

16TH STREET NW TRANSIT PRIORITY

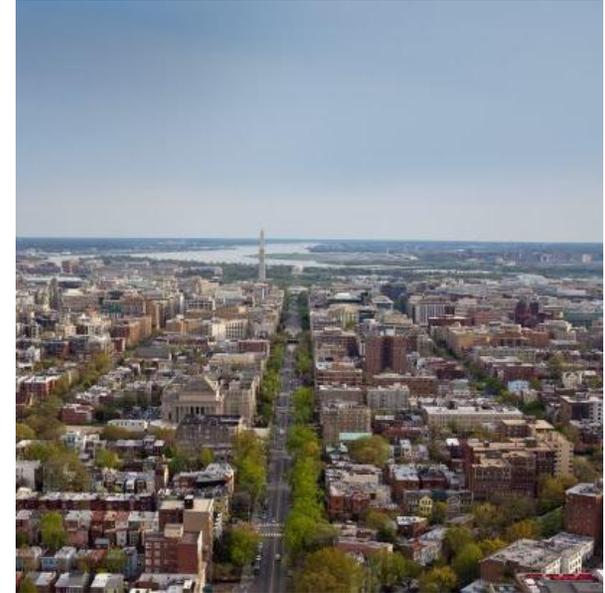


Citizens Advisory Group Meeting No. 1

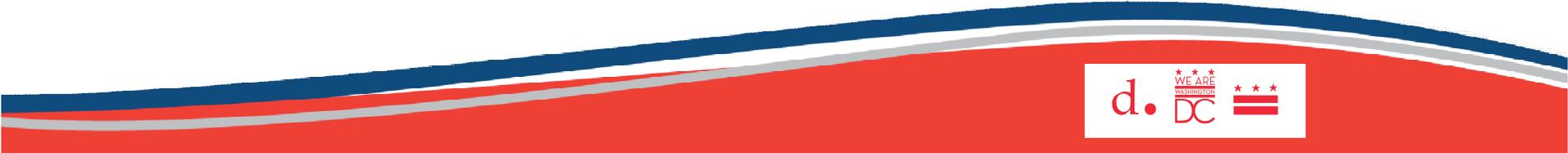
May 28, 2015

Agenda

1. Welcome
2. Overview
3. Public Kick-off Meeting
4. Transit Data Analysis
5. Physical Conditions Assessment
6. Next Steps



