1st Avenue: River Road to Grant Road

1st Avenue Citizens' Task Force Meeting

2/20/2025

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Approval of January Meeting Minutes

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Call to the Audience

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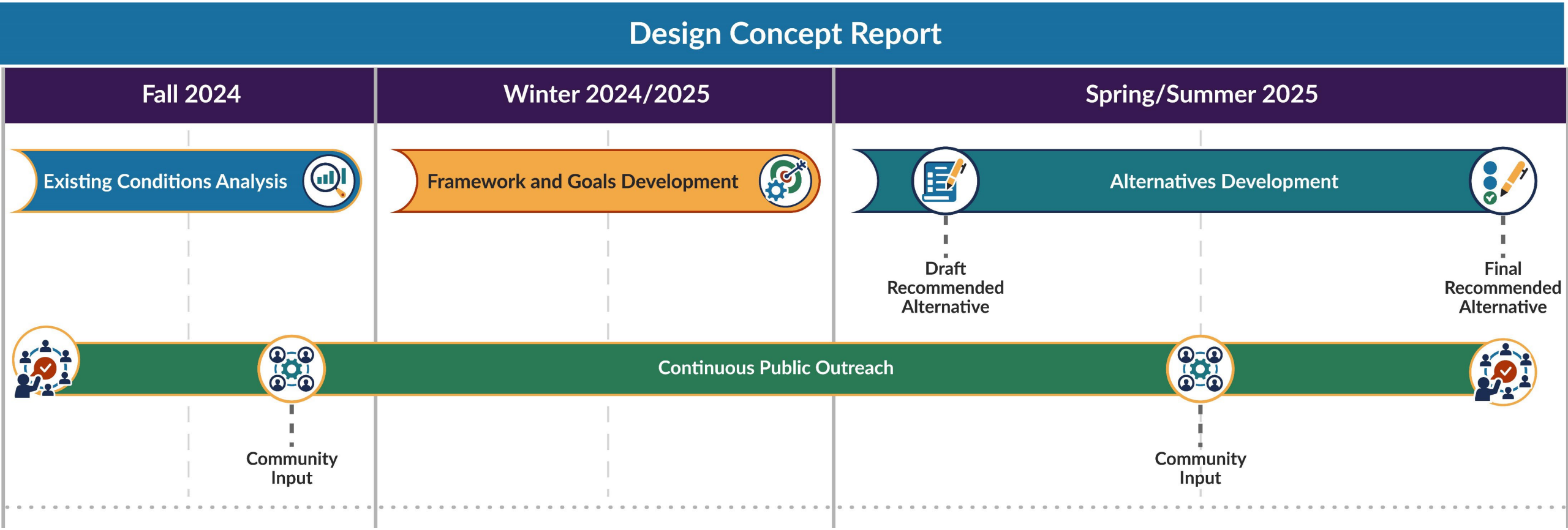
Project Overview



Project Overview

Task Force Schedule for 2025

Framework and Goals Development		Alternatives Development						DCR Development
January	*February*	*March*	*April*	*May*	*June*	*July*	*August*	*Sept. - Dec.*
Draft Goals and Roadway Cross-Section	Draft Prioritization Framework and Roadway Alignment	Final Prioritization Framework and Intersection Types/Locations	Draft Roadway Design Review	Bridge and Drainage Design Review	N/A	Open House Review, Roadway Design Review and Environmental Considerations	Design Review	Design Review As-Necessary
			Draft Alignment Recommendation	**Open House**	**No Meeting**		**Alignment Recommendation to DCR**	**Final DCR Alignment Acceptance**

Project Goals

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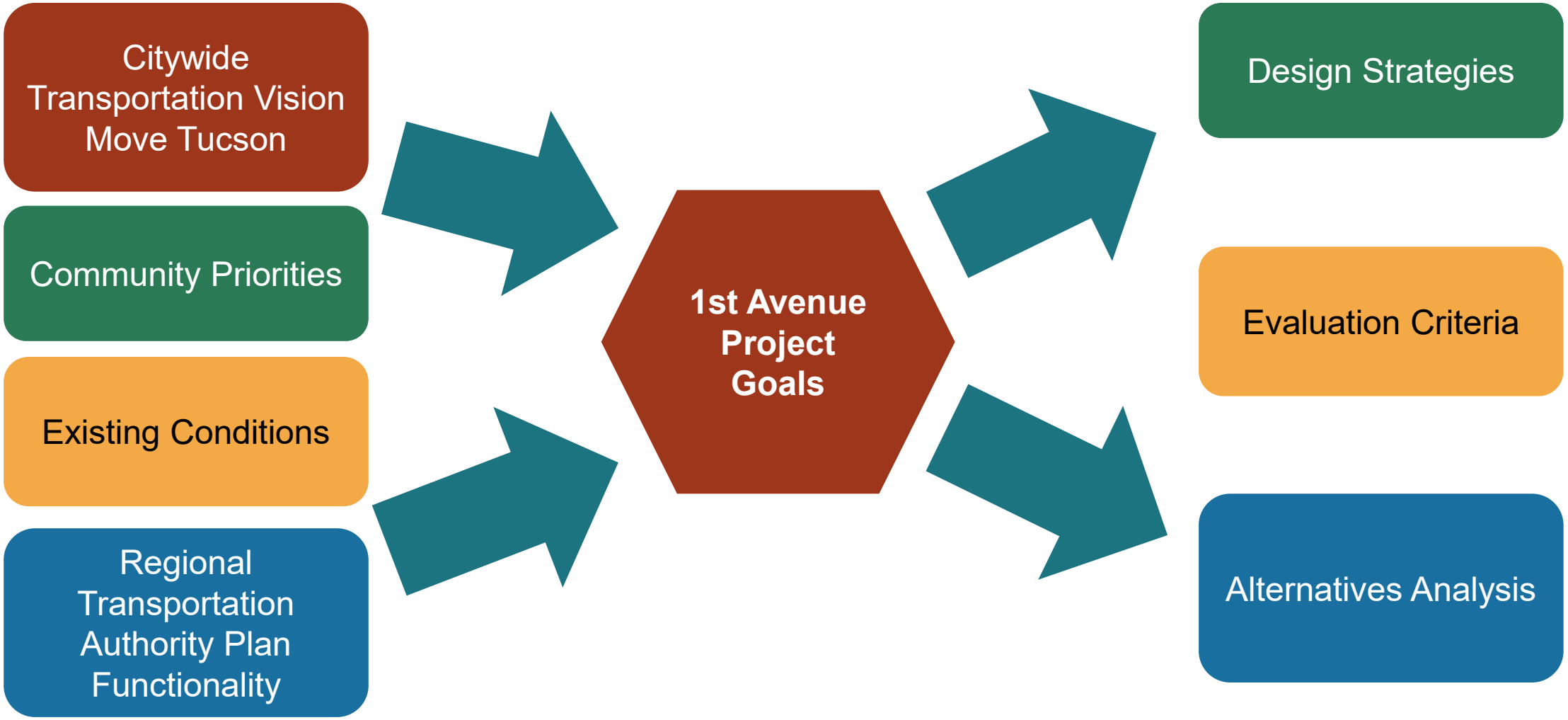
Project Goals

