CHAPTER 8: TRANSPORTATION

This Plan seeks to provide multiple safe and convenient transportation options for all travelers, regardless of age, ability, or mode of transportation. The Plan prioritizes safety and choice, serving pedestrians, bicyclists, transit users, and vehicle passengers who live, work, learn, and visit the Plan area over the through-movement of high-speed vehicles.

Pedestrians at Four Corners

Wide roads increase crossing distances, acting as a barrier to walking, biking, rolling, and using transit, and contribute to vehicles traveling at higher speeds, which increases the risk of crashes that result in serious injuries or fatalities. Streets designed to protect and serve the most vulnerable road users are safer for everyone. Right-sizing roadways and intersections, by repurposing or reducing travel lanes, provides space for other forms of transportation and amenities and is a step toward achieving the stated goals in the Montgomery County Code, as well as other policies such as Vision Zero, Complete Streets, and Thrive.

Historic Feature: Old Bladensburg Road

The name of University Boulevard within the Plan boundary varied over the course of its history. It was initially named Bladensburg Road. By the 1850s, residents started to refer to Bladensburg Road as "Old Bladensburg Road," but multiple maps continue to refer to the road by its original moniker into the twentieth century. In the 1910s, the Maryland General Assembly and Montgomery County started to refer to part of the road as the "Wheaton-Four Corners Road" or the "Wheaton to Four Corners Road." The acquisition of the entire road by the Maryland State Roads Commission led to its renaming as State Route 193 in 1927.

Bladensburg Road remained a toll-free transportation route and lacked an official survey into the late nineteenth century. In 1889, residents of the Thirteenth (Wheaton) Election District submitted a road petition for a road survey of Bladensburg Road between Four Corners and the Prince George's County line. Two years later, county commissioners requested bids for widening this section of the road. In 1891 and 1894, residents petitioned for a similar road survey between Wheaton and Four Corners.

POLICY GUIDANCE

THRIVE MONTGOMERY 2050

Thrive Montgomery 2050 contains transportation-related policies and practices that improve safety for all travel modes and provide multiple travel options. Selected policies and practices include:[2]

Develop a safe, comfortable, and appealing network for walking, biking, and rolling.

- Expand the street grid in downtowns, town centers, transit corridors, and suburban centers of activity to create shorter blocks.
- Convert existing traffic lanes and on-street parking to create space for walkways, bikeways, and street buffers with landscaping and street trees, in a manner consistent with other county policies.
- Prioritize the provision of safe, comfortable, and attractive sidewalks, bikeways, roadway crossings, micromobility infrastructure and services, and other improvements to support walking, bicycling, micromobility, and transit usage in capital budgets, development approvals and mandatory referrals.
- Transform the road network by incorporating Complete Streets design principles with the goal of eliminating all transportation-related roadway fatalities and severe injuries and supporting the emergence of more livable communities.

Build a frequent, fast, convenient, reliable, safe, and accessible transit system.

- Build a network of rail, bus rapid transit, and local bus infrastructure and services— including demand-responsive transit service—that make transit the fastest, most convenient, and most reliable way to travel to centers of economic, social, and educational activity and opportunity, both within and beyond Montgomery County.
- Convert existing general purpose traffic lanes to dedicated transit lanes, in a manner consistent with other county policies.
- Connect historically disadvantaged people and parts of the county to jobs, amenities, and services by prioritizing investments in increasing access to frequent and reliable morning to late night transit service.
- Ensure safe and comfortable access to transit stations via walking, rolling, and bicycling.

Adapt policies to reflect the economic and environmental costs of driving alone, recognizing that car-dependent residents and industries will remain.

- Stop proposing new 4+ lane roads in master plans.
- Give a lower priority to construction of new 4+ lane roads, grade-separated interchanges, or major road widenings.

[2] *Thrive Montgomery 2050*, pp. 112-114.

COMPLETE STREETS

The Maryland Department of Transportation State Highway Administration's (MDOT SHA) Complete Streets Policy endeavors to "create a comprehensive multi-modal network by ensuring connectivity for vehicles, bicycling, walking, transit and freight trips throughout Maryland's transportation system" and "requires that all SHA staff and partners consider and incorporate complete streets criteria for all modes and types of transportation when developing or redeveloping our transportation system."

Montgomery County's Complete Streets Policy and Standards require that "each transportation facility in the County must be planned and designed to … maximize the choice, safety, convenience, and mobility of all users, regardless of age, ability, or mode of transportation…"

The 2021 Montgomery County *Complete Streets Design Guide*, developed as a collaboration between the Montgomery County Department of Transportation (MCDOT) and Montgomery Planning, supports the design and operation of roadways to provide safe, accessible, and healthy travel for all users of the roadway system, including pedestrians, bicyclists, transit riders, and motorists. The document provides guidance on land use contexts and appropriate corresponding street types. For each street type, the document provides further guidance on street design parameters, such as target speeds, maximum spacing for protected crossings, and ranges of dimensions and priorities for elements of the street cross section. The new "complete streets" classification system replaces the "functional" classification system identified in Chapter 49 of the County Code, also known as the "Road Code." The *Complete Streets Design Guide* "establishes policy for the design of county owned roads and private streets located in the county. For state-owned roads, this guide is intended to present the county's vision for the roadway, to serve as a starting point for collaboration between the county and Maryland Department of Transportation, State Highway Administration (MDOT SHA)" (p.10).

Historic Feature: 20th Century University Boulevard

In the early twentieth century, Montgomery County residents along the Washington, Colesville, and Ashton Turnpike (present-day Colesville Road) and the Union Plank Turnpike (Georgia Avenue) petitioned the County Commissioners to acquire the turnpikes to improve the roads and abolish tolls. In 1911, residents voted to acquire the Washington, Colesville, and Ashton Turnpike. Two years later, the Maryland Road Commission purchased the Union Plank Turnpike.

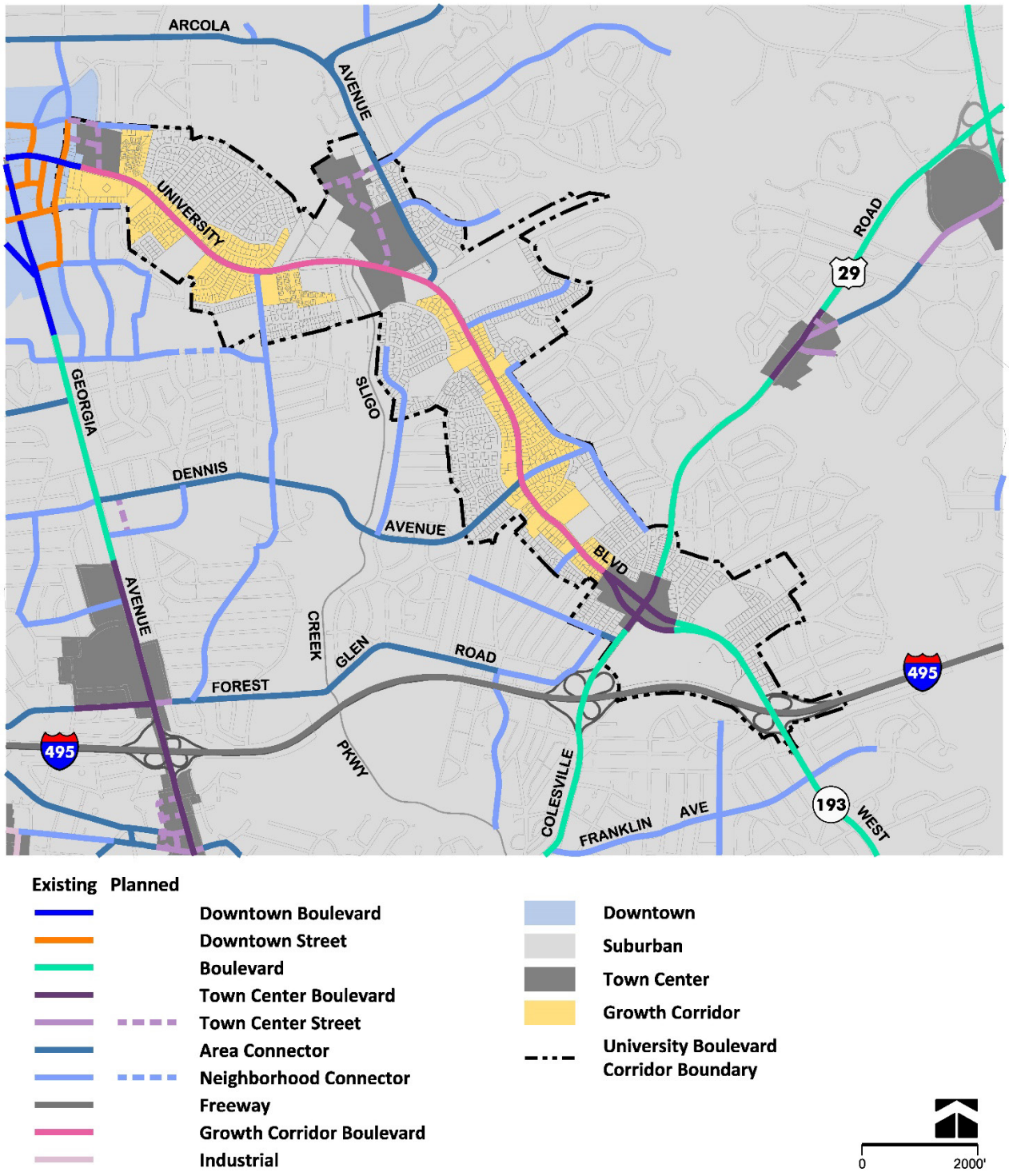
In 1912, University Boulevard between Wheaton and Four Corners was described as a dirt and gravel road. In 1916, the Maryland General Assembly authorized Montgomery County Commissioners to issue a $14,000 bond for the improvement of University Boulevard (then called the Wheaton–Four Corners Road). The Board of County Commissioners closed the road in September 1916 for public travel in order to make the improvements, which required acquisition of a 30'-wide right-of-way, 1,800 tons of local stone, and 3,000 tons of limestone.

The Maryland State Roads Commission acquired all of University Boulevard as a state road, including the section between Wheaton and Four Corners, by 1927.

The *Complete Streets Design Guide* also classifies the county's land uses as Downtown, Suburban, Town Center, Industrial and Country. Downtown areas are "envisioned as Montgomery County's highest intensity areas including central business districts and urban centers," while Town Center areas are "commonly envisioned as high-to-moderate intensity residential development, including multifamily buildings and townhouses, and retail (existing or planned)" (p. 18-19). Suburban areas "have low-to-moderate residential development," and predominantly "single-unit residential development" with "isolated retail establishments" (p. 19). There are existing Downtown and Town Center features in Wheaton and Four Corners, respectively, while the remainder of the corridor is considered Suburban.

All of University Boulevard in the Plan area was classified as a Major Highway with planned BRT under the functional classification system. It is now classified, as shown in Figure 64, as a Downtown Boulevard for the 300' east of Amherst Avenue, a Boulevard from 300' east of Amherst Avenue to Lorain Avenue, a Town Center Boulevard between Lorain Avenue and Lexington Drive, and a Growth Corridor Boulevard from Lexington Drive to the eastern Plan area boundary. I-495 is retained as a Freeway.

Figure 64: Street Classifications



Other existing street classifications have been "translated" from their former functional classification to a comparable complete streets classification based on their existing context and function. Amherst Avenue has been reclassified from a Business Street to a Downtown Street, Inwood Avenue has been reclassified from a Primary Residential Street to a Neighborhood Connector, and Arcola Avenue and Dennis Avenue have been reclassified from Minor Arterials to Area Connectors. Typical sections of streets in the Plan area are shown in Figures 65-70.

Figure 65: Town Center Street

- 2 travel lane section
- Proposed Section: One-way separated bike lane both sides

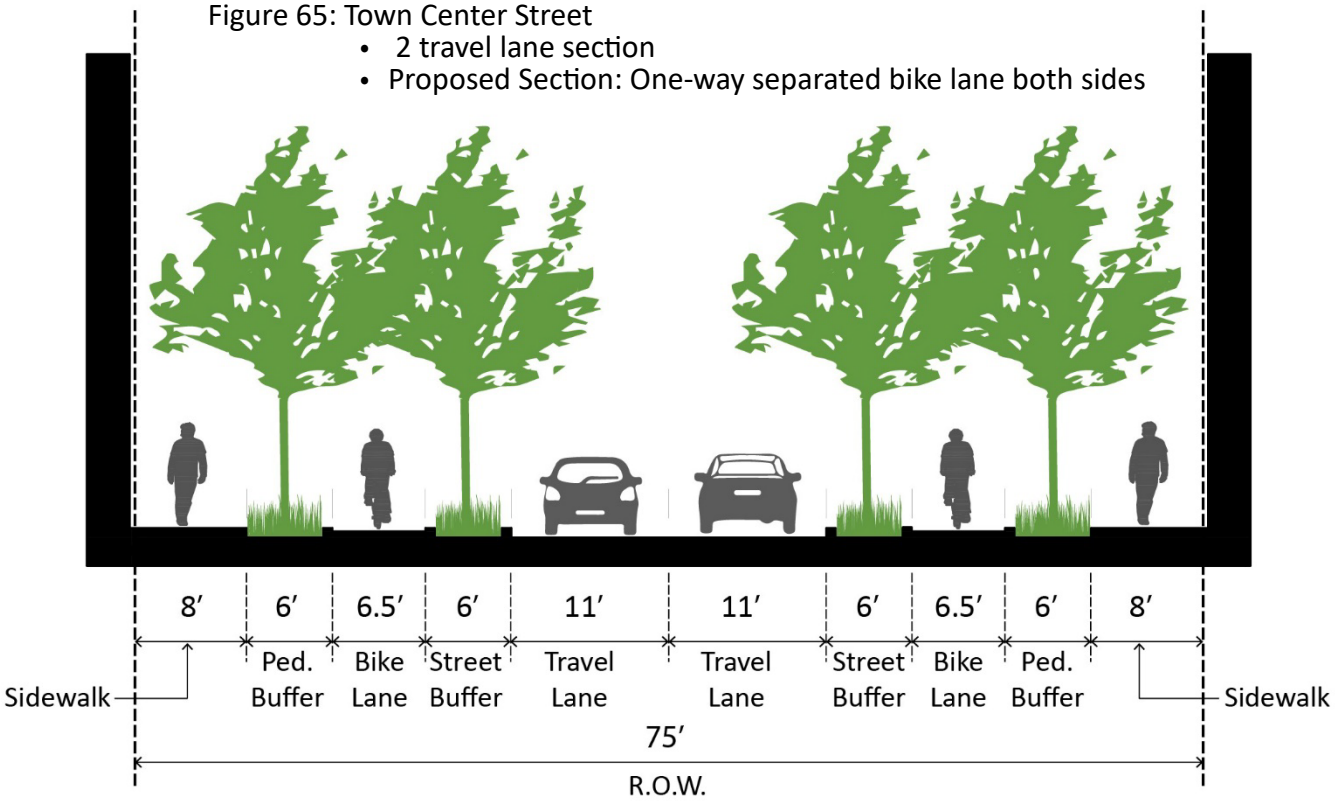


Figure 66: Neighborhood Connector

- Typical 65 feet Right-of-Way
- Proposed Section: 2 lane section with on-street parking

