

Neighborhood-Friendly Circulation Systems

*Find a balance that accommodates local and regional traffic,
yet provides safe pedestrian access and protects neighborhoods
from intrusive vehicular traffic.*

Introduction

The Washington metropolitan region is striving for a transportation system that is efficient, manages demand, and promotes areas of concentrated growth. North and West Silver Spring are located south of the Capital Beltway in the southeast corner of Montgomery County near the Washington, D.C. border. This area is densely developed and includes major commuter arteries that carry significant amounts of daily vehicular traffic. Georgia Avenue, Colesville Road, and 16th Street are major north-south arteries for the eastern County. Recommendations for Georgia Avenue are discussed in the previous chapter (see page 49).

Development and growth throughout the region have contributed to significant traffic congestion in Silver Spring, which often turns the convenience of this down-County location into a drawback for local residents. Georgia Avenue north of 16th Street carries more traffic than any six-lane, divided roadway in Montgomery County.

North and West Silver Spring may be busy areas to navigate as quickly as possible for the motorists who are passing through, but they are home for nearly 20,000 residents in the Master Plan area. Beyond the highways traversing North and West Silver Spring are stable, mature residential neighborhoods within walking

distance to shops, schools, transit stops, parks, and community facilities. However, traffic that passes through these neighborhoods has an impact on the quality of life for local residents. It can be difficult for residents to walk in and around their neighborhoods or to the local retail shops, schools, and services. The challenge is to find a balance that accommodates local and regional traffic, yet provides safe pedestrian access and protects neighborhoods from intrusive vehicular traffic.

County and state transportation officials use a roadway classification system that establishes a hierarchy of streets that include major highways, arterials, primary residential streets, and secondary residential streets. Each street category has a basic purpose, a minimum right-of-way, and a recommended number of traffic lanes. Table 2 and Map 24 show proposed roadway classifications for North and West Silver Spring. Please refer to Appendix A for a Glossary of Selected Terminology.

*From the Telephone Survey of Silver Spring and
Takoma Park Residents:*

*When asked what they like about their neighborhood,
many respondents cited the area's transportation
system with comments like "convenient to work,"
"convenient to the Beltway", and "near
transportation."*

Table 2

PROPOSED STREET & HIGHWAY CLASSIFICATION

Number and Name	Limits	Minimum Right-of-Way Width	Existing Pavement Width or Number of Lanes*	Recommendation/ Comment
Freeway				
F-8 Capital Beltway (I-495)	Boundary Line to Boundary Line	200'	8 lanes divided	Future improvements may be proposed in the <i>Capital Beltway Corridor Transportation Study</i> now underway.
Major Highway				
M-8 Georgia Ave. (MD 97)	I-495 to Spring St.	120'	7 lanes with reversible lane from I-495 to 16 th St. 6 lanes divided from 16 th St. to Spring St.	Improvements proposed within Montgomery Hills and at 16 th St. See text for recommendations.
M-9 16 th St. (MD 390)	Georgia Ave. to Colesville Rd.	120'	6 lanes divided	Intersection modifications proposed at 16 th St. and East-West Highway.
M-10 Colesville Rd. (US 29)	Franklin Ave. to Spring St.	120'	6 lanes with reversible lane	Intersection modifications proposed at Dale Dr. and Sligo Creek Pkwy. See Plan for recommendations.
M-20 East-West Highway (MD 410)	16 th St. to Rock Creek	120'	4 lanes divided from Washington Ave. to Meadowbrook La.; undivided elsewhere.	Intersection modification proposed at 16 th St. See Plan for discussion.
Arterial Road				
A-30 Seminary Rd.	I-495 to Second Ave./ Seminary Pl.	80'	2 lanes	No recommendation for roadway change.
Seminary Rd.	Second Ave. to Georgia Ave.	80'	2 lanes	Close Seminary Rd. between Seminary Pl. and Linden Lane, except for driveway access; see text for recommendations at Sutton Pl., Selway Ln., Columbia Blvd. and Georgia Ave.
Second Ave.	Seminary Rd. & Seminary Pl. to Linden Lane	80'	2 lanes	See Plan for intersection modification at Seminary Rd/Seminary Pl. and at Linden Lane.
Dale Dr.	Georgia Ave. to Bonifant St.	80'	2 lanes	No recommendation for change.

Table 2 (Continued)

PROPOSED STREET & HIGHWAY CLASSIFICATION

Number and Name	Limits	Minimum Right-of-Way Width	Existing Pavement Width or Number of Lanes*	Recommendation/ Comment
A-31 Seminary Pl.	Seminary Rd./Second Ave. to Georgia Ave.	80'	2 lanes plus turn lanes	Currently classified as a business district street between Georgia Ave. and the edge of the commercial zone.
A-60 Grubb Road	D.C. boundary line to Lyttonsville Rd.	80'	30' to 36' south of East-West Highway; 48' north of East-West Highway	No recommendation for change.
Lyttonsville Rd.	Grubb Rd. to Lyttonsville Place	80'	48'	Plan recommends monitoring and review of existing traffic control measures by DPWT.
Lyttonsville Pl.	Lyttonsville Rd. to Brookville Rd.	80'	48'	Plan recommends monitoring and review of existing traffic control measures by DPWT.
Brookville Rd.	Lyttonsville Pl. to Linden La.	80'	48' from Lyttonsville Pl. to Warren St.; 2 lanes from Warren St. to Linden La.	May require some widening on curve approaching Second Ave.
Linden Lane	Brookville Rd. to Second Ave.	80'	4 lanes	
A-76 Wayne Avenue	Cedar St. to Sligo Creek Pkwy.	80'	4 lanes	Consider 3-lane section to accommodate Silver Spring Green Trail.
A-263 Spring Street	16 th St. to Ellsworth Dr.	80' to 120'	4-lanes divided from 16 th St. to Fairview Rd.; undivided elsewhere.	The section from 16 th St. to Georgia Ave. will be reclassified from a major highway to an arterial road in the amended Silver Spring CBD Master Plan. This Plan supports the reclassification.
Cedar Street	Ellsworth Dr. to Wayne Ave.	80'	48'	No recommendation for change.

