

Maximizing Transit Opportunities

Greenbelt, Maryland

Prepared for **City of Greenbelt, Maryland &
Washington Metropolitan Council of Governments**

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Introduction

Ever since land in rural Prince George’s County was selected as the site for the original Greenbelt development, the availability of quality transportation has been crucial to residents’ ability to access the multitude of opportunities and resources available throughout the region. Although Greenbelt was conceived to be a self-sufficient cooperative community, its affordable housing and relative proximity to regional employment and cultural centers—such as Washington, Baltimore, and Annapolis—ensured daily trips to these and other destinations in the surrounding area.

Today, Greenbelt is no longer isolated in a rural setting; the city has grown dramatically and is now engulfed by metropolitan development stemming out from Washington, DC. This development is continuing in western Greenbelt with two new large mixed-use developments planned. While the number of destinations in proximity to Greenbelt have multiplied exponentially, quality transportation remains as crucial to quality of life as when the first residents arrived. Instead of a few major roadways with linear connections to major cities, residents now require a web of transportation connections to benefit from the increased opportunities and resources dispersed throughout the region.

Transit has an important role to play in providing the residents of Greenbelt access to local and regional destinations. As roadways become more congested and the cost of private vehicle use increases, even more residents will want or need transit alternatives. The City of Greenbelt is already well served by transit, including four separate bus systems, demand-response services, and a Metrorail line. This diversity in transit operators serving Greenbelt is largely a function of its location: simultaneously on the edge of the DC metropolitan area and in the center of Prince George’s County, Maryland. No one transit operator is suited to meet all of the transit needs associated with the city, so a number of operators have stepped in to develop a patchwork of service covering much of the city and surrounding region.

This combination of services offers many Greenbelt residents a choice when it comes to transportation, but there are always opportunities to expand that choice; even with these multiple services operating in Greenbelt, many residents feel that transit does not meet their needs. Expanding that choice requires continually assessing how transit resources are distributed in the city. With so many different bus routes and service providers operating in the city, it is especially important for the City to ensure that the transit service available maximizes transportation opportunities for residents. Additionally, as Greenbelt continues to grow, there is an opportunity to integrate transit and land use planning to ensure new development both supports transit and is served by transit.

This assessment of transit service in the City of Greenbelt, funded by a \$20,000 grant from the Metropolitan Washington Council of Governments' Transportation Land-Use Connections Technical Assistance Program, aims to evaluate the existing service provided in the city in addition to existing and future transit needs to identify if there are opportunities to make improvements that will result in better service in the city. Although transit service is evaluated citywide, as a study focused on Transportation Land-Use Connections, access to new planned developments in western Greenbelt and the ability of the City to marshal existing transit resources to incorporate these developments into the transit network is the primary goal.

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Existing Transit Services

A variety of transit operators provide the City of Greenbelt with fixed-route and demand-response transit services. Together, this network of bus routes, Metrorail, and demand-response services connects many Greenbelt residents to numerous destinations in the city and throughout the region. This patchwork transit system enables each transit operator to focus on meeting different aspects of the city's transit needs, providing the city with better service coverage than any one operator could on its own.

Fixed-route bus service in the city is operated by four separate providers: Washington Metropolitan Area Transit Authority (WMATA), Prince George's County, Corridor Transportation Corporation, and the University of Maryland. Both WAMTA and the county also provide demand-response service in addition to a demand-response program operated by the City of Greenbelt. WMATA is also responsible for operating the Metrorail line that stops at the Greenbelt Station. An overview of the characteristics of each of these services is provided below.

Fixed-Route Bus

Fixed-route bus service operates along a designated route according to a set schedule. In the city, fixed-route buses only serve identified bus stops. Fixed-route bus service is the most common form of transit in Greenbelt; the four service providers operate approximately 20 bus routes in the city.

TheBus

Prince George's County operates a local bus system, TheBus, through a contract with Veolia Transportation. This system is designed to increase mobility within the county limits. Of the 25 bus routes serving the county, 4 run through Greenbelt. TheBus provides service on weekdays during typical commuting hours (approximately 6:00 AM to 7:00 PM). The specific service characteristics for each TheBus route operating in Greenbelt are provided in Table 2-1. A full fare costs \$0.75 and the service is free for seniors, disabled residents, and children under five.

The headways, or service frequencies, of these routes range from 30 minutes to 60 minutes. Route 11, a short circulator route, maintains a 30-minute headway throughout the day. Route 16 operates on a 30-minute headway during peak periods, but all other regular TheBus service is on 60-minute headways. Route 15X, an express route, is the only route that is limited to service during the morning and afternoon peak travel periods (80-minute

headways), which helps the route achieve a higher productivity (boardings/revenue hour) by eliminating revenue hours during the times of the day when fewer passengers are boarding.

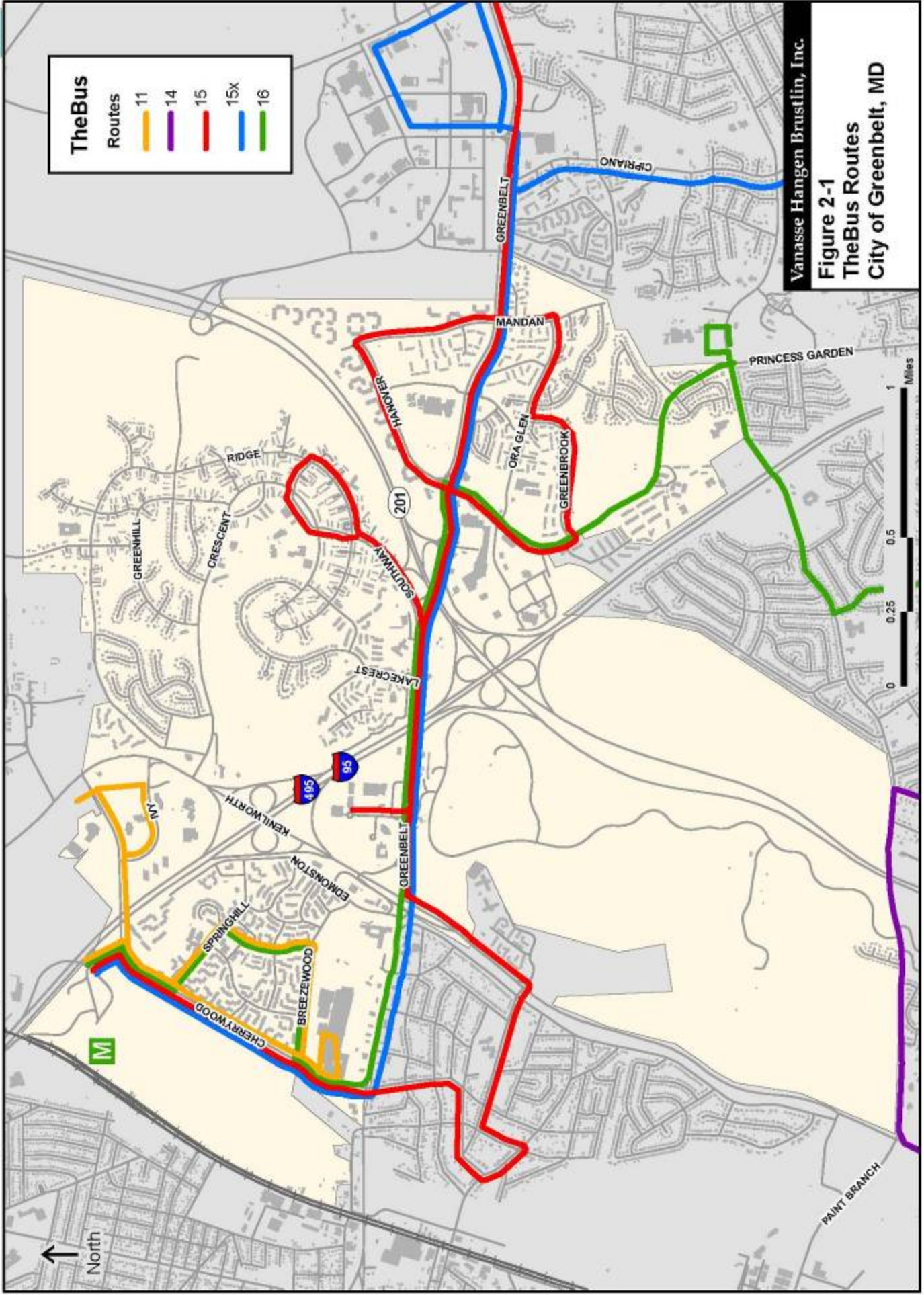
As shown in Figure 2-1, all of the routes terminate at the Greenbelt Metro Station, providing an important link between the local bus routes and regional transportation. In large part, these routes are designed to connect other parts of the county to the city and Metro Station. Many of the major destinations within Greenbelt fall on at least one of these routes, but there are large residential sections of the city that do not have direct access to TheBus service, requiring them to take other services and transfer to TheBus routes.

Table 2-1. TheBus Routes Serving Greenbelt

Route	Service Area	Days of Service	Weekday Service Characteristics			Productivity (Boardings/Revenue Hour)
			Hours of Operation	Peak Service Frequency (minutes)	Off-Peak Service Frequency (minutes)	
11	Local circulation in proximity to Greenbelt Metrorail Station	Weekday	6:00 AM to 6:30 PM	≈30	≈30	10.7
15	Greenbelt Metrorail Station to NASA Goddard Space Flight Center via Greenbelt Road	Weekday	6:00 AM to 7:00 PM	≈60	≈60	5.2
15X	Greenbelt Metrorail Station to New Carrollton Metrorail Station via NASA Goddard Space Flight Center and Greenbelt Road	Weekday	6:00 AM to 6:50 PM <i>(Peak Period Only)</i>	≈80	N/A	22.2
16	Greenbelt Metrorail Station to New Carrollton Metrorail Station via Greenbelt Road, Hanover Parkway, and Lamont Drive	Weekday	5:30 AM to 7:30 PM	≈30	≈60	16.5

Source: Prince George’s County Transit Service and Operations Plan

Maximizing Transit Opportunities in Greenbelt



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Figure 2-1
TheBus Routes
City of Greenbelt, MD

Metrobus

WMATA's Metrobus system provides bus service throughout the metropolitan Washington region. While this bus system is designed to facilitate regional transportation, several of its routes also provide important local bus service to neighborhoods in Greenbelt without other bus service. These routes serve to improve local transit coverage while connecting the city to regional destinations and a coordinated regional transit system. In general, these routes run more frequently for longer periods than the local TheBus routes. A full fare for a Metrobus trip is \$1.35 (or \$1.25 if using a SmarTrip card) and \$0.60 for seniors and qualified disabled residents.

As shown in Table 2-2, Metrobus routes have a wide range in service characteristics, which reflects the diversity and complexity of the regional bus system. Although there are nine routes serving at least some part of Greenbelt, only three contribute significant service to the city: routes C2, R12, and T16/17. Within the city limits, the majority of the Metrobus routes primarily serve the Metro Station and surrounding destinations, such as the Beltway Plaza Mall and Federal Courthouse (see Figure 2-2). Although these routes do not greatly extend service coverage in Greenbelt, they do provide numerous transfer opportunities at the Metro Station to routes serving the broader region.

The three primary Metrobus routes serving Greenbelt are depicted in Figure 2-3; each of these routes serves the Metro Station and winds through Greenbelt neighborhoods before radiating out from the city in a different direction. These Metrobus routes provide the most extensive service to city residents. Not only does their service coverage extend to most residential areas, these routes operate from at least 5:00 AM to 9:00PM on Monday through Saturday every 30 minutes during the weekday peak period with limited service on Saturdays. Route C2, which services historic Greenbelt, operates with approximately 20-minute headways during the weekday peak period from 5:15 AM to 11:20 PM. Metrobus is the primary source of weekend bus service in the city.

The productivity of the regional Metrobus routes operating in Greenbelt is significantly higher than the county's TheBus routes. The three primary Metrobus routes all have productivities over 30 boardings per revenue hour. Route C2 appears to be particularly effective, attracting approximately 64 boardings per revenue hour. These productivities suggest relatively successful performance over the entire routes, including service to other employment and residential centers.

