Montgomery County Department of Transportation
Comprehensive Bus Network Study
"Ride On Reimagined"

INTRODUCTION

Montgomery County's Ride On bus system has been operating for over 40 years, providing a critical mobility option for people who live and work in the county. Over time, Ride On's route structure has grown in response to changing demographic and land use. As the County continues to see changes in population, demographics, employment centers, and housing, it is time for a comprehensive evaluation of the system, particularly given changes that are anticipated from the COVID-19 pandemic.

The Ride On Reimagined Study is a comprehensive forward-looking assessment of the bus network that may result in significant recommended changes to how transit operates in Montgomery County based on future and current needs. This study will take an in-depth look at Montgomery County's entire existing and planned transit system, including Metrobus services that operate within the County limits and the future Purple Line. The study would also provide an opportunity to guide the future direction of Ride On through data analysis and community engagement. The study will have a primary goal of recommending system-wide changes that address the current and future needs of the community it serves for both Ride On and Metrobus services.

The study will examine the current conditions and anticipated future of Ride On's service area, and will engage community leaders, activists, transit riders and support organizations to form a foundation of travel options. A full evaluation will be conducted to evaluate route structure, connectivity, span, and frequency of service through market research and analysis, review of land use development and anticipated technology advancements. The study will also address the County priorities to improve racial equity and prevent climate change. The image of transit services is important to attract riders; therefore, an internal and external evaluation of Ride On's brand will be examined. In conclusion, the study will set the framework for a plan with recommendations and implementation strategies that best align with the goals of our overall transportation network.

Several efforts to improve and expand services for current and future bus riders are already underway. The plan will provide standards and objectives that will evaluate service quality by route level and service types.

EXISTING CONDITIONS

This study will include an evaluation of Ride On's current and pre-Covid conditions. A detailed description of its current conditions would include the following tasks:

1. Evaluate service area and route alignments within the County limits as well as surrounding jurisdictions, such as, Prince George's County and District of Columbia.
2. Compile ridership data of current services from AVL/APC data, survey data, performance data and various database files related to service performances.
3. Evaluate Passenger Facilities amenities to include bus stop, bus shelter, knee walls, bus station locations, park and ride lots and bus operator restrooms.
4. Evaluate the Realtime (Trip Planner), CAD/AVL and Fareboxes. Describe the condition, usage, and viability of the services.
5. Evaluate Origin-Destination patterns to include first/last mile connections.
6. Evaluate overall performance using a matrix that includes the following service standards and comparison to best industry practice with established peer groups that align with our service size and levels
   a. Frequency
   b. Span of Service policy to include routes that operate all day, peak period, and late nights.
   c. Route classification to include fixed routes, limited stop, express service, and on-demand service.
   d. Current fare structure and future proposed fare structure
   e. On-Time performance
   f. Missed Trips
   g. Full Buses
   h. Rider Complaints
   i. Vehicle Load Factor

7. Evaluate service coverage within County limits. This is an opportunity to evaluate the local and regional services holistically regardless of the provider; specifically Ride On and WMATA. Determine the applicable roles and classifications of these service.
    a. Ride On – Local service
    b. ExtRa – Limited Stop service
    c. Flash – BRT
    d. Flex – On demand service
    e. WMATA - Metrobus
    f. MTA/Commuter Bus service
    g. Shuttle UM
    h. Bethesda Circulator
    i. WMATA Metrorail (coverage)
    j. Purple Line

POLICIES AND GUIDELINES

Service Standards are the backbone of a successful outcome. The establishment of renewed policies and improved standards will set the foundation of services being evaluated in the future for budgetary and planning decisions.
1. Review, establish and define service guidelines to guide how the system should be structured.   New guidelines can be established, or enhanced service classifications developed by WMATA with regional input.
    a. High Frequency
    b. Express
    c. Coverage
    d. Microtransit
2. Establish guidelines for headways and span of service; previous headway standards did not exceed 30 minutes on any route. Determine if this policy still applies in this new environment (post-COVID).
3. Evaluate the system's span of service per route. Determine a set policy for span of service by route structure or framework.
4. Set the framework for fare policies in the future. A separate study is being conducted that evaluates four scenarios to address pandemic recovery:
    a. Zero fares system wide

b. Zero fares during certain time of day

c. Reduced fares ($1)

d. Fares free or reduced for low-income population (means-based concept)

BUS NETWORK ASSESSMENT

Over time, there have been service expansions and new route designs that have catered to demand, demographic needs, and redevelopment. A significant part of this study will focus on reimagining the service through various lenses. These major focus areas include:

Market Analysis

1. Develop an Origin and Destination (O/D) analysis of travel patterns for Ride On and Metrobus services.
2. Identify a Transit Propensity Index (TPI) to determine the potential transit usage.
3. Review Traffic Analysis Zone (TAZ) within the service area.
4. Evaluate the overall system design to determine if the current structure meets the needs of our growing and expanding communities.
5. Evaluate current structure and how the various services can be integrated with Bus Rapid Transit (BRT)
    a. Determine system design for local bus service (both Ride On and Metrobus) and BRT services.
6. Review previous surveys conducted.
7. Evaluate the local colleges, schools, recreation centers, libraries, and major parks within the service area.

Land Use/Development/Transportation Plans

Various studies have been conducted over the past several years. It would be important to review previous studies to ensure the Ride On Reimagined Study is synchronized with overall plans for the County. The following plans should be included in evaluations:

1. Bethesda Transitway
2. Bus Fleet Management Plan
3. Bus Rapid Transit Corridors
4. Bus Transformation Study
5. CCT

6. Hot Lanes/I-270 Managed Lanes
7. Purple Line
8. Shared Streets/Bikeways
   a. Evaluate and review the Shared Streets program. Determine protocol for floating bus stops and pedestrian access.
   b. Evaluate locations that are being beta-tested for Bus Priority Lanes and recommend additional locations to include TSP, queue jumps, etc. as well as its impacts to the bus network.
   c. Examine where would bus lanes have the most impact on improving the overall system in terms of quality and reliability.
9. Thrive 2050
10. Montgomery County Climate Action Plan
11. Vision Zero
12. Great Seneca Science Corridor (GSSC)
13. Planning and Designing Streets to be Safer and More Accessible for People with Vision Disabilities
14. Master Plans
    a. Area Master Plans
    b. Sector Plans
    c. Functional Master Plans
15. Corridor Forward
16. Facility Planning Studies for various Transit Centers

Infrastructure

Amenities provide an opportunity to attract new riders and retain current riders through innovative technology and investments. It's important to understand the functionality of these programs.
1. Evaluate current bus garages and recommend expansion strategies to further support the plan.
2. Evaluate the complete program of Passenger Facilities to include bus stop and bus shelter program.
3. Become familiar and develop an understanding of the bus stop identification codes and assignments throughout the evaluation process of varying services.
4. Evaluate and determine best practices for information as well as real-time on the bus stop signs and bus shelters.

5. Evaluate the maintenance of the bus stops, bus shelters, bus stations, knee walls and bus operator restrooms.
6. Evaluate current agreements for Park and Ride Lots.
7. Determine current functions of transit centers and transit stations built for BRT services.
8. Consider the various nomenclatures that are currently used to define these transit centers.   These are locations not associated with a metro station and where at least three or more routes convene for transferability.
    a. Germantown Transit Center
    b. Lakeforest Transit Center
    c. Milestone Transit Center
    d. Traville Transit Center
    e. Westfield Montgomery Mall
    f. Boyds Transit Center
    g. White Oak Transit Center
9. Review and develop guidelines for bus stop placement as well as sidewalk access and crosswalks.
10. Evaluate and recommend best practice for communication of bus stop locations to aid with wayfinding.
11. Evaluation of bus shelters with monitors/real-time information and recommend inventory of all amenities utilizing existing resources and applications.
    a. Bus Stop/Shelter Inventory Study
    b. Bus Stop Database

Technology

There are several technology initiatives underway within the MCDOT Transit Division, and it will be important to understand the various projects and functionality. Upgrades to outdated systems, climate change, racial equity and customer information are some notable priorities for the County.

1. Establish an understanding of the new CAD/AVL system (Clever Device) and evaluate its functionality within the system.
    a. APC data
    b. Ridecheck Plus
2. Recommend a plan to transition to zero emissions buses, e.g., electric, battery electric buses and hydrogen fuel cell buses.

3. Develop a plan to best match routes with electric vehicle capabilities and infrastructure as well as technology that speaks to charging stations while in operations.
4. Evaluate established timeline to convert to zero emissions buses and provide guidance of electric grids.
5. Review off-board fare collection at BRT stations and provide an analysis of its productivity and advantages to the network.
6. Evaluate status of real-time information.
7. Evaluate best practice for real-time information deployment and accessibility to its users.
8. Explore vehicle automation.
9. Evaluate the expansion of on-demand services, e.g., flex or ollies.

