# DC METROBUS REPORT CARD

## BETTER BUSES FOR A MORE EQUITABLE AND SUSTAINABLE CITY

DRAFT

**JULY 10, 2019**


*Image credit: Dan Malouff*

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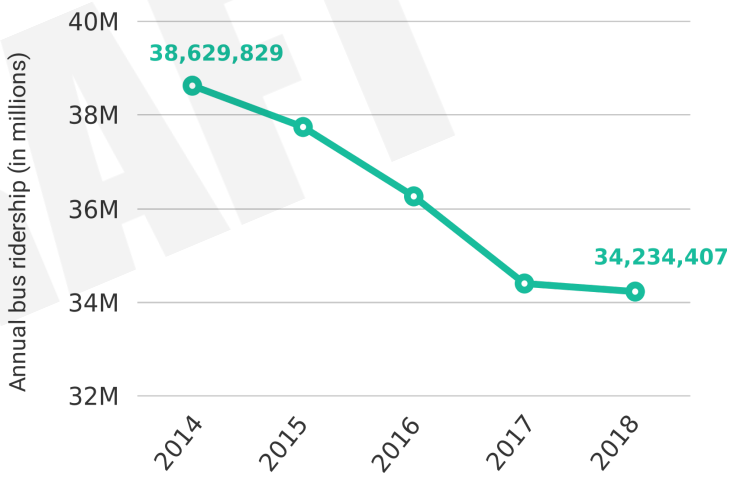
# EXECUTIVE SUMMARY

On an average weekday, Metrobuses transport over 200,000 riders around the District of Columbia, to and from work, school, doctor appointments, grocery stores, entertainment, and more.[1] Buses offer transit service far beyond the reach of Metrorail, providing essential access to jobs and services. While Metrorail has 40 stations and 38 miles of track in DC, buses serve 3,422 stops on 298 miles of roadway in the city.[2] Regular bus riders cite proximity to work or home, affordability, ease of use, and the ability to connect to Metrorail as their primary motivations for riding the bus.[3] Bus service in DC is especially critical for low-income residents and people of color, given that minority riders make up an overwhelming 82 percent of all Metrobus passengers, and 53 percent of riders earn under $30,000 a year.[4]

However, like most transit systems across the country today, DC is steadily losing riders, both on Metrorail and Metrobus.[5] Metrobus ridership on DC's high-ridership priority corridor routes has dropped by a startling 12 percent over the last five years, a steeper annual decline than many peer cities including Chicago, New York City, and Atlanta.[6]

Ridership on routes in DC's priority corridors from 2014-2018




Source: Washington Metropolitan Area Transit Authority (unpublished)

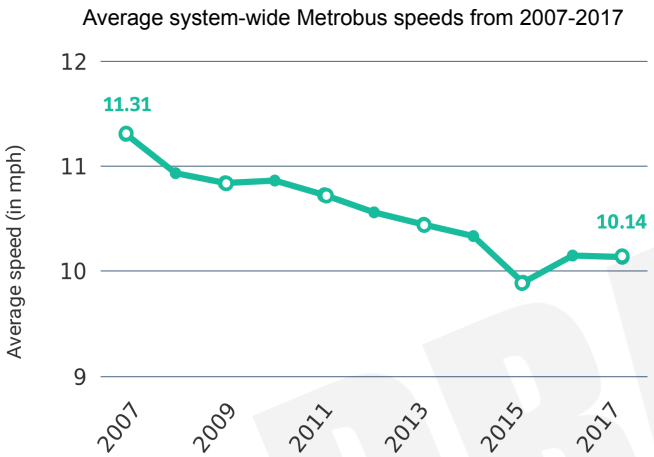
Declining ridership is a complex and multi-faceted problem that is influenced by a variety of factors both in and out of transit providers' control. The modern urban transportation marketplace is highly competitive. Bikeshare services and dockless rental scooters offer new mobility options for shorter commutes, and shared ride services like UberPool are gradually decreasing their prices to become more competitive with transit fares.[7] Meanwhile, app-based ride-hailing services like Uber and Lyft continue to gain more riders every year.[8] Although research suggests that there is a complex give-and-take relationship between public transit ridership and use of ride-hailing services,[9] these forms of transportation are contributing to the erosion of ridership across all forms of transit, with DC bus riders in particular citing ride-hailing as a substitute for public transit more often than in other cities.[5],[6] Approximately 72 million ride-hailing trips were taken in the DC region in 2018, and these numbers have the potential to surpass bus ridership numbers by the end of 2019.[6]

