Duke Street Transitway

City Council

June 27, 2023

Tonight's Agenda

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Background & Project Goals

02

Process & Engagement Overview

03

Advisory Group Preferred Concept

04

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05

Next Steps & Future Council Action

Background & Project Goals

Why Duke Street?

Over 3,000 average weekday riders (March 2023)…

~120% of pre-pandemic ridership

…stuck in traffic that is anticipated to increase as the region grows

Volumes projected to increase by 10% by 2030

Why Duke Street?

CHALLENGES

- Traffic congestion
- Cut-through traffic on residential streets
- Safety
- Bus experience

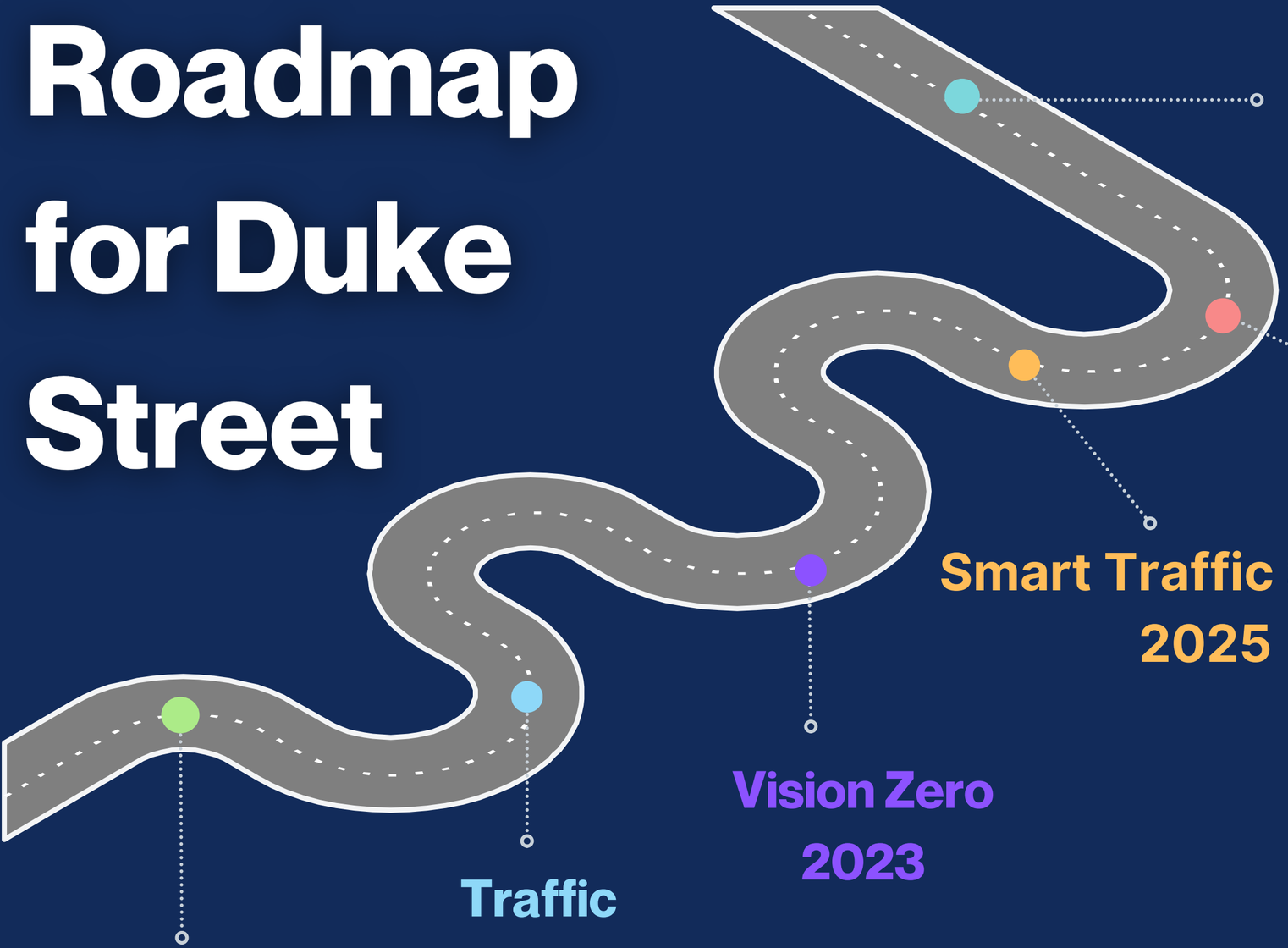
OPPORTUNITIES

- Improve options for people to use other modes
- Redesign intersections for safety
- Use technology to better manage traffic
- Build on strong transit ridership

Project Alignment with City Goals

- Equity
- Mobility Options
- Sustainability
- Congestion Management
- Safety

Roadmap for Duke Street



Central Alexandria Traffic Study 2017

Traffic Mitigation Pilots 2022-2023

Vision Zero 2023

Smart Traffic Signals 2025

Duke & West Taylor Run Project 2025

Duke Street Transitway 2027

"With multimodal enhancements to the corridor, Duke Street will become a safe, efficient, and desirable community connector for people riding the bus, walking, biking, and driving."

On Duke Street, the Transitway could achieve...