OVERVIEW



Study Area

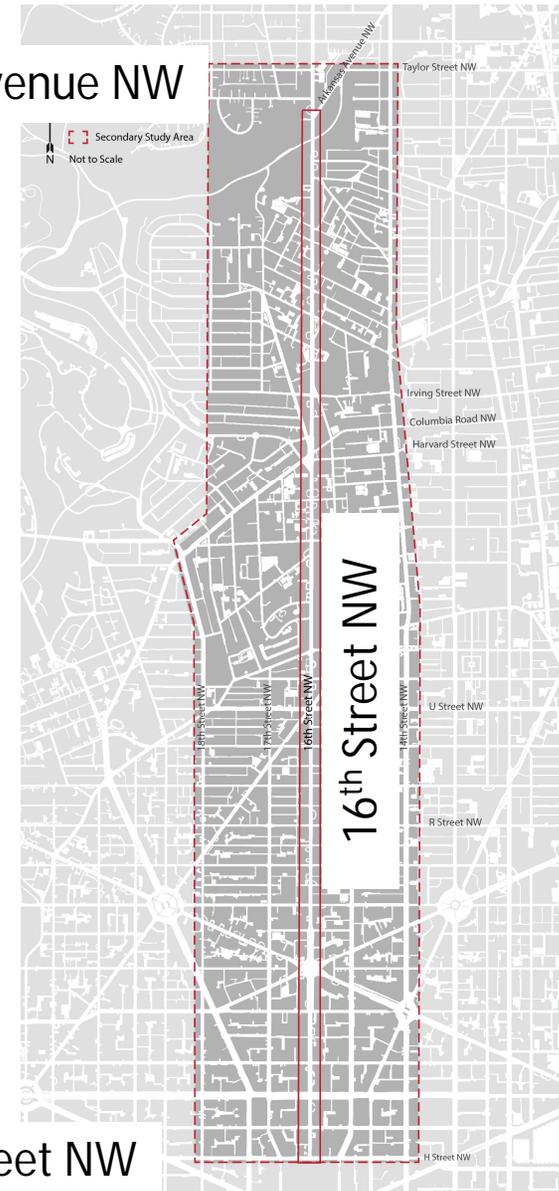
Primary Study Area

- 16th Street NW from H Street to Arkansas Avenue

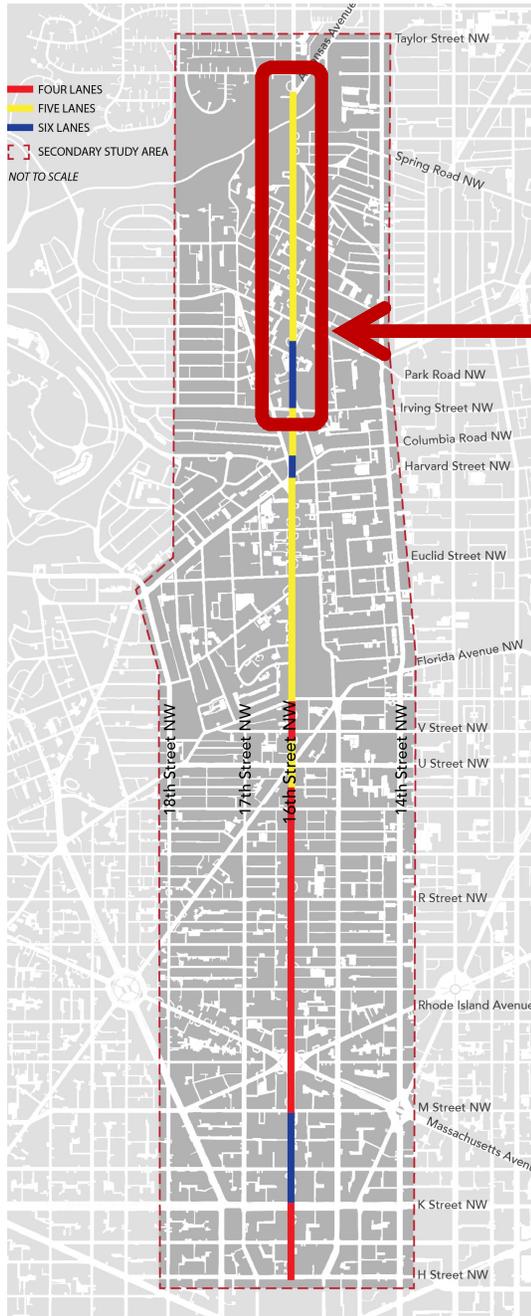
Secondary Study Area

- Bounded by 14th Street, 18th Street, Taylor Street and H Street

Arkansas Avenue NW



H Street NW



Lane Configurations

Reversible lane



Goals



- Improve travel for persons using public transit
- Develop alternatives based on public and stakeholder input
- Evaluate alternatives in terms of their benefits to transit users, possible impacts on other users of the corridor, and safety

Objectives

1. Improve transit service reliability and travel times by identifying and addressing sources of problems
2. Prioritize transit while maintaining operations for those traveling by other modes
3. Improve rider comfort and safety
4. Accommodate current unmet passenger demand for public transit service
5. Develop an implementation plan that includes costs estimates

Metrics

1. Improve transit service reliability and travel times
 - Reduction in end-to-end travel/segment-by-segment travel time
 - Improvement in on-time performance
 - Reduction in dwell time
 - Reduction in dwell time as a percentage of run time
2. Optimize operations
 - Multimodal level of service, travel time, queuing, person throughput
3. Improve rider comfort and safety
 - Load factor
 - Number of bus stops at uncontrolled intersections
 - Pedestrian crossing improvements

Metrics

4. Accommodate unmet passenger demand
 - Service capacity

5. Develop a feasible solution
 - Cost
 - Implementation time
 - Consistency with bus operating parameters (e.g., bus widths, turning radii, dynamic envelope, and others)
 - Management and enforcement requirements

Outcomes We Are Seeking

- Preferred set of improvements
- Concept design
- Build on measures implemented to date



PUBLIC KICKOFF MEETING



What Are Problems?



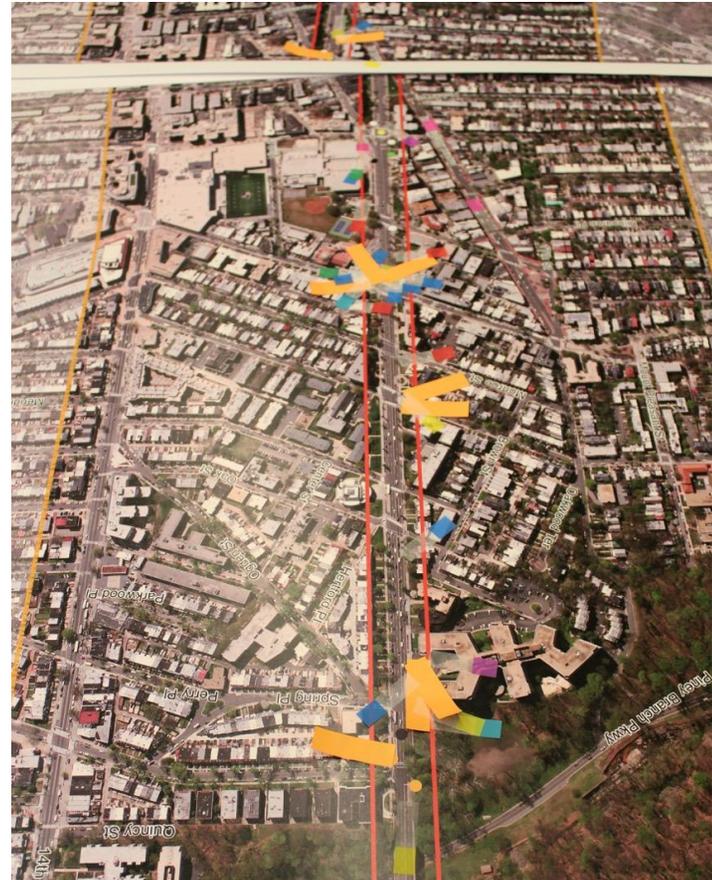
Most Noted Issues:

- Bus Bunching (31 flags)
- Overcrowding on the Bus (29 flags)
- Bus Passes by the Stop (23 flags)
- Traffic Congestion (17 flags)

Where Are Problems?