Operations/Fleet

The essential elements to implementing a plan is how the service is delivered. It will be important to understand the operational structure.

1. Evaluate and recommend depot structure, operational efficiency and growth strategies especially given the move to zero-emission buses.
2. Evaluate the Standard Operating Procedures and compare to best practice in the industry.
3. Evaluate fleet types and service areas for racial equity.
4. Evaluate the functionality of the operational hierarchy and compare to industry best practices.
5. Plans are underway to evaluate Ride On's Safety and Training Program. It will be important to understand the process and review the plans when the project is completed. An assessment of the process and industry best practice should be part of the plan.
6. Suggest and recommend new innovative strategies to attract and retain bus operators using research and industry best practice as a guide.

Marketing

Another essential component to increase ridership and awareness is through a clear and concise message.

1. Evaluate the current perception and recommend rebranding options and guidelines

2. Evaluate the opinions of current users through customer satisfaction survey.
3. Evaluate current signage with recommendations for increased awareness.
    a. Wayfinding signage
    b. External communication to include bus stop signage
4. Evaluate maps and timetables and compare to peer groups with recommendations of further refinement.
5. Evaluate Division of Transit's webpage for the inclusion of pertinent information related to performance metrics, fares, routes, schedules, social media, and overall communication.
6. Evaluate current practices as it relates to accessibility of information.

STAKEHOLDERS

It will be important to establish a vision and seek input from stakeholders throughout the study. These stakeholders would be included in the initial stage to obtain guidance and structure. Continual updates at various stages of the project will be required. This list is not meant to be conclusive, and others can be added.

1. Executive Branch Agencies
2. County Council
3. Maryland-National Capital Park and Planning Commission (MNCPPC)
4. Local municipalities
5. Bus Operators/Shop Stewards/MCGEO
6. WMATA – Metrobus
7. Transit Advocacy Groups
8. Metropolitan Washington Council of Government (MWCOG)
9. Maryland Department of Transportation (SHA/MTA)
10. MCDOT Commuter Services/TDM
11. Montgomery County Chamber of Commerce
12. Montgomery County Public Schools
13. Health and Human Service Agencies
14. HOC and HOA Associations

PUBLIC ENGAGEMENT

Transparency will play an integral part to the success of this study. It will be imperative that open communication with stakeholders remain constant and the public engagement process is paramount.

1. Develop a public engagement plan that will strive for collaborative discussions.
2. Establish basic avenues to communicate via project website, social media, pop - up meetings to meet customers where they are commuting and Open Houses.
3. Establish public meetings with various transit advocacy groups, civic associations, community groups, etc.
4. A project team will be engaged throughout the entire process of the study. Therefore, defined deliverables shall be determined early in the process.
5. Develop outreach materials that provide meaningful access to its services with oral and written languages assistance. Translations shall be provided for all eligible languages that constitute 5% or 1,000 persons, whichever is less, of the total population being evaluated. Examples of some materials include:
   a. Maps
   b. Media advertisements
   c. Notices for distribution
   d. Project website
   e. Meeting agendas
   f. Powerpoint presentations
   g. Display boards
   h. Visual aids with appeal and clarity to various audiences
5. Provide meeting minutes of all engagements and attendance.

SERVICE CONCEPTS & RECOMMENDATIONS

The evaluation of the various components of this study should set the foundation to envision the possibilities of new service designs and options. Each task should be summarized with the goal of obtaining a concept plan. The tasks should be based on data leading up to this point in the study. This comprehensive approach should include Market Analysis, Land Use Development, Infrastructure, Technology, Operations, Marketing and Public Engagement.

1. Develop a menu of service concepts and alternatives

2. Each concept should describe in detail how it meets the goals and objectives of the study
3. Describe potential impacts to existing riders
4. Describe potential improvements to the overall system's performance
5. Describe financial impacts and determine if there is an opportunity for additional funding sources.
6. Title VI service equity analysis should be performed based on each recommended concept.
7. Each concept should be summarized with consistency for comparison purposes.
   a. Choice
   b. Details
   c. Outcome/Cost
8. Recommend the preferred concept and be descriptive and inclusive of all evaluation factors including both internal and external strengths and weaknesses.
9. Preferred concept should state if it can be implemented in phases or wholesale.
   a. Emphasis on key components will be required.
   b. Development of materials for public forum engagement will be required.
   c. Develop timeline for implementation.
   d. Develop a marketing plan to launch new service plan.