Table 2 (Continued)

PROPOSED STREET & HIGHWAY CLASSIFICATION

Number and Name	Limits	Minimum Right-of-Way Width	Existing Pavement Width or Number of Lanes*	Recommendation/ Comment
Commercial Road/Industrial Road				
I-1 Linden Lane	Stephen Sitter Lane to Fraser Ave.	70'	40'	Retains classification but reduces pavement width and right-of-way to reflect new standards.
Fraser Avenue	Linden La. to Montgomery St.	70'	40'	
Montgomery Street	Fraser Ave. to Warren St.	70'	40'	
Warren Street	Montgomery St. to Brookville Rd.	70'	40'	
Primary Residential Street				
P-1 Franklin Ave.	Colesville Rd. to Caroline Ave.	70'	36'	
P-2 Meadowbrook Lane	East-West Hwy. to Freyman Dr.	70'	36'	
Freyman Drive	Meadowbrook La. to Terrace Dr.	70'	36'	
Terrace Drive	Freyman Dr. to Grubb Rd.	70'	36'	
Grubb Road	Terrace Dr. to Lyttonsville Rd.	70'	36'	
P-3 Washington Avenue	Grubb Rd. to East-West Hwy.	70'	2 lanes	
Sundale Drive	East-West Hwy. to Porter Rd.	70'	36'	
P-4 Linden Lane	Brookville Rd. to Fraser Ave.	50'	2 lanes	

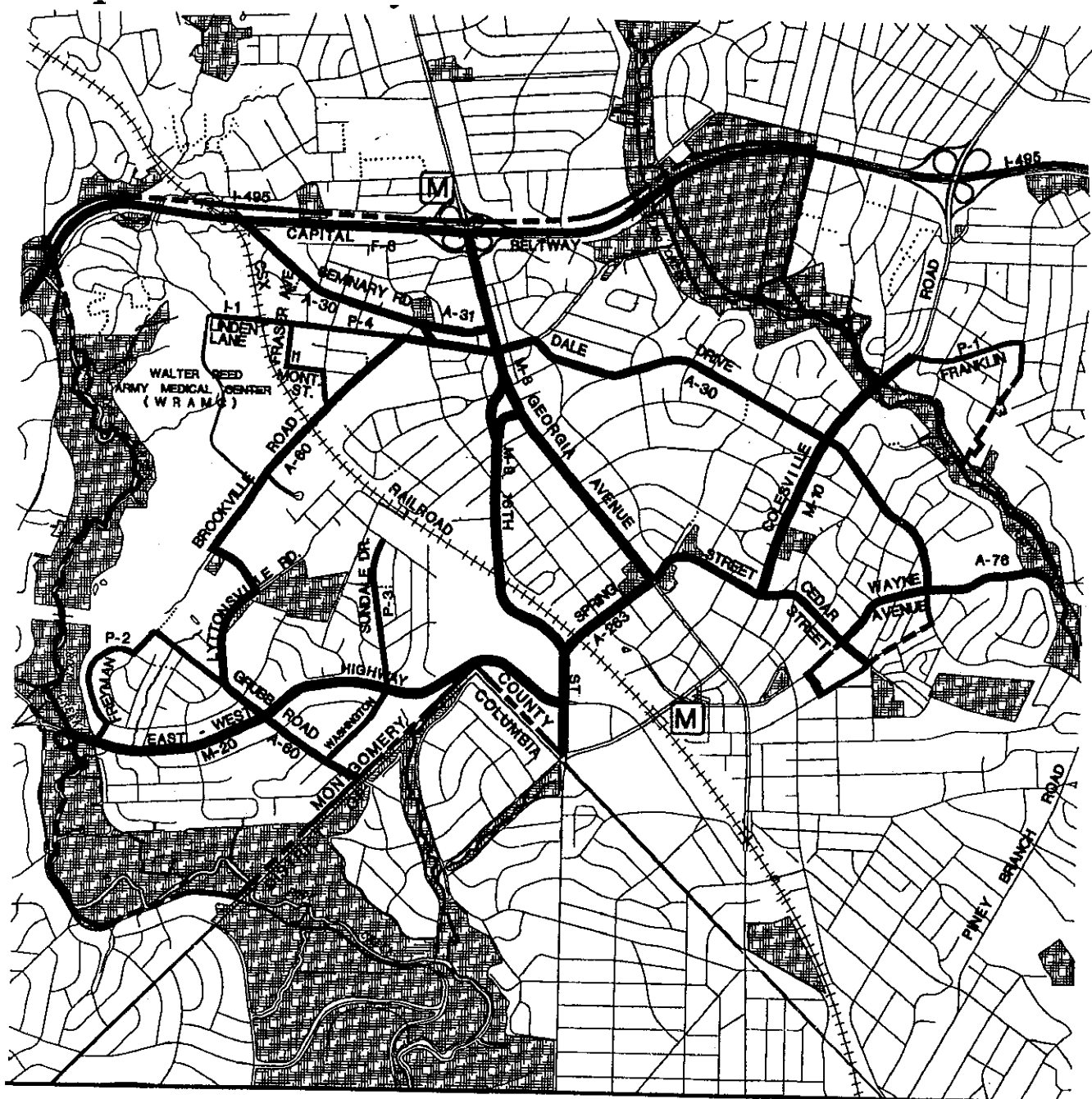
* These are the number of planned through travel lanes or pavement widths for each segment, not including lanes for turning, parking, acceleration, deceleration, or purposes auxiliary to through travel.










In cases where dedication of the recommended right-of-way would result in yard setbacks that are too small, the Planning Board may reduce the amount of dedication to help preserve community character and stability.

