



Durham Bus Rapid Transit Vision

Stakeholder Advisory Committee



October 2025

Agenda

- Introductions [9:30 AM – 9:45 AM]
- Study Overview [9:45 AM – 9:50 AM]
- What is Bus Rapid Transit (BRT)? [9:50 AM – 10:00 AM]
- Technical Updates: [10:00 AM – 10:40 AM]
 - Market Analysis
 - Bus Speed Opportunity Scan
 - **Goals-Based Evaluation Criteria (Discussion)**
- **Activity: Corridors and Transit Demand Generators [10:40 – 11:15 AM]**
- Debrief and Next Steps [11:15 AM – 11:30 AM]



Introductions



Project Overview



Vision Plan Purpose

To identify, evaluate, and prioritize corridors for BRT-level investment.

What the BRT Vision Plan will do:

- **Technical Analysis of Corridors**
 - Potential market, operating plans, environmental considerations, and physical constraints
- **Incorporate feedback from extensive public engagement**
 - Six public workshops, eight pop-up events, three Stakeholder Advisory Committees
- **Assess funding options for BRT Corridors**
 - Provide a realistic understanding of how high-scoring corridors could be funded
- **Incorporate findings from and coordinate with related plans and studies**
 - Coordinate with the Central Durham BRT, leverage previous work completed
- **Develop a long-term vision of BRT corridors through the next 30 years**
 - Prioritize investments based on corridor potential

What is BRT?

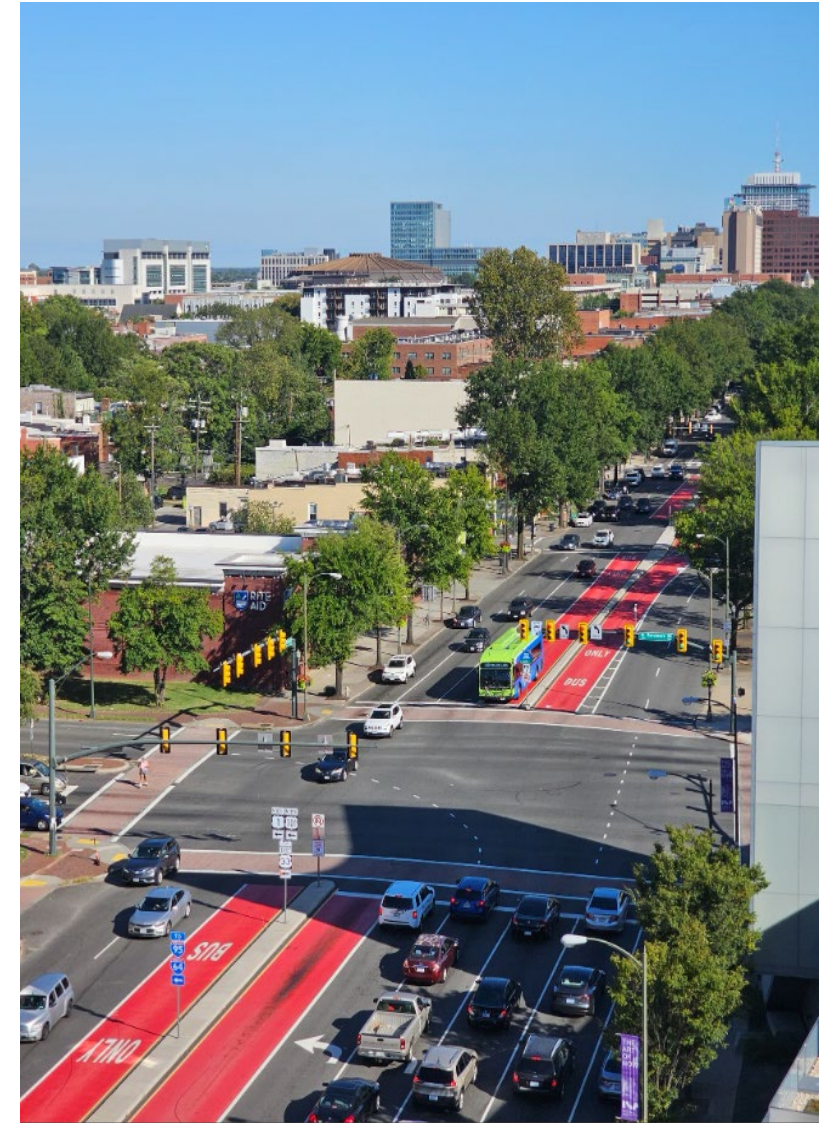


What is BRT?

Bus Rapid Transit (BRT) is a high-quality, bus-based transit service that is safe, reliable, and frequent

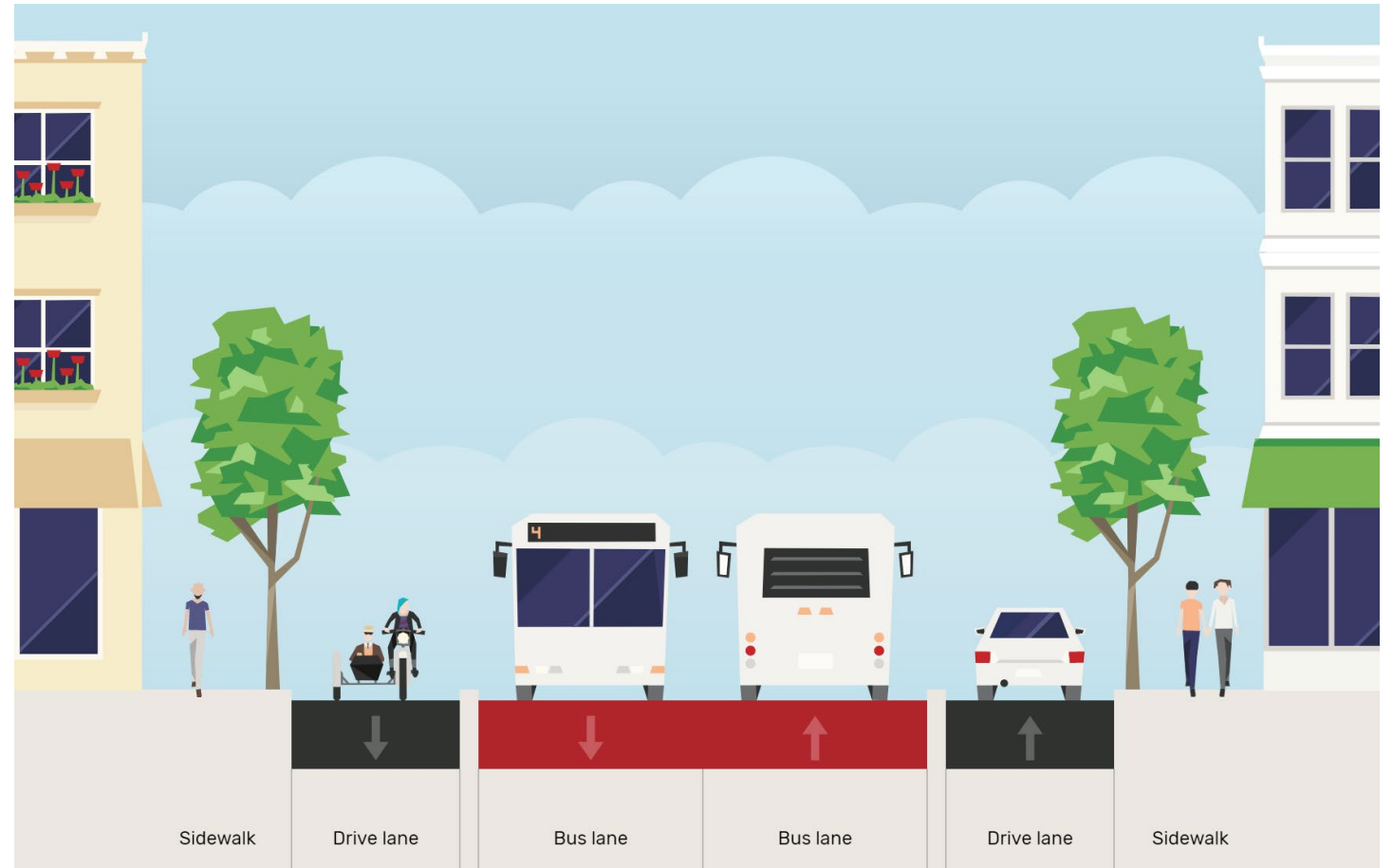
BRT typically includes:

- High Frequency Service with Fewer Stops
- Enhanced Vehicle and Station Passenger Amenities
- Traffic Prioritization Technology
- Some amount of dedicated bus lanes