Most Noted Intersections:

- U Street NW (22 flags)
- Euclid Street NW (19 flags)
- Park Road NW (15 flags)
- Irving Street NW (10 flags)

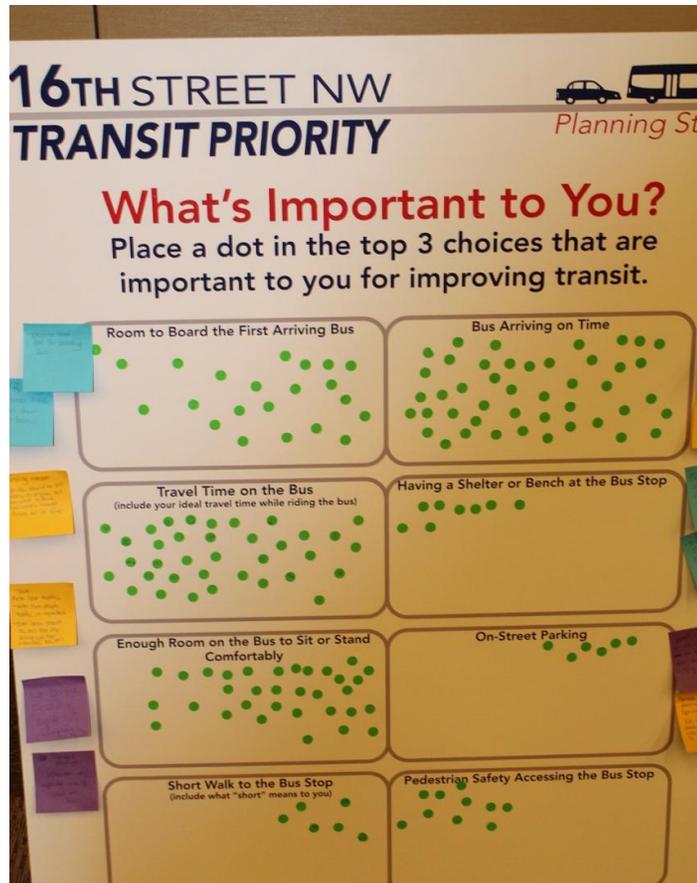


Where Are Problems

Issues Encountered Along 16th Street NW

Cross Streets	Lack of Parking Enforcement	Traffic Congestion	Over-crowding on Bus	Over-crowding at Bus Stop	Pedestrian Safety Accessing Stop	Bus Conflicts with Bicycles	Bus Bunching	Bus Passes Stop	Total
U St		4	6	3		2	2	5	22
Euclid St		1	5	2		1	5	5	19
Irving St		1	2		1	2	3	1	10
Park Rd	3	1	6	1			3	1	15
Total in Corridor	7	17	29	12	5	8	31	23	132

What Is Important?



- Bus Arriving on Time (46 dots)
- Travel Time on the Bus (37 dots)
- Enough Room on the Bus to Sit or Stand Comfortably (33 dots)
- Room to Board the First Arriving Bus (22 dots)

Key Takeaways

Strong Support

- Additional Service
- Enforcement
- Signal Optimization and Priority
- Dedicated Bus Lanes