Goal Development



Project Goals

Defining Goals

- Describe an outcome of the 1st Avenue Project
- Provide a clear direction for that outcome
- Broad and simple, containing a single concept per goal - not overly specific
- Able to be evaluated, assessed, or measured

Project Goals

Purpose of Project Goals

- Guide project design strategies/priorities
- Inform Task Force/Project Team discussions/decisions in navigating design trade-offs
- Establish project evaluation of corridor alternatives to be reflected in Design Concept Report (DCR) preferred alternative

Move Tucson Vision (for reference)

Tucson is preparing for a future in a rapidly changing world by making economically and environmentally resilient transportation investments. We are working together to create a mobility future that reduces barriers and enables opportunities for all of us by **increasing transportation choices, improving safety, and investing in the infrastructure we already have.** Tucson will dramatically shift how we invest in transportation to support a thriving, inclusive, and sustainable city for Tucson residents, businesses, and visitors.

Project Goals

1. **Improve Safety** for all users of 1st Avenue, particularly for the most vulnerable road users, such as pedestrians, bicyclists, people with disabilities, motorcyclists, and others.

2. **Increase transportation options** and reduce barriers on 1st Avenue by improving comfort, convenience, and accessibility for people walking, biking, and using public transportation.

3. Improve the condition of **existing infrastructure** to ensure that 1st Avenue meets community needs now and into the future.

4. **Support mobility** along the corridor through the efficient movement of traffic, including transit, personal, and commercial vehicles.

5. **Minimize the impacts** of 1st Avenue improvements on adjacent residents and businesses.

6. Enhance the **visual character** of 1st Avenue to support economic and community vitality.

Design Strategies

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Key Design Strategies (example)

Project Goal

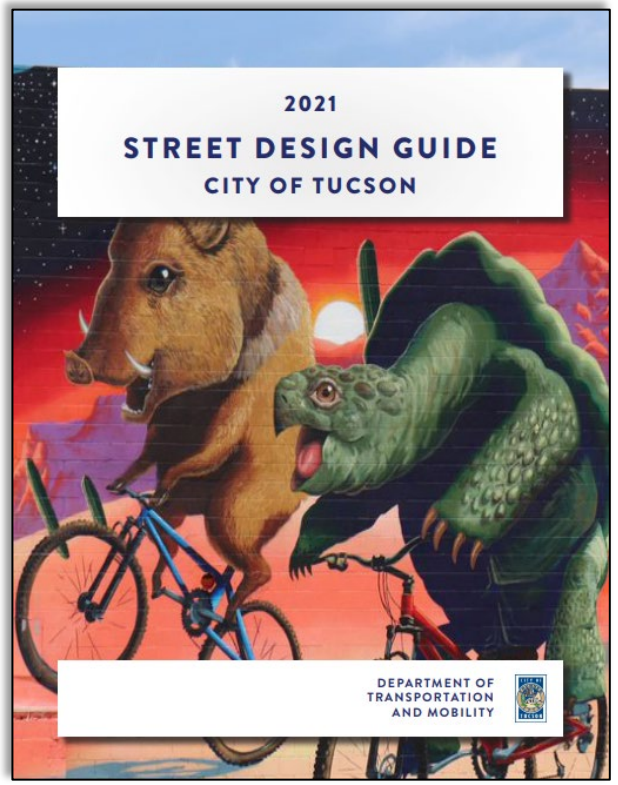
- Improve Safety for all users of 1st Avenue, particularly for the most vulnerable roadway users

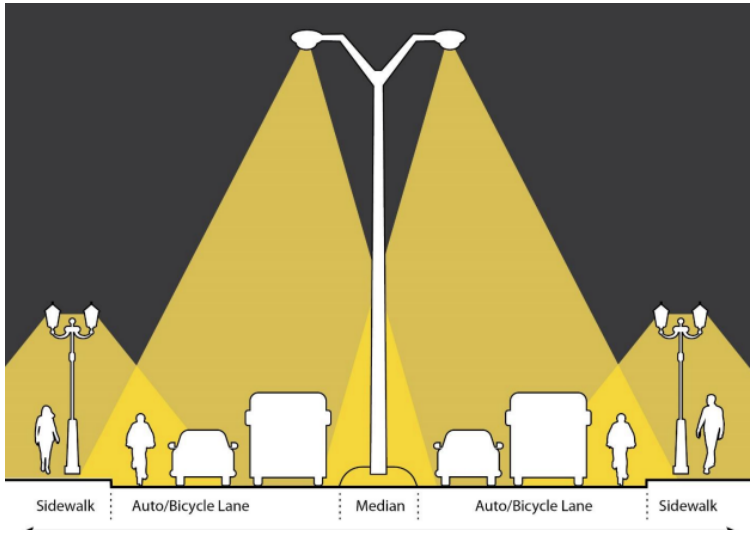
Key Design Strategies

- Employ the Safe Systems Approach principles in corridor design
- Provide physical separation between bicyclists and pedestrians and motor vehicles
- Manage vehicle speeds to reduce crash severity
- Provide adequate and continuous lighting along the corridor, particularly in the areas with the highest pedestrian activity
- Ensure that pedestrians and cyclists have access to frequent safe crossings
- Design intersections and upgrade traffic signals to reduce conflicts in space and time
- Minimize distances between bus stops and controlled crossings

Improve Safety

- Employ Safe Systems Approach principles in corridor design
- Provide physical separation of bicyclists and pedestrians from motor vehicles
- Manage vehicle speeds to reduce crash severity
- Provide adequate and continuous lighting along the corridor, particularly in the areas with the highest pedestrian activity
- Ensure that pedestrians and cyclists have access to frequent safe crossings
- Design intersections and upgrade traffic signals to reduce conflicts in space and time
- To extent feasible design sidewalks to be dominant across driveways, maintaining level, material, and slope of sidewalk





Increase Transportation Options

- Install wide, continuous, and accessible sidewalks
- Separate sidewalks from roadway to the greatest extent feasible with a planting/amenity zone and bicycle lanes
- Ensure that pedestrians and cyclists have access to frequent safe crossings.
- Provide the greatest amount physical separation between bicyclists and motor vehicles, including through installation of protected bike lanes
- Upgrade transit stops to be accessible, shaded, safe, and comfortable

Upgrade Existing Infrastructure

- Upgrade drainage infrastructure to provide all-mode access during more frequent/common storm events
- Replace the 1st Avenue bridge over the Rillito River
- Upgrade traffic lights at signalized intersections with adaptive and transit signal priority technologies
- Reconstruct pavement roadway, sidewalks, bicycle lanes, and install bus shelters to improve ride quality, comfort, accessibility and longevity of public infrastructure