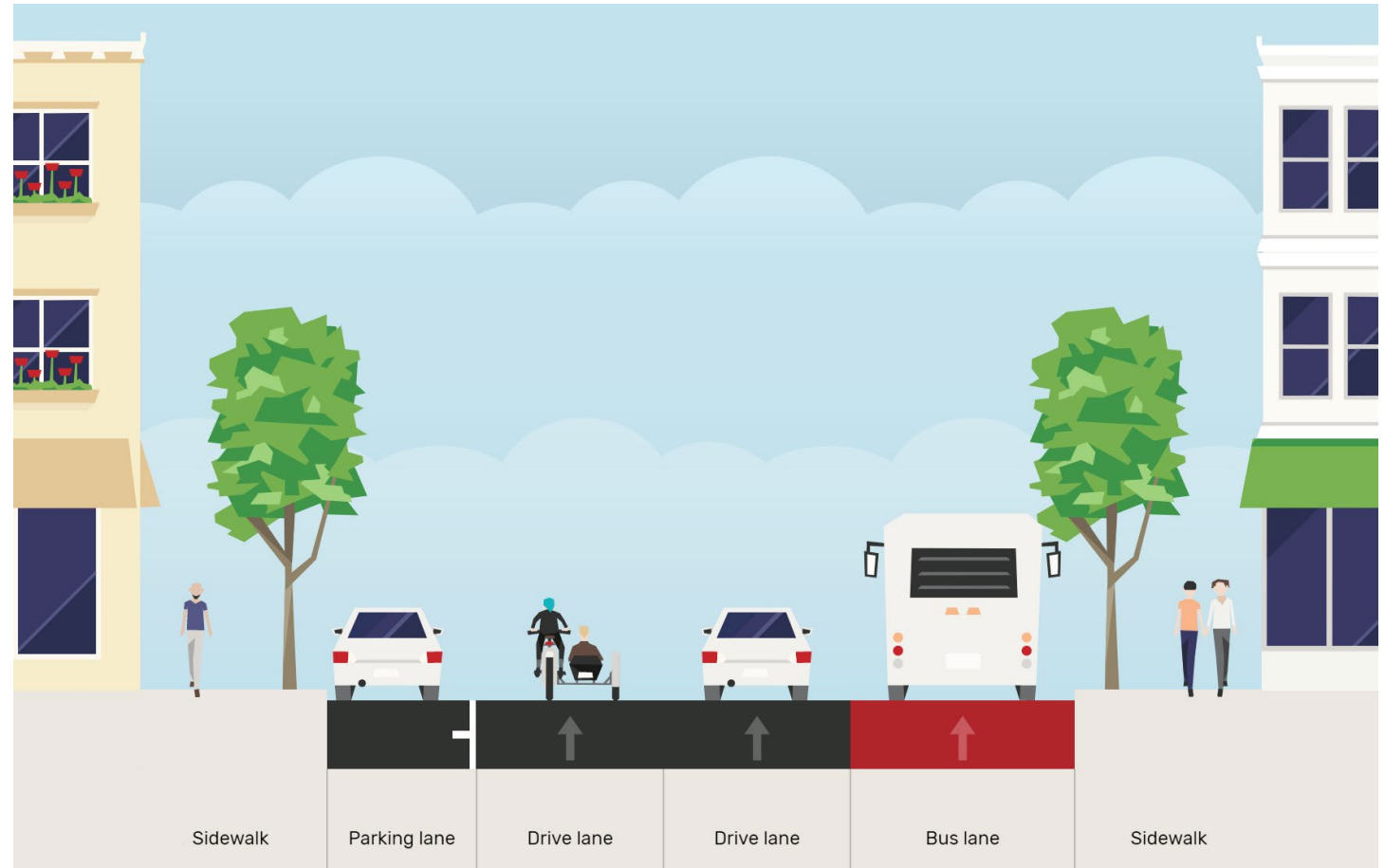
BRT Typologies: Center-Running Dedicated Guideway

Bus-only lanes,
possibly physically
separated along the
road median with
median stops



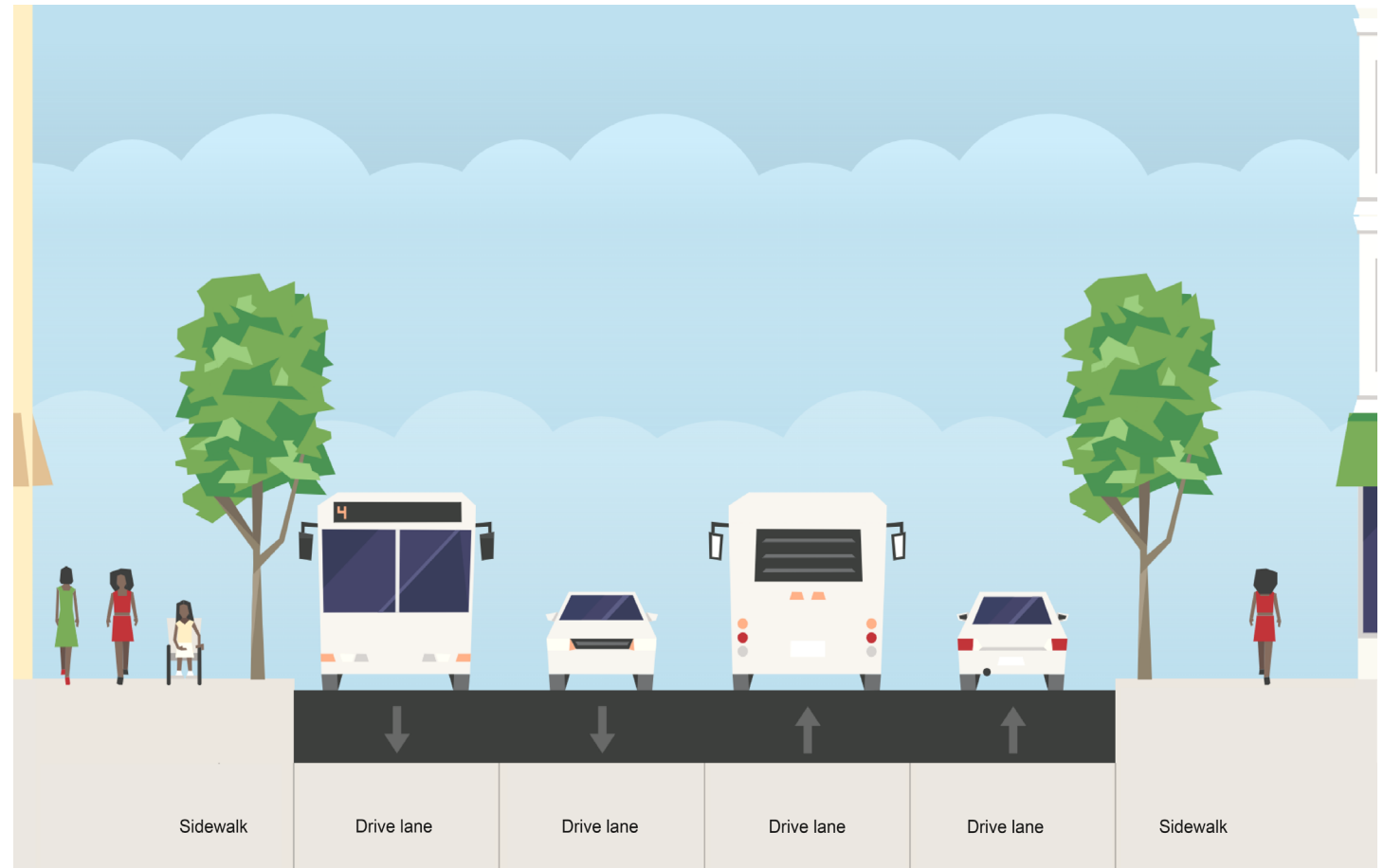
BRT Typologies: Curbside Dedicated Guideway