However, there are a number of measures that transit agencies can take to make their systems more attractive for riders in such a crowded transportation market. A survey conducted by TransitCenter found that there is a direct correlation between ridership numbers and public perceptions about transit quality; increasing customer satisfaction by a single point on a five-point rating scale was associated with ridership increases of nearly an

extra day of ridership per month across riders of all ages and demographics.[9] Riders specifically prioritized **service reliability**, **predictability of trip time**, and **frequency of service** as three of the primary factors that contribute to quality bus service.

To determine how the DC Metrobus system is performing in these key areas, we analyzed bus performance along 34 routes in DC's highest ridership corridors in May 2019, focusing on three primary factors: buses' adherence to their designated headways, adherence to their scheduled arrival times, and average travel speed.

The results of this analysis (available at **metrobusreportcard.com**) paint a striking picture of the challenges Metrobus encounters on a daily basis: on these high-ridership priority corridor routes, service was found to be largely unreliable and unpredictable, with buses regularly arriving much later than scheduled and headways being poorly maintained. Bus speeds on these routes averaged just 9.5 mph over the entire month, a dramatic decrease from the 11.3 mph average speed of buses in 2007.



Source: The National Transit Database

This report presents a set of recommendations for how DC can address these issues plaguing the Metrobus system, work towards improving bus service, and win back riders. In particular, we advocate for improvements in **five key areas** focused on improving speed, service reliability, and on-time performance of DC's buses.



**Dedicated bus lanes:** Giving buses priority on the roadways in their own dedicated lanes to reduce delays caused by traffic congestion and allow for greater reliability

**Faster boarding:** Implementing all-door boarding and cashless payment options to make the boarding process faster and more efficient, reducing dwell time at stops

**Transit signal priority:** Expanding transit signal priority and queue jump locations to allow buses to spend less time waiting at traffic signals

**Balanced bus stop spacing:** Reducing how often buses need to stop to pick up passengers by adding limited-stop service and consolidating stops for local service

**Customer-focused service:** Improving the overall rider experience by upgrading bus stops to improve accessibility and provide valuable amenities; providing free transfers between bus and rail; and new discounted fares for low income riders

By focusing on these key factors, the District can turn around declining ridership and make riding the bus a first choice, rather than a last resort.

# WHAT MAKES GOOD BUS SERVICE?

Recent research from TransitCenter shows that frequency and reliability are some of the most crucial elements of any successful transit system, both for satisfying current riders and encouraging new ridership.[9] Riders also highly value feeling safe, secure, and comfortable when waiting at bus stops and when on board. Bus service can be made more frequent, reliable, and fast by giving buses priority on the roadways and allowing buses to travel for longer stretches without stopping, and bus stops can be equipped with amenities to ensure rider comfort and safety.

## BUS PRIORITY

Giving buses priority on the roads is a cost-effective and reliable way to move large groups of people on major public streets. DC can improve service reliability and speed by giving priority to buses on the roadways using dedicated transit lanes, transit signal priority, queue jumps, and faster boarding.