Support Mobility

- Upgrade Traffic Signals with Adaptive and Transit Signal Priority Technologies
- Implement Access Management Strategies
- Evaluate strategies to efficiently and safely accommodate all modes at major intersections
- Incorporate bus pullouts at high demand locations

Minimize Impacts

Align the 1st Avenue corridor to minimize acquisitions of structures and properties

Support businesses during construction through partnership with the RTA Mainstreet program

Maintain access for residents, businesses, and neighborhoods along 1st Avenue

Visual Character

Landscaping – incorporate GSI to use stormwater as a resource

Public art – utilize bridge and other infrastructure elements to enhance the visual character of the corridor

Measures of Effectiveness (MOE)

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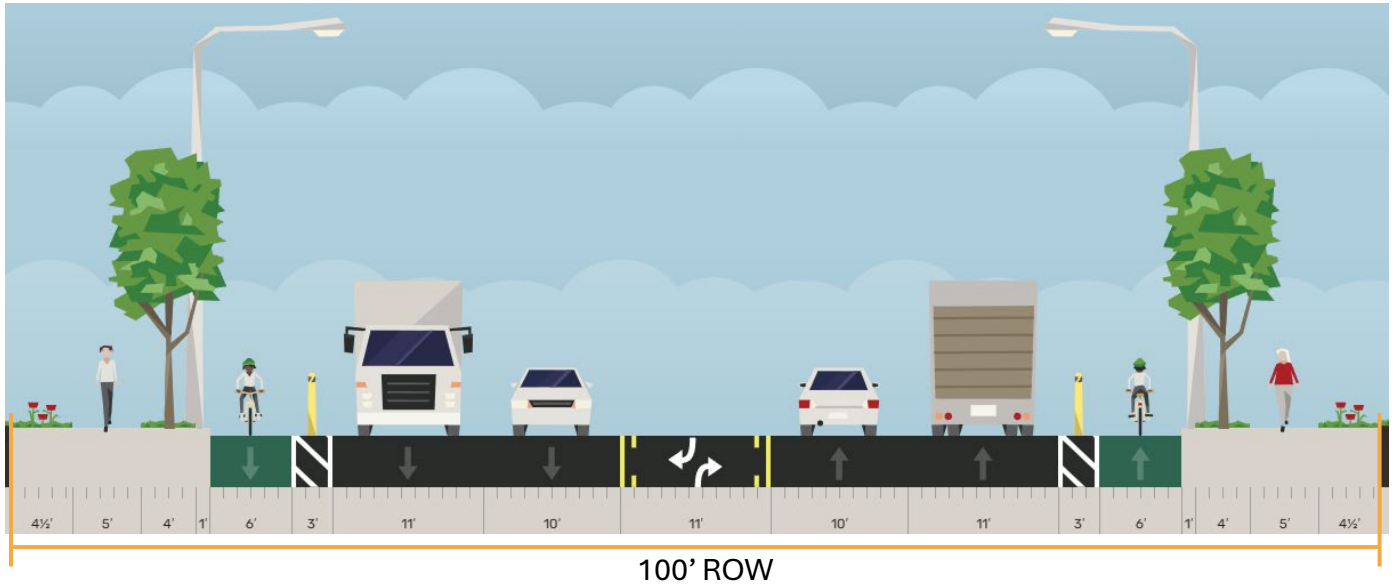
Decision Matrix

Goal	Strategy	Metric	Criteria	Performance		
				Most Desirable (3)	Desirable (2)	Least Desirable (1)
Improve Safety	Segment Strategies	Speed Management	Traffic Calming Measures	>3 Measures	2 Measures	1 Measure
		Street Lighting	Lighting Type	Roadway+Sidewalk	Roadway Only	Spot Locations Only
		Driveway Design	Sidewalk Setback	>80%	65-80%	50-65%
		Crossing Frequency	Distance	1/8 Mile	1/4 Mile	1/2 Mile
		Median Type	Median Protection	Continuous Median	Refuge Island	TWLTL
	Intersection Strategies	Left Turn Movements	Separate / Sight Distance	Protected Phase	Positive Offset	N/A
		Pedestrian Crossing	Pedestrian Exposure	<80'	80'-100'	>100'
		Signal Operations	Treatments	>3 Treatments	2 Treatments	1 Treatments
Safety Weight 5X - Average Score						
Increase Transportation Options	Pedestrian Strategies	Sidewalk Width	Traversable Width	>8'	6'-7'	4'-5'
		Sidewalk Buffer	Buffer Width	>6'	5'	<4'
	Bicycle Strategies	Bicycle Separation	Buffer Type	Vertical Separation	Buffer Separation	Traditional Bike Lane
		Protected Intersection	# of Intersections	Major and Minor	Minor	N/A
	Ped + Bike +Transit	Shade	% Cover	>20%	10-20%	<10%
	Transit Strategies	Upgraded Stops	# of Stops	>60%	40-60%	<40%
		Proximity to Crossing	Distance	<150'	250'	>300'
		Bus Pullout (Dedicated Stop)	Transit Demand	High Demand	Medium Demand	Low Demand
Transportation Options Weight 4.5X - Average Score						
Upgrade Existing Infrastructure	Drainage	Accommodate Storm Event	Scale of Improvement	Meets City Criteria	Improvement over Existing Condition	Maintains Existing Conditions
	Landscape Areas	Materials	Type	Hardscape (Concrete, Paver, Asphalt)	Natural (Rock, Vegetation)	No Treatment
	Bridge	Replace Existing Structure	Utilization and Physical Separation	All Users with Full Separation	All Users With Traditional Separation	Minimal Accommodation (Existing Condition)
	Pavement	Pavement Treatment	Constructed Alternative	Full Depth	Mill/Overlay	Surface Treatment
	ITS	Traffic Signal Technology	Treatments	Transit Signal Priority	Adaptative System	Traditional System
			Emerging Technologies	Dedicated Space	N/A	None
	Utilities	Utility Location	Location	All Behind Sidewalk	Adequate Space in Landscape Strip	Encroach into Sidewalk
Infrastructure Condition Weight 4.375X						
Support Mobility	Motor Vehicular	Level of Service (LOS)	Intersection LOS D	All Int Mov at LOS D or better	LT at LOS E and TH at LOS D or better	All Int Mov at LOS E or better
	Transit	Travel Time	% from existing	<10%	10%-20%	>30%
		Bus Pullout (Dedicated Stop)	# of Stops	All Intersection Stops	High Boarding and Alighting	Major Intersections
	Access Management	Median Openings	Distance	660 ft	330 ft	No Median (TWLTL)
Support Mobility Weight 4X						
Minimize R/W Impacts	Properties and Structures	Acquisitions/building impacts	# of impacts	No Impact	ROW Impacts	Structure Impacts
	Business Access	Vehicular Access to Properties	Median Opening / U-Turn Opportunity	TWLTL	Mid-Block	Signal Only
	Access during construction	Construction impacts	% impacts	Low	Medium	High
Minimize Impact Weight 4X						
Enhance Visual Character	Landscape Strategies	GSI	Pavement Area	>5%	1-5%	<1%
	Public Art	Elements	# of elements	>50%	50-20%	<20%
Visual Character Weight 3.375X						

