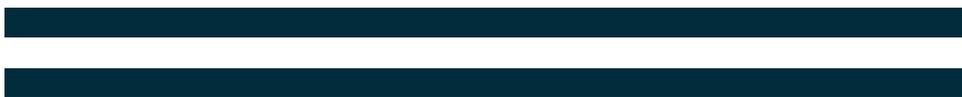




Transportation and Infrastructure Committee Recommendations to the ReOpen DC Advisory Group Steering Committee



May 21, 2020

For more information, and to see the ReOpen DC Advisory Group Steering Committee's full recommendations, please visit <https://coronavirus.dc.gov/>.

COMMITTEE MISSION & FOCUS

The Transportation and Infrastructure Subcommittee of the ReOpen DC Advisory Group met over the course of a two-week period beginning April 29 through May 12, 2020. During this time the committee engaged in a process of exploring ideas and suggestions that would assist leaders and practitioners in managing transportation and infrastructure services and assets. Our recommendations are based on the following overarching principles:

Residents and visitors to the District of Columbia, including those who work here, must recognize that the capacity of our transportation network, particularly transit, will be severely constrained as measures are implemented to avoid the spread of COVID-19. Therefore, to protect the safety of those who have no choice but to use transit or drive as well as those who operate and maintain our networks, **it is imperative those with options to telework or use alternative means of transportation do so.** In support of ensuring the limited transportation services are there for those who need it or have limited alternatives, **government, employers and the traveling public should take necessary steps to reduce demand on the system, improve supply of alternatives and ensure clear guidelines for system safety are established, communicated and enforced.**

The committee relied on its own substantial experience and expertise and also solicited input from other jurisdictions, experts, advocates, users and residents to develop its recommendations. Those who are charged with the responsibility for operating and managing the transportation system should do so with the following six goals in mind:

- While safety of the traveling public is always the paramount concern of transportation providers, this primary goal has a new emphasis in light of COVID-19. This goal is also clearly important for the transportation workers who must be confident in their own safety in order to serve the public.
- The regional transportation system was already stressed before these events. As transportation and infrastructure systems are reopened, close monitoring and flexibility will need to be priorities for leaders, managers and the public, as commute patterns adjust to new work, school and other demand-related changes.
- Communication with the traveling public should be clear, frequent, detailed and two-way. Reestablishing trust in our transportation systems will be a key challenge.
- Experimentation and innovation should be pursued with the support and engagement of leaders and travelers. We should approach the restarting of the systems and networks with the humility that comes from knowing we are all on new ground.

- We should consider ways to utilize our multimodal system to reduce greenhouse gas emissions and encourage healthy and more environmentally sustainable transportation offerings.
- We must recognize the opportunity to repair the damage done by decades of decisions and investments that reinforced inequities in our society and city. We can build a fairer and more inclusive city by starting with the networks that connect us.

The committee approached its task based on the framework proposed by the Task Force (the HOPE framing described further below); the traditional modal split (e.g. transit, roads, bikes and pedestrians); as well as a structure that looked at the impact on transportation and infrastructure in terms of the geography of impact. This latter structure explored the impact of the COVID-19–related changes to the transportation system and those that should be considered as the District of Columbia and the traveling public moves through the phases of reopening. The four geographic scales explored were neighborhood/hyper local, citywide, regional, and national/international.

Across all three frameworks for evaluating ideas, we arrived at one primary recommendation that is an essential precondition for conveying a clear statement of safety awareness and community engagement: **we recommend that in the initial phase of reopening all users of the District’s public space and transportation networks continue to wear a face covering until such time as reduced infection rates support relaxing these requirements.**

The committee focused on effectively addressing challenges communities may face with transporting people, goods, and services while following appropriate guidelines that need to be established and communicated. Issues explored included public space; roadways; sidewalks; local public transit; regional transit and rail service; national rail service; domestic and international air travel; and utilities.

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OVERVIEW & STATUS

OVERVIEW OF TRANSPORTATION AND INFRASTRUCTURE IN DC

A major feature that makes DC such a great place is its built environment: its architecture and historic neighborhoods; its federal monuments, buildings, museums and landmarks; its pedestrian scale; its gridded street network and famous L’Enfant plan; its plentiful parks and open spaces; its transit system of rail and bus, with additional transit choices in every jurisdiction in the region; its bikeshare system that inspired more than 100 other systems across the US; its advanced wastewater treatment system which is one of the largest and most sophisticated in the world; and its efficient and low carbon building stock — to name a few prominent features.

The District’s investment in infrastructure has enabled residents to enjoy one of the lowest rates of average household expenditures on transportation in the country with 9% of income spent on transportation compared to a national and regional average of roughly 19% (according to the US Census American Community Survey 2018). During the Great Recession that began more than a decade ago, the range of transportation choices in the District meant people could dial down their transportation costs as the economy faltered, and they did. Residents disposed of cars and car payments, staving off the threat of bankruptcy or foreclosure. In the regional jobs and housing market, DC and other close-in, transportation-rich jurisdictions fared much better than others. In fact, DC gained for several years in its share of the region’s job and population growth. Nationally, DC ranks at or near the top of cities for biking and walking to work, for transit use, for per-capita park access, and for low rates of household car ownership. This has made the cost of living lower for residents, and it has been a reason recent college graduates (and increasingly the companies wanting to employ them) have flocked to the city in high numbers – instead of car payments, they can more quickly pay off college debt.

At the same time, those open space amenities and transportation choices, and the ability to safely, affordably, and conveniently use them, have not been evenly distributed across the District. Access to daily needs varies greatly according to geography, while access to *jobs* from some neighborhoods is poor, particularly east of the Anacostia River. We know access to jobs,

in the District and the region's other job centers, is one of the most significant predictors of economic prosperity and mobility. Other areas of wide disparity in infrastructure include access to broadband internet connections and the devices and data plans to use them, the ability to safely use open space and park amenities, and access to the formal banking and credit systems that are increasingly the only means by which to pay for daily needs.

CURRENT STATUS

At the onset of Mayor Bowser's Stay-at-Home Order, transportation ceased to operate as normal. Decreased offerings along with decreased ridership had a dramatic and uneven impact on public transit. Our public utility infrastructure and services are intact. However, these lifeline services are experiencing major financial impacts due COVID-19.

Public transportation – Currently operating at dramatically reduced service levels (Saturday service for rail and “life-line” service for bus), WMATA has seen rail ridership reductions of 95% and bus ridership drop-offs of 70%. Notably, the workers we have come to recognize as essential to the safety and security of our communities disproportionately rely on transit service. Unable to telecommute, frontline professionals like the healthcare workers, grocery clerks and delivery personnel, have sometimes found uncomfortable and potentially dangerous crowding on the bus transit they rely on to provide their critical services to District residents.

Roadways – Public roadways have also seen a dramatic reduction in usage. The American Automobile Association (AAA) has registered peak traffic volumes that are down by more than 40% on the region's roadways compared to the same time last year. However, there has been a concerning trend of unsafe driver behavior. Regional authorities have ticketed vehicles on the surrounding highways traveling at speeds in excess of 120 mph. In the District, the vehicular fatality rate is at the same level as last year, despite the much-reduced level of vehicles traveled in the city. Speed is the main contributor to pedestrian and driver fatalities. In the District and the region. However, one positive aspect of reduced road use is that air quality improved, in terms of atmospheric particulate matter (PM_{2.5}), with a 16% reduction of PM_{2.5} as a result of the Stay-At-Home Order and decreased vehicular traffic.¹

Public Space and Sidewalks – Public space is often taken for granted. From the moment we step out of our homes, we are in it. Public space has become increasingly important for

¹ District Department of Energy and Environment (DOEE), April 4, 2020, 2019 vs. 2020 March-April comparison of air pollution as monitored by the agency, Dr. Rama Seshu Tangirala, Chief, Monitoring and Assessment Branch, DOEE Air Quality Division.

residents to gain access to vital services, necessary exercise, and to feel safe and comfortable. Yet, in most neighborhoods, sidewalks are not wide enough to pass other walkers and maintain the appropriate social distance. Speeding cars make it feel dangerous to walk or bike in the street. Social distancing requirements will be with us even as we begin to return to more normal activities such as eating at restaurants, commuting at least some days to jobs, or visiting parks or libraries. As a result, increasing numbers of residents are willing to explore reallocating space from personal vehicle travel or storage to community open space, commerce, improved public transit, or personal transportation alternatives such as walking, bicycling, and micromobility.

Planes, Trains, and Intercity Buses - Reagan National and Dulles International airports are the “ports of entry” for nearly 8.4 million national and international visitors to the Washington Metropolitan area each year. Prior to the outbreak of COVID-19, over 46.6 million travelers passed through National and Dulles and the transportation assets overseen by the Metropolitan Washington Airports Authority (MWAA). These airline travelers stimulated over \$23.6 billion of regional output, delivered \$14.4 billion in gross domestic product and supported 187,200 local jobs. This global health crisis has halted all but essential and commercial air travel. As a result, passenger travel is down more than 90% combined at the two airports.

Union Station is the region’s intermodal transit hub. 36 million travelers and visitors — most using MARC, VRE, Amtrak, Metro and regional bus services — pass through Union Station. Local and regional bus services, Circulator, Streetcar, Capital Bikeshare, rideshare and other shared bikes and scooters are on site or nearby. Service has been sharply reduced. MARC continues to operate hourly service on the Penn Line although ridership is down more than 90%. Amtrak has curtailed service in the face of huge declines in train travel. Intercity bus travel has also dropped to minimal service bookings. These changes have resulted in Union Station daily visitor numbers down an overall 90%.

Utilities – Utility service cut-offs have been halted for water, electricity, and gas. While these lifeline services remain intact, the financial impact for slow-paying and non-paying customers will have lasting effects over many budget cycles. DC residents who have been laid off, furloughed or seen their hours or income dramatically curtailed because of the necessary protective orders and restrictions, as well as large ratepayers, will also be threatened by accumulated utility debt.

At the same time, increasing attention has been turned on the stark digital service divide among District residents. Access to high speed digital connectivity, the equipment to connect, and the service plans are the difference between the ability to engage in telework and to access education, telemedicine, delivery services, and social-distanced entertainment.

ASSESSING RISK BY SECTOR

The Transportation and Infrastructure Committee assessed sector risk using a slightly revised version of the model offered by the [Johns Hopkins School of Public Health's Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors](#). Our recommendations are based on the clear assumption there is no known duration for this public health emergency. We looked at the sector risk analysis provided in the guidance and then adapted that framework for the geographies we identified and around which we aligned our recommendations. The matrix below (Figure 1) provides a risk assessment for each sector by examining contact intensity, number of contacts, and the degree to which activities can be modified.²

Figure 1. Risk Matrix by Sector

Sectors	Contact Intensity	# of Contacts	Modification Potential
Buses	High	High	Medium
Metro/Rail	High	High	Medium
Airplanes	High	High	Medium
Rideshare	High	Low	Low
Bikeshare/Scooter Share*	Medium	Medium	Low
Private Bicycle/Scooter*	Low	Low	Low

² Adapted from: Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors. See page X for further description of risk assessment.

Walking/Wheelchair/ Personal Mobility Device*³	Low	Low	Low
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The committee used the same structure for assessing risk and applied it to its geographic framework for evaluating impact. The matrix below (Figure 2) provides a risk assessment for each geographic category explored by the committee based on contact intensity, number of contacts, and the degree to which activities can be modified.⁴

Figure 2. Risk Matrix by Geography

Sectors	Contact Intensity	# of Contacts	Modification Potential
Neighborhood/Hyperlocal	High	High	Medium
Citywide	High	Medium/High	Medium
Regional	High	Medium/High	Low/Medium
National/International	High	Medium	Low/Medium

By assessing risk by geography, the committee was able to evaluate recommendations the Task Force and District leadership should consider as it evaluates the timing and actions necessary for a phased reopening. However, much of the reporting of COVID-19 incidence by neighborhood and ward demonstrates the risk is not uniformly high nor is the level of contact the same in every neighborhood.

³ * Indicates additional sectors identified by the Transportation and Infrastructure Subcommittee, but not outlined by in the Johns Hopkins guidance.

⁴ Adapted from: Public Health Principles for a Phased Reopening During COVID-19: Guidance for Governors. See page 16 for further description of risk assessment. Indicates additional sectors identified by the Transportation and Infrastructure Subcommittee, but not outlined by in the Johns Hopkins guidance.