*Image credit: Dan Malouff*

## DEDICATED TRANSIT LANES

Roadway lanes that are reserved only for buses, or buses and bicycles, give buses access to uncongested roads where they can travel at higher speeds. In typical congested urban conditions, dedicated lanes for buses can result in travel speeds nearly double (in the case of semi-exclusive lanes) or triple (in the case of fully exclusive lanes) those experienced by buses in mixed traffic.[10]

Some cities have implemented semi-dedicated lanes, often in curb lanes which may also permit right-turning vehicles, taxis with passengers, and off-peak parking. However, the less exclusive the bus lane, the more its efficiency could be compromised, and the more difficult it becomes to enforce its proper use.[11] In contrast, center or median transit lanes address many of the conflicts found at the curb that lead to vehicle delays.[12]

Dedicated transit lanes are only as good as they are respected; successful implementation depends on effective design, education, outreach, and enforcement.[13] To improve compliance for dedicated transit lanes, New York City and San Francisco are implementing automated traffic enforcement, in which cameras (similar to red light, speed, or street sweeper cameras) document violations and enforce parking restrictions on a consistent basis.[14]

## TRANSIT SIGNAL PRIORITY

On average, buses spend approximately 15 percent of their total trip time waiting at traffic signals.[15] Transit signal priority reduces the amount of time buses spend stopped at red lights by providing a brief extension of the green phase of the light (or an early change from the red phase) to allow an approaching bus to progress before other vehicles.[16]

Time savings from the implementation of transit signal priority vary widely, but multiple case studies have shown that introducing signal priority into a metropolitan bus system can result in modest bus travel time improvements.[17] For example, recent implementations of transit signal priority in New York City have resulted in trip time reductions of approximately 14 percent during morning and evening peak hours, prompting the city to expand the technology to more routes.[18]

Queue jumps, reserved sections of lanes at intersections that allow buses to re-enter the flow of traffic ahead of other vehicles, have been shown to reduce travel times by 5 to 15 percent, depending on conditions.[19] Combining transit signal priority with queue jumps can result in an overall 26 percent reduction in intersection wait times for buses.[20]

## FASTER BOARDING

The average passenger takes 5 seconds to board a bus that uses traditional single-door boarding with on-board fare collection (e.g. cash or farecard payment).[10] On busy routes, the high numbers of passengers getting on and off buses can contribute to significant delays.[21] However, more efficient passenger boarding and payment methods can speed up this process.

All-door boarding, where passengers are allowed to board the bus through any door, shortens the amount of time it takes for all passengers to board and more evenly spaces passengers throughout the bus. In 2014, two years after the San Francisco Municipal Transportation Agency (SFMTA) introduced all-door boarding across their bus system, buses experienced a 38 percent reduction in boarding time, bus speeds across the system increased by 2 percent, and total ridership increased by 5.3 percent.[22]

On-board fare collection can be a significant contributor to bus dwell times, requiring that each passenger stop and exchange payment before being allowed to board the bus. Metro's research has shown that cash fare payments take significantly longer than SmarTrip taps, and customers loading value on their SmarTrip cards take even longer.[23] Implementing cashless payment, in combination with other streamlined payment systems such as off-board fare collection and mobile payment, can significantly reduce dwell time. According to a recent study by Metro and local partners, moving to cashless and all-door boarding could result in a 40 percent reduction in boarding time, which could allow Metro to maintain the same frequency of service with fewer buses.[5]

## STOPPING LESS

The process of slowing, stopping, dwelling, and restarting a bus has a significant impact on its total travel time. The fewer times a bus is required to stop, the more quickly it will be able to reach its destination.

**Limited-stop service** is often utilized on high-ridership routes to reduce the number of stops a bus is required to visit when servicing that route, allowing for a faster trip from end-to-end. Where typical local service routes generally average four or more stops per mile, limited-stop service routes tend to stop only once every half mile, usually at higher-demand locations, including those adjacent to other transit stations.[24] Limited-stop service can improve a bus's overall running time by approximately 9-12 percent, with greater gains realized where there is higher traffic congestion.[25]

Where limited-stop service skips over certain stops on a route to minimize the amount of stopping required to complete a trip, a similar, but more permanent, solution is to physically consolidate existing bus stops to better optimize their spacing. Metro's guidelines suggest that stop locations for local bus service should be spaced out every 2-3 blocks (roughly 4-5 stops per mile), with an average five minute walk between stops.[26],[27] A number of factors must be considered when choosing to consolidate and re-balance stop spacing, including how often each stop is utilized, and the proportion of its customers who are elderly or disabled or otherwise would struggle to take on a longer walk.[28] Although stop consolidation can decrease accessibility for some passengers who must travel farther to reach a bus stop, the significant reduction in trip time that results from optimal bus stop spacing can offset this inconvenience enough to minimize loss of ridership.[29]