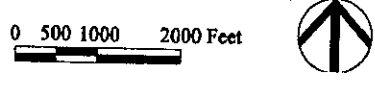
NOTE: This corrected map replaces page 67 in the bound version of the August 2000 North and West Silver Spring Master Plan.

Proposed Roadway Classifications

Map 24



- | | | | |
|---|----------------------|---|---------------|
|  | Master Plan Boundary |  | Freeway |
|  | Unpaved Right-of-Way |  | Major Highway |
|  | Parkland |  | Arterial |
|  | Metro Station |  | Primary |
| | |  | Industrial |



The width of a road's right-of-way helps define its character and ultimate number of lanes. Designating rights-of-way in a master plan reserves land needed for road improvements to accommodate future development. Most of the rights-of-way for North and West Silver Spring roads are unchanged from the previous master plans. (See Table 2.)

From the Telephone Survey of Silver Spring and Takoma Park Residents:

North Silver Spring residents reported that congestion (19%), speeding (15%), and cut-through traffic (13%) were major problems; while 42% thought there was no traffic problem in their neighborhood. West Silver Spring residents reported that congestion was a problem (30%); while 48% thought there was no traffic problem.

This Plan seeks to identify circulation improvements that will accommodate both local and regional traffic and provide for non-motorized forms of travel.

Operational measures such as changes in signal phasing and turn prohibitions are identified in this Plan for future consideration because they are preferable to physical improvements with more extensive community impacts and have been found to support the projected traffic. The selection and implementation of operational measures will be undertaken by DPWT or SHA, as appropriate.

Recommendations

- **Protect the residential neighborhoods from commercial and through traffic.**

Increased congestion along major routes through North and West Silver Spring results in motorists cutting through neighborhood streets, many of which do not have sidewalks or driveways. Heavy traffic is inappropriate in residential neighborhoods. Large volumes of vehicular traffic can be disruptive to the peace,

serenity, and safety of residential areas. Where possible, commercial and through traffic should be separated from neighborhood streets.

To combat through traffic on local streets, the County has instituted a policy to provide geometric, design, and other controls to reduce operating speeds by installing speed humps, ovals, all-way stop signs, and other impediments to discourage cut-through traffic. This Plan supports DPWT's Residential Traffic Management Program.

- **Improve pedestrian access to shopping areas, transit, and community facilities by providing wide, tree-lined sidewalks throughout the area and other improvements for safe pedestrian street crossings.**

Areawide Traffic Circulation

Existing and forecast traffic conditions in the Silver Spring Central Business District (CBD) and surrounding neighborhoods are described in detail in the *Silver Spring/Takoma Park Transportation and Circulation Report*, prepared by M-NCPPC in support of master plan updates. (See Appendix E.) This report documents the effects of anticipated Silver Spring CBD Sector Plan development on traffic conditions throughout the greater Silver Spring vicinity. The development envisioned in the Silver Spring CBD Sector Plan reflects an increase of about 2,000 households and 8,000 jobs over current levels. Increased traffic volumes in North and West Silver Spring are expected primarily due to the Silver Spring CBD development. The recommended roadway capacity improvements identified in this section are therefore based on the recommendations described in the *Silver Spring/Takoma Park Transportation and Circulation Report*.

From a Policy Area perspective, the Plan provides an adequate transportation system based on

current areawide congestion standards specified in the Annual Growth Policy (AGP). For all intersections studied, the *Silver Spring/Takoma Park Transportation and Circulation Report* identifies sets of improvements which would achieve the intersection congestion standard. At certain intersections, however, not all of the improvements necessary to achieve current Local Area Transportation Review standards are recommended in the Master Plan. These locations are primarily on the major highways serving the CBD. There are four reasons why the Plan does not explicitly recommend intersection capacity improvements to achieve the current congestion standards at all locations:

1. A major goal of this Plan is to make the circulation system more neighborhood-friendly. In some cases, improvements which increase roadway capacity are undesirable due to negative community impacts. This Plan also supports the County's neighborhood traffic protection programs which have been successful in channeling commuter traffic to the major highways.
2. The intersection forecasting methodology used is most appropriate for identifying short-term, localized improvements. The *Silver Spring/Takoma Park Transportation and Circulation Report* examines the areawide impact of development over a twenty-year time frame. The results are therefore useful for assessing long-term trends, but not for programming twenty-year needs on an intersection-specific basis.
3. The extent of new development in the North and West Silver Spring Master Plan area is nominal, particularly in comparison to planned Silver Spring CBD development.
4. Changes to the congestion standards could be adopted during the Master Plan time frame. The County Council conducts biannual reviews of the policy element of the AGP

Report. The most recent changes to the congestion standards in North and West Silver Spring were adopted in 1994.

This Plan recommends those improvements from the *Silver Spring/Takoma Park Transportation and Circulation Report* that can be implemented without severe community impacts and recommends that additional capacity improvements throughout the Plan area be considered on a case-by-case basis as needs arise. Therefore, should a desirable development opportunity affect an intersection where congestion standards would otherwise preclude its consideration, the development might be accommodated by one or more of the following means:

- developing a more aggressive traffic mitigation program;
- providing capacity improvements other than those explicitly described in this Plan; or
- revising the congestion standard.

The first two means above could be pursued through the regulatory process, whereas the third means requires a change to the AGP made by the County Council. In either case, this Plan recognizes that some flexibility is appropriate to encourage revitalization.

Colesville Road

Transit service improvement along Colesville Road (US 29) is an important component of creating a transportation system that supports land use decisions in Silver Spring and all of Montgomery County. Consistent with prior Planning Board and County Council actions, this Plan recommends that the Maryland Department of Transportation (MDOT) and the Montgomery County Department of Public Works and

Transportation (DPWT) jointly conduct a study to identify operational and minor capital improvements on US 29 that would enhance the speed and reliability of bus transit. Such improvements could include bus prioritization at traffic signals, bus bypass lanes (queue jumpers) at a few selected locations, and additional bus service where feasible.