RECOMMENDATIONS

The Transportation and Infrastructure Committee used the principles identified through our discussions, interviews and research, and the six goals enumerated for leaders to develop a series of recommendations for the Task Force and the District’s leadership to consider. At the beginning of this section is a comprehensive list of recommendations detailed in the traditional categories of mode and industry. However, because the committee also explored these ideas in two additional frameworks, geography and the Task Force’s HOPE structure, we provide insight into how we applied those frameworks and the associated recommendations to follow.

RECOMMENDATIONS BY MODE/INDUSTRY

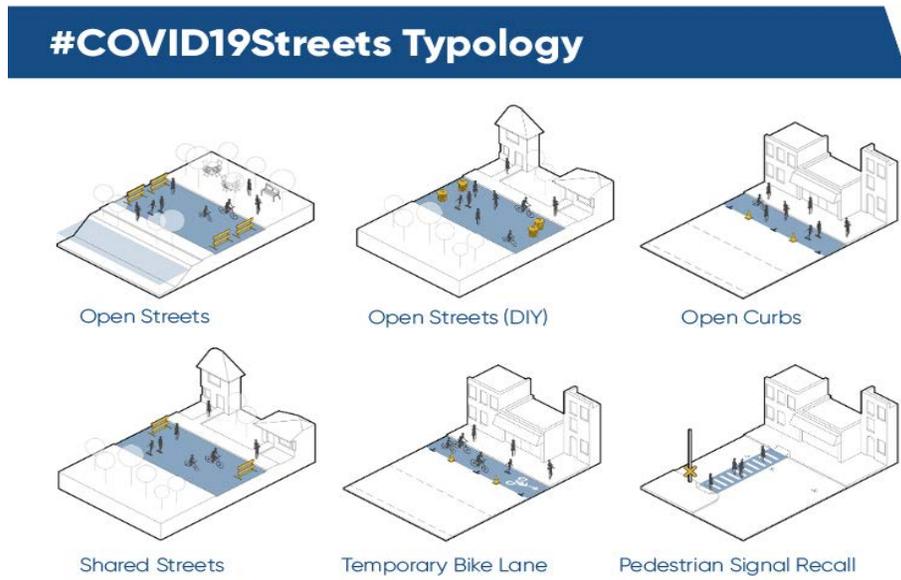
The list of recommendations below are offered by mode/industry. The recommendations are numbered and listed in relative priority within the mode/industry category.

Public Space

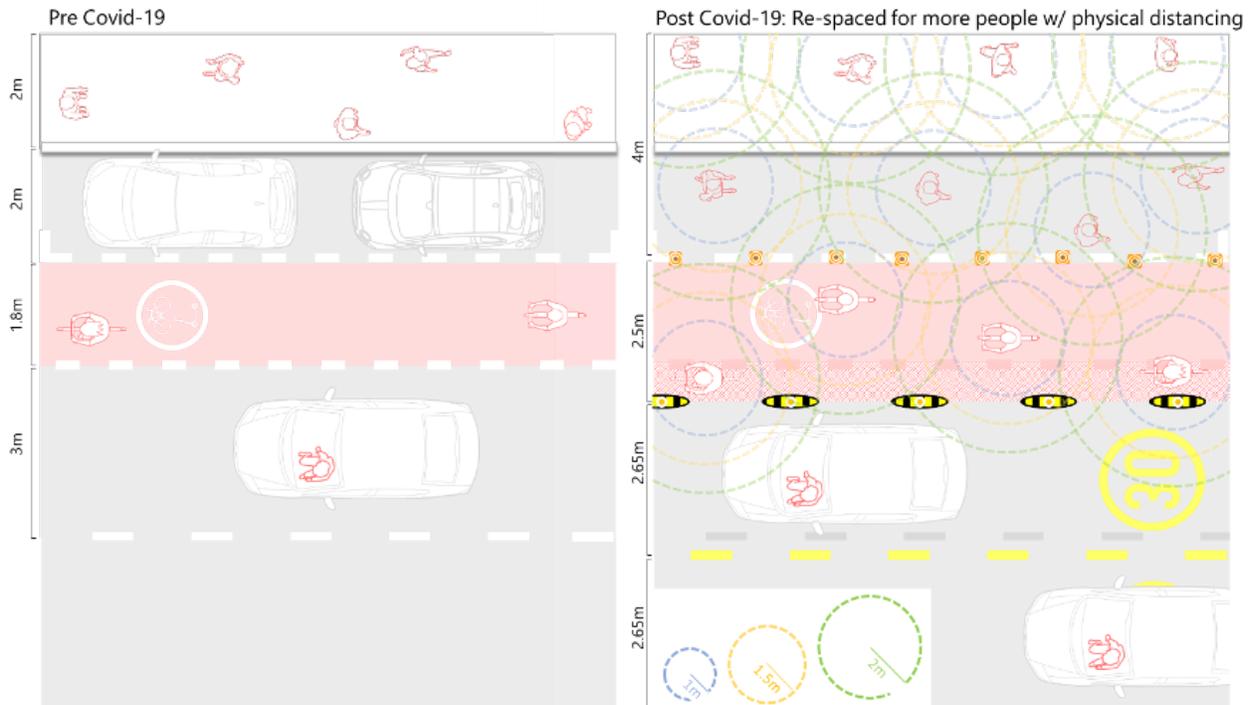
1. Require facial coverings and appropriate PPE for people over two years old using public space or shared transportation to ensure the safety of transit and rideshare providers.
2. Reallocate public space to promote pedestrians, restaurants and non-vehicles to maintain social distancing. (See Picture 1: Potential Streets Typology.)
 - i. Expand sidewalks and reprogram streets to allow for “al fresco” restaurant dining and outdoor retail space to promote social distancing. (See “Vilnius and the repurposing of public space for commerce” callout box.)
 - ii. Establish expanded pedestrian plazas at Metrorail stations and high-volume bus stops for safe egress and queueing.
 - iii. Repurpose right-hand lanes of key roads for either dedicated bus lanes or protected, dedicated pedestrian lanes. (See Picture 2: Repurposed Public Space for Social Distancing.)
 - iv. Allow the use of the edges of parks and recreation facilities for food trucks to set up with café tables and portable hand-washing stations to create business opportunities and to enable neighborhoods without many dine-in restaurants to have access to food amenities.
 - v. Allow for limiting access to road segments for community exercise or play. (See “Stay Healthy Streets” callout box.)
 - vi. Establish as a citywide planning goal that every city neighborhood has access to food, healthcare, parks, libraries and other necessary amenities within a 20-minute or less walk.
3. Dedicate more parking spaces to pick-up/drop-off zones near restaurants and retailers to support increased residents using takeout or delivery services.

4. Dedicate more parking spaces to commercial delivery services making deliveries to businesses, restaurants and residents.
5. Continue to encourage commercial delivery services to make deliveries in off-peak hours to reduce congestion, double parking, and load zone competition.
6. Expand "multimodal mobility hubs" parking options to better manage demand of micromobility and private bike usage.
7. Accelerate existing ongoing and planned public space projects, such as those listed below, which embrace the components of social distancing.
 - i. Under Construction
 - i. Irving Street Crosstown Bike Lane
 - ii. Parkside Pedestrian Bridge
 - iii. MLK and Malcolm X Intersection Safety Project
 - ii. Advance Construction this Summer
 - i. 16th Street NW - Dedicated Bus Lanes
 - ii. Columbia Heights 14th Street NW – Safety and Mobility Project
 - iii. C Street NE – Safety and Mobility Project
 - iv. K Street NW Transitway – Safety and Mobility Project
8. Update all crosswalks with thermoplastic or preformed tape to improve retro reflectivity for increased pedestrian safety.
9. Ensure public space improvements take senior and disability citizens access into consideration by coordinating with the Office of Disability Rights and the Department of Aging and Community Living.
10. Create “shovel-ready” public space and roadway projects and offer job training and employment to those unemployed.
11. Improve pedestrian access and safety at uncontrolled crossings and intersections.
12. Support last-mile delivery and pick-up using bicycles.
13. Use apps and other technology to inform users of crowded spaces to avoid due to lack of social distancing.
14. Use existing bus shelters and other street furniture to ensure broadband internet access in all areas.

Picture 1: Potential Streets Typology, Washington Area Bicyclists Association Presentation 5/6/20.



Picture 2: Repurposed Public Space for Social Distancing



Source: ITF based on WHO, CEREMA, Berlin Senatsverwaltung für Umwelt, Verkehr und Klimaschutz

Stay healthy streets

Seattle is permanently closing nearly 20 miles of Seattle streets to most vehicle traffic by the end of May. And more streets could be closed to through traffic in the coming months, depending on an assessment of streets based on whether they reach dense areas, allow people to stay close to home and keep parks from getting crowded, among other factors.

The streets had been closed temporarily to through traffic to provide more space for people to walk and bike at a safe distance apart during the coronavirus pandemic. Residents, delivery drivers, garbage and recycling workers, and emergency response vehicles can continue to use the streets, but no through traffic is allowed. “We need to continue to build out a transportation system that enables people of all ages and abilities to bike and walk across the city,” said SDOT Director (and DDOT alumnus Sam Zimbabwe).

Oakland has announced almost 80 miles of “slow streets” closed to all but local traffic; 5 other California cities are following suit.



Photo: Jean-Walsh-@jwalshie-via-Twitter

Regional Transit (WMATA, MARC, VRE, Circulator)

15. Ensure the safety of transit and shared ride workers by requiring universal use of facial covering on all transit and rail vehicles operating in or serving the District of Columbia.
16. Develop, communicate and enforce clear guidelines for transportation providers to use for cleaning and sanitizing their vehicles, stations and workspaces.
17. Provide reusable PPE (e.g., facial coverings) and sanitizing products to the public, who may not have access to these materials, to promote compliance and create supportive social norms.
18. Promote enhanced sanitization of common touch points (doors, stairwell handles, light switches, escalator handles, etc.).
19. Install hand sanitizing stations at entrances and in common areas in Metrorail stations and Union Station.

20. Use social distancing appliques on floors/ground for passenger spacing at taxi stands, at Metrorail stations for fare boxes and waiting for trains on platforms.
21. Require passenger temperature checks at various points – at transit hubs, on trains/ buses, etc.
22. Require daily employee temperature screenings and promote healthy guidelines for employees (e.g., frequent hand washing, coughing in tissue or sleeve, etc.).
23. Post notification of number of infected, timing of infection, and remediation plan/full deep-sanitation immediately at entrances and online for all transit hubs.
24. Promote contactless payment and ordering on all travel modes, use personal devices for ticketing where able; if kiosks are needed, ensure they are sanitized, 6 feet apart, hand sanitizer available, etc.
25. Stagger work schedules (both hours and days) to spread demand on the system to meet limited capacity availability and maintain social distancing.
 - i. Meter Federal workforce since it represents approximately 35% of peak transit travel.
 - ii. Work with Office of Personnel Management (OPM), local government, and large and small employers to adjust workforce work hours/days to minimize peak demand hours.
 - iii. Work with OPM, local government, and large and small employers to encourage continued telework to decrease transit demand.
 - iv. Manage against specific data/metrics on travel and allocate delta to other modes.
26. Assign lanes and prioritize signals for the Lifeline Network bus corridors
27. Explore creative means of providing basic, needed service by supporting WMATA's phased recovery plan such as:
 - i. Instituting skip-stop service; turning around trains in the core to provide more frequent headways without adding additional trains; shorter, more frequent trains if additional separation can be provided between operators and riders; and on-demand surface options that provide parallel routes if rail volumes are too low to justify operation.
 - ii. Piloting other creative options and experiments to provide affordable transit options.
28. Support WMATA's recovery plan elements:
 - i. Continue rear door boarding for bus transit with the exception of riders needing extra assistance.
 - ii. Reroute or reprioritize bus routes to areas of high usage.
 - iii. Accelerate capital improvement projects during periods of low ridership.
 - iv. Consider revenue reductions and stretched budget.
 - v. Revert to normal service hours to provide necessary transit access for essential workers as jurisdictions start lifting restrictions.

- vi. Negotiate with transit employee unions to enhance the ability to realign service to implement operating changes
 - vii. Consider on-demand shuttle services for essential workers with schedules that do not match current transit operating levels – such as hospital and public safety workers.
 - viii. Ensure transit employee union negotiations do not negatively impact ability to realign service to implement operating changes
29. Install more dedicated bus lanes along high-transit-use corridors and transit-dependent communities to improve efficiency and reduce passenger wait times.
30. Bundle trips and integrate travel modes, including contactless and integrated fare payments thru WMATA so Metro riders can use their commute benefits even while service is reduced and so rerouting and reprioritized bus routes can be supplemented with other transportation options and with other micromobility transportation options such as Capital Bikeshare, shared e-bikes or e-scooters to give
- i. Workers alternatives if a bus is too full;
 - ii. Tourists confidence they could visit Washington and leave their car behind;
 - iii. Commuters the options that ensure reliability, even with reduced transit schedules;
 - iv. New financial incentives through bundled pricing to walk, bike, scoot, or take transit, rather than drive; and give transit agencies more certainty about revenues through rider and employer purchase of monthly or weekly bundled and integrated trips.