## BUS STOP AMENITIES

Bus stops are the gateways to the system. Riders expect bus stops to be accessible, comfortable, safe places to wait. Well-designed bus stops should have accessible boarding areas, unobstructed and connected sidewalks, and safe crosswalks,[30] along with lighting, benches, shelters, and accurate route information. The combination of these amenities make wait times feel shorter and riders feel safer and more comfortable,[28] and ridership has been shown to improve as a direct result.[31]

# METROBUS PERFORMANCE REPORT CARD

To better understand how Metrobus is performing today, this report analyzed bus performance on 34 routes in DC's nine highest ridership corridors in May 2019. The results of this analysis were compiled into a "report card," where each corridor and route was graded on their performance in three key areas: headway adherence, schedule adherence, and travel speed. The results of this report card (available at **metrobusreportcard.com**) provide a snapshot of the current state of the bus system in DC to help riders and decision-makers understand where service is most in need of improvement.

Data were collected from Metro's public real-time bus positions API from May 1 through May 31, 2019 for 34 routes making up nine of the highest-ridership corridors in Metro's Priority Corridor Network in DC. Analysis was performed on the full set of bus stop arrival data for the month of May. Grades were assigned for each category using a standard American 4.0 GPA grading scale.

## METROBUS PRIORITY CORRIDOR NETWORK (PCN)

*In 2008, Metro launched the Priority Corridor Network Plan, an initiative to improve 24 of the highest-ridership route corridors in the system. Our analysis shows that, as of Metro's Fiscal Year 2017, routes in the nine priority corridors in DC accounted for roughly 54% of the city's total ridership. According to Metro, the plan included: improved operational strategies such as transit signal priority and exclusive bus lanes; increased frequency and span of service; improved customer information; additional MetroExtra service, routes and buses; expanded fare payment options; added safety, security, and incident response measures; and enhanced bus stops and facilities.*[32]

## HEADWAYS

Bus headway grades were calculated from the headway adherence percentage, reflecting how many visits to bus stops occurred no more than 3 minutes after the scheduled time window with respect to the previous bus.[33] Scheduled headways come directly from Metro and change based on day, time, and route. A headway adherence grade of A+ requires 97% or more of all bus arrivals to occur no more than 3 minutes outside of their scheduled spacing window.

## SCHEDULE

Bus schedule grades were calculated from the schedule adherence percentage, reflecting how many visits to bus stops occurred no more than 2 minutes earlier or 7 minutes later than the scheduled clock time for that bus's arrival.[33] The scheduled times come directly from Metro and change from day to day. A schedule adherence grade of A+ would require 97% or more of all bus arrivals to occur within this 9-minute window of their scheduled clock time.

## SPEED

Bus speed grades were calculated by comparing the average speed (in mph) of all observed bus trips to the goal speed of 11 mph. A speed grade of A+ would require all observed bus speeds to average out to 11.44 mph or faster (where 11 mph is the minimum speed necessary to receive an A).

# REPORT CARD

NAME DC Metrobus Priority Corridor

DATE May 2019

D

| | Headway Adherence | Schedule Adherence | Average Speed |
|---|---|---|---|
| Anacostia/Congress Heights | D+ | D+ | A+ |
| Fourteenth Street | D | F | F |
| Georgia Ave/7th Street | F | F | C |
| H Street/Benning Road | F | F | C |
| North Capitol Street | F | F | D |
| Rhode Island Ave | F | F | C |
| Sixteenth Street | D+ | F | B |
| U Street/Garfield | F | F | D |
| Wisconsin/Pennsylvania Ave | F | F | C |