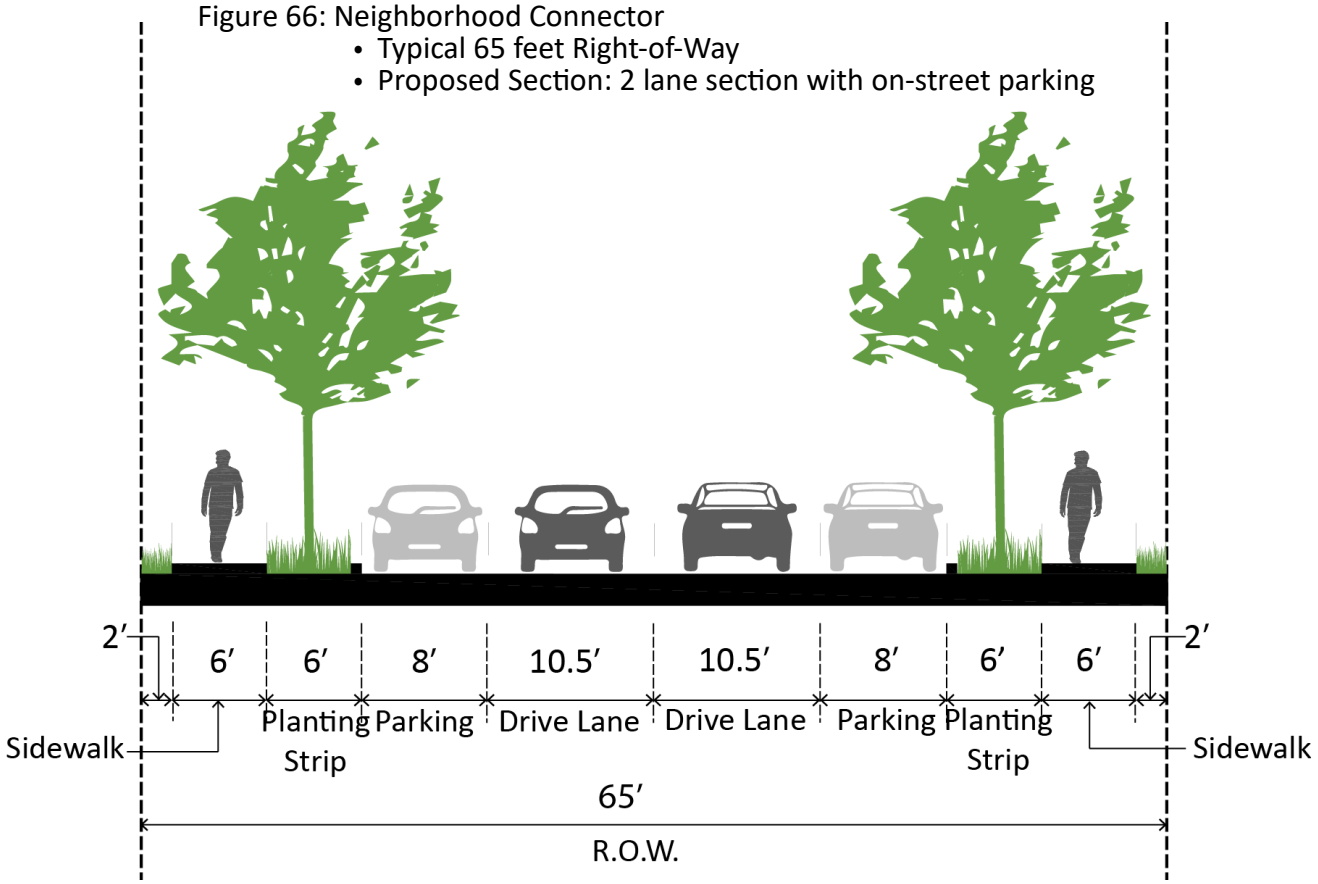


Figure 67: University Boulevard West

- Typical 124 feet Right-of-Way
- Proposed Section: 6 lane section with dedicated transit and sidepaths each side

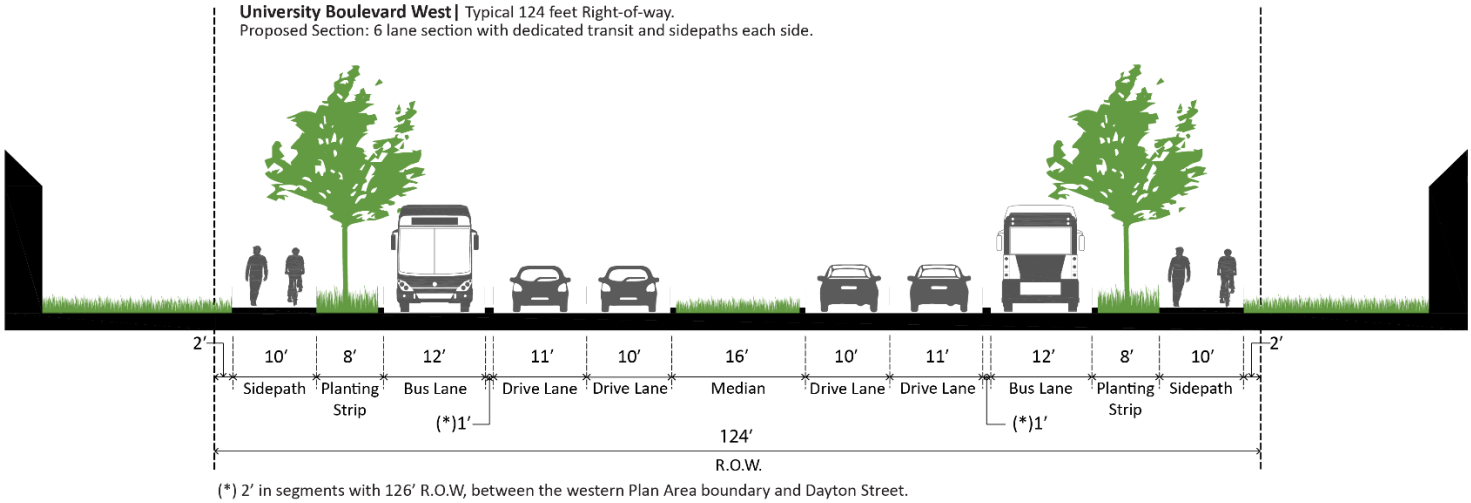


Figure 68: Brunett Avenue

- From Harding Drive to University Boulevard West
- Proposed Section: 2 lane section with on-street parking

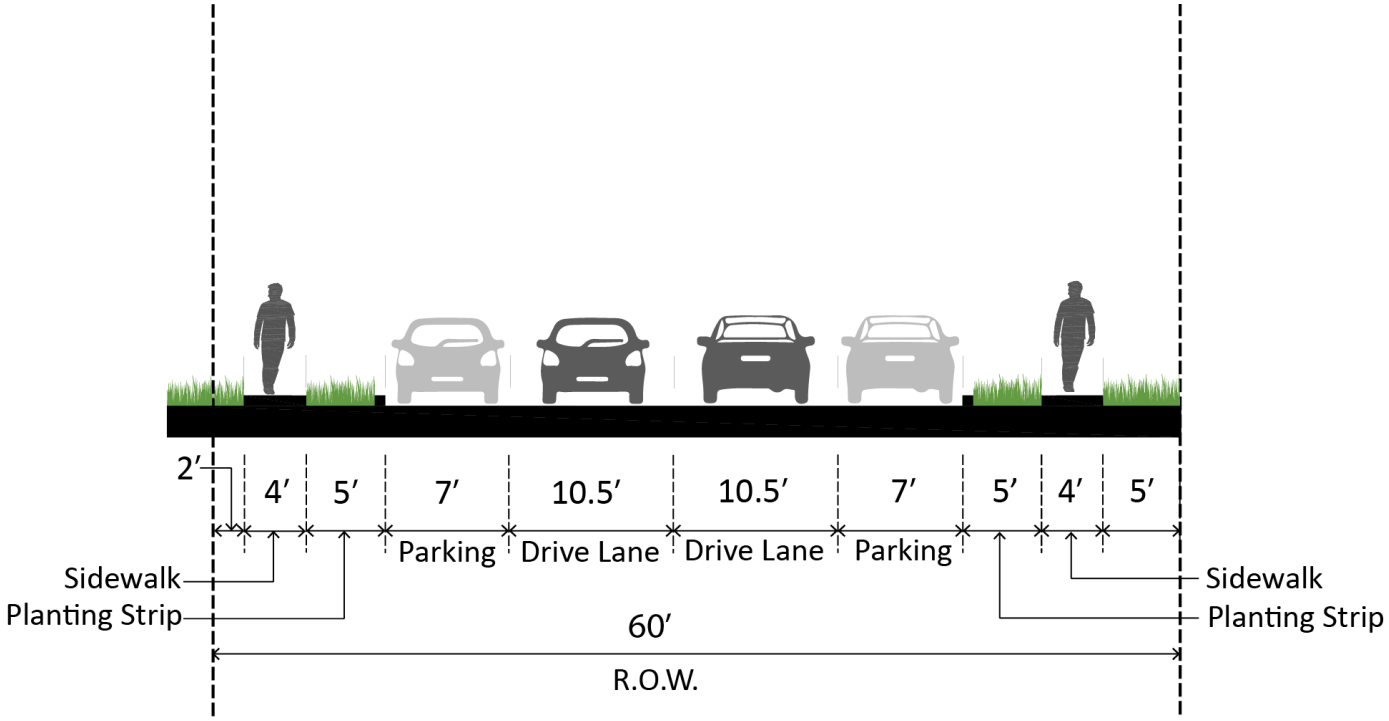


Figure 69: Lanark Way

- From Sutherland Road to Colesville Road
- Proposed Section: 2 lane section with on-street parking and sidepaths

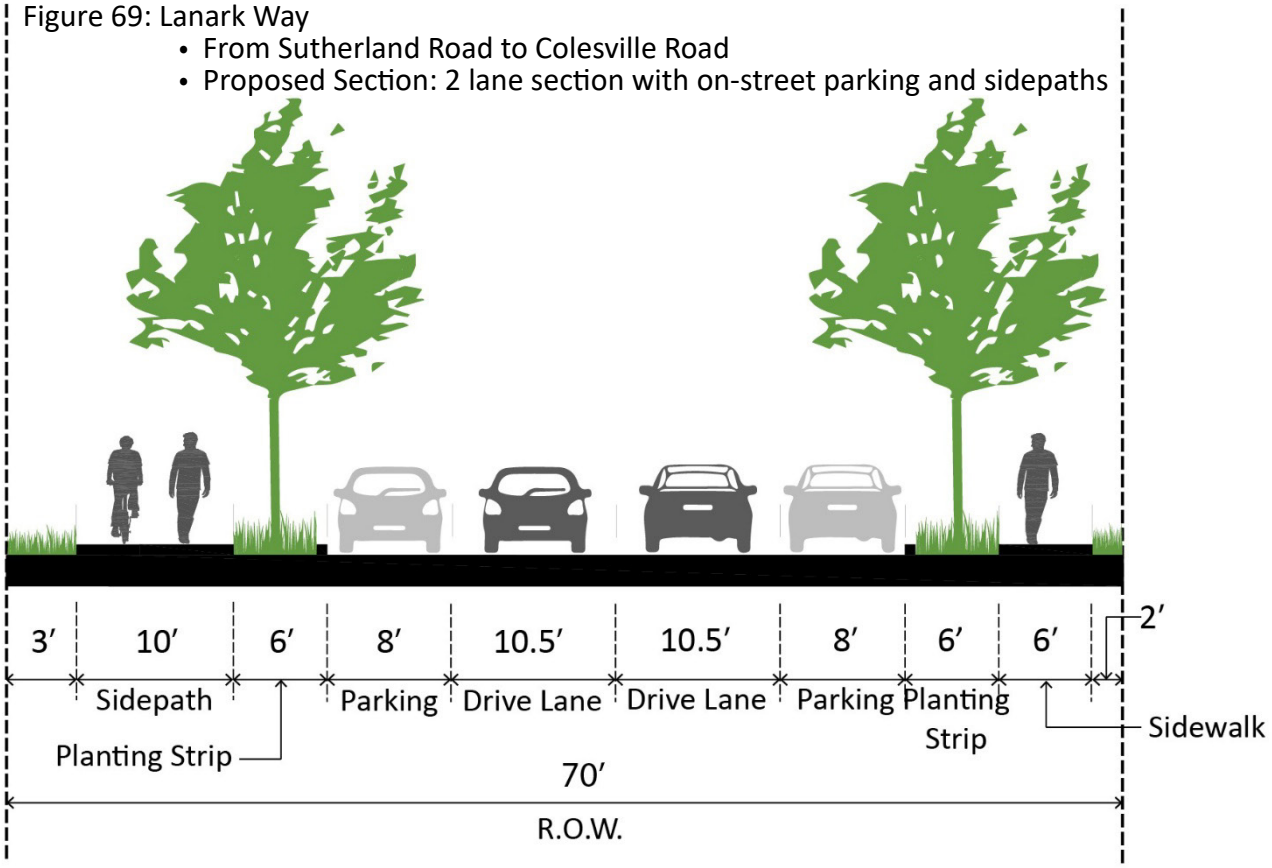
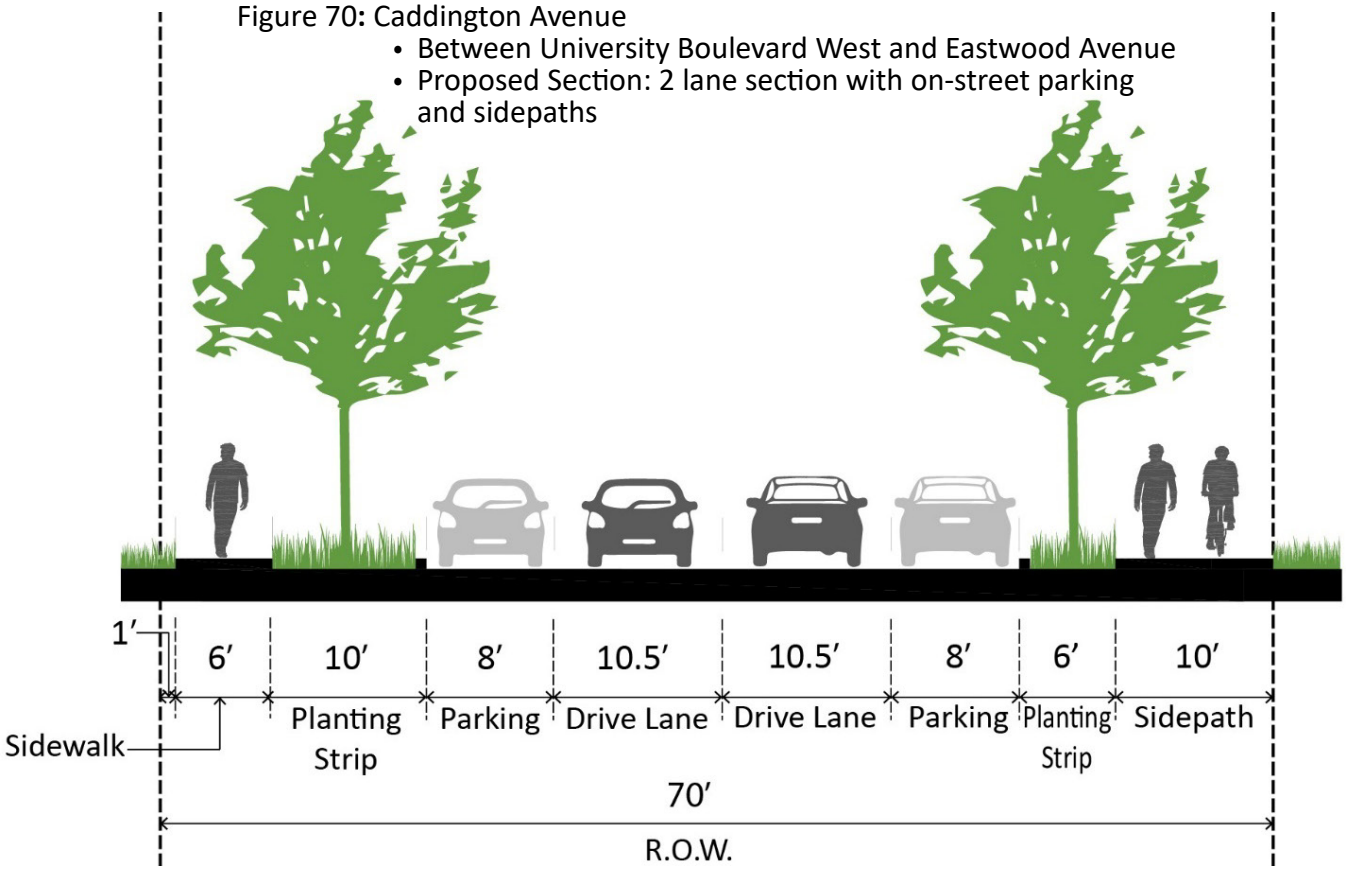


Figure 70: Caddington Avenue

- Between University Boulevard West and Eastwood Avenue
- Proposed Section: 2 lane section with on-street parking and sidepaths



VISION ZERO

Vision Zero is a holistic transportation strategy that seeks to eliminate traffic fatalities and severe injuries on the county's roadways. Montgomery County adopted a Vision Zero policy and developed a Vision Zero Action Plan in 2017 with the goal to eliminate crashes that result in severe injuries and fatalities by 2030. Key Vision Zero principles include the following: serious and fatal traffic crashes are unacceptable and preventable, the design and construction of roadways can reduce the consequences of human error, and human life takes priority over mobility.