**Bus-only lanes,
possibly physically
separated along the
sidewalk curb**



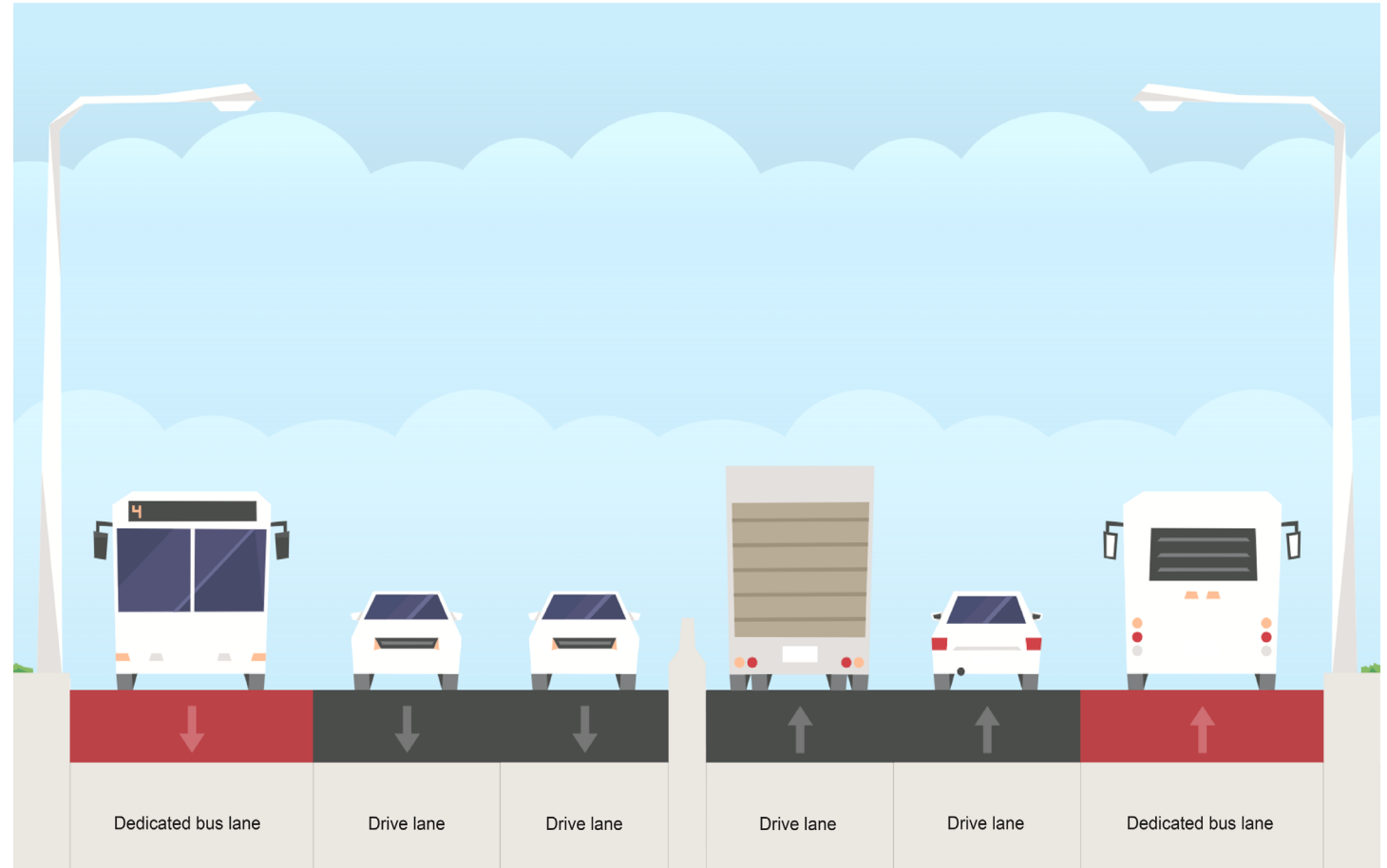
BRT Typologies: Mixed-Flow

Lanes that are used
by both buses and
regular traffic



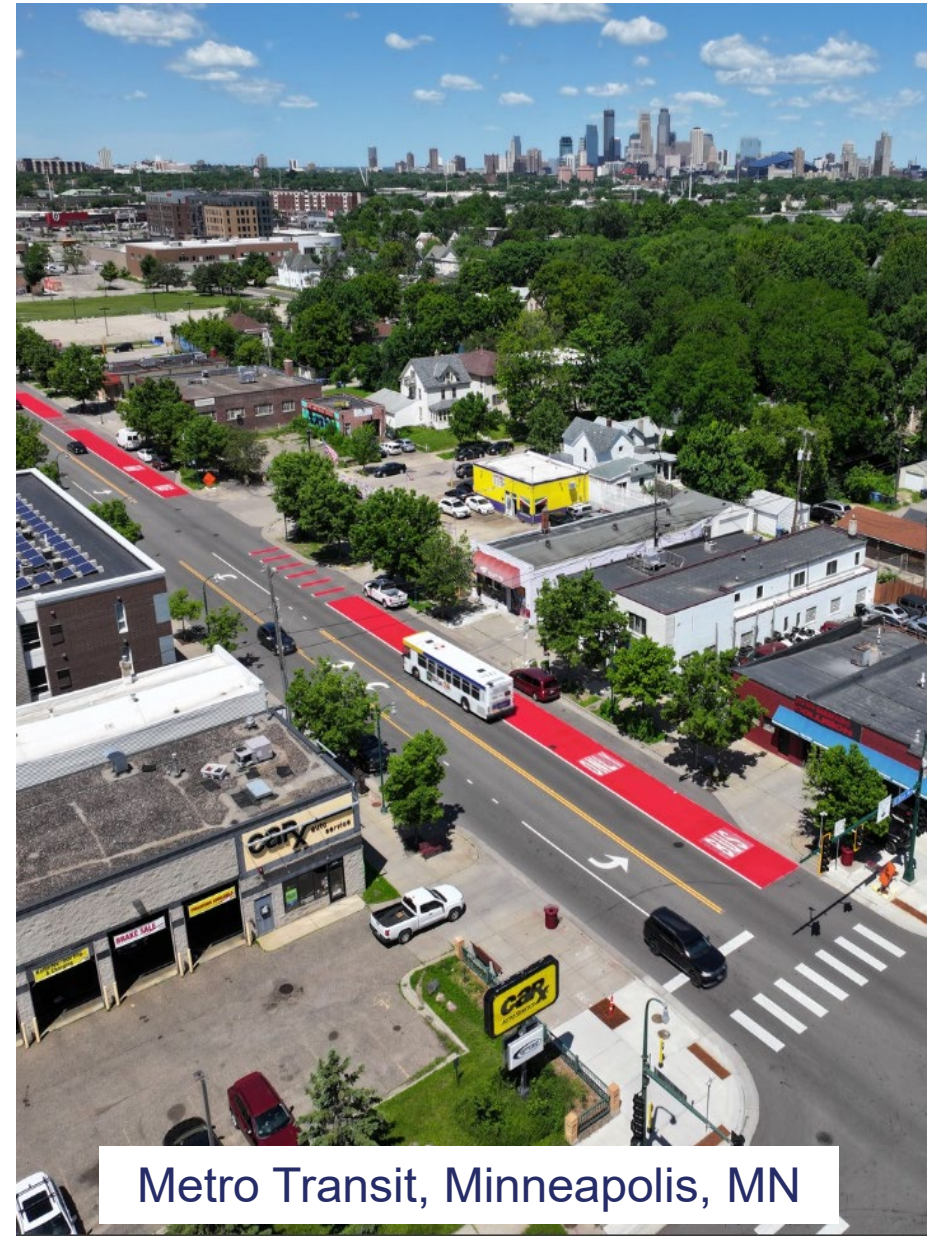
BRT Typologies: Highway Dedicated Guideway