For the longer term, this Plan recommends that MDOT and DPWT jointly conduct a project planning study on major transit system improvements (all modes of transit) for travel demand along US 29. This study should concentrate on transit accessibility, reliability, community and environmental impacts, and time savings. Previous studies have not focused on balancing the objectives of improved transit service with the impacts of building new transit facilities.

Recommendations

- **Support improvements which facilitate access to, and use of, transit along Colesville Road.**

Extension of the reversible lane on Colesville Road to the Beltway (I-495) could provide additional capacity and replace the need for intersection modifications along Colesville Road. However, extending the reversible lane has not received much public and political support because of the perceived impact on adjacent communities. This Plan does not recommend it, even though it would reduce the critical lane volumes (CLVs) significantly at Colesville Road/Franklin Avenue and Colesville Road/Sligo Creek Parkway.

Lower congestion and improved levels of service (LOS) at key intersections could also result from increased transit ridership in the US 29 corridor. For example, a higher level of transit ridership could be achieved by adding a

transitway to US 29, which could reduce travel time for transit patrons. At the very least, improvements which enhance access to transit and make transit use more convenient (e.g., bus shelters) must be implemented. More frequent local bus service should also be considered as a way to improve community accessibility and increase transit ridership. Also, since buses and other vehicles must share the same traffic lanes, enhanced bus speed and reliability can be achieved by modifications that increase the overall capacity at congested intersections.

- **Provide for pedestrian circulation along Colesville Road and include wide, tree-lined sidewalks on both sides of the street and safe pedestrian crossings.**
- **Consider adding a separate right-turn lane on westbound Dale Drive at Colesville Road/Dale Drive. Widening of the pavement will be required.**
- **Consider restriping Sligo Creek Parkway on the westbound approach to Colesville Road for a separate left-turn lane, a separate through lane and a through plus right-turn lane. Some widening of the pavement on Sligo Creek Parkway will be required on both sides of Colesville Road.**

Sixteenth Street

Recommendations

- **Enhance pedestrian circulation and safety along 16th Street by providing:**
 - Tree-lined sidewalks on both sides of the street.
 - A tree-lined median.
 - Safe pedestrian crossings.

- **Implement programmed safety and capacity improvements at East-West Highway and 16th Street.**

DPWT currently has a project in design that will improve the efficiency and safety of the intersection of 16th Street and East-West Highway. The improvements include the addition of a third through lane in each direction on East-West Highway, and the development of a separate left turn lane for southbound 16th Street. Operational improvements include prohibition of left turns from westbound East-West Highway and removal of the split signal phasing for the 16th Street approaches.

Brookville Road Area

Recommendations

- **Maintain classification of Montgomery Street, Fraser Avenue, and Warren Street as Commercial Industrial Roads.**

Montgomery Avenue (between Warren Street and the railroad tracks) and Warren Street (between Brookville Road and Montgomery Avenue) serve a variety of industrial uses and are in poor condition. These roads should maintain their classification as Commercial/Industrial Roads (70-foot-wide right-of-way with 40-foot-wide pavement, curb, gutters, and sidewalks). Fraser Avenue is part of the industrial street network. It is a publically dedicated right-of-way with private, nonstandard treatment. If there is redevelopment in this area, Fraser Avenue should be rebuilt. The County would accept it for maintenance once it has been built to County standards. Any improvements to these roads should be done in consultation with the property owners and should not result in a reduction of current on-street parking spaces.

- **Improve the streetscape and landscape along Brookville Road to the design standards of the County.**

In most cases, the existing right-of-way can accommodate street trees within the grass panel next to the curb. Parking lots should be defined and separated from the street by a low wall or a landscaped strip. Once tree planting locations are identified in cooperation with DPWT and other agencies, additional street trees could be provided as off-site forest conservation plantings by other development projects within the Silver Spring/Takoma Park planning area.

- **Review Lyttonsville Road/Lyttonsville Place for possible traffic control measures.**

The stop signs currently in place allow traffic generated by industrial land uses located along Brookville Road to flow unimpeded through this intersection at a right angle. Vehicles on Lyttonsville Place can turn right onto Lyttonsville Road without stopping; traffic from the opposite direction, including left-turn movements, also is not required to stop. This heavy, non-stop movement is confusing and hazardous for motorists on westbound Lyttonsville Road and results in long delays.

This Plan recommends that DPWT review conditions at this intersection to see if the traffic control measures need to be revised. DPWT should also review off-peak conditions after the Walter Reed Army Institute of Research opens because of the expected increase in traffic, especially in off-peak-hour employee trips to and from the area.

Talbot Avenue Bridge

The Talbot Avenue bridge provides a vehicular connection between North and West Silver Spring that was recommended in the 1978 *North Silver*

Spring Sector Plan. The bridge was recently reconstructed to improve its structural integrity. Turn restrictions and the installation of speed humps were provided to limit the impact of through traffic on Grace Church Road and Hanover Street. The bridge and surrounding roads are classified as Secondary Residential Streets.

Recommendations

- **Continue the 1978 North Silver Spring Sector Plan recommendation for an on-road bikeway on the Talbot Avenue bridge to support the interim Capital Crescent Trail and the use of the bridge as a vehicular connection.**
- **Add sidewalks to improve pedestrian safety and convenience.**

Transit

Most residents of North and West Silver Spring live near transit, either Metrorail or a Metrobus or Ride-On bus stop. Additional transit services are necessary to help reduce traffic congestion, improve the level of service (LOS) at key intersections along Georgia Avenue and Colesville Road, and provide an alternative to further expansion of roads. Increased transit usage will also support the revitalization of downtown Silver Spring.

While transit service is available, some residents are discouraged from taking it due to the difficulty of crossing area roads. Transit access must be made as convenient and safe as possible. Improved pedestrian and bicycle access throughout the area would enable more residents to use transit. Regional road and transit improvements being examined by the on-going Capital Beltway Major Investment Study (CBMIS) could also affect this area. The Study considers various light and heavy rail options including above and below-ground

routes to extend transit service, as alternatives to widening the Beltway. This Master Plan's proposed land uses and transportation network do not preclude any of the transit modes or alignments which are currently proposed in the CBMIS. (The CBMIS is in very preliminary stages. No land use, public facility, or transportation network decisions have been made based on any of its analysis.)

