MWCOG/TPB Regional Transportation Subcommittee
November 27, 2018

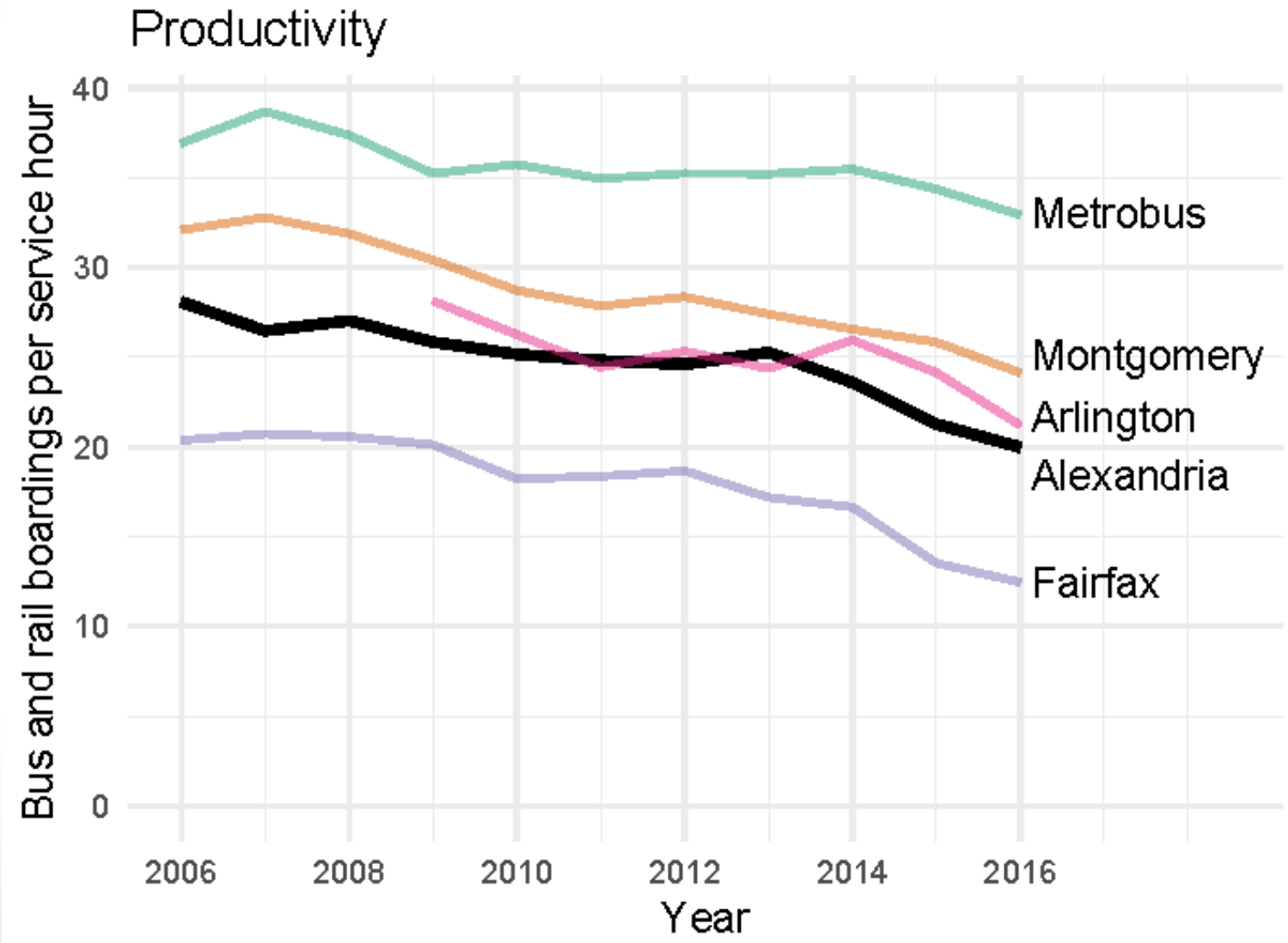
ATV Presentation Overview

- Project Overview
- Transit Choices Report
  - Market & Needs
  - Existing Transit Network
  - Key Choices
  - Emerging Technologies
- Network Design Workshop
- Next Steps
- Questions/Discussion

What is the background context?

- Declining transit ridership
- Dated transit network design
- Evolving travel patterns & behaviors
- Shifting demographics and land use patterns
- Technological advancements
- Continued budget uncertainty

Regional Bus Productivity



What is the Alexandria Transit Vision?

The ATV is an **unbiased**, **data-driven** effort by DASH and the City of Alexandria to redesign the city's transit network to more accurately reflect community transit priorities and current/future transit demand.

The final ATV Plan will be:

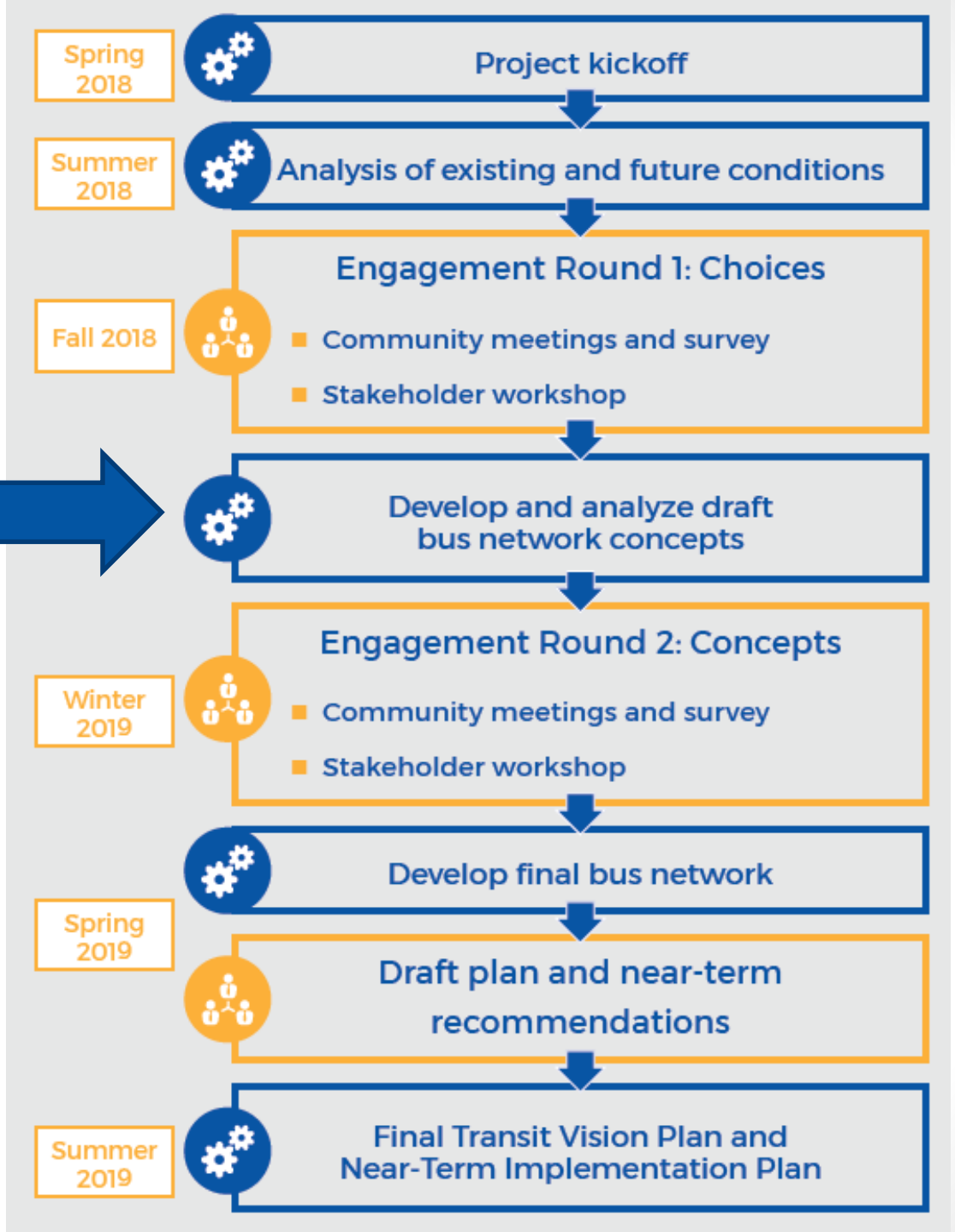
- Unbiased (Starting with a Blank Slate)
- Comprehensive/Inclusive
- Data-Driven (Demographic, O/D Pairs, etc)
- Reflective of Comm./Stakeholder Values
- Unconstrained*

What are we trying to accomplish?

