

TRANSPORTATION and CIRCULATION

OBJECTIVES

The sector plan transportation and circulation recommendations seek to attain the following objectives:

- Integrate transportation service and facilities in the Sector Plan Area to increase transit ridership, improve pedestrian and bicycle mobility and minimize automobile dependence.
- Ensure that the Sector Plan Area street network is bicycle and pedestrian supportive and contains bicycle lanes, multiuse trails, transit and parking facilities (including bicycle parking and lockers), to provide efficient multimodal movement, where appropriate.
- Improve the attractiveness of multimodal transit at the Greenbelt Metrorail and MARC rail station by improving station access for pedestrians, transit patrons and bicyclists.
- Capitalize on the multibillion dollar County and State investment in the regional transit system, particularly Metrorail, MARC and Metrobus.
- Limit commercial and through traffic in the Sector Plan Area to collector streets and roads that are designed to accommodate this traffic, to protect neighborhoods from intrusive levels of nonlocal traffic.
- Ensure that, as a whole, the transportation system will not disrupt neighborhoods in the Sector Plan Area.
- Develop transportation recommendations that support environmentally sensitive land uses as solutions to problems identified in this plan.
- Ensure that the transportation and transit service and facilities recommended by this plan are consistent with the policy objectives of the State's Planning Acts of 1992.
- Ensure that sector plan recommendations are consistent with the preferred growth alternative and associated policy objectives of the amended Prince George's County *General Plan* and of the adopted Biennial Growth Plan, which are to be produced under the provisions of Council Resolution CR-62-1998.
- Provide for adequate coordination of planning policies and issues and community concerns that must be addressed after the sector plan has been adopted and approved.
- Ensure that the sector plan transportation recommendations are consistent with recommendations made by the principal transportation studies (see below), including:
 - (1) The Maryland State Highway Administration (SHA) Greenbelt I-95/495 Access Improvement feasibility study (MDOT/SHA)
 - (2) The WMATA Transit Service Extensions Plan
 - (3) Capital Beltway Major Investment Study (CBMIS)
 - (4) I-95/495 Corridor Transportation (Transit Options) study (CBCTO)
 - (5) The updated *Five Year County Transit Development Master Plan* (TDMP), particularly the local transit service recommended for the Greenbelt and Metrorail station area
 - (6) The Maryland State Transit Advisory Panel (TAP) report, "The Future of Transit in Maryland"

However, the timing of the plan and of these studies may preclude such coordination.

EXISTING SITUATION AND ISSUES

Background—The sector plan transportation and transit recommendations in this chapter reflect a unique mix of transportation challenges and opportunities.

Commuter and rapid transit rail stations are located in the same area as several highways and arterial roads that border, or traverse, this Sector Plan Area. It is this public investment in transportation infrastructure on which State Smart Growth policies seek to capitalize by targeting development where adequate infrastructure, or capacity for cost effective expansion, already exists.

Achieving Smart Growth policy objectives in the Sector Plan Area posed some unique choices and challenges because this area is a targeted growth area and a major transportation crossroads. A delicate balance between the existing (and proposed) infrastructure and proposed development was required to reflect both transportation system capacity and environmental constraints in the Sector Plan Area.

Demographic, commuting and investment patterns in the County and region have shifted significantly in the time it has taken to construct the Metrorail system. The regional rapid transit rail system that, in 1962, was supposed to take 8 years and cost \$1 billion to build, eventually required 34 years and \$8 billion. When the 1982 *General Plan* was developed and approved, certain land uses, mixes, densities and locations were assumed around Metrorail stations in the County. Some of these assumptions are now out of date and may not reflect the Metrorail system as constructed. Further, the current Metrorail system only partly meets the present-day commuting requirements of residents and workers in the County and the region. An estimated 29.2 percent of all commuters travel to destinations outside areas served by Metrorail. This estimate will be updated by the travel demand forecast modeling and by the latest available Metrorail, bus and commuter rail ridership and service area information for this part of the County.

In fact, Greenbelt is located in a major cross-county commuter corridor. Residents of Anne Arundel and eastern Prince George's counties commute through this area to jobs in Howard and eastern Montgomery counties and Laurel. This cross-county commuting pattern is estimated to increase 25 percent over the next 20 years. It is, therefore, a travel pattern that is increasingly difficult for the traditional suburb-to-core alignment of the Metrorail system to serve efficiently. For example, if the plan's land use recommendations are implemented, along with the Washington Region Constrained

Long-Range Transportation Plan for 2020, and the Washington Region Cooperative Forecasts for 2020 are assumed, then only about 55 percent of the commuter trips to employment opportunities proposed in the sector plan can be made by a one-train Metrorail trip. This plan, therefore, recognizes these changes in commuting demographics by proposing development at Greenbelt — such as employment centers — that are based on Smart Growth principles.

The sector plan street and road systems should not be overloaded by additional commuter vehicles if, at the same time, the plan is serious in achieving Smart Growth policy objectives, particularly concentrating new development at infrastructure nodes. This means that transit, transportation or parking demand management, and closely coordinated land use and transportation planning will be required to serve the travel requirements of a significant percentage of the commuter population by minimizing additional single-occupant vehicle (SOV) person trips to the Sector Plan Area.

However, actual implementation of these strategies will have to be determined during interagency follow-up and should be coordinated by the Transportation Demand Management District (TDMD).

Related Studies and Projects—A number of project feasibility and planning studies are underway or have been recently completed that affect the Sector Plan Area.

Successful implementation of this sector plan depends partly on coordinating the sector plan transportation recommendation with these studies. However, the timing of the plan and of these studies may delay such coordination. These studies are the SHA Greenbelt I-95/495 Access Improvement feasibility study, the WMATA Transit Service Extension Plan, the Capital Beltway Major Investment Study (CBMIS), the I-95/495 Corridor Transportation (Transit Options) study (CBCTO), Five-Year County Transit Development Master Plan (TDMP), and the Maryland State Transit Advisory Panel (TAP) report, "The Future of Transit in Maryland."

Beltway Access Enhancement—The most significant of these studies was the SHA Greenbelt I-95/495 Access feasibility study. This multiagency study included staff representatives of SHA, Federal Highway Administration (FHWA), WMATA, M-NCPPC and County DPW&T and evaluated the technical feasibility of enhancing Metrorail station access from the Beltway by providing a full interchange at the Greenbelt station.

The study recognized this sector plan and proceeded on the assumption that significant development would eventually occur at this station site. The study reached the following conclusions:

- Overall project feasibility

Beltway access to and from the Greenbelt station can be enhanced. For access to be enhanced, the State must first apply to FHWA for an Interstate Access Point (IAP) permit.

- Major environmental and traffic operations issues

A number of significant environmental and traffic operational issues must be thoroughly evaluated and analyzed during the project planning phase before a specific alignment can be determined to enhance Beltway access at Greenbelt. All applicable provisions of the National Environmental Policy Act (NEPA), as well as County and State environmental impact analysis requirements, will significantly affect any final design and alignment of the access improvements.

- Preliminary project costs

Improving Beltway access at Greenbelt can be expected to cost from \$15 million upwards. More detailed cost estimates will be made during the project planning phase, should this project advance that far.

It is important to note that before new Beltway access ramps can proceed to actual construction, this project still must complete a number of steps that affect the transportation network in the Sector Plan Area:

- It will be necessary to obtain a Federal Highway Administration (FHWA) Interstate Access Point (IAP) permit before project planning or other Federally funded activities can begin. However, an IAP permit application must be accompanied or preceded by changes in the appropriate master plan.
- The State Highway Administration will need to conduct a full project planning study to develop detailed design alternatives and costs and determine their respective environmental impacts. The project planning study, as well as the subsequent construction, will have to receive sufficient priority from the County to ensure that it is funded in the State Consolidated Transportation Program (CTP). The November 15, 1999, Joint Signature Letter on State Transportation Priorities identified this project as priority number five.

For that reason, this plan recommends amending the 1989 *Langley Park-College Park-Greenbelt Master Plan* to place a full interchange symbol on the Beltway opposite the Greenbelt station site. However, the SHA project planning study will

determine the actual location and configuration of the access improvements to the Greenbelt station and vicinity.

Capital Beltway Major Investment Study (CBMIS)—

The Maryland and Virginia transportation departments are evaluating ways to relieve congestion on the Capital Beltway by increasing capacity and/or adding exclusive high-occupancy vehicle (HOV) or transit lanes. The Beltway carries approximately 230,300 vehicles daily in Maryland, is part of the National Highway System and is the principal transportation artery of the Washington metropolitan region. It borders the northern and eastern part of the Core Area. Approximately 78 percent of the transit patrons who commute by automobile to the Greenbelt station do so via the Beltway.

The entire Beltway is at or near capacity throughout Maryland. To accommodate projected increases in traffic, it must be either expanded or converted to function as more of a multimodal transportation facility than it does now. This can be accomplished by adding general purpose vehicle lanes, high-occupancy vehicle (HOV) or exclusive transit lanes on the Beltway. This does not mean reducing the existing number of travel lanes.

Capital Beltway Corridor Transportation (Transit Options) Study (CBCTO)—

Another option for relieving Beltway congestion is construction of a circumferential transit alignment (“Purple line”) parallel to the Beltway to provide additional travel options for the growing amount of commuter traffic that does not travel to destinations downtown.

This study (CBCTO) has significant implications for the Sector Plan Area because of the potential role the Metrorail Green line and the Greenbelt station may play in the circumferential transit system. The Greenbelt station and rail car service and inspection yard could link Metrorail and MARC commuter rail to the cross-County transit alignment.

Two possible alignments under consideration for the circumferential transit line are within the Sector Plan Area and could link to the Greenbelt station. This connection would provide a “seamless” commute for residents and workers in this part of the County and the metropolitan region.

A third possible alignment is under consideration that could eventually be linked to the Greenbelt station if commuter demand, such as what would be generated by an employment center in the Sector Plan Area, justified the connection. The Greenbelt station is also important for cross-County transit planning because of its proximity to the Laurel/I-95 corridor, BARC, the Goddard Space Flight Center and The University of Maryland.

State Consolidated Transportation Program (CTP)—The Maryland Department of Transportation (MDOT) is studying and making improvements to US 1 and Kenilworth Avenue/Edmonston Road (MD 201) on both sides of the Sector Plan Area.

The first project related to this effort was part of the Special Projects Program and involved construction of a double left-turn lane on Kenilworth Avenue/MD 201 at Ivy Lane, and reconstruction of the signal at the I-95/Kenilworth Avenue ramp. This project has been completed.

A second project, the proposed widening of Kenilworth Avenue/MD 201 between Cherrywood Lane and Sunnyside Avenue, is listed in the Maryland System Preservation Program. However, the project is actually the financial responsibility of the U.S. Department of Agriculture (USDA), whose Beltsville Agricultural Research Center (BARC) borders the Sector Plan Area to the north and northwest.

The third project is part of the Secondary Development and Evaluation program, and is a study of a possible 4- to 6-lane divided highway from the Beltway to MD198, a distance of approximately 7.1 miles. At present, this project is funded for project planning only.

The current State Consolidated Transportation Program (CTP) contains a Special Project, scheduled to begin during FY 2001, to provide double left-turn lanes for eastbound traffic on Greenbelt Road at Cherrywood Lane.