UP TO **9.5 MINUTES** IN TRAVEL TIME SAVINGS FOR BUS RIDERS

UP TO **5 MINUTES** TRAVEL TIME SAVINGS FOR VEHICLES

70% REDUCTION IN LEFT TURN CRASHES CORRIDOR-WIDE

50% REDUCTION IN PEDESTRIAN CRASHES AT 29 INTERSECTIONS

DUKE STREET TRANSITWAY TIMELINE

2008

Duke Street Identified as future transit corridor

2012

Transitway Concept Plans Approved

2018 & 2020

- $12M Planning funding awarded
- $75M Construc-tion funding awarded

2021

Phase I - Community Visioning

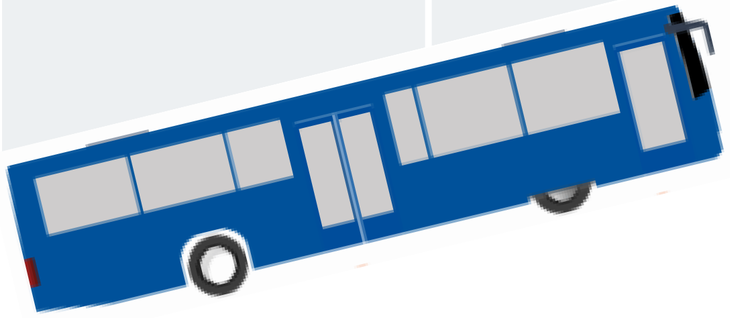
2022

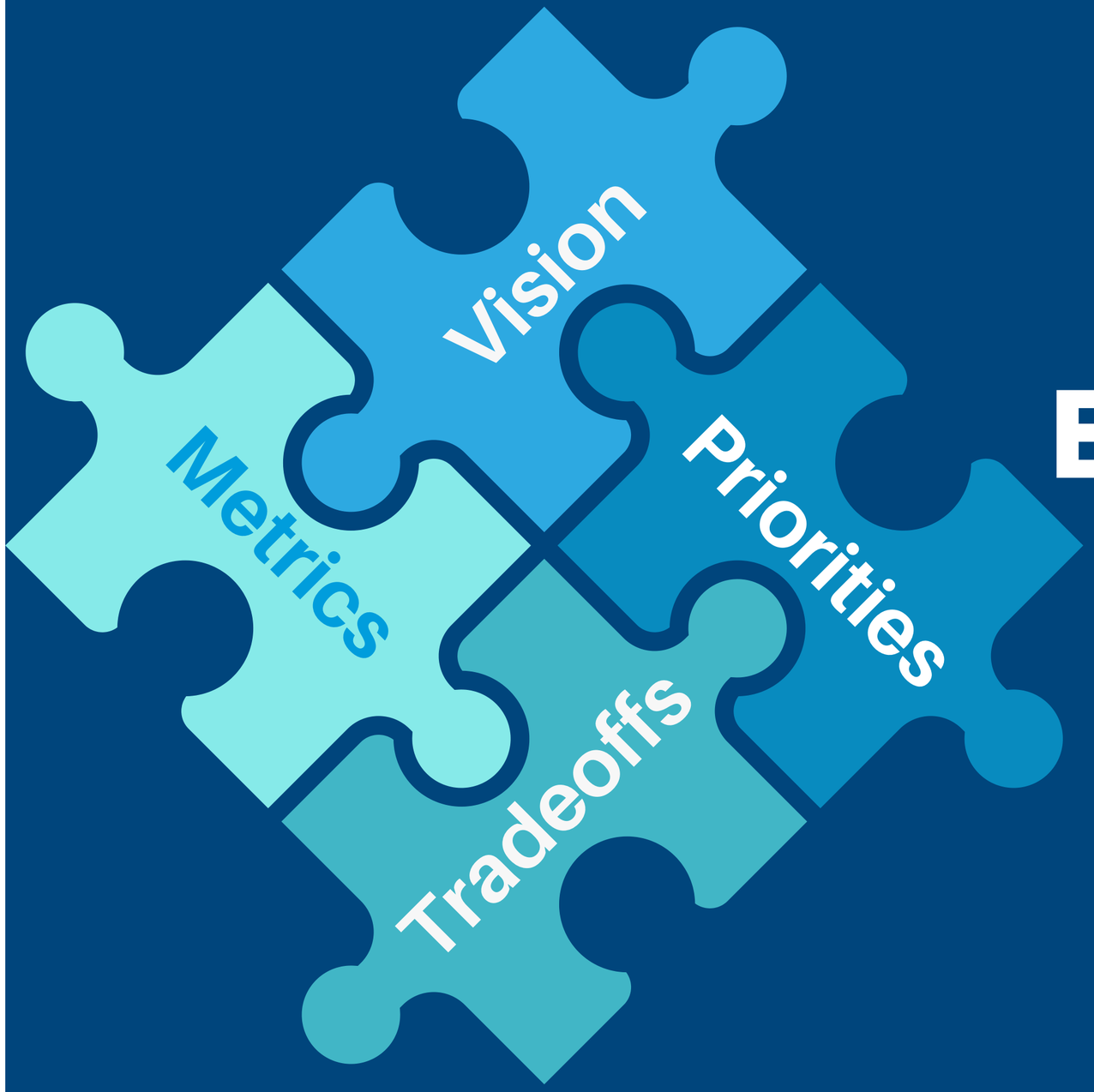
Phase II - Concept Planning - Community Priorities & Tradeoffs

2023

Phase III -

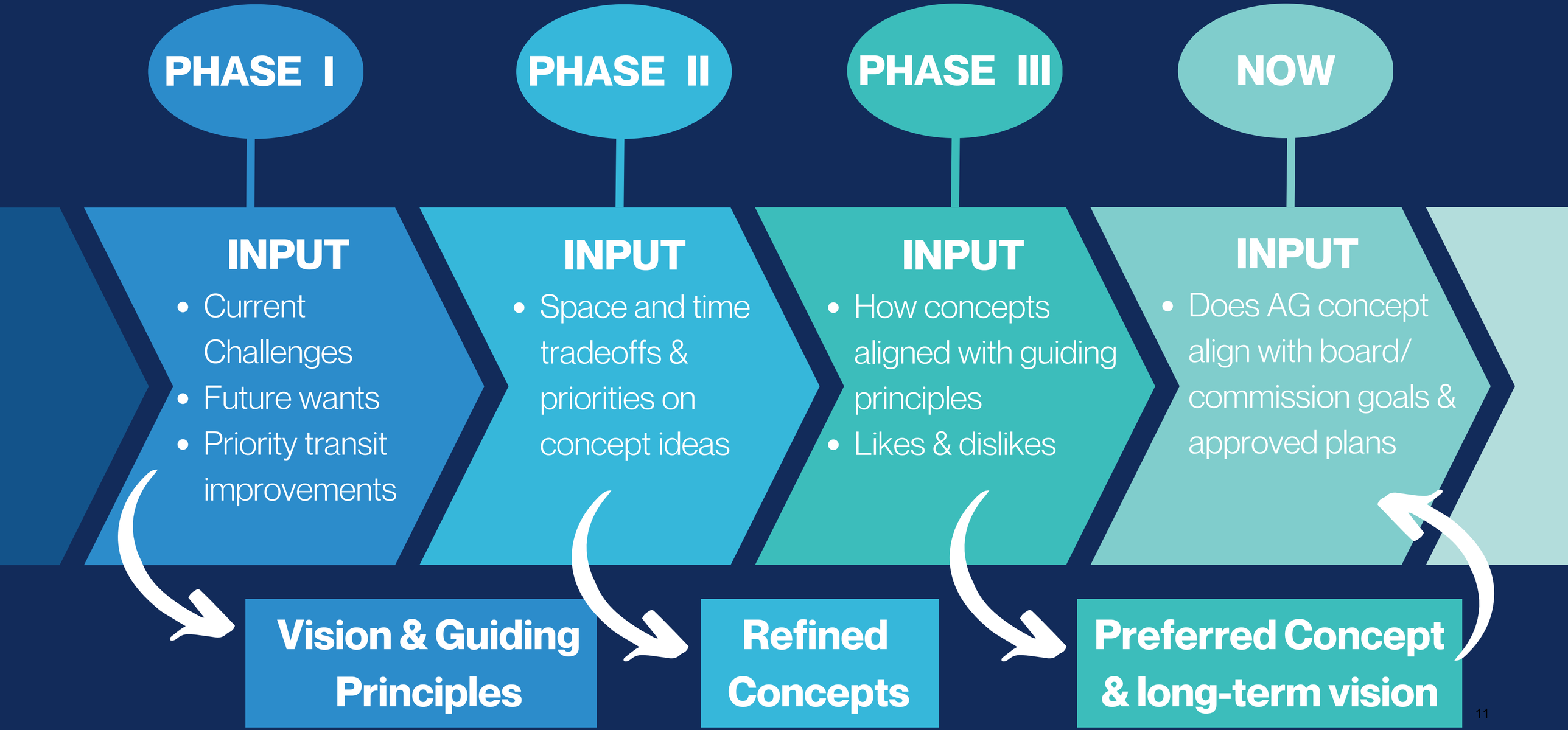
- Concept Refinement & Curb Features
- Council Action