**Bus-only lanes,
possibly physically
separated along
highway lanes**





FAX, Fresno, CA



Metro Transit, Minneapolis, MN

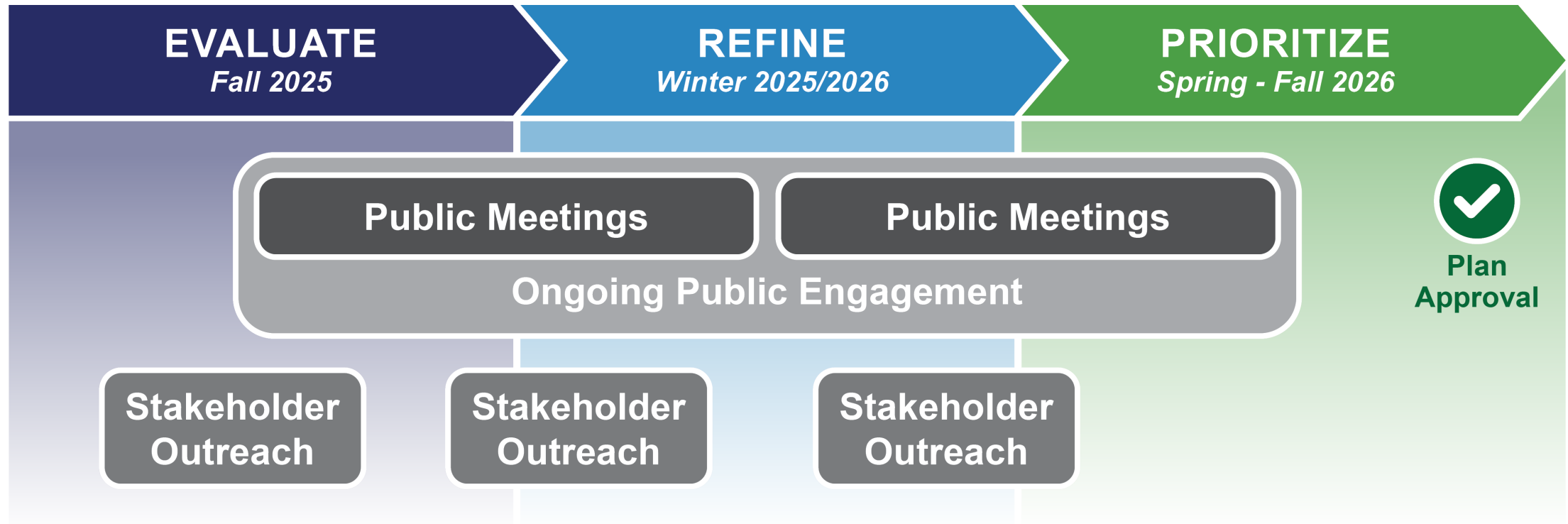


AC Transit, Oakland, CA

Project Process



PROJECT TIMELINE



Project Committees

- **Leadership Team –**
 - Leadership from partner agencies
 - Provide input and guidance on decisions and deliverables
 - Meet monthly
- **Stakeholder Advisory Committee –**
 - Includes representatives from key organizations
 - Provide input at milestones to ensure recommendations align with community priorities
 - Phases I, II, and III
- **Technical Advisory Committee –**
 - Includes technical staff from partner agencies
 - Guide development of technical materials
 - Meet roughly bi-monthly



Public and Stakeholder Engagement

ROUND 1

- **Gather feedback** on initial corridor options
- Receive input on **priorities for evaluation** criteria



ROUND 2

- **Share how feedback from Round 1 was incorporated** into technical analysis
- Provide **results of corridor evaluation**
- Gather feedback to **inform final recommendations**



FINAL

- **Present final recommendations** to Approving Bodies
- **Share final plan with public**

Technical Updates



Technical Timeline

We Are Here!



Evaluation Metrics
and Problem
Statement
Identification



Network Analysis
and Toolbox
Development



Alternatives
Development and
Ridership Analysis



Operating Plans
and Engineering
Feasibility

Strategies and
Prioritization

Fall 2025

On-Going Leadership and Technical Team Coordination

Fall 2026

Market Analysis



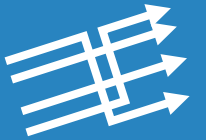
Market Analysis Process

Enhanced Transit Index



- Where are destinations that transit can serve?
- Where are people living and working most densely?

High Demand Corridors



- How do people currently move through the region?
- Which corridors are the most well-traveled?



Where are people most likely to need and/or use transit?

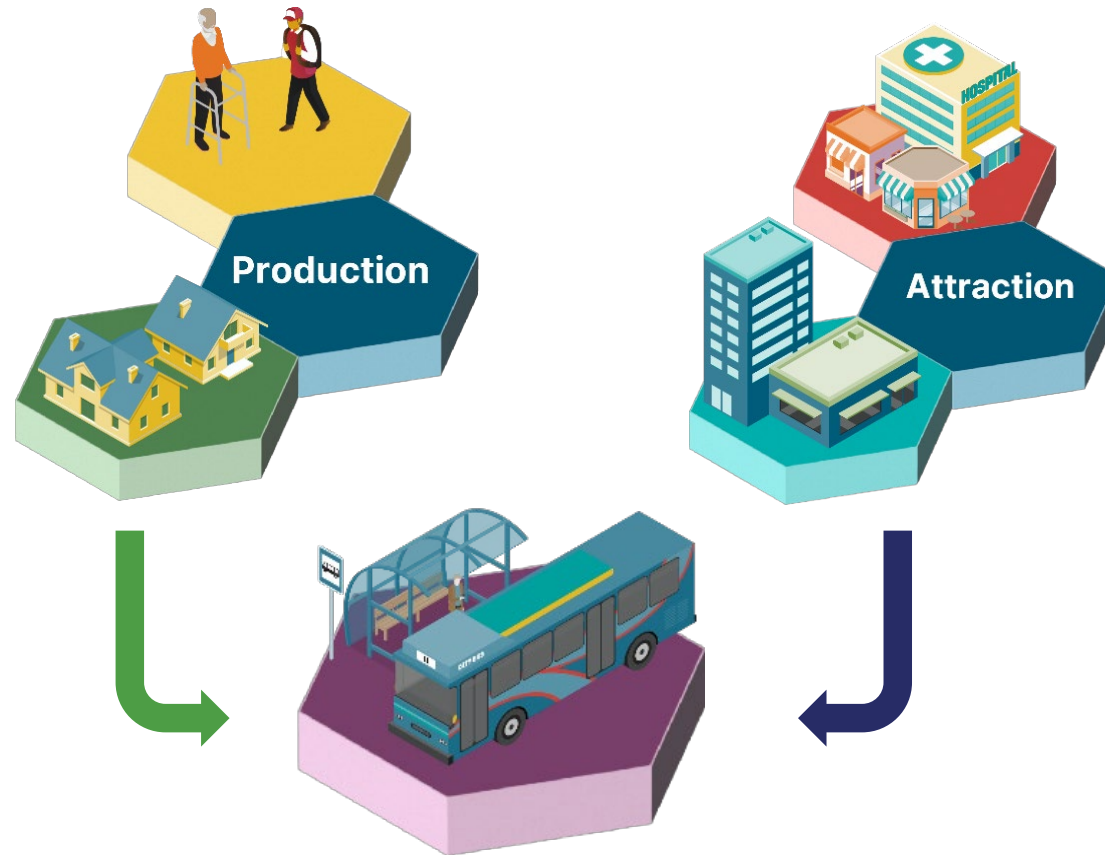
Transit Propensity

Transit-Oriented Populations

Young, elderly, low-income, low car-ownership, persons with disabilities

Commuters

Employed population and non-SOV commuters



Activity Destination

Retail, recreation, healthcare, social assistance, education, and government Attractors