*From the Silver Spring and Takoma Park
Transportation and Circulation Report:*

Accessibility to and the reliability of transit is a very essential part of this study as both the trip generation estimates assume a substantial transit share and motorists will transfer to transit to avoid peak period congestion where reliable transit service is available and accessible.

Recommendations

- **Implement the Georgetown Branch Transitway between Silver Spring and Bethesda.**

The Georgetown Branch Transitway will reduce demand along East-West Highway leading to less congested operating conditions over the life of this Plan. The Transitway will also provide a much needed connection between Silver Spring and the developing areas along the I-270 corridor. It is one of the very few possible connections which can be made and improved over time between these two growth areas.

- **Improve transit accessibility and reliability along Georgia Avenue and Colesville Road.**

Improvements to passenger accessibility to transit such as sidewalks, crosswalks, bicycle racks, and passenger shelters will be very important if goals of increased ridership are to be met. Improvements in reliability through reduced headways, neighborhood circulator service, real time vehicle positioning and other

methods to provide the most accurate route scheduling and arrival time information will make transit much more competitive with automobile use choices.

trees, and front yards, including using asphalt for sidewalks or trails or possibly narrowing the roadway or sidewalk width in some instances.

The Pedestrian Environment

Walking is an essential transportation and recreation element in North and West Silver Spring. The opportunity to walk to desired activities is very easy in some areas but very difficult in others. The location of sidewalks is determined through County and State programs and during the development process. This Plan provides guidance for sidewalk construction. The aforementioned programs take into account existing conditions (right-of-way availability, trees, topography, and the interests of adjacent property owners) when designing new sidewalks.

Recommendation

- **Construct new sidewalks through County and State programs and private development using the following priorities:**
 - Provide sidewalks along both sides of Major Highways, Arterial Highways, Primary Residential Streets, and bridges.
 - Provide pedestrian connections to transit facilities, including bus stops.
 - Complete connections to and within commercial and industrial areas, and to public facilities such as schools, parks, library, government center, etc.
 - Consider sidewalk construction on streets where traffic volumes or posted speeds are too high for safe walking in the roadway.
 - Consider alternatives to the standard concrete sidewalk that could lessen impacts to existing neighborhood character, mature

Forest Glen Pedestrian/Bicycle Bridge

The 1996 *Forest Glen Sector Plan* recommended a pedestrian/bicycle bridge to improve accessibility through the Georgia Avenue and Beltway interchange area between the Forest Glen Metrorail Station and the Montgomery Hills Commercial Center. As recommended, the bridge crosses the two ramps in the southwest quadrant of the interchange as well as the remaining ramp in the northwest quadrant.

A number of modifications to this interchange have recently been implemented. The ramp from the westbound outer loop of the Beltway to southbound Georgia Avenue has been relocated from the northwest to the northeast quadrant to eliminate the weaving movement on the Beltway bridge over Georgia Avenue. A new traffic signal has been installed on Georgia Avenue between Forest Glen Road and the Beltway to allow left turns to southbound Georgia Avenue from the ramp at this new intersection.

The State Highway Administration also is preparing to redeck the Beltway bridge over Georgia Avenue. To maintain traffic on the bridge during construction, the bridge will be widened by approximately 30 feet. This widening would require modifications to the relatively straight pedestrian/bicycle bridge envisioned in the Forest Glen Sector Plan to include a series of ramps for adequate vehicular clearances while meeting accessibility requirements. Consequently, design modifications to the pedestrian/bicycle bridge envisioned in the Forest Glen Sector Plan are appropriate. In addition, the widened Beltway bridge over Georgia Avenue should be treated in an aesthetically appealing way.

From the Telephone Survey of Silver Spring and Takoma Park Residents:

Over half of North Silver Spring's residents, 52% said that paths or sidewalks were not available to go where they would like to go.

Approximately 34% suggested adding sidewalks to make walking in the neighborhood easier and more attractive.

Recommendation

- **Implement pedestrian improvements to the Georgia Avenue/Capital Beltway interchange.**

DPWT currently has a project in design that would improve access and safety for pedestrians and bicyclists along the western side of Georgia Avenue at the Capital Beltway interchange. This project would consist of a bridge over the two southern Beltway ramps, an elevated sidewalk directly under the Beltway, and a second bridge over the northern ramp. The feasibility of long-range plans to improve pedestrian safety and access to and along the eastern side of Georgia Avenue should be reviewed as part of any future SHA project study of Georgia Avenue and/or the Capital Beltway interchange.

Georgia Avenue/Columbia Boulevard Bridge

Recommendation

- **Remove the recommendation from the 1978 North Silver Spring Sector Plan for a pedestrian bridge over Georgia Avenue at the intersection with Columbia Boulevard and Seminary Road.**

Building the bridge would involve the loss of Public Parking Lot 48 and part of the parking lot for shops in the northwest corner of Georgia Avenue and Columbia Boulevard/ Seminary Road due to lengthy ramps that would be required on both sides. In lieu of a pedestrian bridge, this Plan recommends the Montgomery Hills Proposed Concept Plan (see previous chapter), which would improve the pedestrian environment along Georgia Avenue.

Bikeways and Trails

Silver Spring is served by a network of existing and proposed bikeways and trails; some have been completed, while others are identified in the 1978 *Master Plan of Bikeways* and in the 1998 *Countywide Park Trails Plan*. The mix of on- and off-street trails for local and regional connections in and around Silver Spring provides an increasingly popular transportation alternative for commuting as well as for recreation. Recommended bikeways are shown on Map 25 and described in Table 3.