Sample Cross Sections

Cross Section A

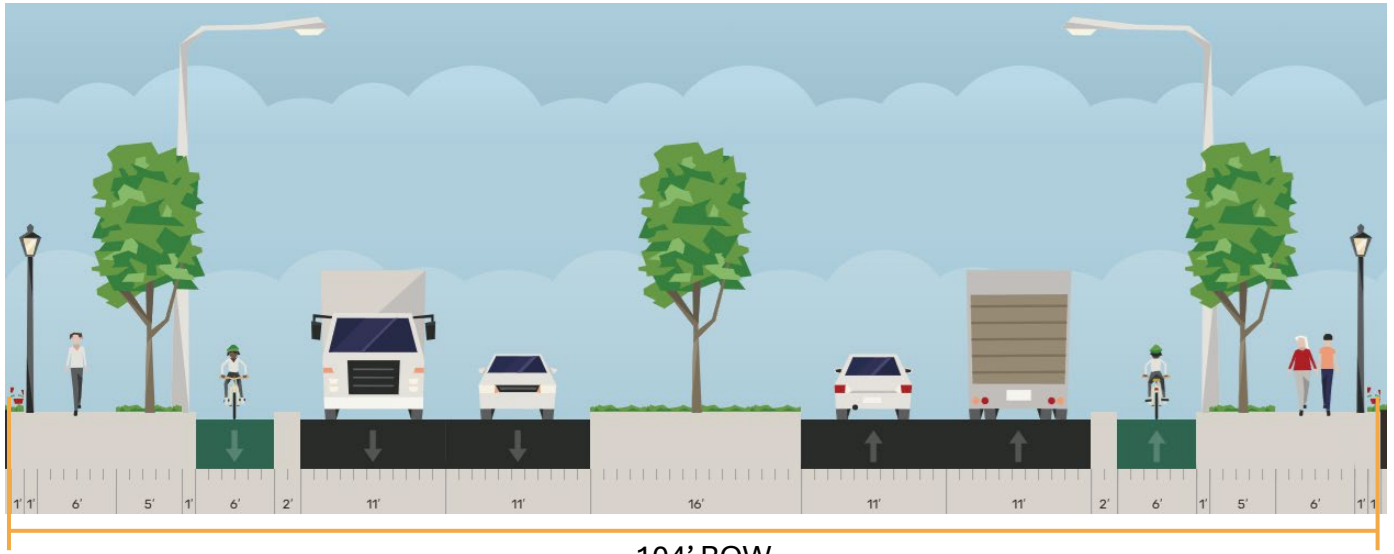
(100’ ROW)



100’ ROW

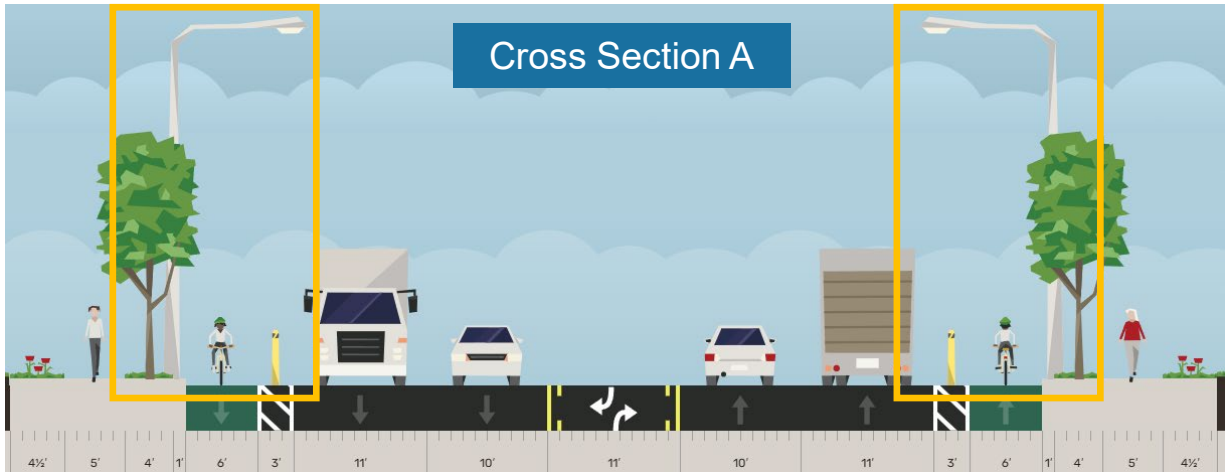
Cross Section B

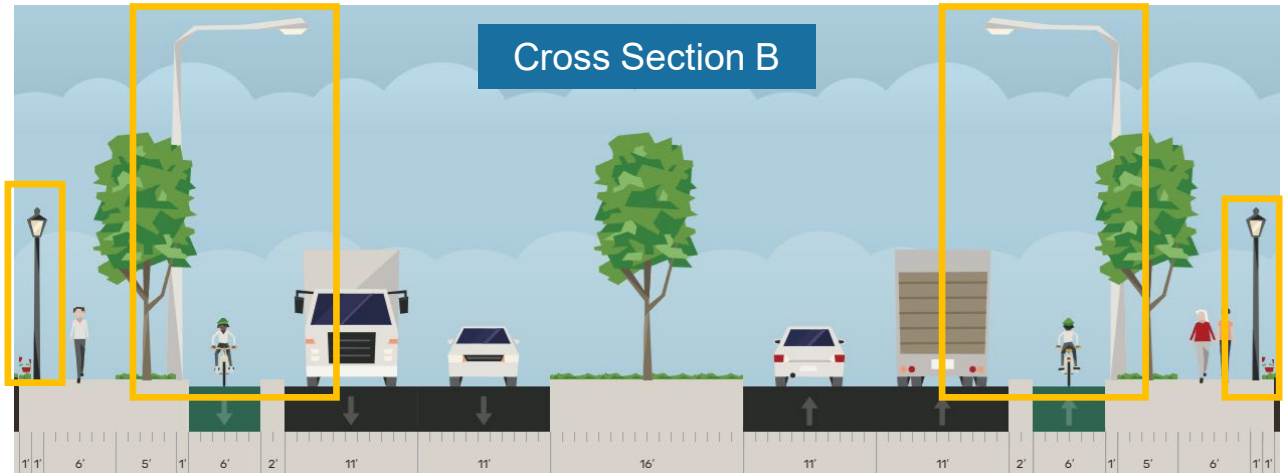
(104’ ROW)



104’ ROW

Street Lighting (Safety)