The county's High Injury Network (HIN), which identifies streets with the highest incidences of serious and fatal collisions, includes State maintained roadways such as University Boulevard, as shown in Figure 71. The University Boulevard segment between Georgia Avenue (MD 97) and Colesville Road (U.S. 29), is included in the top five State maintained roadways in the HIN. In 2022, approximately 61% of the county's fatal crashes were on State maintained roadways, such as University Boulevard, with the remaining crashes on county and municipal roadways. Between 2015 and 2024, motor vehicle crashes on University Boulevard in the Plan area resulted in 51 severe injuries and five fatalities, as shown in Figure 72. Four (4) of these fatal crashes (80%) and 38 of these severe injury crashes (75%) occurred on University Boulevard itself on the 3.4-mile segment between Amherst Avenue and East Indian Spring Drive.

Figure 71: High Injury Network

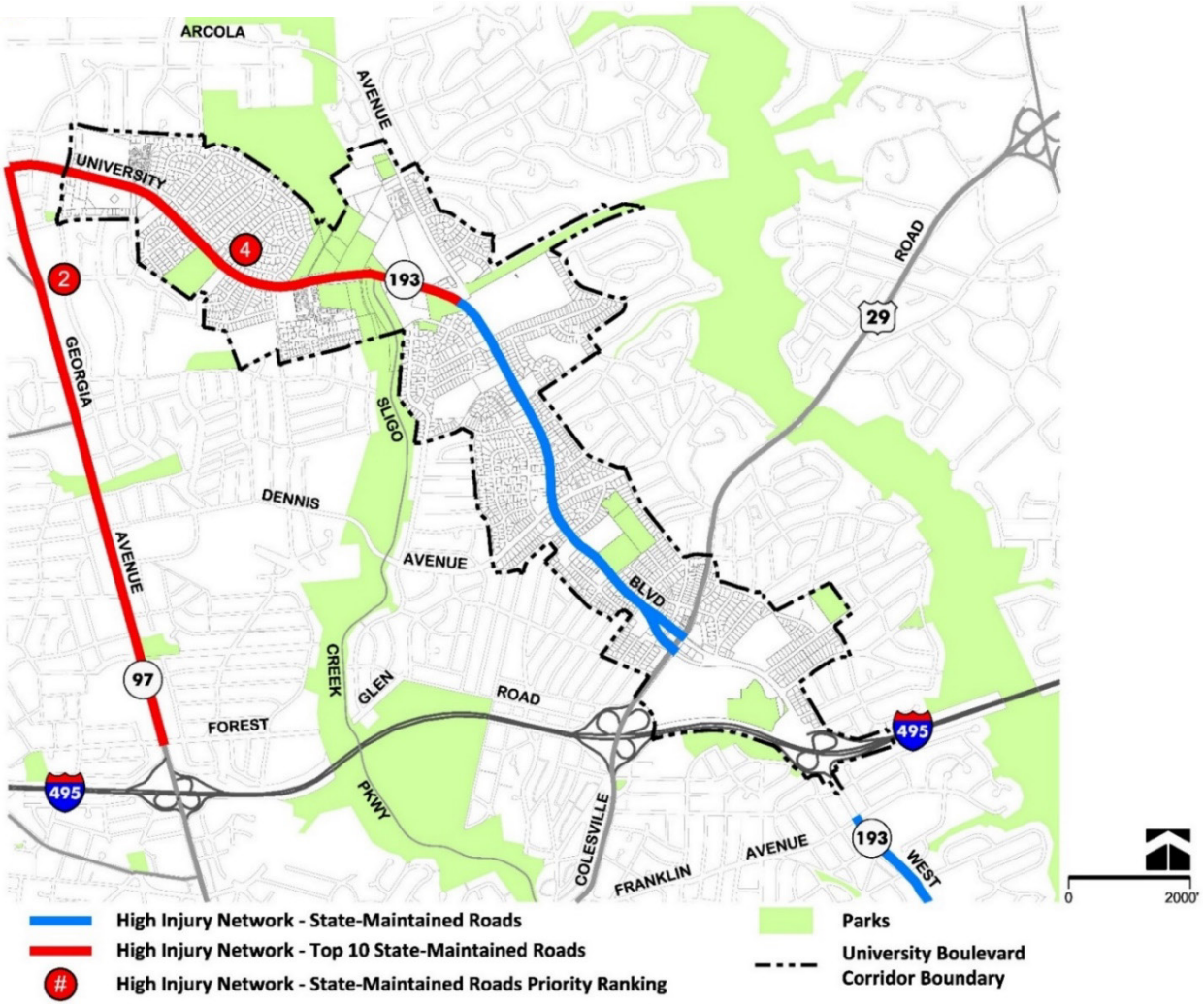
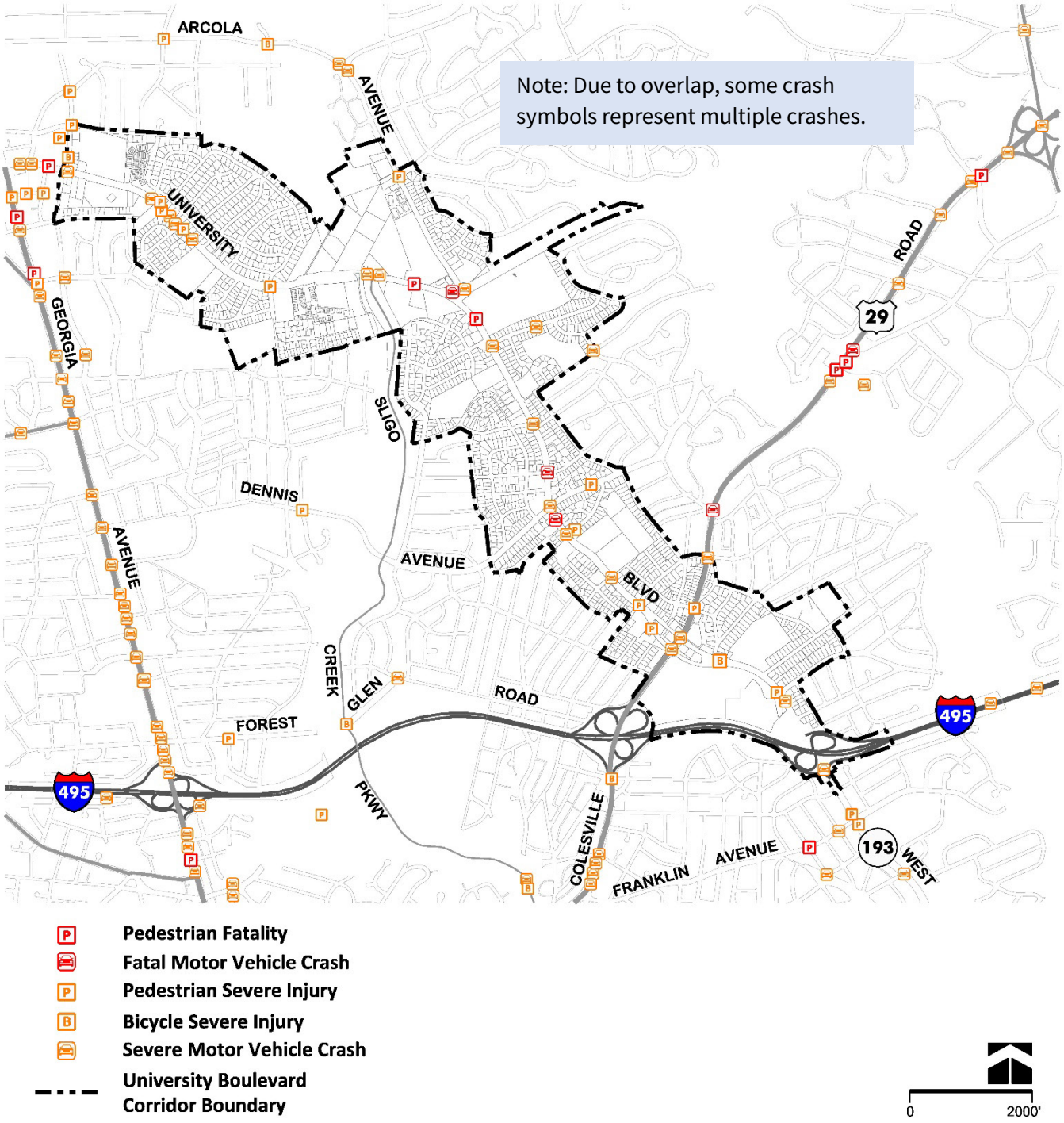


Figure 72: Severe and Fatal Crashes (2015-2024)



STREET NETWORK RECOMMENDATIONS

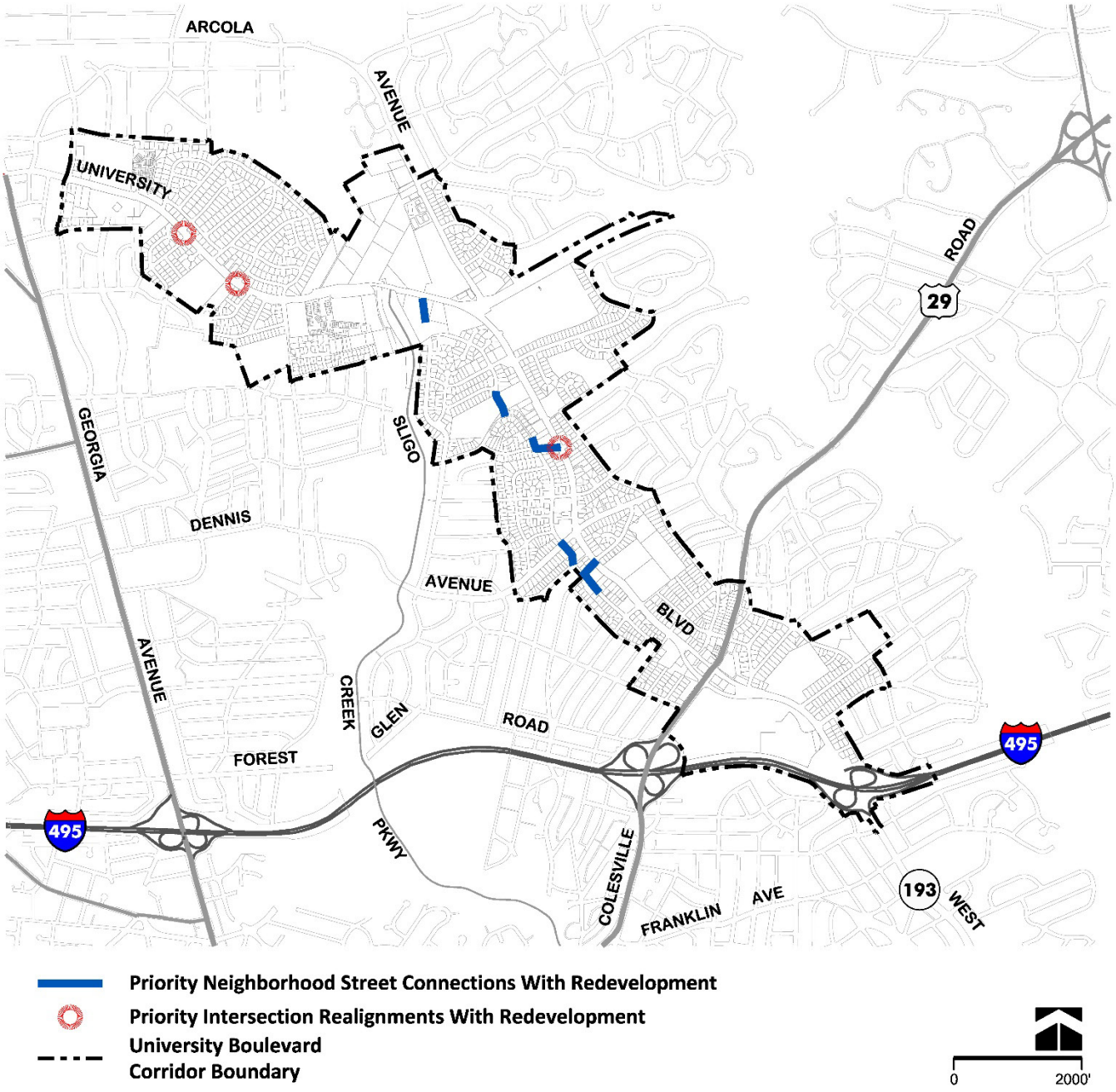
- Implement a connected network of streets along University Boulevard with redevelopment, as shown in Figure 73. Development should prioritize traffic calming as part of redevelopment to consider the context of neighborhood streets.
    - Realign existing streets across University Boulevard to support intersection signalization, manage vehicular access, smooth vehicular traffic progression, and reduce the spacing between protected pedestrian crossings. Priority locations for future realignment include Markwood Drive / Dayton Street; Nicholas Drive / Pomander Court / Glenpark Drive; and Eisner Street / Orange Drive.
    - Connect streets to University Boulevard to manage vehicular access and improve local multimodal circulation. Priority locations include Tenbrook Drive / Access Road; Orange Drive; and Greenock Road / Royalton Road.
    - Connect parallel streets along the south/west side of University Boulevard to provide a more direct travel route for people walking and biking and to provide site access and local circulation for properties along University Boulevard in the event of their redevelopment. Priority locations include Breewood Road / Whitehall Street; Whitehall Street / Gilmoure Drive; Gilmoure Drive between Dennis Avenue and Dallas Avenue; and Gilmoure Drive between Dallas Avenue and Brunett Avenue.
    - Potential traffic calming as part of redevelopment could include:
        - Installing new sidewalks or sidepaths and street buffers consistent with Complete Streets Design Guide Neighborhood Yield Street, Neighborhood Street, Neighborhood Connector, or Area Connector guidance, as appropriate.
        - Striping on-street parking to visually narrow the vehicle travel lanes and reduce vehicle travel speeds even when on-street parking spaces are not occupied.
        - Alternating the side of the street with on-street parking in locations with enough width for on-street parking on only one side of the street to shift traffic horizontally and reduce vehicle travel speeds.
        - Installing curb extensions at the ends of striped on-street parking bays and in locations without on-street parking to narrow vehicle travel lane widths to the minimum consistent with the Complete Streets Design Guide.
        - Reducing curb radii to the minimum consistent with the Complete Streets Design Guide to reduce the speed of turning vehicles.
        - Installing speed humps, speed tables, or other traffic calming measures.
- Right-size roadways and intersections to create a safer and more comfortable environment for people who are walking, rolling, bicycling, riding transit, and driving, as shown in Table 1.
    - Repurpose general-purpose travel lanes to provide dedicated transit lanes and improved facilities for people walking, biking, and rolling that are separated from vehicular traffic by street trees and planted green space.
    - Make travel lanes narrower and reduce roadway design speeds to targets identified in the *Complete Streets Design Guide*.

    - Remove channelized right-turn lanes from all intersections, unless the Director of Transportation or the Director's designee determines that removing a channelized right-turn lane would significantly impair public safety.[3]
    - Avoid the use of multiple dedicated left- and right-turn lanes such as, dual right-turn lanes.
    - Minimize curb radii, using curb extensions rather than painted buffers. Include mountable curbs for emergency vehicle and truck access if necessary.
- Signalize, restrict, or close median breaks along University Boulevard.
- With redevelopment or implementation of BRT on University Boulevard, consolidate, remove, or relocate driveways from University Boulevard to other side streets and alleys, and limit future driveways.
- Install additional traffic enforcement and other tools to manage speeding along the corridor.
- Consider decorative crosswalks at the intersections of Arcola Avenue and Lamberton Drive, in the Four Corners area, and at institutional properties.[4]

[3] The Plan does not recommend preventing right turns from Arcola Avenue to University Boulevard and does not recommend eliminating the right turn lane. The intersection should be reconfigured to remove the channelized right-turn while maintaining three approach lanes on Arcola Avenue. The exact lane assignment, or evaluation of any potential right turn on red restriction will be determined by implementing agencies with the completion of intersection improvements.