Road and Street System—Map 5 and Table 3 delineate the Sector Plan Area street and roadway system. The Sector Plan Area is bordered by Sunnyside Avenue to the north, Kenilworth Avenue/Edmonston Road (MD 201) to the east, Greenbelt Road (MD 193) to the south and Rhode Island Avenue to the west.

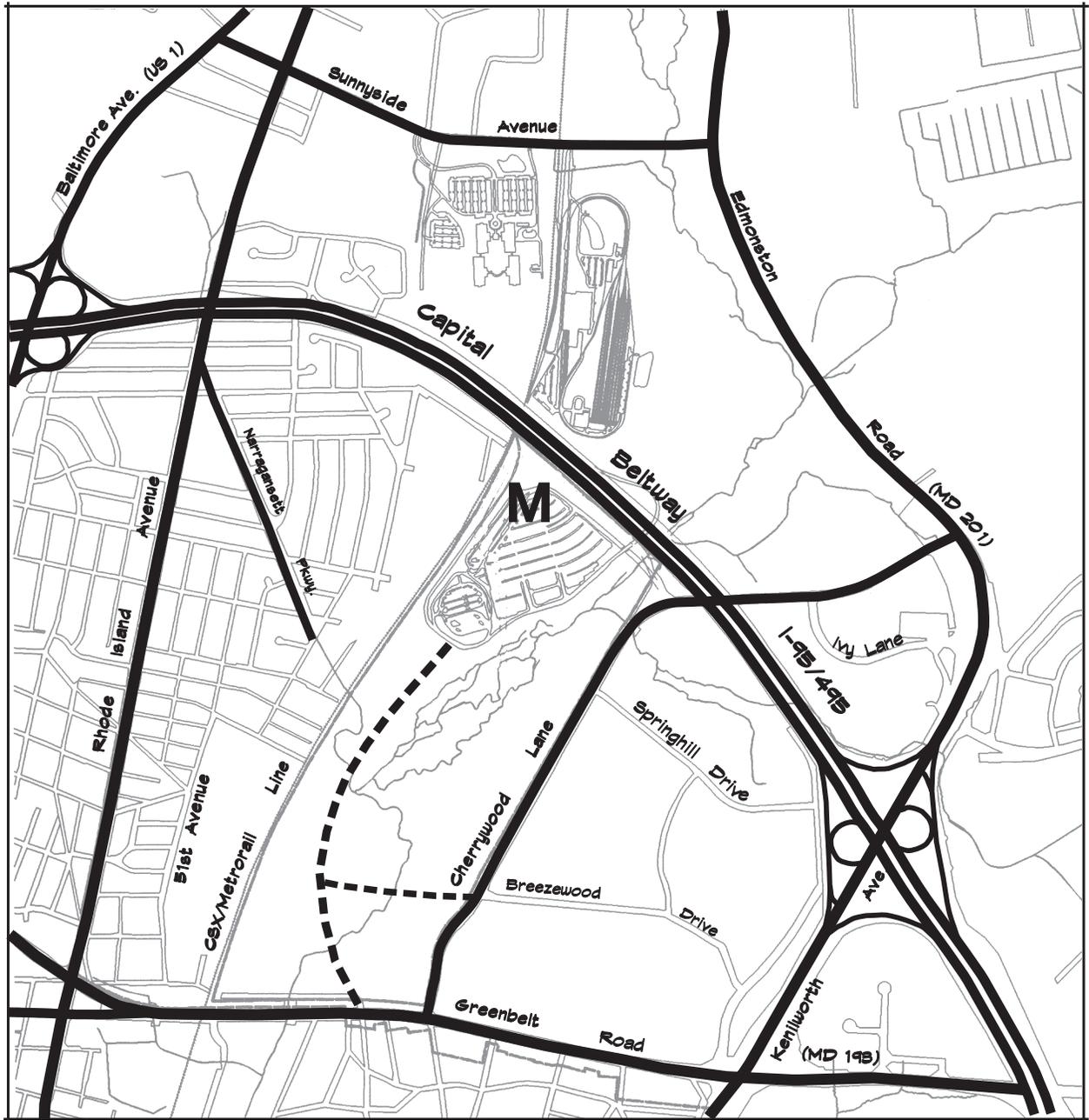
Kenilworth Avenue and Greenbelt Road are arterial roadways; Sunnyside Avenue, Rhode Island Avenue and Cherrywood Lane all function as collectors. The Sector Plan

Table 3
Existing and Proposed Road Facilities: Greenbelt Sector Plan Area

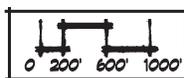
ID	Name	Route No.	Limits ¹	Right-of-Way	Lanes
Freeways					
F-5	Capital Beltway	I-95/495	Rhode Island Avenue to Kenilworth Avenue - Edmonston Road / MD 201	300'	8 - 12
Arterials					
A-14/ A-56	Kenilworth Avenue / Edmonston Road	MD 201	Greenbelt Road / MD 193 to Sunnyside Avenue	varies	6
A-16	Greenbelt Road	MD 193	Rhode Island Avenue to Kenilworth Avenue - Edmonston Road / MD 201	120' - 200'	4 - 6
Collectors					
C-101	North-South connector	Proposed	Greenbelt Road / MD 193 to Greenbelt station site	80' - 100'	2 - 5
C-107	Cherrywood Lane	Municipal / County	Greenbelt Road / MD 193 to Kenilworth Avenue (Extended)	80' - 100'	2-4
C-118	Rhode Island Avenue	County	Greenbelt Road / MD 193 to Capital Beltway	80'	4
C-120	Sunnyside Avenue	County	B&O Railroad to Kenilworth Avenue (Extended)	80'	4 - 6

¹ May not include segments outside the planning area.

Note: See proposed road classifications for the Core Area and redeveloped Springhill Lake in the respective subarea sections of this document.



- Existing Roads
- Proposed Roads



Principal Roadways

Map 5



Area is partially circumscribed by the Capital Beltway (I-95/I-495), a freeway which is part of the National Highway System.

The planning area is an important part of the transportation network in Prince George's County. Residents, employees, shoppers and commuters in this planning area are served by a number of significant roads:

- Capital Beltway/I-95
- Greenbelt Road/MD 193
- Kenilworth Avenue/Edmonston Road
- Cherrywood Lane

This master plan uses the following road classifications:

- **Freeway:** A divided highway for through traffic, with full access control by grade separations at intersections, intended solely to carry large volumes of traffic over medium to long distances. Rights-of-way range from 300 to 600 feet. *Example:* Capital Beltway (I-95/I-495)
- **Parkway:** A corridor of parkland containing a limited-access, divided scenic roadway with full or partial access control. The width of the median, as well as the park corridor, is variable dependent on the topography and adjacent natural and cultural features. Parkways are typically limited to noncommercial traffic and intended as a scenic gateway to prominent destinations. Emphasis is on following the contours of the land, natural or naturalized landscapes, and visual buffer between roadway and adjoining developed areas. *Example:* Baltimore-Washington Parkway.
- **Expressway:** A divided highway for medium-high speed traffic, with controlled access and some or all intersections at grade. Access also is limited to selected highways; intersections are spaced 1,500 to 2,000 feet apart. Access to abutting properties is generally not permitted. Rights-of-way are generally a minimum of 200 feet. *Example:* Kenilworth Avenue/MD 201
- **Arterial:** A divided highway with intersections at grade, and with geometric designs and traffic controls intended to expedite the movement of through traffic. Direct access to abutting properties may be permitted but may also be controlled. Rights-of-way are generally a minimum of 120 feet. *Example:* Greenbelt Road/MD 193
- **Major Collector:** A four-lane roadway with turning lanes at intersections and some control of access, which provides movement primarily for local traffic along with some ele-

ments of through traffic. Rights-of-way are generally a minimum of 90 feet.

- **Collector:** A multi-lane or two-lane highway designed to carry medium speed traffic between arterials, to afford access to major traffic generators and to connect residential neighborhoods and their local, internal street systems to major highway systems. Access to abutting properties is usually permitted. Rights-of-way are generally a minimum of 80 feet. *Example:* Rhode Island Avenue, Cherrywood Lane and Sunnyside Avenue

Because the Sector Plan Area is a mature, inner-County community where the road network has largely been completed, innovative and ongoing transportation solutions are required to accommodate additional traffic volumes. As an example, the lack of unused right-of-way to add road capacity places a premium on finding ways to improve the operating efficiency of the existing network. Transportation system management (TSM) and transportation demand management (TDM) are important tools for achieving this.

Transportation system management seeks to optimize road and street operating efficiency so that as much peak period traffic as possible can be effectively absorbed. Transportation demand management, on the other hand, provides ways to reduce the volume of traffic, particularly single-occupant vehicle trips, that these roads and intersections must accommodate.

Transportation system management measures that can be taken include:

- Traffic engineering improvements
- Preferential treatment of transit and high-occupancy vehicles (HOV)
- Parking management and enforcement
- Altering commuting patterns by staggering work hours
- Integrating road capacity and operations improvements with the transit system

The principal streets and roads in the Sector Plan Area had the following average daily vehicle traffic (ADT) volumes as of the period from November 1998 to May 1999:

■ Greenbelt Road	39,325
■ Kenilworth Avenue	52,055
■ US 1 (Baltimore Avenue)	56,575
■ Capital Beltway	230,300

■ Cherrywood Lane	4,755
■ Sunnyside Avenue	9,703
■ Metro Station Access Road	11,000
■ Branchville Road	1,056

The road system in the Sector Plan Area is largely built out. There is little additional right-of-way available to add lanes to the roads that carry most commuter and other through traffic in the Sector Plan Area. Sunnyside Avenue, while County-maintained, is abutted by USDA/BARC property for most of its length and would require some of this property if it is to be constructed to collector standards.

The arterial and collector streets define the “edges” of different activity and development areas that exist, or are proposed, in the Sector Plan Area. Using arterial and collector roads to define these edges requires careful design. Through traffic on these streets should not interrupt or degrade the efficiency of traffic movements into and out of the residential communities that these through streets traverse. The intersections of such streets should also accommodate the lower speeds and multiple transportation modes that this plan envisions for residential streets in the Sector Plan Area.

Residential streets in the sector plan also are meant to provide for other travel modes, particularly pedestrian and bus travel, to accommodate transit-supporting development in the Core Area, and transit-oriented redevelopment of Springhill Lake.

To implement the transportation objectives that are most consistent with Smart Growth and the sector plan vision, the Sector Plan Area street network would have to perform some specific and nontraditional functions, such as:

- Efficiently feeding commuter traffic to the Greenbelt station without overwhelming residential communities in the Sector Plan Area with cut-through traffic
- Confining through traffic to the arterial and collector roadways that have the capacity to accommodate this type of traffic

- Providing multimodal links within residential communities, and between the communities and activity centers that are in and near the Sector Plan Area
- Efficiently linking Core Area development centers without overwhelming other parts of the Sector Plan Area with the associated traffic.

Furthermore, to maximize the operating efficiency of existing road capacity, and to ensure that the streets system performs the multimodal functions needed to support the development this plan envisions, transportation systems management (TSM)¹ on operationally critical road segments and intersections in the Sector Plan Area will be important to the sector plan implementation strategy.