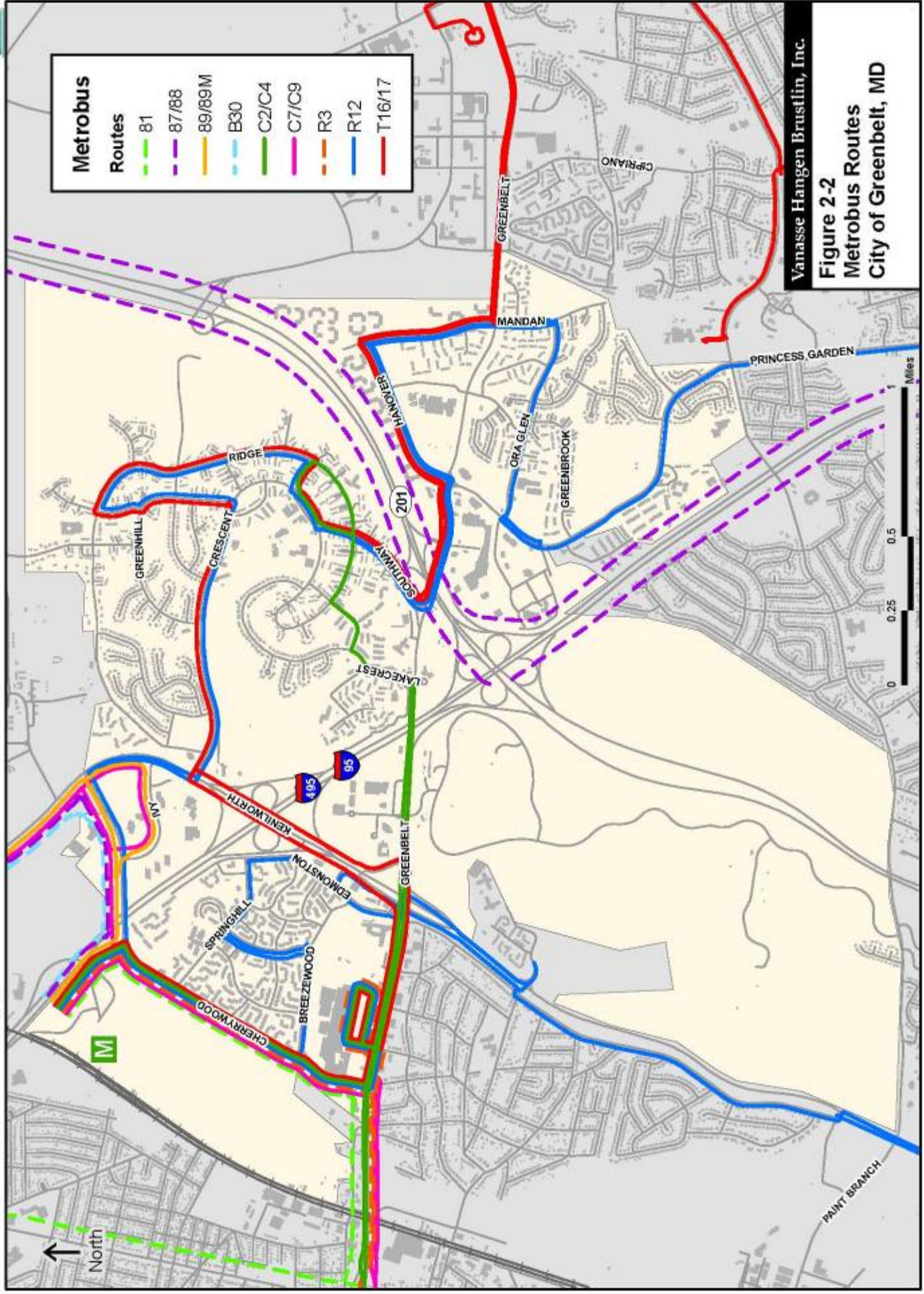
Table 2-2. Metrobus Routes Serving Greenbelt

Route	Service Area	Days of Service	Weekday Service Characteristics			Productivity (Boardings/Revenue Hour)
			Hours of Operation	Peak Service Frequency (minutes)	Off-Peak Service Frequency (minutes)	
81	Rhode Island Avenue Metrorail to Beltsville via Prince George's Plaza Metrorail, College Park Metrorail and Greenbelt Metrorail	Sunday	8:20 AM to 7:11 PM	N/A	≈60	35.9
87/88	Laurel to Greenbelt Metrorail Station via MD 197, Baltimore Washington Parkway, and Powder Mill Road	Weekday (Peak Period Only)	4:46 AM to 9:11 AM; 3:10 PM to 7:47 PM	≈20	≈60	18.9
89/89M	Laurel to Greenbelt Metrorail Station via Route 1, Sunnyside Avenue and Edmonston Road	Weekday	5:50 AM to 7:19 PM	≈40	≈60	35.7
B30	Greenbelt Metrorail Station to BWI Airport via I-195	Daily	6:10 AM to 11:19 PM	≈40	≈40	Unavailable
C2	Greenbelt to Wheaton, Twinbrook, Greenbelt Metrorail Stations via Greenbelt Road, University Boulevard, Veirs Mill Road, Randolph Road	Weekday, Saturday	5:16 AM to 11:23 PM	≈20	≈30	64.3
C7/C9	Greenbelt Metrorail Station to Glenmont Metrorail Station via Greenbelt Road, Hill Road, Randolph Road, Cherrywood Lane, Powder Mill Road, Calverton Blvd	Weekday (Peak Period Only)	5:51 AM to 9:38 AM; 3:05 PM to 7:02 PM	≈35	N/A	Unavailable
R3	Greenbelt Metrorail Station to Fort Totten Metrorail Station via University Boulevard, Adelphi Road, East-West Highway and Prince George's Plaza Metrorail Station	Weekday	5:33 AM to 10:28 PM	≈30	≈60	28.2
R12	Deanwood Station to New Carrollton Station via College Park Metrorail Station and Greenbelt Metrorail Station	Weekday, Saturday	5:08 AM to 10:31 PM	≈30	≈60	34.9
T16/17	Greenbelt Metrorail Station to New Carrollton Metrorail Station via Greenbelt Road, Good Luck Road, and Annapolis Road	Weekday, Saturday	4:58 AM to 9:06 PM	≈30	≈60	34.9

Source: Prince George's County Transit Service and Operations Plan and WMATA website (www.WMATA.com).

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Figure 2-2
Metrobus Routes
City of Greenbelt, MD

University of Maryland

The University of Maryland provides its own campus and commuter shuttle service in the vicinity of the College Park Campus, including two routes serving the City of Greenbelt. University of Maryland shuttles operate fare free, but are open only to members of the university community with valid university identification cards. Since the shuttle system is funded through student fees, the service is geared primarily toward student needs, such as commuting to campus, accessing service and retail destinations from campus, connecting to regional transportation, etc.

The two University of Maryland shuttle routes operating in Greenbelt provide discrete types of service in the city (see Table 2-3). Route 106 operates weekdays from approximately 7:00 AM to 12:00AM on a 60-minute loop connecting several neighborhoods in the vicinity of historic Greenbelt to the University of Maryland College Park (UMCP) campus (see Figure 2-3). Route 101 offers Sunday service linking the campus to the Beltway Plaza on a 45-minute loop.

Table 2-3. University of Maryland Routes Serving Greenbelt

Route	Service Area	Days of Service	Hours of Operation	Peak Service Frequency (minutes)	Off-Peak Service Frequency (minutes)	Productivity (Boardings/Revenue Hour)
101	University of Maryland to Beltway Plaza via University Boulevard, Greenbelt Road	Sunday	12:00 PM to 5:15 PM	N/A	≈45	Unavailable
106	University of Maryland to Greenbelt Park via University Boulevard, Greenbelt Road	Weekday	6:50 AM to 11:40 PM (Service ends at 8:40 PM on Fridays)	≈60	≈60	Unavailable

Source: University of Maryland Department of Transportation Services

Connect-A-Ride

The Corridor Transit Corporation (CTC)—a charitable corporation established to operate fixed-route community-based bus service in the Baltimore/Washington suburban area—operates two bus routes in the City of Greenbelt. The focus of the CTC service is on Laurel, Maryland, getting Laurel residents to the Metrorail and other major destinations. In Greenbelt, these bus routes serve a few major destinations, but provide more general transit access linking together largely suburban municipalities. Figure 2-4 shows the routes of Connect-A-Ride service in Greenbelt.

The two Connect-A-Ride routes are designed to provide service six days a week: Route G operates Monday through Friday and Route H operates on Saturdays. Both routes provide service every 60 minutes from approximately 6:00 AM to 7:00 PM (see Table 2-4). In Greenbelt, Route H deviates slightly from the weekday route by serving the Metro Station and the Beltway Plaza.

Maximizing Transit Opportunities in Greenbelt

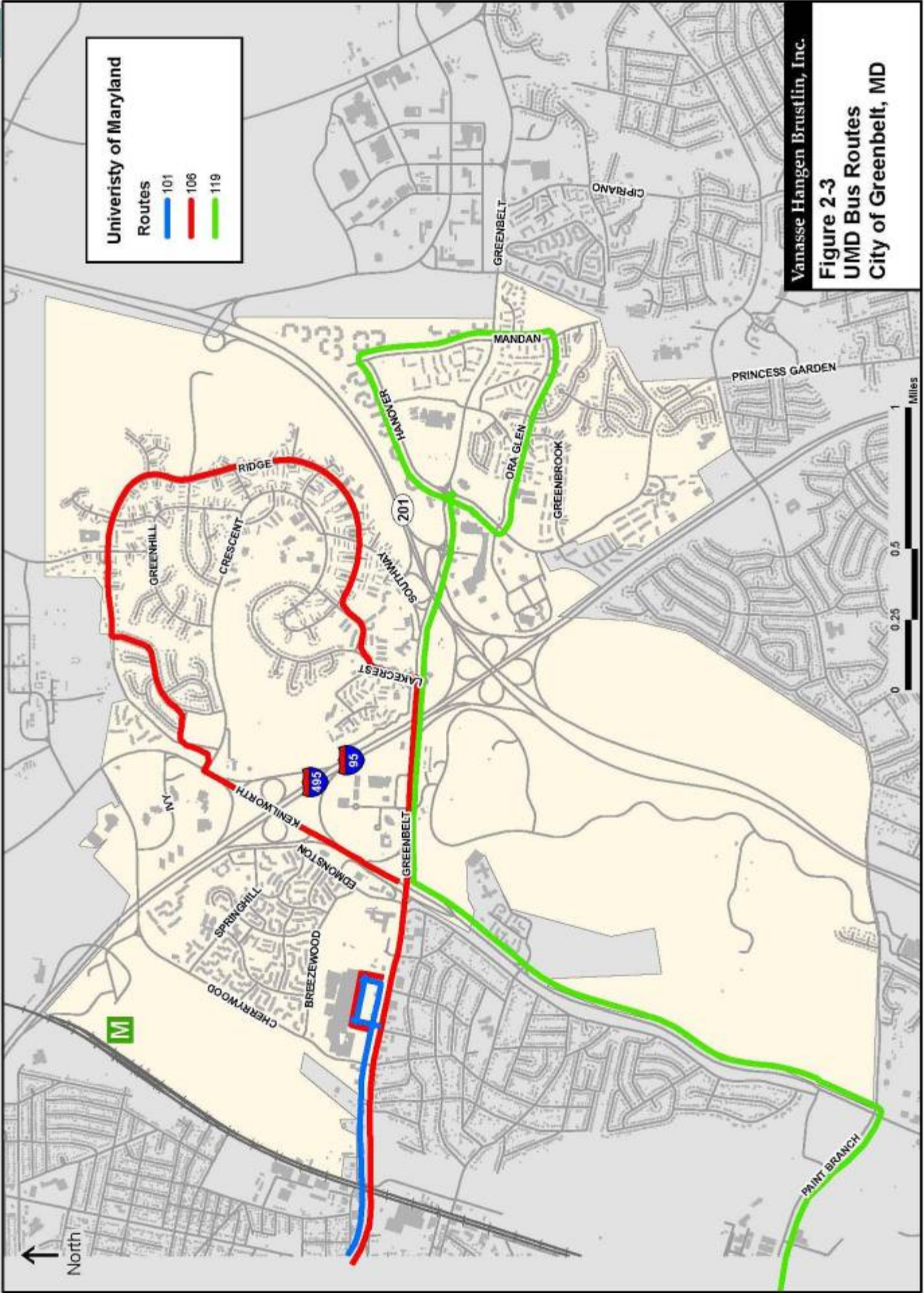
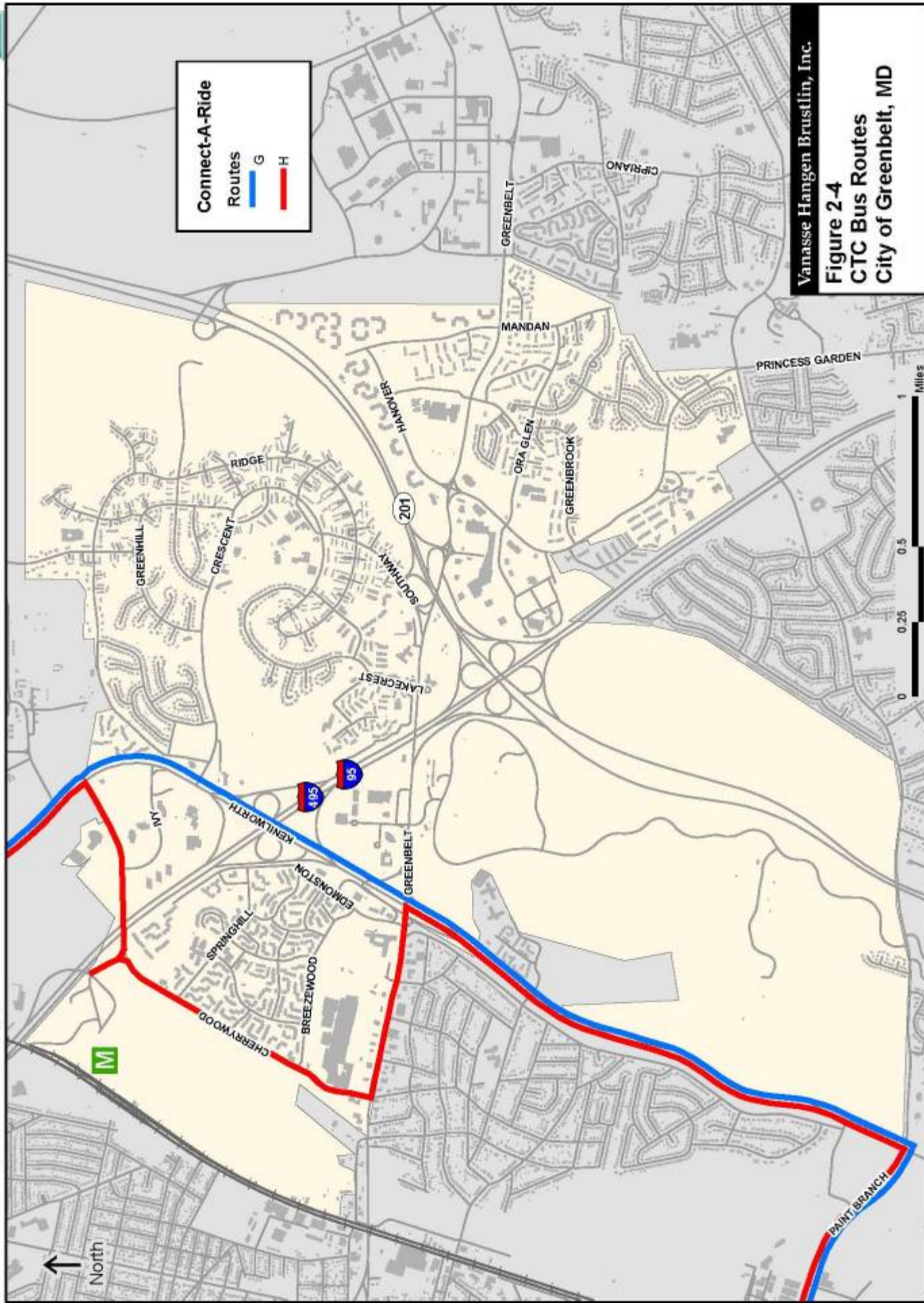