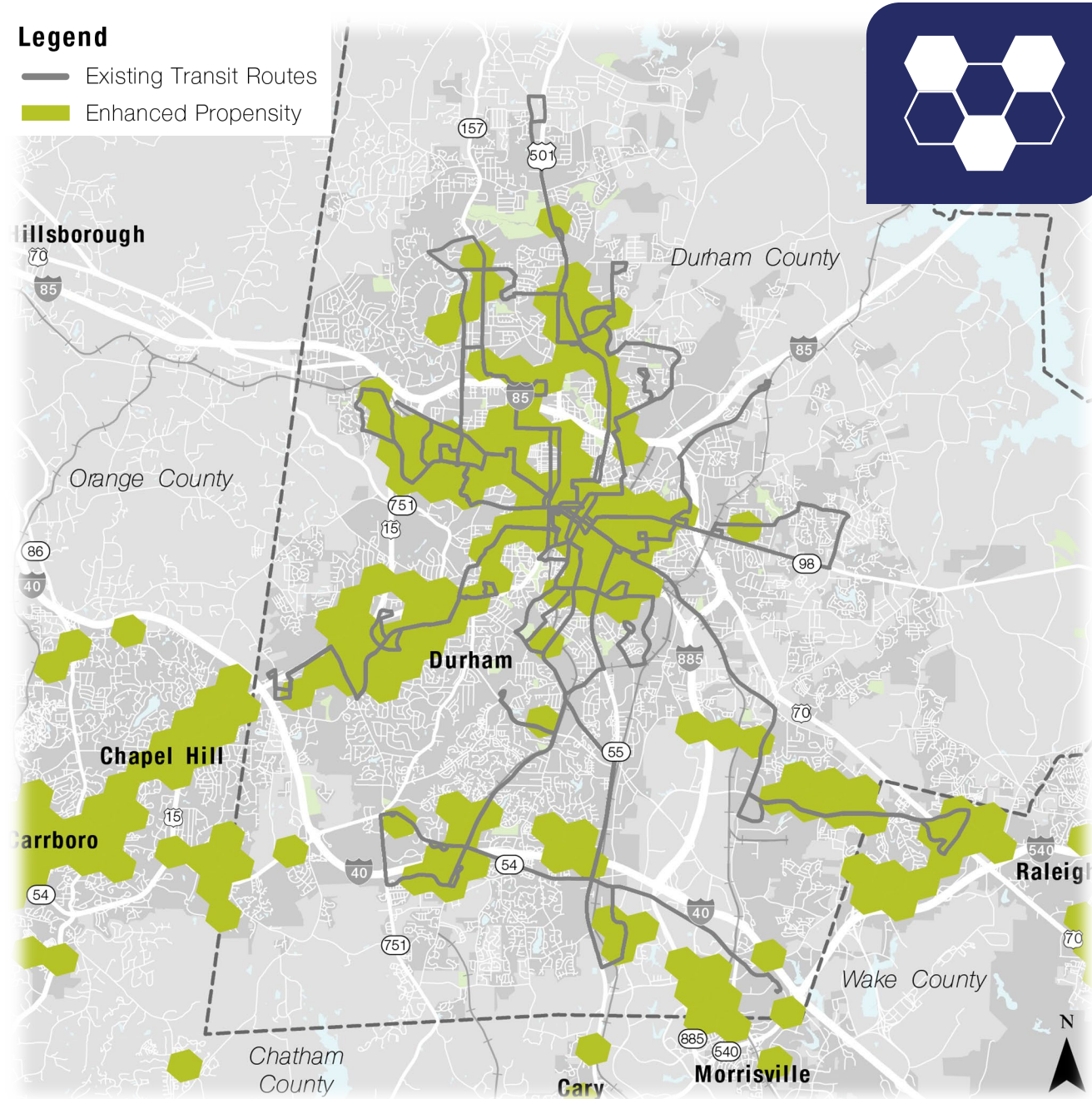
Workplace Destination

Total Jobs and job density

Enhanced Transit Index

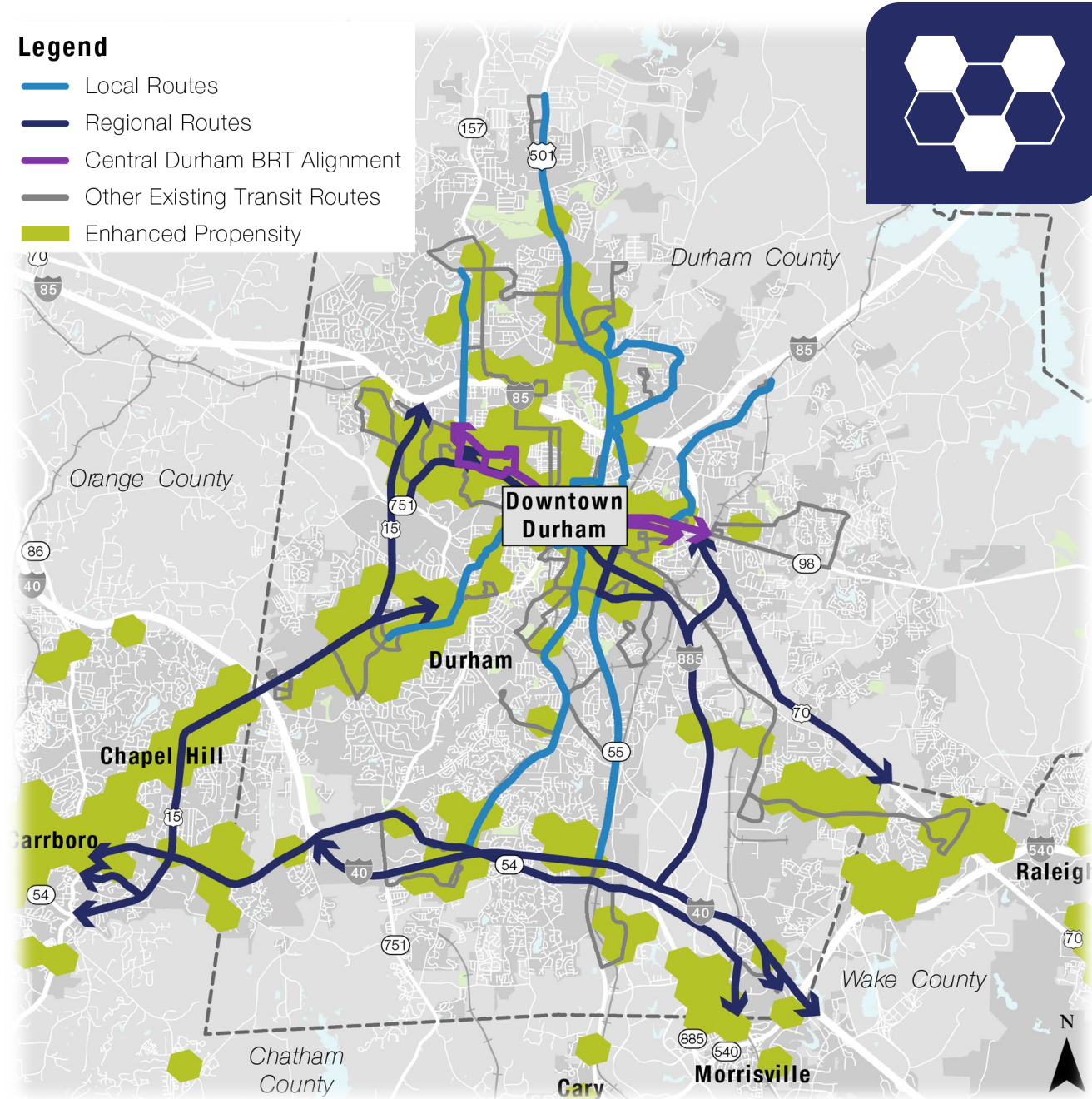
Enhanced Transit Index

- Areas where high-frequency transit is likely to be productive:
 - Central Durham
 - Duke University
 - NCCU
 - Duke Regional Hospital
 - US 15-501/University Dr towards Chapel Hill
 - Roxboro and Duke Streets
 - Southpoint



Enhanced Transit Index

- Overlap between areas with higher transit propensity and corridors outlined by previous plans
- Areas north of I-85 in Durham are exceptions



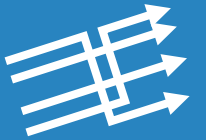
Market Analysis Process

Enhanced Transit Index



- Where are destinations that transit can serve?
- Where are people living and working most densely?

High Demand Corridors



- How do people currently move through the region?
- Which corridors are the most well-traveled?



Where are people most likely to need and/or use transit?

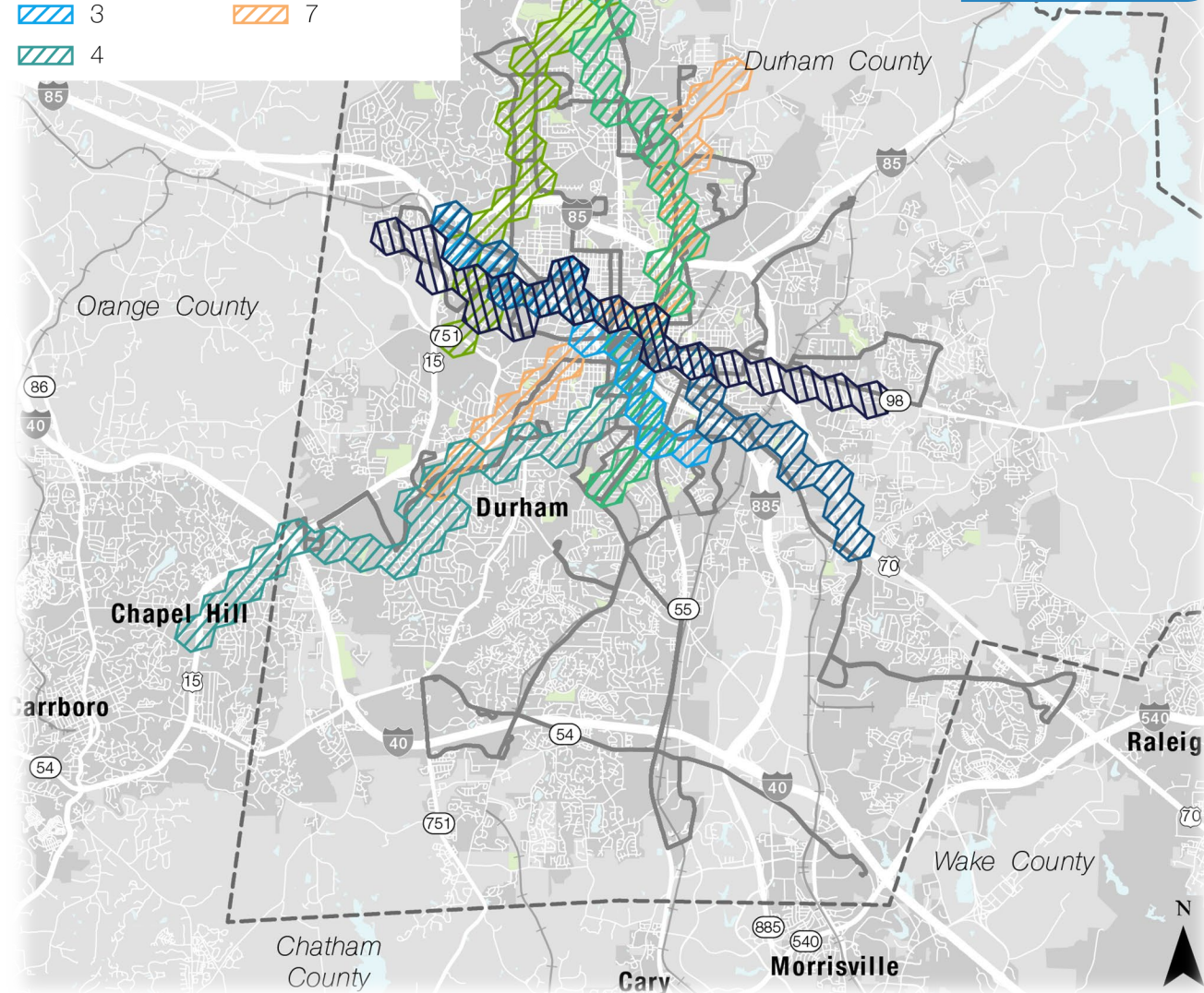
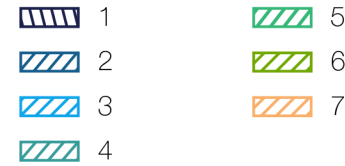
High-Demand Corridors