Connections—routes and trails which intersect with other routes and trails—are particularly important because an inter-connected system can get more people to more destinations without using an automobile. Pedestrian-bicyclist friendly design, storage facilities, and amenities such as work-place showers are also important in encouraging walking and bicycling as commuting alternatives. Without good facilities, commuters are less likely to choose alternative modes of transportation.

From the Telephone Survey of Silver Spring and Takoma Park Residents:

North Silver Spring residents report the highest rate of trail use (66%) in the Silver Spring/Takoma Park area.

A 1994 Washington Metropolitan Council of Governments (COG) survey noted an increase in bicycle commuting, and the Washington Area Bicyclists Association (WABA) has noted that area trails are becoming more crowded. An M-NCPPC survey counted upwards of 300 users per hour on completed sections of the Capital Crescent Trail.

As a Smart Growth community, Silver Spring can help ease mounting traffic congestion by providing substantive and user-friendly alternatives to the automobile for recreational, functional, and commuting trips. The following recommendations are intended to improve and expand the interconnected system of bikeways and trails in Silver Spring and beyond.

Rock Creek Park Bikeway

Recommendations

- **Evaluate the Walter Reed Army Medical Center property for possible trail connections.**

Walter Reed, adjacent to Rock Creek Park, could provide critical connections to nearby neighborhoods, directly linking them to the park and ultimately to the Georgetown Branch/Capital Crescent Trail. A deteriorated trail bordering Rock Creek Park and federal property should be repaired. Trail proposals involving federal property should also address maintenance responsibility and ownership issues.

- **Provide a pedestrian/bikeway trail extension to Rock Creek Park from East-West Highway to Beach Drive at the Washington, D.C. line.**

This project, scheduled for construction in 2000, will provide the last off-road link from

Rock Creek Park in Montgomery County to Rock Creek Park in the District of Columbia.

Sligo Creek Parkway

Recommendations

- **Complete the bicycle shoulder path project on Sligo Creek Parkway between Colesville Road and University Boulevard to provide an additional safe bicycle lane.**

There is an existing northbound bicycle shoulder on Sligo Creek Parkway between University Boulevard and Colesville Road. This Plan recommends adding a southbound shoulder to improve safety for recreational cyclists and bicycling commuters. Paired bicycle lanes improve traffic flow and safety for both driver and rider.

- **Consider construction of a Colesville Road overpass for the Sligo Creek hiker-biker trail.**

If a Colesville Road overpass is constructed for the Sligo hiker-biker trail, it should be designed so that its appearance is in keeping with other park elements.

Rock Creek-Sligo Creek Bikeway Connection

Connecting the two north-south regional bikeways through North Silver Spring is an important goal of this Plan. Additional connections are provided through West Silver Spring and the Central Business District via the Capital Crescent Trail and the future Silver Spring Green Trail. (See Map 25.)

The 1978 *North Silver Spring Sector Plan* recommended an on-road bikeway along Linden Lane between the Beltway and the old carriage road at the Walter Reed Army Medical Center. This Plan recommends creating a continuous connection between the Beltway, Walter Reed, and Georgia Avenue via Linden Lane.

Recommendations

- **Provide an off-road bikeway along the east side of Linden Lane between the Beltway and the entrance to the old carriage road at Ireland Drive.**

This path should be generally parallel to Linden Lane and will require careful design to ensure its location is compatible with the National Park Seminary Historic District and its potential reuse.

- **Provide an on-road bikeway along Linden Lane, between the entrance to the old carriage road at Ireland Drive and Georgia Avenue, via Seminary Place (for cyclists heading to the Sligo Creek Park bikeway) and Seminary Road (for cyclists heading to the northern part of the CBD).**

This connection will primarily serve experienced cyclists who are comfortable riding on streets. A continuous sidewalk connection provides a secondary option for bicyclists traveling through the area.

- **Remove the bikeway on Woodland Drive between White Oak Drive and Columbia Boulevard.**

Bicyclists wishing to continue north of Dale Drive should be directed either eastward via Columbia Boulevard toward the Sligo Creek trail or westward via Seminary Road toward the bikeway system west of Georgia Avenue.

Silver Spring Green Trail

Recommendation

- **Construct the Silver Spring Green Trail to provide an important east-west linkage between Sligo Creek Park, the Silver Spring Transit Center, and the Capital Crescent Trail/Metropolitan Branch.**

DPWT, in collaboration with M-NCPPC, is currently assessing the feasibility and design of a generously landscaped trail that includes separate paths for pedestrians and bicyclists. This trail would link the regional trails and provide access to the Silver Spring Transit Center and other destinations. If a bike path proves infeasible, alternate routes such as Ellsworth Drive should be used.

Capital Crescent Trail

The Capital Crescent Trail serves as part of an urban corridor of the bikeway and trail system in the District of Columbia and southern Montgomery County. When completed and connected to the Metropolitan Branch Trail, the multi-use trail will be a crescent-shaped loop that links Union Station in Washington, D.C. to Silver Spring, Bethesda, Chevy Chase in Maryland, and Georgetown in D.C. There are three components of the trail corridor. The first segment, completed in 1996, starts in Georgetown and follows an abandoned rail line to Bethesda. The Montgomery County portion of this initial segment is 3.4 miles and consists of a ten-foot-wide paved trail.

The second segment extends four miles, from Bethesda to downtown Silver Spring. Part of this second portion is on the abandoned rail line and has a temporary crushed stone surface. Another interim part is a designated, signed trail along local streets.