[4] "Decorative crosswalks are marked pedestrian crossings across a roadway that include a colored and/or textured pattern, aesthetic, or artistic mural element within its horizontal white boundaries. They can also be referred to as art crossings or creative crosswalks." Green, Josh and Wong, Tyler (2023). *Decorative Crosswalk Case Study Series: ITE Informational Report* (Publication No. IR-153-E 978-1-7377661-4-8). Institute of Transportation Engineers. www.ite.org.

Figure 73: Priority Neighborhood Street Connections with Redevelopment



I-495 INTERCHANGES

The interchanges with Interstate 495 at Colesville Road and University Boulevard are an unsafe and challenging environment for people walking, biking, and rolling. Long crosswalks across ramps expose people walking, biking, and rolling to high-speed vehicular traffic that is entering and exiting the interstate, while narrow sidewalks directly adjacent to high-speed traffic are uncomfortable for the people using them.

This Plan recommends:

- Reconfigure the interchanges with I-495 at Colesville Road and University Boulevard to improve safety for all modes.
    a. Interim recommendations:
        i. Ensure that existing pavement markings are in good operating condition using high-visibility treatments.
        ii. Ensure consistent levels of lighting throughout the corridor and eliminate “dark zones” by adding appropriate lighting where necessary.
        iii. Trim foliage to avoid blocking lighting, signage, and sight distances at ramps, intersections, and pedestrian crossings.
        iv. Consider a coordinated, HAWK-type signal at existing pedestrian ramp crossings to provide a protected pedestrian crossing phase.
    b. Long-term recommendations:
        i. Reconstruct interchange ramps to conventional 90-degree intersections instead of merge lanes, consistent with MDOT SHA Bicycle and Pedestrian Design Guidelines.
        ii. Signalize all turning movements to provide protected phases for pedestrian and bicyclist crossing.
        iii. Orient curb ramps to the intended direction of travel for people walking, rolling, and biking, typically perpendicular to crossing vehicular traffic.
        iv. Reduce corner radii to calm vehicular traffic speeds and provide additional cues to drivers that they are exiting a controlled highway and entering a multimodal environment.
        v. Consider grade-separated crossings of the I-495 ramps on the west side of Colesville Road, particularly at the westbound on-ramp where two planned uncontrolled onramp lanes would present a significant barrier to crossings for people walking, biking, and rolling.

FOUR CORNERS STREET NETWORK

The Four Corners street network, which includes a one-way couplet where University Boulevard (MD 193) is split into eastbound and westbound sections and intersects with Colesville Road (U.S. 29), is one of the most complex at-grade intersection configurations in Montgomery County. This roadway configuration has existed since the 1960s.

The recommendations in this Plan seek to transition Four Corners from an auto-dominant center into a mixed-use, people-oriented center characterized by a safe, accessible and connected public realm for people who are walking, biking, rolling, riding transit, and driving. The combination of U.S. 29 Flash BRT stops and dedicated bus lanes in Four Corners and planned BRT service along University Boulevard will bring additional transit accessibility and walking activity to the core of the area.

The 1996 *Four Corners Master Plan* examined the roadway system in Four Corners, including U.S. 29 and University Boulevard. The 1996 Plan indicated that two roadway changes were under consideration for U.S. 29 and MD 193: An interchange in the long-term and at grade or 'jug handle' changes in the short-term. The 1996 Plan stated that the "long-term improvement was a grade separation that would carry Colesville Road under the east and westbound lanes of University Boulevard. Both options were being studied by SHA. After several years of negotiating and meeting, SHA and the community agreed on the jughandle improvement as both the short-term and long-term solution" (p.37). The 1996 Plan also noted that the "roadway network is also fully developed and there are limited options to improving or expanding the system without major impacts to the community" (p.36).

Historic Feature: Four Corners

In 1952, Maryland Governor McKeldin and the Wheaton community celebrated the opening of an improved dual-highway Georgia Avenue that enhanced accessibility of the region from Washington, D.C. The east and west connections, however, remained treacherous. In 1954, public frustration reached a pinnacle after a 12-year-old was killed walking home from school along University Boulevard. Shortly thereafter, the *Sunday Star* ran an article titled "Story of a Road---Route 193 Is Worst of Its Kind in Maryland: Civic Group Battle to Renovate Link Neglected for Years." The article noted that the road served a local population of approximately 100,000 people, carried an average daily traffic volume of 10,000 vehicles, and had 350 accidents over the past five years that resulted in $75,000 in property damages, three fatalities, and more than 100 injuries. Drivers nicknamed the road the "Old Bladensburg Rut."

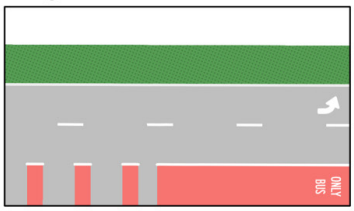
The Maryland State Roads Commission proceeded to make changes to the roadway, including amending the right-of-way to eliminate problematic curves, and widening the road to allow for a modern dual urban highway with multiple lanes traveling in each direction separated by a median. The project included the controversial bypass at Four Corners that divided the eastbound and westbound roadway around the existing Marvin Memorial Methodist Church and created the present-day circulation network at this intersection. The State Roads Commission completed the project by 1962.

FOUR CORNERS NEAR-TERM RECOMMENDATIONS

The near-term recommendations for Four Corners focus on improving multimodal safety, particularly for the most vulnerable travelers who are walking, biking, and rolling both to pass through the area and to access destinations within Four Corners. To support near-term implementation, the recommendations maintain the existing one-way couplet configuration of University Boulevard and minimize the need for additional dedicated public right-of-way, as shown in Figure 74.[5]

Figure 74: Four Corners Aerial

Legend



Sidewalk, Curb, or Median
Landscape Buffer
Turn Lane
General Purpose Travel Lane
Dedicated Bus Lane

+X' – Additional Right-of-Way through Redevelopment or Capital Project

[5] Note: The US29 Bus Rapid Transit Phase 2 Project, currently in preliminary engineering, is not shown.

This Plan recommends the following changes:

- Reallocate existing right-of-way, minimize the acquisition of additional right-of-way, and relocate curbs along University Boulevard between Lorain Avenue and Lexington Drive to narrow the roadway and provide safer and more comfortable facilities for people walking, biking, and rolling and facilities to improve transit performance. These include:

    a. an 8-foot sidewalk and 6-foot street buffer along each side of westbound University Boulevard, as shown in Figure 75[6] and Figure 76;[7]
    b. a 10-foot sidepath and 6-foot street buffer along the south side of eastbound University Boulevard west of Colesville Road, as shown in Figure 77;[8]
    c. an 8-foot sidewalk and 6-foot street buffer along the north side of eastbound University Boulevard west of Colesville Road, as shown in Figure 77;
    d. a 10-foot sidepath and 8-foot street buffer[9] along the south side of eastbound University Boulevard east of Colesville Road, as shown in Figure 78;[10]
    e. an 8-foot sidewalk and 8-foot street buffer along the north side of eastbound University Boulevard, east of Colesville Road, as shown in Figure 78;
    f. 11-foot dedicated bus lanes, 10-foot through-vehicle travel lanes, and 10-foot vehicle turn lanes, as shown on Figures 75 through 78.

[6] Cross-section varies along the extent described. Cross section represents STA 63 + 50 as shown on Plat No. 54377.
[7] Cross-section varies along the extent described. Cross section represents a location immediately east of Colesville Road.
[8] Cross-section varies along the extent described. Cross section represents STA 20 + 50 as shown on Plat No. 54377.
[9] If any redevelopment of Montgomery Blair High School relocates the existing 10-foot sidepath, the existing 10-foot street buffer may be reduced to 8 feet; otherwise, the existing 10-foot buffer should remain.
[10] Cross-section varies along the extent described. Cross section represents STA 25 + 50 as shown on Plat No. 54212.