Process & Engagement Overview

Process


PHASE I
PHASE II
PHASE III
NOW
INPUT
• Current Challenges
• Future wants
• Priority transit improvements
INPUT
• Space and time tradeoffs & priorities on concept ideas
INPUT
• How concepts aligned with guiding principles
• Likes & dislikes
INPUT
• Does AG concept align with board/ commission goals & approved plans
Vision & Guiding Principles
Refined Concepts
Preferred Concept & long-term vision

Community Visioning

PHASE I

INPUT

- Current Challenges
- Future wants
- Priority transit improvements

Vision & Guiding Principles

Improve the bus

Prioritize Safety

Congestion is a major concern

Concept Options

PHASE II

INPUT

- Space and time tradeoffs & priorities on concept ideas

Refined Concepts

Maintaining service road access to homes and buffer space

Support for changes that improve bus travel times

Refined Concepts

PHASE III

INPUT

- How concepts aligned with guiding principles
- Likes & dislikes

Preferred Concept & long-term vision

Bus stop spacing & consolidation

Separate bike & pedstrian space

Changes to service roads

Process

PHASE I

INPUT

- Current Challenges
- Future wants
- Priority transit improvements

Vision & Guiding Principles

PHASE II

INPUT

- Space and time tradeoffs & priorities on concept ideas

Refined Concepts

PHASE III

INPUT

- How concepts aligned with guiding principles
- Likes & dislikes

Preferred Concept & long-term vision

NOW

INPUT

- Does AG concept align with board/ commission goals & approved plans

Outreach Summary

Written Feedback	Duke Street Meetings	Meetings Attended	Pop-up Events	Mailings	Businesses Contacted
Feedback form + emails	Open houses and public forums with Q/A components	Presentations and Q/A as part of other meetings	Shared multilingual information throughout the corridor	Postcards with project information and links	Drop ins, follow up calls, and emails

• **3,445** feedback form responses
• **165** email comments
	• **12** hosted live meetings
	  ○ **270+** attendees
	• **3** webinars
	  ○ **850+** views
		• **16+** community groups
		• **7+** boards and commissions
			• **37** events
			• **3,950+** interactions
			• **638** polls completed
				• **17,623** direct mailings	• **115+**

Targeted Outreach

Advisory Group

- May 25, 2023
- April 13, 2023
- March 16, 2023
- February 16, 2023
- December 15, 2022
- November 17, 2022
- September 15, 2022
- August 18, 2022
- June 30, 2022
- June 1, 2022
- April 28, 2022

Civic Groups

- AFCA
- Seminary Ridge
- Seminary Hill
- Wakefield Tarleton
- Cameron Station CA
- Cameron Station Dems
- Colonial Village
- Quaker Ridge
- Quaker Village
- Clover College Park
- Longview rep.
- BPAC
- Carlyle Towers
- Agenda Alexandria

Boards and Commissions

- Commission on Aging
- Commission on Persons with Disabilities
- Transportation Commission
- Traffic & Parking Board
- DASH
- Environmental Policy Commission

Business Outreach

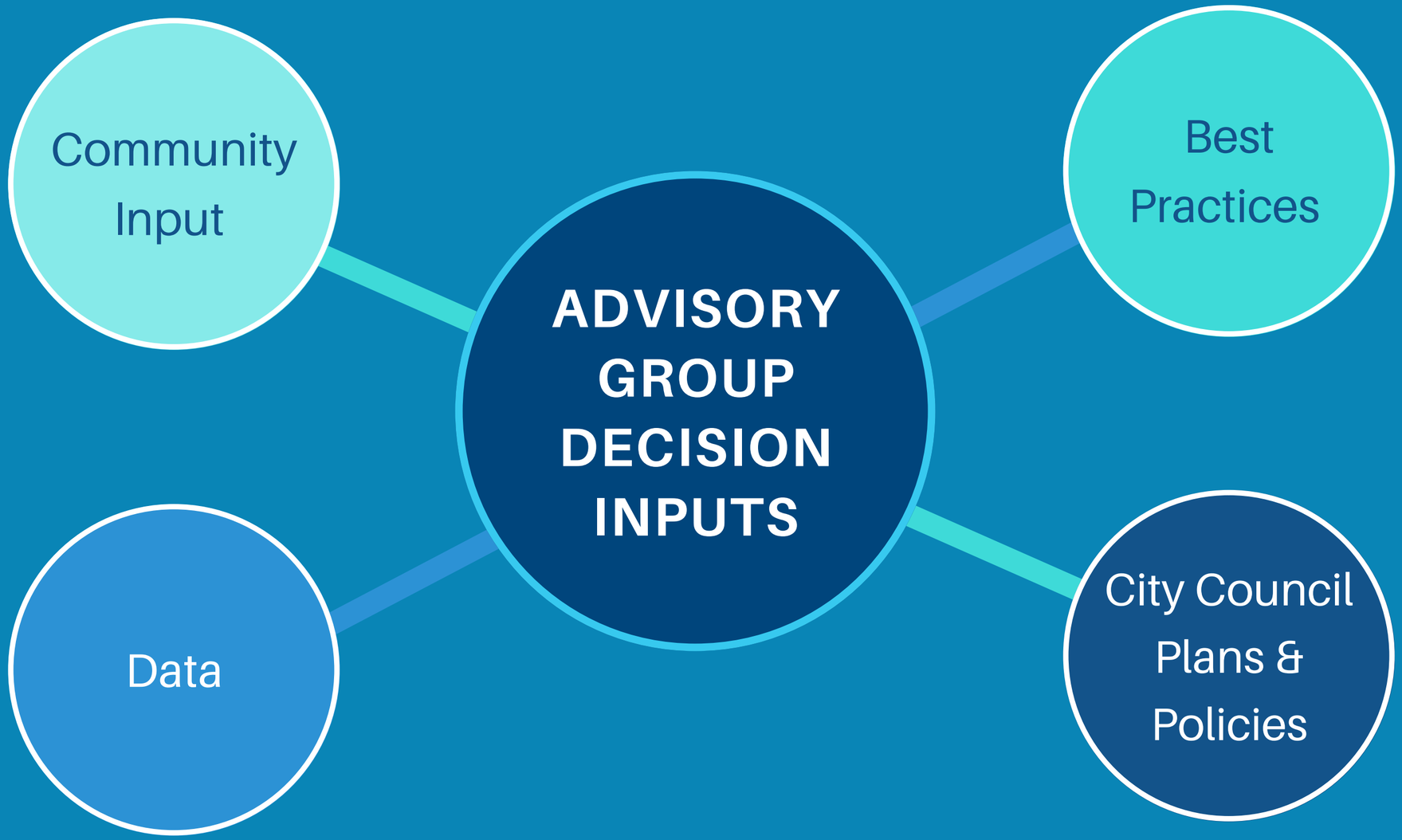
- WEBA
- Chamber of Commerce
- Business Development Roundtable
- Door-to-door Outreach
- Phone calls