- ✓Identify existing & future transit needs
- ✓Stakeholder engagement/education to help identify transit-related priorities
- ✓Gain support/buy-in from key decision-makers, stakeholders and community.
- ✓Address emerging technologies (AV's, Uber/Lyft, Microtransit, MaaS, etc)
- ✓**Develop Vision for Future Network (10+ years) & Implement Near-Term Scenario (1-2 years)**

Project Schedule

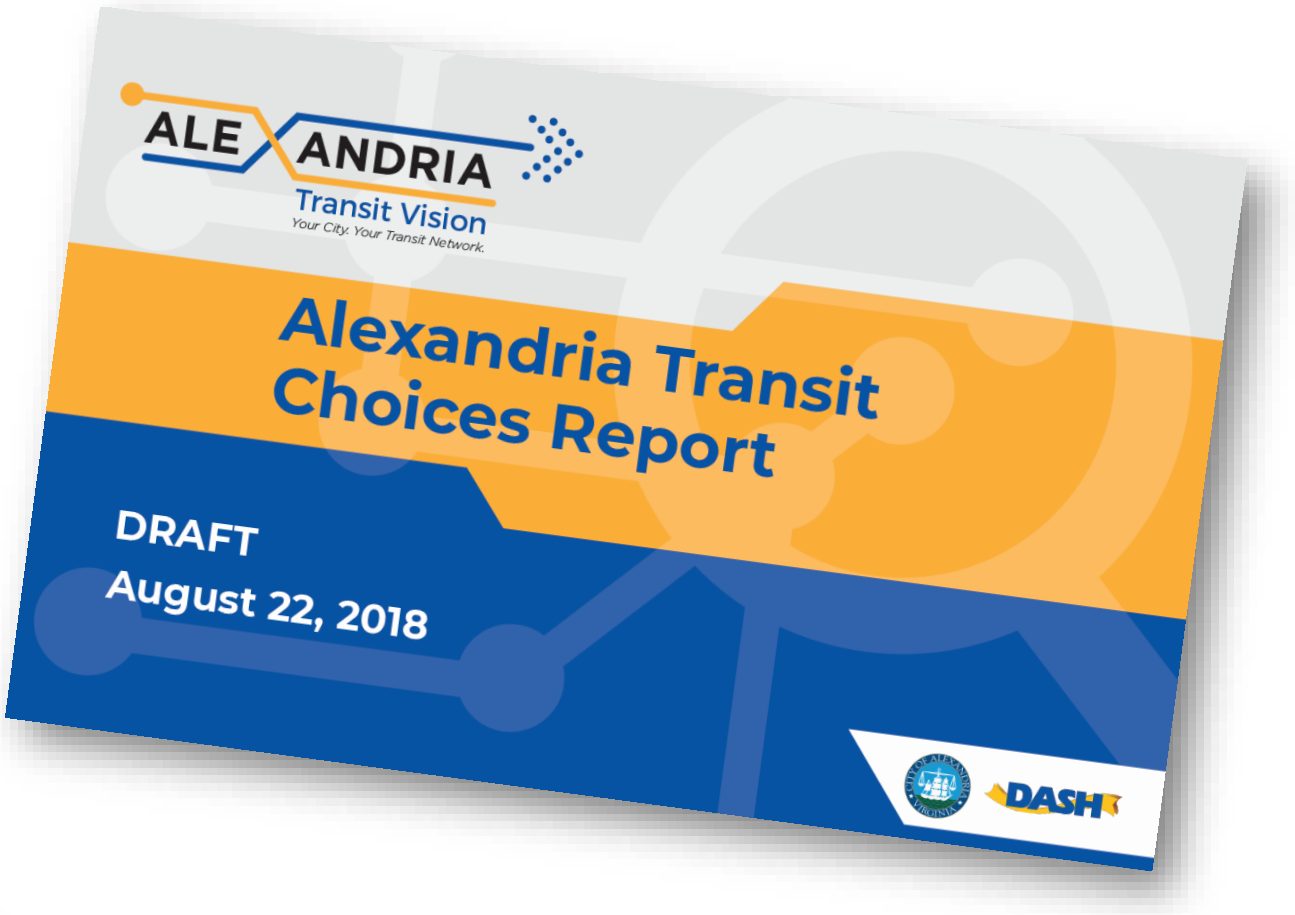
Nov/Dec 2018



Civic Engagement Framework

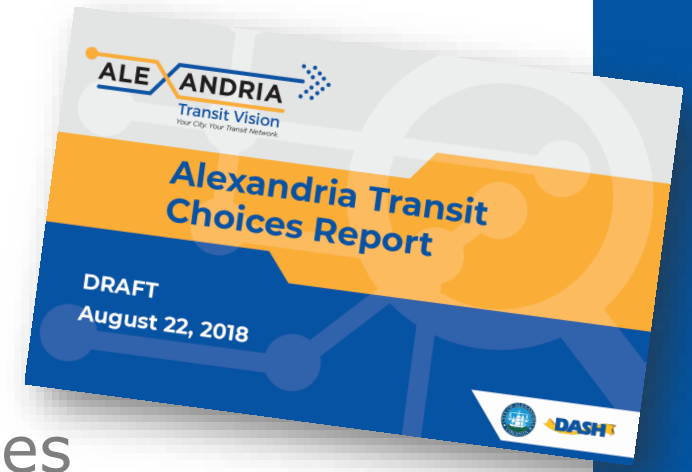
Time Frame	General Public	Stakeholders
Phase 1: Information, Choices & Tradeoffs	• **Round 1 Community Meetings: Choices** • **Choices Survey (standard format)**	**Workshop #1: Tradeoffs**
Phase 2: Conceptual Networks	• Round 2 Community Meetings: Network Concepts • Concept Survey (MetroQuest)	Workshop #2: Concepts
Phase 3: Final Plan & Implementation	• Commission & Council Meetings	Workshop #3: Final Plan and Implementation