Figure 75: University Boulevard West – Westbound Phase 2

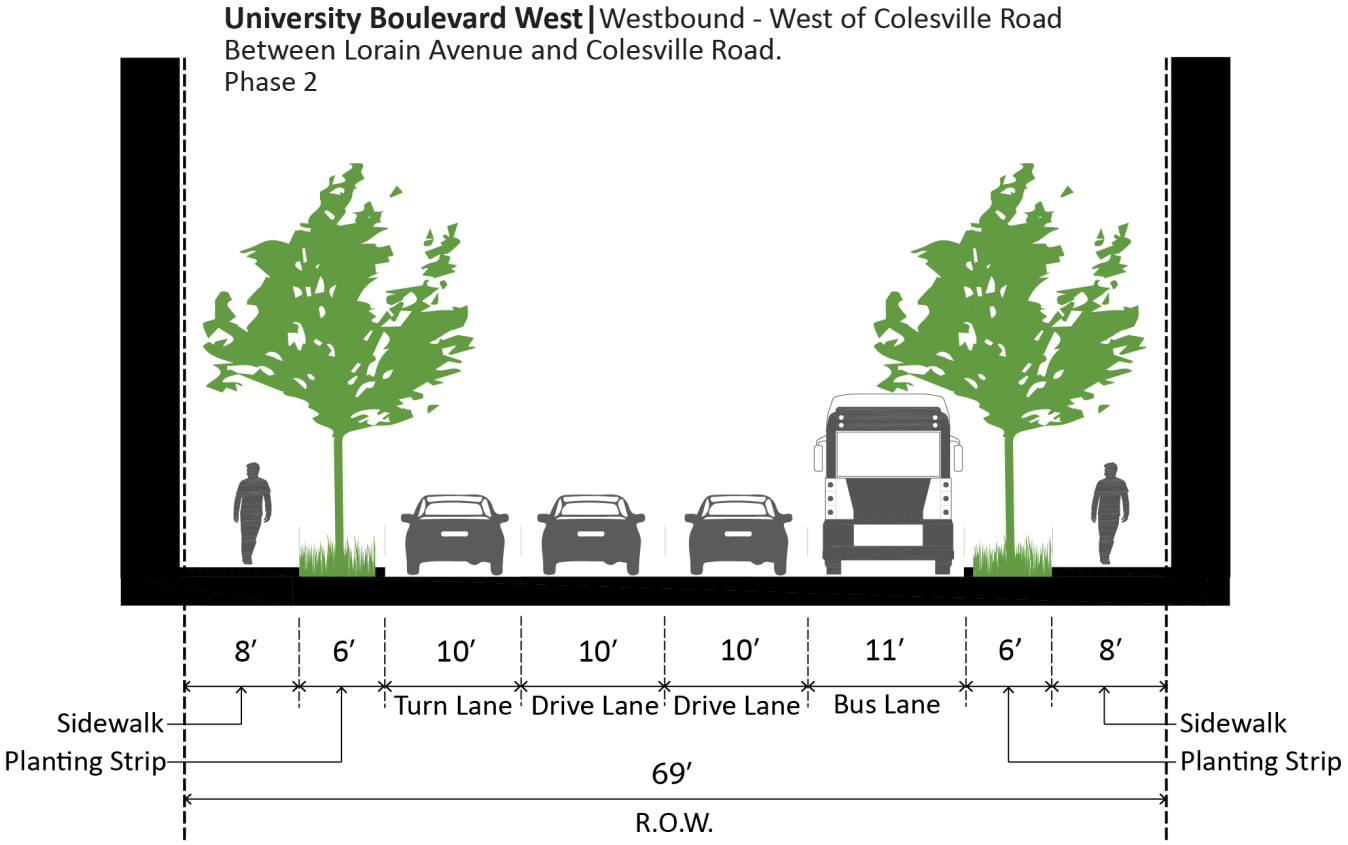


Figure 76: University Boulevard East – Westbound Phase 2

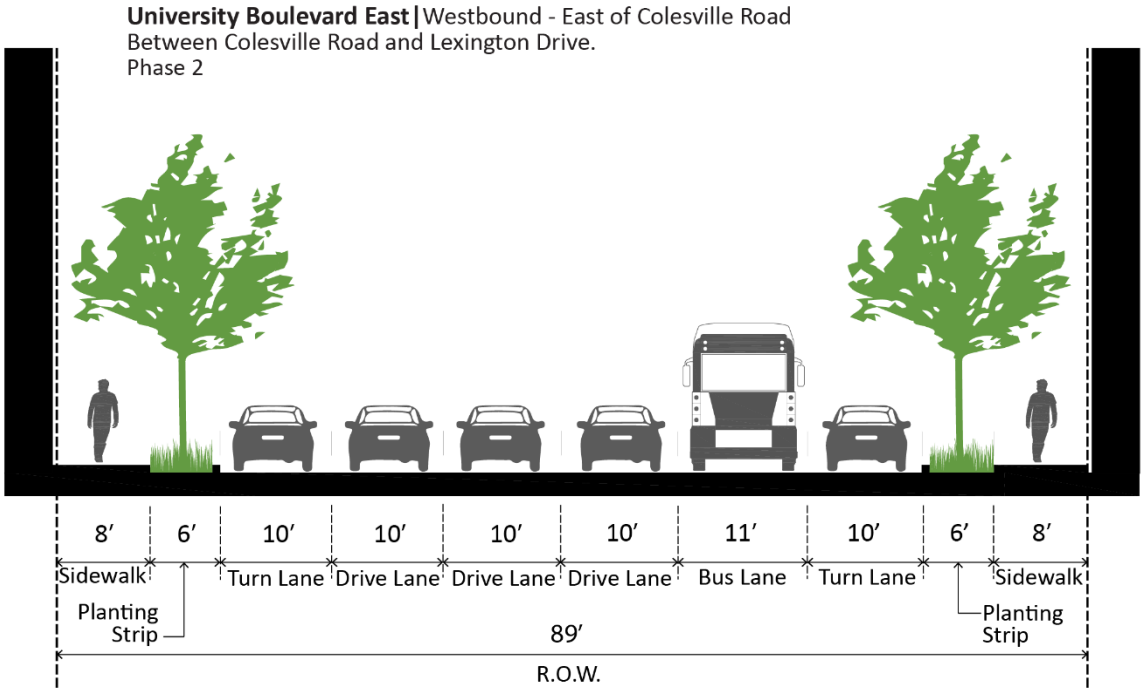


Figure 77: University Boulevard West – Eastbound Phase 2

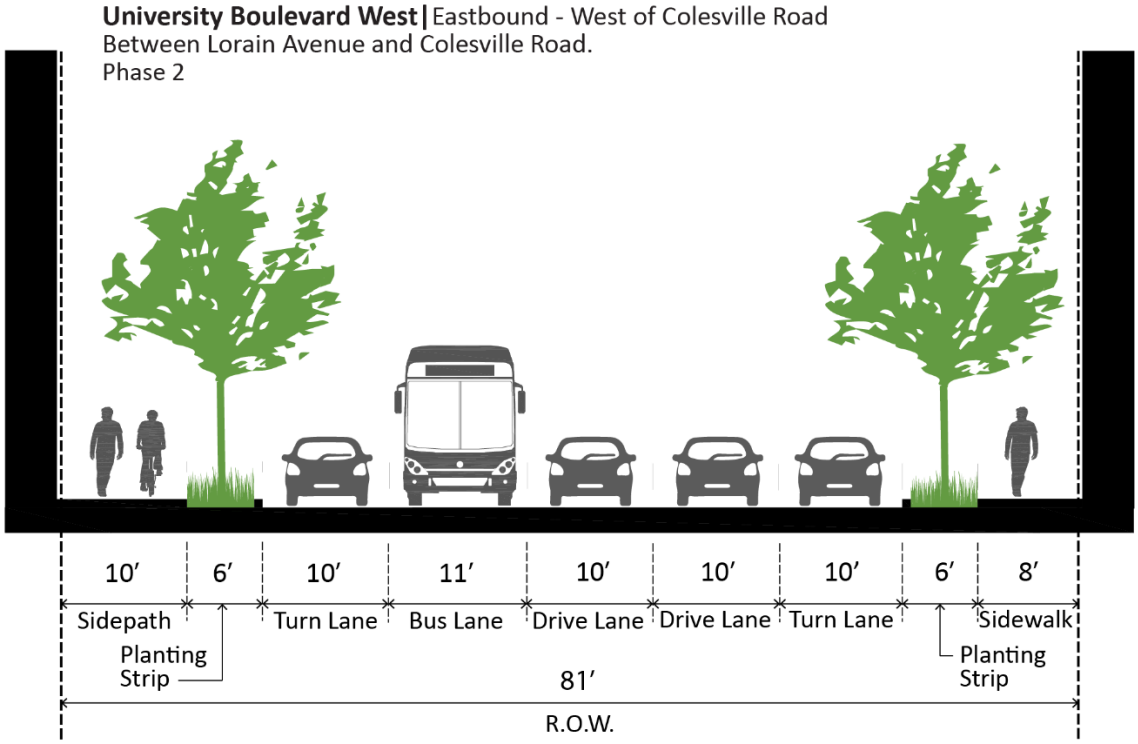
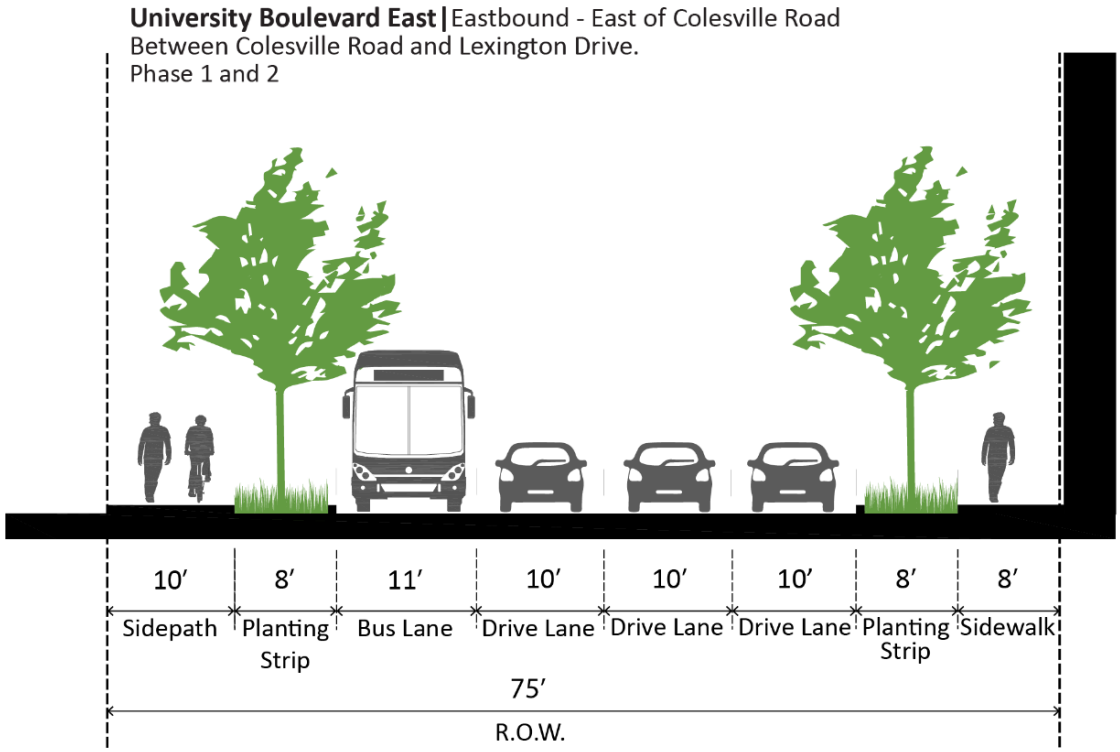


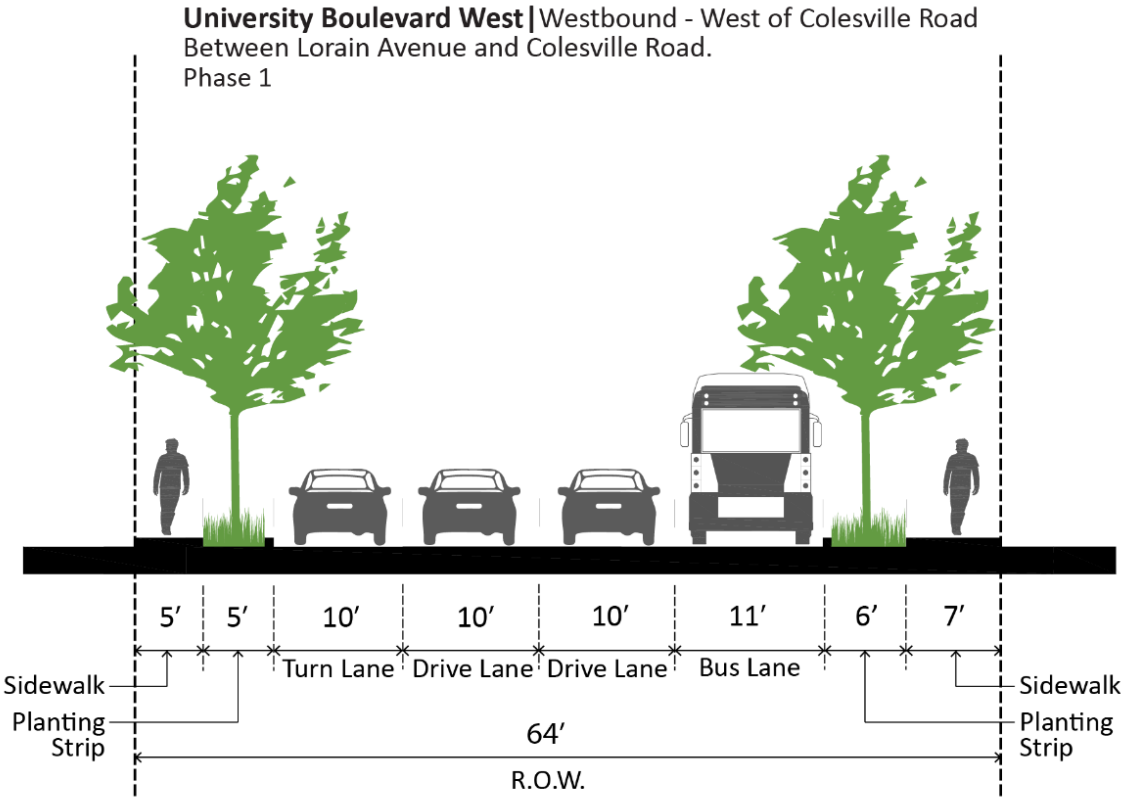
Figure 78: University Boulevard East – Eastbound Phases 1 and 2



If, through facility planning, implementing partners determine that dedicated bus lanes through Four Corners are not necessary to improve transit performance, right-of-way width shown for dedicated bus lanes should be reallocated to provide safer and more comfortable facilities for people walking, biking, and rolling, prioritizing a Breezeway bicycle facility along the south side of eastbound University Boulevard; any remaining right-of-way width from dedicated bus lanes determined to be not necessary to improve transit performance should be reallocated to reduce the overall cross-section width.

Cross sections depicting an interim condition that does not require additional right-of-way are depicted in Figure 79,[11] Figure 80,[12] and Figure 81.[13] Eastbound University Boulevard East has an existing 10-foot sidepath and 10-foot planting strip on the south side, which should remain unless any redevelopment of Montgomery Blair High School relocates the existing 10-foot sidepath to narrow the existing planting strip to 8 feet wide. With the reallocation of lane widths, additional right-of-way should not be required to implement the 8-foot planting strip and 8-foot sidewalk on the north side of eastbound University Boulevard East.

Figure 79: University Boulevard West – Westbound Phase 1



[11] Cross-section varies along the extent described. Cross section represents STA 63 + 50 as shown on Plat No. 54377.
[12] Cross-section varies along the extent described. Cross section represents a location immediately east of Colesville Road.
[13] Cross-section varies along the extent described. Cross section represents STA 20 + 50 as shown on Plat No. 54377.

Figure 80: University Boulevard East – Westbound Phase 1

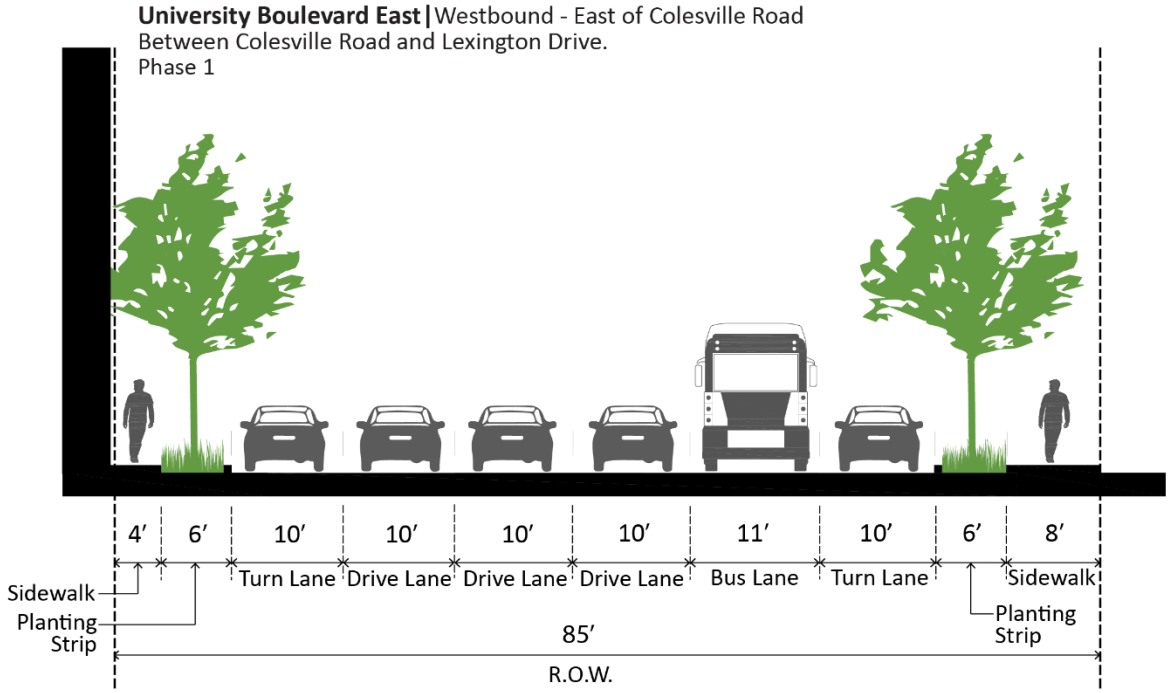
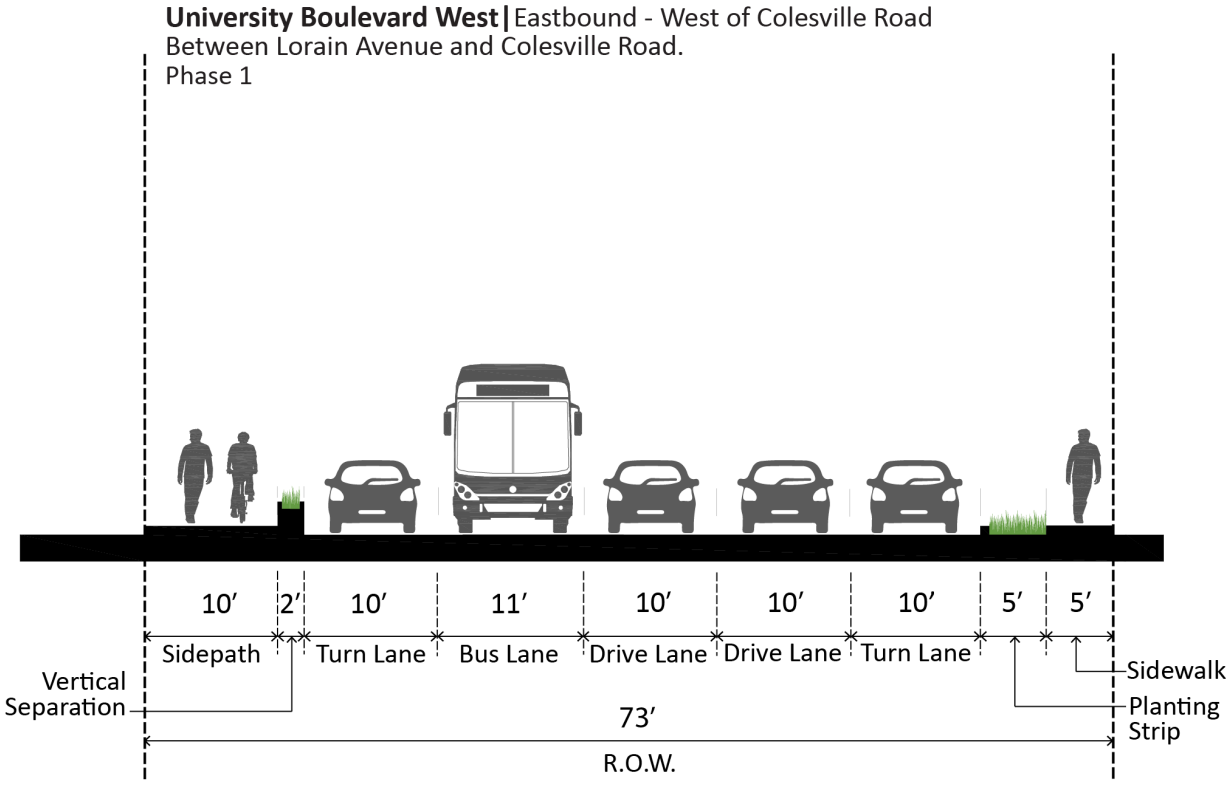


Figure 81: University Boulevard West – Eastbound Phase 1



If a Breezeway bicycle facility cannot be provided along the south side of eastbound University Boulevard, implement a Breezeway bicycle facility parallel to University Boulevard that connects the planned sidepaths along University Boulevard west of Lorain Avenue to the planned Breezeway bicycle facility along Pierce Drive.

- Implement protected crossings at the intersection of Lorain Avenue and University Boulevard.
- Minimize crossing distances—and hence exposure to conflicting vehicle movements—for people who are walking, biking, and rolling by reducing inside vehicle travel lanes to 10 feet wide and reducing the number of through-vehicle travel lanes on University Boulevard from three per direction to two per direction.
- Reduce the curb radii at all intersecting streets to the minimum consistent with the *Complete Streets Design Guide*. Prioritize the safety of people walking, biking, and rolling over the speed and convenience of turning vehicles and following vehicles that might need to reduce their speed.

FOUR CORNERS LONG-TERM VISION

The long-term vision for Four Corners expands upon the near-term recommendations to improve multi-modal safety and support a mixed-use, bike-, pedestrian-, and transit-friendly environment consistent with the area's Town Center designation. The long-term vision identifies large-scale transportation investments that would require additional design, analysis, and extensive coordination with public- and private-sector property owners and would likely be implemented beyond the Plan's horizon.

The long-term vision for Four Corners includes a more connected network of Town Center Streets that provides increased local connectivity for people walking, biking, rolling, taking transit, and driving, and introduces a more regular street pattern than today's one-way couplet, which requires drivers seeking to turn left from Colesville Road to merge across three lanes of traffic in as little as 250 feet.

More consolidated and rectangular parcels within a more regular network of streets can facilitate the development of higher intensity private development, public facilities, and/or amenities. In addition, relocating vehicular property access points from University Boulevard itself to intersecting and parallel streets can improve multi-modal safety by reducing conflict points and allowing management of a more orderly progression of traffic along University Boulevard.

While the Plan identifies a more connected network of Town Center Streets as a long-term vision, the Plan also recommends that further study be advanced in the near term. A near-term study should consider the following potential elements of the long-term vision:

- Combining both directions of University Boulevard travel onto a single Town Center Boulevard.
- Reconfiguring the portion of existing eastbound University Boulevard that is east of Colesville Road into a new Town Center Street with a perpendicular intersection with the combined University Boulevard at Lexington Drive. This reconfiguration may or may not include straightening the new street to create a more rectangular parcel between the new street and the combined University Boulevard and/or providing access points to Montgomery Blair High School that afford separation from higher-volume University Boulevard.
- Reconfiguring the existing eastbound University Boulevard that is west of Colesville Road into a new Town Center Street that connects to the street network to the west at or near Lorain Avenue and to the east at Colesville Road. The long-term vision encourages pedestrian and bicycle connections to Rogart

Road and Sutherland Road to the south. A bicycle and pedestrian connection, Town Center Street connection, or Curbless or Shared Street connection to Sutherland Road to the north may also be considered.
- Relocating vehicular site access points from the combined University Boulevard to intersecting or parallel Town Center Streets.
- Exploring additional options to improve multimodal safety and local connectivity.