Rail Transit Service—The northern Green Line (Outer E route) — Greenbelt to Fort Totten — opened in December 1993. (See Figure 7.) The Washington Metropolitan Area Transit Authority (WMATA) reported the following ridership at the Greenbelt station:

■ Existing weekday peak	4,950
■ Existing weekday off-peak	827
■ Existing Saturday	2,369
■ Existing Sunday	1,839

In September 1999, the Green Line “MidCity” segment between Fort Totten and U Street-Cardoza opened and now permits continuous rail service from the Greenbelt terminal through downtown Washington, D.C. Ridership at the Greenbelt station has increased approximately 10.25 percent since this Green Line expansion opened for service.

Parking lot utilization at Greenbelt currently averages 84.5 percent and has increased steadily over the past 18 months. While reduced commuter parking lot rates are partly responsible for this increase, the recent completion of the “MidCity” segment of the Green Line station lot is expected to fill this lot to the capacity of 3,360 spaces.

¹ TSM -Transportation System Management seeks to optimize road operating efficiency so that as much peak period traffic as possible can be effectively absorbed by the existing road system. TSM measures can include: traffic engineering improvements, preferential treatment for high occupancy (HOV) and transit vehicles, parking management and enforcement, altering/staggering commuter work hours, integrating road capacity and operations with the transit system.

TDM -Transportation Demand Management, on the other hand, provides programs and incentives to actually reduce the volumes of additional traffic, particularly SOV trips, that congested roads and intersections must accommodate.



System Map

Legend

- Red Line • Glenmont to Shady Grove
- Orange Line • New Carrollton to Vienna/Fairfax-GMU
- Blue Line • Franconia-Springfield to Largo Town Center
- Green Line • Branch Avenue to Greenbelt
- Yellow Line • Huntington to Mt Vernon Sq/7th St-Convention Center



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- No Smoking
- No Eating or Drinking
- No Animals (except service animals)
- No Audio or Video Devices (without earphones)
- No Litter or Spitting
- No Dangerous or Flammable Items

Figure 7. Washington Metropolitan Area Transit Authority Metrorail System Map (© 2000 Washington Metropolitan Area Transit Authority)

Full utilization of the station parking lot makes it important to adequately provide for the additional patrons that will be attracted to the station site by the land uses this plan recommends. The plan emphasizes access to the rail stations by means other than the automobile. To accomplish this goal, it will be important to provide safe, aesthetically attractive, all-weather access for all transportation modes to the Greenbelt station from the development centers that the plan recommends, including the redeveloped residential community proposed at Springhill Lake; from North College Park and the USDA/BARC complex.

Metrorail System Construction Costs

■ Adopted regional system	\$7,477,000,000
■ Prince George's Metrorail contribution	\$688,600,000
■ Green Line (Greenbelt to Branch Avenue)	\$3,473,000,000
■ Greenbelt Station construction costs	\$133,000,000

Bus Transit Service—Bus service is often the most cost effective transit option in the kind of multimodal transportation network that this plan recommends. Providing bus lanes or transit ways can give bus service an operational advantage. These facilities can make bus service sufficiently reliable, and bring it close enough to the front door, to make transit in general a viable means of reducing automobile dependence, particularly single-occupant vehicle (SOV) trips.

This plan envisions using the different types of bus service to connect the Greenbelt station to the rest of the Sector Plan Area.

Line Haul Bus Service—Line haul bus service, operated by WMATA for Prince George's County, is concentrated in peak hours, and links the Greenbelt station to other parts of the region.

WMATA (Metrobus) Routes R3, T15, T16 and T17 provide feeder and cross-County bus service to and from the Sector Plan Area. The R3 route carries approximately 250,000 riders annually; the three T-series routes carry approximately 453,000 riders each year.

Feeder and Community Circulator Bus Service — Feeder and community circulator bus service is operated by both WMATA and the County Department of Public Works & Transportation (DPW&T). This service is intended to connect residential areas with each other and with

trip generators and activity centers in the immediate vicinity of the Sector Plan Area.

In 1994, M-NCPPC staff prepared the *Greenbelt Local Transit Study* (GLTS), which recommended local shuttle bus routes to serve the rail station, the City of Greenbelt and nearby activity and trip generators, such as Capital Office Park, the Greenbelt Road corridor and Federal facilities in the area.

In 1995, the Prince George's County DPW&T Five Year Transit Development Master Plan (TDMP) proposed and DPW&T now operates a new route, CP2. This route operates weekdays and Saturdays from College Park-University of Maryland Metrorail Station via College Park Estates, Berwyn Heights, and Hollywood to a loop terminal in Daniels Park.

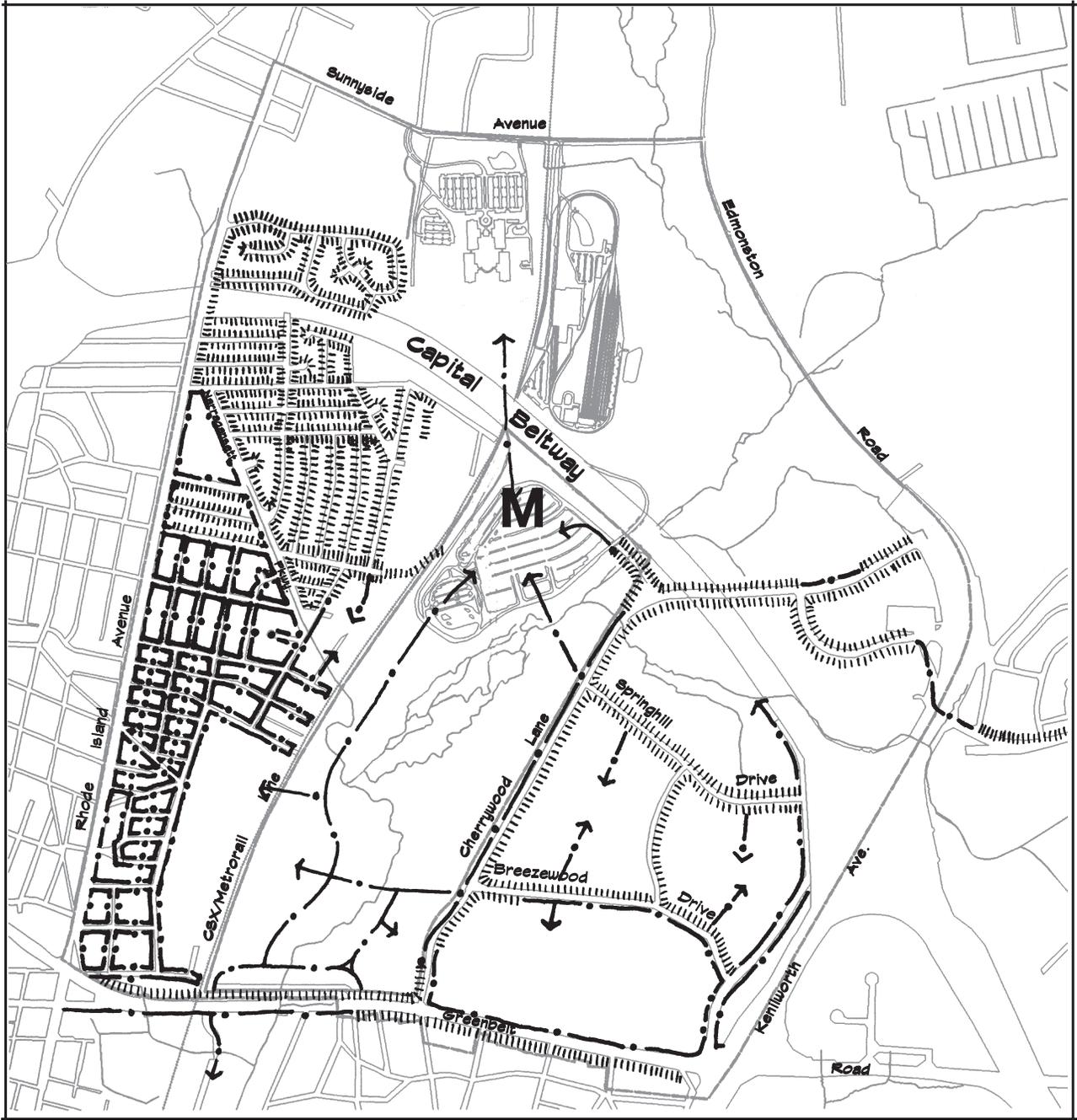
The TDMP also incorporated shuttle route B, recommended by M-NCPPC staff in the GLTS in 1994. This route now operates on weekdays to the Greenbelt station via Greenbelt Road, either to the Greenway Center or, depending on demand and ridership growth, through the Greenway Center via Hunting Ridge and Cipriano Woods to terminate at the Goddard Space Flight Center.

In November 1997, the County DPW&T inaugurated the "The Bus" Route 11, which operates to the Greenbelt station and largely represents the local shuttle bus route recommended in the 1994 GLTS.

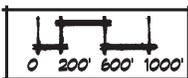
Pedestrian and Bicycle Access—Creating a continuous and connected pedestrian and bicycle network can reduce automobile trips in the Sector Plan Area and provide a well-connected network of daily destinations. The Pedestrian Network and Bicycle Network, as depicted by Maps 6 and 7, are partially complete systems. Presently, sidewalks, bike lanes and trails exist in the Sector Plan Area but are not well connected and do not serve important destinations. Also, crossing major roadways can be unsafe and inconvenient.

Sidewalks—The sidewalk system in the Sector Plan Area is the primary network for pedestrian circulation, however, it is fragmented and limits pedestrian access within and between the subareas. Reaching destinations such as the Metro station and activity centers can become difficult and force many residents and workers into their cars because (1) sidewalks are not provided to reach destinations; or, (2) sidewalks provided are too narrow and are not set back from the roadway; they do not have site furnishings such as pedestrian lighting and seating.

