

*Rhode Island Avenue Trolley Trail  
Extension*

**Trail Concept Report**

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Prepared for

*The Maryland-National Capital Park and Planning Commission  
Prince George's County Maryland*

by

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*Rhode Island Avenue Trolley Trail Planning and Design*

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Task 1: Overall Planning and Design

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# Proposed Rhode Island Avenue Trolley Trail Extension Trail Concept Report

## Background

The Rhode Island Avenue Trolley Trail is a proposed shared use path running along a portion of the historic Washington, Berwyn and Laurel streetcar line. This line once ran from the District of Columbia to Laurel, Maryland. A 2.6 mile stretch of this trolley line corridor located in College Park, Maryland (north of Albion Street) was recently developed as a shared use path: Phase 1 opened in 2002; Phase 2 in 2005; Phase 3 in 2006.

This project proposes to extend that path south from Albion Street in College Park, through Riverdale Park and Hyattsville, to tie into the existing Northwest Branch Trail at Armentrout Drive, a distance of 2.0 miles (see Figure 1 on page 2).

This trail corridor passes through the heart of a series of 19<sup>th</sup> Century suburban communities in northern Prince George's County.<sup>1</sup> Much of the corridor is bounded by these turn of century residential neighborhoods. Other parts are bounded by commercial town centers, or old but still active industrial areas. Given the relatively large numbers of people who live within a half mile of the trail, it is expected to get high volumes of recreational use, especially on weekends. Users will include pedestrians, people walking their dogs, people pushing strollers, joggers and runners, skaters and bicyclists.

This trail is also expected to serve as a major non-motorized transportation corridor for bicyclists, skaters, runners and pedestrians. It has a wide variety of trip generators immediately adjacent to the corridor which are well distributed over the corridor's entire length. These include three town centers, the University of Maryland, the Anacostia Tributaries Trail System, a number of M-NCPPC park facilities, restaurants, schools, two metro stations, an office park, and other retail establishments. In Hyattsville, the trail corridor forms the eastern boundary of a residential and Arts District redevelopment project that is revitalizing the community.

## Trail Name

This report refers to the trail as the Rhode Island Avenue Trolley Trail, taking the name from the street upon which the streetcar was located throughout this portion of the corridor. Currently, in College Park, the trail is named the College Park Trolley Trail. This name is somewhat fitting as it is a trolley-trail conversion located in the City of College Park, however, no more accurate than Rhode Island Avenue Trolley Trail as the historic trolley line was called the Washington, Berwyn and Laurel Railroad.

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<sup>1</sup> While suburbanization of the area dates to the 19<sup>th</sup> century, settlement dates even further back to the late 1600s and 18<sup>th</sup> Century.

