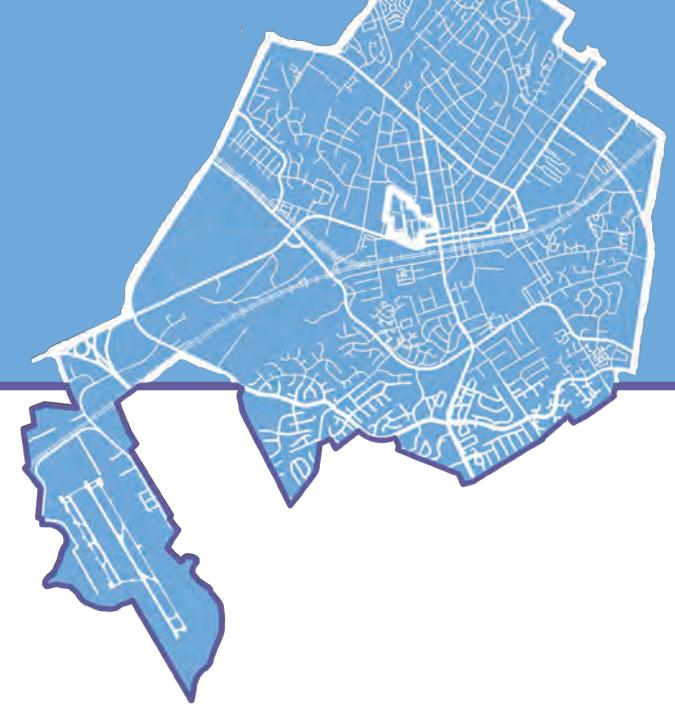


CHAPTER 6: Mobility



“Manassas must address transportation – Route 28 traffic, the Godwin bypass – and work in partnership with other organizations/businesses for transportation solutions.”

– Community Conversations Participant

Transportation has served as the lifeblood of Manassas since the City’s original settlement at the junction of two rail lines. Today, our transportation system has evolved into a complex network of roads, trails, air, and rail. This network connects Manassas to the Greater Washington region and beyond, carrying our residents to regional employment opportunities and fueling our economy with workers and visitors.

While Manassas offers many transportation options, the reality is that most people travel alone in their car. Continuation of single-occupancy vehicles as the primary form of transport has resulted in traffic congestion, lessening of air quality, and deterioration of the pedestrian environment as roads are expanded.

To sustain our growing population and economy, the City and the region must invest in transportation infrastructure that enables all users to travel safely, comfortably, and efficiently.

While the automobile will likely continue as the primary source of transportation for years to come, Manassas has limited opportunity to expand roadways to add vehicle capacity. The City can, however, make improvements that help increase access and connectivity, enhance the pedestrian realm, and create more opportunities for walking and biking.

The strategies in this chapter advance this vision by providing improvements to our road network that safely accommodate multiple modes of transportation. Better street design and connectivity, coupled with continued enhancements and





expansion of bus and rail service, will help ensure that all users have the freedom to choose their mode of travel without sacrificing their safety and comfort.

At the same time, emerging technology, such as scooters and autonomous vehicles, will continue to change the way we move. Manassas must be responsive and adaptive to these changes, striking an equitable and sustainable balance between users, modes of travel, and local and regional needs.

The Mobility Chapter is unique in that, in addition to goals, objectives, and strategies, it incorporates maps and recommendations from the City's first Transportation Master Plan.

The Transportation Master Plan is discussed in the following section, and additional background information on mobility can be found in **Appendix C1**.

Goal Statement

Manassas will have a sustainable and well-connected transportation system that equitably balances walking, bicycling, transit, and driving, while providing streetscapes consistent with the design character of the City and its neighborhoods.

Recommended Transportation Projects

The key recommended transportation projects in this chapter are based on the [Transportation Master Plan](#), as required by Section 15.2-2223 of the Code of Virginia.

The Transportation Master Plan, which is the first of its kind in Manassas, was developed as a separate technical effort in coordination with this Comprehensive Plan. Although it functions as a standalone policy document, major components of the Transportation Master Plan have been adopted into this chapter.

The Transportation Master Plan used a traffic model to assess intersection level of service and recommend improvements through 2040. With the exception of the regionally-serving Liberia, Route 28, and Godwin corridors, the traffic model indicates that intersection level of service is acceptable through 2040. Recommended roadway and intersection improvements are provided to address these deficiencies.

The Transportation Master Plan also assessed the City's existing and planned bike and pedestrian infrastructure. Bike and pedestrian improvements were ranked for inclusion on the key projects list based on access and connectivity, safety and comfort, and equity.