Various permutations of these elements are possible, and alternative configurations should be studied. Improving multimodal safety should remain the top priority for the long-term vision. Pedestrian and bicycle facilities, including ample street buffers and a Breezeway that connects to bicycle and pedestrian facilities along University Boulevard, should remain part of the long-term vision.

Implementing the long-term vision for a safer, more regular, and more connected street network in Four Corners is not recommended as a near-term measure. Key steps to advancing this long-term vision include:

- Coordinating among property owners adjacent to University Boulevard. Some elements of the long-term vision would require assembly of multiple parcels and/or agreements to transfer public and private land to reconfigure streets and form parcels that are more supportive of high-quality development. Coordination would be required among some or all of the private and institutional property owners south of westbound University Boulevard, the State Highway Administration, and/or Montgomery County Public Schools.
- Addressing vehicular turning movements between University Boulevard and Colesville Road. The existing configuration relies on "jughandle" left turns from Colesville Road onto University Boulevard that would not be available with some of the long-term vision elements.
- Addressing neighborhood access. Existing neighborhoods adjacent to Four Corners to the southwest, northwest, and northeast have limited access to and from University Boulevard and Colesville Road. Unsignalized neighborhood access locations require challenging and potentially dangerous maneuvers like left turns across multiple lanes of oncoming traffic and crossings where people may be walking, biking, and rolling. Alternatively, driving to avoid these locations requires additional out-of-direction travel that contributes to traffic congestion on Colesville Road and University Boulevard and increases the volume of vehicles on neighborhood streets. Long-term vision elements should seek to maintain or improve neighborhood access, while consistent with other Plan recommendations, closing or signalizing median breaks to improve multi-modal safety.
- Addressing traffic and traffic safety within adjacent neighborhoods. Although many of these streets are outside the Plan Area boundary, they should be evaluated as part of advancing long-term vision elements to ensure that infrastructure provides appropriate space for people to safely walk, bike, roll, and travel by car. Potential solutions may include:
    - Designating selected streets as Neighborhood Connectors or Area Connectors and designing them to the guidance in the *Complete Streets Design Guide.* This includes elements to achieve the 20 mph and 25 mph target speeds for these street types, respectively.
    - Installing new sidewalks or sidepaths and street buffers consistent with Complete Streets Design Guide Neighborhood Yield Street, Neighborhood Street, Neighborhood Connector, or Area Connector guidance, as appropriate.
    - Striping on-street parking to visually narrow the vehicle travel lanes and reduce vehicle travel speeds even when on-street parking spaces are not occupied.

- Alternating the side of the street with on-street parking in locations with enough width for on-street parking on only one side of the street to shift traffic horizontally and reduce vehicle travel speeds.
- Installing curb extensions at the ends of striped on-street parking bays and in locations without on-street parking to narrow vehicle travel lane widths to the minimum consistent with the *Complete Streets Design Guide*.
- Reducing curb radii to the minimum consistent with the *Complete Streets Design Guide* to reduce the speed of turning vehicles.
- Installing speed humps, speed tables, or other traffic calming measures.

This Plan recommends:

- Further study of a more connected network of Town Center Streets to provide increased local connectivity for people walking, biking, rolling, taking transit, and driving. Study options for improving transit performance through Four Corners from Lorain Avenue to Lexington Drive as part of a long-term comprehensive redesign of the intersection of University Boulevard and Colesville Road. Improving multimodal safety should remain the top priority of the study; as such, pedestrian and bicycle safety improvements, including a human scale and reduced pedestrian crossing distances, a Breezeway that connects to bicycle and pedestrian facilities along University Boulevard, and ample street buffers should remain part of the long-term vision. The future study should also explore introducing a more regular street pattern than today's one-way couplet.

Table 1: University Boulevard Corridor Plan – Street Classification, Target Speed, Right of Way, Transit Lane, and Bike Facility Recommendations

Roadway	From	To	County Classification
Growth Corridor Boulevard			
University Blvd (MD 193)	Downtown Wheaton Boundary	Dayton St	Growth Corridor Boulevard
University Blvd (MD 193)	Dayton St	Four Corners Town Center Boundary (Lorain Ave)	Growth Corridor Boulevard
University Blvd (MD 193)	Lexington Dr	Williamsburg Dr	Growth Corridor Boulevard
University Blvd (MD 193)	Williamsburg Dr	Eastern Plan Area Boundary (E Indian Spring Dr)	Growth Corridor Boulevard
Colesville Rd	Plan Area Southern Boundary (460' south of Lanark Way)	Four Corners Town Center Southern Boundary	Growth Corridor Boulevard
Colesville Rd	Four Corners Town Center Northern Boundary (Timberwood Ave)	Plan Area Northern Boundary (Lorain Ave)	Growth Corridor Boulevard
Downtown Boulevard			
University Blvd (MD 193)	Western Plan Area Boundary (Amherst Avenue)	Downtown Wheaton Boundary	Downtown Boulevard
Town Center Boulevard			
University Blvd (MD 193; eastbound)[1]	Lorain Ave	Colesville Rd	Town Center Boulevard
University Blvd (MD 193; eastbound)[2]	Colesville Rd	Lexington Dr	Town Center Boulevard
University Blvd (MD 193; westbound)[3]	Colesville Rd	Lorain Ave	Town Center Boulevard
University Blvd (MD 193; westbound)[4]	Lexington Dr	Colesville Rd	Town Center Boulevard
Colesville Rd	Four Corners Town Center Southern Boundary	University Blvd	Town Center Boulevard
Colesville Rd	University Blvd	Four Corners Town Center Northern Boundary (Timberwood Ave)	Town Center Boulevard
Town Center Street			
Blueridge Ave (Proposed)	Amherst Ave	Bucknell Dr	Town Center Street
Hickerson Dr (Proposed)	Amherst Ave	Bucknell Dr	Town Center Street
Bucknell Dr (Proposed)	University Blvd	Blueridge Ave	Town Center Street
Lamberton Dr	920' West of Arcola Ave	Arcola Ave	Town Center Street
Access Rd (Proposed)	University Blvd	Lamberton Dr	Town Center Street
Area Connector			
Arcola Ave	Plan Area Northern Boundary (630' North of Lamberton Dr)	University Blvd	Area Connector
Dennis Ave	Plan Area Western Boundary (Procter St)	University Blvd	Area Connector
Lanark Way	Sutherland Rd	Colesville Rd	Area Connector
Neighborhood Connector			
Blueridge Ave	Bucknell Dr	Naim Farmhouse Ct	Neighborhood Connector
Reedie Dr	Amherst Ave	Dodson Ln	Neighborhood Connector
Inwood Ave	University Blvd	Plan Area Southern Boundary (Jasper St)	Neighborhood Connector
Lamberton Dr	Arcola Ave	Plan Area Eastern Boundary (Monticello Ave)	Neighborhood Connector
Kenbrook Dr	Arcola Ave	Plan Area Eastern Boundary (Bybee St)	Neighborhood Connector
Tenbrook Dr	Gabel St	Plan Area Southern Boundary (Whitehall St)	Neighborhood Connector
Caddington Ave	University Blvd	Eastwood Ave	Neighborhood Connector
Caddington Ave	Eastwood Ave	Loxford Terr	Neighborhood Connector
Edgewood Ave	Hannes St	Lorain Ave	Neighborhood Connector
Dennis Ave	University Blvd	Edgewood Ave	Neighborhood Connector
Brunett Ave	Plan Area Southern Boundary (Harding Dr)	University Blvd	Neighborhood Connector
Lanark Way	Western Plan Area Boundary (Lorain Ave)	Sutherland Rd	Neighborhood Connector

NOTE: Minimum rights-of-way do not generally include lanes for turning, parking, acceleration, deceleration, or other purposes auxiliary to through travel.

[1] Cross-section varies along the extent described. Cross section represents STA 20 + 50 as shown on Plat No. 54377.

[2] Cross-section varies along the extent described. Cross section represents STA 25 + 50 as shown on Plat No. 54212. East of the Montgomery Blair High School entrance, there are 2 Planned Traffic Lanes.

[3] Cross-section varies along the extent described. Cross section represents STA 63 + 50 as shown on Plat No. 54377.

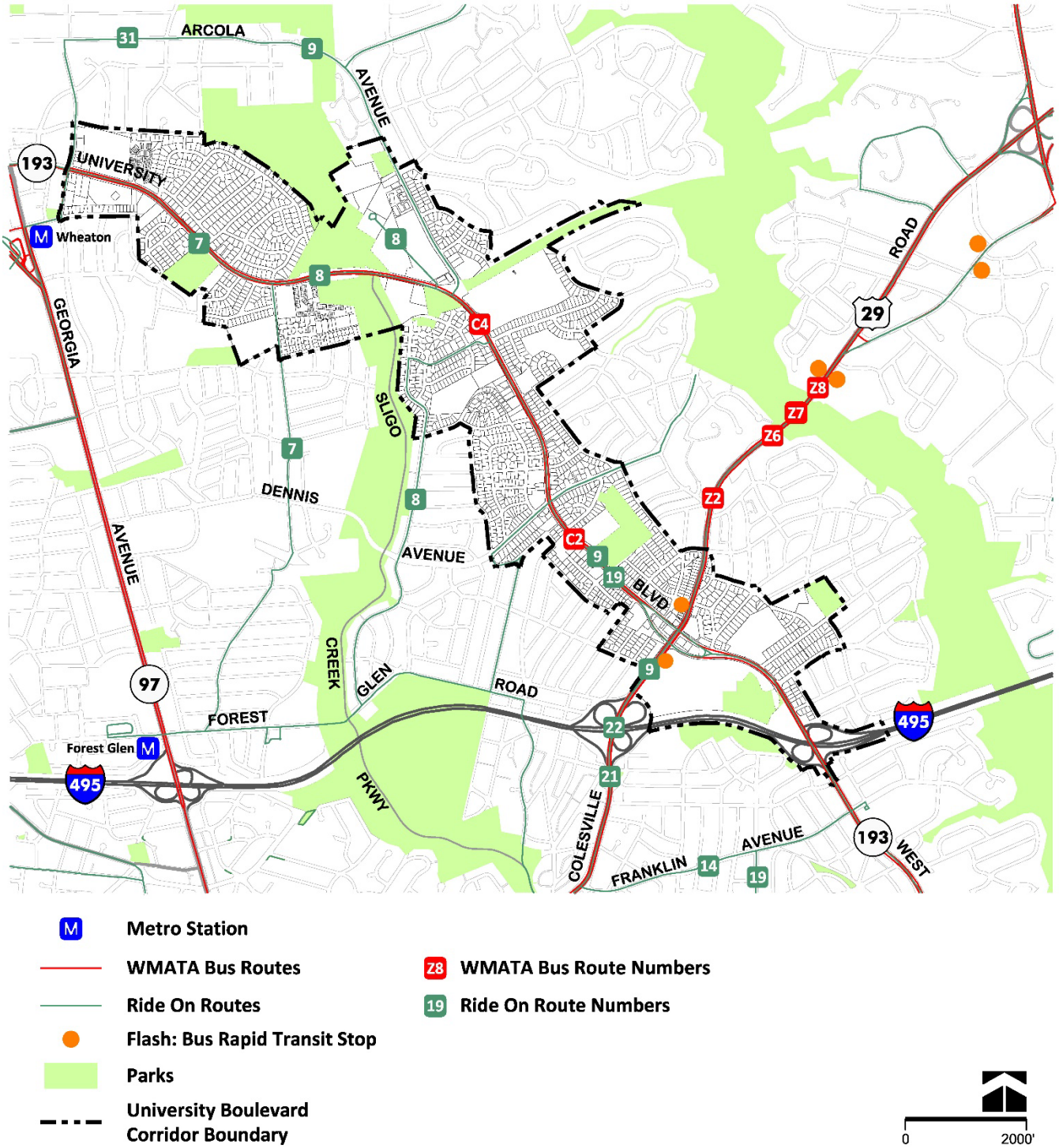
[4] Cross-section varies along the extent described. Cross section represents a location immediately east of Colesville Road.

Target Speed *(MPH)*	Proposed Right of Way *(Feet; Minimum)*	Existing Traffic Lanes	Planned Traffic Lanes	Planned Dedicated Transit Lanes	Bike Facility *(Left Side)*	Bike Facility *(Right Side)*	Bikeway Prioritization (Tier 1 = Highest)
30	126	6	4	2	Sidepath	Sidepath	Tier 1
30	124	6	4	2	Sidepath	Sidepath	Tier 1
30	124	6	4	2	Sidepath	Sidepath	Tier 1
30	124	6	4	2	Sidepath	Sidepath	Tier 2
30	120	6	6	2	None	None	—
30	120	6	6	1	None	None	—
25	126	6	4	2	Sidepath	Sidepath	Tier 1
30	81	3	2	1	None	Sidepath	Tier 1
30	75	3	3	1	None	Sidepath	Tier 1
30	69	3	2	1	None	None	—
30	89	4	3	1	None	None	—
30	120	6	6	2	None	Sidepath	(Existing)
30	120	6	6	2	None	None	—
25	75	n/a	2	0	1-Way Separated Bike Lane	1-Way Separated Bike Lane	Tier 2
25	75	n/a	2	0	1-Way Separated Bike Lane	1-Way Separated Bike Lane	Tier 2
25	75	n/a	2	0	1-Way Separated Bike Lane	1-Way Separated Bike Lane	Tier 2
25	75	n/a	2	0	1-Way Separated Bike Lane	1-Way Separated Bike Lane	Tier 2
25	75	2	2	0	1-Way Separated Bike Lane	1-Way Separated Bike Lane	Tier 2
20	75	2	2	0	None	Sidepath	Tier 2
20	80	2	2	0	Sidepath	None	Tier 2
20	70	2	2	0	Sidepath	None	Tier 2
20	65	2	2	0	None	None	—
20	65	2	2	0	None	None	—
20	65	2	2	0	None	None	—
20	65	2	2	0	None	None	—
20	65	2	2	0	None	None	—
20	65	2	2	0	None	None	—
20	65	2	2	0	None	Sidepath	Tier 3
20					None	None	—
20	65	2	2	0	Neighborhood Greenway	Neighborhood Greenway	Tier 3
20	75	2	2	0	Sidepath	Sidepath	
20	60	2	2	0	Neighborhood Greenway	Neighborhood Greenway	Tier 2
20	65	2	2	0	None	None	—

TRANSIT

The Washington Metropolitan Area Transit Authority's (WMATA's) C2 and C4 Metrobus routes, which run along University Boulevard, together have the highest bus ridership in the State, more than 12,000 riders per weekday, as do Montgomery County Ride On buses, including Routes 7, 8, and 9, as shown in Figure 82.

Figure 82: University Boulevard – Transit Access



Flash BRT Station

U.S. 29 FLASH SERVICE

The U.S. 29 Flash Orange and Blue Routes are the county's first BRT service, implemented in 2020. Both routes travel through the Four Corners area along Colesville Road, serving more than 2,200 riders per day on average and providing limited-stop service, with the Orange Route connecting Silver Spring and Briggs Chaney and the Blue Route connecting Silver Spring and Burtonsville. Phase two of the U.S. 29 Flash service will introduce median-running dedicated bus only lanes and place the BRT stops in the median of U.S. 29 at the intersection of University Boulevard and Colesville Road.

