

# Finding the Right Mix

Evolving Approaches to Balancing BRT and Local Underlay Bus Service

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# Twin Cities BRT background and history

- METRO BRT features
  - 1/3 to 1/2-mile stop spacing
  - Off-board fare payment
  - All-door boarding
  - Upgraded stations and buses
- A Line opened in 2016
- C Line opened in 2019
- Three lines in engineering or planning



Photo courtesy of HDR, Inc.; © 2019

# Previous approach to BRT service planning

- Introduce 10-minute BRT service
- Retain underlying 30-minute local service
- Modify and simplify branches
- Approach applied to A Line, C Line, and D Line (in engineering)

*D Line*



Service every 10 minutes, 1/2 mile between stations

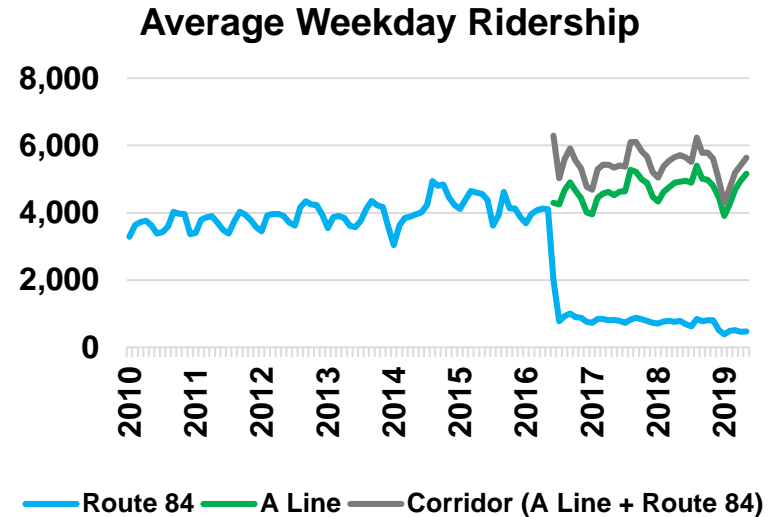
*Route 5*



Service every 30 minutes, 1/8 mile between stops

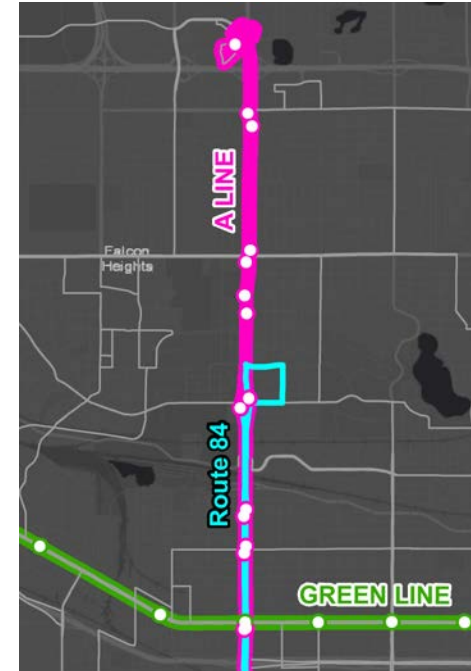
# People like frequent, high-quality bus service

- A Line corridor ridership up 30%
- Underlying service has seen declining ridership, productivity
- Route 84 has struggled to meet service standards
- Systemwide context:
  - Constrained, unstable operating funding
  - Declining local bus ridership
  - Operator shortage



# Changes to A Line / Route 84 service mix

- Who is using underlying service?
- Contract with private provider for Route 84 operations
- Eliminate segment of Route 84



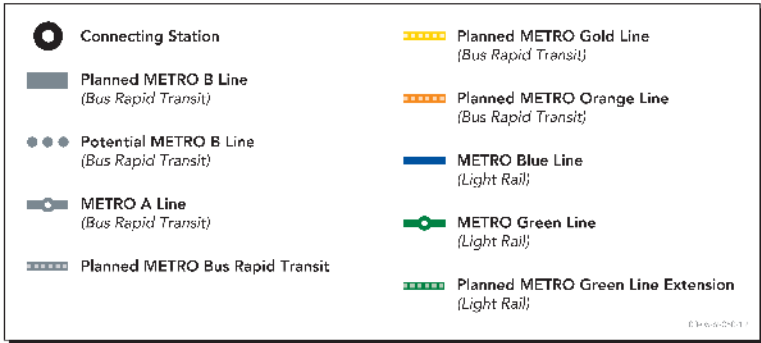
## A new approach

- Evaluate scenarios without local underlay service
- How does it change stop spacing conversation?
- What else needs to be considered?
- Applying new approach for B Line planning