Map 6.1 and **Table 6.1** show the recommended road projects and prioritized bike and pedestrian projects to meet the City's mobility needs through 2040. Additional recommendations from the Transportation Master Plan, including Complete Streets Typology, the long-range bike network plan, and the citywide pedestrian network plan, are incorporated throughout this chapter.



Map 6.1 Key Transportation Projects

Map 6.1 and **Table 6.1** include key recommended projects identified by the Transportation Master Plan and public transit agencies; all projects under consideration to meet the long-term goals of the Comprehensive Plan will be reviewed annually as part of the development of the City's Five-Year Transportation Capital Improvement Program.

In addition, the following citywide policies and projects are recommended:

- Traffic Calming
- Complete Streets
- Traffic Signal Optimization
- Wayfinding

Note: Manassas includes the following Corridors of Statewide Significance as identified in VTrans: Prince William Parkway (234 Bypass); 234 Business; Route 28 within City Limits.



Table 6.1 - Key Transportation Projects

Project #	Name & Description	Project Total Cost Estimate ¹	Notes
1	Virginia Railway Express Broad Run Station expansion and third track from Broad Run Station to Wellington Rd.	\$110,700,000	
2	Virginia Railway Express Manassas Station platform extension	\$9,125,000	
3	OmniRide bus routes enhancement & hub relocation	\$500,000	
4	Improve Liberia Ave. & Rt. 28 Intersection and widen eastbound Liberia Ave. to three lanes up to Euclid Ave.	\$3,665,000	CIP Project T-046 - Phase 2
5	Convert signalized intersection to roundabout at Rt. 28 & Sudley Rd.	\$3,740,000	CIP Project T-085
6	Improve Liberia Ave. & Prince William Pkwy./Hastings Dr. intersection	TBD	Need for additional study to determine scope and cost
7	Improve Wellington Rd. & Dumfries Rd./Grant Ave. intersection	\$250,000	Included in CIP Project T-021
8	Widen Godwin Dr. to six lanes from Sudley Rd. to Nokesville Rd.	\$40,735,000	Coordinate with Rt. 28 Corridor roadway improvements (Godwin Drive extension)
9	Construct shared-use path on Dumfries Rd. from Wellington Rd. to Hastings Dr.	\$2,460,000	
10	Add bike facilities on Sudley Rd. from Godwin Dr. to Grant Ave.	\$4,880,000	
11	Construct shared-use path on Grant Ave. from Prince William St. to Wellington Rd.	\$850,000	CIP Project T-021
12	Add bike lanes on Center St. & Prescott Ave. from Church St. to Quarry Rd.	\$100,000	Need for additional study after completion of Rt. 28 Corridor roadway improvements (Godwin Dr. extension)
13	Add bike lanes on Grant Avenue from Portner Ave. to Prince William St.	\$100,000	
14	Add bike facilities (sharrows and shared-use path) on South Grant Ave. from Orchard Ln. to Wellington Rd.	\$450,000	
15	Construct sidewalk on one side of Jackson Ave. from Sudley Rd. to Weir St.	\$735,000	
16	Improve pedestrian safety and access along the Fairview Ave. corridor	\$1,245,000	
17	Conduct pedestrian safety study and improvements at the intersection of Zebedee St./Quarry Rd./ Centreville Rd.	TBD	Need for additional study to determine scope and cost
18	Construct sidewalk on south side of Mathis Ave. from Main St. to Maple St.	\$395,000	Need for additional study to determine scope and cost
19	Construct sidewalk on north side of Sudley Rd. from Grant Ave. to Mathis Ave.	\$1,000,000	
20	Citywide traffic signal optimization and software/equipment upgrade	\$500,000	
21	Citywide multimodal wayfinding project	TBD	Need for additional study to determine scope and cost

¹ Estimated costs are shown in 2019 dollar amounts and are inclusive of federal, state, and local funding sources.



Objectives and Strategies

Regional Network

MOB 6.1 Maximize the efficiency and effectiveness of the City's connections to the regional road, rail, air, and bikeway transportation system. Ensure through-traffic is accommodated without burdening the City's destinations and neighborhoods, so residents and businesses have easy access to major road, rail, trail, and air facilities.

MOB 6.1.1 Coordinate with regional transportation planning partners to ensure orderly development and access to various transportation funding sources.

MOB 6.1.2 Advocate and support regional transportation improvements that promote the efficient flow of through traffic, such as the Godwin Drive extended/Route 28 corridor improvements and Bus Rapid Transit along the Route 28 corridor.