Sidewalks are provided on Springhill Drive and the north side of Breezewood Drive in Springhill Lake and are also



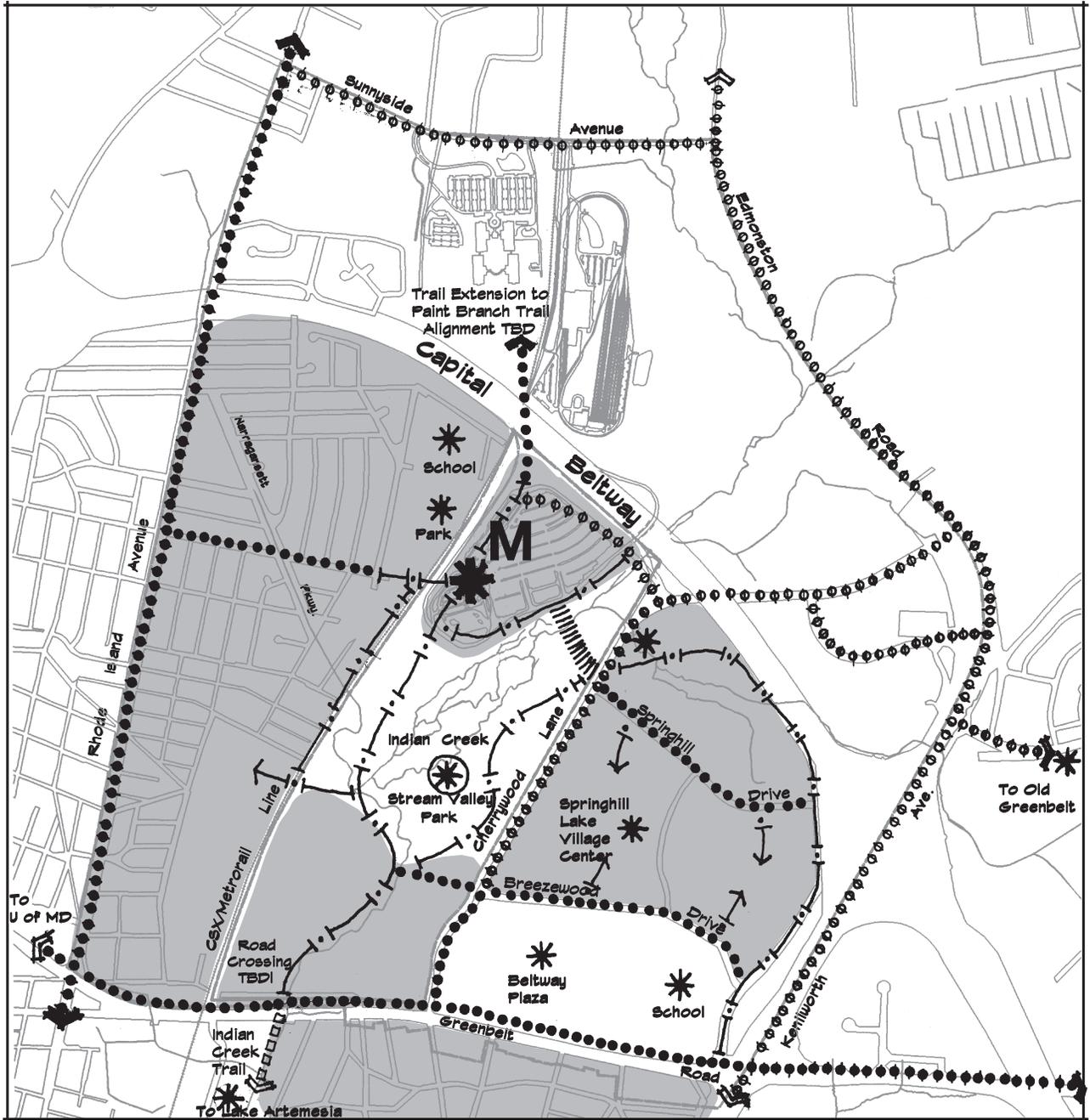
- Existing Pedestrian Route
- Proposed Pedestrian Route



Pedestrian Network

Map 6





- | | | | |
|---------|---|---|--|
| ⊕⊕⊕⊕ | Existing Bicycle Route | ★ | Major Destination
(Greenbelt Metro Station) |
| ●●●● | Proposed Bicycle Route | ★ | Local Destination
(Schools, Parks, Activity Center) |
| □□□ | Existing Multiuse Trail | ★ | Proposed Indian Creek Stream Valley Park |
| — · — · | Proposed Multiuse Trail
(Hiker-Biker-Equestrian) | ▭ | Bicycle Friendly Areas |
| | Primary Pedestrian Promenade | | |

provided to connect internal open spaces. Similar to Springhill Lake, the northern end of North College Park provides a complete and convenient sidewalk system with walks provided on both sides of most streets north of Lackawanna Street. Unfortunately, no sidewalks were constructed south of Lackawanna Street, forcing residents to walk in the road rights-of-way. Other localized pedestrian movements are not as efficient. Segments of sidewalks are incomplete along Cherrywood Lane, Ivy Lane, Breezewood Lane and Greenbelt Road, making it difficult for pedestrians to reach Beltway Plaza, Capital Office Park and the Greenbelt station site. Near the Federal Courthouse, sidewalks are not provided to connect with Edmonston Road. Sidewalks are also not provided on the western edge of Cherrywood Lane, the southern edge of Breezewood Drive or the northern edge of Greenbelt Road.

Additionally, pedestrian access to the Greenbelt station is limited. One path exists at the end of Lackawanna Street in North College Park to connect directly with the rail platform. This path does have limited access and closes nightly in connection with WMATA operation hours. No other direct pedestrian access is provided to the rail station. Residents of Springhill Lake must walk north along Cherrywood Lane to a sidewalk along Metro Station Drive and through the surface parking lot to reach the Metro platform.

Bike Lanes—Designated bike lanes exist only along Cherrywood Lane and Ivy Lane. Six-foot-wide bike lanes were constructed along Cherrywood Lane in 1991-92 at the outer edge of both the north and southbound lanes. The number of vehicle travel lanes was reduced from four to two when these bike lanes were installed. These bike lanes would be more effective for commuters if: (1) bike lanes were continued along the entire length of Cherrywood Lane, specifically between Greenbelt Road and Breezewood Drive; (2) continuous bike lanes or wide curb lanes were provided on Greenbelt Road to link bike traffic to east and west destinations; (3) a shorter and more direct connection was provided from Cherrywood Lane to the rail platform; (4) adequate bike amenities/facilities, such as bike lockers and racks, were provided at the station site and other destinations; and (5) safe crossings were provided at signalized intersections along major roadways, such as Greenbelt Road and Kenilworth Avenue.

On-road biking occurs along Kenilworth Avenue, Rhode Island Avenue and Greenbelt Road, although designated bike lanes or wide curb lanes are not provided. These roads are all heavily traveled by automobiles; their present design and condition could be improved for safety to all users, bicyclists and motorists alike. Along the widened Kenilworth Avenue, SHA has provided wide shoulders, sometimes referred to as

“safety recovery zones” by the bike community. This shoulder area can accommodate bicyclists and will help to connect bike lanes from Greenbelt Road, along Cherrywood Lane, through Capital Office Park, to Old Greenbelt. With additional safety and design improvements, such as designated road crossings and bicycle awareness signs, these roads could provide critical links necessary to create a continuous bike network in the Sector Plan Area.

Currently the City of College Park is implementing a new initiative to provide bike and pedestrian access in the former trolley car right-of-way in the center of Rhode Island Avenue. This segment will provide another north to south link in the pedestrian and bicycle network on the west side of the railroad tracks for bike travel through North College Park. The construction of this trail is planned to commence by summer 2000 and is expected to be completed by fall 2000.

Bike access along Greenbelt Road is desired by the bicycle community to connect east and west destinations, particularly College Park, The University of Maryland, regional trail systems such as Little Paint Branch Trail, and the Greenbelt station. Unfortunately, the Greenbelt Road right-of-way is built almost to its maximum width, and automobile traffic is already congested during many hours of the day.

Strategies for adequate bike facilities along Greenbelt Road should be explored to provide this vital east/west link and could include the following solutions: (1) through travel lanes could be narrowed on Greenbelt Road to accommodate extra-wide curb lanes for shared vehicle and bike travel; (2) a trail easement could be provided through private properties, such as Beltway Plaza, for separated bike trails parallel to Greenbelt Road (this segment would be set back only 5-10 feet maximum from the curb); and (3) alternative bicycle routes could be provided from Greenbelt Road at the Greenbelt Middle School, along Breezewood Drive to Cherrywood Lane (or across the proposed Breezewood Drive extension to the proposed north-south connector road), and to the station site or North College Park over/underpasses.

Along local streets in North College Park, Berwyn Heights and Springhill Lake, bicycles share the roadways with motorists. North College Park and Berwyn Heights have convenient and organized street systems for adequate bike travel, without many dead-end streets. In North College Park, the bicycle network will be further enhanced once the planned Trolley Line Trail along Rhode Island Avenue is completed. The road network in Springhill Lake is not as typical as in the other existing neighborhoods. Springhill Drive, Breezewood Drive and Springhill Lane are local roads with parallel parking. However, other roadways in Springhill Lake are only wide drive aisles coursing through large parking lots, creating

a situation where bicyclists do not have a clear and distinct route and are either forced onto sidewalks or must ride through parking lots. Numerous curb cuts are created with this street pattern and the curvilinear street pattern reduces site distance, both of which can increase opportunities for accidents.

Trails—Trails are typically located outside of roadway rights-of-way and can be designed for multiple users, such as bicyclists, joggers, walkers, skaters and equestrians. South of the Sector Plan Area, the Indian Creek Trail provides access to Lake Artemesia along the Indian Creek Stream Valley.

The closest trailhead for the Indian Creek Trail in the Sector Plan Area is located at the intersection of Greenbelt Road and 57th Avenue in Berwyn Heights. The existing connection from the Sector Plan Area to the trailhead is unsatisfactory, particularly for recreation purposes because of the unsafe crossing at Greenbelt Road and the lack of designated off-road trails north of Greenbelt Road.



Indian Creek trailhead south of Greenbelt Road in Berwyn Heights.

Currently the Indian Creek Trail continues south past Lake Artemesia to the Northeast Branch and Anacostia River Trails which terminate at Colmar Manor Community Park. The Indian Creek Trail and the Paint Branch Trail meet at Lake Artemesia. Currently the Paint Branch Trail continues from Lake Artemesia north to Cherry Hill Road Community Park on Cherry Hill Road. Ideally, the Indian Creek Trail should continue north of Greenbelt Road to the station site which can then be linked with a future east-west trail to the future extension of the Paint Branch Trail, thus creating a loop. The Paint Branch Trail is planned to connect with Fairland Regional Park in Laurel and the Montgomery County trail system.

The proposed extension of the Indian Creek Trail north of Greenbelt Road to the Greenbelt station and points north of the Beltway is a critical segment in the continuous network of stream valley trails. In combination with on-road bikeways, a complete alternative transportation network can be created that will connect homes, commercial areas, Metro stations and other public facilities.

In the near future, a portion of the Trolley Line Trail (Rhode Island Avenue Trolley Right-of-Way Multiuse Trail) will be constructed from Greenbelt Road to Paint Branch Parkway. Currently there is a designated bikeway on Rhode Island Avenue from University Boulevard north to US 1. Eventually, the Trolley Line Trail will extend north into Beltsville and south into Riverdale.

The City of Greenbelt has several on-road bikeways and trails within its historic boundaries. Safer connections across Kenilworth Avenue are needed to connect from the Sector Plan Area, such as designated crossings at signalized intersections and bicycle awareness signs.

RECOMMENDATIONS

Transportation and Transit Access—The transportation recommendations made in this plan seek to reconcile significant demographic and commuting changes that have occurred in the decade since the 1989 *Langley Park-College Park-Greenbelt Master Plan* was approved, with Smart Growth policy objectives to: (1) capitalize on the public sector investment in infrastructure in the Sector Plan Area; and (2) achieve transit-supporting, balanced growth.

In making some of the following transportation recommendations, this plan takes note of the Final Report to the County Council of Commission 2000. The Commission recommends that targeted growth centers, such as Greenbelt, maintain a traffic Level-of-Service (LOS) E and provide for measures that will ensure that future development at such centers does not generate traffic that will degrade the LOS below E.

The sector plan also reflects Commission 2000's recommendation that the standard for acceptable traffic LOS vary throughout Prince George's County and depend on the level of desired development and land uses proposed for each area within the County. Commission 2000 recommended Greenbelt to the County Council as a priority growth center. The Adopted Biennial Growth Policy established traffic LOS E as the minimum acceptable standard in the Developed Tier, which contains the Sector Plan Area.