- Corridors with high travel flows in Durham County and just outside
- Major travel corridors identified in Central Durham, as well as strong north-south corridors

Legend

— Existing Transit Routes

Corridor Rank (% Flows Served)

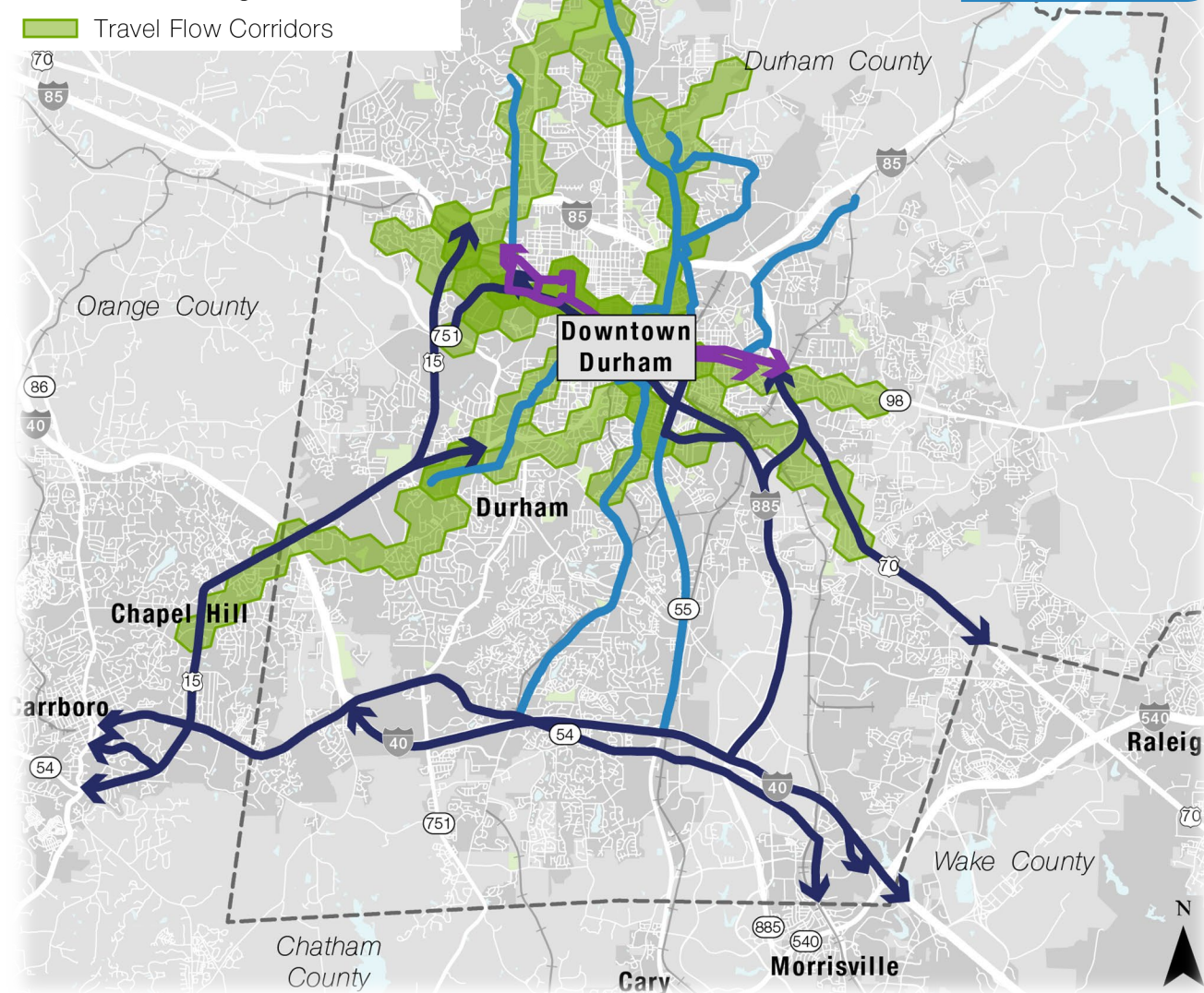


High-Demand Corridors

- Corridors with high travel flows align with the network of corridors outlined in previous plans
- Identify potential corridor expansions and new connections

Legend

- Local Routes
- Regional Routes
- Central Durham BRT Alignment
- Other Existing Transit Routes
- Travel Flow Corridors



Bus Speed Improvement Opportunity Scan



Tools for Improving Speed and Reliability

- Many previous plans note bus priority strategies associated with the proposed corridors, these include:



Bus lanes and bus-on-shoulder.



Enhanced stops, floating bus stops, and off-board fare collection.



Intersection priority treatments like transit signal priority (TSP) and queue jumps.



Bus Priority Benefits:



Reduces Travel Time

Reduces the time it takes for the bus to get from one end of the route to the other by speeding up travel.



Reduces Dwell Time

Reduces the time the bus spends at a bus stop waiting for riders to get on, get off, and pay fares.



Reduces Wait Time

Reduces the time the bus spends at an intersection waiting for a green light.



Improves Rider Access

Improves the ease and ability of all riders to get to the bus stop and onto the bus safely and comfortably.



Improves Rider Safety

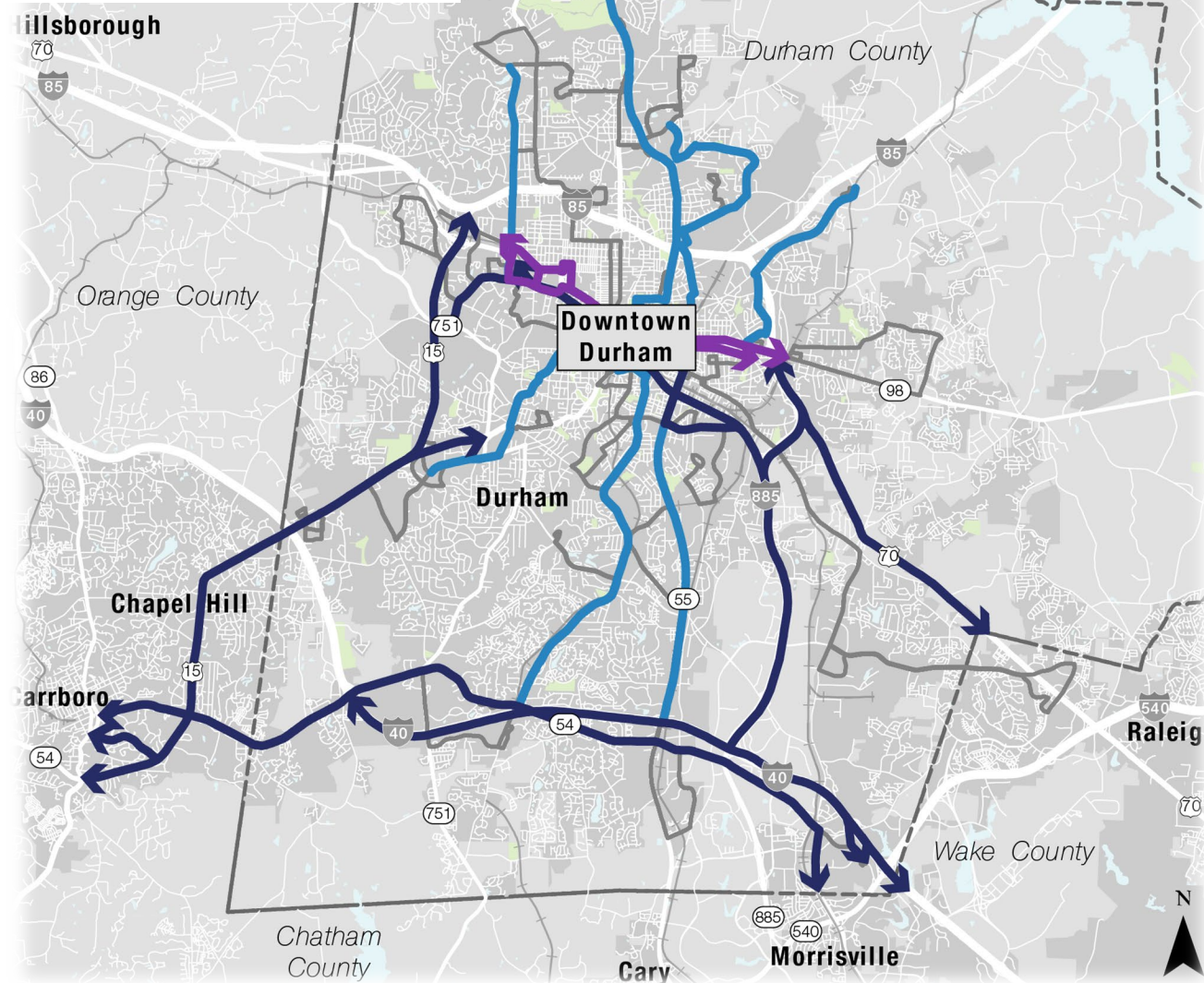
Improves the safety and comfort of bus riders and other roadway users, including cyclists and drivers.