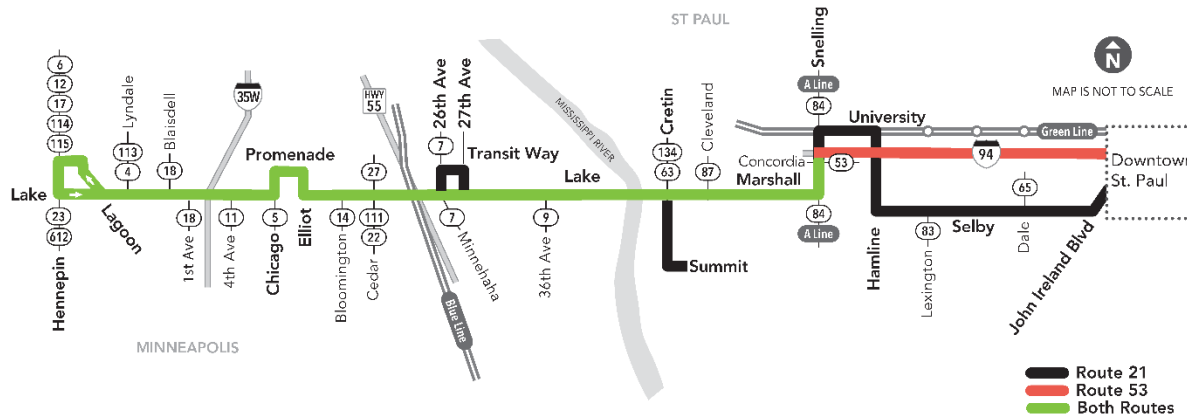
# METRO

## B Line



# Existing service in the B Line corridor

- Route 21: 2nd highest ridership, 3rd highest productivity
- Route 53: limited-stop peak-hour service