Figure 2-3
UMD Bus Routes
City of Greenbelt, MD

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Figure 2-4
CTC Bus Routes
City of Greenbelt, MD

Table 2-4. Connect-A-Ride Routes Serving Greenbelt

Route	Service Area	Hours of Operation	Days of Service	Peak Service Frequency (minutes)	Off-Peak Service Frequency (minutes)	Productivity (Boardings/Revenue Hour)
G	Laurel Mall to College Park Metrorail Station via Route 1, Edmonston Road, and Kenilworth Avenue	6:00 AM to 7:37 PM	Weekday	≈60	≈60	Unavailable
H	Laurel Mall to College Park Metrorail Station via Route 1, Edmonston Road, and Kenilworth Avenue	6:00 AM to 7:00 PM	Saturday	≈60	≈60	Unavailable

Source: Prince George’s County Transit Service and Operations Plan

Demand Response

Demand-response transit service, or paratransit, responds to each individual transit trip within a designated service area, transporting passengers from their origin to destination. Although demand-response service frequently provides passengers this type of point-to-point service, it is not necessarily through a direct trip. Demand-response service frequently requires booking trips ahead of time, which allows the service operator to group passengers coming from and going to similar areas on the same trip. This type of service is often provided for seniors and disabled residents who have trouble using fixed-route service. Additionally, demand-response service is offered to the general public in some rural areas where there is insufficient density for fixed-route service. In the City of Greenbelt, demand-response transit is provided through multiple programs operated by three service providers: the County, the City of Greenbelt, and WMATA.

Call-A-Bus

Call-A-Bus is a curb-to-curb demand-response service operated by Prince George’s County. The service is available to all county residents who do not have access or cannot use fixed-route bus or rail service, but priority is given to senior and disabled residents. Passengers can reserve a ride via phone up to 14 days in advance. Same day reservations are permitted, but are subject to availability. Since the service caters to senior and disabled residents, passengers can request special assistance when they make a reservation, such as a wheelchair lift or the need to be accompanied by a travel escort. Service is provided Monday through Friday from 8:30 AM to 3:30 PM. A one-way regular fare costs \$1, senior and disabled residents pay \$0.50, and escorts travel free. In fiscal year 2006, Call-A-Bus carried an average of 160 passengers per day.

Senior Transportation Services

Prince George’s County also operates Senior Transportation Services (STS), which provides regularly scheduled curb-to-curb transportation to county programs offered by the Aging Division of the Department of Family Services. These programs include nutrition programs,

medical programs, and general transportation to activity centers. STS asks for a \$0.50 donation for each one-way trip. Travel escorts are accommodated on the service. In fiscal year 2006, STS attracted an average of 600 riders per day.

Call-A-Cab

Call-A-Cab is a transportation assistance program offered by Prince George's County for senior and disabled residents when Call-A-Bus, Metrobus, and Metrorail are unavailable. Through this program, senior and disabled residents can purchase subsidized coupon books that can be used to pay for taxi trips. Eligible residents may purchase up to 14 \$20 coupon books in a six-month period at the cost of \$10. The coupons can be used at any time for any trip purpose and can be used in combination with cash, but the trip must start or end in the county. Passengers can schedule a trip with any participating cab company. In fiscal year 2006, Call-A-Cab averaged approximately 80 passengers per day.

Greenbelt Connection

Greenbelt operates its own demand-response service within the city called Greenbelt Connection. This limited transportation service is available to all Greenbelt residents. The service is operated with a 12-passenger, wheelchair accessible van from 8:00 AM to 3:30 PM on weekdays and 9:00 AM to 3:30 PM on Sundays. The service does not operate on Saturdays. One-way fares cost \$1.75 for general trips and \$1 for seniors, disabled residents, and children under 18.

WMATA Metro Access

WMATA provides shared-ride, curb-to-curb paratransit service through its MetroAccess program. MetroAccess is available for certified residents who cannot use public transit because of a disability. As of June 30, 2008, MetroAccess will begin providing door-to-door service for all passengers upon request, escorting passengers from the exterior door of a passenger's point of origin to the exterior door of their destination. Passengers may reserve trips via the phone or internet; trip reservations must be made at least 24 hours in advance and can be made up to seven days ahead of time. The minimum fare for a MetroAccess trip is \$2.50 and the maximum fare is \$6.50. If a trip origin or destination is more than three-quarters of a mile from the nearest Metrobus or TheBus stop, \$1 is added for each three miles beyond that point.

Rail

The Greenbelt Metro Station is the terminus for WMATA's green Metrorail line. This line is part of a metropolitan subway system centered on Washington, D.C. The availability of subway service into Washington, D.C., provides easy access for residents to the employment, service, retail, and cultural opportunities of the larger city. The Metro starts running at 5:00 AM on weekdays and 7:00 AM on weekends and stops at 12:00 AM on Sunday through Thursday and 3:00 AM on Friday and Saturday. The Metro uses a distance-based fare system with a minimum charge of \$1.65 and a maximum of \$4.50. Since Greenbelt is the terminus of the green line, a trip to downtown Washington falls in the higher end of that range (\$3.85 for a one-way regular fare).

3

Fixed-Route Service Coverage

As detailed in the previous chapter, Greenbelt has multiple transit systems operating numerous fixed-route buses in the city. These bus routes form the backbone of the Greenbelt transit network, providing extensive service coverage throughout the city for general transit riders. While there are many buses operating in Greenbelt, they are only useful to residents with reasonable access to the routes. In addition to the important service characteristics indicating transit availability described in Chapter 2—service frequency and service span—the availability of service depends on the ability of riders to physically access the service, measured primarily in a route’s proximity to residential facilities and other destinations and the location of bus stops.

Service Coverage

A transit network’s service coverage—the area from which a transit service is anticipated to attract riders—is the first indicator of service availability in a city. In general, bus service is expected to attract riders from approximately a quarter-mile radius from a route. A quarter mile is the upper boundary of the distance a person will find reasonable to walk to access bus service, although this distance may differ based on the specific local context, such as development patterns, and individual needs. In a more densely developed area like historic Greenbelt, riders are typically inclined to walk shorter distances to access transit. In all cases, the closer service is, the more convenient it will be, increasing the likelihood of transit use by people in close proximity.

Almost all developed areas of Greenbelt fall within a quarter mile radius of either a TheBus or Metrobus route, the two primary general service bus systems in the city. This service coverage suggests that all residents, employees, and visitors should be able to rely on transit if necessary. This availability of transit does not mean that all residents, employees, and visitors will find using transit convenient, direct, or a viable transportation alternative, but it is generally accessible during typical business hours on weekdays for those with few other options.

Although almost all developed areas fall in the quarter-mile service coverage area, examining a tighter service coverage area reveals portions of Greenbelt with the least direct bus service. Figure 3-1 shows the service coverage area within an eighth mile of TheBus and

Metrobus routes.¹ While there are likely transit users that fall outside of this service coverage area, these users must travel a greater initial distance to access transit, reducing its convenience. There are two areas of the city that stand out as having less proximity to bus routes than the majority of developed areas: the residential area primarily along Lakeside Drive in the vicinity of Greenbelt Lake in the center of the city and residential areas in the Boxwood and Lakewood neighborhoods in the north-central area of the city. Both of these areas are fairly dense residential areas with somewhat circuitous streets, potentially extending the walk to the nearest bus stop.

Directly serving residential areas is crucial to residents' ability to effectively use transit service. Either direct bus service or easy pedestrian access to bus stops will help attract choice riders—those residents with other transportation options such as personal automobile use—and better serve transit-dependent riders. Depending on the demand for service in the above identified areas of the city, transit access in these neighborhoods should be considered in the planning of future service.

Bus Stops

The service coverage depicted above is only relevant when there are adequate bus stops located along the routes. Bus stops serve as the primary access points to transit service, enabling passengers to board and alight vehicles. An accessible bus route will have bus stops at major destinations and appropriately spaced throughout the route. In many cases, the appropriate spacing depends on surrounding use, with farther distances between stops in more rural areas and closer spaced stops in more urban areas. Bus stop spacing typically follows the expected service coverage of a bus route; if the route is anticipated to attract riders from a quarter-mile radius, than bus stops should be at least every half mile, providing a maximum walk to the nearest bus stop along the route of a quarter mile.

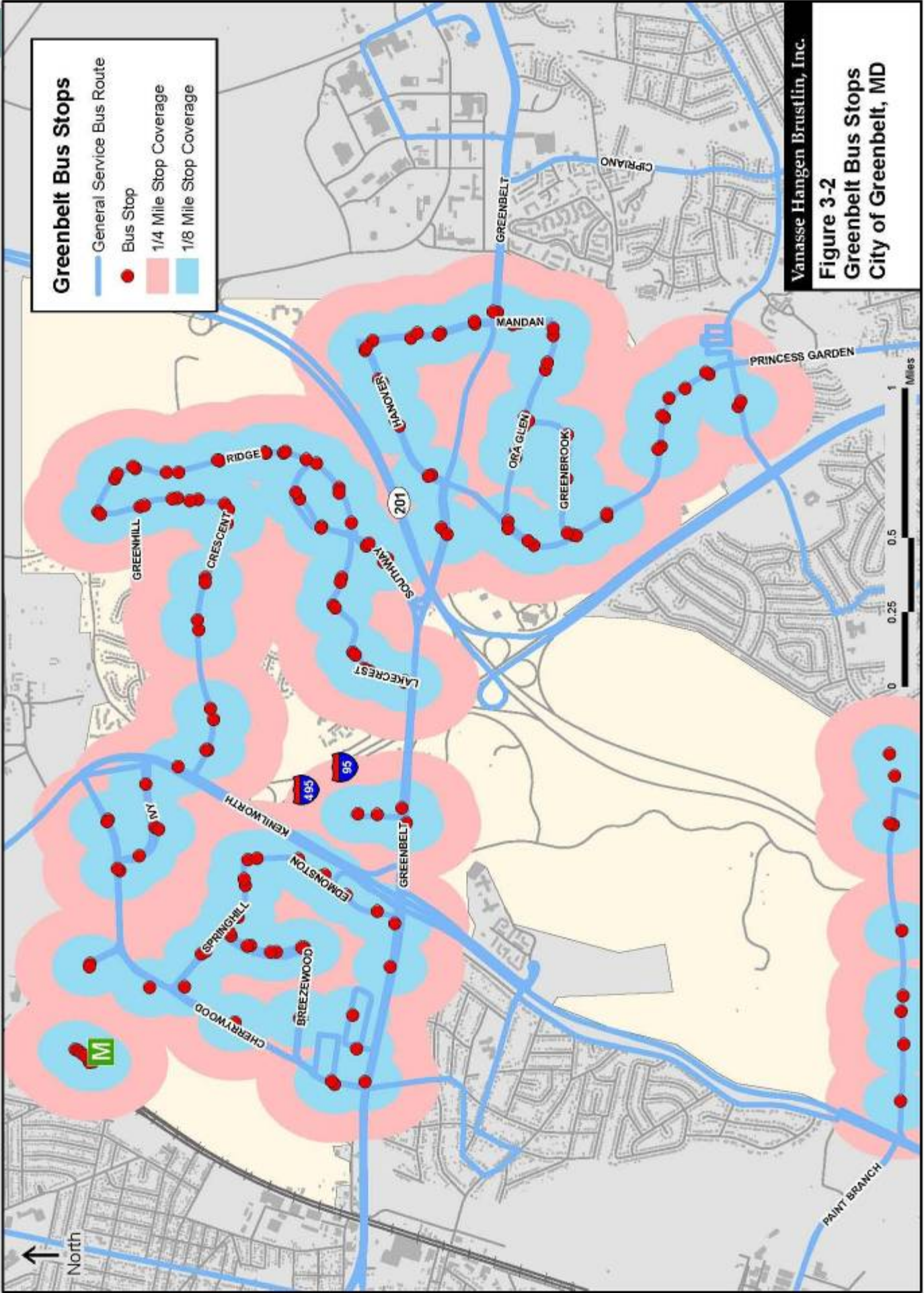
The Bus and Metrobus stops are generally located within at least a quarter-mile of one another, making the maximum walk to a bus stop from any location on the route approximately an eighth mile (see Figure 3-2). This distance reflects the higher density of the city and the reduced distance that residents, employees, and visitors will accept as a reasonable walking distance for transit.² Figure 3-2, identifying bus stops located within the city, shows that bus stops are located on most local roads with bus routes. Some of the more major roads with transit service do not have bus stops, such as Route 201 (Baltimore-Washington Parkway), Kennilworth Avenue, and Interstate 95/495. The routes operating on these roadways do not have multiple local stops and instead are designed to quickly move riders throughout the region.