MOB 6.1.3 Improve access to regional and local transit services for all residents by supporting the expansion of OmniRide and Virginia Railway Express as cost-effective alternatives to driving and to accommodate the City's growing transportation needs. Support implementation of the [OmniRide strategic plan](#), including relocation of its transit hub to Downtown Manassas, and the [Virginia Railway Express 2040 system plan](#), including the Broad Run and Manassas station expansions.



MOB 6.1.4 Promote the Manassas Regional Airport as a vital component of the region's transportation system and the City's economy. Work with neighboring jurisdictions to improve access to the airport's facilities. Continue to improve facilities to enhance safety, comply with Federal Aviation Administration design standards, and accommodate greater numbers of aircraft and passengers under a broader range of conditions.

MOB 6.1.5 Coordinate with Prince William County, the City of Manassas Park, and other Northern Virginia localities to create a regional bikeway and trail network connecting to the National Capital Trail, Potomac Heritage National Scenic Trail, U.S. Bicycle Route 1, East Coast Greenway, and any other significant regional and national trails. Partner with Norfolk Southern for rails-with-trails opportunities.

MOB 6.1.6 Update and adopt a revised traffic calming policy to diminish the impacts of through-traffic on existing residential neighborhoods and Downtown.



Multimodal Connectivity

MOB 6.2 Advance the City's integrated, multimodal transportation system to offer residents, businesses, and visitors of all ages and abilities a range of mobility choices and easy access to the City's major centers.

MOB 6.2.1 Implement Complete Streets designs in accordance with the City's complete streets typology guide (**Map 6.2; Appendix C1**). When implementing these designs, emphasize the safety and convenience of all users including pedestrians, bicyclists, public transit riders, and motor vehicle drivers. This includes providing improvements so that even the most vulnerable can travel safely and comfortably within the public right-of-way.

MOB 6.2.2 Improve the safety and comfort of the pedestrian and bicyclist environment by removing or relocating existing obstructions, such as utility poles and overgrown vegetation, and providing trees, shade, lighting, street furniture, and designs that improve pedestrian and bicyclist safety and comfort.

MOB 6.2.3 Implement an aggressive maintenance plan to ensure that all on-street lane markings, crosswalks, signals, and safety and wayfinding signs are clear and visible.

MOB 6.2.4 Develop and implement pedestrian-oriented connections and transitions within and between the Downtown and the Mathis character areas.

MOB 6.2.5 Enhance connectivity within and between neighborhoods by providing connector trails between cul-de-sacs or through environmental corridors. These facilities should be implemented in coordination with neighborhoods.

MOB 6.2.6 Develop and implement a crosswalk policy and intersection standards that improve pedestrian and bike safety by heightening visibility, denoting a clear right-of-way, and reducing conflict between vehicles and more vulnerable road users through the use of pavement markings, specialized signals, and other improvements.

MOB 6.2.7 Continue to study and implement, where feasible, innovative mobility programs to provide mobility options (e.g. improved local transit, autonomous shuttle, bicycle and micromobility friendly accommodations, dedicated pick-up and drop-off zones for ridesharing, Transportation Demand Management strategies).

MOB 6.2.8 Expand bicycle parking facilities and accommodations (e.g., repair stations and locker/shower facilities) across the city to encourage use and to support the future implementation of a bike share program



and the designation of bike friendly community. Create a “request a bike rack” program to provide businesses and citizens a tool to help identify and implement additional bike parking facilities.

MOB 6.2.9 Plan for self-driving and connected vehicles by monitoring national and regional trends and best practices, investing in new technology (e.g. roadside equipment to provide signal phase and timing data to the vehicles), and considering opportunities and impacts of future roadway design, parking demand, and pedestrian-oriented spaces.

MOB 6.2.10 Update, as needed, comprehensive automobile parking policies that meet the needs of the residents, business community, commuters, civic organizations, and visitors.

Map 6.2 - Complete Streets Typology

This Plan addresses future road improvements through the multimodal Complete Streets Typology, shown in **Map 6.2**. Moving away from the traditional functional street classification system that addresses only vehicular circulation, the City's Complete Streets Typology ensure safety and comfort for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. When planning roadway improvements, the typology map should be used in conjunction with the typical cross sections in **Appendix C1** to determine the optimal road geometry, and pedestrian and bicycle facilities.





Local Network

MOB 6.3 Leverage the existing transportation network and maximize the contribution of public and private transportation improvement projects as well as the City's transportation plans, policies, and procedures to the objectives and strategies of this Comprehensive Plan.

MOB 6.3.1 Implement the prioritized transportation capital improvement projects according to the Transportation Master Plan, which balances the flow of traffic, multimodal access, and safety throughout the City.