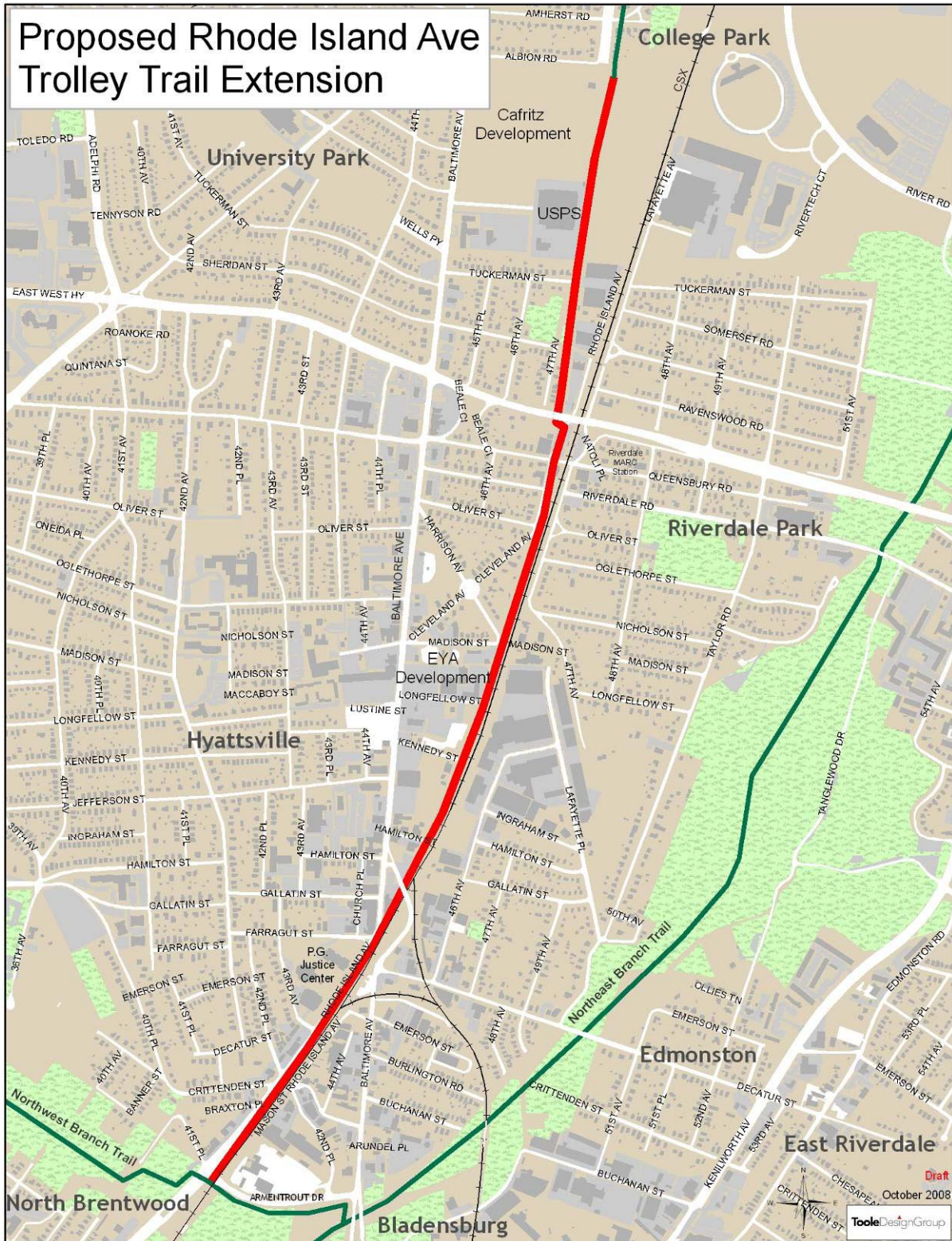


Figure 1: Map of Project Area



Lack of a single name for these two trails, which will soon be one, is likely to create confusion in the community. Public and other communication about the trail may be in conflict. Multiple names for a trail may complicate efforts to promote use of the trail for transportation. Multiple names can also present a problem in the event of an emergency; as the public needs a single reference for the facility when they call 911 and response personnel need simplicity as well to ensure that they arrive at the correct location.

It may seem logical to take the railroad name for the trail, the Washington, Berwyn and Laurel Railroad (WB&L), yet none of the communities in the historic name are associated with the current conversion of the trolley line to a trail, making this a potential misnomer as well. Conversely, while the communities driving trail development, College Park, Riverdale (today Riverdale Park), and Hyattsville were all station stops on the WB&L streetcar line, they are not the communities for which the transit line was named.

If the College Park Trolley Trail naming pattern is continued there could be three or more different trails names, one for each segment of trail based upon its municipal location; which would be problematic for reasons described above. However, if the Rhode Island Avenue Trolley Trail name is used, College Park may need to formally change the name of its portion of the trail, creating some political difficulty.

To address these issues, this concept plan recommends that the three municipal councils and M-NCPPC conduct a naming contest or other process to settle upon a single name that works for all of the communities along the line and the managing authorities. For the purposes of this report, Rhode Island Avenue Trolley Trail (RIATT) will be used to refer to the proposed facility.