Other Stakeholders

- Alexandria City High School Students
- ACPS staff
- Police
- Fire

Pop Ups

- Speedy Laundromat
- Beatley Library
- Fun Run @ Patrick Henry
- King Street Metro
- Van Dorn
- Jordan St.
- Fox Chase Apts.
- The Mark Apts.
- Ben Brennan Park
- The Mark Apts
- Angel Park
- And more.



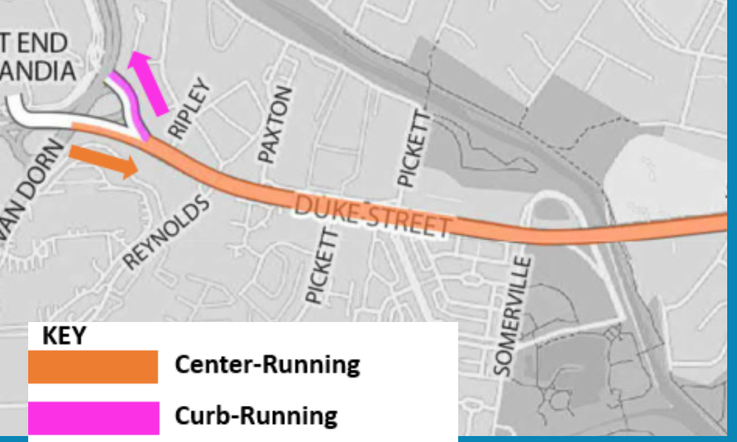
Advisory Group Preferred Concept

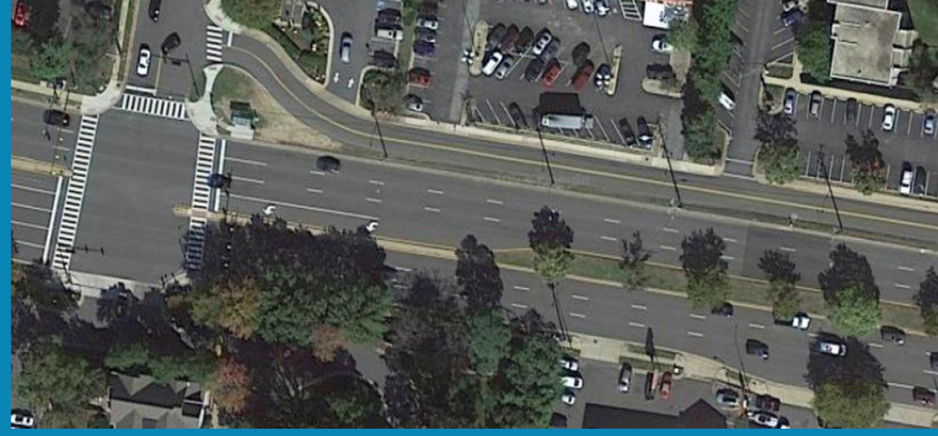
AG Busway Recommendation - Concept A

- Signal technology + stop consolidation + dedicated lanes to optimize bus service
- If cost becomes an issue near term, Roth-Quaker could become mixed traffic

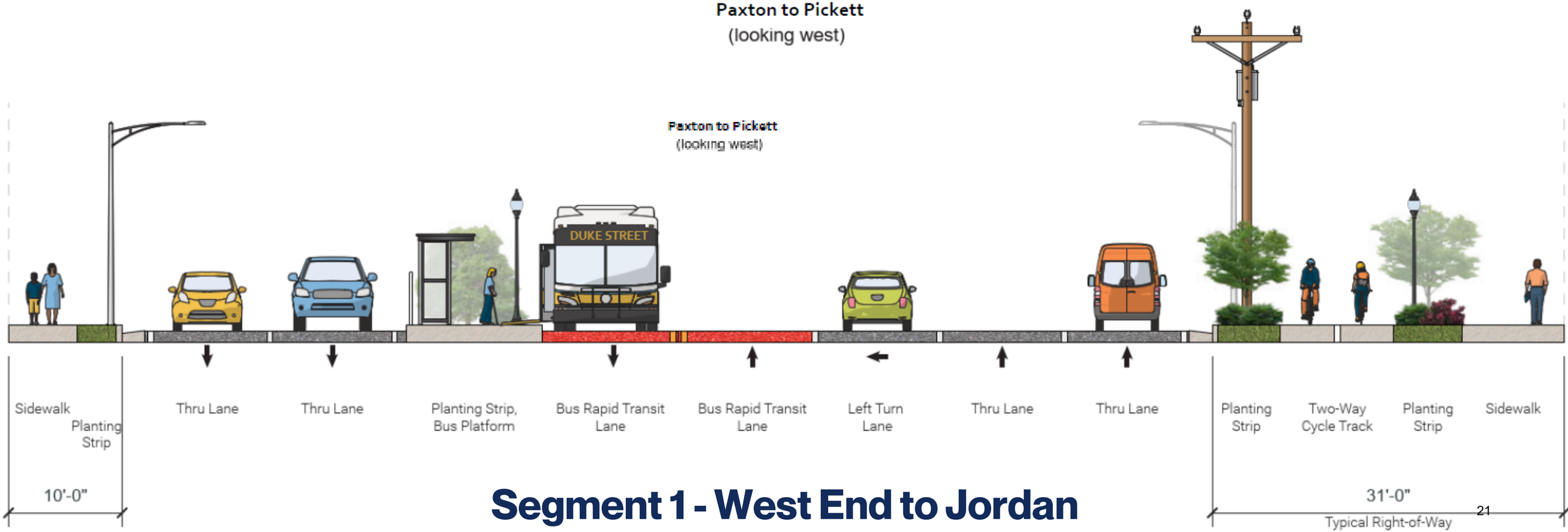
AG Curb Feature Recommendation Concept Y