- This plan recommends an interchange symbol on the Capital Beltway at the Greenbelt station. This recommendation is made to facilitate possible future County and State

action to obtain the FHWA interstate access point (IAP) permit needed to improve Beltway access to and from the rail stations at Greenbelt.

- Priority should be given to implementing the bus transit recommendations contained in the 1993-1994 *Greenbelt Local Transit Study* (GLTS). This study was undertaken by the Maryland-National Capital Park and Planning Commission and has since been incorporated in the County *Five Year Transit Development Master Plan* (TDMP).
- The principal subareas within the Sector Plan Area should be linked to each other, the Core Area, and particularly the Greenbelt station by moderate-to-high frequency community (small) bus routes that follow the alignments recommended in the GLTS and both the current and updated TDMP. This plan incorporates these local bus route recommendations by reference. The Maryland Department of Transportation should work with the County on planning future bus routes.

As discussed above, bus transit service is crucial to expanding the mobility options for residents of and workers in the Sector Plan Area, particularly given the development and land uses envisioned for the Core Area by this plan. Streets and roads are at or near capacity throughout the Sector Plan Area. There is little additional right-of-way left to add capacity and, where it does exist, this capacity is not in the areas that will experience the greatest increases in vehicular traffic once the development recommended by this plan is fully implemented.

- Proposed land uses and investment in growth in the Sector Plan Area should be coordinated with transportation capacity and system improvements.
- As noted above, a number of State, regional and County transportation facility and capacity studies were undertaken before or during the development of this plan. The most important of these are the Capital Beltway Major Investment Study (CBMIS), Capital Beltway Corridor Transportation Study, and the Greenbelt I-95/495 Access Improvement Feasibility Study. Each of these studies will eventually make recommendations that may affect the determination of how much of the plan's recommended development, particularly in the Sector Plan Core Area, can be supported by transportation facilities or transit service that either already exist or can be provided cost effectively.

This plan recommends that once these studies identify, propose and program transportation facilities, systems and enhancements, the recommendations of these studies

should be incorporated as necessary into the development review process.

- This plan also recommends that the transportation facilities, enhancements and services recommended in these studies be considered as a factor in adequate transportation facility (APF) analyses of any development proposals that are either filed after this plan is adopted and approved for sites within the Core Area, or are filed pursuant to the provisions of CB-47-2000.

The Interim General Plan and Adopted Biennial Growth Policy (BGP) recommend varying transportation adequacy (APF) standards for the more developed parts of the County and around growth policy centers. In the past, there has been one Countywide APF standard.

The Sector Plan Area is inside the Developed Tier of the County. Both the BGP and Interim General Plan recommend that the Greenbelt Metrorail station be a growth policy center. To attract high quality transit-oriented development (TOD) to the Sector Plan Area, transportation APF standards have to reflect the need for certain levels and patterns of traffic that are associated with such development. Elsewhere in both the region and the nation, successful TOD projects at sites such as Greenbelt have found it necessary to adopt flexible, site-specific APF standards.

What is adequate or appropriate for a Developed Tier, multimodal transit facility such as Greenbelt is not the same standard as would, or should, be applied in less dense "greenfield" parts of the County. For example, the mixes of market-rate residential and up-market retail and commercial-office development that are envisioned for growth policy centers such as Greenbelt generate levels of traffic that can exceed the Countywide traffic level-of-service (LOS) standard.

A balance, therefore, must be struck between the desired development patterns and densities at growth centers such as Greenbelt and the traffic those patterns will generate. The BGP and Interim General Plan recognized the need to achieve this balance by proposing that transportation APF standards be varied according to growth policy tier. Greenbelt, as a Developed Tier center, is subject to an APF standard of LOS E, which is more consistent with the mix, densities and patterns of uses envisioned in this sector plan.

- Because this plan was prepared in advance of these studies' final recommendations, this plan also recommends that the development proposed by this plan be phased. The phases of development should be defined by the

following levels of additional development and the following transportation system capacity or capacity enhancements in the Sector Plan Area:

1. Early/Immediate Phase
200,000 - 400,000 square feet
 - a. Maintain current levels of traffic operation (LOS) on the following operationally critical roads within the Core Area: Greenbelt Road (MD 193); Cherrywood Lane; Ivy Lane; Edmonston Road; Kenilworth Avenue (MD 201); Naragansett Parkway; Lackawanna Avenue; and Sunnyside Avenue.
 - b. Make aggressive, area-wide use of Transportation System Management (TSM), through cooperative efforts of SHA, DPW&T, WMATA and the City of Greenbelt, to optimize use of available capacity on existing streets and roads in the Sector Plan Area.
 - c. Divert to transit HOV, carpools or vanpools at least 25 percent of new trips. The plan defines "new trips" as estimated peak-period, single-occupant vehicle trips generated by any new nonretail development, or large-scale revitalization or infill redevelopment that is approved for this phase.
 2. Intermediate Phase
400,000 - 750,000 square feet
 - a. Maintain current LOS on all roads and streets adjoining new development in the Sector Plan Area.
 - b. Make area-wide use of TSM.
 - c. Divert to transit HOV, carpools or vanpools at least 40 percent of all new trips. The plan defines "new trips" as estimated peak-period, single-occupant vehicle trips generated by any new nonretail development, or large-scale revitalization or infill redevelopment that is approved for this phase.
 - d. Construct a three-lane (two general-purpose vehicular plus one exclusive HOV/transit) landscaped connector roadway, built to County collector standards, for Core Area development nodes (including the station site) and Greenbelt Road (MD 193).
 3. Final phase
More than 750,000 square feet
 - a. Maintain current LOS on all roads and streets adjoining new development in the Sector Plan Area.
 - b. Establish a Transportation Demand Management District (TDMD) and Parking District for the Greenbelt station area.
 - c. Divert to transit HOV, carpools or vanpools at least 50 percent of all new trips. The plan defines "new trips" as estimated peak-period, single-occupant vehicle trips generated by any new nonretail development, or large-scale revitalization or infill redevelopment that is approved for this phase.
 - d. Construct a five-lane (four general-purpose vehicular plus one exclusive HOV/transit) landscaped connector roadway, built to County collector standards, for Core Area development nodes (including the station site) and Greenbelt Road (MD 193).
 - e. Enhance Beltway access to the Greenbelt station as determined by the [Greenbelt I-95/495 Access Improvement](#) study. The County should initiate a Transportation Demand Management District for the Greenbelt Metro Area as soon as possible, independent of the proposed highway improvements.
- If development proposals are filed for the Core Area that exceed these phase thresholds before the transportation facilities recommended by the CBMIS and the I-95/495 Access Improvement study are programmed for construction, this plan recommends that project approvals be conditioned on developer contributions that are sufficient to finance the construction or expansion of the facilities needed to adequately support the traffic and levels of transit mode share requirements of that level of development.

In the absence of these contributions, the plan recommends deferring the additional development that exceeds these thresholds, as the additional development would degrade levels of service² on the existing road and street network in the Sector Plan Area. (See Level of Service in Appendix D.)

- In the event the total additional development approved for the Core Area exceeds 750,000 square feet before the CBMIS or I-95/495 Access Improvement study recommendations are adopted and programmed for construction, this plan recommends that a Greenbelt station area Transportation Demand Management District be established pursuant to Section 20A of the Prince George's County Zoning Ordinance.

The plan recommends that, pursuant to the provisions of Section 20A, the staff (or consultants) of the Prince George's County Planning Department provide technical and logistical support to the transportation demand management association that would be created when this recommendation is implemented.

- Once total new development or revitalization approved for the Sector Plan Area exceeds 400,000 square feet, the plan recommends construction of a landscaped three-lane connector road (GBC-1), built to County-collector specifications within a right-of-way sufficient for eventual expansion to a total of five lanes, between the Core Area development centers and Greenbelt Road.

Depending on how much development or revitalization is actually approved, and the amount of development approved in each of the Core Area development centers, the proposed connector road, Breezewood Drive Extended and Cherrywood Lane are recommended for one of the alignments shown in Figure 8A and B.