## **A Transportation and Recreation Facility**

Between Albion Street and Armentrout Drive, this corridor offers a number of transportation benefits that many urban trails do not, including the following:

- Only one at-grade roadway crossing in a 2-mile stretch.
- A relatively wide right of way that can support utilities, mature vegetation, and a dual treadway trail (one hard surface for “wheeled” users and a soft surface for runners and pedestrians).
- Direct access to residential streets and the heart of historic town centers.
- A relatively flat grade which avoids the hills that adjacent roadways do not avoid.

As a result of these benefits, it is recommended that the RIATT be designed and developed to maximize its potential as a non-motorized transportation corridor as well as a recreational greenway.

## Design Guidelines

**Rationale for Recommended Trail Width and Typical Cross Sections:** Based on the experience of other communities in the region with comparable trails and settings, peak volumes in the range of 150 to 200 users per hour are expected, including both transportation and recreation trips. Peak periods can be expected to occur between May and October during weekday mornings and afternoons, and at mid-day on weekends. While these volumes are not expected within the first year or two after construction, they can be expected within 4-5 years. These volumes are expected for the following reasons:

1. The levels of current and future mixed-use redevelopment immediately adjacent to the corridor; as well as the demographic that this development is expected to attract to the area.
2. The existing density of population within close proximity to the trail.
3. The ease of trail access as proposed by this report.
4. Completion of this portion of the trail will create an ~6.5 mile trail between Hyattsville and Beltsville. This much longer non-motorized transportation and recreational facility link offers many more trip origins and destinations and wider variety of recreational experiences.
5. The convenience, safety and greenway characteristics as described above, making it very attractive both for transportation and recreation, as well as for a wide age range of trail users.
6. The proximity of the trail to the University of Maryland as a destination for both off-campus students and employees.
7. The proximity of the trail to popular neighborhood retail and restaurant establishments.
8. The traffic congestion on Route 1 and lack of a bicycle-friendly environment on this roadway.
9. The linkages with the existing Anacostia Tributaries Stream Valley Trail System
10. The overall high cost of motor vehicle usage, and likely increase in demand for convenient, non-polluting transportation options.

Using peak volumes and the mix of users expected for a trail, the FHWA's Shared Use Path Level of Service model provides useful guidance for establishing key design parameters, such as trail width. It recommends an 11-foot width as optimal for mixed-use paths in urban areas with normal to high user volumes.<sup>2</sup> The eleven foot width will allow faster users to comfortably pass slower users in the center of the trail, even if the opposing travel lane is occupied.

The 1999 AASHTO Guide for the Development of Bicycle Facilities establishes 10-feet as a standard width for shared use paths and urges consideration of 12 feet for trails in urban areas. This guide also recommends a 5 foot offset or buffer from the edge of the roadway for trails located adjacent to streets.

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<sup>2</sup> <http://www.tfhr.gov/safety/pedbike/pubs/05138/>



Toole Design Group is currently drafting a revised bicycle facility design guidance document for AASHTO, which will recommend the 11-foot width for future urban trails. Moreover, the Maryland SHA has adopted 11-feet as its recommended shared use path width.<sup>3</sup> As a result, to meet the needs of future trail users and match the likely future standards, an 11-foot width is recommended for the RIATT, wherever it is physically feasible.

ROW constraints in some parts of the corridor, especially south of downtown Hyattsville, will make it difficult to achieve optimal geometric design goals. For this reason, trail width and treadway design guidelines are addressed separately for the two distinct trail segments making up this project: 1) Armentrout Drive to Ingraham Avenue, and 2) Ingraham Avenue to Albion Road.

## **A.—Armentrout Drive to Farragut Street**

### Design of Trail Width and Treadways

**Existing Conditions:** Generally, between Armentrout Drive and the Alternative Route 1 overpass, the proposed location for the trail is between Route 1 and the CSX railroad tracks, however this strip of land is fairly narrow and ROW constraints are expected. None-the-less, it is physically large enough to contain a 10-11 foot path while retaining a sidewalk and vegetated buffer adjacent to Route 1.

The ROW issues that are expected revolve around the exact location of the property boundaries of the CSX railroad and State Highway Administration ROW for Route 1 and the nature of likely construction proximity restrictions associated with an existing fiber optic cable already located within this corridor.