# SYSTEM-WIDE RESULTS

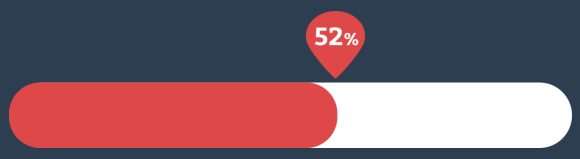
AVERAGE
**60%**
SCHEDULE ADHERENCE

AVERAGE
**64%**
HEADWAY ADHERENCE

AVERAGE
**9.5MPH**
SPEED

## SCHEDULE ADHERENCE


BEST Anacostia/Congress Heights




Georgia Ave WORST

## HEADWAY ADHERENCE

**69%**

BEST Sixteenth Street

**60%**

Wisconsin/Pennsylvania Ave WORST

## SPEED

BEST 12.2mph Anacostia/Congress Heights

WORST 7.8mph Fourteenth Street

MetroExtra limited-stop service routes averaged **8.2% faster speeds** than normal local routes

Local routes: **9.4MPH**

MetroExtra routes: **10.2MPH**

The results of our assessment clearly indicate that DC's high-ridership routes are plagued by poor reliability and middling speeds. If the city is to provide better service to existing bus riders and grow ridership, DC must focus on delivering faster, more reliable service.

To reverse falling ridership and faltering service reliability, and ultimately elevate buses to the transportation mode of choice in the District, the city needs bold new policies and investments. DC should focus on a near-term action plan to implement service improvements and bus lanes on all of the city's high-ridership corridors, working closely with Metro to redesign the bus regional network to create the most efficient and customer-focused system. Taking its cue from the practices outlined in the previous sections that other cities have successfully implemented in their own bus systems, the District government (which controls the streets and traffic signals) can work with Metro (which operates the Metrobuses and collects fares) to make buses fast, reliable and convenient.

## CURRENT EFFORTS

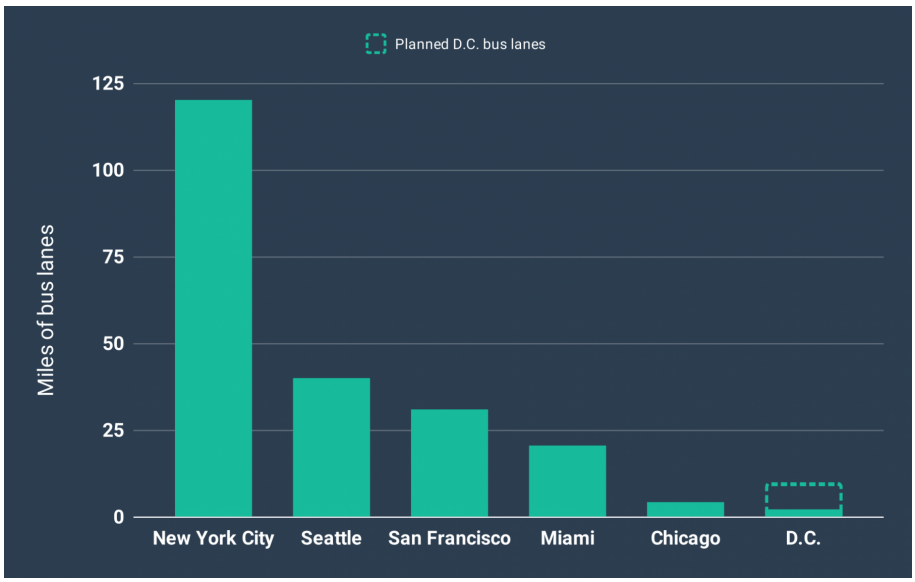
Since the launch of the first limited-stop MetroExtra service (Georgia Avenue's 79 route) in 2007 and the Priority Corridor Network initiative in 2008, Metro and DDOT have studied and recommended a set of strategies known to improve bus performance. DC and Metro have adopted a number of best practices and service improvements since that time, including limited-stop service, transit signal priority on several routes, and a handful of queue jumps to give buses a head-start at intersections. However, full implementation of these solutions has been slow, and DC and Metro have lagged behind other cities overall.