Shared, Micromobility and For-Hire

31. Require wearing of facial coverings, in all ridesharing/for-hire vehicles, for driver and riders.
32. Evaluate the health benefits of installing a shield between drivers and passengers of regulated for-hire vehicles.
- i. Determine if shielding has demonstrable positive benefits, and if instituted, require a post-ride cleaning routine of both sides of the shield.
33. Require disinfection of for-hire and ridesharing vehicles between each passenger ride and communicate this requirement to passengers.
34. Develop, communicate and enforce clear guidelines for micromobility providers (e.g., bikeshare and scooter companies) to use for cleaning and sanitizing their devices and ensure public is aware of guidelines (including frequency of cleaning).
35. Require that cash payments in for-hire vehicles are conducted in accordance with the Center for Disease Control and Prevention (CDC) guidance to limit driver/rider contact.

36. Limit for-hire and rideshare passengers to one person or one household and eliminate passenger sitting in front besides driver.
37. Use ridesharing/car-sharing/ride-hailing multimodal transit for regional micromobility — bikes, scooters, mopeds as well as ridesharing (taxi/Uber/Lyft/Via) and car-sharing (Zipcar) to support peak hours transit capacity.
 - a. Provide mobility to vulnerable and disabled populations, for whom public transit is not a feasible option, by expanding qualified trips for people using Transport DC and Seabury.
 - b. Explore with providers (e.g., taxi/Uber/Lyft/Via; Bikeshare) a way for riders to choose to pay for the ride of an essential worker using rideshare apps.
38. Work with private mobility service companies to allow the use of micromobility (e.g., bike, pedestrian, scooter) for trips that originate (or end) beyond the District limits.
39. Work with for-hire vehicles, micromobility providers, transportation network companies, car-share companies, Capital Bikeshare, and other transportation providers to incentivize signing up for Bank on DC by offering travel credits if users sign up with their new Bank on DC bankcards.⁵
40. Incentivize use of taxi/Uber/Lyft/Via clean fueled (electric) vehicles.
 - a. Encourage providers to permit passengers to select electric vehicles.
41. Complete MoveDC’s bicycle network (See location list in Resources section), especially in underserved areas, to promote cycling to improve distancing and make temporary bike corridors, as necessary, to support phased reopening. (See “Network of bike lanes as a response to the crisis: the Netherlands and others” callout box.)
42. Increase bike corrals to further promote bike ridership for social distancing.
43. Increase number of bikeshare stations, especially in underserved areas, and grow the electric bike fleet. (See “Air Quality and Environmental Injustice” callout box).
44. Permit private dockless e-bike and e-scooters to increase fleet size for anticipated demand.
45. Maintain free bike-sharing for health care workers until last phase of reopening.
46. Subsidize bike-sharing in low-income areas to increase bike ridership.
47. Create bicycle campaign to highlight ways city is making cycling safer to encourage increased ridership.

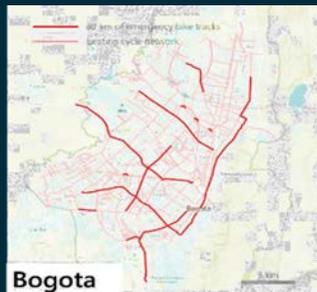
⁵ <https://thedcline.org/2020/05/12/press-release-districts-bank-on-dc-program-may-help-provide-faster-access-to-covid-19-stimulus-funds/>

Network of bike lanes as a response to the crisis: the Netherlands and others

The Netherlands is one of the world's most successful cycling nations, with more than 23,000 miles of protected bike lanes and a quarter of all trips made by bicycle. The Netherlands is also one of the safest countries to be a biker, with an annual cyclist fatality rate of just 1.1 per 100 million kilometers cycled (compared to 5.8 in the U.S.).

This status was never a given. Change came in response to a road safety crisis, particularly among children, and the OPEC oil embargo in the 1970s. The government announced car-free Sundays in 1973, and the country slowly began to reevaluate its relationship with cars.

COVID-19 is a crisis that challenges cities everywhere to think about how urban transportation systems might operate differently. Many cities (Bogota, Philadelphia, Mexico City, Berlin, Oakland, Minneapolis, Denver, Louisville, Vancouver and Calgary, to name a very few) are finding it time to experiment, using their streets as testing grounds for change. to name a very few are finding it time to experiment, using their streets as testing grounds for change. NUMO and Populus, a company that provides mobility data and tools to cities, are working to measure improved access to job opportunities and essential services like hospitals and grocery stores with newly expanded networks of temporary bike lanes.



Demand-responsive emergency cycle routes deployed overnight
Pre-lockdown, the city deployed 112 kms of emergency cycling lanes (in addition to the 550 km already in place) to handle displaced public transport trips. Post-lockdown, the city iterated the network 3 times and currently has deployed 80 kms of emergency lanes (28 April).



City-center re-prioritisation for walking, cycling and scootering and additional lanes
Brussels centre will become an emergency shared space zone with priority given to pedestrians and cyclists and 20km/h speed limits. Pedestrians will be able to walk on the carriage-way in order to facilitate physical distancing. An additional 40km of cycle tracks will be deployed in the region.



650 km regional bicycle network fast-tracked to help compensate for public transport loss
The region will help build a network of cycle routes and provide EUR 300 million funding (~60% of the total cost). Construction will be fast-tracked starting May 11th, 2020 and will include the rapid deployment of emergency cycling infrastructure. The city of Paris will deploy another 150km of pop-up cycle lanes.



Post-Covid19 mobility plan starting w/ emergency lanes, speed zones and plazas
In order to adapt to post Covid-19 travel behaviour and meet sustainability goals, Milan's « Strade Aperte » mobility plan calls for new cycle track infrastructure, new slow speed zones, and pedestrianised plazas, starting, deployed first as emergency infrastructure.



Planned 301 km cycle network to be deployed as emergency lanes first
The first phase of the network planned to be deployed in 5 years will be implemented in 3 months. It will first be implemented as emergency cycling lanes and will be extended and converted to hard facilities in later phases.



75 miles of Slow Streets to allow social spacing for walking, cyclists and scooters
The city of Oakland has converted its neighbourhood cycling network (10% of all streets) into pop-up slow streets closed to through car traffic. San Francisco has implemented a similar measure with a number of streets prioritised for walking and cycling.

National and International Transportation (Airlines (in coordination with MWAA), Amtrak, Greyhound, Private Coach, Traveling Motorists, etc.)

48. Require workers and passengers to wear facial coverings both in the airport and on planes. Develop and publish safety protocols and certification program (*‘DC Safe’*) to inform residents and visitors arriving at Union Station, National and Dulles airports, and major hotels and lodging establishments of the various transportation and related health and safety measures being undertaken in the District of Columbia.
 - i. Install hand sanitizing stations at entrances and in common areas of airports and stations.
 - ii. Develop, communicate and enforce clear guidelines for airports, airlines, trains, buses and motor coaches to use for cleaning and sanitizing chairs/seats, counters, check-in kiosks, restrooms, armrests, etc., and ensure public is aware of guidelines and certification program, including frequency of cleaning, thru DC Safe certification
 - iii. Block off middle seats on airplanes, trains and buses or otherwise seat passengers to prevent them from sitting directly next to each other to maintain social distancing guidelines
49. Establish formal communication among Amtrak, parking operators, the Metropolitan Washington Airports Authority (MWAA), BIDs, Main Street Organizations, Events DC and Destination DC to develop a *“ReOpen DC”* campaign.
50. Utilize social media and marketing tools to promote the Washington Metropolitan area as a safe place to visit. This should include highlighting protocols for air travel, Amtrak, taxi, ridesharing and public transportation modes, as well as certified *‘DC Safe’* dining, retail, cultural, sports and entertainment venues.

Roadways

51. Improve road safety by:
 - i. Redesigning the roadway to reduce the design speed for cars and trucks by adding medians, bus lanes and/or bike lanes, widened sidewalks, or new café spaces for nearby restaurant use;
 - ii. Reduce posted speed limits on local roads to 20 mph to increase safety and shared use of the roadway for active transportation and social distancing (understanding that people will be walking in the street);
 - iii. Expand the District’s Automated Traffic Enforcement Program, if necessary, to reduce speeding and protect residents who may be biking and walking in streets; and

- iv. Identify corridors for the rapid implementation of traffic-calming tactics (four-way stops, chicanes, neckdowns, etc.) to reduce speeding and increase safety.
- 52. Reallocate curb lanes for sidewalks and other high-capacity needs by reducing the amount of on-street parking available in the Central Business District and other job centers.
- 53. Accelerate sidewalk installation, crosswalks, and other safety improvements as identified in DDOT's livability studies and sidewalk repair identified by 311 requests. Prioritize residential areas.
- 54. Expand citywide biking and walking networks to encourage active transportation and create space for physical distance by reallocating roadway space for sidewalks, trails, open/shared street, and protected bike lanes.
- 55. Support efforts of off-street parking providers to reduce social interactions through contactless payment systems and employee PPE.
- 56. Consider immediate means of limiting/controlling non-federal regional travelers who wish to drive to the downtown core and other job centers.
- 57. Evaluate congestion pricing and other incentive-based systems for reducing travel to and within the downtown core and other job centers.
- 58. Invest in technology and data collection systems to be ready to limit, or control through pricing, auto trips into the downtown core and other job centers.
- 59. Create or adapt an app for tourists driving to DC to encourage them to 'Park Once' and otherwise use bundled and integrated transit/micromobility trips to get around and see the city without driving their personal vehicle.
- 60. Incentivize/prioritize clean vehicles such as electric bikes, cars, and tour buses used to move goods, freight and people.
- 61. Accelerate planned roadway construction while telecommuting is in place and traffic is reduced.
- 62. Coordinate construction to minimize traffic impacts regionwide.
- 63. Regulate tour buses hours of travel and parking.

Utilities

- 64. Develop and ensure access to broadband telecommunications capabilities for all District residents including the technology to access the service and the means for paying for the service.
- 65. Use existing transportation infrastructure, such as District and Pepco-owned utility poles, to expand WiFi via wireless access points (WAPS)/hotspots.
- 66. Develop a program to test for the presence of COVID-19 in the sewer collection system, in concert with DC Water and the Department of Health, to identify community hotspots of exposure – particularly at key stages of reopening.
- 67. Ensure access to lifeline services (water, sewer, electricity, gas, and internet):

- i. Inventory current District, county and state orders affecting basic services – including scope, duration and features.
 - ii. Inventory current utility practices considered orders or as self-implemented.
 - iii. Consider whether any part of no-shut-off policy should become permanent (e.g., human right to water).
 - iv. Consider alternatives to shut-offs for lowest- income residents (“trickle” meters – enable water to flow, but still a hardship).
 - v. Support other best practices policies. See e.g., attached City of Austin action on bill relief.⁶
 - vi. Encourage energy conservation to reduce need for subsidies and support.
68. Identify relief programs for utility companies:
- i. Analyze financial consequences of utility relief programs: how are receivables escalating, what is likely ceiling, how much revenue would be lost?
 - ii. Determine how to separate those customers who are unable to pay from those who do not want to pay – free riders.
 - iii. Identify potential revenue sources such as Federal ARRA-like funds; permanent customer assistance/rainy-day fund for utility bills, internet service, transit fees.
 - iv. Support federal WIHEAP program, matching LIHEAP for energy, to help the same category of low-income customer pay their water bills – or to subsidize no-shut-off policies.
 - v. Continue investment in CRIAC relief to support payment of low-income residents and nonprofits water bills.
 - vi. Encourage energy conservation to reduce need for subsidies and support.
69. Coordinate utility infrastructure replacement among all utilities.
- i. Synchronize with DDOT road work/capital/public space enhancements.
 - ii. Prioritize planned work in high traffic roadways during period of reduced use.