With the exception of portions of Greenbelt Road, the local roads with bus routes appear to have consistent, reasonably spaced bus stops. The distribution of stops as seen in Figure 3-2 demonstrates that the two services share several overlapping route segments and bus stops.

¹ The University of Maryland service coverage is not shown in Figure 3-1 because the UMD bus system is only available to members of the UMD community and is not open to the general public.

² The spacing of the bus stops also suggests that the shorter service coverage of an eighth mile might be more appropriate for the Greenbelt land use.

Maximizing Transit Opportunities in Greenbelt



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Figure 3-2
Greenbelt Bus Stops
City of Greenbelt, MD

Transit Ridership Generators

Transit service will only be effective if it connects people to the places they need and want to go. Greenbelt has many important and popular destinations spread throughout the city. All of these destinations should to be served by transit. Providing direct connections from dense residential areas to these destinations will increase the convenience of transit riders and help attract more choice riders to use transit.

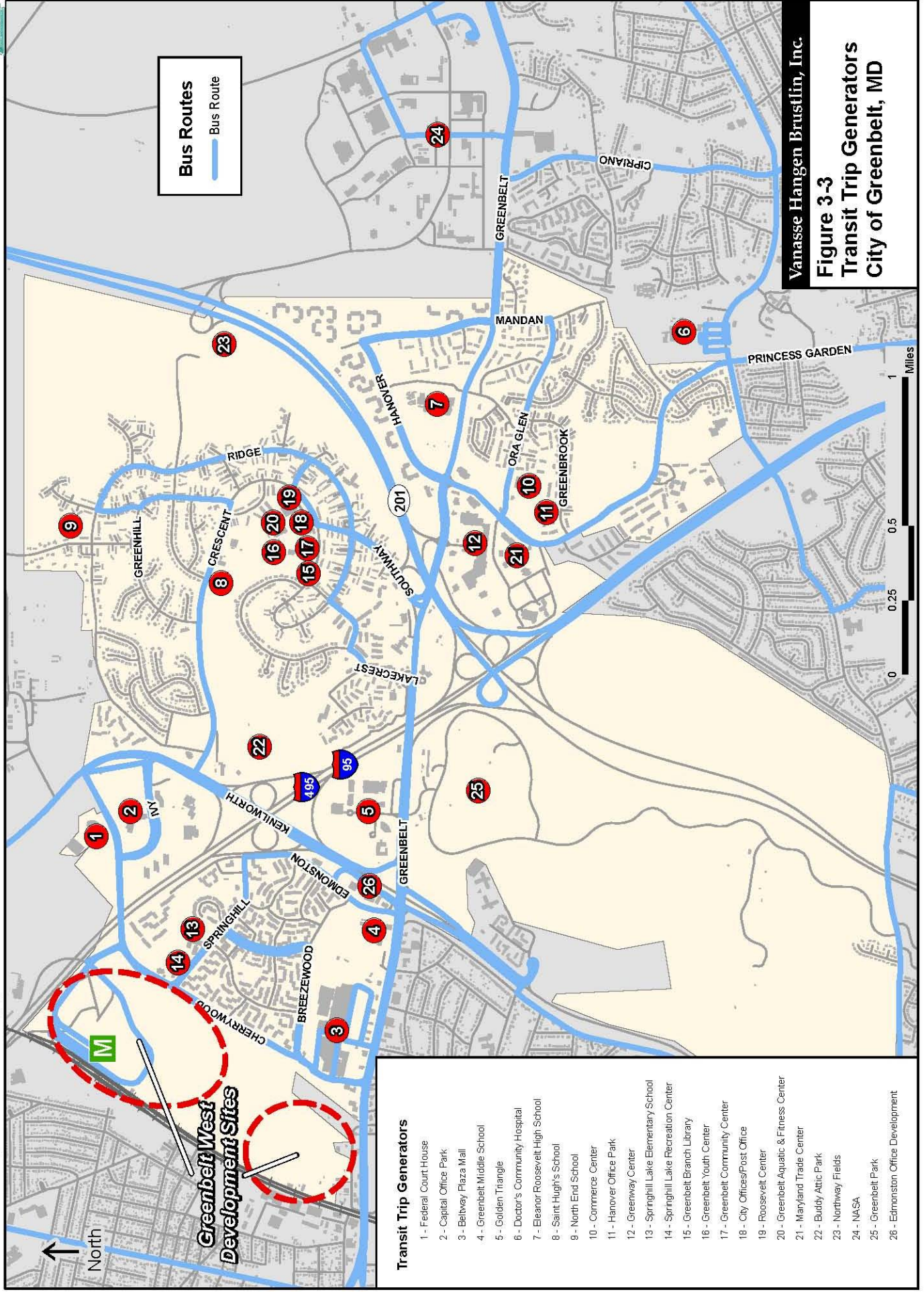
City of Greenbelt staff and residents identified transit trip generators in the city (depicted in Figure 3-3), which include:

- > Greenbelt Metro Station
- > Federal Courthouse
- > Capital Office Park
- > Beltway Plaza Mall
- > Greenbelt Middle School
- > Golden Triangle
- > Doctor's Community Hospital
- > Eleanor Roosevelt High School
- > Saint Hugh's School
- > Greenbelt Elementary School
- > Commerce Center
- > Hanover Office Park
- > Greenway Center
- > Schrom Hills Park
- > Springhill Lake Elementary School
- > Springhill Lake Recreation Center
- > Greenbelt Branch Library
- > Greenbelt Youth Center
- > Greenbelt Community Center
- > City Offices
- > Roosevelt Center
- > Greenbelt Aquatic & Fitness Center
- > Maryland Trade Center
- > Buddy Attick Park
- > Northway Fields
- > NASA Goddard
- > Greenbelt Park
- > Beltsville Agricultural Research Center
- > Edmonston Road Office Development
- > Religious institutions
- > US Post Office

These destinations represent important community resources, employment opportunities, and recreation facilities. Ensuring they are accessible by transit will provide all residents with the ability to share in the opportunities available throughout the city.

In general, almost all of the identified transit trip generators are accessible by transit. The Northway Fields in the northeast of the city is one of the identified destinations that does not have direct transit service; the closest bus stop is approximately a half mile away at the entrance to the park containing the fields. Including this destination in scheduled transit service would lengthen the trip time of any bus route. Since access to sports fields is primarily needed during scheduled events, this destination would be better served by paratransit, such as the Greenbelt Connection.

Maximizing Transit Opportunities in Greenbelt



Although almost all of these destinations are accessible by transit, residents will often not have bus service to these locations, with their trip requiring either a circuitous route or a transfer to another bus. Introducing a bus route aimed at circulating residents exclusively within the city could help improve access for residents to Greenbelt destinations. TheBus Route 11 already provides this type of service on a smaller scale. Expanding the service throughout the city would benefit all residents.

Future Development

In addition to the existing transit trip generators, there is a significant amount of new development planned for western Greenbelt. In the vicinity south of the Greenbelt Metro Station, two developments have been approved: Greenbelt Metro Station South and Greenbelt Metro Station North.

- > **South** – This mixed-use development will consist of 983 housing units and between 60,000 to 85,000 square feet of retail.
- > **North** – The north development is a considerably larger endeavor. This development will include 1,267 housing units, 1.1 million square feet of retail space, 1.2 million square feet of office space, and a 300-room hotel.

These two developments will dramatically increase the amount of residential and business activity in Greenbelt. The design and location of these developments will make them particularly amenable to transit use. These developments will have excellent access to the Greenbelt Metro Station, but they will also need bus service to connect the developments' residents to other Greenbelt destinations and other Greenbelt residents to the employment and retail opportunities at the new development. Furthermore, providing adequate transit service to this densely developed area will be a responsible way to help manage an influx of new residents, employees, and visitors to the city.

Overlapping Service

The transit network serving the City of Greenbelt has several segments served by multiple bus routes. In many cases, the overlap of bus service coverage areas may be the most efficient means to route buses on the existing street network, but overlapping routes deserve special consideration to ensure bus service is not redundant. Identifying redundant service and redirecting those resources to serve other parts of the city will enable Greenbelt to fill in service gaps and provide a more comprehensive transit network. Although multiple routes operating along the same roadway segment may appear to be offering redundant service, there are many considerations taken into account in the evaluation of overlapping routes, such as service frequencies, schedules, service coverage of the entire routes, route alternatives, etc.

The overlap of bus routes is common in transit systems, especially where multiple routes converge on a single destination, such as a transfer center or, in Greenbelt's case, a Metro Station and Beltway Plaza Mall. Overlapping bus routes can provide benefits to travel corridors: broader service spans and increased service frequencies can be achieved on route segments through the operation of multiple bus services. While individual bus routes may

not warrant these higher levels of service on their own, there are certain segments that need more intense service. Additionally, the roadway network may require several buses to use the same road segment for efficiency of operation. Primary roadways within a city are frequently designed to move traffic efficiently and directly, and are often lined with high residential, employment, and retail densities, making them natural places for bus service.

While there is often justification for overlapping bus routes, there is a balancing act that must occur: provide efficient service and provide extensive service coverage. For residents to find transit service useful, it needs to be direct, but it also needs to be accessible throughout the city. As the service coverage overview above indicated, Greenbelt is fairly well covered by bus routes, but there were some areas with less direct bus service than most developed areas in the city. As can be seen in Figure 3-4, this lack of direct bus service to some areas reflects the concentration of service along certain roadway segments in Greenbelt.

In Greenbelt there are two major destinations located on the western edge of Greenbelt that are served by multiple bus routes: the Greenbelt Metro Station and the Beltway Plaza Mall. These two destinations serve as the route termini for multiple routes coming from the west along Greenbelt Road and Cherrywood Lane and north along Cherrywood Lane and Edmonston Road. Since these roadways are the only access points to these major destinations, it is expected that multiple buses would travel along them. Bus routes coming from the west and north to these points do not provide substantial service within the city of Greenbelt, though they do offer regional transit access. For these two reasons, this analysis will instead focus on overlapping service coverage of bus routes providing mobility within Greenbelt.

Figure 3-4 identifies six areas that have at least two routes with overlapping service coverage:

- > **Area 1** – This area consists of major employment destinations including the Capital Office Park and a Federal Courthouse. It is served by TheBus Route 11 and Metrobus routes C7/C9, 89/89M, and R12. In general, these four routes largely serve different areas in the city and county. Metrobus routes C7/C9 and 89/89M primarily serve areas northeast and northwest of Greenbelt, respectively. One major function of these two routes is to bring people into the city and this high employment area.

TheBus Route 11 and Metrobus R12 provide more similar services in Greenbelt. The local service coverage of these two routes do substantially overlap in the vicinity of Ivy Lane. In addition to the overlap of the routes, their schedules are within ten minutes of one another during the peak period. The benefit of having these two routes operate in the same service area is an expanded service span (R12 operates for a longer period and on Saturday) and increased frequency (Route 11 is on a consistent half-hour headway, whereas R12 operates on a half-hour headway during peak periods and an hour headway at other times). The overlap of these two services does suggest there is an opportunity to reduce redundant service.