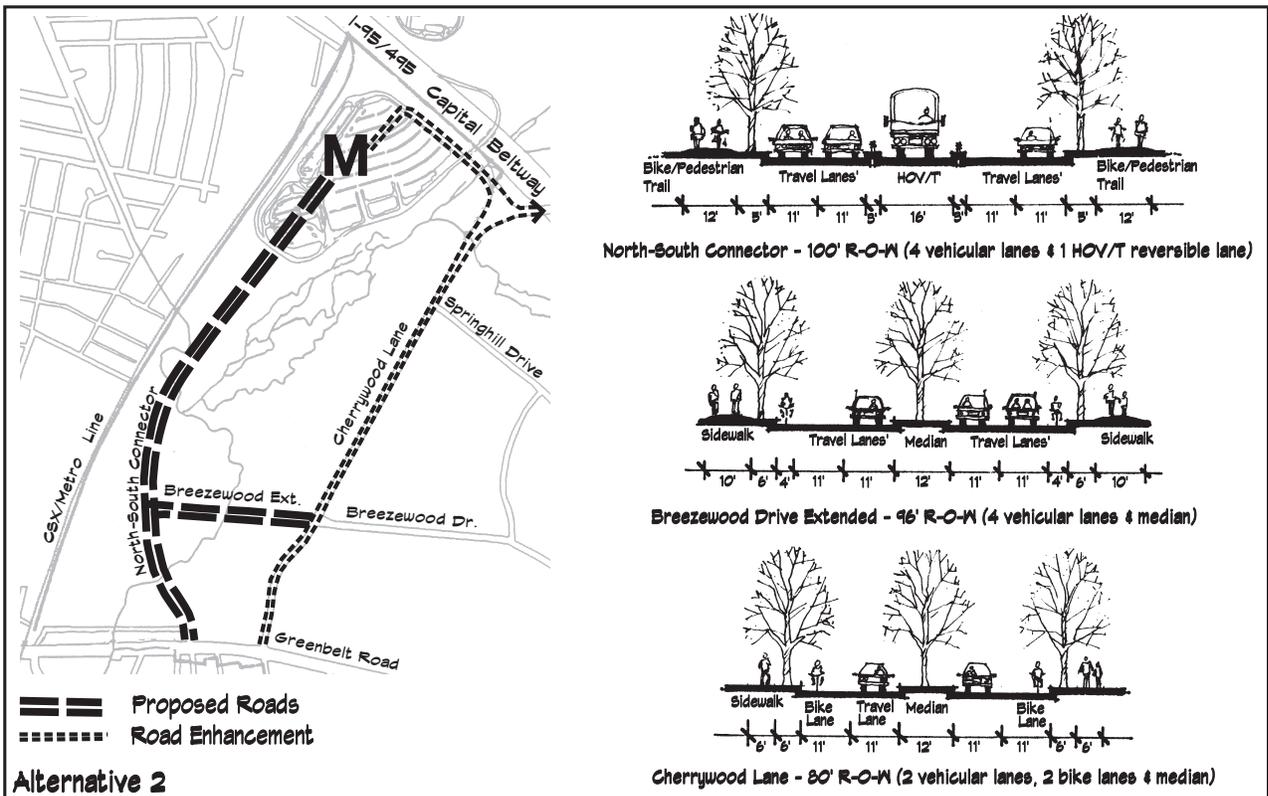
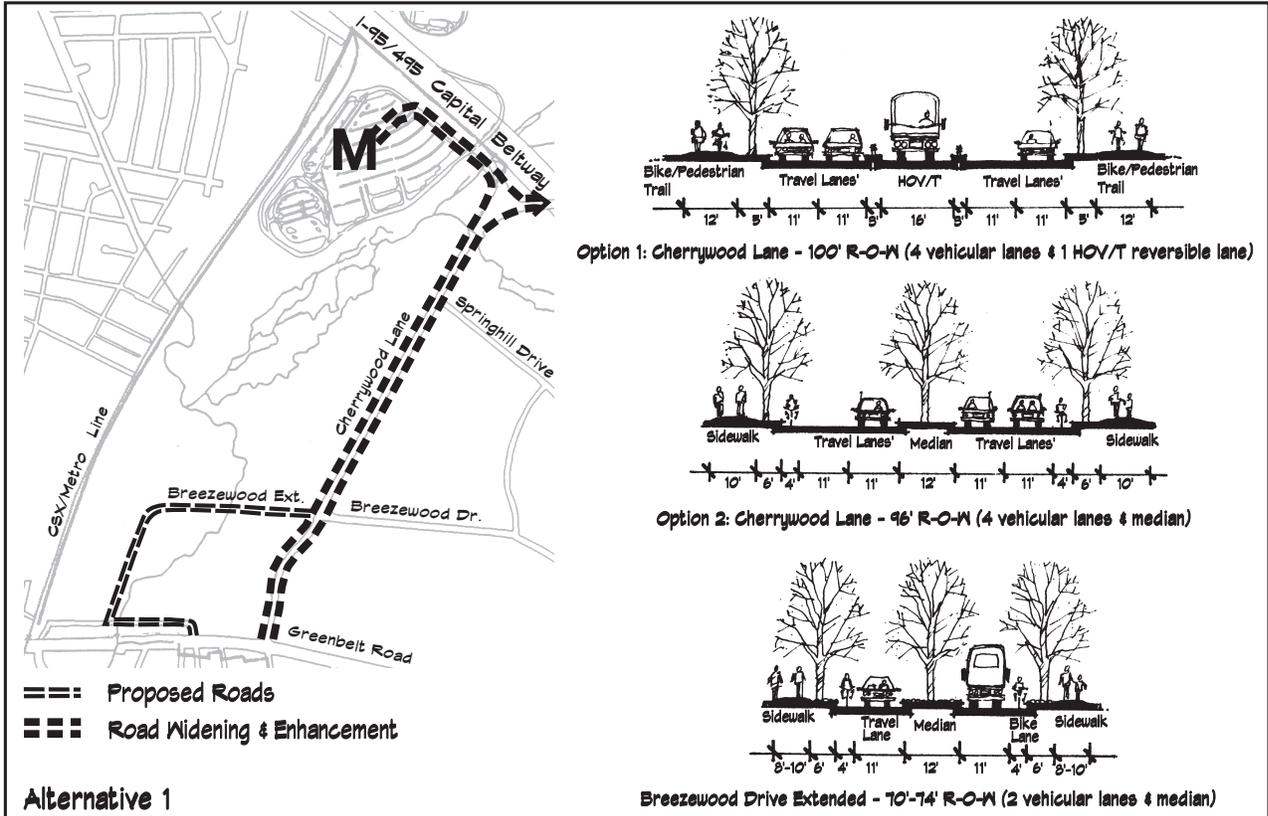
- The intersection of the connector road with Greenbelt Road should continue to provide for exclusive northbound turning lanes for vehicles, and a reversible HOV/transit center lane in the connector road median, to afford access to the station site.
- This facility's construction cost should be partly borne by developer contributions required as conditions of approval to proceed with development in the sector plan's Core Area.

- The plan recommends the use/construction of multimodal streets within the Sector Plan Area, specifically within the Core Area and the redeveloped Springhill Lake. (See illustrative street profiles and Table 4 for recommended street profiles.)

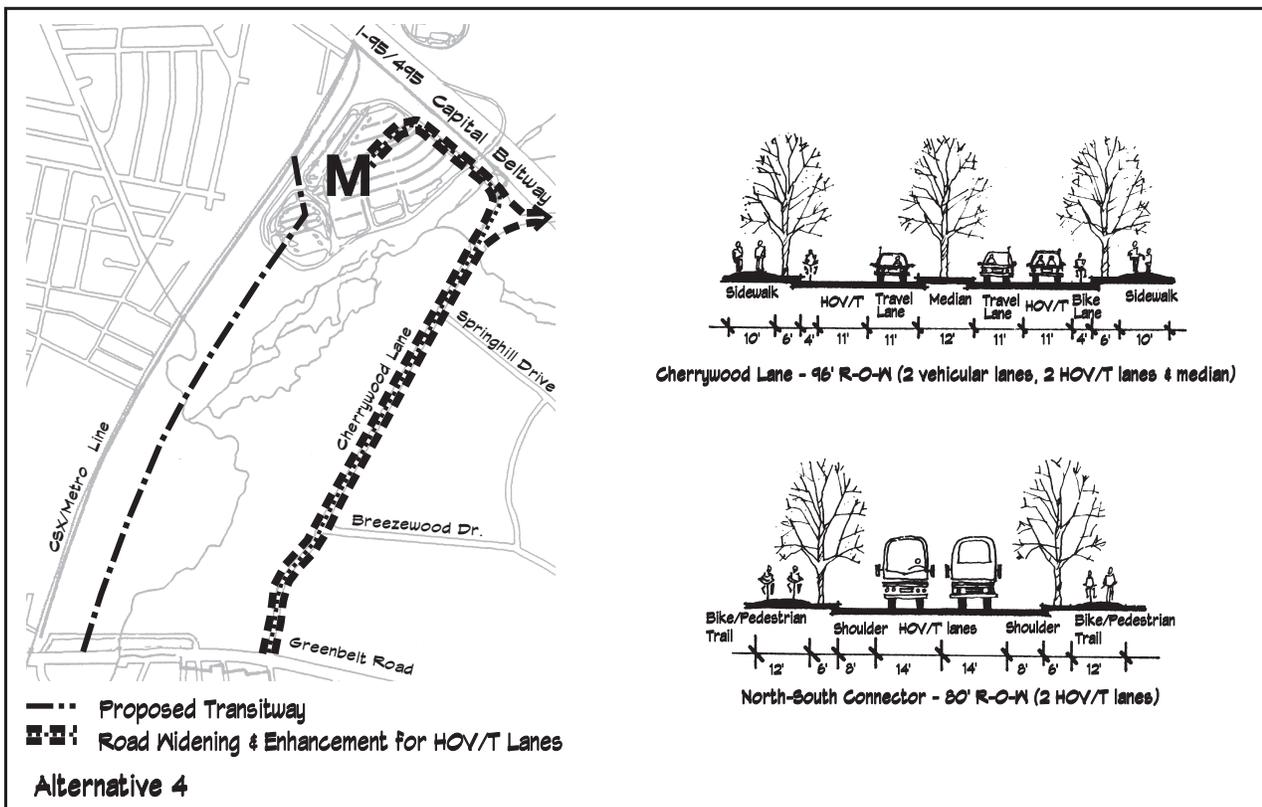
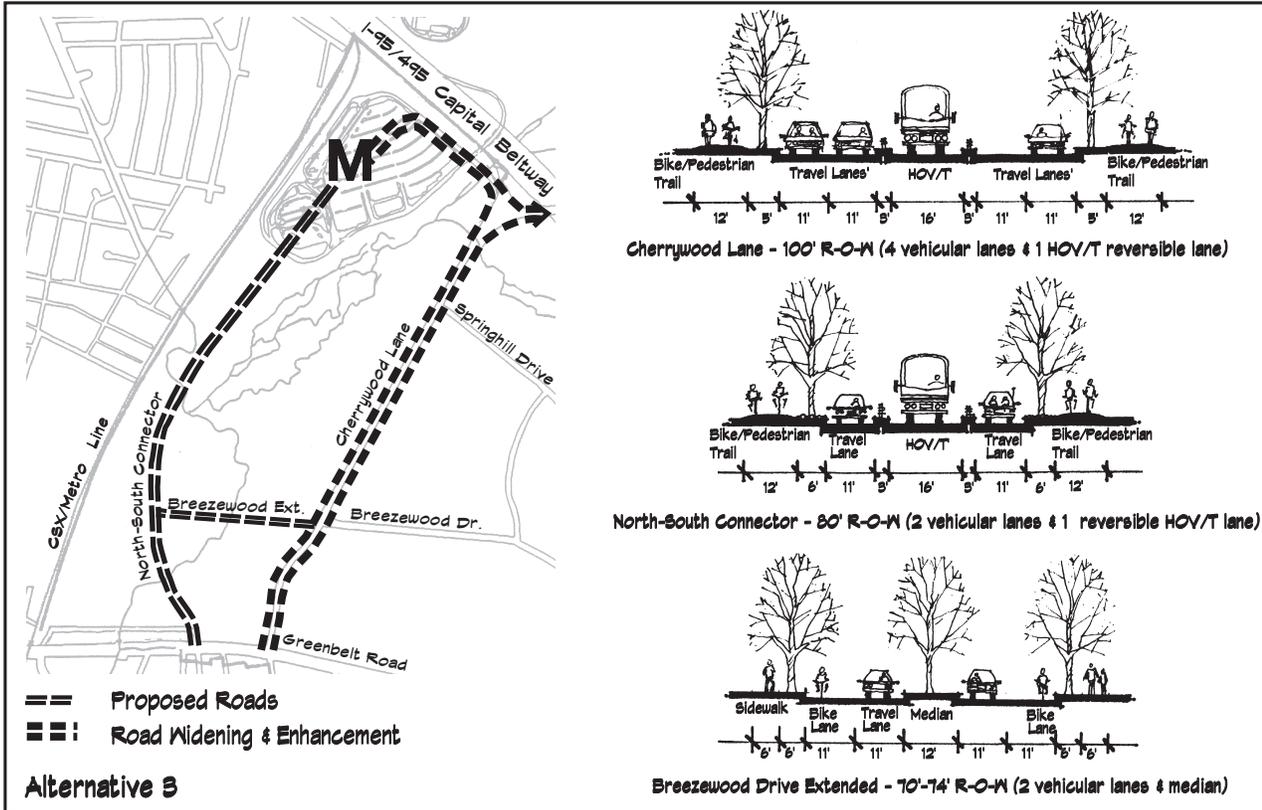
This recommendation unifies the underlying themes and recommendations, to use travel modes other than the private automobile to: (1) tie residential communities together; and (2) link those communities to each other, to activity and employment centers in the Sector Plan Area, and to the rail stations. It also reflects an objective of this plan to provide several mobility options to enhance the quality of urban life in the Greenbelt station area.