Transit Choices Report

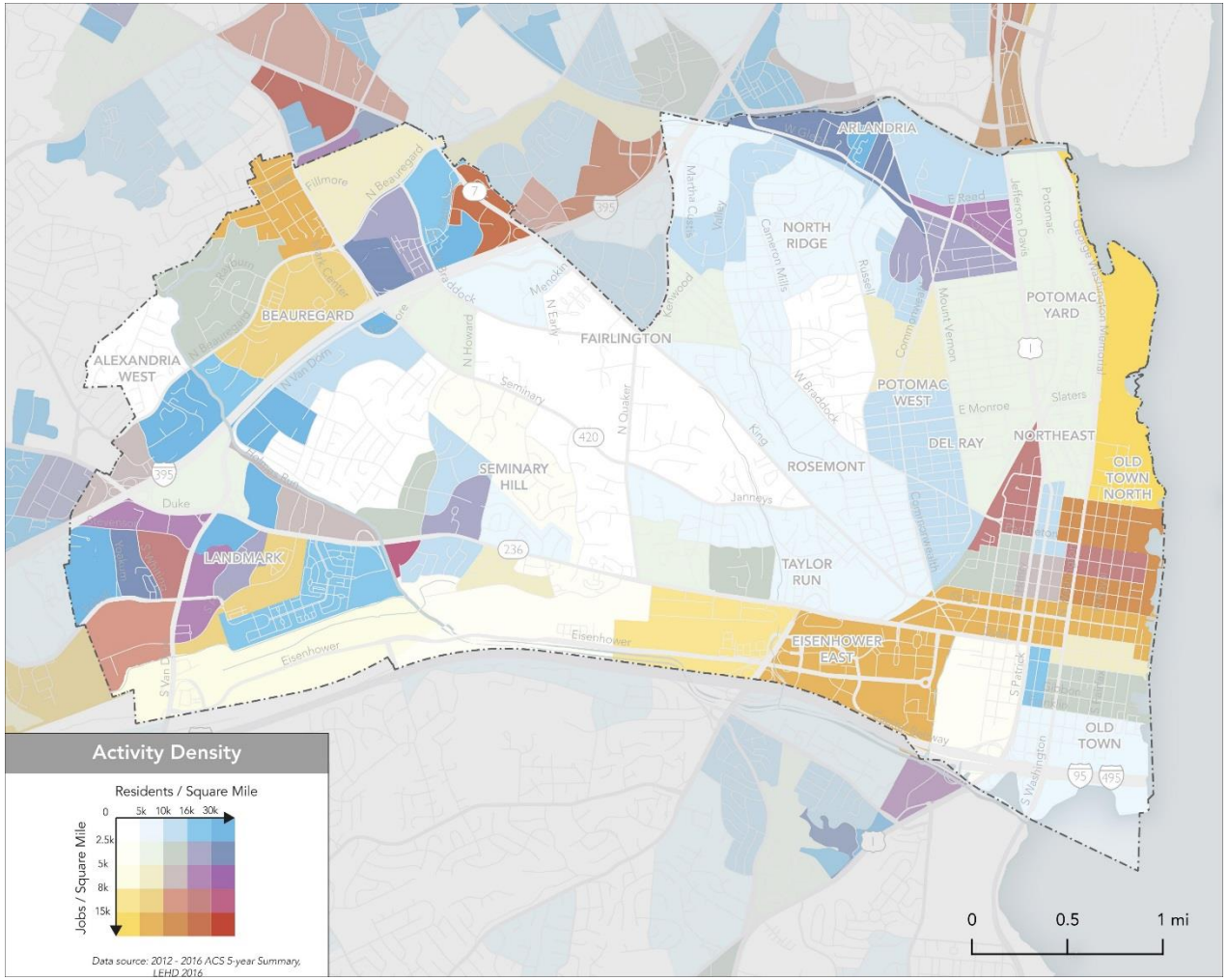


Transit Choices Report

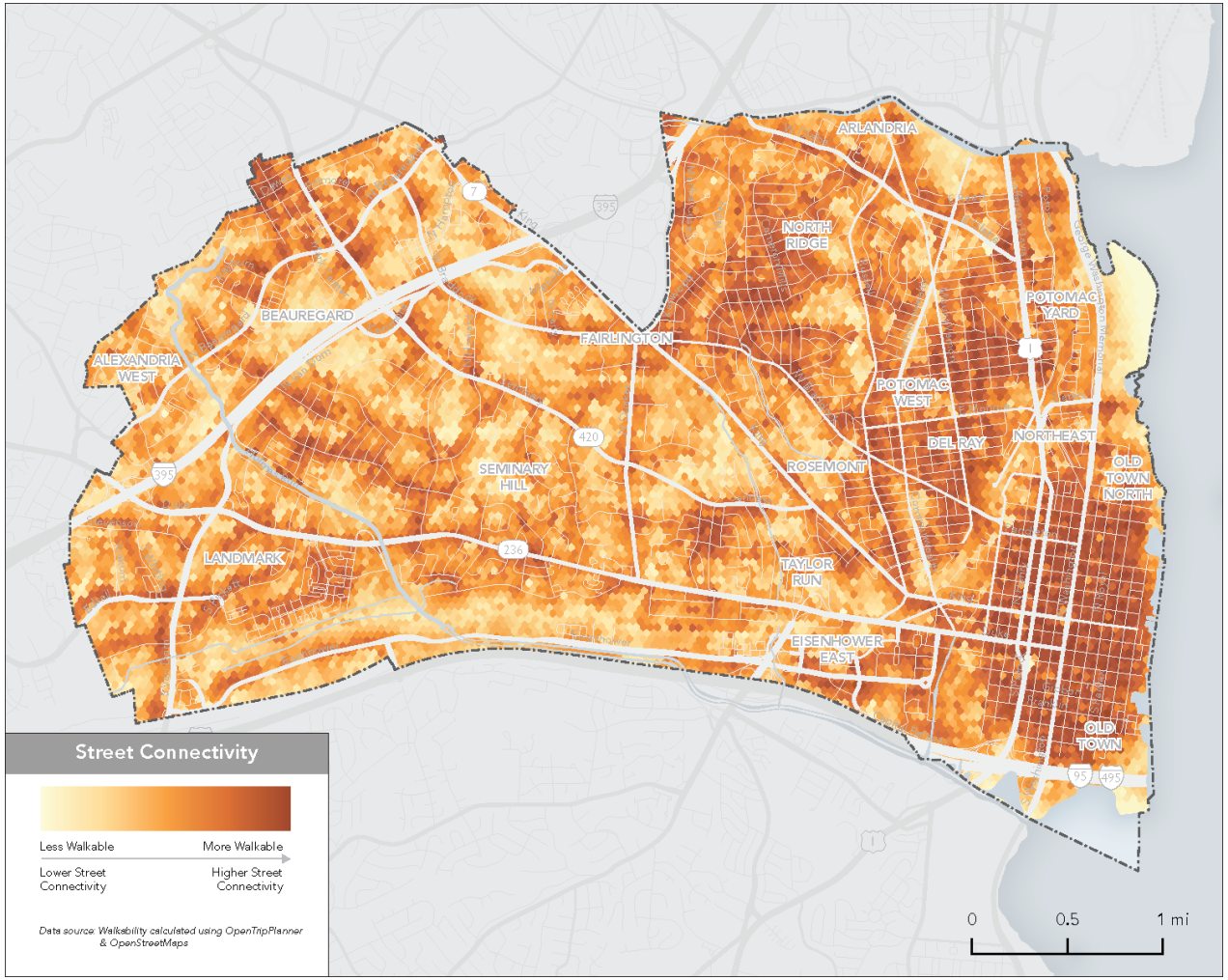
- Existing Network Review
- Transit Market & Needs Analysis
- Technology Trends
- Key Choices/Trade-Offs
  1. Ridership vs. Coverage
  2. Peak vs. All-Day
  3. Transfers vs. One-Seat Rides
  4. Walking Distance to High-Quality Transit
- Choices Report will provide framework for Stakeholder Outreach & Discussion