### BUS LANES

Although buses are increasingly affected by road congestion, especially in downtown during rush hour,[34] the introduction of dedicated transit lanes has languished in the District. While many peer cities around the country have added miles of dedicated transit lanes over the last decade, DC currently has only 2 miles of bus lanes across the entire city, 1.4 miles of which are temporary pilot lanes on H and I Streets downtown which launched in June 2019.[35]

Total bus lane miles in major urban cities in the US




Sources: Bus Turnaround - Fast Bus, Fair City (2018) | The Seattle Times | San Francisco MTA | Miami Herald | Back on the Bus: Speeding Up Chicago's Buses (2019)

Despite the city's current lack of bus lane infrastructure, there is new momentum for the establishment of more dedicated transit lanes by both Metro and the District. The Metro-led Priority Corridor Network studies that concluded in 2013 proposed that the city add approximately 30 miles of dedicated transit lanes to its existing roadways.[36] Similarly, in 2014, DDOT released a long-range transportation plan calling for the establishment of a network of 25 miles of dedicated surface transit lanes in the city.[16] There are currently several other bus lane projects in the planning phase, which would add 6 miles of lanes if they are completed (see Appendix A).

## LIMITED-STOP SERVICE

MetroExtra limited-stop service currently includes 11 routes, eight of which are part of DC's Priority Corridor Network: S9, X9, 37, 39, A9, 59, G9 and 79. Metro first added limited-stop service during the peak period, then expanded to other times of day and weekends, resulting in incrementally improved service on these corridors due to less frequent stops. Our report card shows that, while the MetroExtra lines we observed struggled with the same poor on-time performance as other routes, MetroExtra buses did travel notably faster on average than their non-limited-stop counterparts.



## TRANSIT-SIGNAL PRIORITY

Transit signal priority and queue jumps were installed at the end of 2016 on several corridors in the city after years of effort, but evaluation and refinement of these initiatives is still at an early stage. Transit signal priority is currently in effect in the Wisconsin Avenue, 16th Street, and Georgia Avenue/7th Street corridors, and downtown on H, I, and 14th Streets on several MetroExtra lines (37, 39, 59, 79, and S9). Currently only six queue jumps are operating, on the 16th Street and Georgia Avenue corridors.

## BUS STOP IMPROVEMENTS

The District has recently identified all bus stops in the city that are in need of repairs and upgrades and is working through its priority list for improving stop accessibility and compliance as part of the Age-Friendly DC initiative.[37] Other stops are being upgraded as part of DDOT projects such as street repairs and sidewalk construction. DC is also identifying and implementing bus stop improvements as part of other major projects, such as the 16th Street Bus Lanes Project.[38]

## FARE ADJUSTMENTS

DC offers a number of discounted fare products that help students, people with disabilities, and seniors to ride. Along with the H Street Streetcar, DC recently made Circulator bus service free. While free transit fares are commendable, the limited reach of Circulator poses some challenges too. The Circulator's daily ridership is 16,000 riders on a limited number of routes, only a small share of the city's transit service when compared to Metrobus ridership.[40] Increasing the price differential between Circulator and Metrobus, rather than lowering fares across the board, distorts how riders use the system, and can create a sense of inequity. For example, Metrobus fare increased in 2017 from $1.75 to $2 per ride, an added cost that can disproportionately affect low-income riders who make up the largest share of DC bus riders.[41]

# RECOMMENDATIONS

Bus transit in DC needs to be reliable, fast, and an affordable way to get people where they need to go. The city must turn around declining ridership by prioritizing buses on our city streets.