RIDE ON REIMAGINED

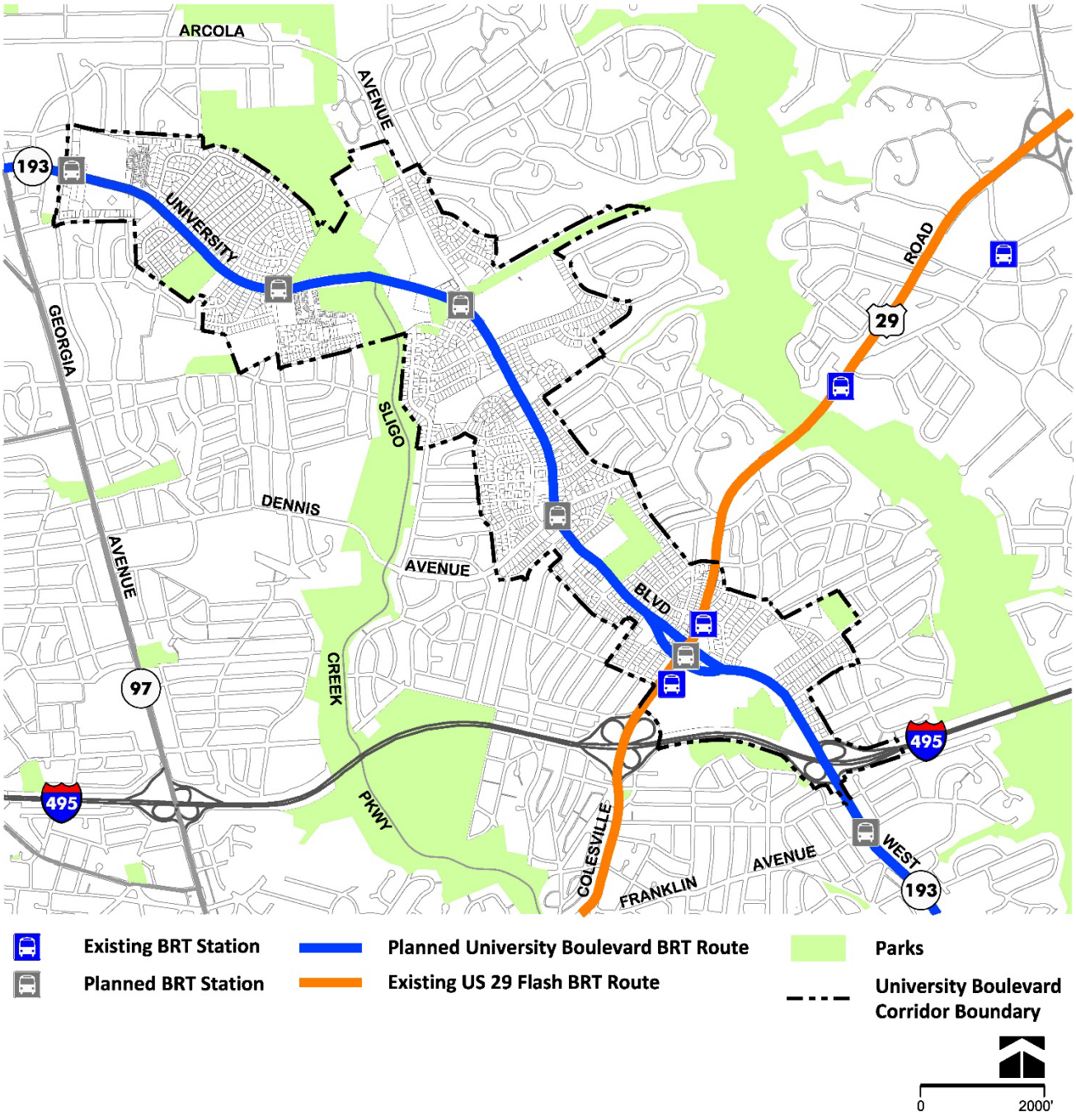
The Montgomery County Department of Transportation (MCDOT) is conducting a comprehensive reassessment of Ride On routes, called Ride On Reimagined, to determine the future needs of the county's local transit. This Plan supports enhanced Ride On services, such as on-demand transit service, for residential neighborhoods in the Plan area.

MD 193 BUS RAPID TRANSIT

The 2013 *Countywide Transit Corridors Functional Master Plan* recommended a BRT route between Wheaton and Takoma-Langley Park along University Boulevard (Corridor 8). The 2013 Plan identified five stops along University Boulevard within the Plan area: Amherst Avenue, Inwood Avenue, Arcola Avenue, Dennis Avenue, and U.S. 29, as shown in Figure 83. This Plan confirms the BRT stations identified in the 2013 Plan.

In February 2024, the MCDOT implemented a dedicated curb-running bus lane pilot project on University Boulevard between Amherst Avenue and Dennis Avenue. The 12–18-month pilot period will allow MCDOT to evaluate operations, passenger travel times, service reliability, customer experience, and motorist compliance to inform a decision about whether Dedicated Bus Lanes will remain beyond the pilot period.

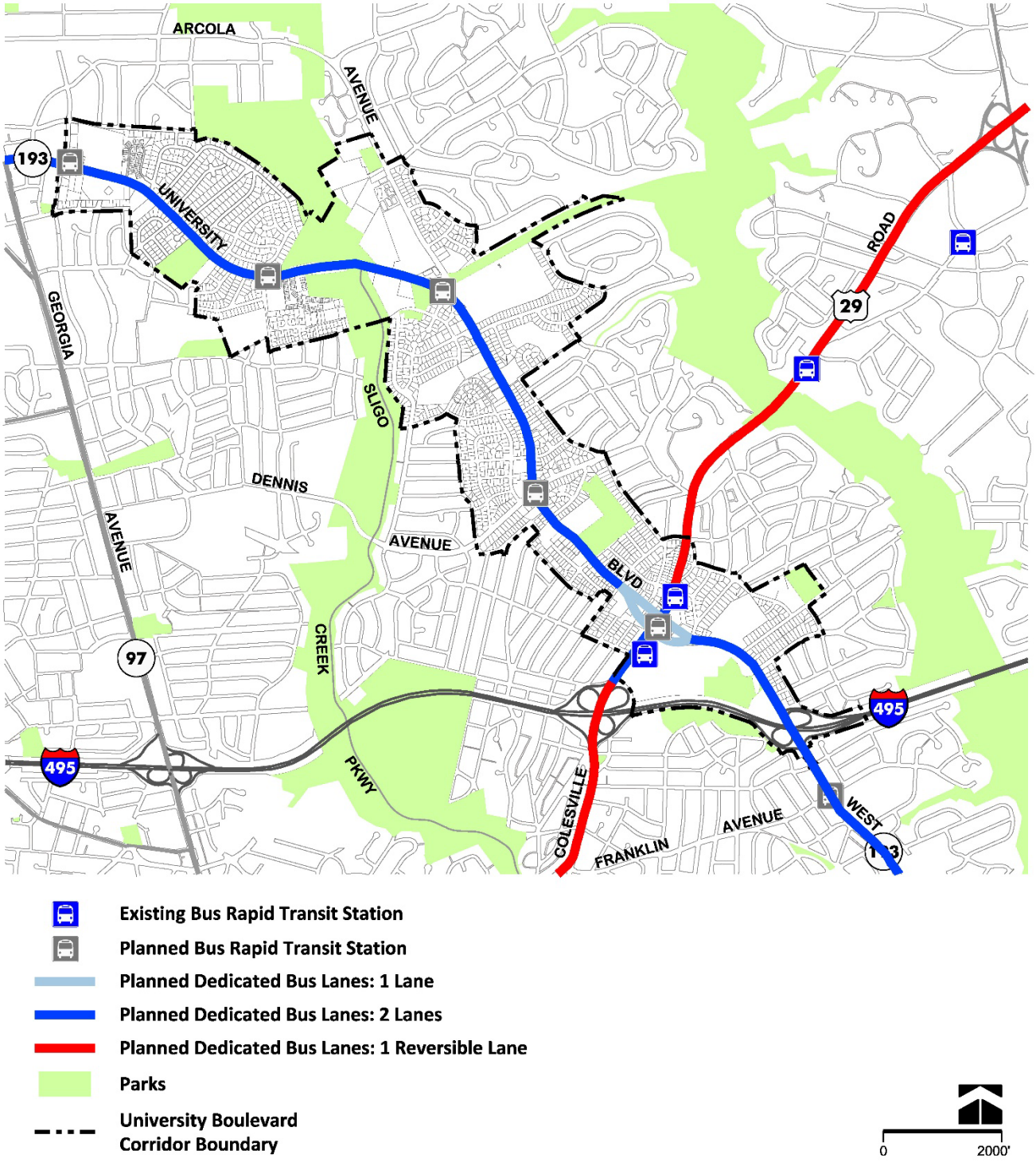
Figure 83: University Boulevard – BRT



TRANSIT RECOMMENDATIONS

- Provide dedicated transit lanes along Colesville Road (U.S. 29) and University Boulevard (MD 193), as shown in Figure 84.

Figure 84: University Boulevard – Planned Dedicated Bus Lanes



- Ensure that all transit stops are ADA compliant with nearby protected pedestrian crossings.
- Improve the transit environment with new bus shelters along the corridor, especially at proposed BRT stops.
- Support micro-transit alternatives, such as on-demand door-to-door transit, which will contribute to additional transit use.
- In the long-term, explore whether a median BRT, or curb-running BRT approach is appropriate for the University Boulevard corridor, to the extent possible within the existing curb-to-curb dimension.

BICYCLE AND PEDESTRIAN NETWORKS

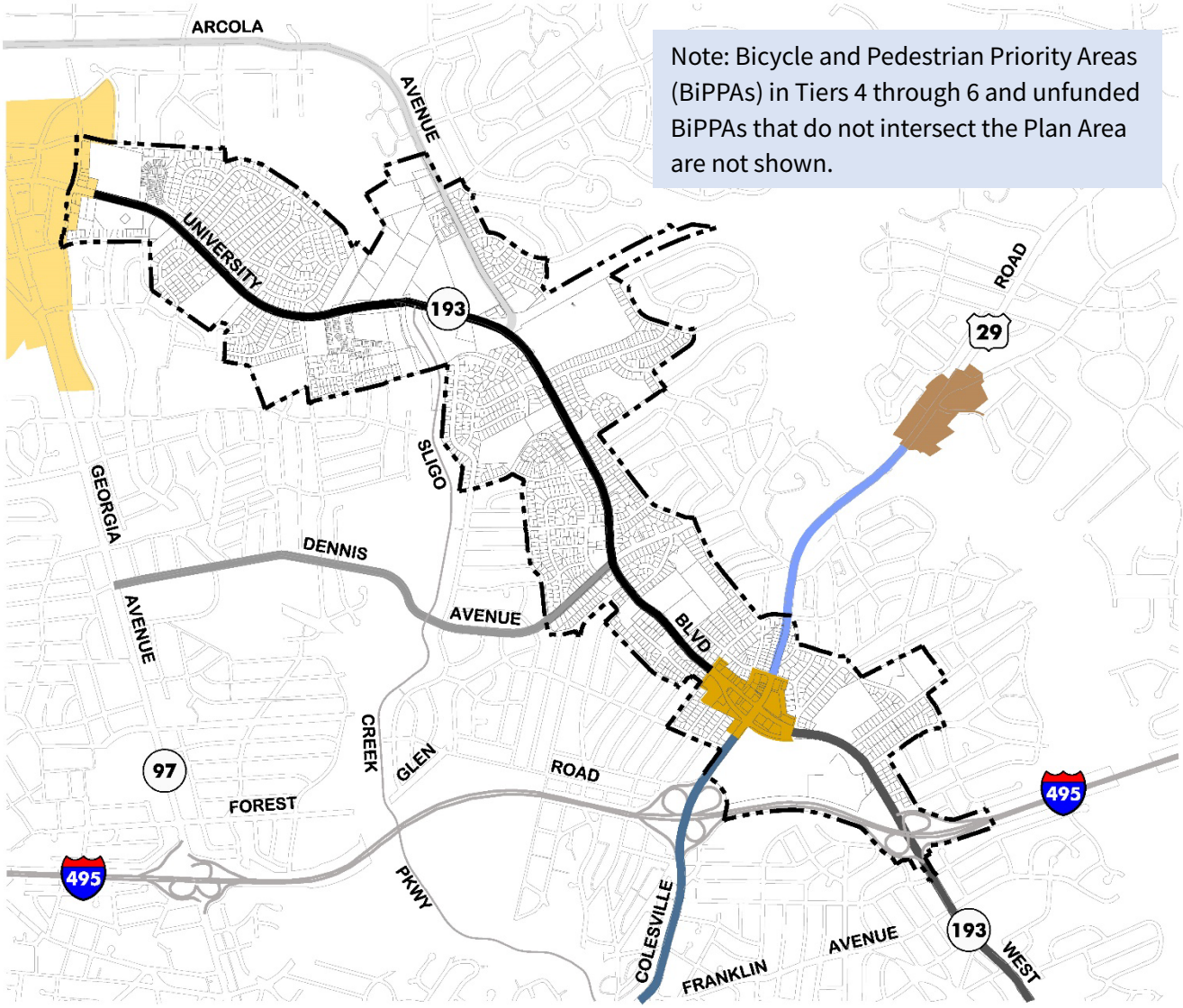
BICYCLE AND PEDESTRIAN PRIORITY AREAS (BIPPA)

The Bicycle and Pedestrian Priority Areas (BiPPA) funding program, established by the County Council in 2014, is one of the primary ways that the county funds pedestrian and bicycle improvements. The 2023 *Montgomery County Pedestrian Master Plan* has subsequently evolved the prioritization of three types of BiPPAs—Downtowns and Town Centers, Major Roads, and Neighborhoods—based on the greatest need for pedestrian and bicycle improvements, with emphasis on those parts of the county that are Equity Focus Areas, reflecting the county's commitment to investing in communities that have been historically disadvantaged. BiPPAs are prioritized by tiers, starting with those funded in the capital budget, followed by Tiers 1 through 6, in descending priority.

Figure 85 illustrates the BiPPAs in the Plan area. Four BiPPAs in the Plan area have been funded in the county's capital budget: Downtown Wheaton, Four Corners, Colesville Road: Four Corners to Burnt Mills Town Center, and Colesville Road: Downtown Silver Spring to Four Corners Town Center. Four other "Major Road" BiPPAs are prioritized within the Plan Area: University Boulevard: Downtown Wheaton to Four Corners Town Center (Tier 1), University Boulevard: Four Corners Town Center to Long Branch Town Center (Tier 1), Dennis Avenue: Georgia Avenue to University Boulevard (Tier 2), and Arcola Avenue: Georgia Avenue to University Boulevard (Tier 3). Other "Neighborhood" BiPPAs within the Plan area are generally categorized as Tier 5.

Typical BiPPA features include new sidewalks, sidepaths, bikeways, median refuges, curb ramps, signalized intersections, traffic calming treatments, and ADA improvements to sidewalks, curb ramps, and crosswalks.

Figure 85: Bicycle and Pedestrian Priority Areas (BiPPA)



Bicycle and Pedestrian Priority Areas Recommendations

- Fund the "University Boulevard: Downtown Wheaton to Four Corners Town Center" BiPPA in the County's Capital Improvements Program.