- Consideration should be given to provide special transportation systems management (traffic control) design treatment for the following Core Area intersections:
 1. GBC-1 and Greenbelt Road
 2. Cherrywood Lane and Springhill Drive (coincident with redevelopment of Springhill Lake)
 3. Cherrywood Lane and Breezewood Drive (coincident with redevelopment/revitalization of Beltway Plaza)
 4. Edmonston Road and Breezewood Drive
 5. Edmonston Road and Springhill Drive (as Springhill Lake is redeveloped)
 6. Cherrywood Lane and Greenbelt Road
- The north-south connector road and/or boardwalks should be elevated to avoid environmentally sensitive areas. The road should not disturb the wooded wetland east of CSX and should span Indian Creek and the wetlands over to the stormwater management settling ponds at the Smith property. Design solutions should evaluate low-impact development (LID) techniques as described in the Environment chapter.
- This plan recommends that bus service be used as the principal means to connect residential communities to the development center proposed by the plan, to: (1) reduce dependence on the automobile to reach destinations within the Sector Plan Area; and (2) link regional (WMATA)

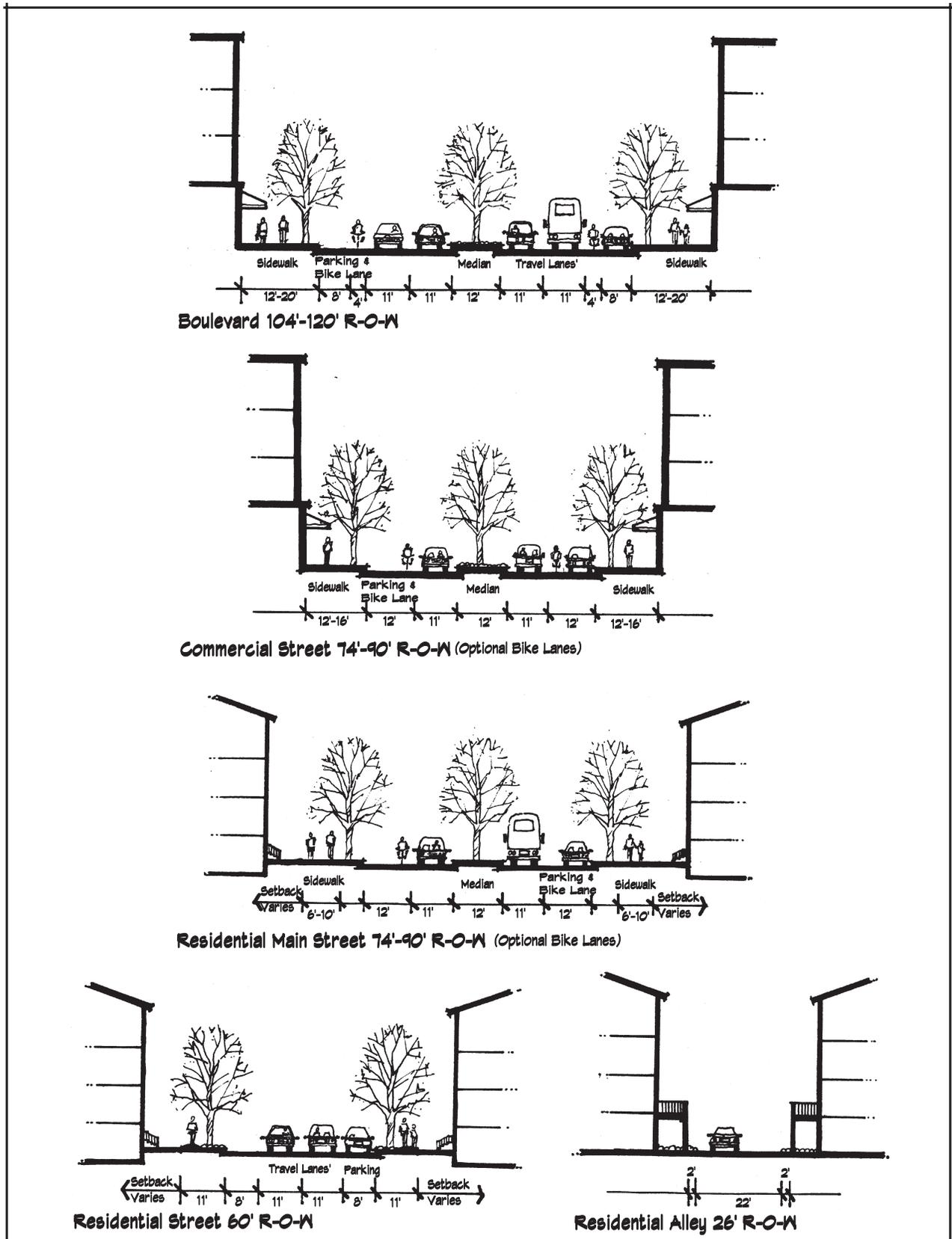
² An adequate level of service is currently defined as traffic level of service (LOS) D for the entire County. However, this standard may be revised, or replaced by a multimodal adequate transportation facilities standard, after the implementation of the first County Biennial Growth Plan, or the revision of adequate transportation facility standards, as part of the work required of Commission 2000 by Council Resolution CR-62-1998.



Note: The transportation options shown above are just a few of many potential options predicated on the intensity/density of development, Beltway access alignment and Transportation Demand Management study (TDM) for the Sector Plan Area and vicinity. Cross Sections shown above are subject to review and approval by Prince George's County DPW&T and referral and review by the City of Greenbelt for affected rights-of-way.



Note: The transportation options shown above are just a few of many potential options predicated on the intensity/density of development, Beltway access alignment and Transportation Demand Management study (TDM) for the Sector Plan Area and vicinity. Cross Sections shown above are subject to review and approval by Prince George's County DPMT and referral and review by the City of Greenbelt for affected rights-of-way.



Note: The streetscape sections above are based on the illustrative concept of modified grid street pattern recommended for the Core Area and Springhill Lake Transit Village. The appropriateness of the sections including the number of lanes will depend on the ultimate density and intensity yields, and are subject to review and approval by Prince George's County DPW&T and referral and review by the City of Greenbelt for affected rights-of-way.

Table 4
Illustrative Road Classifications for the Core Area and Springhill Lake

		Boulevard	Commercial Street/Residential Main Street		Residential Street	Alley
1	Location	Core Area	Core Area	Springhill Lake	Springhill Lake	Core Area and Springhill Lake
2	Vehicular movement	Two-way	Two-Way	Two-Way	Two-Way	Two-Way*
3	Movement pattern	Medium	Slow	Slow	Slow	Slow
4	Number of travel lanes	4 + left turn	2 + left turn	2 + left turn	2	2
5	Design speed	25-35 mph	25 mph	25 mph	25 mph	5-10 mph
6	Right-of-way	104-120 feet	74-90 feet	74-90 feet	60 feet	26 feet
7	Pavement width	68 feet	38-46 feet	38-46 feet	38 feet	22 feet
8	Median width	12 feet	12 feet	12 feet	-	-
9	Sidewalk width	12-20 feet	12-16 feet	6-10 feet	-	-
10	On-street parking	Both sides	Both sides	Both sides	Both sides	-
11	Bike lanes	Yes	Optional	Optional	No	No
12	Striping	Yes	Yes	Yes	Yes	No
13	Curb type and radius	Raised, 25 feet	Raised, 20 feet	Raised, 20 feet	Raised, 15 feet	No curb, 10 feet
14	Street trees	35 feet o.c.	35 feet o.c.	35 feet o.c.	35 feet o.c.	-

*Narrower (20-foot-wide right-of-way, 18-foot-wide pavement) one-way alleys may be provided in some locations if approved by DPW&T.

transit service to the activity and employment centers proposed by this plan.

- To further this objective, the plan recommends consideration of installing a reversible flow direction high occupancy and transit vehicle (HOV/T) lane in the median of the connector road recommended above.

Pedestrian and Bicycle Access—Structuring multiple land uses around the existing Greenbelt station will further the concepts of Smart Growth to control sprawl development and increase transit ridership by providing multiple uses within close proximity to transit. However, this increase in land use intensity will bring an increase in residential, retail and office populations, that will demand convenient access to daily services. These demands will require alternative modes of transportation within the Sector Plan Area. The pedestrian and bicycle network is, therefore, an integral part of the transportation and circulation network recommendations as envisioned by this plan. (See Maps 6 and 7.)

- In addition to transit and bus facilities, integrate pedestrian walks, bicycle lanes and multiuse trails into existing communities, commercial centers and new developments within the entire Sector Plan Area to provide a viable transportation mode that is a cost-effective, energy-efficient and environmentally sensitive alternative to the automobile.
- Develop a connected and continuous pedestrian and bicycle network that provides access to, through and from all areas within the Sector Plan Area, particularly the transit station, mixed-use/activity centers, recreation areas and neighborhoods.
- Select bike routes by identifying key corridors that: (1) are in close proximity to residential areas; (2) serve potential destinations such as parks, shops, schools, employment areas and the Greenbelt station; and (3) are continuous with efficient connections to surrounding neighborhoods and regional trails.

- Continue to prioritize bike corridors with the assistance of M-NCPPC, municipalities and the Prince George's County Bicycle and Trails Advisory Group (BTAG) organization to determine the implementation of a comprehensive bike network.
- Evaluate municipal recommendations, BTAG guidance and the American Association of State Highway Transportation Officials *Guide for the Development of Bicycle Facilities* (1998) standards to determine the most appropriate route and construction standard for each segment in the bike lane and trail network.

Sidewalks

- Pedestrian routes to destinations should be identified. Sidewalks should be provided along both sides of these public rights-of-way to provide safe and convenient pedestrian circulation.
- Pedestrian and vehicular volumes, site distances, vehicular speeds, presence of medians and intersection geometry should be analyzed to determine viable pedestrian/bicycle routes and recommend appropriate crosswalk locations and designs.



Clearly delineated crosswalks on all sides of an intersection make crossing of major streets easy and safe for pedestrians and bicyclists.

- Sidewalks may be directly adjacent to the curb or may be set back to separate the pedestrian from vehicular traffic. Setbacks should comply with the standards and guidelines set forth in the *Subarea Design Policies and Guidelines* section and should not exceed the maximum width described.
- Sidewalks shall provide clear, direct and safe access for pedestrians to the mixed-use centers, residential areas and the transit station. Sidewalks shall be designed and constructed proportionally to the overall street scale.

- Sidewalks are for the sole use of pedestrians and should not be used by or designed for bicycles unless no other alternative exists.
- Sidewalks shall be defined by interesting buildings and open spaces and punctuated with site furnishings and street trees to create an active and comfortable street environment. Site furnishings shall include pedestrian-scaled lighting, planters, benches, trash receptacles, bike racks, banners and signs.
- Sidewalks shall be provided to building entrances and rear parking lots.
- Sidewalks shall connect with all crosswalks. All crosswalks shall be ADA accessible with curb ramps and contrasting pavement.
- A pedestrian promenade shall be provided to directly connect Springhill Lake with the station site and proposed mixed-use development. This promenade shall originate near the intersection of Cherrywood Lane and Springhill Drive and shall function both as a gateway to the station site and as an elevated pathway across the Environmental Envelope. This walkway shall be designed as a key feature of the Sector Plan Area and be wide enough to accommodate pedestrian and bike traffic. Public plazas with seating walls, special paving, lighting, signs, landscape plantings or other features shall be used at the terminal points of this promenade east and west of Indian Creek. These terminal areas may serve as gathering places.



Elevated walkways require less clearing and grading in environmentally sensitive areas and still provide convenient access for pedestrians and bicyclists.

- Sidewalks should be provided on the southern edge of Breezewood Drive to improve pedestrian mobility and access into Beltway Plaza.
- Crosswalks across major roadways such as Greenbelt Road, Kenilworth Avenue, Rhode Island Avenue and Cherrywood Lane should be planned and located according to pedestrian routes, pedestrian volume, vehicular

speed and volumes, site visibility, medians and roadway designs.