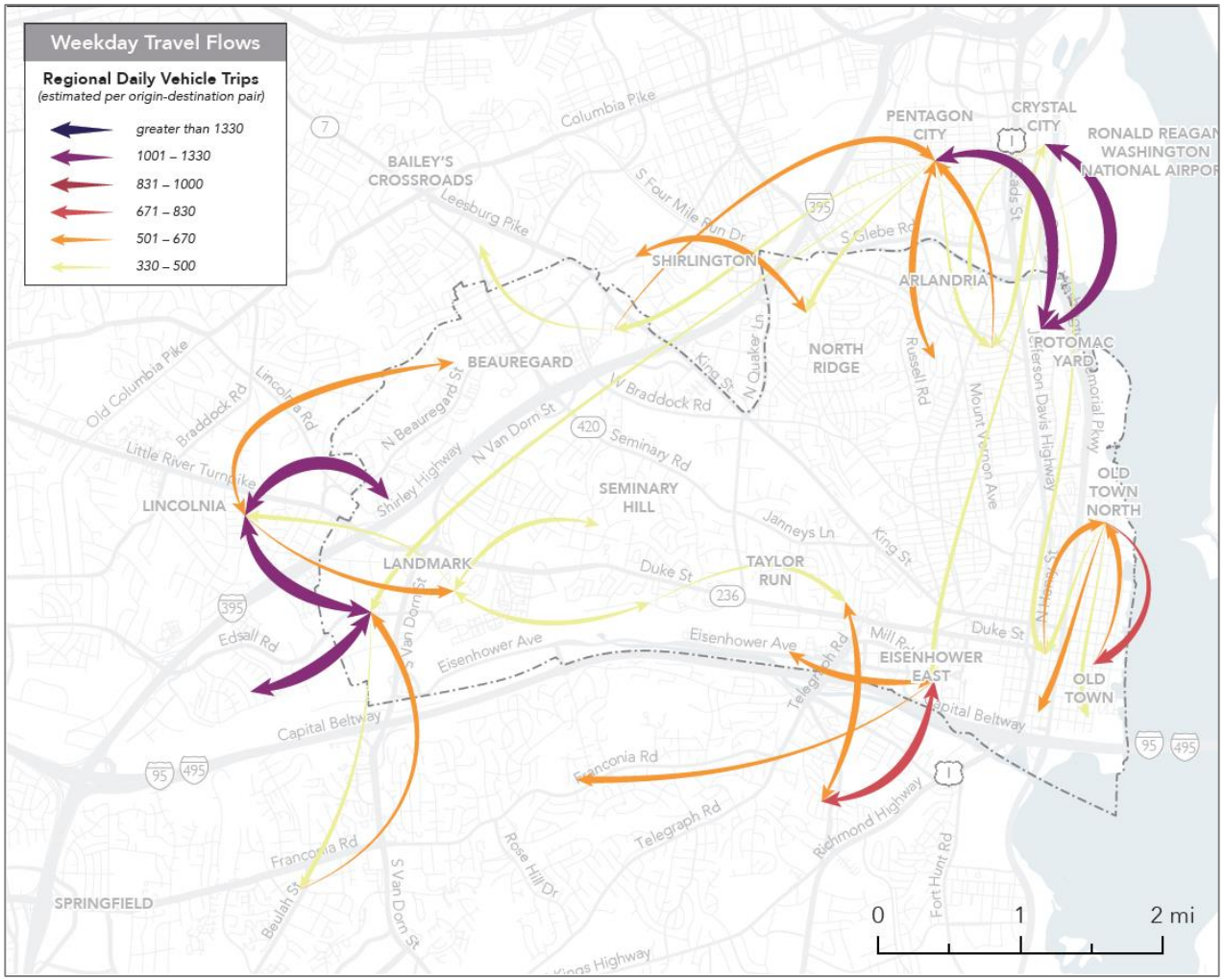
Markets & Needs – Activity Density



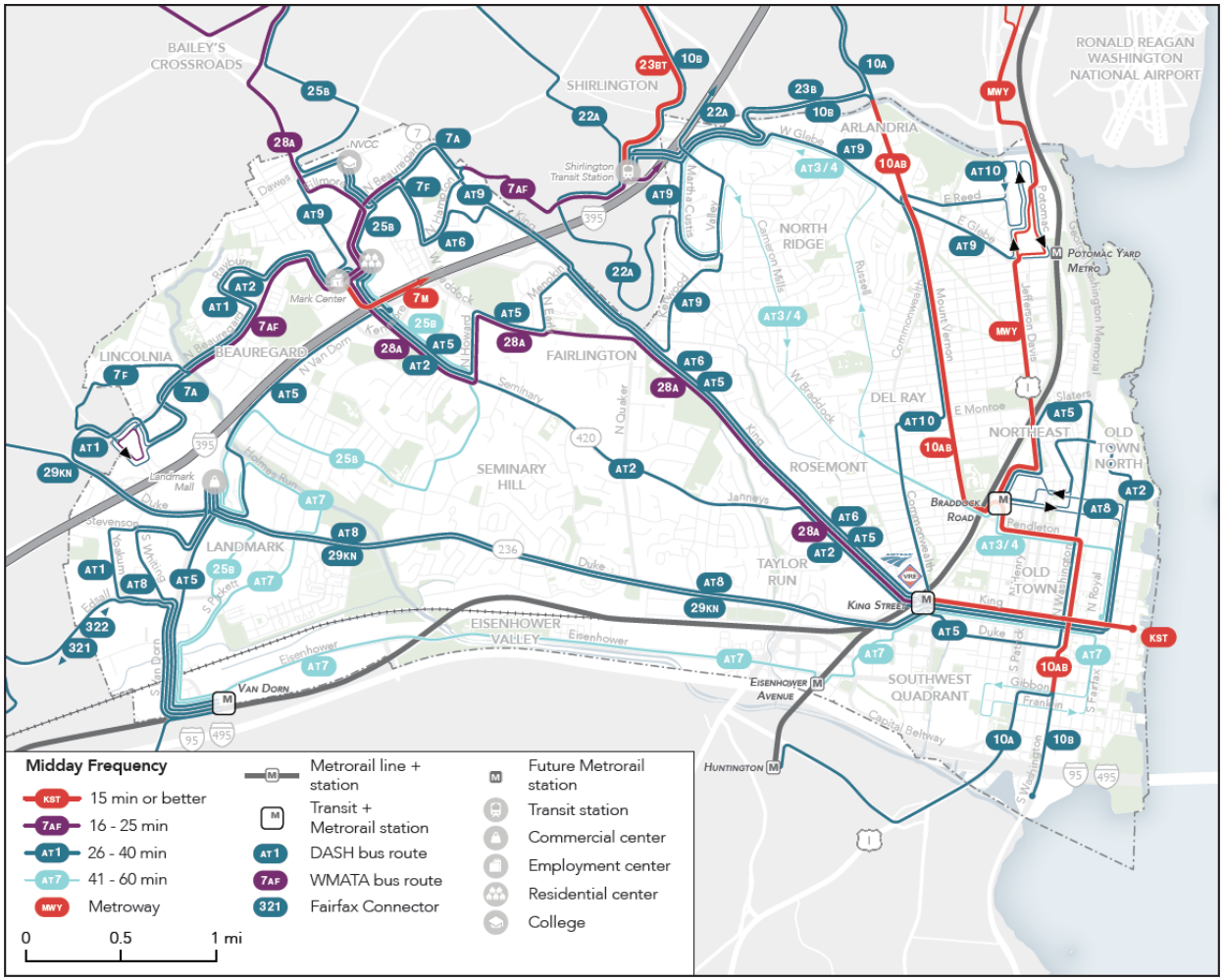
Markets & Needs - Walkability



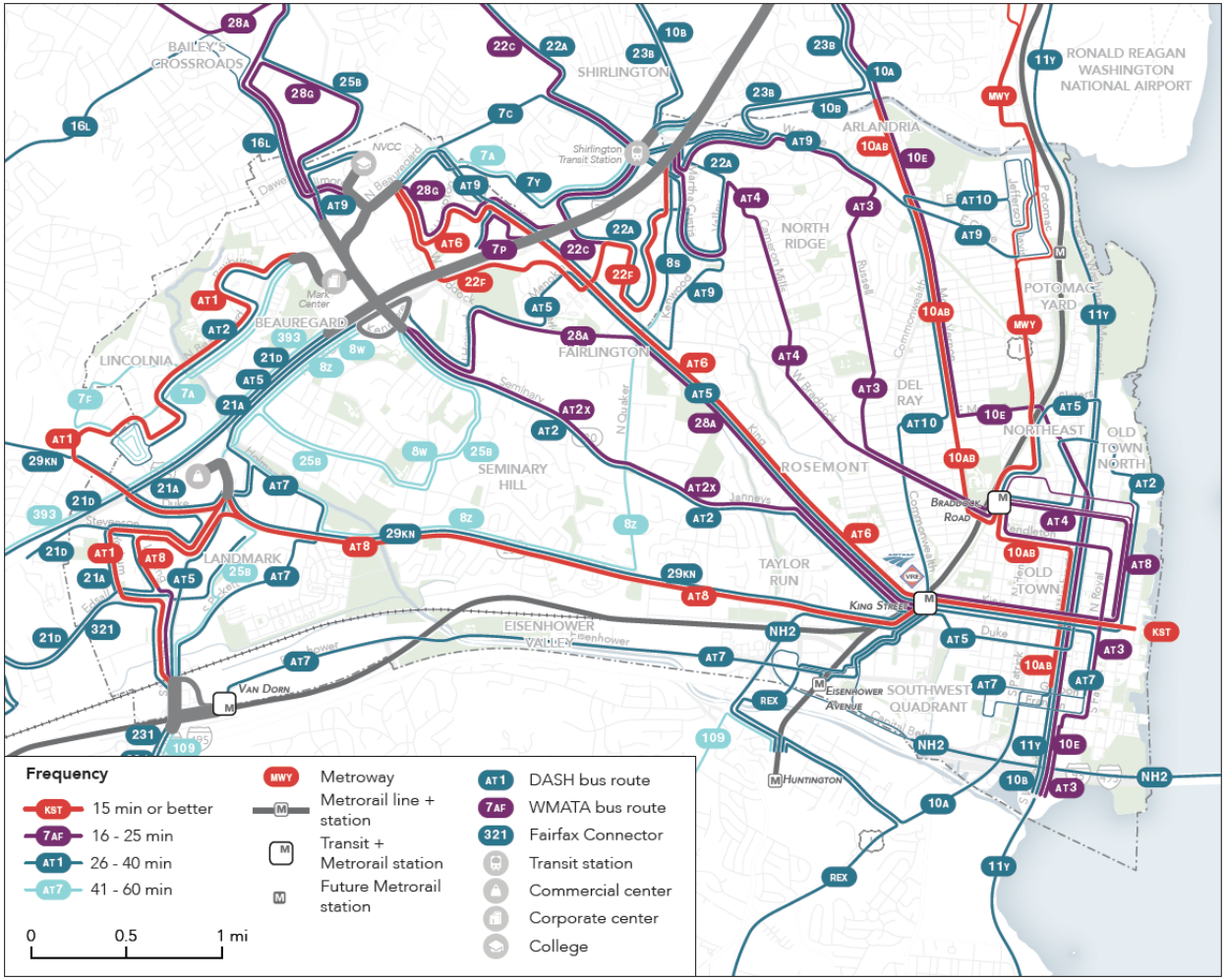
Markets & Needs – Demand



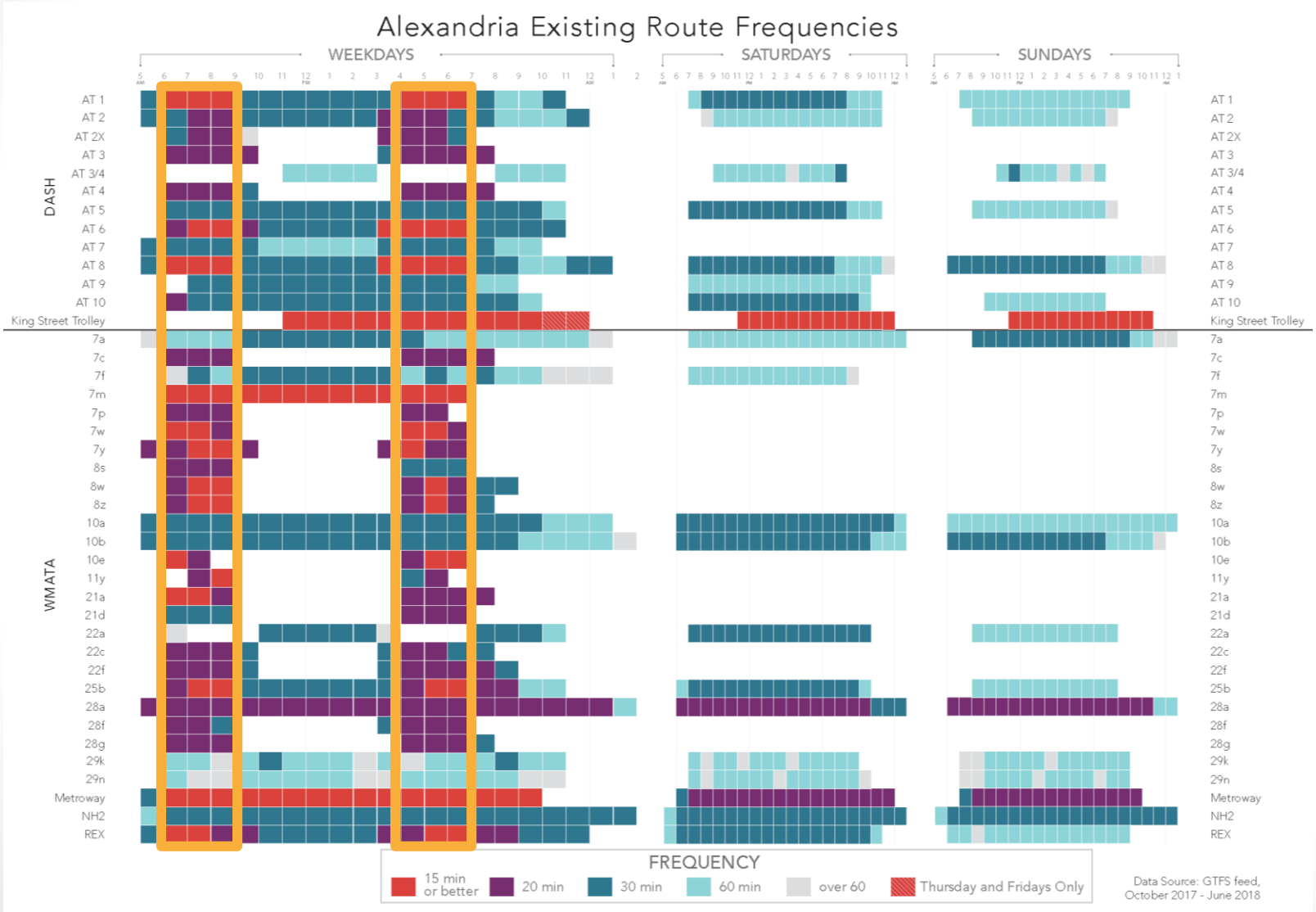
Existing Bus Network (Mid-Day)