Limited Concern

- On-street Parking

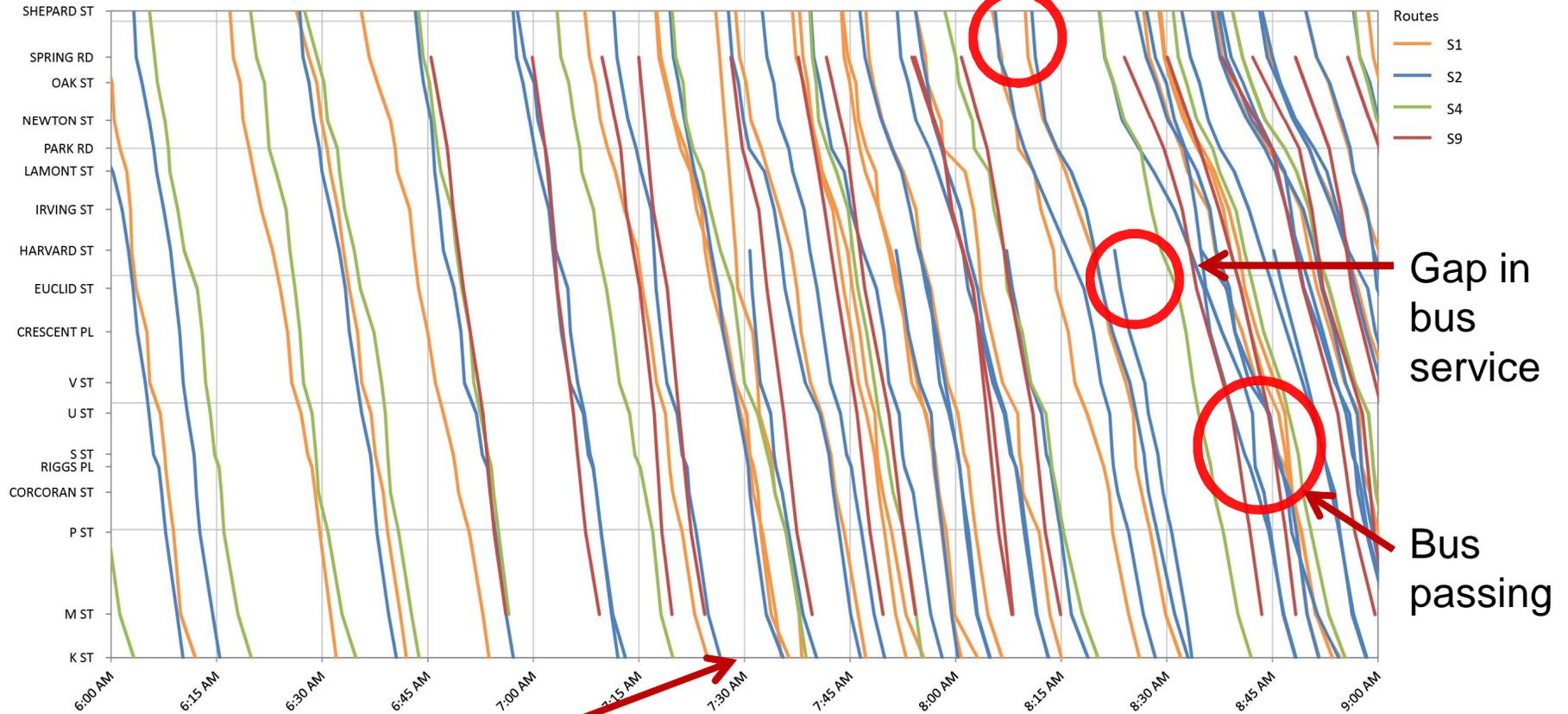


TRANSIT ANALYSIS

Time-Distance: AM Peak SB

S-Lines Southbound Time-Distance Diagram
Tuesday, October 7 2014 - AM Peak

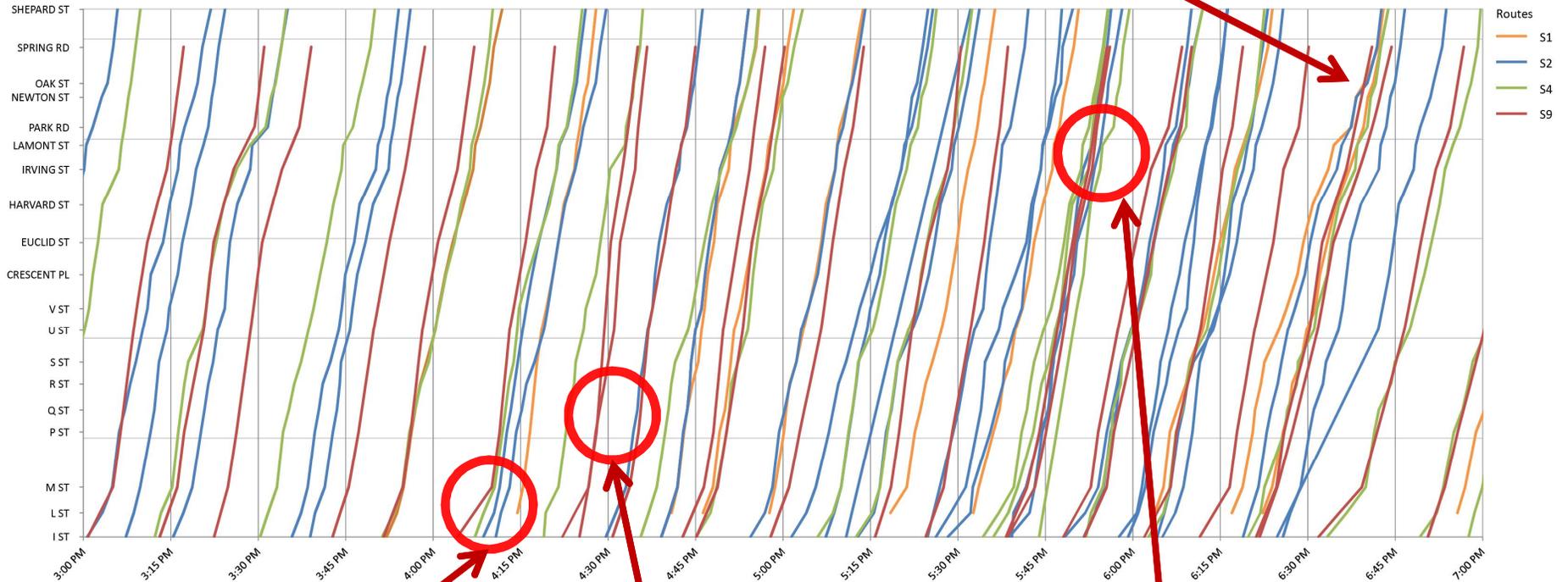
Bus bunching prior
to study area



Slow down in bus speed

Time-Distance: PM Peak NB