Bike Lanes and Multiuse Trails

- Bike lanes and trails shall connect neighborhoods, open spaces, transit stations, commercial and employment areas, recreation facilities and schools, and other regional trails or destinations. (See Map 8.)
- Bicycle routes should be comprehensively identified, analyzed and proposed to provide a complete and well-connected bike route to, through and from residential, retail, entertainment, recreation and employment destinations.
- Arterial, collector and residential roadways along bike corridors shall be designed and constructed (or retrofitted) under the assumption that they will be used by bicyclists for commuting needs. Roadway improvements shall be made to:
 1. Widen the curb lanes of roadways where deemed appropriate to accommodate bicycle lanes and define bike lanes with “Share the Road” signs, paint striping, symbols and/or colored pavement to ensure visibility and motorist awareness.
 2. Provide separate bikeways adjacent to roadways that cannot accommodate bike lanes in the right-of-way or would not be safe for bicycle travel.



“Share the Road” signs alert motorists of multiple users along rights-of-way.

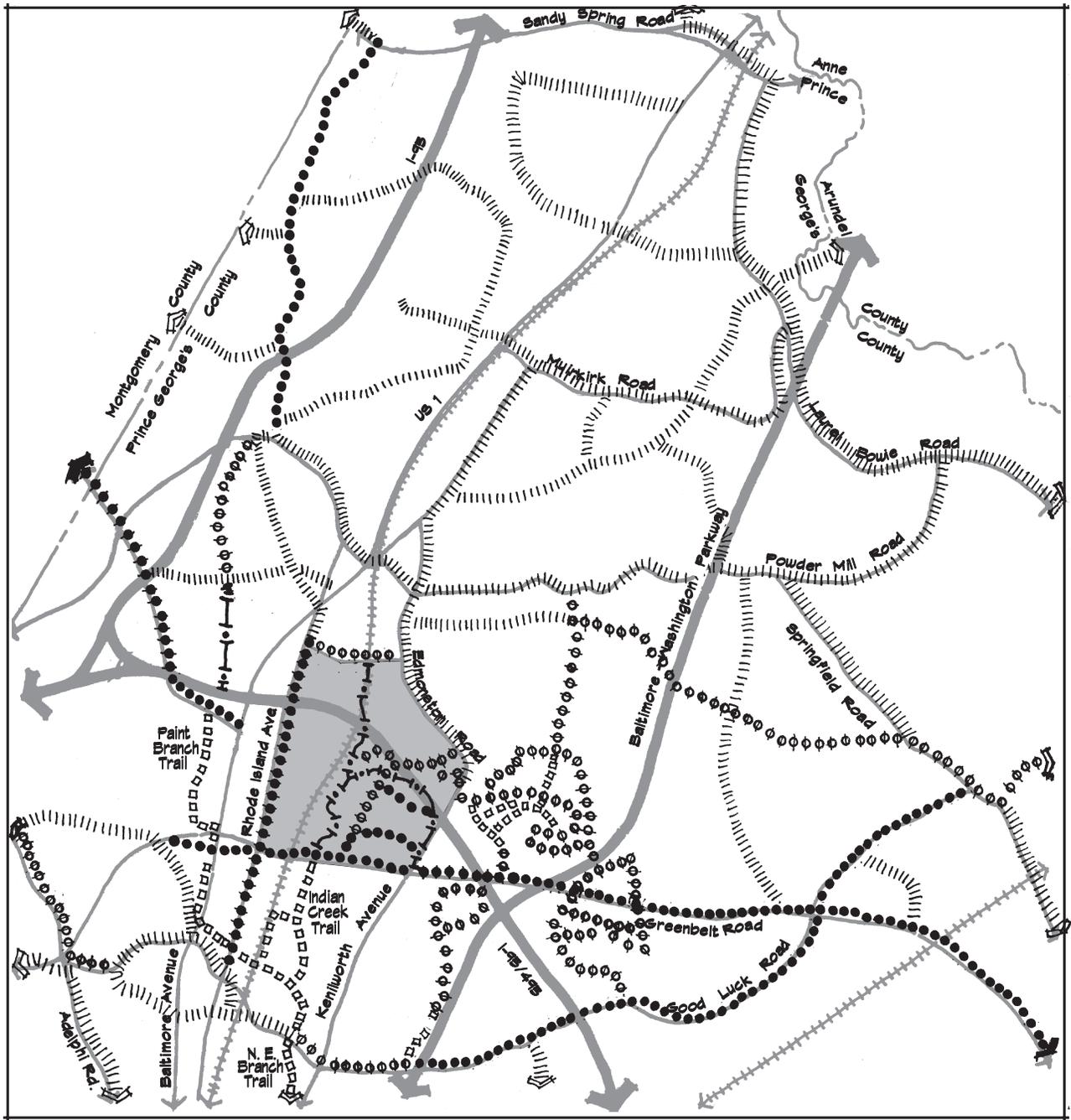
3. Design, or retrofit, road bridges to the full width of the road and provide widened curb lanes, or separate facilities for bicycles.
4. Use curb-slot inlets, or install bicycle-safe grates over roadway drains.

5. Install bicycle and pedestrian crossing signals such as push buttons, bicycle sensitive signal detectors and/or special markings to identify traffic instructions and road hazards.
- Trails shall provide a safe, continuous, accessible and convenient network of nonautomotive travel along greenways, utility corridors and linear parks and should accommodate all types of users, such as walkers, joggers, bicyclists and equestrians.
 - A comprehensive trail sign program should be developed with directional, informational and interpretive signs at various places along trail corridors, town centers and public building locations. Trails should be clearly identified with bikeway signs that indicate the beginning, end and route of the bikeway. Bike pamphlets should be provided to delineate the local and regional trails, trail connections and interpretive sites and features.

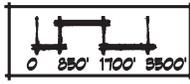


Directional signs can be integrated into development areas and guide pedestrians and bicyclists to destinations and trail routes.

- Bike racks and lockers shall be provided at transit stops, libraries, schools, recreation centers, shopping areas and other activity centers.
- Bicycle Friendly Areas (BFA) should be established in Springhill Lake, North College Park, Berwyn Heights and the Core Area to provide continuity of bikeways through established or proposed developments to reach destinations. (See Map 7.) A BFA designation will be helpful where bicycle routes are desired but striped bike



- ⊙⊙⊙⊙ Existing On-Road Bicycle Route
- Proposed On-Road Bicycle Route
- Existing Multiuse Trail
- ┆┆┆┆ Proposed Multiuse Trail
- ||||| Unofficial Bicycle Route
(Route identified by experienced cyclists for scenic quality or links to other routes.
Not designated by local or state government.)



Regional Trail Connections

lanes are difficult to locate because of on-street parking or site limitations. This BFA designation should not preclude the creation of striped bike lanes where appropriate, rather the designation would establish awareness of bicyclists and the joint use of roadways by modes other than the automobile. BFAs should incorporate a variety of features to alert motorists and attract cyclists such as neck-down intersections with delineated crosswalks, distinctive signs and logos, secured and regular bike racks and posted bike route maps. Any features within the rights-of-way would require a proper approval from the County DPW&T and SHA. The most critical element of the BFA designation would be alerting motorists that these are multiuser streets which cyclists are encouraged to use.

The four Bicycle Friendly Areas designated by this plan include Springhill Lake, North College Park, Berwyn Heights and the Core Area.

- Greenbelt Road (MD 193) is a recommended priority alignment — On-Road Trail - Priority 5 of 20 — by the Prince George’s County Bicycle and Trails Advisory Group (BTAG). A Class II hiker-biker trail is recommended to accommodate bike travel in both directions along Greenbelt Road. However, if this is not feasible, designated bike lanes and/or extra-wide curb lanes are recommended and would require approval from SHA.
- Bikeways along Cherrywood Lane should remain for commuting purposes. To accommodate four vehicle travel lanes, a center median and a possible HOV/transit lane, bike lanes may be set back from the roadway. Alternatively, the right-of-way could be widened to include four travel lanes, a median and bike lanes. These bike lanes would be primarily used by commuting bicyclists.
- Bicycle access along Breezewood Drive may help to alleviate bike inadequacies along Greenbelt Road and provide an alternative alignment to the station site. At a minimum, “Share the Road” signs should be installed along Breezewood Drive and Greenbelt Road to improve bicycle visibility.
- A recreational/scenic stream valley trail shall be constructed in the Core Area to extend the Indian Creek Trail north to the station site and beyond. This trail shall connect to the pedestrian promenade proposed to link Springhill Lake and the station site. From Greenbelt Road, the Indian Creek Stream Valley Trail should follow along Indian Creek, then meander north to the station site avoiding environmentally sensitive areas. This trail should be developed as a loop trail, bordering the edge of the Environmental Envelope, and provide access to both the eastern and western portions of the Core Area. An alignment parallel to and abutting the north-south connector road may be necessary to minimize disturbance of environmentally sensitive features and limit the construction of bridge crossings.

Paving materials shall be carefully selected along the entire length of the trail to avoid altering runoff and to minimize disturbance during construction. Where trails cross wetlands and floodplain, boardwalks should be utilized. Otherwise, impervious materials, such as crushed stone, and careful installation techniques should be utilized.



This rustic bridge blends into the landscape and provides a necessary stream crossing.

- Connections to other regional trails, such as the Paint Branch Trail and the Trolley Line Trail should be planned and implemented as part of the pedestrian and trail network.
- A bicycle and pedestrian connection across the Capital Beltway to the USDA/BARC office complex is encouraged to link the employees to the Greenbelt station. This connection also will provide a northbound link for bike travel to the northern end of Prince George’s County and beyond.



A recreational trail, adjacent to a restored and more naturalistic Indian Creek, will provide pedestrians and bicyclists a scenic route to travel.

- On-road biking should be permitted in Springhill Lake, and designated bike lanes should be identified and marked on primary roads. “Share the Road” signs should be installed and slower speed limits may be necessary to provide a safe passage for all users.

Off-road trails should also be used in Springhill Lake to provide an alternative path from the roadways for recreational bicyclists. Trails should connect schools, parks and open spaces, and the neighborhood center. See the Springhill Lake subarea chapter.

- Safe connections across Greenbelt Road to Berwyn Heights and Lake Artemesia, across Kenilworth Avenue to Old Greenbelt, and across Rhode Island Avenue and US 1 to regional trails should be provided. Signalized intersections and crosswalks should be installed to allow adequate crossing time and visibility for bicyclists and pedestrians.
- Shared road access should be accommodated in the Core Area mixed-use development areas. Bike lanes should be provided on primary streets and should connect to the loop stream valley trail system.
- Federal, State and local funding for transportation enhancements, including trails, bike lanes, bridges/underpasses, signs, lockers/bike racks and path lighting should be sought to assist in developing a comprehensive trail network in the Sector Plan Area. Consideration should also be given to acquiring funds to help construct the stream valley trail, the pedestrian promenade from Springhill Lake, bridge/underpass connections to USDA/BARC and North College Park, and road crossing improvements across Greenbelt Road and Kenilworth Avenue.

See each Subarea Design Policies and Guidelines chapter for additional standards and guidelines related to pedestrian and bicycle mobility.