MOB 6.3.2 Update the City's design standards to incorporate the Complete Streets Typology map, (**Map 6.2**) typical cross sections (**Appendix C1**), and intersection standards to ensure that new construction and redevelopment projects provide improvements that promote multimodal access and safety.

MOB 6.3.3 Update the City's Capital Improvement Program to implement the Plan's short and long-term intersection improvements to maintain operations at existing internal signalized intersections

at a Level of Service "C" or better, or "D" or better along the Liberia Avenue and Godwin Drive corridors. Research and implement additional performance measures (e.g. vehicle miles traveled) that more comprehensively measure roadway and intersection operations.

MOB 6.3.4 Review and update traffic signal timing at least every five years to maximize efficiency of the existing road network and adjust for changing traffic patterns and growth.

MOB 6.3.5 Implement the City's long-range bike network plan (**Map 6.3**) and pedestrian network plan (**Map 6.4**) by prioritizing links to schools, parks, jobs, and transit. Implement sidewalk infill projects to ensure that all streets have sidewalks on at least one side of the street.

Map 6.3 - Long-Range Bike Network Plan



Map 6.3 shows the long-range bike network plan. This updated network improves upon the current imbalance in bike infrastructure that exists between the northern and southern portions of the City. While the City seeks to provide bicycle accommodations on all streets through the Complete Streets Typology, this map represents the City's constrained plan for completing its citywide bike network. The priority list of bicycle facilities can be found in **Table 6.1**. A complete list of improvements is included in the TMP.

Map 6.4 - Pedestrian Network Plan



Map 6.4 shows the City’s plan to address pedestrian safety and network gaps. Safety, connectivity, and walkability are impacted by lack of sidewalks north of Downtown, lack of connections in suburban neighborhoods, and lack of pedestrian accommodations at major intersections.

The Transportation Master Plan further prioritizes these improvements based on access and connectivity, safety and comfort, and equity. The priority list of pedestrian improvements can be found in **Table 6.1** and a complete list of improvements is included in the Transportation Master Plan.



Example of Complete Street streetscape improvements.

MOB 6.3.6 Ensure that multimodal improvements, such as sidewalk and bike facilities, are included in the Capital Improvement Program and street repaving plan, and identify additional funding sources to complete and maintain projects.

MOB 6.3.7 Review and adjust requirements for new construction and redevelopment projects to upgrade access management provisions, such as interparcel connectivity and limits on location and number of curb cuts, to improve the flow of traffic on higher volume streets and support the character area design principles.

MOB 6.3.8 Update the transportation database developed as part of the Transportation Master Plan and expand its inventory of transportation facilities and features to include a crosswalk inventory and bicycle and pedestrian counts.

MOB 6.3.9 Review and update the Transportation Master Plan at least every five years to maximize efficiency of the existing transportation network and adjust for changing trends, patterns, and growth.



Safety and Resiliency

MOB 6.4 Provide a safe, secure, and resilient transportation system.

MOB 6.4.1 Use data on transportation crash rates to guide infrastructure investments that minimize rates of injuries and accidents.

MOB 6.4.2 Consider adoption of a Vision Zero program that seeks to reduce and eliminate traffic fatalities and severe injuries among all road users.

MOB 6.4.3 Conduct walking audits to improve signage, shelters, pedestrian crosswalks and signaling, road markings, lighting, and sidewalk design. Ensure that pedestrians, bicyclists, motorists, and disabled persons using assistive devices, such as canes, walkers, and wheelchairs

feel safe and comfortable at all times when traveling in Manassas. Prioritize designated safety improvement areas (**Map 6.4**) as part of this program.

MOB 6.4.4 In conjunction with the City's Emergency Operations Plan, invest in facilities and improve traffic management capabilities that optimize the transportation system's ability to execute emergency responses, including evacuation when necessary.

MOB 6.4.5 Promote Crime Prevention through Environmental Design practices.

Sustainability

MOB 6.5 Reduce the impact of travel on community resources, including air and water quality.

MOB 6.5.1 Respect and accommodate historic, cultural, and natural resources throughout the transportation planning and construction process.

MOB 6.5.2 Increase solar electricity and energy efficiency technologies and consider ways to encourage electric vehicles by developing electric vehicle charging station policies or requiring them in redevelopment.

MOB 6.5.3 Reduce vehicle emissions by regularly optimizing citywide traffic signals, promoting innovative intersections, and encouraging alternative-fuel vehicles, non-motorized travel, public transit, carpooling, telecommuting, and other Transportation Demand Management strategies.

MOB 6.5.4 Minimize the creation of additional impervious surface area for streets and other transportation facilities, and manage the collection and release of runoff in an effective and environmentally sensitive manner.