- Map is showing **north side** improvements
- Preference for **separated ped/bike facilities**
- Options in constrained right of way
- Recognize need to work with **service road** communities to refine options

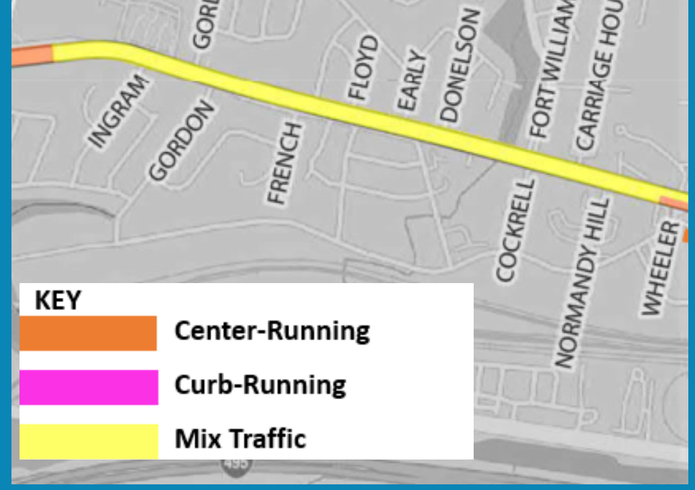


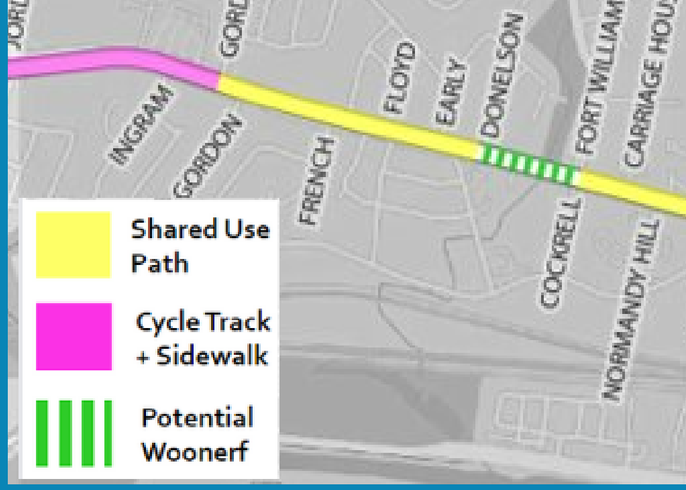


Paxton to Pickett
(looking west)