Metro's analysis indicates that a 10 percent increase in their buses' speeds would generate a 4-10 percent increase in ridership; in other words, increasing average bus speeds to slightly over 11 mph could generate an additional 4.5-11 million trips over the course of a single year.[42] Cost savings could be even more significant: Metro estimates that a 1 mph increase in average bus speeds would save roughly $23 million in operating costs.[5]

Based on the challenges we have observed and the results of other cities' initiatives to improve bus performance, we recommend that DC strive to achieve the following goals for its buses:

- **Improve headway adherence by 15%**
- **Improve schedule adherence by 19%**
- **Increase average speed by 1.5 mph**
- **Make 100% of bus stops accessible, comfortable, affordable, and convenient**



GOAL

**79%**

**On-time performance**

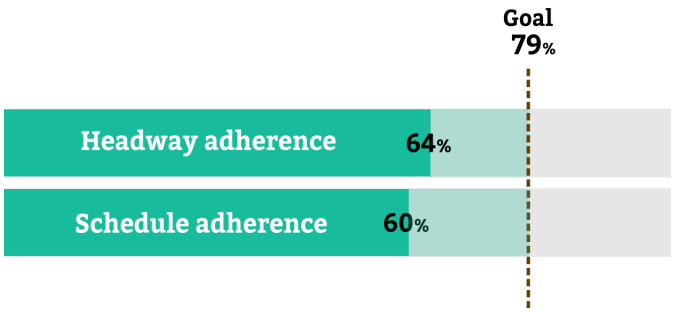
Headway and schedule adherence for all bus stops, based on WMATA's self-reported target as of Fiscal Year 2018[43]

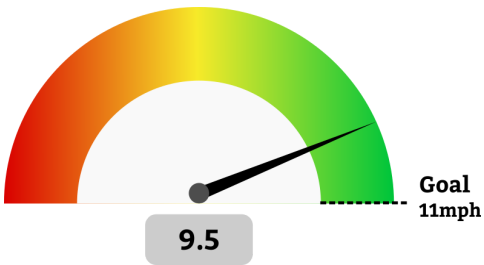
GOAL

**11 mph**

**Average speed**

For local routes, based on the projected ridership gains described above



The following is a list of specific recommendations that will help DC's bus service achieve these goals.

## 1 GIVE BUSES PRIORITY IN THEIR OWN DEDICATED LANES

- Develop a near-term timeline to implement moveDC's 25 miles of dedicated transit lanes and the roughly 30 miles proposed in the Priority Corridor Network studies
- Make the H and I Street bus lane pilot permanent
- Implement more bus lanes and priority treatments:
  - On 16th Street and K Street Transitway
  - On 14th Street
  - Along portions of M Street SE/SW and Martin Luther King, Jr. Ave SE
  - For the 90s on U Street NW and Florida Ave NE (by 2024)
  - For the 80 line (and the future MetroExtra 80X) on North Capitol Street (by 2025)
- Phase out on-street parking on high-ridership corridors and reallocate space for the creation of dedicated bus lanes
- Reconcile competition between buses and bicycles to ensure that both are given high-quality facilities and safe, efficient, and sustainable use of limited roadway space
- Enforce bus lanes with an effective plan for compliance
  - Expand the use of Parking Control Officers and Traffic Control Officers to move violators out of bus lanes and issue tickets for violations
  - Deploy stationary roadway cameras and bus-mounted cameras
  - Give authority to DDOT to manage the automated enforcement program to provide better coordination between transportation operations and enforcement tools

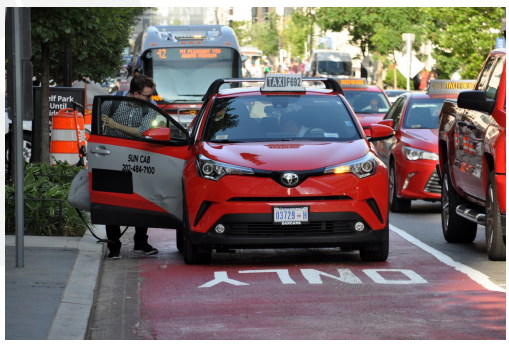



*Image credit: Dan Malouff*



## MAKE THE BOARDING PROCESS MORE EFFICIENT 2


*Image credit: Cheryl Cort*

- Implement all-door boarding, along with cashless payment and mobile payment options, on all MetroExtra routes, starting with 16th Street and Georgia Avenue/7th Street corridors in 2020