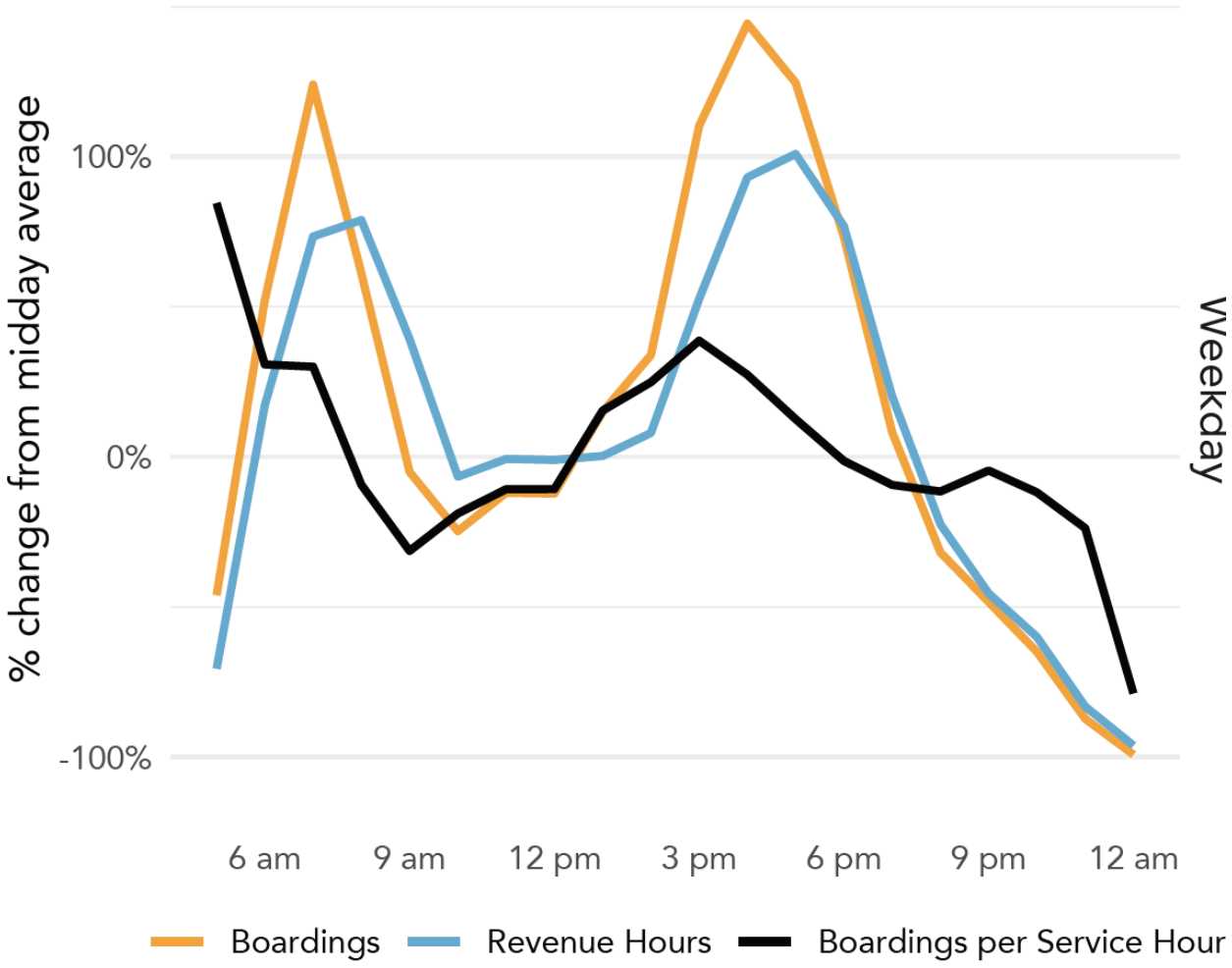
Existing Bus Network (Peak)



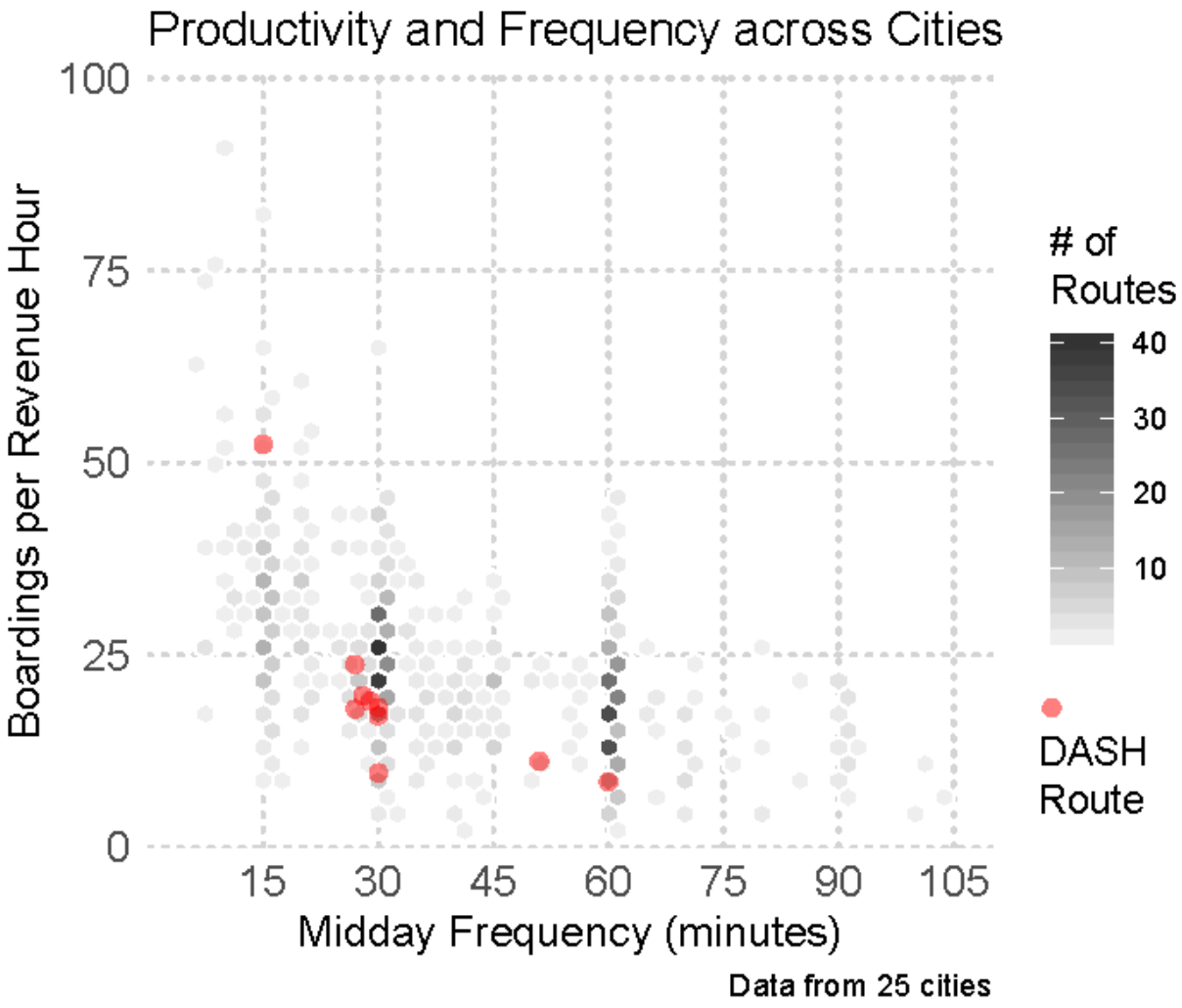
Existing Bus Frequency Chart



Productivity (Peak vs. Off-Peak)

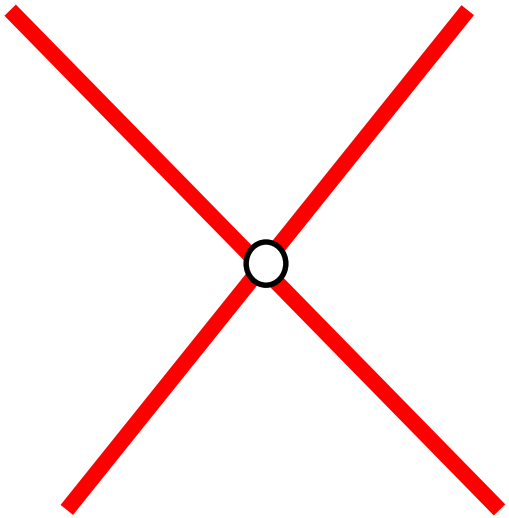


Frequency & Productivity



Benefits of High-Frequency

Speed and reliability matter, but **frequency** is the most neglected element.

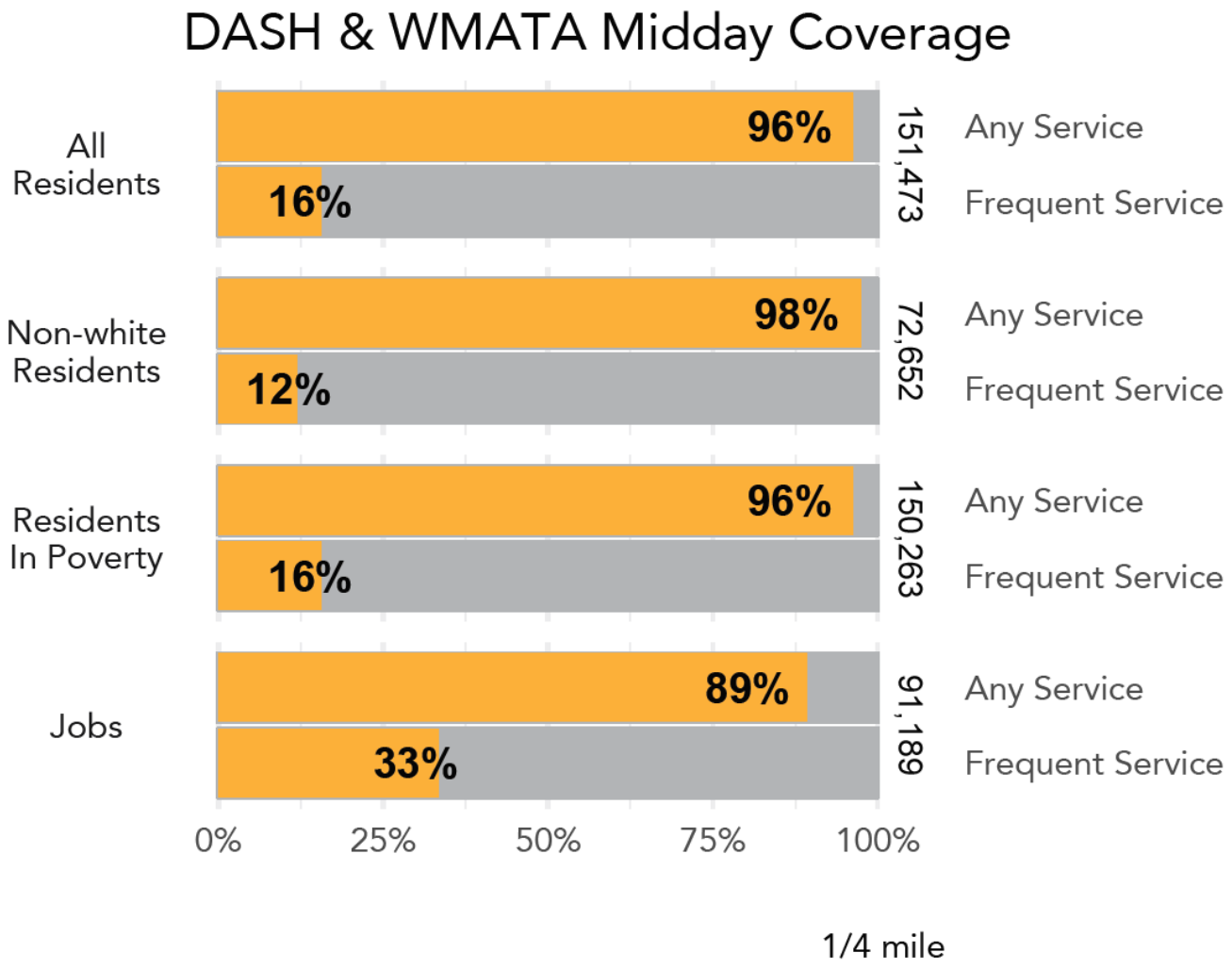


Frequency offers three huge benefits:

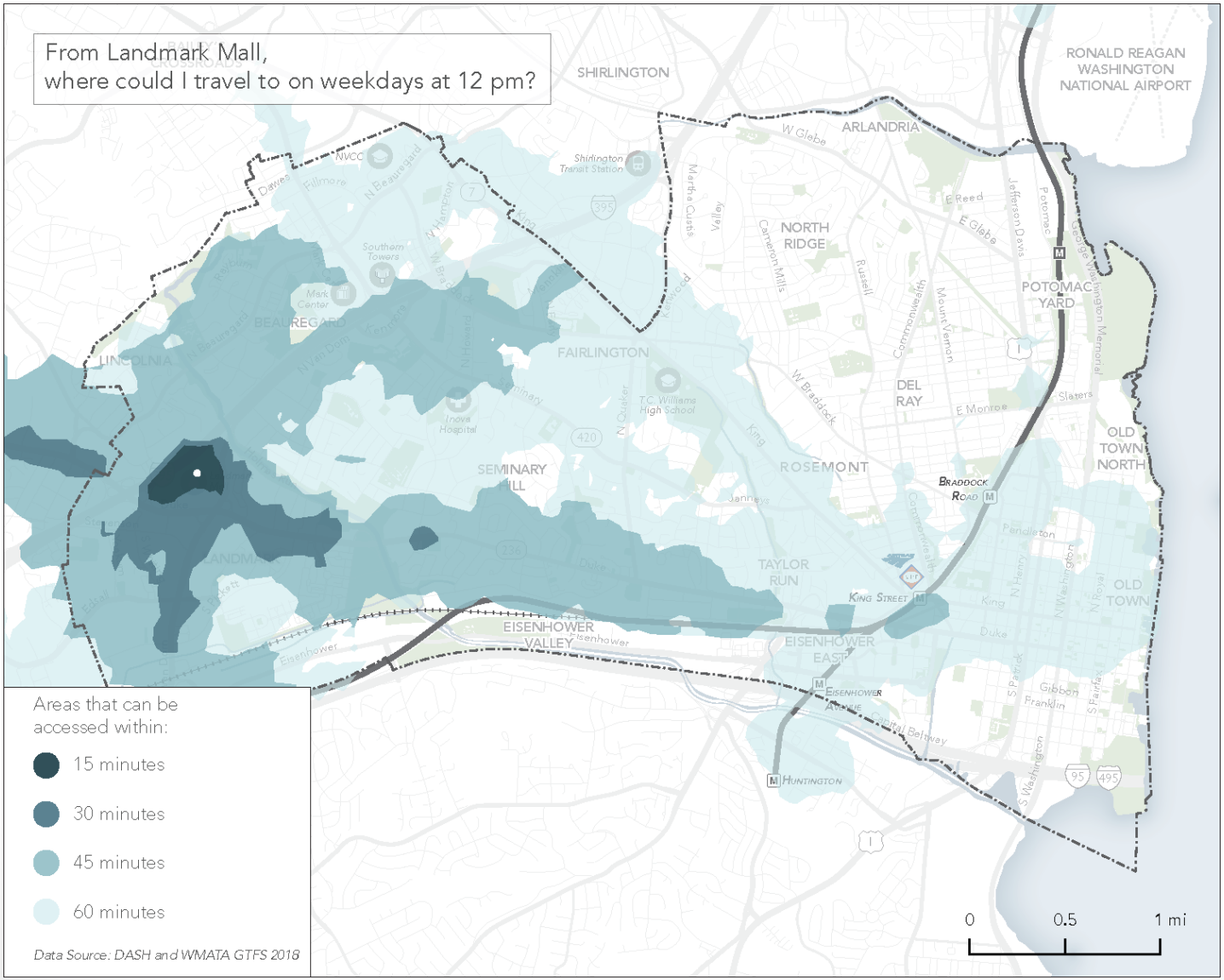
- Go when you want to go
- Make connections between frequent routes easily
- Better reliability

For short trips, waiting can make up most of your travel time!

Existing Transit Coverage



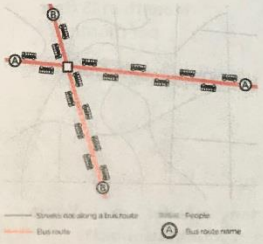
Existing Access via Transit



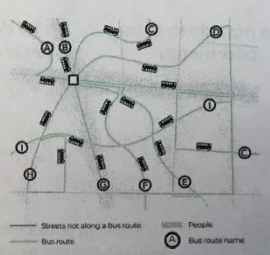
Key Choices

Frequency Versus Coverage

Within a fixed budget, a transit agency must make a choice in how to distribute its service.



High Frequency: Bus service runs on a few frequent routes, only in the busiest areas. Waits are short and trips are faster in places with the most residents and businesses. However, less-populated areas may have no service at all.



High Coverage: Most streets have some minimal bus service, even in places with very few people. Everyone is a short walk from a bus stop, but waits are long and trips are slow.

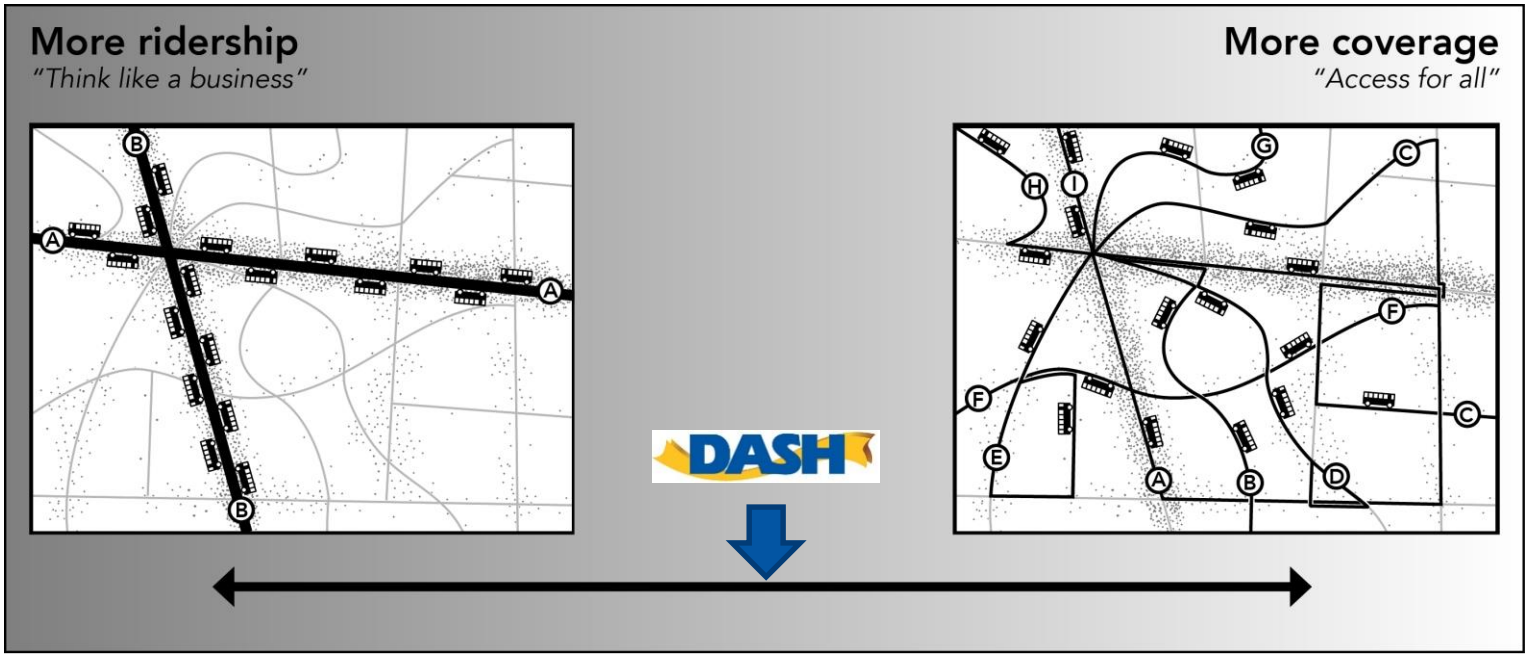
5. What would you choose between (check only one):

High Frequency Scenario: Walk farther, but have a short wait for your bus?