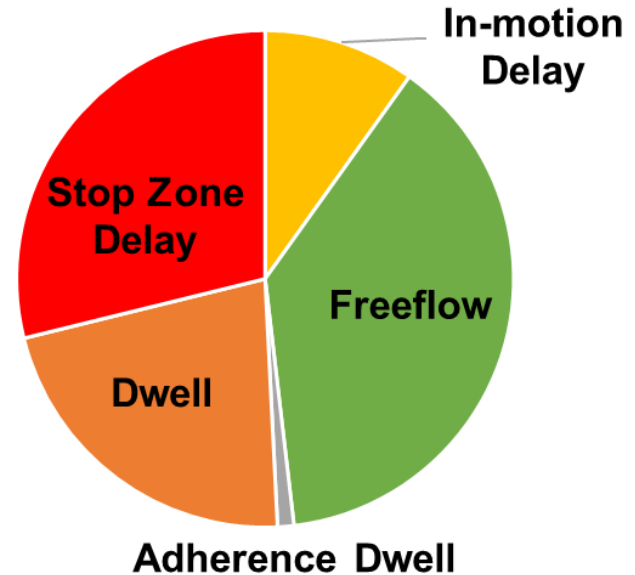




## Route 21 speed and delay

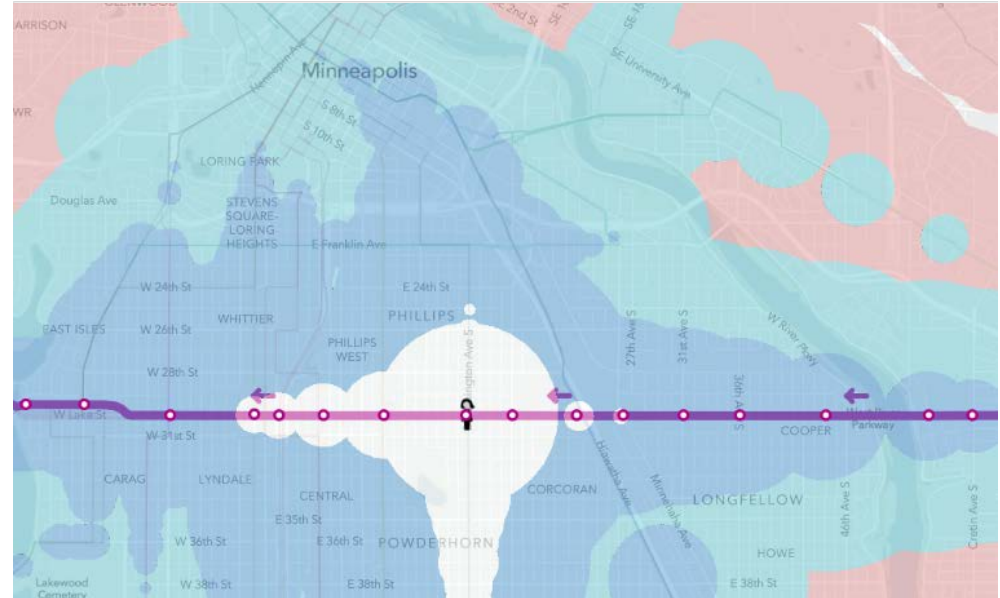
- Lowest in-service speed among system routes
- Some trips with average speeds as slow as 8 mph
- Average trip spends more than half of its time stopped
- Ridership declining reflecting systemwide trends

Route 21 Time Budget - PM Peak



# Stop spacing and service mix considerations

- Ridership patterns
- Speed/reliability improvement
- Access and walk time
- Regional accessibility



# Stop spacing and service mix considerations

- Demographics
- Public and stakeholder engagement
- Capital and operating costs

## More Stops vs. Fewer Stops

### More Stops

Shorter walk, but longer bus ride and less reliable service



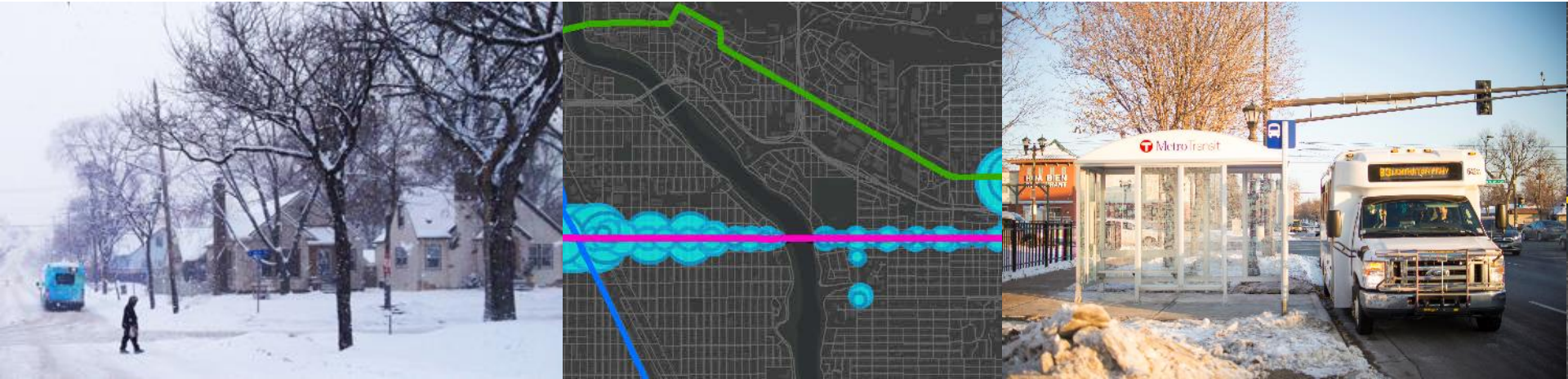
### Fewer Stops

Longer walk, but shorter bus ride and more reliable service



# Adjustments based on new approach

- Lower tolerance for station spacing  $>1/2$  mile
- Add/adjust station locations to maintain spacing
- Evaluate underlying local service in specific segments
- Consider the “last quarter-mile” or next-best options



## What's next?

- Formalize recommendations
- Monitor ridership trends
- Continued technical analysis
- Targeted engagement activities