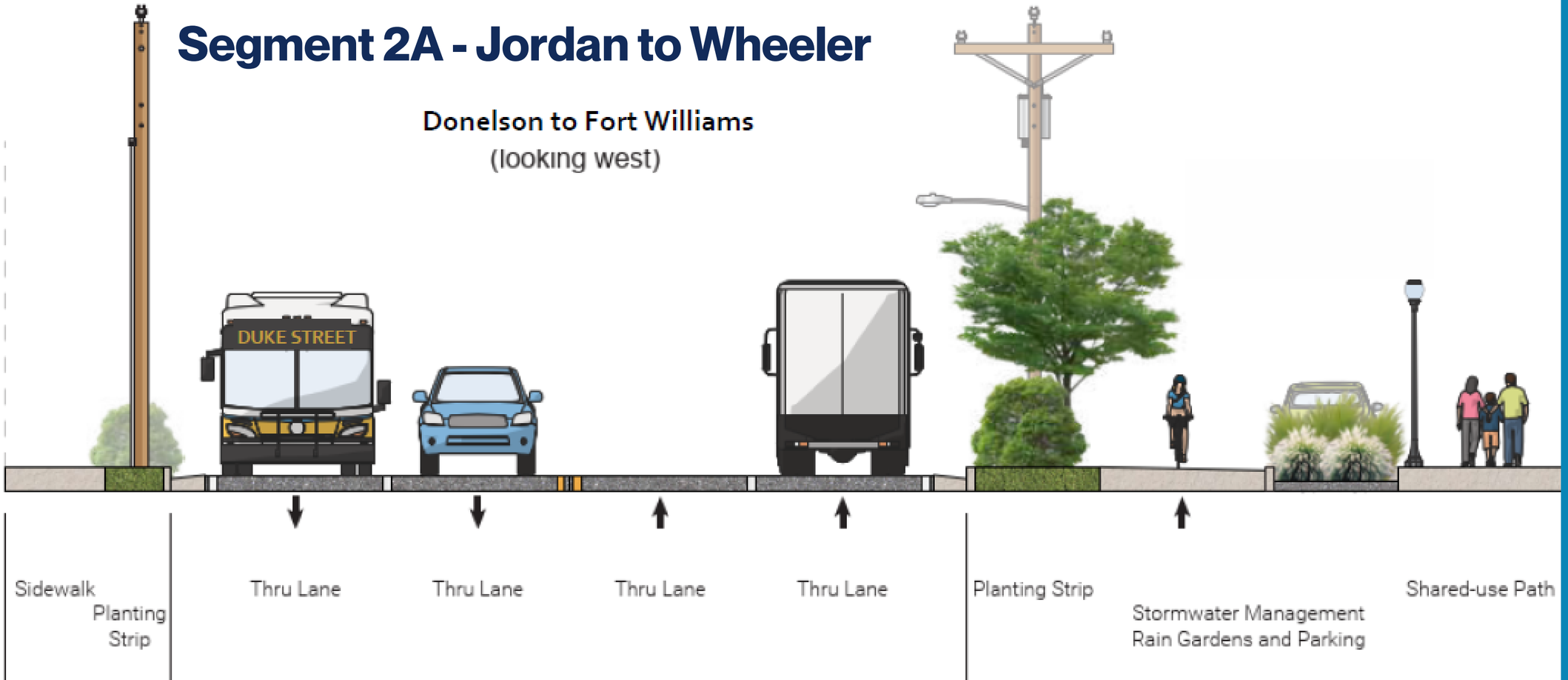
Segment 1 - West End to Jordan

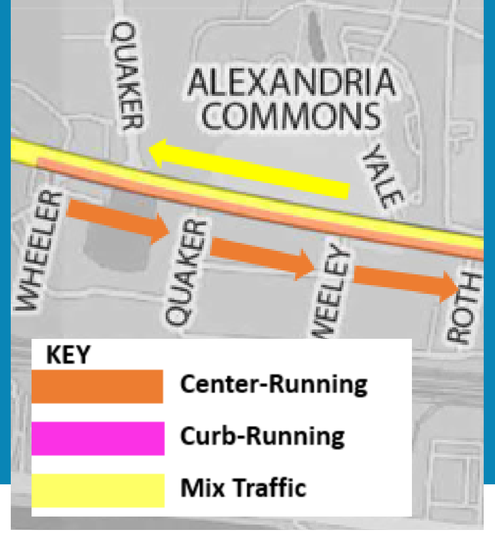


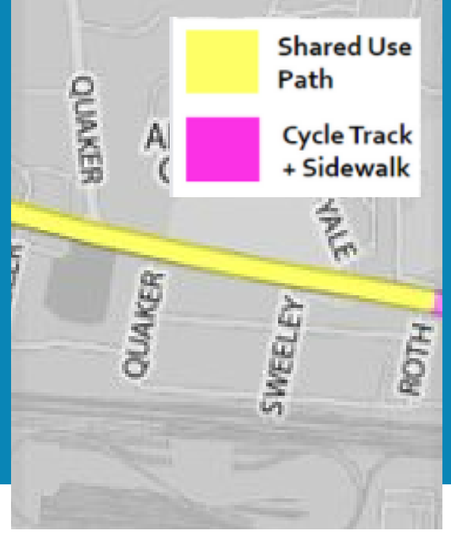


Segment 2A - Jordan to Wheeler

Donelson to Fort Williams
(looking west)

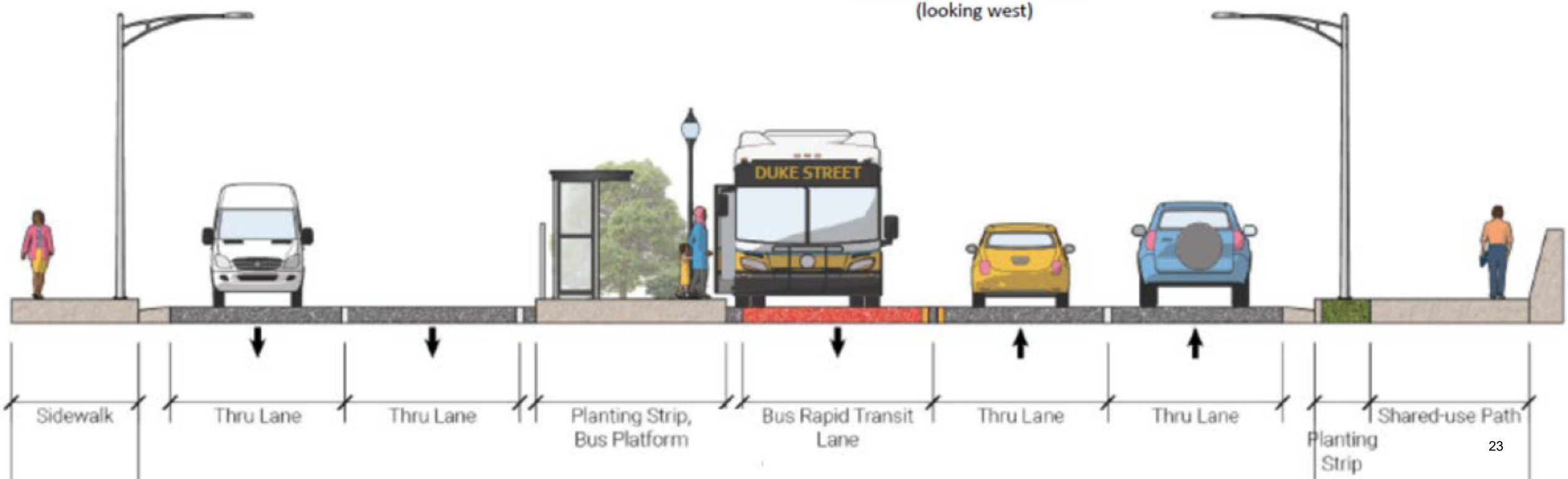


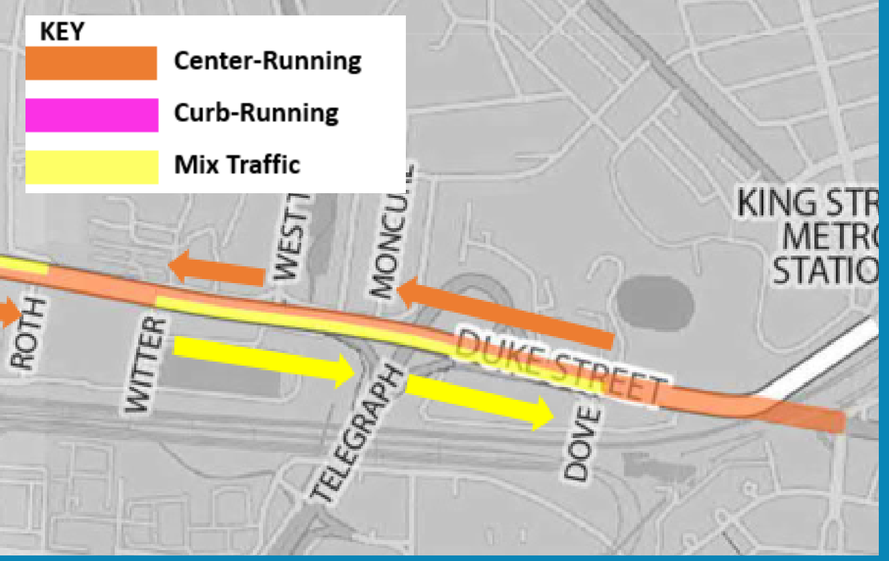




Segment 2B - Wheeler to Roth

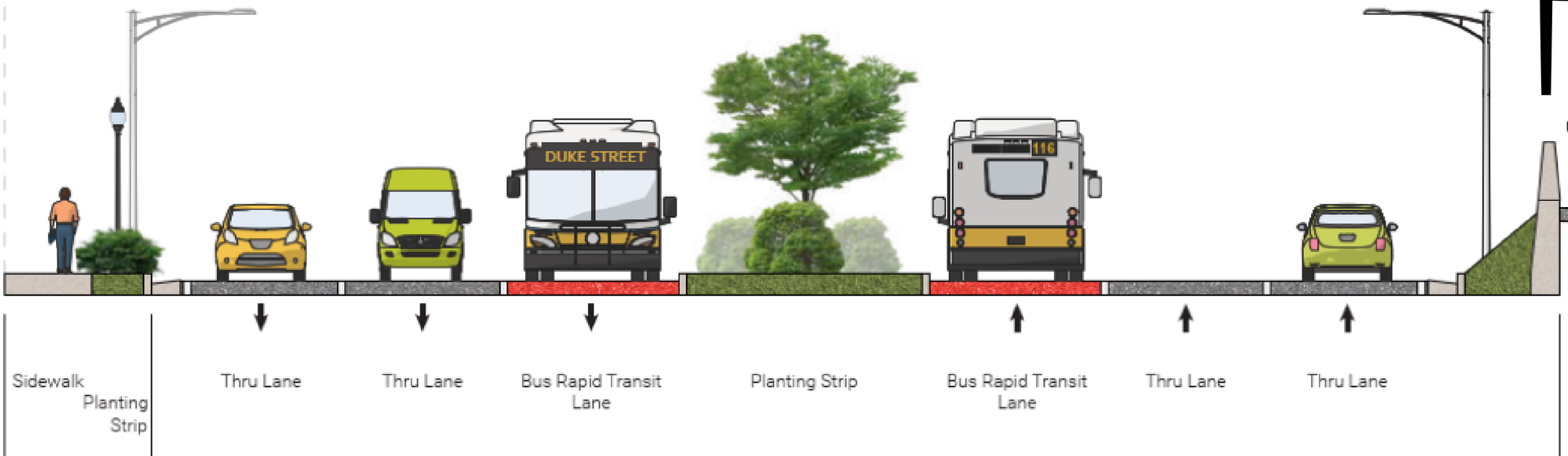
Yale Drive to Sweeley Street
(looking west)