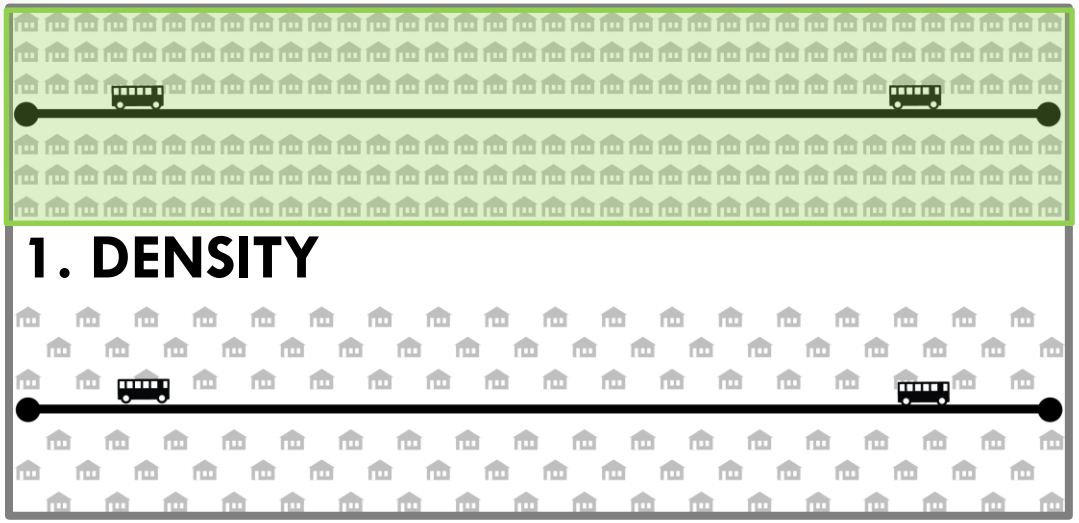
High Coverage Scenario: Walk a short distance, but wait longer for your bus?

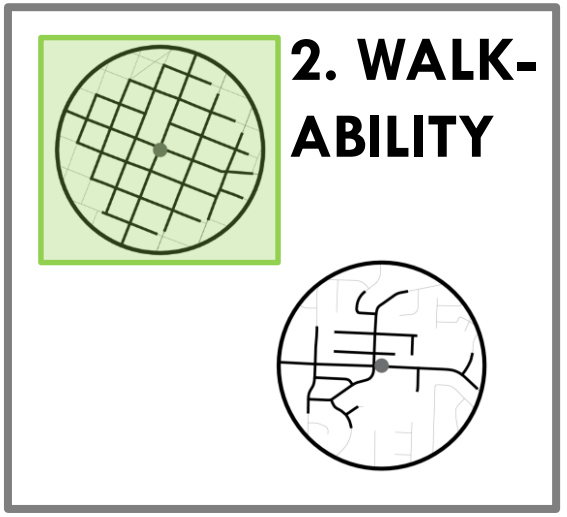
☐	☑	☐	
I strongly prefer the High Frequency Scenario.	I prefer the High Frequency Scenario, but think that some coverage service is needed.	I prefer the High Coverage Scenario, even if the buses run infrequently.	I stro… C…

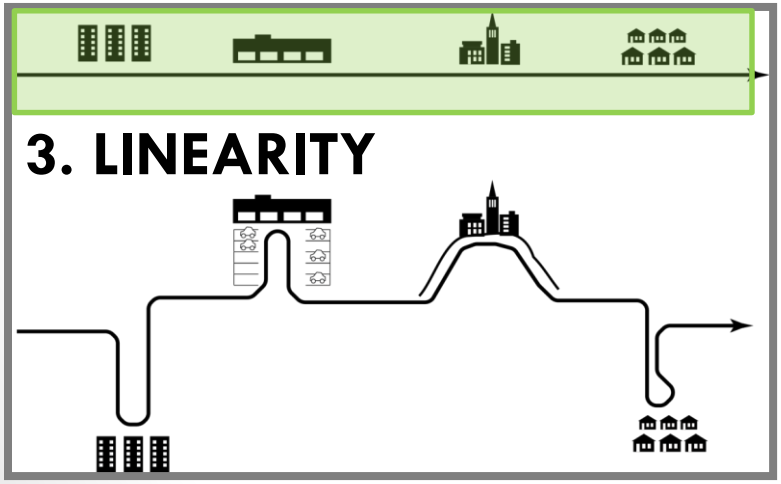
#1 / Ridership vs. Coverage

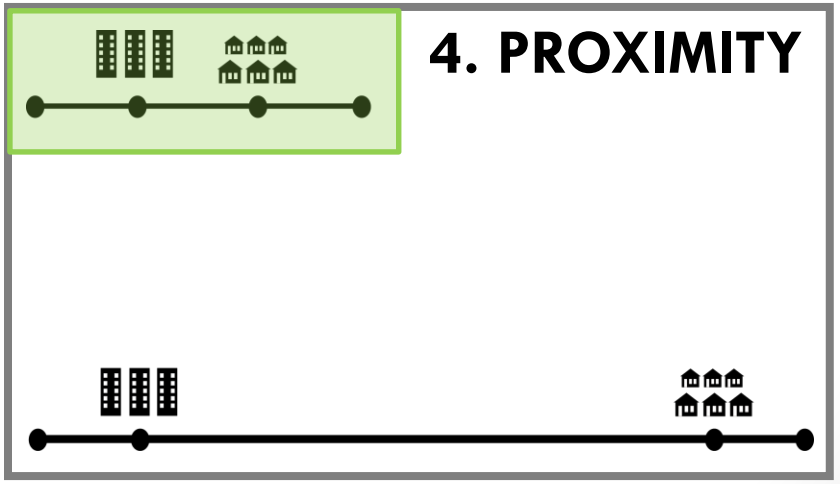


High Ridership Recipe







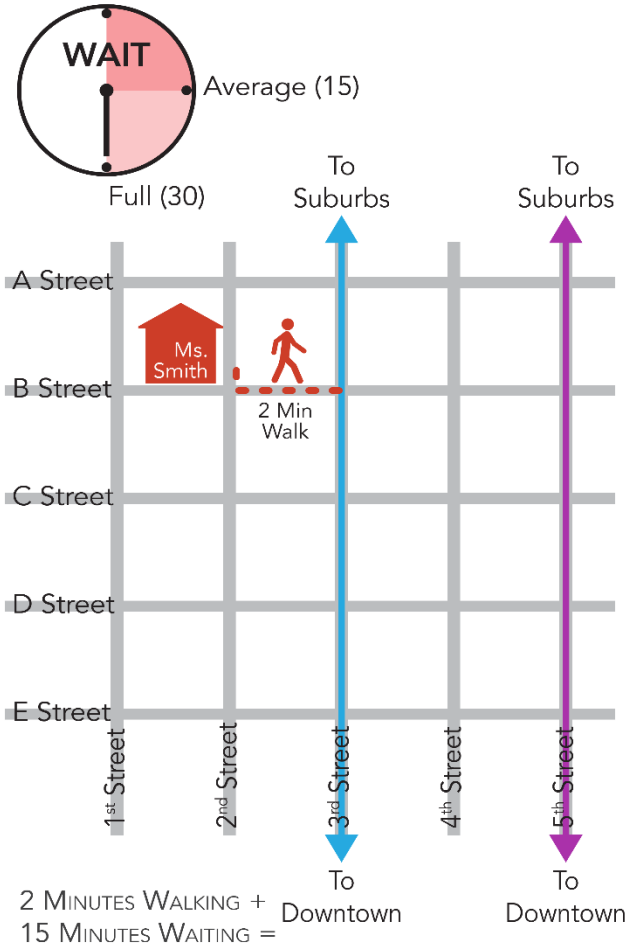


#2 / Walking vs. Waiting

Minimize Waiting with a few reliable, high-frequency routes along major direct corridors.

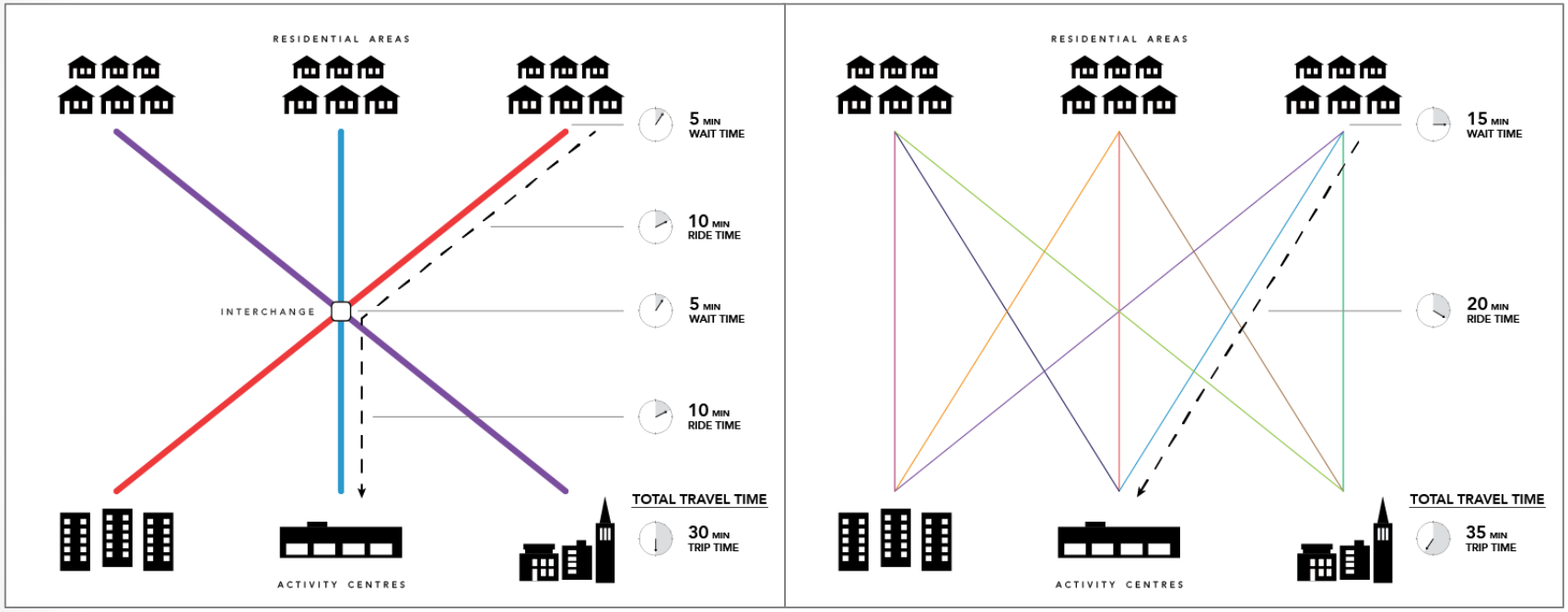
6 Minutes Walking +
7.5 Minutes Waiting =
13.5 Minutes Total

Minimize Walking with more low-frequency routes on more roads.