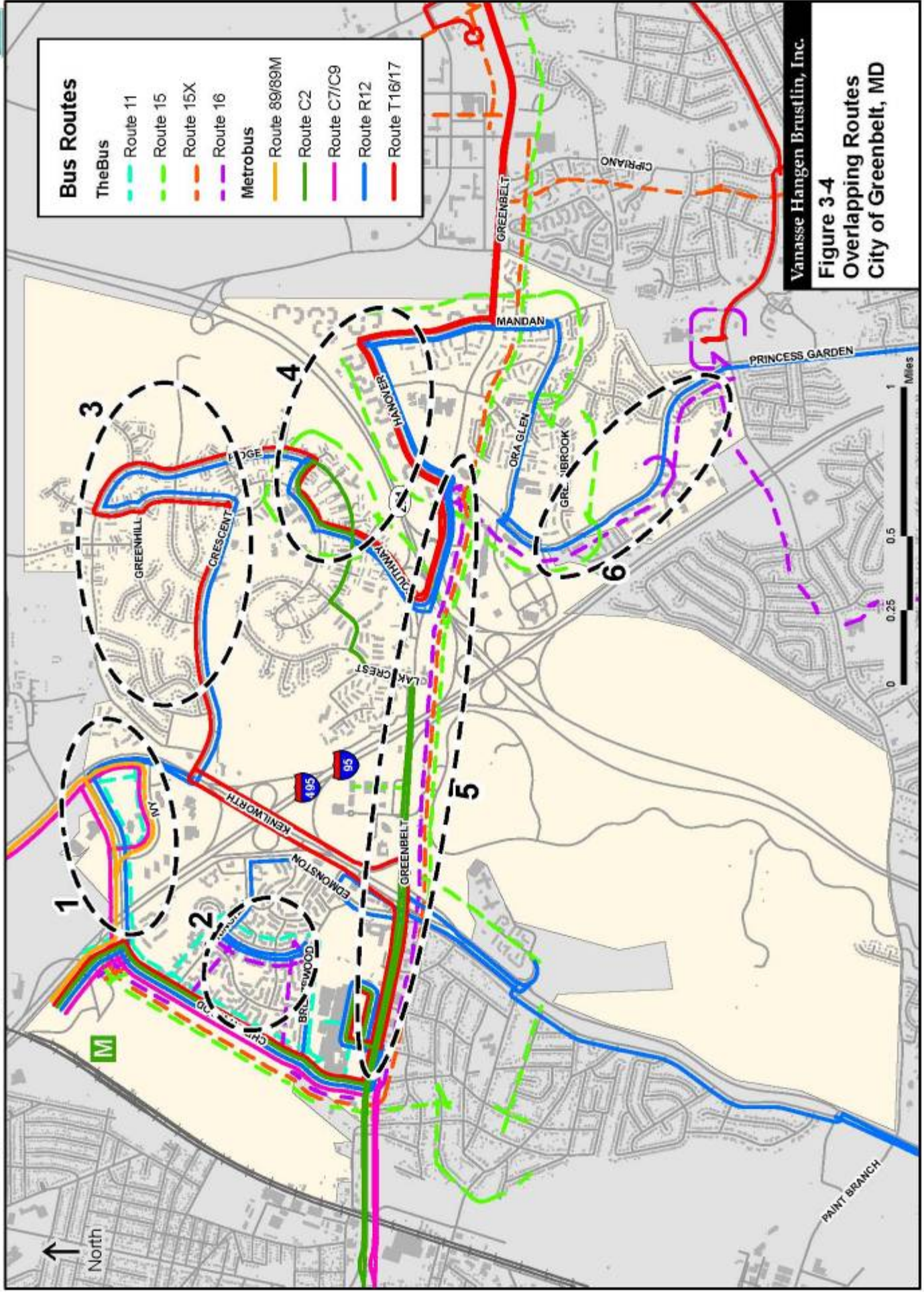
- > **Area 2** – This area includes the neighborhood south of the Greenbelt Metro Station and the Beltway Plaza Mall. It is served by TheBus routes 11 and 16 and Metrobus

R12. Similar to Area 1, Route 11 and R12 have significant overlap in service coverage and schedule in this area as well. In addition to these two routes, Route 16 also serves this area. All three of the routes serve this neighborhood and the Beltway Plaza mall within a few minutes of one another every half hour during the peak AM period. The schedules remain similar during non-peak periods and during the peak PM period, when Route 16 and R12 reduce their headways to hourly service. In this area, there may be the potential to modify service to reduce redundancies. Although there is substantial overlap, Route 16 and Route 12 do not overlap service coverage for the majority of their routes, providing service to different parts of the city and county. Overlap of services with different trip ends may provide residents with important direct transit connections that must be considered in the evaluation of these routes.

- > **Area 3** – This area is largely characterized by residential development in the north of the city. It is served by Metrobus routes R12 and T16/17. These two bus routes operate on identical routes in the east portion of the city. During the morning peak period these two buses operate on nearly the exact same schedule in the east/north direction, providing this area with clearly redundant service. Even though these two routes ultimately deviate in their service to the surrounding region, operating two buses on the same route at the same time provides no clear benefit to riders. At a minimum, the routes' schedules should likely be offset as they are at certain other times and in the other direction to reduce service frequency on this route segment from half hourly to every 15 minutes. There may also be an opportunity to better space the buses when the routes are operating on hourly headways.
- > **Area 4** – This area contains both the historic Greenbelt Center and newer development on the eastern edge of the city. Separated by distance and development pattern, these portions of the city are largely served by the same bus routes. The Bus Route 15 in addition to Metrobus routes C2, R12, and T16/17 all provide service in this general area. As discussed in Area 3, routes R12 and T16/17 share a nearly identical route in this portion of the city and there are opportunities to improve the schedule to increase service frequency or otherwise modify the route to improve service coverage.

Route 15 serves this same area, but with more direct service to and from the Greenbelt Metro Station. In the vicinity of Area 4, Route 15 operates on a schedule providing service at similar times to routes R12 and T16/17, at times providing service only minutes apart from the other buses. This route also provides similar service coverage to the NASA facility east of the city as Route T16/17. Route 15 does help improve the service frequency to the NASA facility, at times improving service to every 15 minutes between the two routes during the peak period. This route also serves a more expansive service coverage east of the Baltimore-Washington Parkway, than either R12 or T16/17. The primary area for improving service would come between the historic Greenbelt Center and Mandan Road.

Maximizing Transit Opportunities in Greenbelt



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Figure 3-4
Overlapping Routes
City of Greenbelt, MD

Route C2 provides relatively different service than the other three routes. Although it serves Greenbelt Center, it travels a slightly different route to and from this destination. Additionally, this route is oriented to the west of the city, providing an important direct connection for residents to destinations in the surrounding region.

- > **Area 5** – This area is focused on Greenbelt Road, which bisects the city running east-west. Since this road is the primary path through the city with an east-west orientation, several bus routes operate along it. TheBus routes 15, 15X, and 16 in addition to Metrobus route C2 all use Greenbelt Road. Routes 15 and 15X and primarily oriented to the east of the city, Route 16 provides service to the south of the city, and C2 heads to the west of the city, all serving the Metro Station.

TheBus routes 15 and 15X have the most similar service, but were designed by TheBus to provide unique service. Route 15X is an express bus route primarily serving the NASA facility from two different Metro stations. These routes work together to provide complimentary services within a similar travel corridor.

Routes 15, 16, and C2 all provide similar overlapping service along Greenbelt Road. At points of the day, they all serve the Beltway Plaza Mall within a few minutes of one another. Although this service is redundant, they all also serve significantly different service areas in other parts of the city and region. In this case, the redundant service is likely a function of Greenbelt Road as a major east-west thoroughfare through the city. Identifying opportunities to improve bus spacing may help provide Greenbelt Road with consistent and frequent service throughout the day, but this will likely have minimal impact on the quality of transit service in the city as perceived by residents.

- > **Area 6** – This area primarily consists of major employment and retail development. It is served by two routes: TheBus Route 16 and Metrobus R12. Each of these routes operates between the Greenbelt and New Carrollton Metro stations, though by different routes. The routes overlap in the southeastern part of the city along Hanover Parkway. Although the routes overlap in this portion of the city, they each provide direct access to these employment areas from different residential sections of Greenbelt, Route 16 serves residential areas in western Greenbelt and R12 connects to residential areas in the north and east of the city. Spacing the route schedules to allow for increased service frequency would provide employees working in this area with multiple options for accessing a Metro Station. The Metrobus route serving this area also means it receives service on Saturdays.

Scheduling an entire transit system to work together is no easy task. Integrating multiple transit systems together is even more difficult. TheBus Route 11 is the only bus route that operates exclusively in Greenbelt. All other routes serve a regional role in addition to the local service they provide. Improving the quality of service in the city to address the service redundancies identified above will have potential effects on the operation of these two regional transit systems, which may make certain route improvements difficult to implement. Despite these challenges, there are clear opportunities to expand the quality and coverage of service in Greenbelt with existing transit resources.

4

Greenbelt Metrorail Station Access

In order to make use of transit services, people must be able to reach the stops and stations. Pedestrian and bicycle access is important to the success of Metrorail service in Greenbelt as the City continues to develop. This is also true for bus stops throughout the City; the provision of safe and comfortable bicycle and pedestrian facilities will encourage the use of transit service throughout the community. As a terminal station, the Greenbelt Metrorail station is designed primarily for vehicular and bus access, not pedestrians and bicyclists as shown in Figure 4-1. Typically, pedestrians are willing to walk between quarter and half mile to access a transit station. In Greenbelt however, the majority of the area within quarter mile of the station entrance is comprised of a large parking facility, as shown in Figure 4-2. This section will look at the available pedestrian, bicycle and bus access facilities within a quarter-mile radius of the Greenbelt Metrorail station.

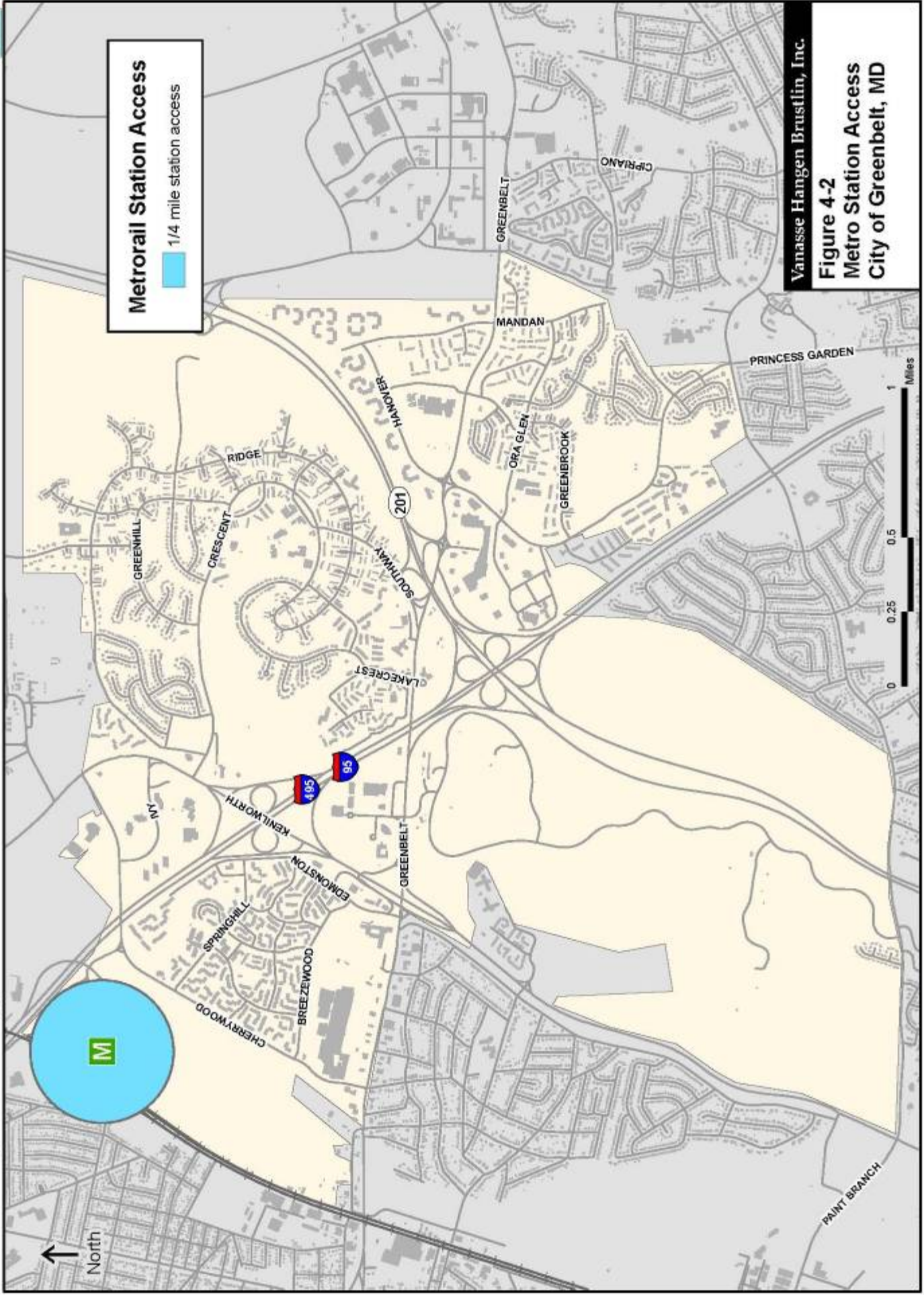


Figure 4-1: Layout of Greenbelt Metrorail Station (Image courtesy of stationmasters.com)

Bus Access Facilities

All of the bus routes that serve the Greenbelt Metrorail station stop at a high capacity stop near the front of the station entrance on the east side of the station as shown in Figure 4-1. All Metrobus, TheBus, and University of Maryland routes stop at this location which facilitates easy transfers between bus routes and the Metrorail system. Shelters, benches, trashcans, newspaper vending machines, and other amenities are all provided at this location for the use of all waiting passengers. Additionally, a layover area is provided for out-of-service buses to wait as shown in Figure 4-3. Pedestrian and bicycle access to this bus stop is excellent

Maximizing Transit Opportunities in Greenbelt



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Figure 4-2
Metro Station Access
City of Greenbelt, MD

from the Metrorail station, however access from the surrounding neighborhoods is limited as discussed in the following sections.