S-Lines Northbound Time-Distance Diagram
Tuesday, October 7 2014 - PM Peak



Slow travel time I St – M St
due to high boardings

Overlapping S9 service

Bus bunching
and pass by

Travel Speed* – Southbound

Early AM
S1/S2/S4

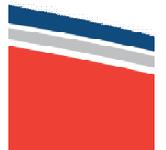
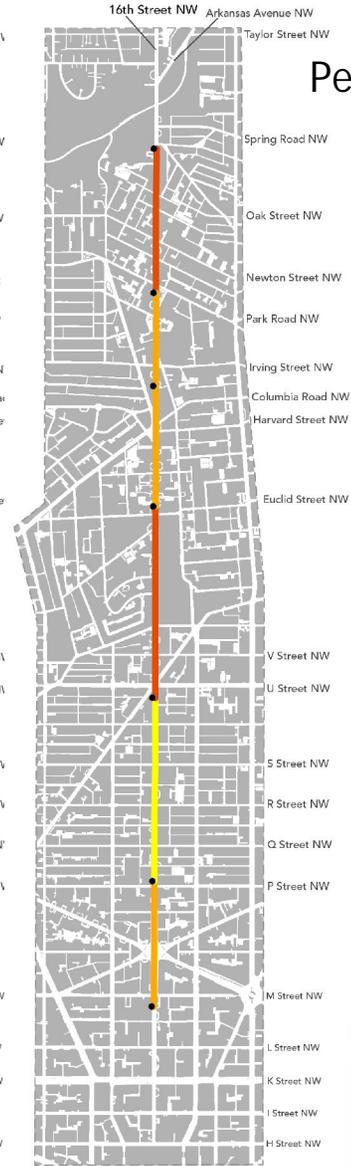
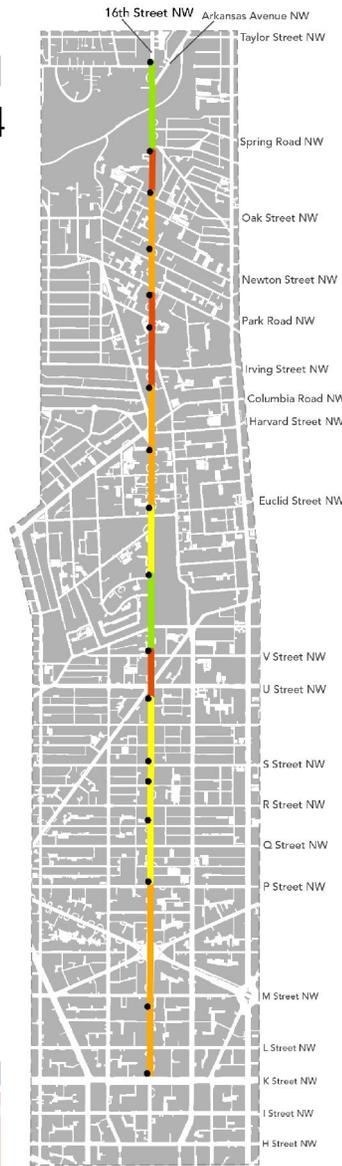
Peak AM
S1/S2/S4