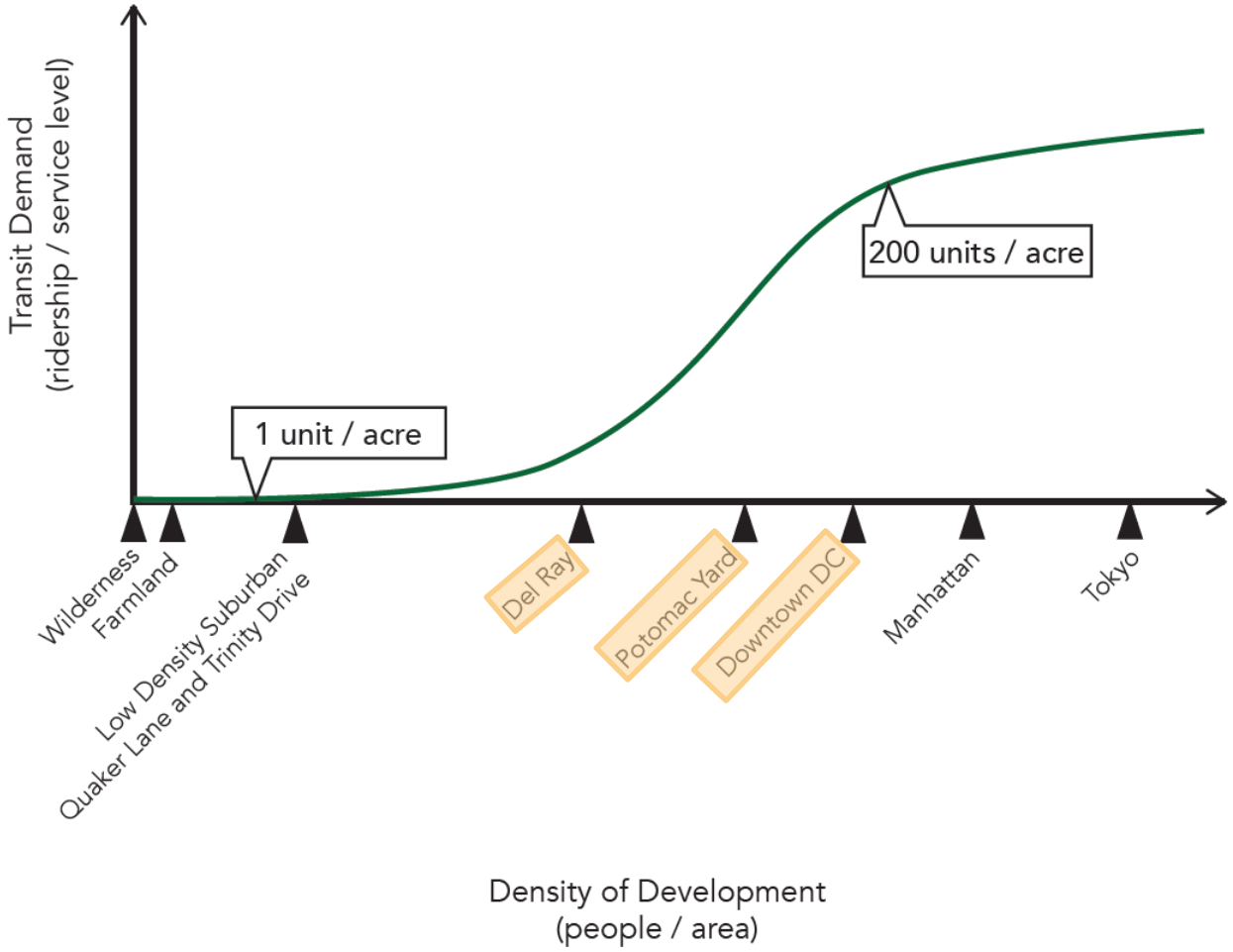


2 Minutes Walking +
15 Minutes Waiting =
17 Minutes Total

#3 / Connections vs. Complexity

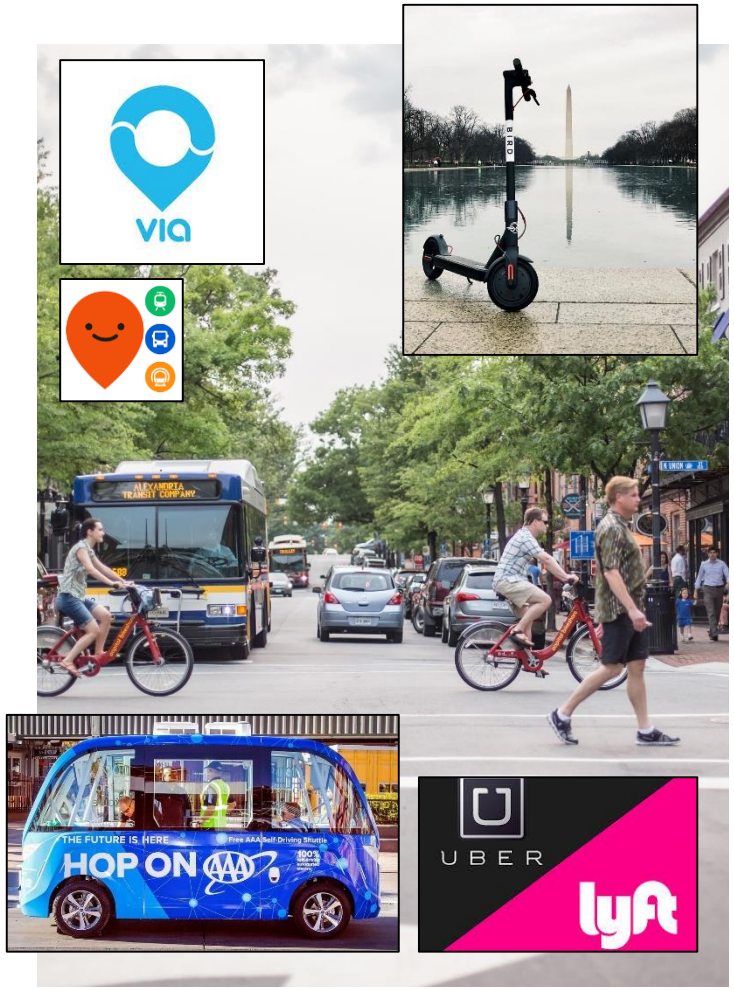


#4 / Level of Investment



Emerging Transit Technology

- Bike-/Scooter-shares
- Full automation is a long-term change
- Ride sourcing is disruptive for patron expectations; often competes for transit passengers but encourages shared mobility
- Near-term technology solutions in fare collection and service data may improve ridership
- Research from transit agencies in VA indicate desire to adapt to trend towards a broader focus on mobility

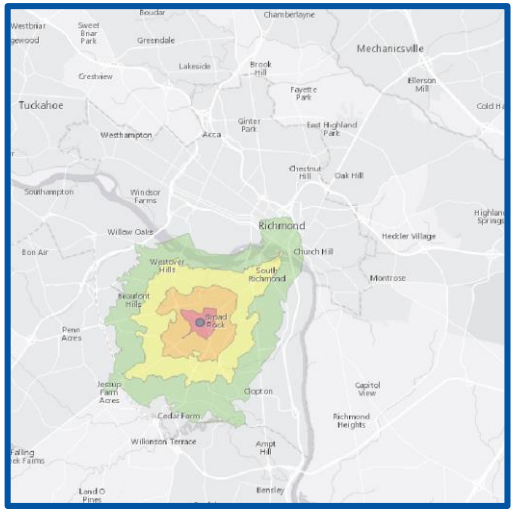


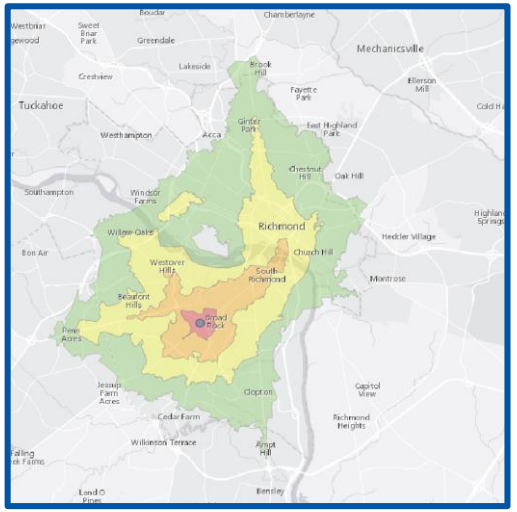
Technology Doesn't Change Geometry

Core Network Design Workshop

Next Steps

- ✓Finalize & evaluate two draft network concepts
- ✓Public Outreach & Engagement (Jan/Feb)
- ✓Final Network Design Workshop (Spring)
- ✓Release Final Network Plans (Summer '19)





ATV Plan - Contact Information

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