GEOGRAPHIC FRAMEWORK

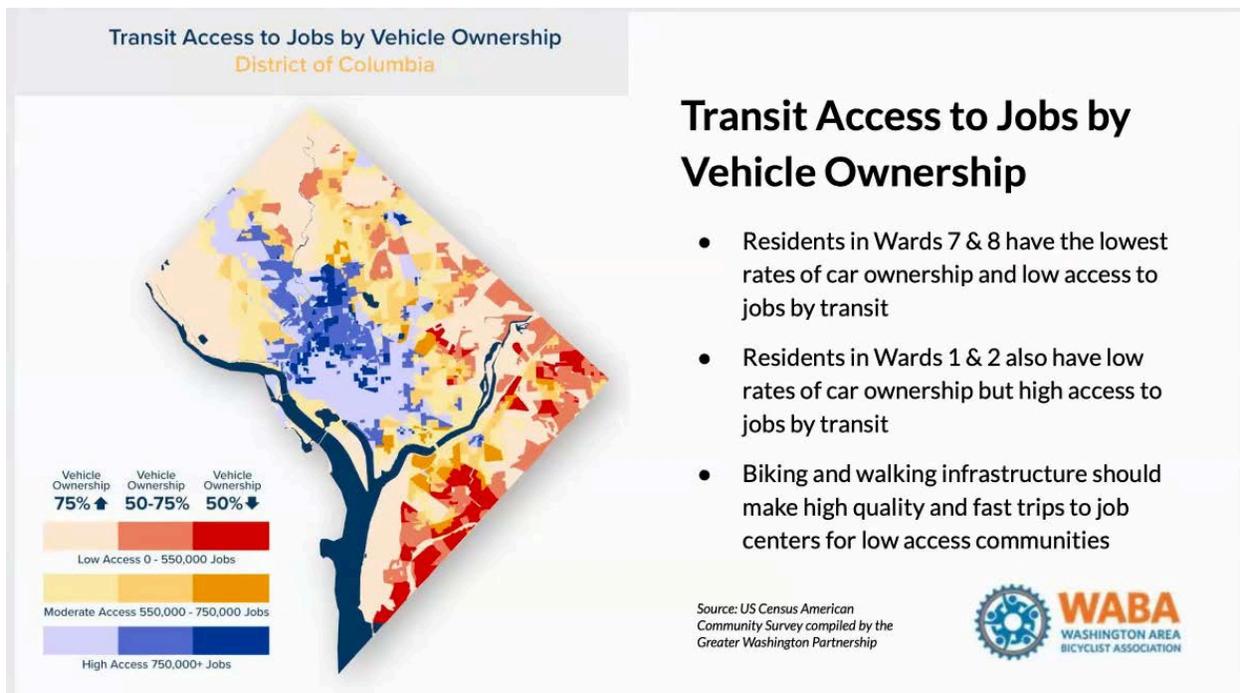
The committee explored recommendations and interventions in accordance with the four overlapping geographies of the District of Columbia: Neighborhood/Hyperlocal, Citywide, Regional and National/International

⁶ Austin Energy, April 9, 2020, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwjQ8quouY7pAhVDIHIEHe6JBmUQFjABegQIBxAB&url=https%3A%2F%2Faustinenergy.com%2Fae%2Fabout%2Fnews%2Fnews-releases%2F2020%2Futility-bill-relief-approved-by-austin-city-council&usg=AOvVaw0dz5A3OwcY_po1_1HvSimD.

Neighborhood/Hyperlocal

The basic building block of community is the micronetwork of individuals in their homes and nearby surroundings, loosely referred to as neighborhoods. In the short and long term, it is important neighborhoods have basic needs to ensure a quality of life. In the short term, the aim should be to encourage people to stay within their neighborhoods to minimize exposure and risk. In the long term, all residents should have what they need to be healthy within a 20-minute walk. When determining transportation changes, consideration should be given to the varying factors which contribute to transit access to jobs in the various neighborhoods and wards. (See Picture 3: Transit Access to Jobs by Vehicle Ownership.)

Picture 3: Transit Access to Jobs by Vehicle Ownership



The recommendations for this geography were focused on the following two core principles:

- Ensure 100% of District residents are able to meet their basic needs within a 20-minute walk in their community. For people unable to walk 20 minutes, means should be developed to bring necessary services to them. Achieving walkable neighborhoods includes
 - Provide access to food (fresh and prepared), potable water, and toiletries to maintain cleanliness. In areas without grocery stores this can be achieved

through corner stores, liquor stores, pop-up grocery stores, and delivery services, including the use of food trucks to deliver prepared meals.

- Provide access to clean and safe open spaces for exercise and fresh air.
- Provide access to medical professionals for non-emergency consultants, including services for mental health and addiction.
- Access to social services and housing for populations in need.
- Tests for COVID-19, especially in hot spots. This can be achieved via existing DC Health mobile testing vehicles (e.g., mammogram, HIV, dentist) and local hospital-created pop-up sites.
- Access to clean and safe bathrooms for unhoused residents.
- Access to safe spaces for people living in close quarters with abusers.

Citywide

The District's transportation network and infrastructure are interconnected at the system level. An effective, staged reopening process will need to thoughtfully consider how existing systems can be reallocated, expanded, or managed to accommodate the anticipated changes in travel demand and social distancing requirements. This pause from our normal way –of life presents an opportunity to adjust all forms of infrastructure (including transportation, public utilities and broadband) to achieve the District's vision, with a focus on the following principles:

- **Protect the Safety of Frontline Workers:** The physical and mental well-being of transportation and infrastructure employees is critical to continued operation. Frontline workers provide specialized skills necessary for the maintenance and operation of transportation and infrastructure systems.
- **Instill Confidence through Structure and Communication:** Systems should be organized and run to maximize safety. Communication should ensure that all users know what is happening and what is expected of them, particularly during the initial stages of reopening.
- **Act Swiftly to Manage Supply:** Reserve as much space as possible at the outset to meet both the needs of those who can no longer access transit and to permit a return to commerce and recreation with social distancing. This includes the reallocation of existing right-of-way (expanding sidewalks, repurpose curbside, dedicated lanes for non-single-occupancy-vehicle uses) to achieve these outcomes. Over time, with the evaluation of travel patterns and system utilization, these interventions can be modified, enhanced or made permanent.
- **Work Across Sectors and Jurisdictions to Manage Demand:** These systems will have uncertain but impaired capacity, so we should be careful about how much we ask from it so we can ensure the safety of our residents, worker and visitors. There are solutions that range from public education, teleworking, employer-imposed alternative-work schedules, and economic incentives.

Regional

Regional transportation issues are critical to enabling the reopening of the District and the entire DC metro area. In particular, customers' demand for Metro, MARC, VRE, Amtrak and local and regional bus are impacted both by their fear of exposure to large crowds and confined spaces, as well as by their concern about availability given currently reduced schedules – and the crowding that might occur while waiting for transit. The approach going forward should be for the transit systems (public and private) to do everything in their power to gradually and safely increase capacity, in coordination with the regional loosening of restrictions on travel, information to travelers about the availability of transit and possible crowding, and in concert with planned employer reporting of on-site job attendance.

As the city center gets back to work, it will be critical to consider measures to reduce the risk of public transit use, while ensuring the region has adequate access to work centers to enable business and commerce to resume, including encouraging other modes of travel like walking and biking. In addition, improving transportation options provides immediate and long-term opportunities to improve mobility, particularly in transit-dependent neighborhoods; reduce air pollution, thereby reducing threats to public health that disproportionately affect communities of color; and increase the role for multi-modal transit alternatives, thereby smoothing demand and ensuring safe, affordable transit options.

The resumption of regional travel will be heavily impacted by school and daycare openings. Until that happens, the region will be forced to continue to rely heavily upon telework with a parallel significant reduction of travel into and out of the District, and an increase in private or shared vehicle travel while passengers fear the ability to safely distance on rail and bus. However, intermediate measures need to be instituted to enable the reactivation of retail, business and tourism to generate income for residents and maintain the tax base for the District.

The pandemic has also heightened the need to be able to ensure immediate and equitable access for all essential services (electric, gas, water, internet and transit), while also ensuring provision of such services is sustainable over the long term. With families forced to stay at home, it is even more critical than usual to ensure basic services to enable continued education, the ability to work remotely to sustain income, and a hygienic and a safe home environment.

National/International

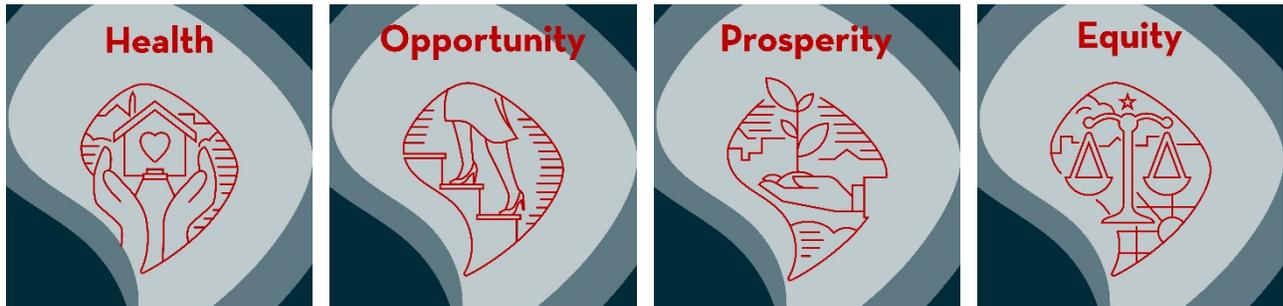
The District of Columbia is a popular destination for domestic and international travelers. Tourists visit DC to enjoy our vibrant restaurant scene, eclectic entertainment venues, championship sports teams, world-renowned museums, 440 acres of beautiful parks and gardens, and more. As the Nation's Capital, we are connected to the global economy with 180

embassies, hundreds of international NGOs and trade associations, businesses and the seat of the federal government.

The social and economic impacts of COVID-19 have devastated the District's role as a major business, convention, cultural and tourism destination both nationally and internationally. The transportation and infrastructure networks that connect us to the world represent both a source of tremendous competitive advantage as well as potential vulnerability. The resumption of national and international travel to the District is expected to also go through phases. MWAA predicts air travel will not return to 2019 levels until late 2021 or beyond, with international travel lagging the return of domestic flights. We expect much of the initial increase in visitation to DC to come via private automobile, and our challenge will be to manage those trips, accommodate parking and, after arrival in DC, encourage the use of the many mobility options in the region, rather than car travel.

HOPE FRAMEWORK

The Committee also applied the Task Force's HOPE framework for both proposing and evaluating recommendations for the Task Force and District leadership to consider.



Health – Our recommendations emphasize the importance of making this issue the paramount consideration in reopening the District and its transportation systems. A universal facial covering requirement when moving in and around the District would be a clear message of health consciousness and universal engagement in protecting individual and community safety. Particular emphasis needs to be placed on the health safety of two critical populations: transportation workers and essential service workers. By setting, communicating and enforcing clear standards for system safety, sanitation and PPE, the District will ensure the confidence of the traveling public and those who provide and rely on shared transportation services.

Opportunity – There is no question that the impact of the Covid-19 related disruptions to the global, national and regional economies will profoundly affect us. We need to think about how to use the resources, assets, and strengths of the District to ensure the continued livelihoods of our residents and businesses, to the extent we can. That means looking to our local businesses, institutions and organizations, talent, culture and to each other to provide the opportunities

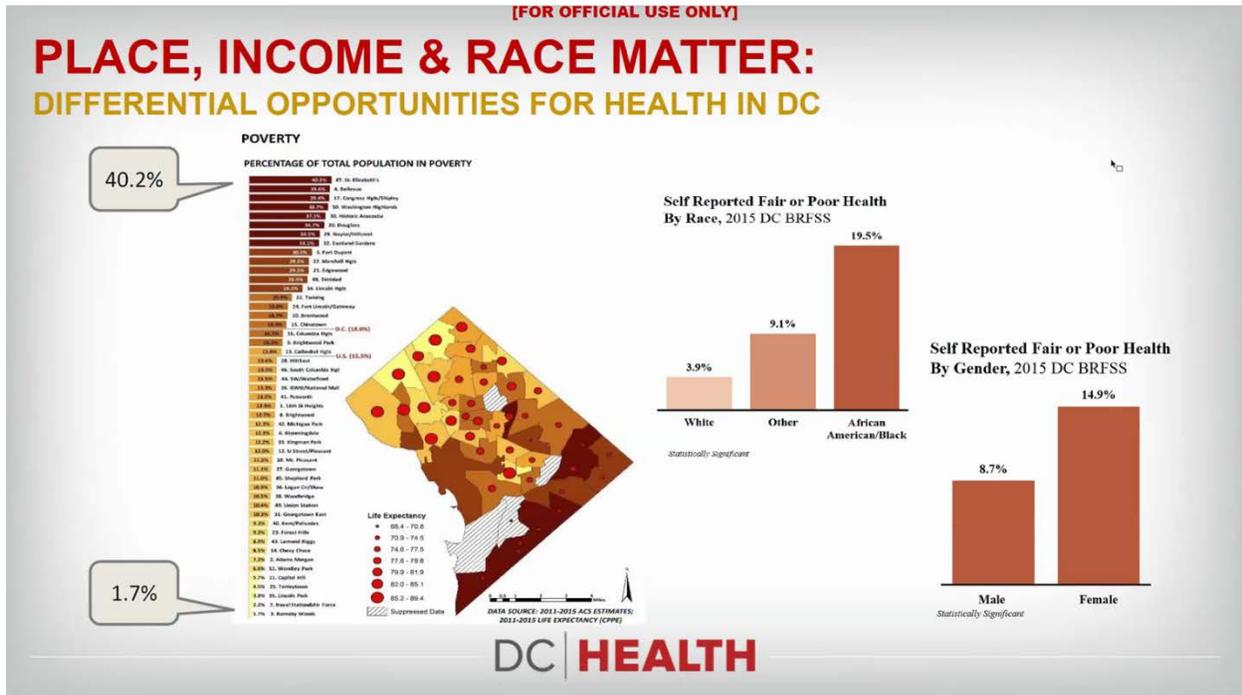
that will help us all survive and possibly thrive as we hopefully and gradually return to more normal conditions.