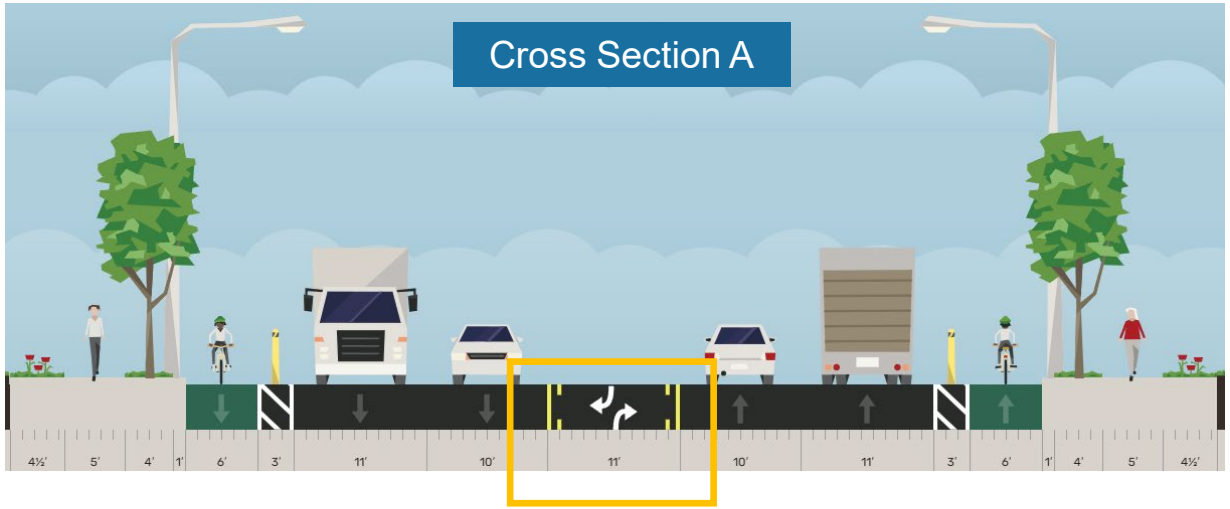


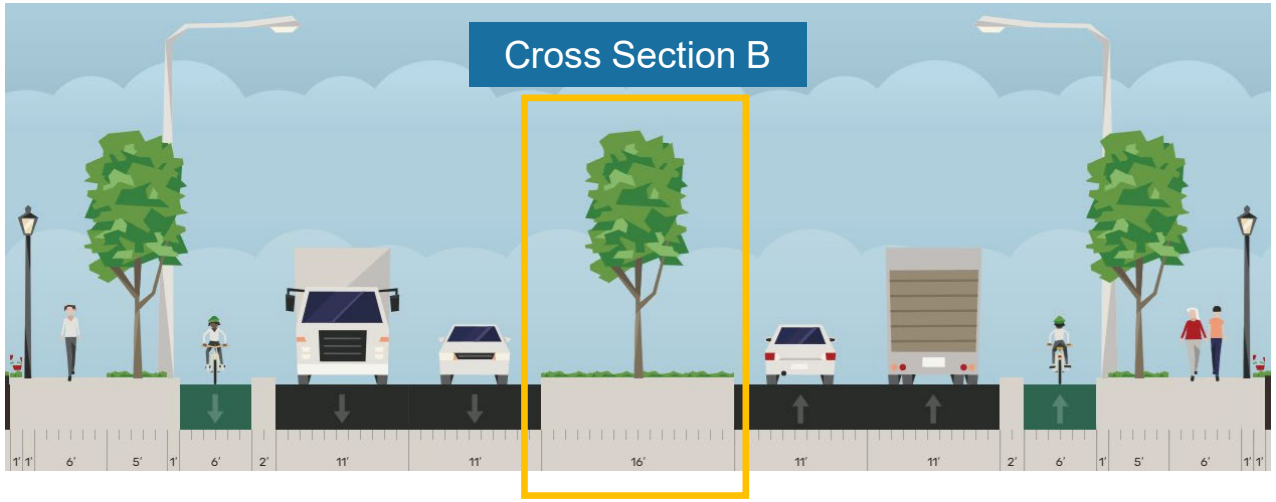


Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Street Lighting	Lighting Type	Roadway + Sidewalk	Roadway Only	Spot Locations Only	2

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Street Lighting	Lighting Type	Roadway + Sidewalk	Roadway Only	Spot Locations Only	3

Median Type (Safety)