PEDESTRIAN NETWORK

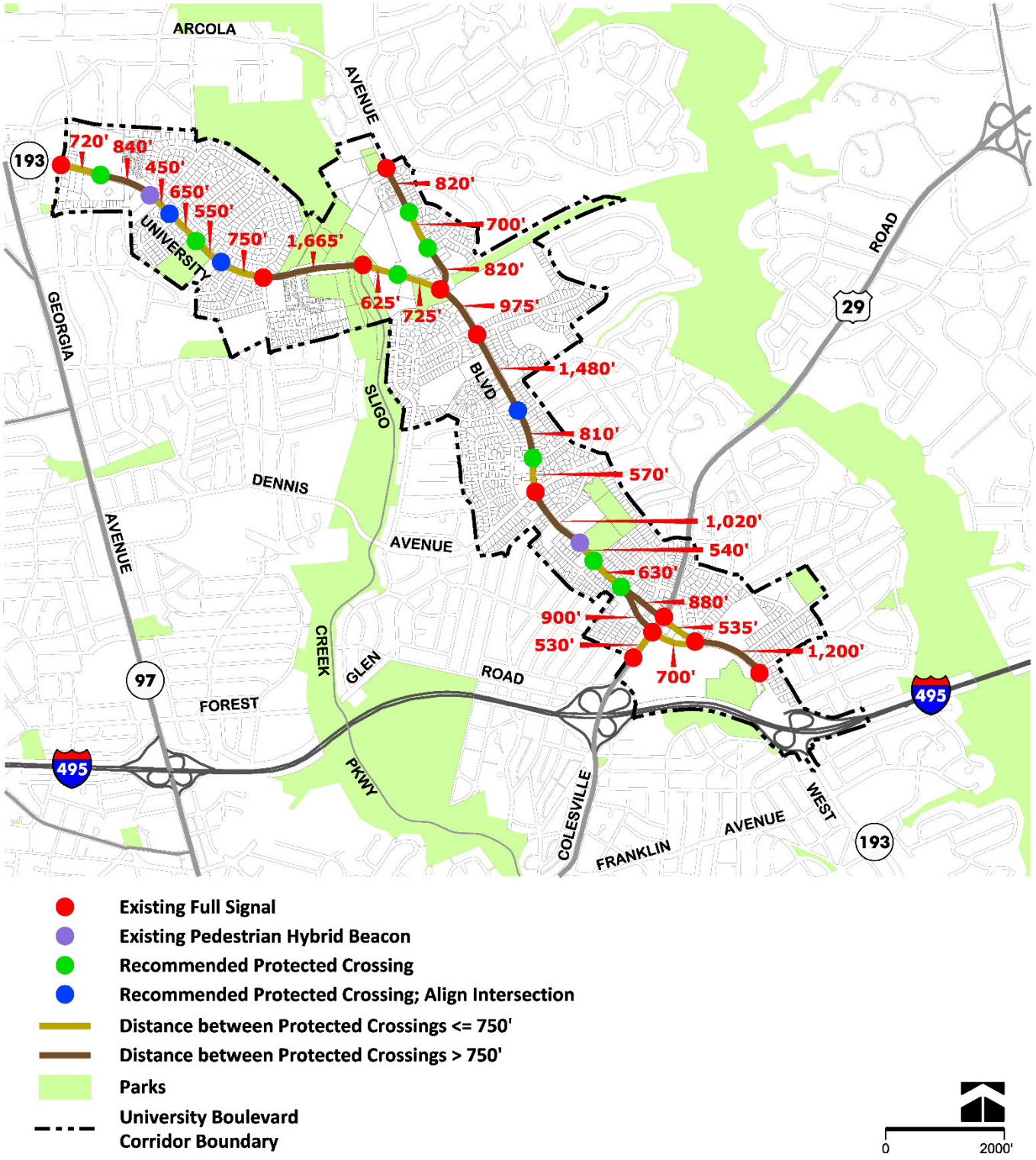
The 2023 *Pedestrian Master Plan* seeks to make "walking safer, more comfortable, more convenient, and more equitable by improving policy and programming, prioritizing infrastructure investments, and insisting on pedestrian-oriented design in all Montgomery County communities" (p.5).

Along most of University Boulevard, walking is considered undesirable because the sidewalk is adjacent to travel lanes. Approximately 93% of University Boulevard is considered uncomfortable or undesirable, according to the Pedestrian Level of Comfort methodology, with relatively narrow sidewalks, no buffer or bicycle facility between the sidewalk and adjacent traffic, and a speed limit of 35 miles per hour and even higher observed speeds.

Long distances between protected pedestrian crossings along the corridor, in some instances exceeding half a mile, contribute to an unsafe and challenging walking environment. The intersections of University Boulevard at Caddington Avenue and Dennis Avenue are more than half a mile apart. Most other intersections along University Boulevard are more than a quarter mile apart (Figure 86).

The absence of street trees that could provide shade for pedestrians further challenges the corridor's walking environment. Residential neighborhoods, adjacent to the corridor, are more walkable because sidewalks are separated from lower-speed travel lanes by landscaped buffers.

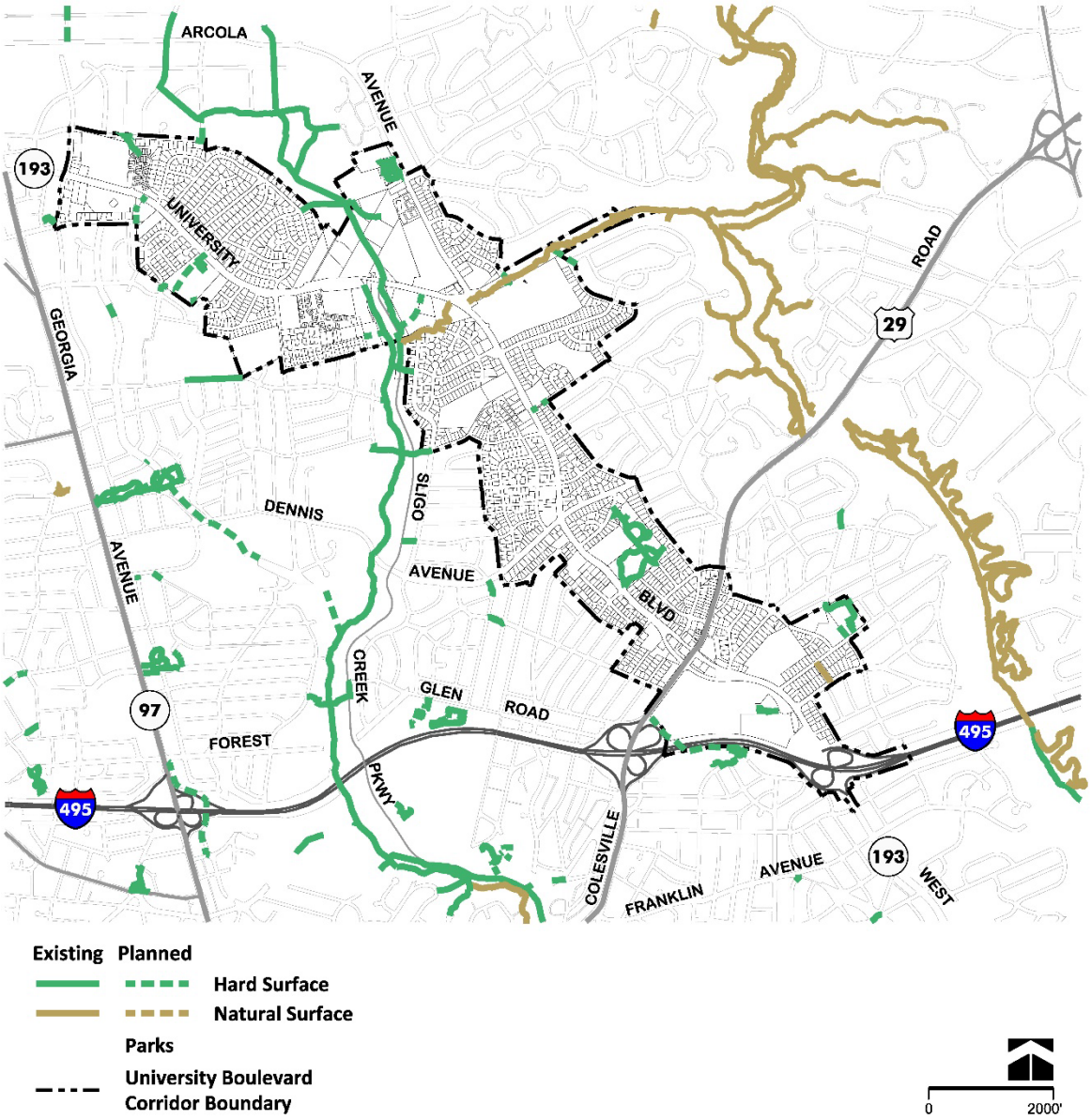
Figure 86: Protected Crossings



Pedestrian Network Recommendations

- Implement a complete network of comfortable walkways and bikeways, connected by safe, protected crossings.
    - Implement 10-foot sidepaths and 8-foot street buffers along both sides of University Boulevard between Amherst Avenue and Lorain Avenue and between Lexington Avenue and the I-495 interchange.
    - Upgrade all intersections with high-visibility continental or ladder crosswalk markings for all pedestrian approaches.
    - Provide protected pedestrian crossings that are consistent with the *Complete Streets Design Guide* maximum spacing for protected crossings, including at existing and new intersections and at mid-block locations where needed to achieve maximum crossing spacing. High priority recommended protected crossings are shown in Figure 86.

Figure 87: Pedestrian Connections



- Ensure ADA accessibility on all public pathways, including sidewalks, trails, and street crossings, in accordance with current best practices.
- Reduce crossing distances for people walking and biking and slow down turning vehicles at intersections.
- Ensure consistent street lighting along the corridor.
- Implement "No Right Turn on Red" restrictions at signalized intersections unless the Director of Transportation or the Director's designee determines that installing a "No Right Turn on Red" restriction would significantly impair public safety.
- Provide Leading Pedestrian Intervals (LPI) that permit pedestrians advance times to cross MD 193 and intersecting streets at signalized intersections unless the Director of Transportation or the Director's designee determines that installing a leading pedestrian interval would significantly impair public safety.
- Achieve a Pedestrian Level of Comfort (PLOC) score of 2 or better along and across the right-of-way.

BICYCLE NETWORK

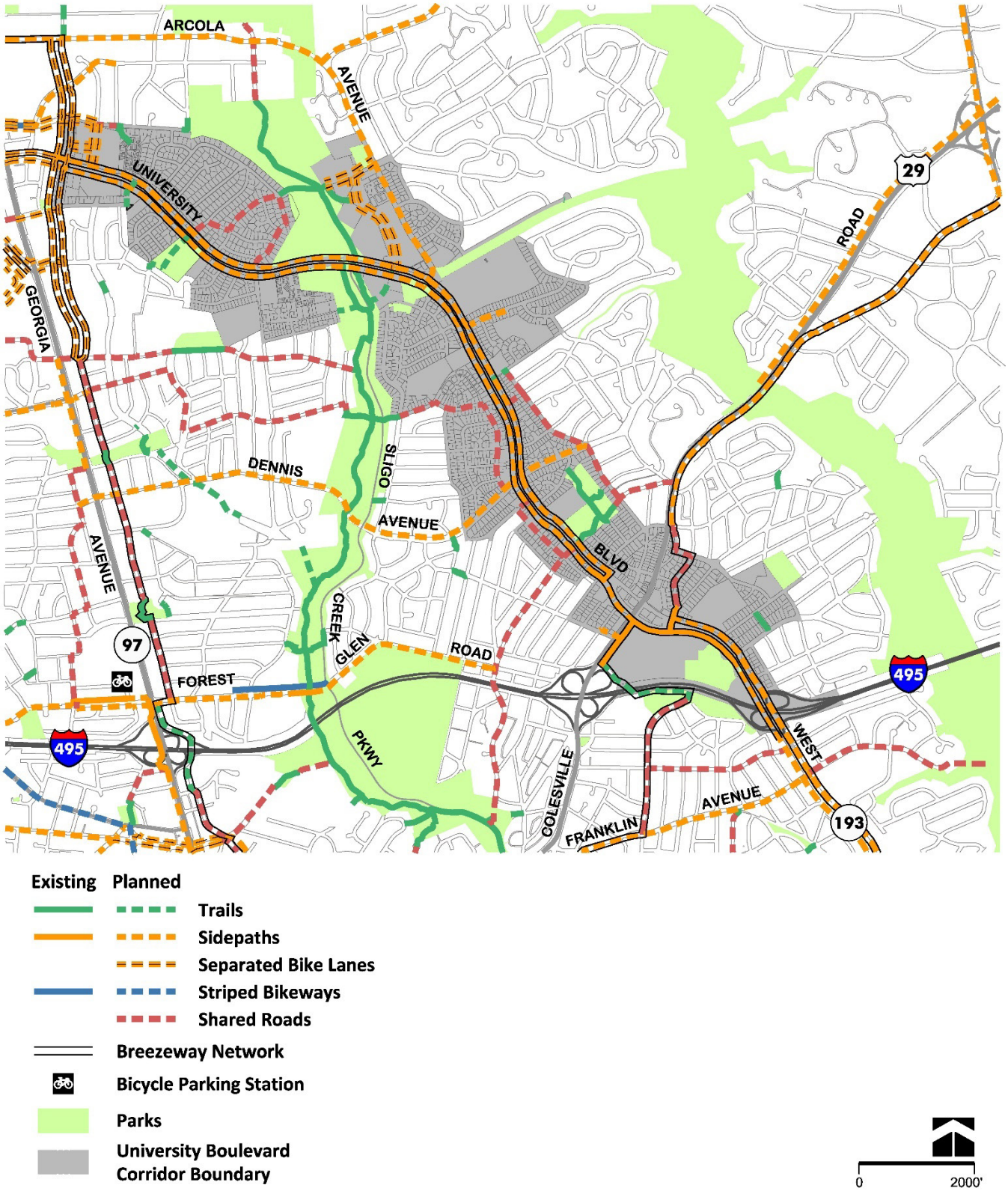
The Plan area generally lacks a direct, connected network of low-stress bicycle facilities. The Plan area has existing trails in Sligo Creek Parkway and North Four Corners Park. There are sidepaths along the Blair High School frontages of Colesville Road and University Boulevard. During the COVID-19 pandemic, June to December 2021, MDOT SHA implemented a temporary protected bikeway along University Boulevard West, between Amherst Avenue and Arcola Avenue, but it was removed following the pilot and replaced with a dedicated curb-running bus lane pilot project.

The 2018 *Bicycle Master Plan* recommends a sidepath along the north side of University Boulevard as part of the proposed breezeway network. Breezeways are proposed as a network of "bicycle arterials" linking major activity centers with high-quality bicycle facilities in which all users—including slower moving bicyclists and pedestrians—can safely and comfortably coexist while allowing faster bicyclists to travel with less delay. To minimize property acquisitions and remain within the master planned right-of-way for University Boulevard, this Plan instead recommends one 10-foot sidepath on each side of University Boulevard.

Bicycle Network Recommendations

- Implement a complete network of connected low-stress bicycle facilities (Figure 88).
    a. Implement protected intersections at all intersections with existing or planned separated bike lanes, sidepaths, buffered bike lanes, or conventional bike lanes, consistent with the *Complete Streets Design Guide* and the 2018 *Bicycle Master Plan*.
    b. Implement long-term bicycle parking at destinations such as schools, trails, parks, and public open spaces, and large multifamily dwellings and employment or retail centers.
    c. Implement a trail connection across I-495 for people walking, biking, and rolling, connecting Colesville Road to Indian Spring Terrace Local Park and Marshall Avenue, consistent with the 2018 *Bicycle Master Plan.*
    d. Implement a paved trail connection for people walking, biking, and rolling between Reedie Drive and University Boulevard with redevelopment of the Har Tzeon-Agudath Achim property.
    e. Implement a paved trail connection for people walking, biking, and rolling between Hannes Street and University Boulevard through the existing 30' path dedication shown on Plat 3712

Figure 88: University Boulevard - Bikeways



Bikeshare

- Expand the bikeshare system in the Plan area to serve both residents and visitors from nearby neighborhoods and CBDs. This recommendation is intended to apply to all forms of shared personal mobility technology, which includes but is not limited to dockless bikeshare, electric-assist bikeshare, shared scooters, and other forms of travel to be developed in the future. Potential locations for future bikeshare stations and locations where dockless transportation vehicles should be routinely "re-stocked" include but are not limited to:
    a. Multi-unit residential sites
    b. Sligo Creek trailheads
    c. Planned BRT stations
    d. Wheaton Forest Local Park
    e. Breewood Neighborhood Park
    f. Kemp Mill Shopping Center
    g. Near Northwood High School, close to University Boulevard and Arcola Avenue
    h. North Four Corners Local Park
    i. Woodmoor Shopping Center
    j. Safeway, close to University Boulevard and Lorain Avenue
    k. Montgomery Blair High School / Blair Local Park

MICROMOBILITY

Micromobility is expected to grow within the Plan area. More micromobility corrals should be provided as part of public capital projects and private developments so that they are widely and conveniently available and riders learn to see them as an easy way to park the devices safely, conveniently, and in a way that does not hinder pedestrian access. Corrals should be built in accordance with MCDOT location and design specifications, including concrete pads, u-racks, scooter racks, lighting, and charging capability for both e-scooters and e-bikes.

Micromobility Recommendations

- Install new micromobility corrals in underutilized parking facilities, within available rights-of-way, near planned Bus Rapid Transit stations, and near civic gathering spaces, such as Wheaton Forest Local Park, Sligo Creek Stream Valley Park, Breewood Neighborhood Park, Northwood High School, North Four Corners Local Park, and Montgomery Blair High School.