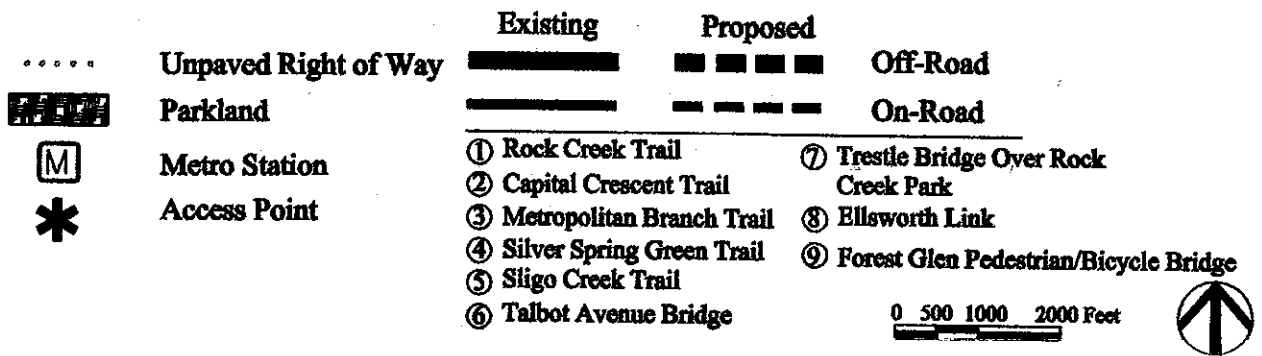
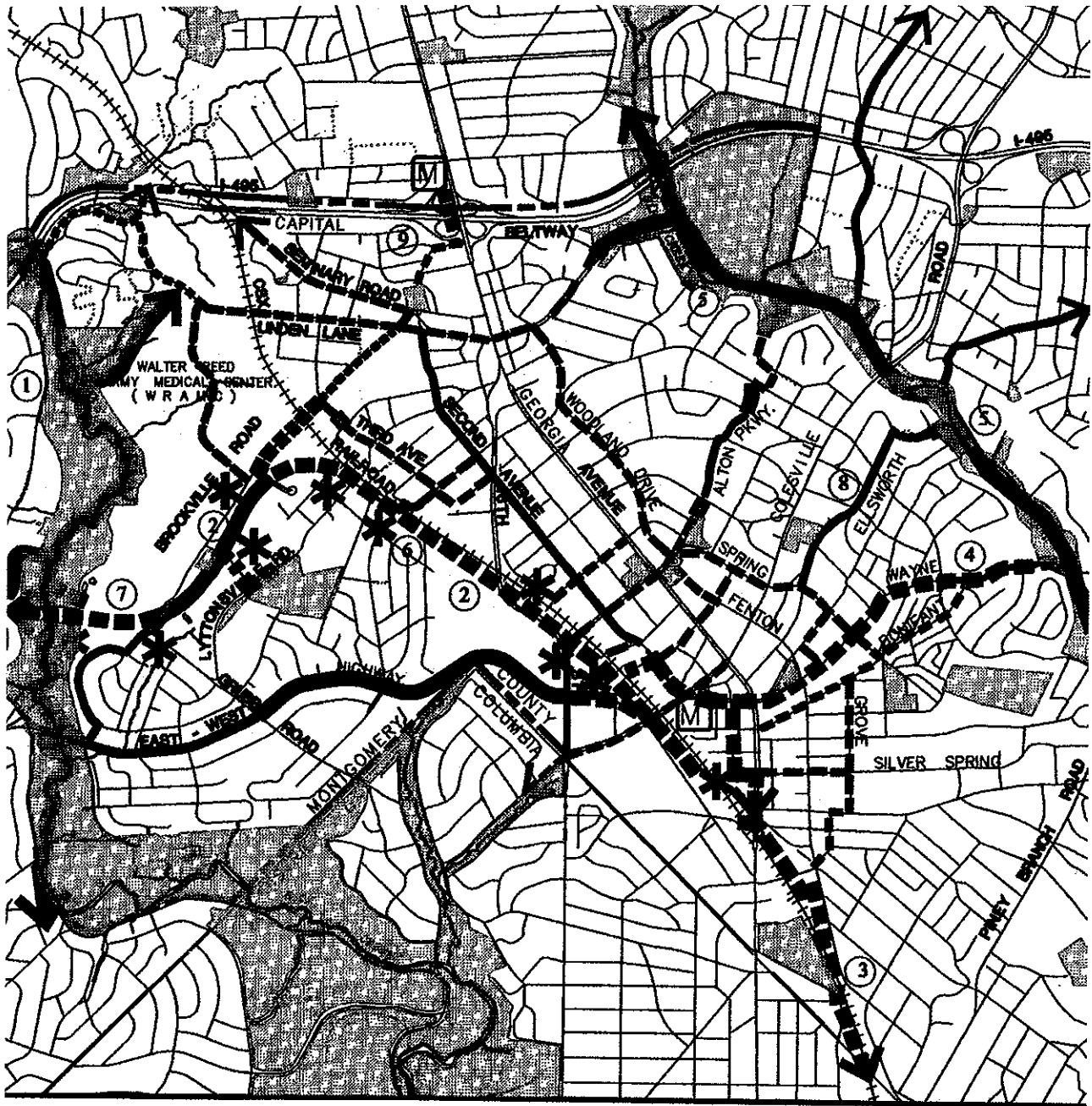


Table 3

**BIKEWAY SYSTEM FRAMEWORK ROUTES
NORTH AND WEST SILVER SPRING**

Route	Name	Location	Type	Comments	Status
Regional Trails					
1	Rock Creek Park Trail	Throughout Planning Area	off-road	Separated path	E
2	Sligo Creek Trail	Throughout Planning Area	off-road	Separated path exists; provide bike lane on Sligo Creek Parkway between Colesville Road and University Blvd.	E P
3	Capital Crescent Trail (CCT)	Throughout Planning Area	off-road	Separated path preferred for portions adjacent to rail.	P
3a	Trestle Bridge	Connects CCT over Rock Creek Park	off-road	Most direct connection for CCT	P
Bikeways Connecting to Regional Trails and Activity Centers					
4	Freyman Drive	Meadowbrook Lane to Terrace Drive	on-road		E
5	Third Avenue	Brookville Road to Grace Church Road to Elkhart Street to 16 th Street to Second Ave.	on-road		P
6	Lyttonsville Place, Lyttonsville Road	Brookville Road to Lyttonsville Road to Recreation Center	on-road	Shared use of roadway	P
7	Silver Spring Green Trail	Wayne Avenue from Colesville Road (at CBD Metro) to Sligo Creek Trail	off-road	Separated path preferred on north side with on-road bikeway	P
8	Colesville Road	Wayne Ave. to North Portal Drive at D.C. Line	on-road	Shared use of roadway	P
9	Ellsworth Drive	Spring Street to Sligo Creek Trail	on-road	Shared use of roadway	E
10	Alton Parkway	Spring Street to Sligo Creek Trail	on/off road	Shared use of roadway	E
11	Woodland Drive	Spring Street to Dale Drive	on-road	Shared use of roadway	P