Prosperity – In the last major economic crisis, over a decade ago, residents of the District faced hardships, some of them similar, while the District suffered budget shortfalls that lasted two or three years. But ultimately, the District was able to recover from the Great Recession much more quickly than surrounding jurisdictions, in part because of our investments in affordable transportation and infrastructure. We are faced in this crisis with new challenges but have the same ability to deploy our existing assets and invest in other actions that support the prosperity of the District’s businesses, institutions and residents to ensure we come out the other side a stronger, more competitive and more vibrant city.

Equity – One of the lessons of this crisis — and every crisis — is that wealth provides resilience. And there are enormous wealth disparities in the District, with deep roots in structural and racial inequity. (See Picture 4: Place, Income & Race Matter: Differential Opportunities for Health in DC.) If we aspire to reduce those disparities, we must address their root causes. It should not be enough to just return everything to what it was before this crisis – plenty of individuals and families were in extremely difficult circumstances before any global pandemic. Our focus must be on *how* we respond, *how* we reopen the District, and *how* we address inequities while serving first, those in the greatest need.

Access to daily needs, including jobs, varies greatly according to geography, particularly east of the Anacostia River. We know access to jobs, in the District and the region’s other job centers, is one of the most significant predictors of economic prosperity and mobility. Other areas of wide disparity in infrastructure include access to broadband internet connections and the devices and data plans to use them, the ability to safely use open space and park amenities, and access to the formal banking and credit systems that are increasingly the only means by which to pay for daily needs.

Picture 4: Place, Income & Race Matter: Differential Opportunities for Health in DC



MOVING TOWARD OUR VALUES

COMMITTEE APPROACH AND ENGAGEMENT

The full committee met a total of seven times, while the working groups met twice. Meetings consisted of updates by sectors, stakeholder presentations, equity and health presentations, and broader discussions. In our deliberations, we were guided by our values—health, opportunity, prosperity, and equity. We acknowledged our transportation and infrastructure recommendations had to take the health of our residents, workers and employees into consideration. This meant focusing on ideas which embraced our most vulnerable individuals such as children, seniors and people with underlying medical conditions who are more likely to succumb to the adverse effects of COVID-19. Additionally, we sought to identify the current initiatives and opportunities which were working well and should be continued for either the short or long term. Our belief that all District residents deserve the right to prosperity — regardless of neighborhood, education, race and travel mode — was a value we eagerly embraced. Finally, we took the charge seriously as this was our chance to create transportation equity by rethinking our current policies and norms.

Public Survey Input

In an effort to ensure resident input was considered during reopening planning, a public survey was widely available across various platforms providing residents with a chance to express their concerns.

Residents raised several considerations both as it relates to transportation and infrastructure including:

- The need for a greater investment in public transportation
- An increase in health and safety measures for passengers and public transportation operators by increasing frequency of deep cleaning and disinfection and requiring facial coverings for all riders and operators
- Improving roadways for pedestrian, bikes, and busses
- An increase in dedicated bike lanes
- Repurposing of open space near grocery stores and other essential businesses
- Continued reduction of reliance on personal vehicular travel
- Decreased speed limits
- Continued telework

These resident recommendations align closely with the recommendations suggested by the committee and outlined in the recommendations section of this report.

Stakeholder Engagement

Throughout the duration of recommendation formulation, the committee engaged with a series of stakeholders. Copies of presentations that stakeholders shared with the committee are attached to this report.

Government

Local

District Department of Transportation (DDOT) provided an overview of agency data and analytics, current DDOT operations, and the potential for contact tracing through cell phone data.

Events DC shared information on 2020 event cancellations, pre-COVID-19 visitor data, lost revenue, and best practices for cleaning and social distancing at their locations.

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Public Service Commission (PSC) outlined key messaging for customers on how they can maintain their bills and how projects have progressed during the stay at home order.

Federal

Office of Management and Budget (OMB) reviewed national guidelines for federal government agencies and the need for decision-making based on state and local determinations relating to telework.

Advocacy

Washington Area Bicyclists Association (WABA) Outlined bike network disparities across the District, suggested an additional 60 miles of dedicated bike lanes and more expanded sidewalks, and encouraged a ride donation initiative.

DC Sustainable Transportation (DCST) shared challenges in two focus areas: transit and road capacity and the need for more transportation options.

MetroLab Network provided an overview of a guide on transportation and infrastructure practices from around the world, along with a survey focused on COVID-19 transportation impacts.

Regional/Transit

Washington Metropolitan Area Transit Authority (WMATA) provided an overview of WMATA's five-phase recovery based on the actions of Metro Washington Area Region's reopening plans and emphasizing employee and passenger safety.

Union Station Redevelopment Corporation (USRC) r

Reviewed Amtrak's plan for social distancing, including floor decals, capping reservations at 50%, requiring staff to wear facial coverings and encouraging riders to do the same.

American Automobile Association (AAA)

shared traffic volume data for Washington, DC. which showed an increase in speeding on local roads and the decline in transit and taxi usage.

Greater Washington Partnership (MetroNow Coalition)

Provided recommendations for a regional coordination approach and the need for increased safe transit services including a daily and weekly notice of service changes.

Council of the District of Columbia

Councilmember Cheh was invited to give a presentation to the committee. In response, the councilmember opted to address the co-chairs and committee members via an electronic letter, summarized here:

In her letter Councilmember Cheh emphasizes that essential transportation and infrastructure recommendations are a proactive component in determining how the District can both safely and sustainably transition back to normal operations in the coming months. She affirms that once the public health emergency is lifted, the transportation sector will be one of the first to ReOpen to the public. Therefore, the policies put into place must ensure workers are able to get to their jobs and students to their schools in a safe manner. Similar precautions must be made when considering how residents will be able to access government services — whether renewing a driver license, having trash collected, utilizing assistance programs, or simply using our streets, sidewalks, bike lanes, and outdoor spaces. Councilmember Cheh highlighted the efforts District agencies under her oversight have made to protect residents’ health and safety, while ensuring minimal service disruption.

While hesitant to share budgetary recommendations until she reviews the report and financial situation in full, Councilmember Cheh urged the committee to advocate to avoid reductions in staff where possible. (The full text of the letter is provided as an attachment to this report.)

LESSONS LEARNED FROM THE STAY AT HOME ORDER

Like all cities across the country and the world, the District has had to quickly adapt transportation operations to deal with our inability to travel as normal. We have learned to embrace the world of telework, staggered work hours, alternative work schedules, and reduced transit capacity to support social distancing and concerns about transportation sanitization. Many lessons from the current situation were identified by the committee, those we received input from and from research. Some of those key lessons follow.

Telework Works for Many

We have learned telework is a viable approach for many employers. A recent paper from the University of Chicago estimates 66% of jobs in the DC metro area can be done without leaving home⁷. DC was already one of the cities where telework had become normal for many

⁷ https://bfi.uchicago.edu/wp-content/uploads/BFI_White-Paper_Dingel_Neiman_3.2020.pdf

workers, with 6% of our workforce teleworking on any given day. However, according to Gallup, 80% of the national workforce would like to telework. This global telework experiment has convinced many companies that productivity can be maintained with telework, and also convinced sometimes reluctant managers. There are cost savings for both workers and businesses: a typical employer can save about \$11,000/year for every person who works remotely half of the time, while employees can save between \$2,500 and \$4,000 a year, according to Global Workplace Analytics. They predict we will see 25 to -30% of the workforce working at home on a multiple days-a-week basis by the end of 2021.

Telework Does NOT Work for All

We have also learned the essential services necessary to support the District and its residents are often provided by those with limited choices and access to transportation alternatives. According to Transit Center, 30% of DC bus riders are critical workers. Improving bus frequency, quality, speed, and connectivity is an issue of public safety and equity.

Social Distancing will Shift Mode Choice

Health expert recommendations for social distancing require strict reductions in bus and rail capacity. To ensure those who need access to these forms of transportation have access, authorities should maximize commute options and safety for those who have alternatives by providing additional sidewalk space and bike lane capacity.

Public Space Is Scarce

Public space used for transportation, recreation or commerce is a scarce good with value. Current allocations for that resource do not reflect the full cost or value of those who are using it. While a parking space may generate some value in meter (or parking fine) revenue, more value may be derived by allowing the space to be used for an outdoor café, a pick-up or drop-off zone, expanded sidewalk, improved bike lane, or some combination.

Metrorail has Masked our Capacity Constraints

Historically, Metrorail's capacity has been essential to managing peak traffic loads. However, given the continued reduction in that capacity, a combination of demand incentives and recalibration of supply will be required to effectively manage the potential for a dramatic increase in roadway system demand. Congestion pricing and other demand management techniques may both provide necessary roadway capacity for those who need it and provide a source of funds for those activities that support broader access and mobility. (See "Congestion Pricing" callout box.)

The Bus is Essential Transit for Essential Workers

Metrobus ridership has dropped in line with service cuts, but now exceeds that of Metrorail because bus passengers have fewer travel options and limited alternative work options. Metrobus passengers. By concentrating additional resources – buses and roadway improvements – on the 27 regional "Lifeline" routes a majority of the existing bus passengers could be served with better, safer service. In fact, one researcher found that just these 8% of

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bus routes preserves access for 52% of the people with access to the normal network. Rethinking this critical form of connectivity could improve mobility and equity for those who need more of both.

Within ¼ Mile	All WMATA	Lifeline Network	Lifeline Network Compared to All WMATA Service
Bus Routes	325	27	8%
Population	2,384,441	1,245,777	52%
Diversity Index	78.7	78.4	100%
Minority Population	1,552,326	813,127	52%
Minority Share	65%	65%	100%
Total Businesses	110,237	70,268	64%
Total Employees	1,699,555	1,115,837	66%
Median Household Income	\$88,602	\$84,137	95%
Commute by Transit (ACS)	303,789	202,999	67%

By John Hillegass from “WMATA and the Virus: Rethink the Bus. Save lives. Save transit. Save Cities.”

Congestion Pricing

Stockholm instituted a congestion charge levied on vehicles entering and exiting the inner city. After a seven-month trial in 2006, followed by a referendum, the charges were made permanent and the traffic reductions of 20% have held constant ever since. Despite strong initial opposition, congestion pricing is favored (at about 70% average) across every category of payers, produces shorter and more reliable travel times, lower GHG emissions, improved health and environmental impacts, increased traffic safety, and generates significant additional funds for transit.

When first implemented, the Stockholm region had nearly 2,000,000 residents, of which almost half a million lived in the inner city. Of the approximately 320,000 people employed in the inner city, more than 210,000 of them commuted from outside the inner city.

The cost of passing the cordon, in any direction, on weekdays was:

- ~\$2 during peak hours (7:30-8:30 am / 4-5:30 pm)
- ~\$1.5 30 minutes before and after the peak periods, and
- ~\$1 during the rest of the period 6:30 am to 6:30 pm.



Electronic Road Pricing Gantry in Singapore, from Wikipedia, by VK35 at English Q52

Cycling is a Preferred Exercise Activity

A survey of bicyclists in the region found people using bikes more for physical exercise compared to transportation or recreation during the shelter-in-place

restrictions.⁸ With parks at capacity and gyms closed, city streets and sidewalks are vitally important spaces for city residents to exercise and enjoy outdoor recreation.