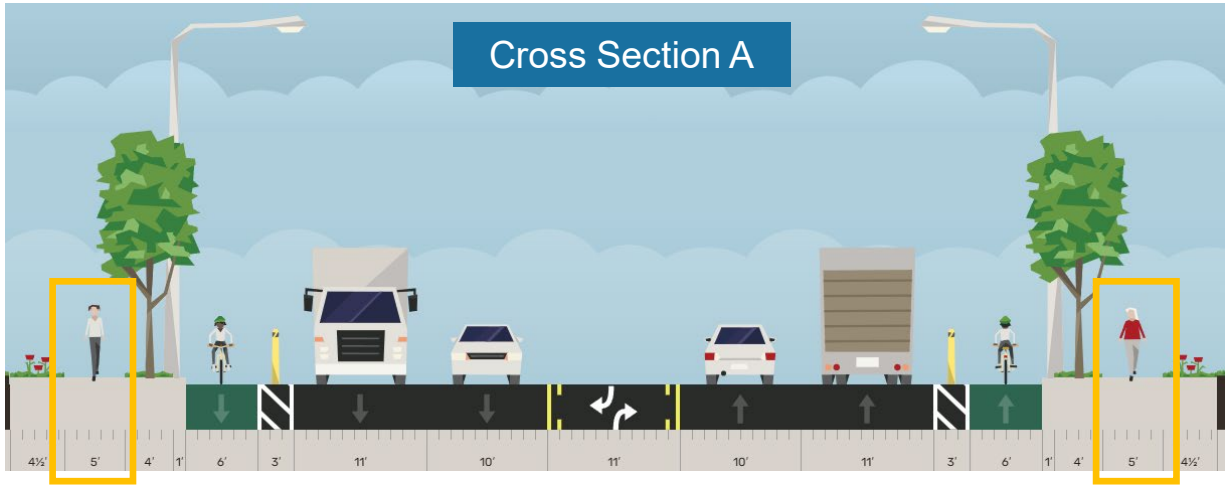


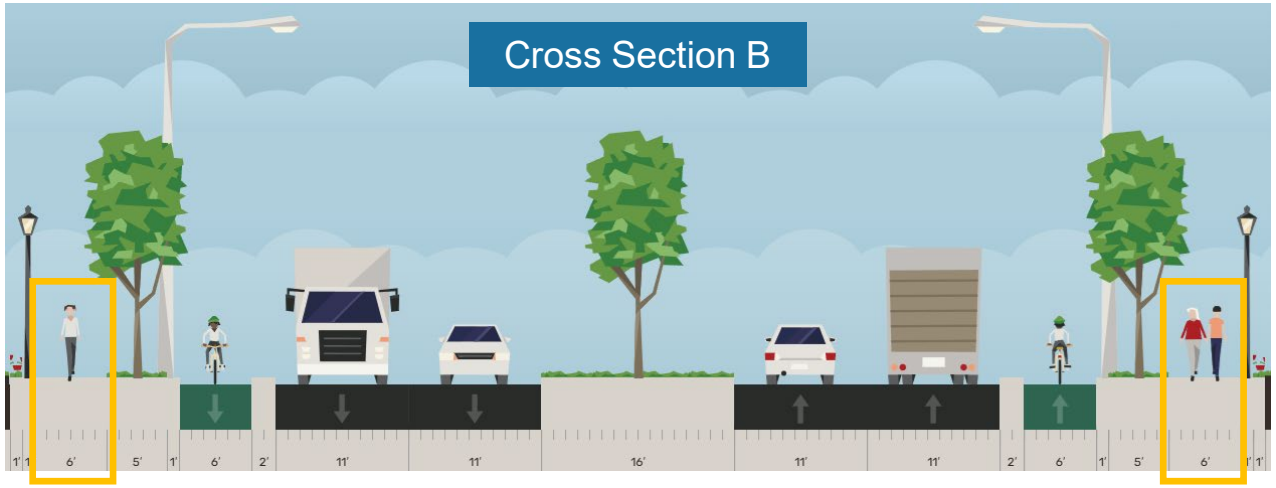


Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Median Type	Median Protection	Continuous Median	Refuge Island	TWLTL	1

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Median Type	Median Protection	Continuous Median	Refuge Island	TWLTL	3

Sidewalk Width (Transportation Options)

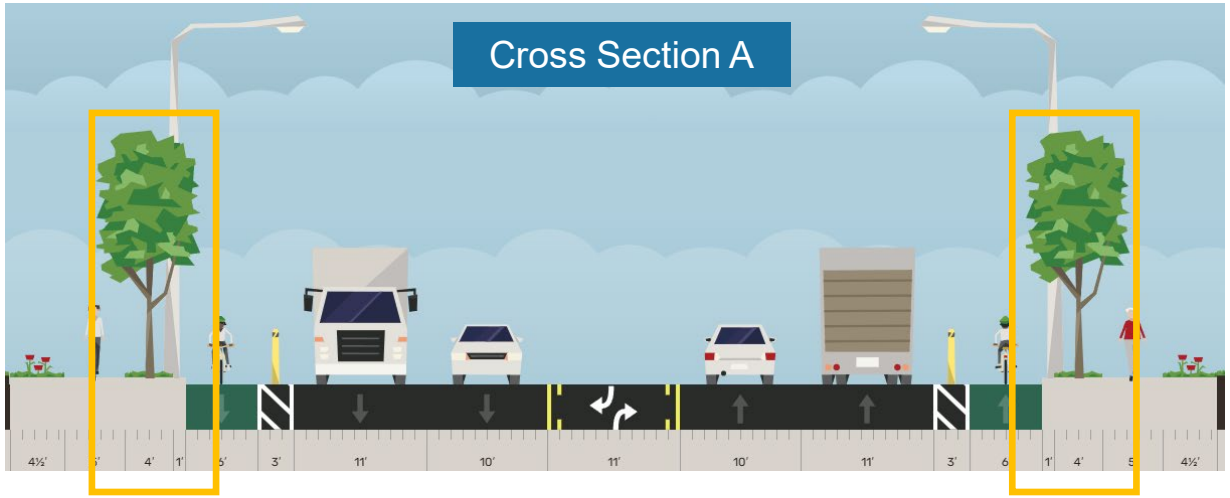


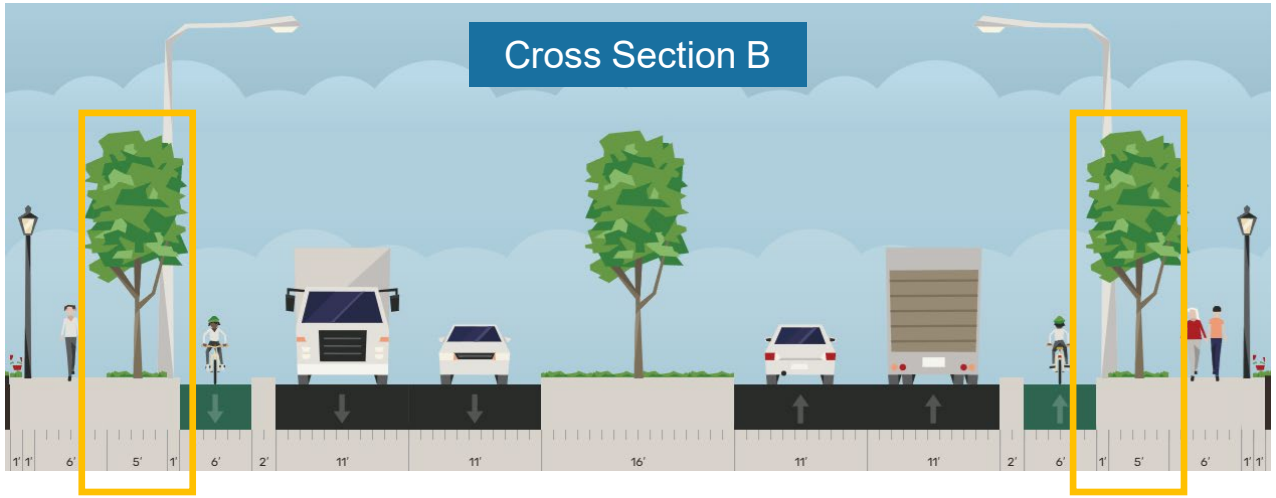


Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Sidewalk Width	Traversable Width	>8'	6'-7'	4'-5'	1

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Sidewalk Width	Traversable Width	>8'	6'-7'	4'-5'	2

Sidewalk Buffer (Transportation Options)