Types of BRT Improvements: Local and Highway

Different corridor
characteristics = different BRT
investment strategies

Legend

- Local Routes
- Regional Routes
- Central Durham BRT Alignment
- Other Existing Transit Routes



Example Strategy– Guideway Dedication

CURBSIDE LANE



Benefits



Reduces
Travel Time



Reduces
Dwell Time



Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety

MEDIAN BUS LANE



Benefits



Reduces
Travel Time



Reduces
Dwell Time



Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety

Example Strategy– Intersection Treatments

TSP



Benefits



Reduces
Travel Time



Reduces
Dwell Time



Reduces
Wait Time

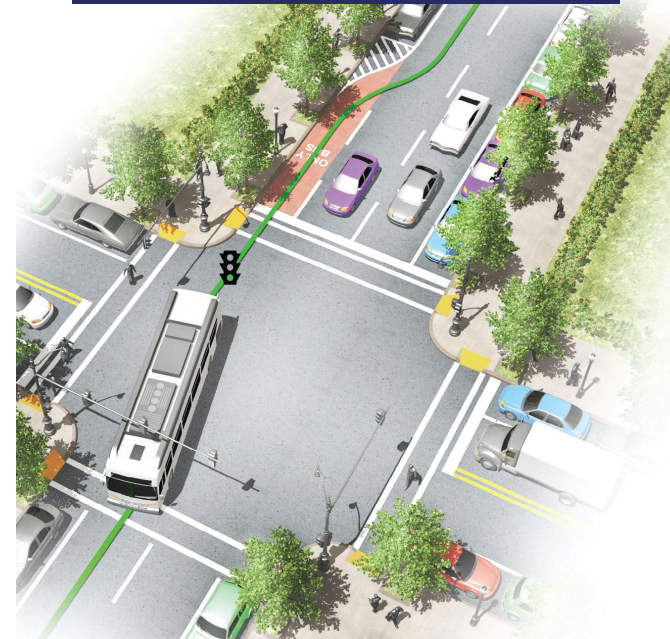


Improves
Rider Access



Improves
Rider Safety

QUEUE JUMP



Benefits



Reduces
Travel Time



Reduces
Dwell Time



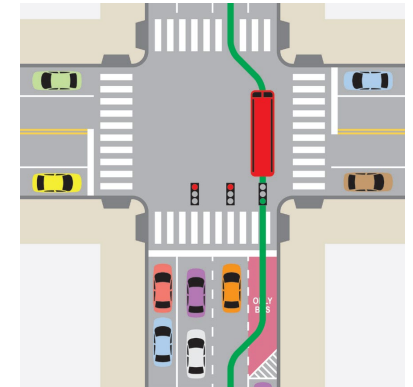
Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety



Example Strategy– Station Placement

FLOATING BUS STOP



Benefits



Reduces
Travel Time



Reduces
Dwell Time



Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety

FAR SIDE BUS STOP



Benefits



Reduces
Travel Time



Reduces
Dwell Time



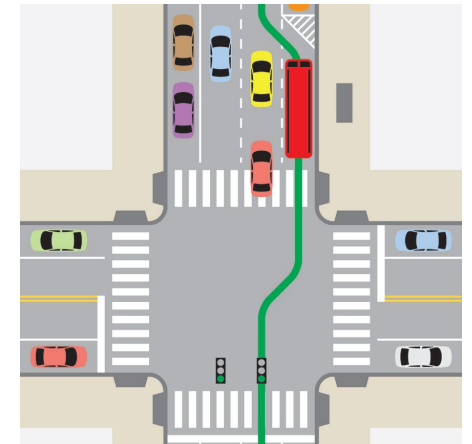
Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety



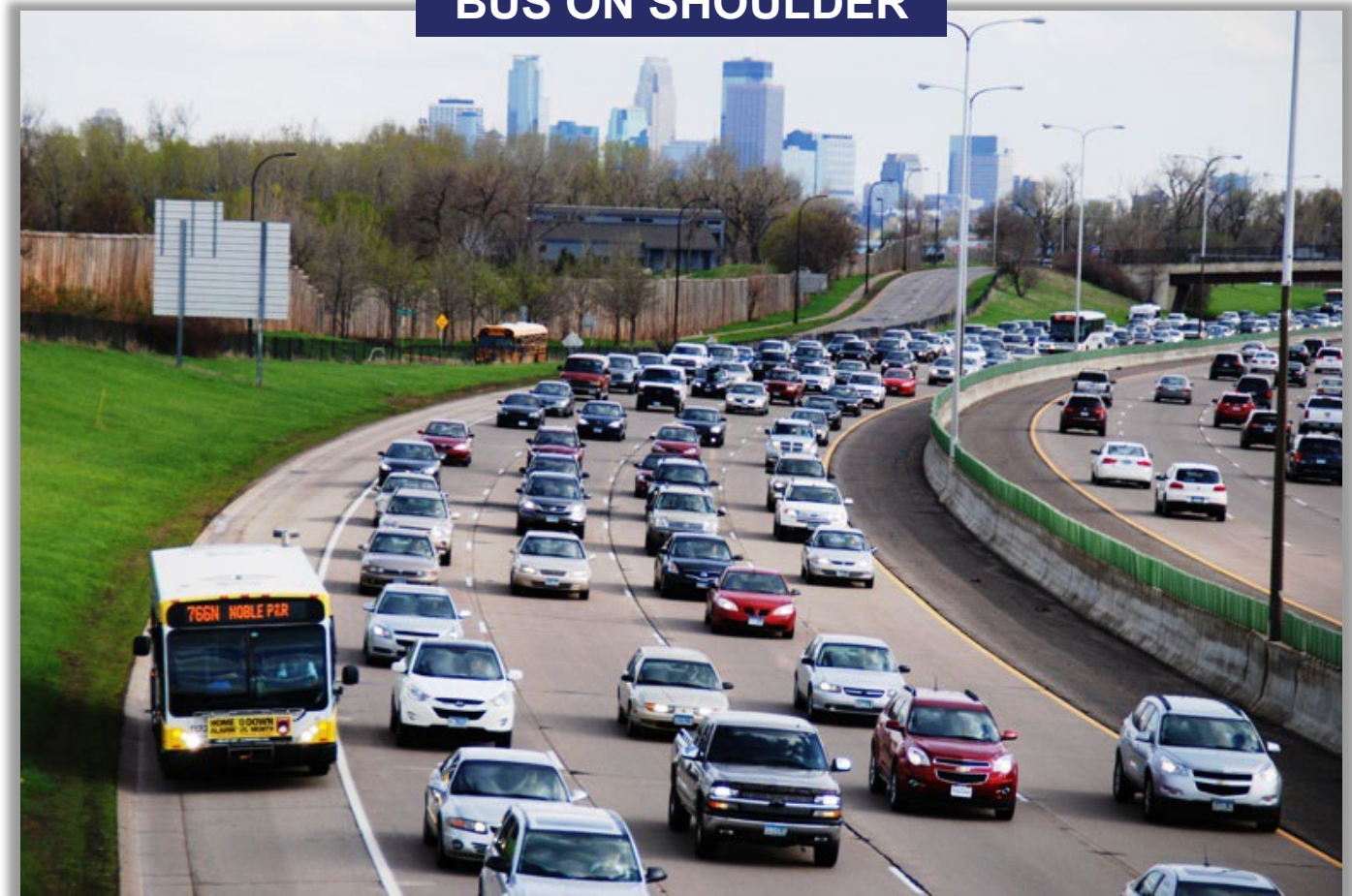
Example Strategy– Floating Bus Stop



- **Applications:** Useful along roadways that have protected or offset bike lanes. It can also effectively serve as a **curb extension** if it is built out into the parking lane.