One other bus stop is located within walking distance of the Metrorail station along Greenbelt Metro Dr approximately 300 yards from the intersection with Cherrywood Lane. Most of the bus routes that serve the Metro station will stop at this location when requested. This bus stop is accessible from the Metro station parking lots and from Cherrywood Lane via sidewalks along both sides of the street. An ADA-compliant landing pad is provided at this location, but there are no other amenities.



Figure 4-3: A Prince George's County Bus waits between runs in the layover area.

There is no bus access provided from the west side of the Metrorail station in the neighborhoods near Hollywood Neighborhood Park.

Pedestrian and Bicycle Access Facilities

Access from the west side of the station is limited to a single shared-use trail that connects from the end of Lackawanna Street. This paved asphalt trail shown in Figure 4-4 enters the Metrorail station via a tunnel that connects to the main station entrance (see Figure 4-5). Bicycle lockers are available outside the entrance to this tunnel. In this area near Hollywood Park are the neighborhoods closest to the Metrorail station, comprising dense developments of single-family homes.



Figure 4-4: Paved asphalt trail connection to Lackawanna St.

All streets in these neighborhoods have pedestrian facilities including sidewalks and crosswalks on both sides of the street (see Figure 4-6). Traffic calming devices of various types have been installed throughout the neighborhood, slowing vehicular speeds and ensuring that the streets are conducive to both bicycle and pedestrian travel. Access to the various bus routes in the area is available via this route at the bus hub on the east side of the Metrorail station.

Access to the Greenbelt Metro station from the east is more difficult because of the distance between the station entrance and any potential destinations. The Metro parking lot extends for approximately a third mile from the station entrance; the closest destination of any kind is over half mile away to the east. Greenbelt Metro Drive does have sidewalks on both sides of the roadway, however a pedestrian would be required to walk through large areas of parking lot (as shown in Figure 4-7) in order to reach either the Metrorail station or the bus stops. Pedestrians can also access the bus stop located on Greenbelt Metro Drive using the sidewalks.



Figure 4-5: Tunnel access from the west side of the Greenbelt Metrorail station.

The closest pedestrian or bicycle destination on the east side of the station is the Springhill Lake apartments located east of Cherrywood Lane. Sidewalk is available on the east side of Cherrywood Lane, but improved crossing facilities at the intersection with Greenbelt Metro Drive would make this pedestrian route safer. The distance of this walk may also discourage pedestrian access to the Metrorail station. On street bike lanes are available along Cherrywood Lane to allow bicyclists direct access to the Metrorail station and the bus routes that stop there.



Figure 4-6: Neighborhood Streets

It will be important to develop pedestrian facilities to connect two new mixed-use developments planned for the area immediately south of the Metro Station to Metrorail and bus service. Sidewalks, paths, and bike amenities will all encourage transit use by residents, employees, and visitors.



Figure 4-7: Extensive Parking lots near the Greenbelt Metrorail station

Metrorail Station Access

5

Prince George's County Transit Service and Operations Plan Overview

In addition to providing local service within the City of Greenbelt, many of the transit services described above also operate on a regional level. Both the local and regional functions of these transit services are important to the mobility of Greenbelt residents and residents of the surrounding region, enabling passengers to get into, out of, and around the city. In practice, the local and regional transit services form one interrelated transit system. This system requires an appropriate balance between the need for local and the need for regional transit, especially considering the limited resources facing all transit operators. While this report largely focuses on strategies to maximize transit investment within Greenbelt and its vicinity, Prince George's County is in the process of developing a Transit Service and Operations Plan (TSOP) from a county perspective.

Based on an analysis of transit service within Prince George's County, the TSOP makes multiple recommendations for service changes. While these recommendations are intended to improve county-wide service, the recommended changes will have implications for transit accessibility within and immediately around Greenbelt. The draft TSOP findings and recommendations directly affecting Greenbelt are below.

TSOP Transit Needs Analysis

One component of the TSOP is an assessment of transit need within the county. This need was determined by two forms of analysis: an evaluation of demographic and development trends and an analysis of trip patterns. The demographic and development trend analysis identifies areas of the county expected to have high need for transit service based on census data. The trip pattern analysis examines travel patterns to destinations that are known to attract transit trips. For both of these analyses, the TSOP identifies general areas of the county in need of transit service and generally does not look at transit need in specific areas of specific municipalities.

Greenbelt has some of the highest levels of transit service in the county, and the demographic and development trends identified in the TSOP demonstrate why. The City of Greenbelt consistently exhibits indicators of transit need in this analysis. The development trends generally identified for Greenbelt include:

- > High population density (over 4,000 people per square mile)
- > High household density (over 3 houses per acre)
- > Areas of the city with high density multifamily housing (over 1,000 units per square mile)
- > High growth rate (increase in population of over 1,000 people)

The demographic trends for Greenbelt include:

- > Medium-high and high transit need based on density
- > High density of autoless households (over 100 households per square mile)
- > Presence of long-distance commuters and commuters relying on bus or taxi service

Considering these demographic and development trends, the TSOP determined Greenbelt had a medium-high to high density of potential transit users and portions of the city with a high percentage of potential transit users in the county. This analysis classified all of Greenbelt as having either a moderate or high transit need and potential.

The TSOP also identified multiple destinations in and around Greenbelt as major destinations for trips originating in Prince George’s County. These destinations include: the Federal Courthouse, Capital Office Park, Beltway Plaza Mall, and NASA. All of these destinations (excluding the Beltway Plaza Mall) were classified as major employment centers within the county, which attract many work and business-related trips from Greenbelt and the surrounding area. The Beltway Plaza Mall is the second largest shopping center in the county, also attracting many trips from Greenbelt and the large county. All of these destinations in Greenbelt suggest the need for extensive transit coverage both within the city and county.

The TSOP does not include the South Core and North Core Greenbelt Metro Station developments as planned near-term developments within the county. Since these major developments have been approved, they deserve consideration in the planning of future transit service. These developments will increase the population and housing density in Greenbelt in addition to offering major retail and employment spaces.

The TSOP Needs Analysis concludes by identifying areas in the county that may require future transit service. While expanding transit service into new parts of the county is an important goal, it is also important to support and expand existing transit service in high needs areas, such as Greenbelt. Based on the findings of the entire TSOP several recommendations were made regarding transit service in Greenbelt.

TSOP Recommendations for Greenbelt Transit Service

The TSOP identifies several recommendations to improve transit service within Prince George’s County, including adding, modifying, and eliminating service. Overall,

implementation of the TSOP recommendations would significantly increase the amount of transit provided in the county. According to the TSOP recommendations, Metrobus service would have a net increase of 54,614 vehicle hours (the amount of time vehicles are on the road) and TheBus service would have a net increase of 276,758 vehicle hours. This additional service requires a net increase in operating and capital costs: approximately \$22 million in annual operating costs and \$39 million in initial capital costs.

While the majority of recommendations result in service increases, the TSOP also identifies service for reductions or elimination. Through a service rationalization analysis, the TSOP evaluated existing routes for duplicative service and other issues. The TSOP focused on eliminating overlapping bus routes and redistributing those resources to other parts of the county with greater transit need. This redistribution of transit service aims to increase the overall efficiency of the county’s transit system and serve as many residents as possible. From a countywide perspective, the redistribution of existing transit service has many benefits, but reducing or eliminating existing transit service also has the potential to decrease transit accessibility for current riders. Therefore, it is important to consider the local effects of service reductions in addition to the countywide benefits of resource redistribution.

Table 2-5. TSOP Recommended Service Changes for Greenbelt Transit Service

Route	Operator	Service Change	Plan Year
11	TheBus	Eliminate Service	2
14	TheBus	Add Saturday Service	4
14	TheBus	Improve peak headway to 30 minutes	2
15	TheBus	Extend existing route to northern Bowie	4
15	TheBus	Improve peak headway to 30 minutes	4
15X	TheBus	Improve peak headway to 30 minutes	1
16	TheBus	Add Saturday service	2
New	TheBus	Introduce service from Greenbelt Metro Station to new development south of Laurel	3
New	TheBus	Introduce service from Langley Park to Upper Marlboro with a stop at the Greenbelt Metro Station	4
81/83	Metro	No Change	-
87/88	Metro	Eliminated and replaced by L12	3
89/89M	Metro	Eliminated and replaced by L12	3
B30	Metro	No Change	-
C2	Metro	Eliminate route segment from Greenbelt Metro Station to Greenbelt Center	2
C7/C9	Metro	No Change	-
R3	Metro	No Change	-
R12	Metro	Divide into two routes: R12 from Greenbelt Metro Station to Deanwood Metro Station and T14 from Greenbelt Metro Station to New Carrollton Metro Station with T14 serving south of Old Greenbelt	2
T16/ 17	Metro	Expand Saturday service to start at 6:30 AM	3
New	Metro	Introduce Route L12 to replace 81/83 and 87/88	3
G	CTC	No Change	-
H	CTC	No Change	-

Source: Prince George’s County Transit Service and Operations Plan

Table 2-5 shows the TSOP recommendations for bus routes operating in Greenbelt. For Greenbelt, the recommendations will increase some aspects of the city’s transit and decrease others. The primary recommendations resulting in service increases inside the city include:

- > **Saturday Service** –Begin operating Saturday service on TheBus route 16 and expand Route T16/17 Saturday service to start at 6:30 AM.
- > **Improved Headways** – Improve headways during peak-period service on TheBus routes 14, 15, and 15X from 60 minutes to 30 minutes.
- > **New Route along 193 Corridor** – Introduce a new TheBus route along the 193 corridor, with service in Greenbelt along Greenbelt road and to the Greenbelt Metro Station.
- > **Improve Route Efficiency** – Divide Metrobus Route R12 into two separate routes (R12 and T14) to improve schedule adherence and redirect Route T14 to serve south of Old Greenbelt.

Additionally, there are two new routes proposed that will provide regional transit access to and from the Greenbelt Metro Station. These two routes will provide regional transit access, but will not substantially increase transit service within the city:

- > **New TheBus Route to Konterra Development** – Introduce new service between the Greenbelt Metro Station and new development south of Laurel.
- > **New Metrobus Route L12** – Introduce Route L12 to replace Metrobus routes 87/88 and 89/89M.

TSOP also makes the following recommendations that will result in a loss of transit service in the city:

- > **Route Elimination** – Eliminate TheBus Route 11, a circulator route serving major destinations and residential areas in the city, in favor of Metrobus Route R12 and T14, which cover similar service areas on similar schedule frequencies.
- > **Route Reduction** – Cut service on segment of Metrobus Route C2 that operates between the Greenbelt Metro Station and Historic Greenbelt, a segment covered by other existing routes (TheBus routes 15 and 15X and Metrobus routes R12 and T16/17).

Additionally, Metrobus routes 87/88 and 89/89M will be eliminated and replaced by a new Metrobus route, Route L12. These routes provide service primarily outside of the city, connecting portions of the surrounding region to the Greenbelt Metrobus Station. These service reductions enable the reallocation of resources to afford the service extensions identified as part of the TSOP.

The TSOP service recommendations have both benefits and drawbacks for Greenbelt residents. The service increases will provide more frequent peak period service and Saturday service, helping to make transit a more convenient and viable transportation mode for a greater share of trips. While Greenbelt residents can look forward to service increases, the service reductions within the city will decrease transit accessibility for some residents:

- > The elimination of the segment of Metrobus Route C2 between the Greenbelt Metro Station and Historic Greenbelt would leave the residential area in proximity to Laekcrest Drive and Westway unserved. Additionally, cutting out this route segment would eliminate direct bus service (requiring no bus transfers) between destinations along Greenbelt Road and Historic Greenbelt and areas west of the city. This western service will be partially restored by the new 193 corridor route that extends to the western edge of the county, but stops short of the Wheaton Metro Station.
- > The termination of TheBus Route 11 would eliminate the only bus route dedicated exclusively to serving Greenbelt. This circulator route serves Greenbelt Metro Station, Capital Office Park, the Federal Courthouse, Beltway Plaza, and residential areas in western Greenbelt. Although these areas are currently served by other bus routes, Route 11 increases the service frequency throughout the day by providing service on a constant half-hour loop. Additionally, the elimination of Route 11 coupled with the elimination of Route 89/89M would leave only Route C7—which provides limited morning and afternoon service—to directly serve the Capital Office Park along Ivy Lane. The redirection of new Route T14 to south of Historic Greenbelt will also potentially leave the Capital Office Park and Federal Courthouse with limited transit service.
- > The rerouting of the new Route T14 to Greenbelt Road from Route R12's route through historic Greenbelt will reduce access from residential neighborhoods to Doctor's Community Hospital and points south of the city. Although Route T16/17 overlaps with current Route R12 (proposed Route T14), these two routes connect residents to different destinations outside of the city. Rerouting Route T14 would reduce direct bus access for many residents.
- > The replacement of Metrobus routes 87/88 and 89/89M will also affect transit service primarily to and from the city. The new Metrobus Route L2 designed to replace routes 87/88 and 89/89M is focused on providing residents of Laurel with access to Metro stations (Greenbelt and College Park). This new route will shrink the regional service coverage of bus routes with direct access to the Greenbelt Metro Station.