The Connection between Commuting, Education and Childcare

There is a direct link between the availability or delivery of education and childcare services, and the ability of parents to return to the workplace, and thus to the demands placed on the transportation system by commuters.

Excess Roadway Capacity Encourages Speeding

Regionally, vehicular traffic is down by as much as 80% on highways and streets.⁹ This has allowed drivers to speed at exceptionally dangerous speeds and to not follow traffic signs due to mostly empty roads.¹⁰

Reduced Travel has Improved Air Quality

Dramatic reductions in vehicular travel have reduced emissions and pollutants that impact air and water quality. (See “Air Pollution and Environmental Injustice” callout box.) As transportation-related emissions represent roughly one-third of the pollution, that has a variety of negative impacts on our most vulnerable residents. COVID-19 has hit hardest those with pre-existing conditions such as lung disease, and it is imperative that reopening not result in a return to pre-pandemic air quality.

⁸ WABA Survey. 2020.

⁹ Forbes reference

¹⁰ WTOP reference

Air Pollution and Environmental Injustice

Although African Americans make up only 47% of the District's confirmed COVID-19 cases, they comprise 80% of the people who died from the virus. While it is well understood that a number of factors (including that working in "essential jobs" makes it difficult to practice social distancing) have rendered the virus to be "not an equalizer, but a magnifier of inequality," the linkage with air pollution is only now beginning to be appreciated.

Recently, the Harvard School of Public Health found that people who live in areas with high levels of air pollution are more likely to die from the virus than are people who live in less polluted areas; and that within those areas, the neighborhoods likely to be hit hardest are poor neighborhoods and communities of color. This is because a lifetime of breathing dirtier air makes residents more susceptible to disease such as asthma, which can in turn render them more susceptible to severe impacts from the virus.¹ DOH reports that Wards 6, 7 and 8 have the District's highest rates of adult and pediatric asthma.

Vehicle emissions are one of the District's primary sources of poor air quality. It is therefore not surprising that while the Region stayed at home, air quality dramatically improved. According to COG, between March 13 and April 16 of this year, the District had only two "code yellow" days. Over the same period in 2019, it had 14 "code yellow" days.

Given that air pollution causes disproportionate levels of lung disease in communities of color, that COVID-19 is a lung-based epidemic that also disproportionately impacts communities of color, and that vehicles are a major contributor to the District's poor air quality, it is imperative that we re-think how we commute to work and play, as returning to business as usual will cause pollution to rebound.

All the Subcommittee's recommendations (such as converting roadways into spaces for biking and walking), which would also facilitate the District's achieving its air quality and carbon reduction goals, depend on reducing the numbers of vehicles on District roadways. At the same time, AAA predicts that as residents returning to work look to avoid busy public transport, the number of commuters driving alone to work will not only increase, it could top all previous high water marks. In any event, personal vehicles are expected to remain a part of the District's transit landscape. In 2017, the District had over 300,000 registered private vehicles. Every weekday, the District's population swells by 560,000 people due to the influx of commuters. This could climb to 720,000 by 2032 if commuting patterns hold.²

A resolution might lie in the District's reducing the numbers of polluting vehicles on District roads. The Mayor might call for a ban on fossil-fuel burning vehicles in the District within 20 years, an objective to which most world leaders have committed.³ And/or she could implement immediate, intermediate and long-term measures such as:

*Day 1: committing to signing legislation mandating EV-Readiness in new construction and substantial renovations, as Chicago just did; calling on private partners such as Uber and Lyft, to devise means of incentivizing electrification of shared vehicle fleets (for example, permitting customers to choose EVs)

**Intermediate: Incorporating EVs into the District's 5-year capital plan; and using stimulus dollars to electrify core nodes of downtown, linking street lights/WiFi/EV charging stations/e-bikes; and

***Long-term: Imposing congestion pricing, like New York is doing.

¹ Xiao Wu, et al., A National Study on Long-Term Exposure to Air Pollution and COVID-19 Mortality, updated April 24, 2020, Harvard T.H. Chan School School of Public Health.

² DC Clean Transportation Initiative, November 4, 2019 Letter to Jeff Marootian, DDOT, and Tommy Wells, DOEE, pp. 2, 6.

³ Dan Neil, [Coronavirus-got-rid-of-smog-can-electric-cars-do-so-permanently](#), April 10, 2020, Wall Street Journal.

CHALLENGES

Transit Challenges

Transit presents a set of difficult challenges. Since transit is one of the most equitable forms of transportation, and the one relied on most by our frontline essential workers and those with the most serious financial constraints, ensuring its continued and effective operations are critical. The challenges related to social distancing in transit vehicles are substantial. With each person requiring roughly 50+ square feet to maintain recommended social distance, maximum capacities for bus and rail cars will be drastically reduced. The need to manage the demand for transit to match that diminished capacity means coordination with major employers and clear communications to the traveling public about where they might expect to find crowding and delays, so they can make other travel arrangements.

The committee recognizes the difficulty of providing safe and reliable transit service at this time. We are cognizant of the risks and concerns of the transit workers and traveling public. However, we recognize transit is a key means of connecting essential workers with their necessary jobs. Current proposals for continued, limited service deny workers affordable options to get to their workplace. WMATA should explore creative means of providing basic, needed service such as skip-stop service; turning around trains in the core to provide more frequent headways without adding additional trains; shorter, more frequent trains if additional separation can be provided between operators and riders; and on-demand surface options that provide parallel routes if rail volumes are too low to justify operation. Given the impacts of reduced demand on other types of mobility, WMATA should work now with other mobility providers to pilot creative options and experiments to provide affordable options under the transit (and commute benefits) umbrella.

Scaling up hours to stay ahead of demand is necessary to both balance demand and safety. Metro rail and bus service are needed not just for those with the option to telework, but for those who protect and serve our region.

Uncertainty

There are many aspects of COVID-19 still unknown, including the mechanisms by which it affects those infected, and whether it will mutate or return after the peak infection has passed. That makes prevention of infection a great concern for many residents and an ongoing priority as we seek to describe how we may begin to move past the current Stay-at-Home Order. The economic impacts of prolonged closures have already affected the decisions of some business owners to permanently close, while job losses in the overall economy are unprecedented.

Many businesses that do manage to get through this initial closure period may not survive another prolonged round of closures a few months from now. This suggests we move

cautiously forward in stages, with health monitoring, population-based testing, and possibly encouraging widespread use of opt-in apps that can assist in contact tracing. These apps can inform users of crowded places to avoid, especially at peak use periods. For instance, Apple and Google have announced new systems and app interfaces to track potential cases of COVID-19 through Bluetooth Low Energy signals, allowing for retroactive exposure notifications while using encrypted keys to preserve non-exposed users' privacy.¹¹ The companies have pledged to discontinue the system as soon as the public health crisis has passed.

REOPENING GUIDANCE AND PREPARATION

PRIORITIZATION AND PHASING OF SECTORS

- **Initial Round:** Preparations need to immediately begin to establish a safety culture with visible indicators of the infection-preventing practices and modifications in every place that serves the public. A transportation certification program should be established around safe practices including contactless entry and payment, regular disinfection, modifications to ensure social distancing, and required PPE for workers and customers. Additionally, telework should be continued to accommodate social distancing on transit and to decrease traffic congestion. Additionally, temporary public space projects should be implemented to support restaurants, walking and micromobility options. Specific initial round recommendations are contained in Figure 3 listed by numbers from the recommendation section of this report
- **Second Round:** A public information campaign should be rolled out based on the implementation of subcommittee recommendations, including those on transit, use of public space to safely expand restaurant capacity or create new food-serving amenities, permanent telework/staggered work schedules, expanded bike and pedestrian travel networks, safety certification, and trip and fare payment integration. Although these efforts are scalable, further consultation with stakeholders will be necessary to make temporary public space measures permanent and address expanding project scopes. Specific second round recommendations are contained in Figure 3 listed by numbers from the recommendation section of this report.
- **Third Round:** The focus should be on implementing long-term strategies to mitigate future pandemic outbreaks from significantly disrupting the District's transportation and

¹¹ Brandom, Russell. The Verge. 2020. "Apple and Google show what their exposure notification system could look like." <https://www.theverge.com/2020/5/4/21246512/apple-google-code-sample-ui-ios-android-contact-tracing-exposure-notification>

infrastructure functions. This includes more robust safety nets regarding residents’ ability to continuously access basic utilities in the event of job loss and permanent solutions preventing major transit and traffic disruptions jeopardizing residents’ safe access to employment, food, exercise, and medical care. Specific third-round recommendations are contained in Figure 3 listed by numbers from the recommendation section of this report.

Figure 3. Proposed Prioritization and Phasing

Initial Round	Second Round	Third Round
<p>Public Space: 1, 2, 2i, 2ii, 2iii, 2v, 3, 4, 7, 10, 11, 13, 14</p> <p>Transit: 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29</p> <p>Shared and Micro Mobility and For-Hire: 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46</p> <p>Airline: 48, 48i, 48ii, 48iii, 48, 49</p> <p>Roadways: 51, 51i, 51ii, 51iii, 51iv, 52, 58</p> <p>Utilities: 67, 67i, 67ii, 67iii, 67iv, 67v, 67vi</p>	<p>Public Space: 1, 2, 2i, 2iii, 2iv, 2v, 2vi, 5, 6, 7, 8, 9, 12, 13, 14</p> <p>Transit: 27, 28, 29, 39</p> <p>Shared and Micro Mobility and For-Hire: 32, 33, 42</p> <p>Airline: N/A</p> <p>Roadways: 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63</p> <p>Utilities: 64, 65, 66, 67, 67i, 67ii,</p>	<p>Public Space: 1, 2, 2i, 2iii, 2iv, 2v, 2vi, 5, 7, 8, 10, 11, 12, 13, 14</p> <p>Transit: 27, 29</p> <p>Shared and Micro Mobility and For-Hire: 32, 33</p> <p>Airline: N/A</p> <p>Roadways: 52</p> <p>Utilities: N/A</p>

	67iii, 67iv, 67v, 67vi, 68, 68i, 69ii	
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Potential Metrics

The recommendations presented in this report must be implemented, measured, fine-tuned, embraced, or abandoned based on whether measurable results are being achieved. To guide this performance management process, the following key performance metrics may be helpful:

<ul style="list-style-type: none"> • Traffic patterns 	<ul style="list-style-type: none"> • Transit patterns
<ul style="list-style-type: none"> • Neighborhood and citywide activity 	<ul style="list-style-type: none"> • Pedestrian and bicycle density and patterns
<ul style="list-style-type: none"> • Changing mode choice 	<ul style="list-style-type: none"> • Tax revenues from restaurants, bars, venues
<ul style="list-style-type: none"> • Access to jobs and daily needs for areas/households that are now low access 	<ul style="list-style-type: none"> • Airline capacities at Ronald Reagan and Dulles airports
<ul style="list-style-type: none"> • Percent of residents within 20-minute walk of grocery 	<ul style="list-style-type: none"> • Percent of residents, workers, and visitors within 5-minute walk to micromobility
<ul style="list-style-type: none"> • Percent of residents without internet access 	<ul style="list-style-type: none"> • Percent of residents without internet devices
<ul style="list-style-type: none"> • Number of residents with utility disconnects 	<ul style="list-style-type: none"> • Number of residents with unpaid bills greater than 60 days
<ul style="list-style-type: none"> • Percent of sidewalk blocks expanded 	<ul style="list-style-type: none"> • Miles of protected bike lanes installed

<ul style="list-style-type: none"> • Percent increase in bikeshare ridership 	<ul style="list-style-type: none"> • Percent change in Metrorail ridership
<ul style="list-style-type: none"> • Percent increase in scooter ridership 	<ul style="list-style-type: none"> • Percent change in Metrobus ridership
<ul style="list-style-type: none"> • Percent increase in Metrorail headways 	<ul style="list-style-type: none"> • Percent increase in Metrobus headways
<ul style="list-style-type: none"> • Percent change in rideshare ridership 	<ul style="list-style-type: none"> • Percent change in taxi ridership

MITIGATION AND GUIDELINES FOR REOPENING

Social distancing is the primary strategy for ensuring an individual does not contract COVID-19. Our transportation infrastructure, however, is one of the most difficult sectors for maintaining social distancing. Transit is particularly problematic since its primary purpose is to move massive amounts of people in the most efficient way possible. Carpools, commuter buses, taxis, and ridesharing are also negatively impacted due to people being less than six feet from each other. The need for distancing will undoubtedly result in increased traffic congestion, as people potentially opt to drive more, unless mitigation methods are implemented.