Peak AM
S9

Legend



* Includes dwell time



Travel Speed* – PM Peak NB

Legend

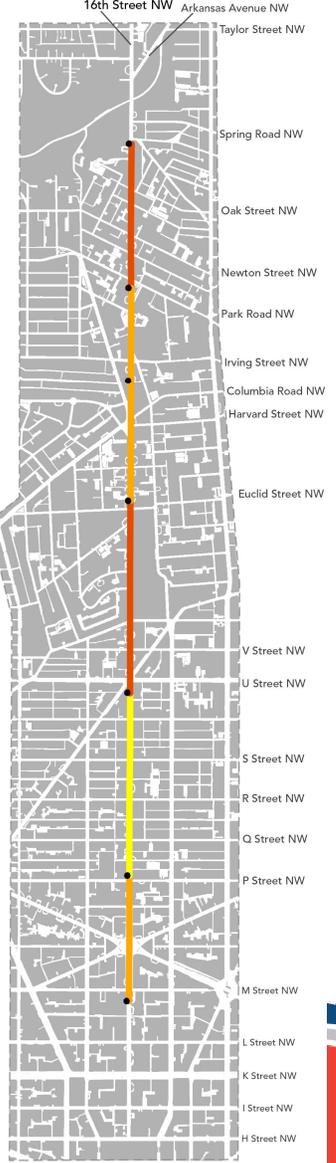


* Includes dwell time

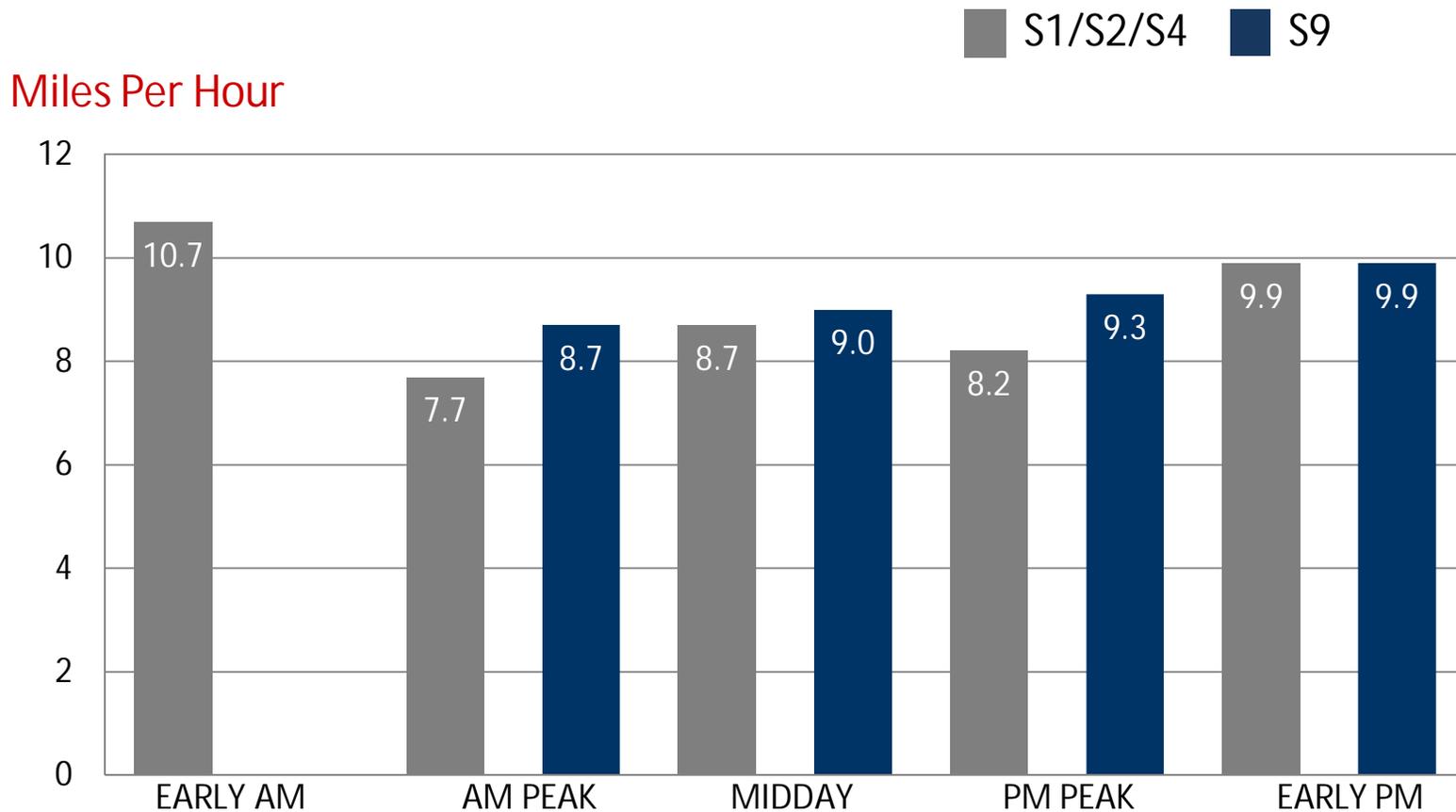
S1/S2/S4



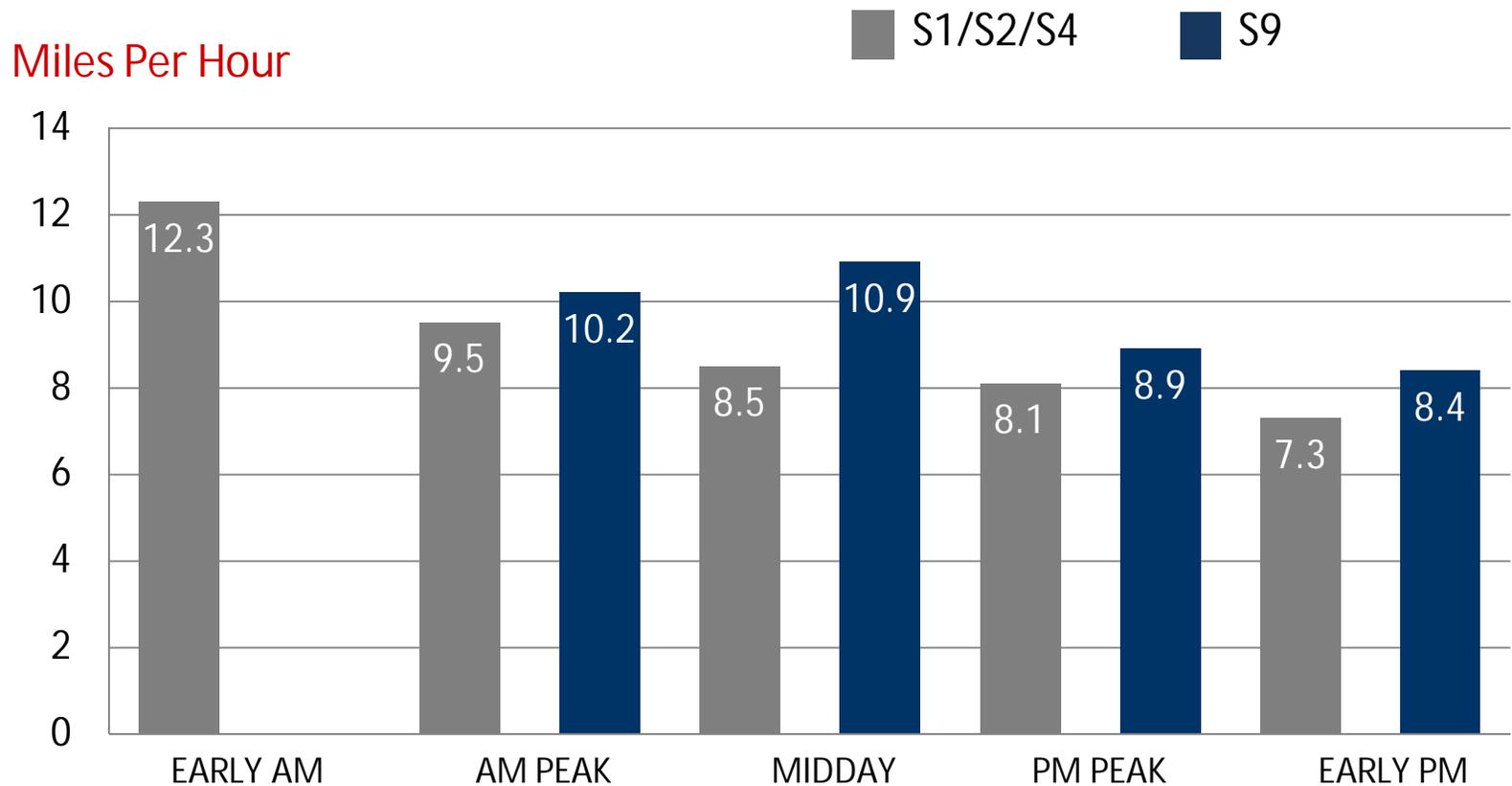
S9



Average Travel Speed - SB



Average Travel Speed - NB



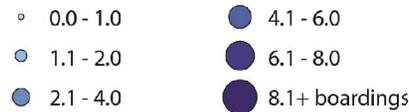
Boardings/Alightings – SB AM Peak

S1, S2, S4



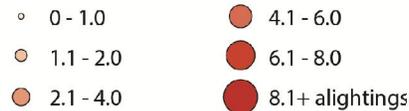
Boardings

WEEKDAY AM PEAK - SOUTHBOUND



Alightings

WEEKDAY AM PEAK - SOUTHBOUND



S9



Boardings/Alightings – NB PM Peak

S1, S2, S4



S9



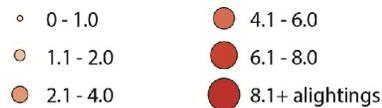
Boardings

WEEKDAY PM PEAK - NORTHBOUND



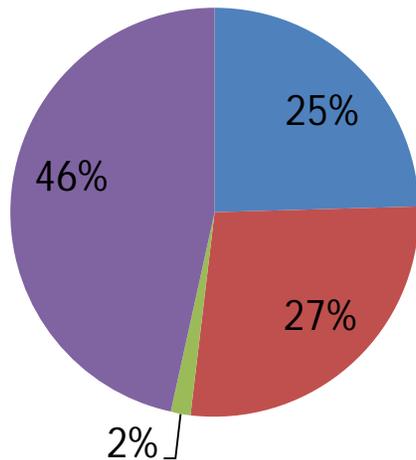
Alightings

WEEKDAY PM PEAK - NORTHBOUND



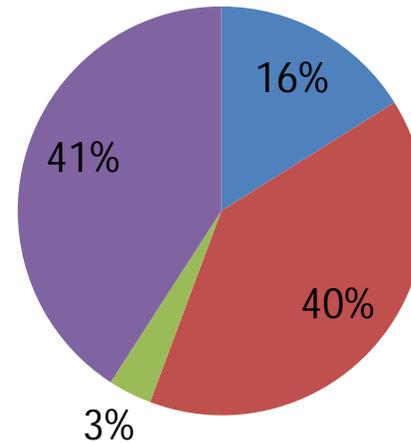
On-Board Data Collection

Average S1, S2, S4 Southbound AM Peak



- Bus Stop Dwell Time