The TSOP service rationalization analysis raises important questions about how bus routes relate to one another in Greenbelt. Greenbelt is a relatively small city with only a few arterial roads, which requires many different transit services to overlap for segments of their routes. The duplication of service provides opportunities to redistribute those transit services to other areas with greater transit needs. But it is also important to consider how much of the service is truly duplicative—in terms of the full route and schedule times—and other areas of the city, not just the county, that could use service increases.

6

Community Input

Community input provides an important window into the experiences of transit users, helping to identify both what works well with transit service in addition to any gaps in service or other issues. The City of Greenbelt coordinated a community meeting held at 7:30 p.m. on July 9, 2008 at the Greenbelt Community Center. After a short presentation of existing transit conditions in the city by the consultant team (see Appendix A), community members were broken into six groups of 6 to 8 people and given the opportunity to share their views and ideas about improving transit in Greenbelt. The discussion of each group was loosely directed by identifying:

- > Important destinations
- > Gaps in service
- > Bus stops needed
- > Schedule problems
- > Transfer issues

After the break-out session, each group reported a summary of their discussion to all attendees. The following comments were recorded:

Group 1

- > Include religious institutions as destinations
- > No Sunday service
- > Limited Saturday service
- > Certain routes have limited service in Greenbelt
- > Express service from residential E. Greenbelt to Metro
- > Need for a Greenbelt circulator
- > Lack of general service in North
- > Need to keep employment centers connected to Metro (Route 11)
- > Operational information at each stop
- > Need service throughout the day and night
- > Similar schedule for R12 and T16/17, especially heading into Metro station (leave at same time from Metro station)
- > Repair garages can be collection points
- > Need better service to Golden Triangle
- > Retain service to commercial properties
- > Consider future development when making transit decisions

Group 2

- > Sunday service is a big issue
- > Major and secondary holiday service too
- > Buses that run hourly on weekends/holidays could be staggered instead of 5 minutes apart, this will allow people going the same way to get on whatever comes first
- > Late night service from Metro too infrequent
- > Not just work trips but social too
- > Saturday night cultural events at UMD
- > Sunday direct lines on an hourly loop just to major destinations
- > More direct/frequent service to/from Metro
- > Too many routes are circuitous or retrace
- > Don't need so many routes to Beltway Plaza
 - Maybe make it a stop during certain times of day (not rush hour)
 - Don't need redundancy of routes from Metro to Beltway
 - Most on bus going straight to Metro
- > Feasibility of local only system, like George
- > Greenbelt Connection underused
 - Could be used to run continuous loop, doesn't require CDL?
- > WMATA routes (long ones) take too many detours to all the Metro stops
- > Possibility for arrangement with UMD
- > Let each system have its own niche
 - The Bus – neighborhood
 - WMATA – Metro and major destinations (more direct and higher capacity)
- > Keep the R12 as a direct route to Metro
- > Need more study of or information on actual usage patterns, especially at different times of day
- > Better on-time performance, split routes?
- > Route and bus number on all 4 sides of the bus
 - Schedules on buses
 - No messages

Group 3

- > Frequent and direct access to transit centers (Metro)
- > University Square apartments need service do not cut the existing route
- > Multiple “hub and spoke” system that uses circulators
- > New Carrolton is a major hub (Metro, Amtrak, MARC, Greyhound)
- > Better timed transfers
- > Early bus service to Metro
- > Service span consistency between Metro and bus service
- > No connection between Greenbelt Metro and New Carrolton Metro
- > Teenagers need access to job centers, recreational facilities, and schools
- > Common fare system (SmarTrip)
- > Service availability on weekends is especially important to transit dependent
- > Safe access from stops to destination (Post Office)

Group 4

- > Bus routings confusing
- > Numbers also confusing
- > UMD bus service on West Side
- > More direct Greenbelt E. to Metro buses
- > Buses that are more direct
- > Marketing of routes
 - Bus stops need – routes services, schedules, neighborhood-scale maps, maps for weekends
- > Sunday service
- > Later service – Last R12 was 950 PM from Metro (subsidized taxis?)
- > Handicap accessibility (scooters, segways, etc.)
- > Greenbelt connection rush-hour van service to Metro
- > Interlining, offset headways
- > Bike racks on buses and better security for bikes on buses
- > Communicate with UM-DOTS
- > “Next Bus” technology
- > Bus vehicles tailored to route characteristics
- > Direct routes to both Greenbelt Metro and New Carrollton Metro

Group 5

- > Allow citizens to use the UMD bus
- > Extend The Bus route 11 past 630PM
- > More shade at Metro station
- > Accept SmarTrip on The Bus
- > Bring local bus route through Boxwood
- > Don't leave stops early
- > Difficulty finding route information, especially for The Bus
- > Consistent drivers are good
- > Muddy floors at The Bus stops
- > More direct regional service (i.e. Metro to Downtown Silver Springs/Home Depot)
- > Little Sunday service
- > Redundant bus service'
- > T&R in Old Greenbelt
- > Routes change, difficult for new riders
- > Evenings backed up as leaving Metro station
- > Pedestrian access is poor near Metro
- > Need a central source of route information, including alerts
- > Greenbelt only circulator, small bus includes Metro
- > Add the Post Office and doctor's offices as trip generators

Group 6

- > Scheduling
- > Sunday service (make the most of limited resources, connectivity to Metro)
- > Space out buses with duplicate coverage
- > Access to stop (safety concerns)

- > Express shuttle connection to Greenbelt Metro
- > Better access to Metro and MARC stations (Greenbelt Metro/Seabrook MARC)
- > Duplicate coverage of The Bus routes and Metro routes
- > Consolidate low ridership lines (reallocate funds for Sunday/more frequent service)

Input Summary

Many of the groups identified similar themes regarding transit service in Greenbelt. These issues that were raised repeatedly help identify common transit issues that affect many members of the community and deserve special consideration in the assessment of Greenbelt’s transit service.

- > Lack of transit service on Sundays (6 groups)
- > Rapid, direct service to Greenbelt Metro and other Metro stations (5 groups)
- > Lack of ease in accessing and understanding transit system information and alerts (3 groups)
- > Increase the span of service throughout the day (3 groups)
- > The Greenbelt Connection is underused (2 groups)
- > Bus routes should be more frequent and direct (3 groups)
- > Many of the current routes are redundant across different providers (2 groups)
- > Desire to have access to the University of Maryland transit system for non-students (2 groups)
- > Creation of a “Greenbelt Circulator” (3 groups)
- > Use of a common fare system for all systems (2 groups)

In general, these common themes emphasize the importance to residents for Greenbelt to have transit service that is available to cover all transportation needs from morning to night each day of the week, is focused on efficiently providing trips within the city, and provides a seamless transit network comprising many different service operators.

7

Recommendations

The City of Greenbelt benefits from the multiple transit services operating in its jurisdiction. The numerous routes running to, from, and within the city offer residents an essential transportation connection to a multitude of resources in Greenbelt and the surrounding region, including nearly all major destinations in Greenbelt. While the number of the routes serving Greenbelt provided by multiple operators is a strength of the Greenbelt transit network, it also creates obstacles in the provision of transit service in the city. As the existing conditions analysis identified, many of the routes operate along the same corridors on similar schedules, resulting in overlapping service. While some areas of the city are over-served at certain times of the day, the community input meeting demonstrated that there are other times of the day and week when residents' transit needs go unmet, limiting their transportation options.

Many of these issues arise from the planning of transit service from a regional or county perspective; Greenbelt does not have its own fixed route bus service, but instead primarily relies on Prince George's County and WMATA services. Although these services do a good job moving people around the county and region, they are not focused specifically and exclusively on meeting the transportation needs of Greenbelt residents. Instead, bus routes providing local service in Greenbelt are just portions of larger routes; only TheBus Route 11 operates exclusively in the city. In an effort to balance these services to meet the needs of as many potential riders as possible—both regionally and locally—no service is designed or particularly capable of providing the most efficient service for Greenbelt residents.

In the development of recommendations intended to improve Greenbelt service for city residents, an effort was made to identify opportunities to modestly adjust existing service to enhance service for Greenbelt residents. There is no simple way of reallocating existing transit service to benefit Greenbelt residents without significantly disrupting regional and county service.

The recommendations that have been identified through this study are categorized as either Operational or Coordination. Operational recommendations address opportunities to make changes to the provision of service that will benefit residents. Coordination recommendations identify opportunities to bring the services provided by different operators into a more integrated transit network.

Operational Opportunities

Since operational recommendations deal with the actual provision of service, these recommendations have the potential to increase or reduce the cost of operating service in the city. Under the current system, no transit routes are duplicating service in a pattern that would allow for the reallocation of resources to new or expanded service. Although there is no easy solution for expanding transit service in Greenbelt with existing resources, the recommendations identified below serve as important goals for the city to work towards to meet residents' transit needs. Additionally, there are several recommendations that do not require any significant funding increases.

- > ***Provide basic transit service on Sundays*** – Currently the City of Greenbelt receives no transit service on Sundays, significantly limiting the transportation options for transit-dependent residents. Operating the portion of existing Metrobus Route R12 that runs in the city on Sundays would connect many Greenbelt residences to important destinations and the Metrorail Station.
- > ***Implementation of the Prince George's TSOP service improvements for Greenbelt*** – The Prince George's TSOP outlines several service increases planned for the City of Greenbelt. All of the service increases listed below will improve transit opportunities in Greenbelt. Many of these increases for Greenbelt are offset by service reductions in the city. While there are concerns about some of the service reductions outlined in the TSOP, many of the service improvements will fill needed gaps in the existing system by providing 30 minute peak period and Saturday service.
 - Increase Route 15 Express peak period service frequency from 80 minutes to 30 minutes
 - Increase Route 15 peak period service frequency from 60 minutes to 30 minutes
 - Add Route 16 Saturday service
 - Continued employment of Transit Demand Management strategies, such as free fare for students, SmarTrip cards, and elderly and disabled passenger free fares on TheBus and Metrobus
 - Enhanced amenities at bus stops as part of a ten-year bus shelter contract
 - Extend Route 15 to serve Bowie State University and western Bowie
 - Introduce a new TheBus Route serving the 193 corridor from Upper Marlboro to the western edge of Prince George's County

In addition to these service increases, the TSOP calls for three other significant changes to Greenbelt transit service:

- Eliminate Metrobus Route C2 segment between Greenbelt Metro Station and Historic Greenbelt
- Eliminate TheBus Route 11
- Reroute the renamed Metrobus Route T14 (formerly Route R12) along Greenbelt Road

As described in Chapter 5, these service reductions have potential impacts on Greenbelt transit users. Mitigating the TSOP recommendations that reduce service will help maintain the existing transit connections available in the city:

- Maintain Metrobus Route C2 to continue serving historic Greenbelt and west to Wheaton Metro Station. Alternatively, TheBus Route 15 could be rerouted to connect Golden Triangle, Greenbelt Park, Lakecrest Drive, and Westway. Since western access would be limited with the elimination of Route C2, the TSOP recommended 193 corridor route will need to provide a connection to Route C2. In the replacement of Route C2 service in Greenbelt with other routes, consideration will need to be given to maintaining the same level of service in terms of service hours, service frequency, and days of operation to prevent a reduction in service.
 - Retain TheBus Route 11 with the intention of connecting it to the new mixed-use developments in proximity to the Greenbelt Metro Station. Although other routes generally cover similar areas as Route 11, no other service functions as a circulator route on a consistent half-hour schedule. Expanding this route to the new development near the Metro Station and potentially to other areas of Greenbelt will provide a service specifically focused on efficiently moving people around city.
 - Maintain existing Metrobus Route R12 routing through historic Greenbelt for renamed Route T14. The existing route provides an important connection between residential areas, historic Greenbelt, and destinations south of the city. Although a portion of the route duplicates Route T16/17, the different destinations it connects residential areas to justifies the overlap in service.
- > ***Provide limited service to the Beltway Plaza Mall during peak periods*** – Several Greenbelt residents raised a concern regarding efficient, direct access between eastern Greenbelt and the Metro Station. Almost all bus routes that pass the Beltway Plaza Mall make a stop there, adding time to commute trips to and from the Metro Station. While the Beltway Plaza Mall is an obvious transit trip generator, it does not necessarily need the same level of service during peak commuting time as does the Metro Station. Eliminating or reducing stopping here on some routes will improve the speed of transit trips for many commuters.
- > ***Reduce the amount of time passengers have to wait between transfers*** – The ability of residents to access many destinations often requires a transfer between bus routes. Transferring between routes increases trip time and adds an element of unpredictability to a trip, making it possible for a passenger to miss a connection. Reducing waiting time between route transfers is important for making transit a reliable and convenient transportation option. Major transfer points should also contain passenger amenities—such as benches and shelters—to reduce the inconvenience of waiting between buses. Coordinating transfer opportunities for existing routes is especially challenging in Greenbelt considering the length of the routes involved and the different service operators.
- > ***Offset schedules for buses operating along the same routes*** – As the review of existing conditions identified, there are several routes with overlapping service. Since Greenbelt residents rely on these overlapping routes to ultimately connect them to different destinations, eliminating any route segments would deteriorate existing service quality. Offsetting the schedules of overlapping routes provides an opportunity to adjust existing service to increase the effective service frequency on