To address transit social distancing issues and others such as the need to reallocate public space, the committee focused on recommendations to mitigate this issue such as increased telework, staggered work hours, sidewalk expansions, repurposed roadways, and more frequent headways for buses and rail. Specific recommendations related to reopening mitigation and guidelines are provided in Figure 3 and the recommendation section of this report.

Figure 3. Proposed Round 1 Mitigation and Guidelines by Sector

Sector	Stakeholder	Mitigation Guidelines
Neighborhood/ Hyperlocal (pedestrians, bikeshare, micro-mobility)	Individuals	<ul style="list-style-type: none"> • Require social distancing of six feet. • Require facial coverings for pedestrians, bikers, and micromobility users.
	Businesses	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for pedestrians, bikers, and micromobility users. • Sanitize micromobility devices frequently. • Aggressively communicate resident expectations, systems capacity limits and actions taken to ensure their safety.
	Other Stakeholders	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for pedestrians, bikers, and

*Transportation and Infrastructure Committee submission
to the Steering Committee for its recommendations to the Mayor*

Sector	Stakeholder	Mitigation Guidelines
		micromobility users.
Citywide (i.e., local buses, subways, taxis, rideshare, bikeshare)	Individuals	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for pedestrians, bikers, and micromobility users. • Provide a tax incentive for reducing car ownership (e.g., Cash for Clunkers).
	Businesses	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for pedestrians, bikers, and micromobility users. • Sanitize vehicles and stations frequently. • Provide appropriate PPE for transit workers — including non-porous shielding for drivers. • Undertake small-scale capital projects such as installing virus-blocking films and coatings. • Block seating to physically ensure passengers are socially distant. • Restrict bus access to back door entry and exit. • Aggressively communicate passenger expectations, systems capacity limits and actions taken to ensure passenger and worker safety. • Implement mobile ticketing/payment for transit use, parking, and other modes of transportation. • Work with other transportation services to provide access when transit services and capacities are limited and use apps/text messages to advise riders of possible crowded conditions, so they avoid those stations. • Coordinate with OPM and other large employers to manage peak transit demand through flexible employee work schedules, telework, and alternative work locations. • Encourage employers to extend their commuter benefit subsidy to employees that walk and/or bike to work. • Encourage employers to continue offering telework and flexible work schedules to their employees to decrease peak rush hour traffic.
	Other Stakeholders	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for pedestrians, bikers, and micromobility users.
Regional (i.e., passenger buses, trains, planes)	Individuals	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for riders of trains and planes. • Use Destination DC materials to understand and observe new DC safety norms and follow recommendations of sites and venues to enjoy with appropriate distancing, and new or modified open air facilities.

Sector	Stakeholder	Mitigation Guidelines
	Businesses	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for riders and evaluate use of non-invasive temperature scanning at Amtrak, VRE, MARC and airports. • Sanitize vehicles and stations frequently. • Provide appropriate PPE for transit workers— including non-porous shielding for drivers. • Provide facial coverings to riders, as needed. • Undertake small-scale capital projects such as installing virus-blocking films and coatings. • Block seating to physically ensure passengers are socially distant. • Restrict bus access to back door entry and exit. • Aggressively communicate passenger expectations, systems capacity limits and actions taken to ensure passenger and worker safety. • Implement mobile ticketing/payment for transit use, parking, and other modes of transportation. • Work with other transportation services to provide access when transit services and capacities are limited and use apps/text messages to advise riders of possible crowded conditions, so they avoid those stations. • Coordinate with OPM and other large employers to manage peak transit demand through flexible employee work schedules, telework, and alternative work locations. • Work closely with the regional airports authorities to ensure best practices are being followed to manage and screen passengers. • Participate in Amtrak’s planning around service provision and the means that will be employed to ensure passenger and crew safety. • Ensure MARC and VRE plans for rail passenger and crew safety are consistent with those of Amtrak and WMATA. • Coordinate with intercity bus providers to create and enforce standards for ensuring passenger and crew safety. • Develop and communicate expectations for tour buses that visit Washington. • Facilitate safe, affordable and clean-fuel transit options to relieve demand on Metro and buses. • Facilitate visitors arriving by car to “park once” in facilities near hotels and lodging.
	Other Stakeholders	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Destination DC should develop materials to describe new DC safety norms, create DC-branded PPE to make widely

Sector	Stakeholder	Mitigation Guidelines
National/ International (i.e., passenger buses, trains, planes)		available, make recommendations of sites and venues to enjoy with appropriate distancing, and new or modified open-air facilities.
	Individuals	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for riders for riders of trains and planes. • Provide a tax incentive for reducing car ownership (i.e., Cash for Clunkers).
	Businesses	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings for riders and evaluate use of non-invasive temperature scanning at Amtrak, VRE, MARC and airports. • Sanitize vehicles and stations frequently. • Provide facial coverings to riders, as needed. • Undertake small-scale capital projects such as installing virus-blocking films and coatings. • Block seating to physically ensure passengers are socially distant. • Restrict bus access to back door entry and exit. • Aggressively communicate passenger expectations, systems capacity limits and actions taken to ensure passenger and worker safety. • Implement mobile ticketing/payment for transit use, parking, and other modes of transportation. • Work with other transportation services to provide access when transit services and capacities are limited and use apps/text messages to advise riders of possible crowded conditions, so they avoid those stations. • Coordinate with OPM and other large employers to manage peak transit demand through flexible employee work schedules, telework, and alternative work locations. • Work closely with the regional airports authorities to ensure best practices are being followed to manage and screen passengers.
	Other Stakeholders	<ul style="list-style-type: none"> • Require social distancing of six feet, where possible. • Require facial coverings.

Compliance Recommendations

Steps and processes taken to address this public health emergency will necessitate changes to our transportation system to support a “new normal” for an undetermined amount of time.

Therefore, to ensure the safety of our residents, workers, and visitors, we should ensure awareness, understanding and compliance.

Neighborhood/Hyperlocal

- Create neighborhood communication campaign (in various languages) to communicate passenger expectations, systems capacity limits, and actions taken to ensure passenger and worker safety.
- Use extensive signage on roadways and public areas to remind people to social distance.
- Create “safe neighbor” program to assist seniors and residents with underlying medical conditions in obtaining groceries, medicines and access to medical appointments.

Citywide

- Create District communication campaign to communicate passenger expectations, systems capacity limits, and actions taken to ensure passenger and worker safety.
- Employ “helpers” to remind people to social distance while traveling.
- Use extensive signage in transportation areas to remind people to social distance, wear facial coverings, wash their hands for 20 seconds, cover their mouths when coughing, etc.
- Reinforce current public health guidance that encourages eating outdoors.
- Enhance data collection capacity along corridors targeted for right-of-way reallocation to capture utilization going forward.

Regional

- Create regional communication campaign to communicate passenger expectations, systems capacity limits, and actions taken to ensure passenger and worker safety.
- Employ “helpers” to remind people to social distance while traveling.
- Use extensive signage in transportation areas to remind people to social distance, wear facial coverings, wash their hands for 20 seconds, cover their mouths when coughing, etc.

National/International

- Create national communication campaign to communicate passenger expectations, systems capacity limits, and actions taken to ensure passenger and worker safety.
- Employ “helpers” to remind people to social distance while traveling.

- Use extensive signage in transportation areas to remind people to social distance, wear facial coverings, wash their hands for 20 seconds, cover their mouths when coughing, etc.

Innovations

Sector	Recommendation
WiFi	<ul style="list-style-type: none"> • Use existing transportation infrastructure to expand WiFi, including District-owned utility poles, bus stops, Capital Bikeshare stations, and Pepco utility poles.
Public Space	<ul style="list-style-type: none"> • Identify select streets to close off to cars and convert to outdoor seating or retail use for restaurants, nightlife, and retail stores. This additional space will give space-starved restaurants, bars, and retail the capacity needed to stay open and generate revenue. • Prioritize street conversions to highest foot traffic areas first. • Encourage local deliveries of food and other goods by bicycles (electric bike and cargo bike) through subsidy programs. • Greatly expanded temporary use of sidewalks, parking lanes, roadway lanes, edges of public parks and open spaces to provide expanded options for pick-up and for open air seating for adjacent restaurants. • Use food trucks and hand washing stations to bring amenities to every neighborhood to prevent the need for residents to travel by any method other than by foot. • Use Apple/Google apps to inform users of crowded spaces to avoid due to lack of social distancing.
Transit	<ul style="list-style-type: none"> • Implement more dedicated bus lanes – improves efficiency and turnaround time. • Invest in contactless entry and fare payments. • Create integrated mobility options, bundled with transit, for a single weekly or monthly fare.
Open Streets	<ul style="list-style-type: none"> • Build citywide networks to encourage active transportation and space for physical exercise. • Establish expanded sidewalks through travel lane conversion on bridges to promote physical distancing, especially Anacostia River crossings (Sousa, East Capitol, Frederick Douglass, and Benning Road Bridges). • Reprogram curbside lanes for e-scooter/bike lanes along major corridors focused on trips to major employment centers, essential goods and services, and medical providers. In bus corridors, consider some combined bus/bike-only lanes.

Multimodal Transit	<ul style="list-style-type: none"> • Continue free Capital Bikeshare service for essential workers. • Promote bike ownership and maintenance through free or subsidized bike programs for low-income residents, support local bike shop capacity, bike mechanic training program, tax rebates, and other efforts. • Permit dockless e-bike and e-scooters to increase fleet size for anticipated demand. • Encourage use of clean-fuel private/shared vehicles to decrease air pollution and protect vulnerable people from more adverse effects related to COVID-19. • Expand the Capital Bikeshare system with additional stations and increased electric bike fleet. • Convert existing on-street "bicycle route" system to shared street network with rapid implementation of signage, barriers and traffic calming with a target speed of 10 mph or less. • Accelerate the installation of temporary protected bike lanes. • Expand the DC trail network through strategic park road closures, street connection to address missing links and parallel streets to increase capacity needed for physical distancing. • Create integrated mobility and bundled trips/fare payments, through WMATA. • Allow taxis to deliver food and packages to increase usage.
Utilities	<ul style="list-style-type: none"> • Ensure access to basic services (water, sewer, electricity, gas, internet), while also determining and planning financial impact to utilities/providers.
Roadways	<ul style="list-style-type: none"> • Reduce speed on local arteries from 25 mph to 20 mph to protect more people walking in streets due to social distancing. • Identify corridors for the rapid implementation of traffic calming tactics (four-way stops, chicanes, neckdowns, etc.) to reduce speeding and increase safety.

EQUITY CONSIDERATIONS FOR REOPENING

The pandemic has heightened the need to be able to ensure immediate and equitable access for all to essential services (electric, gas, water, internet, and transit), while also ensuring provision of such services is sustainable over the long term. With families forced to stay at home, it is even more critical than usual to ensure basic services are available to enable continued education for young people, the ability to work remotely to sustain income, and a hygienic and a safe home environment. Implementation of all considerations will be executed under the lens of equity to prioritize more just policies and programs for the District’s most socially and economically vulnerable residents. Included are strategies to better adapt our

transportation and infrastructure system to mitigate economic and public health concerns for all.