- Signal or Stop Time
- Other Delays
- Running Time

Average S9 Southbound AM Peak



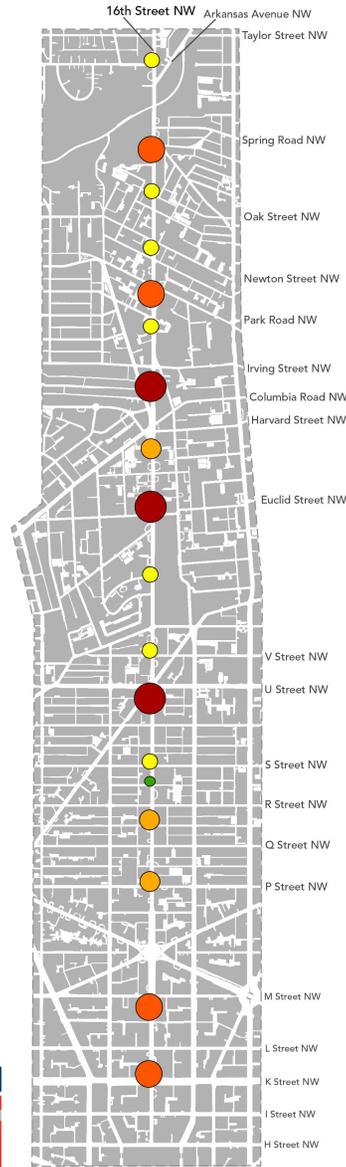
	Average
Bus Stop Dwell Time	0:05:21
Signal or Stop Time	0:05:56
Other Delays	0:00:21
Running Time	0:10:07
Total Trip Time	0:22:22

	Average
Bus Stop Dwell Time	0:03:22
Signal or Stop Time	0:08:16
Other Delays	0:00:43
Running Time	0:08:32
Total Trip Time	0:20:52

On-Board Data Collection

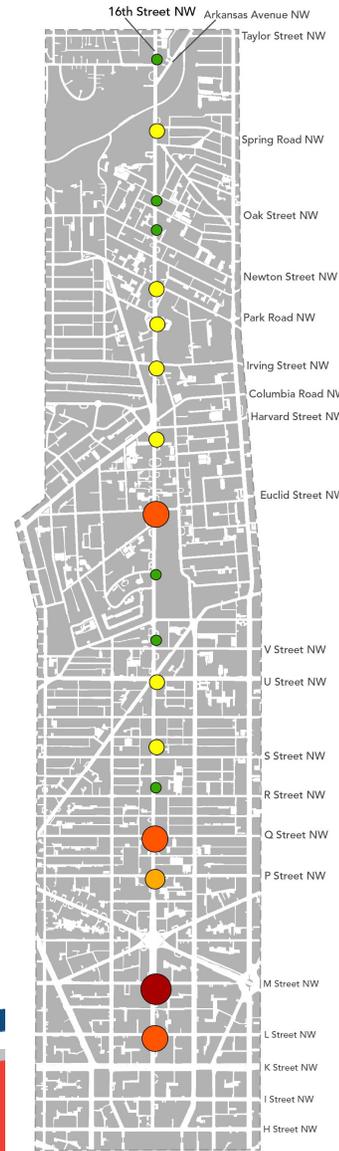
AVERAGE OBSERVED LOADING TIME SOUTHBOUND - AM PEAK

- 0 - 5 seconds
- 6 - 10 seconds
- 11 - 15 seconds
- 16 - 20 seconds
- 21 - 25 seconds
- 26+ seconds



AVERAGE OBSERVED LOADING TIME NORTHBOUND - PM PEAK

- 0 - 5 seconds
- 6 - 10 seconds
- 11 - 15 seconds
- 16 - 20 seconds
- 21 - 25 seconds
- 26+ seconds



PHYSICAL CONDITIONS

Physical Conditions

- Roadway and sidewalks in good condition overall
- Parking restrictions signage not uniform and conflicting, damaged and obstructed signs



Physical Conditions

- Bus stop signs not at optimal or compliant location
- Bus Stop No Parking Zones not in compliance with zone clearance distances and/or correct signage



Physical Conditions

- For stops where intended ADA landing area is at the shelter, bus shelters did not meet mandatory ADA '8 foot available sidewalk width' for boarding/unloading
- Trash bins, vendor boxes, and tree locations create accessibility obstructions



NEXT STEPS

Timeline

1. CAG Meeting No. 2 – July 2015
2. Alternatives Development – Summer 2015
3. CAG Meeting No. 3 Early Fall 2015
4. Pop-ups – Early Fall 2015
5. Public Meeting – Late Fall 2015
6. Study Completion – January 2016

Stay Connected

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Project Website

bit.ly/16thStreetBus