## 3 EXPAND TRANSIT SIGNAL PRIORITY AND QUEUE JUMP LOCATIONS

- Assess the performance of the six queue jump locations on the 16th Street and Georgia Avenue corridors and identify key bottlenecks
- Implement more queue jump locations on all Priority Corridor Network routes
- Prioritize transit signal priority implementation for the X9 on the H Street/Benning corridor and the A9 on the Anacostia/Congress Heights corridor (by 2023)


*Image credit: Cheryl Cort*

## EXPAND LIMITED-STOP SERVICE AND CONSOLIDATE BUS STOPS 4


*Image credit: Dan Malouff*

- Expand MetroExtra service to all top-ridership corridors, and provide additional midday, evening, and weekend hours as ridership warrants
- Plan, fund, and implement the 99 on the U Street/Garfield corridor by 2021 and the 80X on the North Capitol Street corridor by 2022
- Implement optimized bus stop spacing on the nine priority corridors to ensure that local buses do not stop more than 4-5 stops per mile, per Metro's guidelines

## 5 IMPROVE RIDER EXPERIENCE WITH CUSTOMER-FOCUSED SERVICE

- Increase investment in upgrading bus stops, including adding more shelters, benches, real-time information, and safer access
- Provide free transfers between bus and rail
- Fund and implement a program of steeply discounted fares for low-income riders
- Ensure all Metrobuses across all routes are always trackable in realtime via all of Metro's customer-facing websites and web services, including busETA


*Image credit: Cheryl Cort*

# CONCLUSION

Now is the moment to make bus the mode of choice for DC residents and visitors. This report's performance assessment from May 2019 illustrates that the highest-ridership Metrobus routes in DC struggle with poor on-time performance and below-average travel speeds, factors which are likely contributing to the Metrobus system's steadily declining ridership. However, DC has the potential to turn these trends around by implementing solutions that better prioritize buses and customer satisfaction.

DC's buses are currently receiving more attention than they have in years. Mayor Muriel Bowser launched the H and I Streets pilot bus lanes in the summer of 2019 and will be implementing bus lanes on 16th Street NW in 2020 and K Street NW in 2023. The Mayor has also recently expanded the "Kids Ride Free" program, has implemented free Circulator service, and is pursuing expansion of discounted transit fares. In 2019, Metro convened a collaborative regional effort known as the Bus Transformation Project, aimed at transforming the bus system for the entire DC region.[44] With more than half of all Metrobus rides occurring in DC[45] and the city's continued growth in population and jobs,[46],[47] DC's bus system is at the very core of this transformative transit initiative.

Although these steps are promising, DC and Metro have historically struggled to implement the more challenging components of a better bus system, such as enforced bus lanes, all-door boarding, and faster fare payment. It's time for the District to make the political commitment to work with Metro to implement these improvements and create the bus service that the region needs and its residents deserve.




*Image credit: Dan Malouff*

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# APPENDIX A

## CURRENT AND PLANNED DC BUS LANES (AS OF JULY 2019)

### EXISTING BUS LANES

| Location | Miles | Year | Routes served | Weekday ridership (avg) |
|---|---|---|---|---|
| **Georgia Ave/ 7th Street** | 0.6 | 2013 | 70,79 | 17,000 |
| **H & I Streets** (temporary) | 1.4 | 2019 | 30N, 30S, 32, 33,36, 37, 39, 42,43,80, A9, D1, D4, D5, D6, G8, G9, L2, N4, S2, S4, S9, X2, 7Y, 11Y, 16E | 80,000 |



### NEAR-TERM PLANNED BUS LANES

| Location | Miles | Year | Routes served | Weekday ridership (avg) |
|---|---|---|---|---|
| **16th Street** | 3.4 | 2020 | S1, S2, S4, S9 | 16,000 |
| **K Street Transit** | 2.0 | 2022 | 30N, 30S, 32, 33, 36, 37, 80, D6, X2, 3Y, 16Y | 40,000 |

Sources: WMATA, Ridership report for April 2019; Megan Kanagy, DDOT, 4/26/19;
K Street Transitway study; Haley Peckett, DDOT, 6/20/19 and 6/27/19 email communications

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