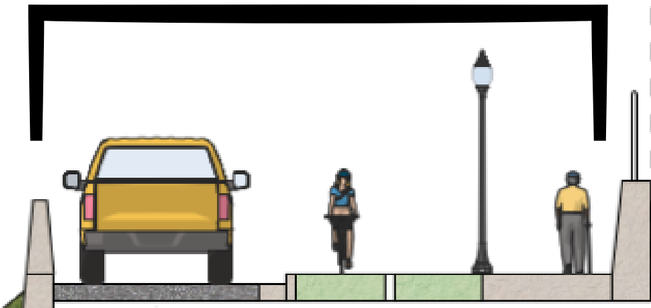


Segment 3 - Roth to Callahan

Roth to W. Taylor Run
(looking west)



Curb features to be refined with community



Service road could be one way with cycle track and wider sidewalk or two-way with sharrows

RENDERING - Duke Street at North Pickett Street - Facing West

RENDERING - Duke Street at West Taylor Run - Facing East

Key Takeaways - AG Recommended Concept

UP TO **9.5 MINUTES** IN TRAVEL TIME SAVINGS FOR BUS RIDERS

UP TO **5 MINUTES** TRAVEL TIME SAVINGS FOR VEHICLES

70% REDUCTION IN LEFT TURN CRASHES CORRIDOR-WIDE

50% REDUCTION IN PEDESTRIAN CRASHES AT 29 INTERSECTIONS

AG Recommendation - Long Term

- The **long-term plan** for the corridor should include **center running bus lanes** for the entirety of Duke Street with **separate spaces for pedestrians and cyclists**.

- This long-term plan would be partially **dependent on redevelopment** and **available funding** and should be assessed further during the **Duke Street Small Area Plan process**.

What we're hearing

Cost & Funding

Service Roads

Current & Future bus riders

Stop spacing

Process & Timeline

Cost & Funding (Phase I)

- **Project Funding = $87m**
- **10% Design Cost Estimate = $97m**
  - **$60m = design + construction in today's dollars**
  - **$27m = contingency**
  - **$10m =escalation**