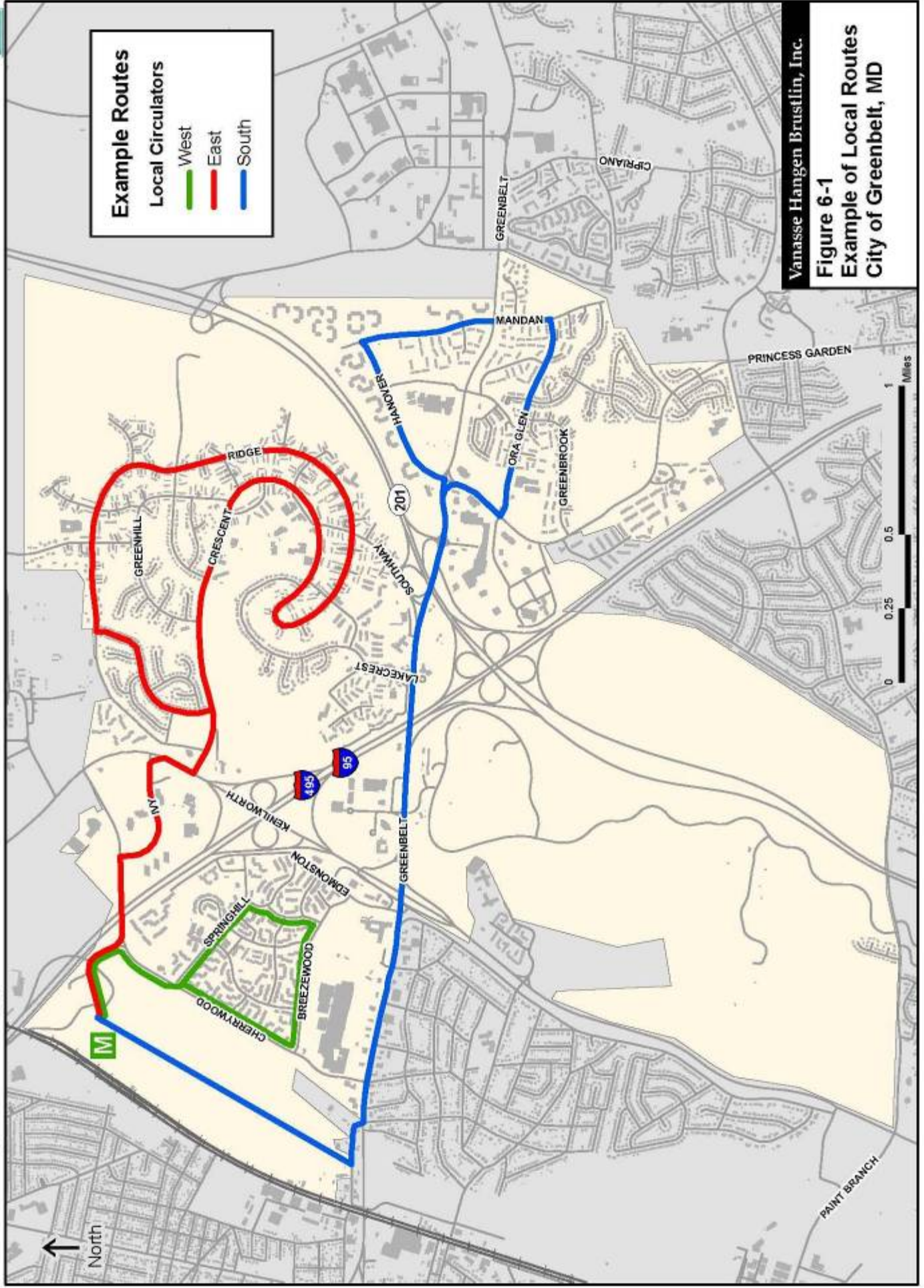
overlapping route segments in the city. For instance, offsetting the schedules of Routes T16/17 and R12 would increase service frequency along these route segments from 60 minutes to 30 minutes during off-peak periods. Other examples of overlapping service that are good candidates for adjusting schedules to maximize service quality on overlapping route segments are provided in Chapter 3.

- > ***Incorporate transit service into new development*** – Two new mixed-use developments are planned for eastern Greenbelt in proximity to the Metro Station: Greenbelt Metro Station South and Greenbelt Metro Station North. These developments will provide over 2,000 residential units and two million square feet of retail and office space. Providing transit service to these new developments will help connect residents to employment and shopping centers both inside the new developments and in wider Greenbelt. Furthermore, the density and proximity to Metrorail of the new developments will provide a transit friendly development pattern.
- > ***Conduct feasibility study of local transit routes*** – Greenbelt has the benefit of numerous transit routes operating in the city, but only one of them is focused exclusively on Greenbelt residents: TheBus Route 11 which is scheduled for elimination in the Prince George’s County TSOP. Conducting a full feasibility study to supplement and/or replace the local segments of the existing system on weekdays as well as weekends, will determine if Greenbelt can support local service. Currently, local service is provided primarily through segments of regional and county service. Providing local service in this fashion makes it difficult to provide efficient, coordinated local service, since there are other considerations taken into account in routing, scheduling, and coordinating bus routes.

Figure 6-1 shows an example of a local three-route circulator system that may be able to meet residents’ transit needs. The desire for direct local routes focused on connecting residential areas to destinations was raised repeatedly during the community input meeting. Access to the Metro Station was the primary focus of residents participating in the community input meeting, which is reflected in Figure 6-1. The exact orientation and route of a local circulator system would need to be further investigated in a feasibility study. These routes would benefit Greenbelt by providing bus service focused specifically on the needs of residents and allowing the elimination of overlapping service on TheBus and Metrobus routes currently providing local service. Local routes would also provide the City with the flexibility to incorporate new developments into the transit system as Greenbelt grows. For instance, Figure 6-1 shows a route providing service to the area planned for the Greenbelt Metro Station South and North developments. The City may also choose to work with the County to determine the feasibility of such routes and the ability to reallocate existing transit resources from overlapping routes to fund the new service. Potentially connecting these local routes to other services through transfer stations would continue to provide residents with regional transit access.

- > ***Conduct feasibility study of transfer stations*** – In addition to studying the feasibility of local transit service, Greenbelt should also study the potential for creating transfer stations. The strategic location of transfer stations around the city would enable Greenbelt to reduce the overlapping service in the six areas identified through the

Maximizing Transit Opportunities in Greenbelt



Vanasse Hangen Brustlin, Inc.
Figure 6-1
Example of Local Routes
City of Greenbelt, MD

existing conditions analysis. Such a study would identify if there are locations that could collect passengers from regional and county routes and transfer them to direct local service to major destinations and the Metro Station. This would eliminate the need for each route entering the city to serve similar destinations along similar routes. Transfer stations could be part of a local transit system, which could benefit in part from a reallocation of resources once overlapping route segments are eliminated.

Coordination Opportunities

Recommendations regarding improving coordination among services provide cost effective strategies for improving service in Greenbelt. These types of recommendations largely address how to better present an integrated transit network to potential users. The creation of a Greenbelt Transit Committee with representatives of each service provider and community members may help provide a forum for better integrating the individual services into a cohesive transit network. Such a committee would be most appropriate for guiding the following recommendations into implementation:

- > ***Increase marketing and education*** – Since Greenbelt has multiple service providers operating within the city, it is important that potential riders can easily identify which services are available at what times and how they are related. Good marketing can be a vital component of a successful transit network in Greenbelt. Increased marketing will often increase ridership and possibly provide justification for additional federal, state, and local funding. A few successful transit marketing techniques include:
 - Distributing a single bus schedule guide including all transit services at libraries, hospitals, medical facilities, human service agencies, colleges, malls, senior centers, assisted living centers, major employers and other facilities served by transit
 - Advertising transit service on local radio (public service announcements provided at no cost by the radio station) and television stations with a contact phone number
 - Mailing or distributing by hand transit advertisements to households (senior citizen centers, church groups or volunteer organizations will often help with these types of projects)
 - Centralized web site, including all transportation services in Greenbelt (TheBus, Metrobus, Connect-A-Ride, UMD Shuttles, paratransit services, etc.)
 - Advertising the website in local newspapers and church/neighborhood/other newsletters
 - Include schedule and route information for all services at bus stops

Determining what to market regarding transit, is just as important as determining where to market transit. Since a potential rider may need to consult more than one bus schedule to conduct a single trip, it is highly recommended that current bus

schedules be developed into one brief brochure explaining all transportation services in the City of Greenbelt, including TheBus, Metrobus, Connect-A-Ride, UMD Shuttles, and paratransit services. This brochure should be distributed at a minimum to the facilities served by transit listed above. This brochure or a summarized version should be used for mail out or hand delivered household flyers.

The website should also be a central place to view all transportation options in Greenbelt. General information regarding transit service in Greenbelt is provided on an existing Prince George's County website, which provides a summarized version of transportation services available in the county. It is recommended that Greenbelt create a website specific to services in the city (or work with the County to include all relevant Greenbelt information on the County website) that includes all of the information for each service, including schedules, fare information, routes, etc. Additionally, the website should include an interactive trip planner function or clearly link to the one available on the Washington Metropolitan Authority Transit Association website (<http://www.wmata.com>), which already includes TheBus and Connect-A-Ride service. This program allows a rider to type in a trip origin, destination, date and time of day. The program then generates numerous trip suggestions.

Regardless of any web site improvements, the existing city website should be advertised via the newsletters, newspapers, radio, and television. These would also be the venues where a central phone number would be posted, i.e. a central call center. A central call center for all transportation services provided in Greenbelt would also help residents better understand their options. Currently, WMATA's call center also provides information on TheBus and Connect-A-Ride service. An alternative to establishing a separate Greenbelt call center would be to continue to partner with WMATA and advertise their call center as a resource for all services.

- > ***Establish a common fare system*** – Enabling riders to use a single fare system on all services would also help integrate the different transit services. For instance, if riders could use WMATA's SmarTrip card to pay for all bus services and make transfers between services. A common fare system would increase the convenience of using transit for riders and help provide a uniform system of which riders can have consistent expectations.
- > ***Pursue an agreement with University of Maryland to allow all residents to use shuttles*** – The University of Maryland currently operates a free commuter shuttle system for students, faculty, and staff in Greenbelt. Many other communities around the country have made agreements with large universities to allow residents to ride university shuttles. Special legislation was recently passed to allow the University of Maryland shuttles to serve all College Park residents. While an agreement with College Park is not yet finalized, the tentative arrangement would allow residents to purchase an annual pass good for unlimited rides. If Greenbelt were able to pursue a similar agreement, the University shuttles would provide improved circulation within Greenbelt and better access to the many cultural and educational resources available in College Park. The Greenbelt North shuttle route would also provide bus

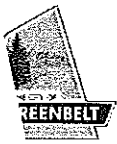
service on Lastner Lane in the north of the city, an area not directly served by bus routes open to the general public.

- > ***Designate a transit coordinator*** – A transit coordinator would provide one person to take the lead on all of the potential coordination opportunities described above. This position could also head a Greenbelt Transit Committee if implemented. The transit coordinator would take responsibility for working with all operators to integrate up-to-date marketing materials and making services as compatible and seamless as possible from a rider’s perspective.

Conclusion

The City of Greenbelt has many bus routes operated by multiple transit providers. This service coverage provides residents with access to many destinations in Greenbelt and the surrounding region. While this existing service has successfully provided a crucial transportation link for many residents, there is an opportunity to improve Greenbelt’s transit network to meet even more of the community’s transportation needs. Improving transit access is especially important now: transportation costs are increasing and Greenbelt is growing. This evaluation has identified several opportunities to focus service on the transportation needs of Greenbelt and increase the coordination among the transit operators. As Greenbelt moves forward, it is especially important to connect new development to the Metro Station and bus service. This connection will provide all residents a meaningful transportation option to access the new and existing residences, jobs, and commercial and cultural opportunities.

Appendix A: July 9, 2008, Community Input Meeting Sign-In Sheet



City of Greenbelt

Maximizing Transit Opportunities

Community Input
 7:30 PM
 Wednesday, July 9, 2008
 Greenbelt Community Center
 15 Crescent Road, Suite 200
 Greenbelt, Maryland

Sign In

Name	Department	Email / Contact Information
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PAUL SABOL	CITIZEN	
Maryland Smith	CITIZEN	
Jonathan Rogers	MWCOG	
Darren Smith	MWCOG	
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BILL ORLEANS		



City of Greenbelt

Maximizing Transit Opportunities

Community Input
 7:30 PM
 Wednesday, July 9, 2008
 Greenbelt Community Center
 15 Crescent Road, Suite 200
 Greenbelt, Maryland

Sign In

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Andabah Acquah	Resident	