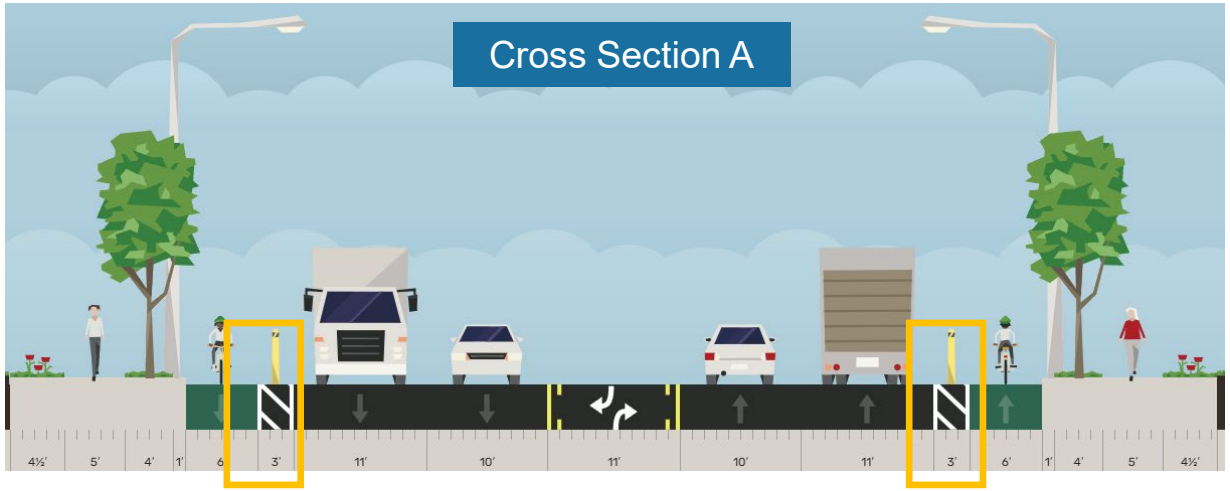


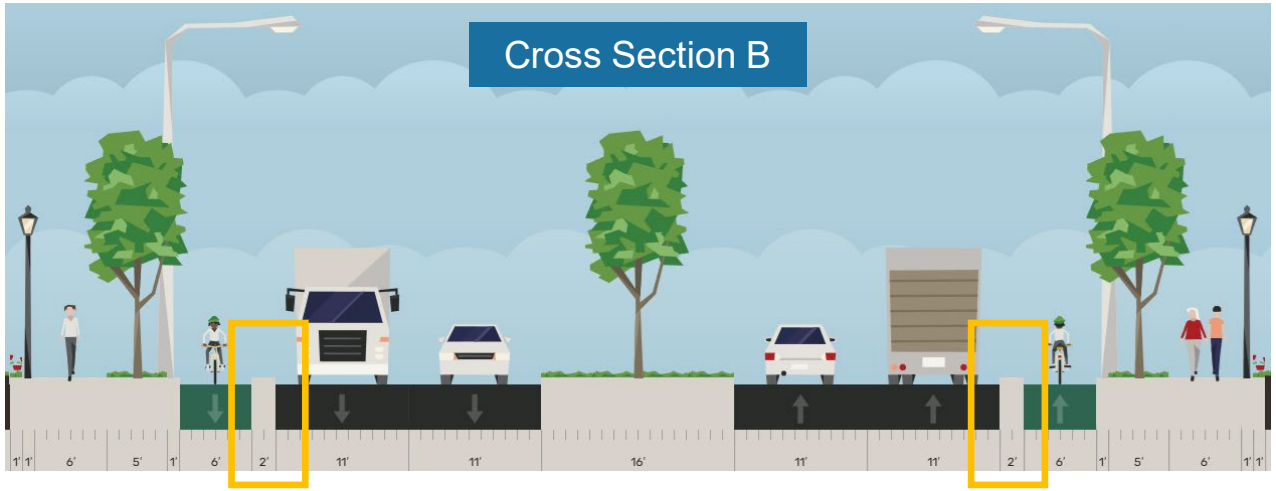


Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Sidewalk Buffer	Buffer Width	>6'	5'	<4'	2

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Sidewalk Buffer	Buffer Width	>6'	5'	<4'	3

Bicycle Separation (Transportation Options)

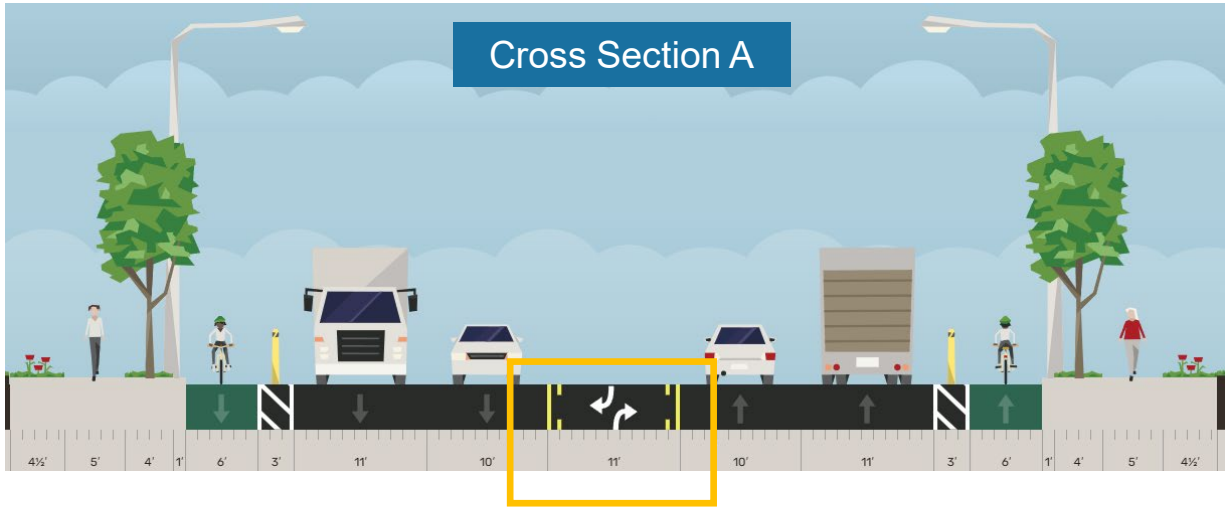


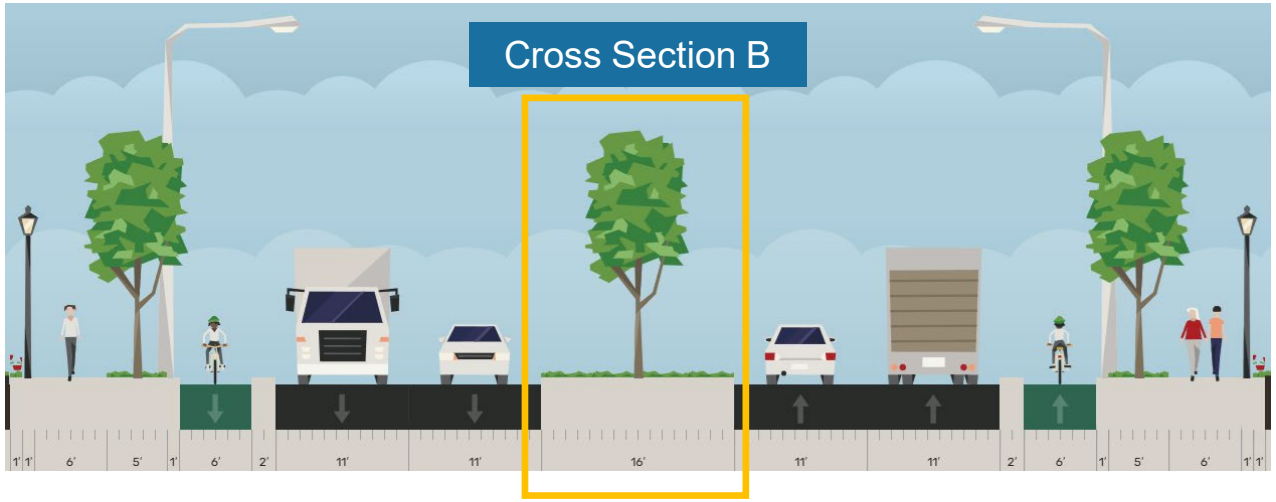


Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Bicycle Separation	Buffer Type	Vertical Separation	Buffer Separation	Traditional Bike Lane	2