***AG Recommendation provides prioritization if project needs to scale back**

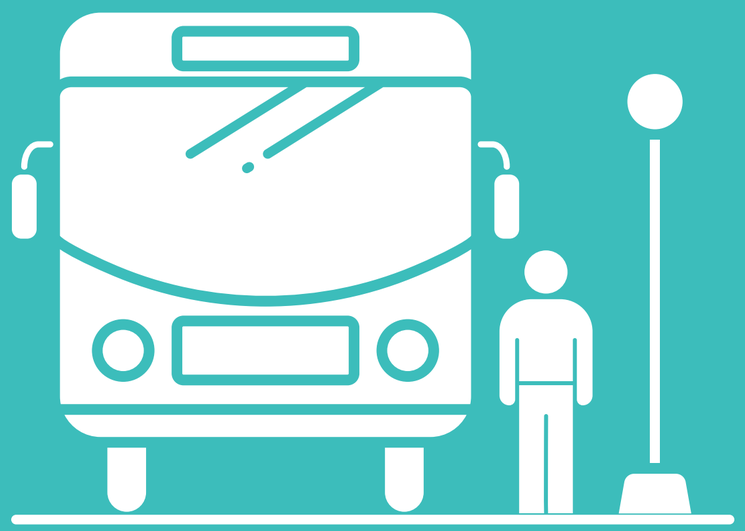
Service Roads

- East end service road conversion concerns about access and travel times

Duke Street service road east of ETR facing east

- Staff will continue to work with community to discuss service road design

- Future Council action IF conversion to one-way advances



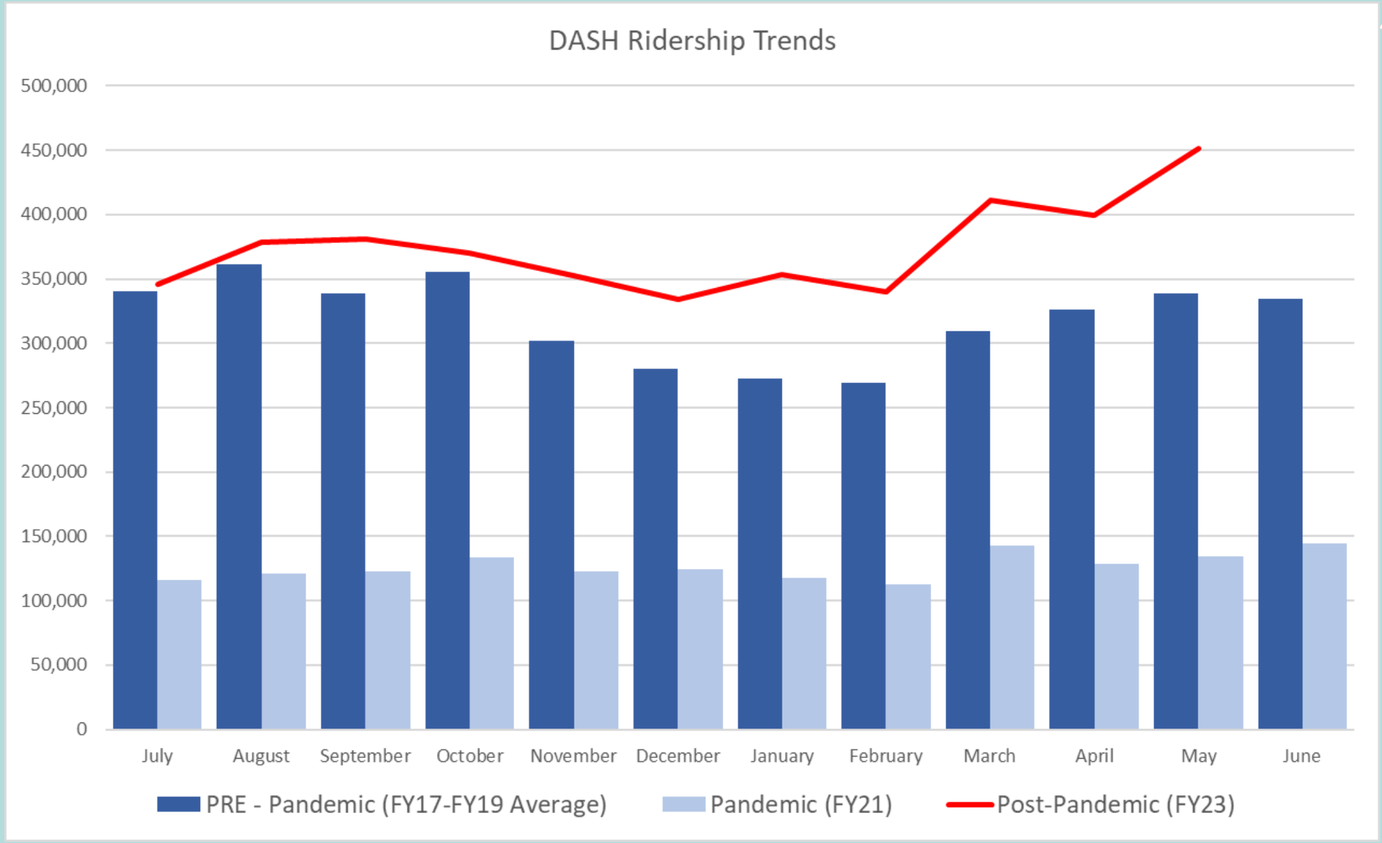
Stop Spacing

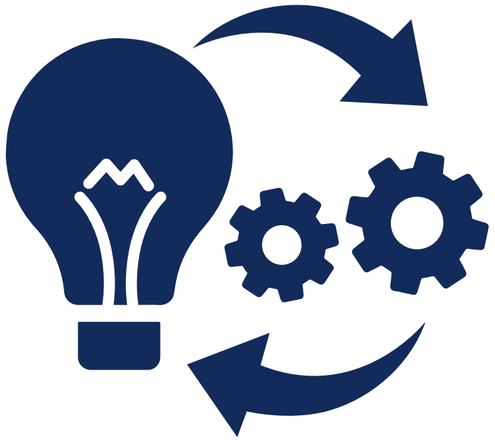
- Stop consolidation saves at most 3.5 minutes of total 9.5 minute PM peak travel time savings per trip

- 73% of people at pop-ups and 76% of feedback form respondents supported spacing proposals

Current & Future bus riders

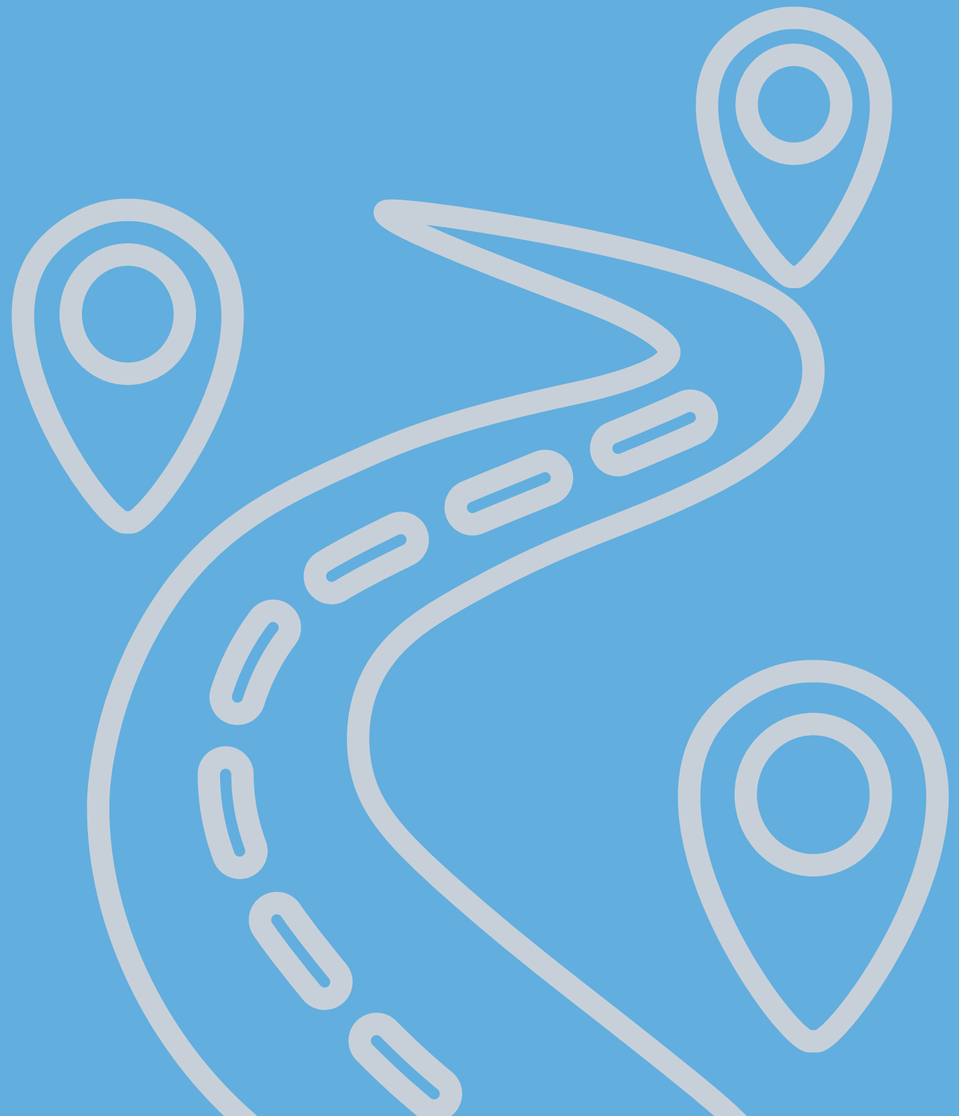
- Average weekday boardings along the corridor are 3,000+
- Projections for bus ridership increases show 2x riders, per FTA model
- Current PM bus travel time = 25 mins
- Projected PM bus travel time = 16 mins





Process and Timeline

- 2-year process to check-in with community and revision
- Project delivery is important to support already planned growth
- Delay will increase costs, which will decrease scope



Next Steps & Future Council Action

Next Steps

2023

- Finalize Concept
- Survey
- Begin Design

2024

- Design
- Duke SAP
- **Council Action on Final Design***

2025

- Finalize Design
- Right-of-way

2026

- Begin Construction
- **Council Action to designate dedicated transit lanes***

2027

- Finish Construction
- Fully operational BRT

Questions & Comments