Figure 4. Equity Considerations for the Proposed Round 1 Mitigation and Guidelines

Vulnerable Population	Equity Considerations
Healthcare workers, first responders, and other essential workers in contact with the public	<ul style="list-style-type: none"> • Provide faster, safer trips to work for essential and critical workers. • Plan expansions of mobility infrastructure around increased access to jobs, daily needs (e.g., food), etc.
Non-essential workers in high contact jobs	<ul style="list-style-type: none"> • Provide faster, safer trips to work for non-essential workers in high contact jobs. • Plan expansions of mobility infrastructure around increased access to jobs, daily needs (e.g., food), etc.
Older adults living in nursing homes	<ul style="list-style-type: none"> • Enhance DFHV’s MedExpress and Transport DC services. • Enhance WMATA’s MetroAccess service.
Racial and ethnic minorities (including the Black LGBTQ community)	<ul style="list-style-type: none"> • Provide subsidies to ensure access to affordable bikeshare and transit services. • Expand transportation options to neighborhoods with high percentage of racial and ethnic minorities. • Ensure passengers have the banking/credit arrangements and devices and data plans to use contactless entry and transaction options for accessing transportation.
Immigrant and refugee populations	<ul style="list-style-type: none"> • Provide subsidies to ensure access to affordable bikeshare and transit services. • Expand transportation options to neighborhoods with high percentage of racial and ethnic minorities. • Ensure passengers have the banking/credit arrangements and devices and data plans to use contactless entry and transaction options for accessing transportation.
Justice-involved populations	<ul style="list-style-type: none"> • Provide subsidies to ensure access to affordable bikeshare and transit services. • Ensure passengers have the banking/credit arrangements and devices and data plans to use contactless entry and transaction options for accessing transportation.
People experiencing homelessness	<ul style="list-style-type: none"> • Provide subsidies to ensure access to affordable bikeshare and transit services. • Provide access to safe, clean bathrooms as well as necessities such as food and potable water, especially

	hand washing stations.
Low-income households	<ul style="list-style-type: none"> • Enhance DFHV’s MedExpress and Transport DC services. • Enhance WMATA’s MetroAccess Service. • Provide subsidies to ensure WiFi connectivity for accessing employment, education, and non-emergency medical care. • Provide subsidies to ensure access to affordable bikeshare and transit services. • Expand transportation options to neighborhoods with high percentage of low-income households. • Ensure passengers have the banking/credit arrangements and devices and data plans to use contactless entry and transaction options for accessing transportation. • Provide devices to connect to WiFi to access employment, education, and non-emergency medical care.
Residents with a multitude of chronic medical conditions	<ul style="list-style-type: none"> • Enhance DFHV’s MedExpress and Transport DC services. • Enhance WMATA’s MetroAccess Service. • Take steps to reduce air pollutants which disproportionately affect communities of color and exacerbate impacts of COVID-19.
People with disabilities and living in state institutions, group homes, and other congregate settings	<ul style="list-style-type: none"> • Enhance DFHV’s MedExpress and Transport DC services. • Enhance WMATA’s MetroAccess service. • Ensure delivery of essential goods and services to those who are unable to walk up to 20 minutes to obtain goods.
Small businesses and non-profits that primarily support underserved communities	<ul style="list-style-type: none"> • Provide technical assistance to make modifications to service and to obtain safety certifications and PPE.

PREPARATION AND RESOURCES NEEDED FOR REOPENING

The recommendations presented in this report for the initial round of reopening must be supported, in many cases, with supplies, legislation, and workforce changes. Failure to adequately plan for implementation will result in the failure of the city's reopening. To guide the reopening process, the following sections provide more detailed requirements surrounding several recommendations.

Testing, PPE, and Other Supply Recommendations

The committee recognizes many recommendations require COVID-19 testing, PPE and other supplies prior to implementation. Therefore, these recommendations (indicated by mode and number) have been listed below to assist those who need to procure the necessary supplies.

Legislative, Regulatory, and Policy Recommendations

The committee recognizes some recommendations may require legislative or policy changes. Therefore, requirements to ensure regulatory authority and policies have been indicated below to assist those who need to develop the necessary documents.

- Modified use of Public Space for retail purposes may require legislation. (See DC Code 10-1102.01; DC Code 10-1141.02.
- Additional considerations to shield or limit liability of businesses operating in the public space should be considered in legislation.
- Reduced Speed Limits and other traffic modifications could be done through emergency rulemaking, and DDOT has drafted — but unpublished — rulemaking to reduce speed limits on local roads from 25 mph to 20 mph. (Please note there has been some history with the Council on modifying speed limits without their approval. See section 105 of the Safety-Based Traffic Enforcement Amendment Act of 2012, effective May 1, 2013 (DC Law 19-307; DC Official Code 50-2201.33.)
- Any signs installed to notify the public of a change in traffic patterns or parking requirements would normally need to go through requirements specified in DC Code 2-502(6)(B), including providing ANCs 30-day notice and great weight for any recommendations. However, DC Code 7-2304, as amended by the COVID-19 Emergency Amendment Act of 2020, effective March 17, 2020 (D.C. Act 23-247; 67 DCR 3093), should be interpreted to allow DDOT to provide a more streamlined process, to be determined by the Director, for community input during this phased reopening.
- Installation of Wireless Access Points on DC-owned streetlight poles would require approval from the Street Light Division in DDOT and a construction permit from the Public Space Regulations Division.
- Integrating mobility options, bundled with transit, would probably require legislation to establish a special purpose fund and to impose standards and specifications, if the

District were to take on a leadership role. Otherwise, a contract would be required for an outside vendor to perform this function.

- Implementation of congestion pricing would require Council review. Current law requires at least one lane of traffic on a street with managed lanes to be free of charge. See DC Code 50-921.04(a)(1)(G).
- All other recommendations can be implemented through Mayor’s Order, through the duration of the phased reopening.
- The Subcommittee recommendations include, *inter alia*, the required use of facial coverings in public spaces. This recommendation should be weighed with First Amendment considerations, including the restriction on freedoms of speech and assembly.

Workforce Changes and Needs

Telework, alternative work schedules (AWS), and staggered work hours are major recommendations being championed to support transportation social distancing. These workforce changes, which we encourage the government and private organizations to make permanent, if possible, require increased supervision, laptops/tablets, internet connectivity, enhanced parking plans and focused employee schedule management. However, the public safety dividends are worth the extra effort.

Figure 5. Necessary Preparation and Resources by Sector

Sector	Preparation and Resources
Public Space	<ul style="list-style-type: none"> • Preparation consideration: Reduce number of people in public space at same time to support social distancing • Resources: Telework, AWS, and staggered work hours • Government regulation: Government and business policies • Workforce Changes and Needs: Laptops/tablets and internet connectivity
Regional Transit	<ul style="list-style-type: none"> • Preparation consideration: Reduce number of people who need to take transit or need to take it at the same time to eliminate crowding to support social distancing • Resources: Telework, AWS, and staggered work hours • Government regulation: Government and business policies • Workforce Changes and Needs: Laptops/tablets and internet connectivity
Shared and Micromobility and For-Hire	<ul style="list-style-type: none"> • Preparation consideration: Reduce number of people who need to take shared rides or need to take them at the same time to eliminate too many people in vehicle to support social distancing • Resources: Telework, AWS, and staggered work hours • Government regulation: Government and business policies • Workforce Changes and Needs: Laptops/tablets and internet connectivity
National and International	<ul style="list-style-type: none"> • Preparation consideration: Reduce number of people who need to commute or who need to commute at the same time to eliminate air pollution and crowding

Transportation	<p>at businesses/events to support social distancing</p> <ul style="list-style-type: none"> • Resources: Telework, AWS, and staggered work hours • Government regulation: Government and business policies • Workforce Changes and Needs: Laptops/tablets and internet connectivity
Roadways	<ul style="list-style-type: none"> • Preparation consideration: Reduce number of people who need to commute or who need to commute at the same time to eliminate air pollution and crowding at businesses/events to support social distancing • Resources: Telework, AWS, and staggered work hours • Government regulation: Government and business policies • Workforce Changes and Needs: Laptops/tablets and internet connectivity

COMMUNICATION AND SIGNAGE

Public communication, by way of signage, radio ads, commercials, public service announcements, social media, public outreach, and other methods play a significant role in mitigating the spread of COVID-19. Therefore, it is recommended signage be used on transit (rail and bus), sidewalks, roadways and at airports to remind District residents, workers, and visitors about CDC guidelines related to preventing COVID-19.

ISSUES FOR FUTURE PHASES

CONSIDERATIONS FOR FUTURE ROUNDS OF REOPENING

The recommendations section of this report provides items for consideration in the second and third rounds of reopening. Figure 3 summarizes these recommendations.

CONSIDERATIONS FOR RECOVERY

The recommendations section of this report provides items for consideration in the second and third rounds of recovery. Figure 3 summarizes these recommendations.

RESEARCH, RESOURCES, AND REFERENCES

RESEARCH AND RESOURCES

Presentations and Resources

District Department of Transportation's MoveDC bicycle lane network locations.

Transportation and Infrastructure Committee submission
to the Steering Committee for its recommendations to the Mayor

PBL Overview			TOTAL: 24.89M	
PBL	Endpoint	Endpoint	# of Miles by 2022	Projected Delivery
P St SW	2nd St. SW	4th St. SW	0.21	2019
Franklin St NE	7th St. NE	10th St. NE	0.2	2019
Florida Ave NE	3rd St. NE	Staples St. NE	0.99	2019
6th St NE	K St. NE	M St. NE	0.22	2019
4th St/5th St NW	Howard Pl. NW	Harvard St. NW/Michigan Ave. N	0.36	2019
1st St SE	L St. SE	M St. SE	0.07	2019
K Street NE/NW	1st St. NE	7th St. NW	0.86	2020
1st St. SE/Potomac Ave.	I St. SE	South Capitol St. SE	0.69	2020
Crosstown (Irving St/Michigan/Kenyon)	Warder St. NW	Harewood Rd. NE	1.06	2020
20th/21st NW	Constitution Ave. NW	R St. NW	1.4	2020
G St. NW	17th St. NW	Virginia Ave. NW	0.68	2020
4th St. SW	Independence St. SW	I (Eye) St. SW	0.57	2020
Harry Thomas Way NE	Eckington St. NE	R St. NE	0.27	2020
New Jersey Ave SE	E St SE	Eye St SE	0.28	2020
Water St. NW	34th St. NW	Capital Crescent Trail	0.17	2020
8th St. NE	Edgewood St. NE	Monroe St. NE	0.47	2021
Monroe St. NE	Michigan Ave. NE	12th St. NE	0.38	2021
17th St. NW	K St. NW	New Hampshire Ave. NW	0.86	2021
Warder St. NW/7th St. NW	Columbia Rd. NW	New Hampshire Ave. NW	0.76	2021
Park Pl/5th St. NW	Kenyon St. NW	Grant Circle	0.83	2021
4th St SW/NW	Independence St. SW	Pennsylvania Ave. NW	0.31	2021
Malcolm X Trail (tentative name)	S. Capitol St/MLK Jr Ave. SE	St. Elizabeth's Ave/Ash St SE	1.2	2021
Metropolitan Branch Trail	Bates Rd. NE	1st Pl. NE	0.45	2021
Virginia Ave. NW	Constitution Ave. NW	Rock Creek Parkway	1.08	2021
West Virginia Ave. NE	Mt. Olivet NE	Montana Ave. NE	0.6	2021
4th St SW	I (Eye) St. SW	P St. SW	0.5	2021
37th St. NW	Tunlaw Rd	Reservoir Rd, Winfield Ln	0.48	2022
Arizona Ave NW	Loughboro Rd. NW	MacArthur Blvd. NW	0.52	2022
Brentwood Parkway	6th St. NE/Penn St. NE	9th St. NE	0.22	2022
C St. NE	14th Pl. NE	22nd St. NE	0.51	2022
E St. NW	North Capitol St. NW	13th St. NW	1.11	2022
I (Eye) St. SW/SE	New Jersey Ave SW	7th St. SW	0.88	2022
Florida Ave./NY Ave. NE	Dave Thomas Cir; 1st, FL, O St	Dave Thomas Cir; 1st, FL, O St	0.81	2022
M St. SW/SE	6th St. SW	11th St. SE	1.53	2022
New Mexico Ave NW	42nd St, Tunlaw Rd	Nebraska Ave	0.76	2022
North Carolina Ave. NE	14th St. NE	C St. NE	0.25	2022
Pennsylvania Ave. NW	17th St. NW	22nd St. NW	0.55	2022
Pennsylvania Ave. SE	2nd St. SE	17th St. SE	1.33	2022
Tunlaw Rd, NW	42nd St, Tunlaw Rd	37th St	0.71	2022
West Virginia Ave. NE	K St. NE	Corcoran St. NE	0.61	2022
15th St. NW, RW Pl. SW, Ohio Dr. SW, E Basin Dr. SW	Pennsylvania Ave. NW	Jefferson Memorial	1.2	2022

Note: Green highlighting refers to the 2.05 miles of protected bikeways installed in 2019.

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Stakeholder Presentations

Jeff Marootian, District Department of Transportation

Max Brown, Events DC

Willie I. Phillips, Public Service Commission (PSC)

Dustin S. Brown, Office of Management and Budget (OMB)

Greg Billing, Washington Area Bicyclists Association (WABA)

David Alpert, DC Sustainable Transportation (DCST)

Ben Levine, MetroLab Network

Yil Surehan, Metropolitan Washington Airports Authority

Laura Mason, Washington Metropolitan Area Transit Authority (WMATA)

Beverley Swaim-Staley, Union Station Redevelopment Corporation

John Townsend, American Automobile Association (AAA)

Joe McAndrew, Greater Washington Partnership (MetroNow Coalition)

Rachel Maisler, D.C. Bicycle Advisory Council

Maureen Holman, DC Water