Table 3 (Continued)

BIKEWAY SYSTEM FRAMEWORK ROUTES
NORTH AND WEST SILVER SPRING

Route	Name	Location	Type	Comments	Status
12	Second Avenue/Locust Grove Road	Colesville Road (in CBD) to Seminary Rd. to Locust Grove to Georgia Ave.- Beltway to Forest Glen Bridge	on-road	Shared use of roadway	E
13	Forest Glen Pedestrian Bridge	Connecting Georgia Ave. (west side) under the Capital Beltway	off-road	The bridge will cross under the Beltway and over the ramps.	P
14	Forsythe Ave./Newcastle Ave.	Stoneybrook Dr. to Linden Ln/Beltway	on-road		P
14	Linden Lane	Capital Beltway to Brookville Road	on-road		P
14	Columbia Blvd.	Georgia Avenue to Sligo Creek Park	on/off road	Connects to Sligo trail where Columbia dead ends	P
15	Seminary Road	Capital Beltway to Georgia Avenue	on-road		P
16	Stephen Sitter Avenue	Linden Lane to Brookville Road	on-road	Through Walter Reed Medical Center	P
17	Brookville Road	Albert Stewart Lane to Linden Lane	off-road	Shared use sidewalk	P
18	East-West Highway	Rock Creek Trail to Colesville Road (in CBD) to Metro /Silver Spring Green Trail	off-road on-road	Shared use sidewalk Shared use of service road	E

Status E= Existing P = Proposed

Notes

For descriptive purposes, "Location" may include portions outside relevant Master Plan Area.

Recommendations only apply within relevant Master Plan Area.

Due to constraints created by existing features, it may not be possible to meet AASHTO's bikeway guidelines along all bikeways. Consider striped bike lanes for on-road bikeways.

The third segment is the Metropolitan Branch Trail, a seven-mile bikeway that will originate at the Silver Spring Transit Center in the CBD and end at Union Station in Washington, D.C. An engineering feasibility study for the Metropolitan Branch Trail was completed in 1997 and concluded that the trail is both structurally and economically feasible. A portion of the trail construction began in 1998.

Recommendations

- **Provide a direct and continuous off-road trail for pedestrians and bicyclists parallel to the proposed Transitway into the Silver Spring CBD.**

An interim, on-street route is only appropriate where the preferred route is not feasible. An interim trail may be necessary in the near term if the permanent trail cannot be constructed due to the alignment of the Transitway. In this case, the most direct route close to the permanent trail alignment is preferred. Options include Third Avenue (and associated “paper” streets), Second Avenue, or First Avenue. The exact location for the interim trail should be determined at the time of the Facility Plan.

- **Provide trail connections to neighborhoods, community facilities, and other destinations.**

The following connections to the Capital Crescent Trail are recommended. Others may be identified during the trail design phase.

- Rock Creek Trail East
- Grubb Road
- Lyttonsville Place Bridge
- Stewart Avenue
- Warren Street/Woodlin Elementary School
- Kansas Avenue

- Talbot Avenue, Lanier Drive, and the Rosemary Hills Elementary School
- Grace Church Road
- Park Sutton Condominiums/Woodside Mews at Lyttonsville Road near 16th Street
- Noyes Drive
- Ballard Street

- **Develop trailhead parking for the Capital Crescent Trail near Lyttonsville Place on Brookville Road.**

The Capital Crescent Trail will need support facilities to manage the large and increasing number of users on the hiker/biker trail system. Designated parking and access to the trail are vital to reduce conflicts with residential and commercial parking. A suitable site is the one-acre parcel located at the southeast corner of Lyttonsville Place and Brookville Road. This parcel is currently owned by M-NCPPC and is adjacent to a County-owned parking lot used by employees at the Brookville Road Service Park. This site is also planned to support a proposed station for the future Georgetown Branch Transitway.

- **Design the trail to provide for safety and a good trail experience. Consider separating pedestrians and bicyclists to meet these goals.**

- **Develop a design concept for the trail that enhances the user’s experience and takes into account the following elements:**

- **Aesthetics and comfort:** Provision should be made for landscaping, attractive fences and walls, and stopping places with seating. Adequate space between the trail and transitway must be maintained.
- **Visibility:** Screening of the trail (and transitway) should be provided where appropriate. In other locations, increased visibility may be needed.

- Opportunities to understand the community and its setting: Vistas and signs could be provided to inform trail users about various areas along the trail, including Rock Creek Park, the Brookville Road Industrial area, the residential neighborhoods, and the history of the railroad corridor.
- Deterring Crime: The principles of Crime Prevention Through Environmental Design (CPTED) should be considered and balanced with other trail design objectives.
- **Acquire additional right-of-way or easements as needed to ensure trail continuity and use of the most desirable and feasible trail design section.**

There are several areas where acquisition of additional right-of-way may be necessary. Final determination should occur during facility planning. Variables include the amount of space needed for different types of transit alternatives, as well as trail design in constrained areas.

- **Ensure that any trail installed before the Transitway will not compromise the future transitway/trail pair.**
- **Provide safe trail crossings of roads and railways. Consider a separate bridge for the trail across the CSX tracks due to the narrow width of the existing Talbot Avenue bridge.**
- **Confirm the recommendations of the Georgetown Branch Master Plan for the trail and transitway.**