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Bicycle Separation	Buffer Type	Vertical Separation	Buffer Separation	Traditional Bike Lane	3

Business Access (Minimize Impacts)





Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section A Score
Vehicular Access to Properties	Median Opening / U-Turn Opportunity	TWLTL	Mid-Block	Signal Only	3

Metric	Criteria	Performance			
		Most Desirable (3)	Desirable (2)	Least Desirable (1)	Cross Section B Score
Vehicular Access to Properties	Median Opening / U-Turn Opportunity	TWLTL	Mid-Block	Signal Only	2

Example Decision Matrix Calculation

Goal	Strategy	Metric	Criteria	Performance	
				Cross Section 1	Cross Section 2
Improve Safety	Segment Strategies	Speed Management	Traffic Calming Measures	3	3
		Street Lighting	Lighting Type	***2***	***3***
		Driveway Design	Sidewalk Setback	3	3
		Crossing Frequency	Distance	2	3
		Median Type	Median Protection	***1***	***3***
	Intersection Strategies	Left Turn Movements	Separate / Sight Distance	3	2
		Pedestrian Crossing	Pedestrian Exposure	1	3
		Signal Operations	Treatments	3	2
			Average Score	2.25	2.75
Increase Transportation Options	Pedestrian Strategies	Sidewalk Width	Traversable Width	***1***	***2***
		Sidewalk Buffer	Buffer Width	***2***	***3***
	Bicycle Strategies	Bicycle Separation	Buffer Type	***2***	***3***
		Protected Intersection	# of Intersections	2	3
	Ped + Bike +Transit	Shade	% Cover	3	3
	Transit Strategies	Upgraded Stops	# of Stops	3	3
		Proximity to Crossing	Distance	3	3
			Average Score	2.28	2.86
Upgrade Existing Infrastructure	Drainage	Accommodate Storm Event	All Weather	3	2
	Sidewalk	Continuous and Accessible	Length	3	3
	Bridge	To Be Determined			
	Pavement	To Be Determined			
	ITS	Traffic Signal Technology	Treatments	3	3
			Emerging Technologies	3	3
	Utilities	Utility Corridor	Width	3	3
			Average Score	3	2.8
Support Mobility	Motor Vehicular	Level of Service (LOS)	Intersection LOS	3	2
	Transit	Travel Time	% from existing	2	2
		Bus Pullout (Dedicated Stop)	# of Stops	3	2
	Access Management	Median Openings	Distance	1	3
			Average Score	2.25	2.25
Minimize R/W Impacts	Properties and Structures	Acquisitions/building impacts	# of impacts	3	2
	Business Access	Vehicular Access to Properties	Median Opening / U-Turn Opportunity	3	2
	Access during construction	Construction impacts	% impacts	2	1
			Average Score	2.67	1.67
Enhance Visual Character	Landscape Strategies	GSI	Pavement Area	3	3
	Public Art	Elements	# of elements	3	3
			Average Score	3	3

Example Decision Matrix Calculation (Cont.)

Goal	Weight	Cross Section A		Cross Section B	
		Average	Weighted AVG	Average	Weighted AVG
Improve Safety	5X	2.25	11.25	2.75	13.75
Increase Transportation Options	4.5X	2.28	10.26	2.86	12.87
Upgrade Existing Infrastructure	4.375X	3.00	13.13	2.80	12.25
Support Mobility	4X	2.25	9.00	2.25	9.00
Minimize R/W Impacts	4X	2.67	10.68	1.67	6.68
Enhance Visual Character	3.375X	3.00	10.13	3.00	10.13
	Total	15.45	64.44	15.33	64.68

Preliminary Corridor Alignment

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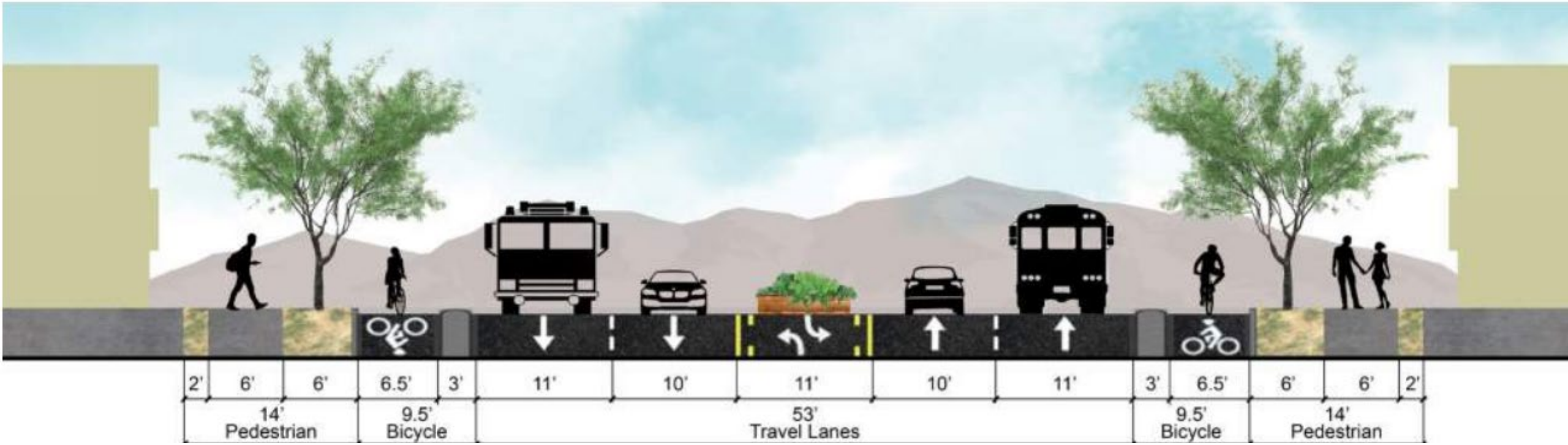
City of Tucson Cross-Section

Section 14. 100-ft ROW, urban 5-lane, 2-way street, pedestrian island, curb-protected bicycle lane



1st Ave Corridor Map

Future Agenda Items

- Questions on presented information
- Topics for future agendas
- Additional information requests

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