Highway BRT Example: Bus-On-Shoulder (BOS)

- **Opportunity:** Utilizing dedicated shoulders on highways for buses
- **Benefits:** Increase reliability and improve travel times on congested highway segments
- **Tradeoffs:** Shoulder width may not accommodate a transit bus, may require expansion



Benefits



Reduces
Travel Time



Reduces
Dwell Time



Reduces
Wait Time



Improves
Rider Access



Improves
Rider Safety

Evaluation Process



Goals and Criteria Activity



As we review, **note goals and criteria of importance to you**



Vote for your favorite goal by placing a sticker



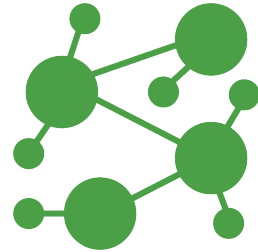
Write in any goals or criteria we have missed

Project Goals



Access

Providing opportunities for all users to access transit.



Connectivity

Providing a well-connected, multimodal transportation network.



Convenience

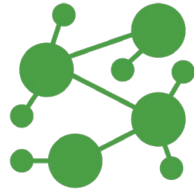
Creating reliable transit options and providing dependable information to riders.



Deliverability

Planning for deliverable and implementable infrastructure to meet the needs of existing and future populations.

Project Criteria

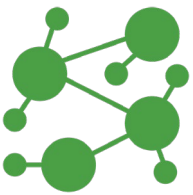


Access	Connectivity	Convenience	Deliverability
Number of trip types accessible (ex. grocery, shopping, healthcare)	Existing transit supportive land uses	Travel time	Right-of-way purchase requirements
Intersection Density	Planned transit supportive land uses	Corridor VMT minimization	Estimated capital cost
	Jobs	Estimated future ridership	Estimated operations and maintenance cost
	Housing		Potential partnerships
	Affordable housing		



Access

	Metric	Explanation
Trip diversity	Diversity of trip types accessible within a half-mile of corridor	How many types of trips are accessible within the corridor? (e.g., grocery stores, healthcare facilities)
Intersection Density	Number of intersections within a half-mile of the corridor	How many access points does the corridor have to the community?



Connectivity

	Metric	Explanation
Existing transit supportive land uses	Acreage of existing transit supportive land uses within a half-mile of the corridor	How much land near the corridor is dense development that supports transit?
Planned transit supportive land uses	Acreage of planned transit supportive land use within a half-mile of the corridor	How much land near the corridor is planned to be dense development that supports transit?
Jobs	Number of jobs within a half-mile of the corridor	How many jobs are within walking distance of the corridor?
Housing	Number of housing units within a half-mile of the corridor	How many homes are within walking distance of the corridor?
Affordable housing	Number of affordable housing units within a half-mile of the corridor	How many affordable homes are within walking distance of the corridor?



Convenience

	Metric	Explanation
Travel time	Estimated transit travel time compared to automobile travel time	How long will the BRT take, compared to cars?
Corridor VMT minimization	Reductions in personal vehicle miles traveled along the corridor	How many cars and how much traffic will be removed due to the BRT?
Estimated future ridership	Projected future ridership on the corridor	How many transit riders can we expect on the BRT?



Deliverability

	Metric	Explanation
Right-of-way purchase requirements	Total amount of estimated private property required for ROW expansion	How much property will the BRT require to be built?
Estimated capital cost	Estimated capital cost of corridor per rider	How much will the BRT cost to build?
Estimated operations and maintenance cost	Estimated operations and maintenance cost per rider	How much will the BRT cost to operate?
Potential partnerships	Potential for partnership with other jurisdictions, community stakeholders, or the public	What kinds of partnerships can we create to support the BRT?

Activity



Activity!



Identify areas – mark places you visit often and those that are important or need attention along corridors



Use colors – highlight opportunities and challenges

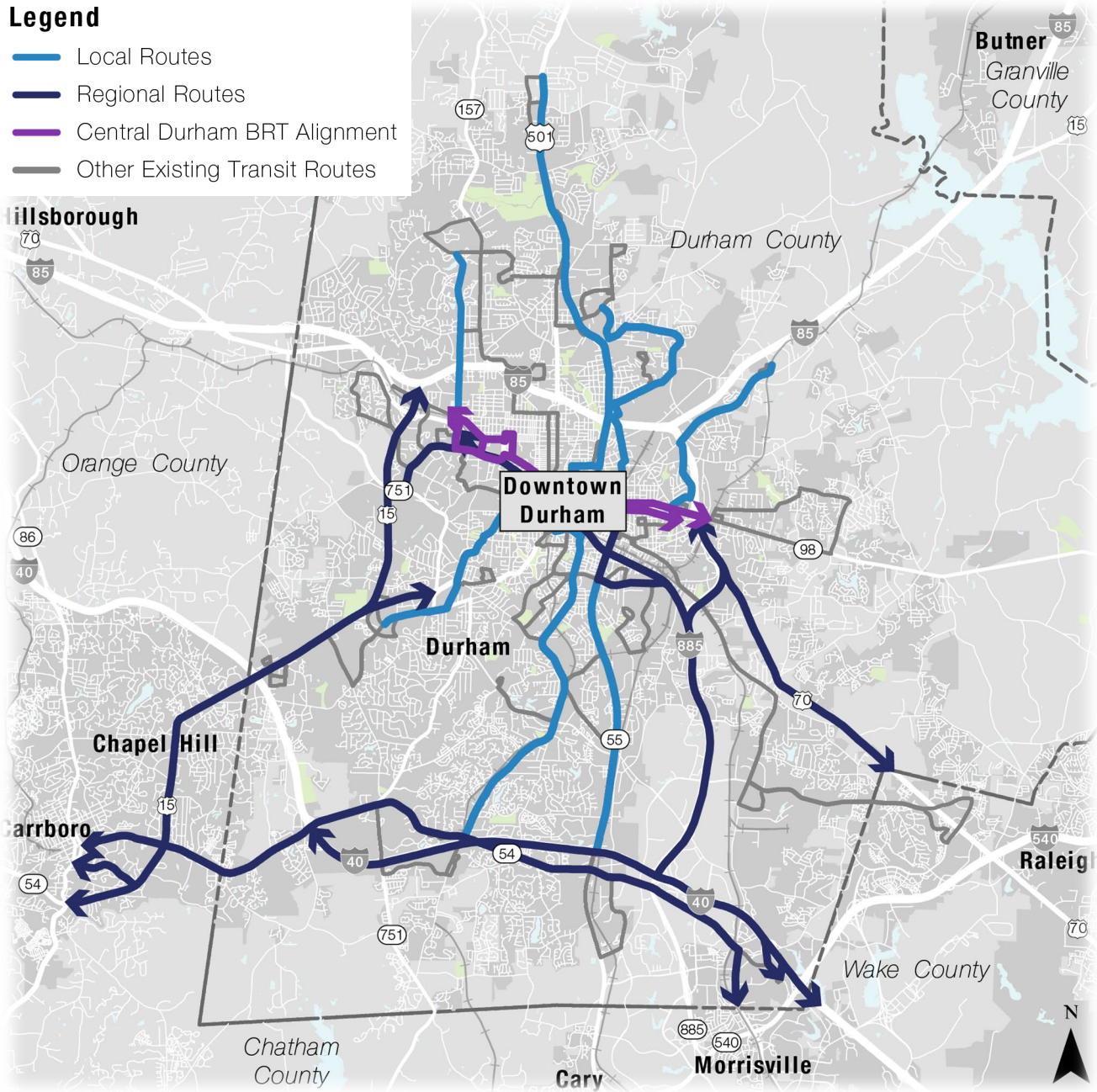


Place dots – mark specific locations such as destinations of interest/issues



Draw lines – add in any corridors we have missed

Universe of Corridors



Debrief

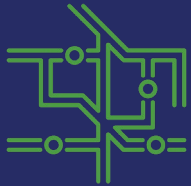


Next Steps and Discussion



Next Steps

Screen Universe of Corridors



Evaluate corridors against project goals and community priorities.

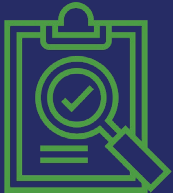
Get Involved!



Visit the project website and respond to the quick survey.

durhambrtvision.com

Refine Corridor Alternatives



Develop a refined list of corridor alternatives.

Engage with the Public



- Neighborhood workshops
- Pop-up events
- Project website
- Public Survey

Thank you!

