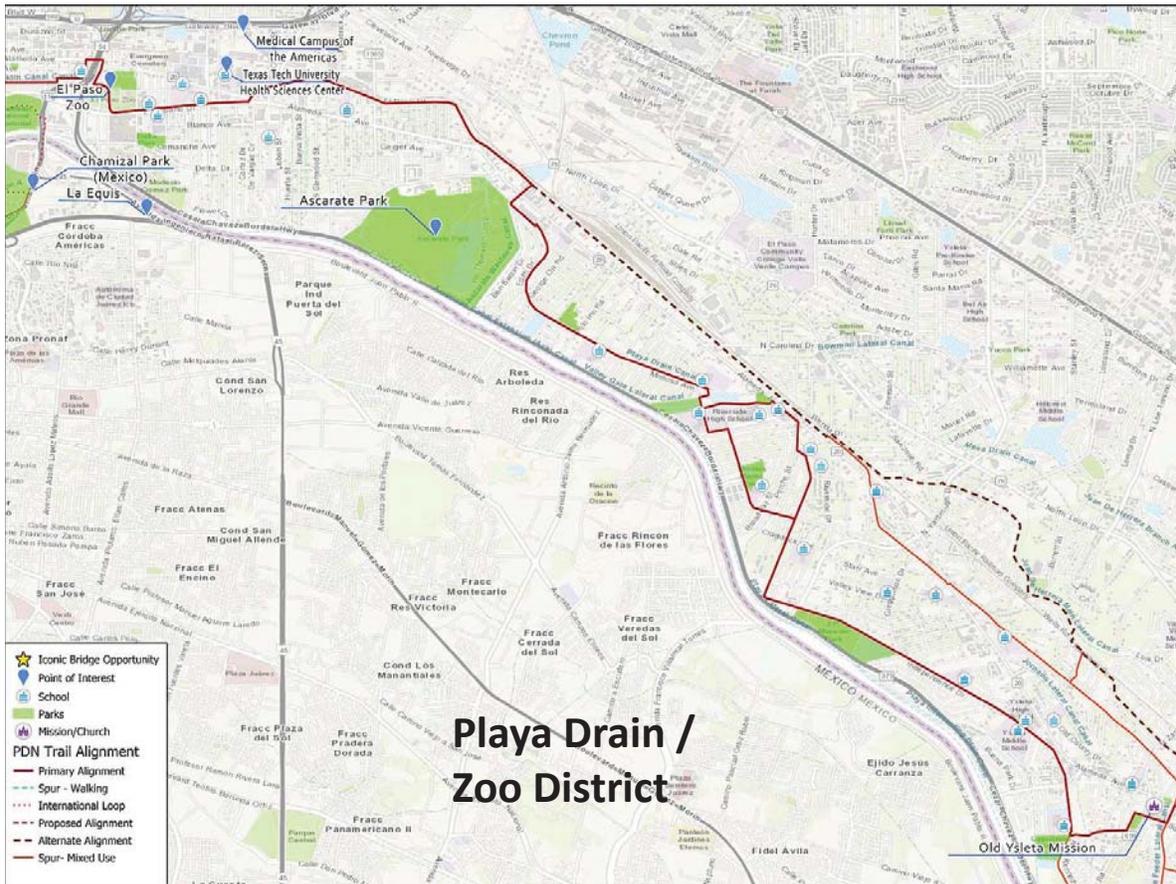
# Upper Valley District



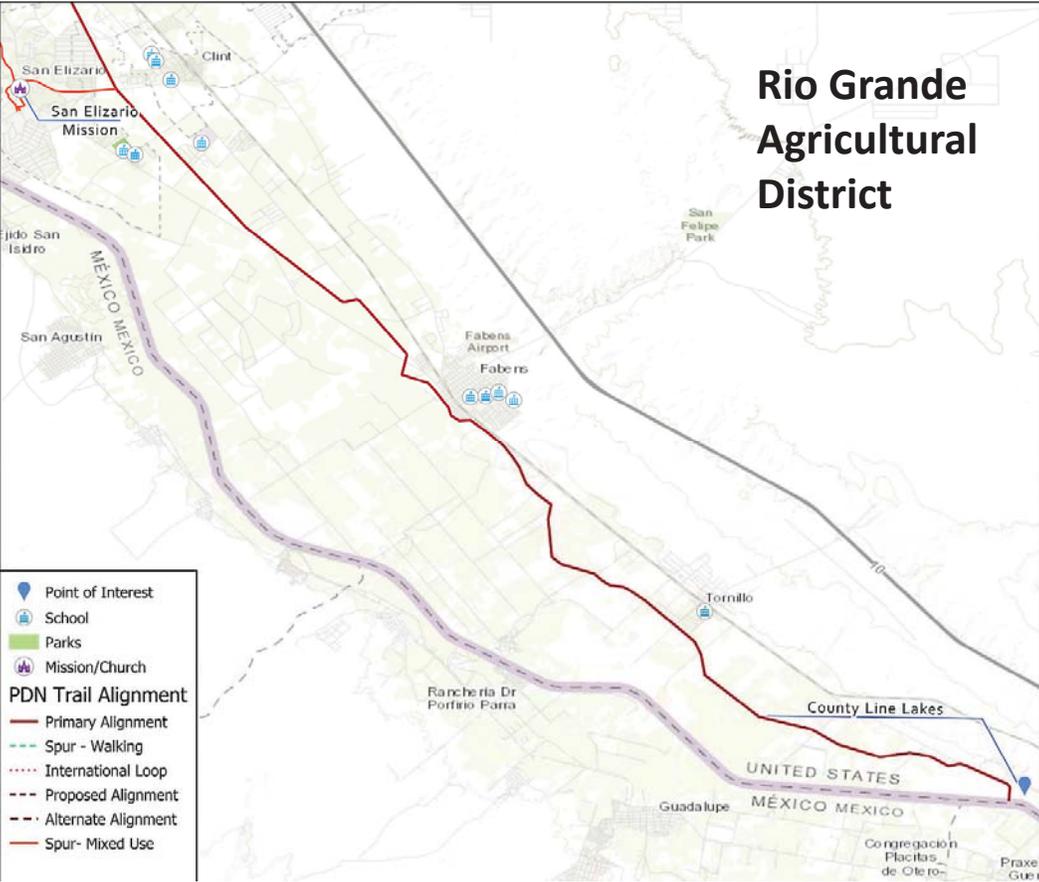
## Downtown / UTEP District



## Downtown



# Rio Grande Agricultural District



- Point of Interest
  - School
  - Parks
  - Mission/Church
- PDN Trail Alignment**
- Primary Alignment
  - Spur - Walking
  - International Loop
  - Proposed Alignment
  - Alternate Alignment
  - Spur - Mixed Use