The corridor also includes a number of large power poles, and many other physical appurtenances such as signal poles and control boxes, lighting poles, cable/phone junction boxes, street signs, etc., further complicating design. The area is also lined with both mature and young trees, including Maple, Pine and other species. Grass is the predominant ground cover, and the topography varies from fairly level to undulating, with drainage swales of up to ~5 feet in depth. An existing 5 to 8-foot sidewalk is located against the curb of Route 1 from downtown Hyattsville to Crittenden Street. There is no sidewalk on the east side of Route 1 south of Crittenden.

Because of these ROW and physical constraints, step one of this study included examination of four possible options for threading a trail through this area. A summary of this analysis follows and is concluded with documentation of the selected alternative.

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<sup>3</sup> Bicycle and Pedestrian Design Guidelines: Maryland SHA, May 2007

**Alternatives Analysis:**

- **Option 1** would fully utilize the space between Route 1 and the CSX railroad line to locate an optimum trail and side walk design without relocation of the eastern curb edge of Route 1. The typical cross section would be, from west to east, a 3-5 foot grass buffer adjacent to Route 1, a 5-10 foot sidewalk, a 1-3 foot grass buffer and a 10-11 foot paved pathway; generally leaving 15 or more feet of separation from the CSX tracks, and preserving as many high value trees as possible. This option would include splitting the trail around trees or power poles using two one way treadways for each direction of travel.
- **Option 2** would minimally utilize the space between Route 1 and the CSX rail line to locate a combined trail and sidewalk adjacent to Route 1. The typical cross section would be a 4-5 foot buffer and an 8-10 foot trail treadway serving all bicyclists, pedestrians and transit users on the east side of Route 1.
- **Option 3** would utilize the west side of Route 1 providing a combined pedestrian and bicycle travelway on an 8-11 foot treadway. A 4-5 foot wide buffer between the trail and the road would be provided in select locations.
- **Option 4** would utilize the east side of Route 1 as in options 1 and 2. However, it would include reconfiguration of both the median and eastern curb of Route 1. Surplus left turn and acceleration lanes would be narrowed or eliminated, concrete medians would be narrowed or eliminated, and travel lane widths would be made consistent at 11-12 feet. The typical cross section south of the Courthouse would include a 5 foot buffer off set from the curb and an 11-foot wide shared use path. North of the Courthouse the cross section would be the same as option 2 above.

**Pros and Cons:** Table 1 below describes the advantages and disadvantages of each of the options described above.

**Table 1: South Hyattsville Alignment and Design Alternatives**

Alternative Option I - Trail in CSX ROW	
Advantages	Disadvantages
Trail is located in existing buffer area, roadway geometry is not disturbed	Acquisition of Right-of-Way likely to be required. It may be expensive or unattainable. Issues with CSX RR & buried Fiber Optic Cable easement)
Appropriate buffers between road, sidewalk, trail and railroad can be provided throughout most of the corridor	
The quantity and duration of pinch points where the trail and/or buffer must be reduced to less than minimum standards will be minimal.	
Can design to retain most of the valuable trees	
Conflicts between trail users and pedestrians seeking access to transit can be eliminated or minimized.	
Obstructions which will reduce trail width, such as traffic signals, equipment boxes, traffic signs, utility poles and signs can be relocated or designed around.	
	Amount of regrading and piping of drainage likely to be greater than Option II below.

Alternative Option II - Trail along East Side of US 1	
	Reduces amount of Right-of-Way issues that may arise with CSX, RR and buried Fiber Optic Cables.
Buffer between the trail and CSX railroad will be very generous.	Appropriate buffers between the road and sidewalk, and road and trail will be hard to achieve.
	The quantity and duration of pinch points will be maximized, reducing the Trail Level of Service significantly.
Most of the least valuable pine trees will be retained as a buffer between the trail and the railroad.	Many of the most valuable trees will be lost.
	Trail will need to be combined with the sidewalk in many areas, presenting significant conflicts with pedestrians and transit patrons.
	Obstructions which can reduce trail width: will be more difficult to avoid or relocate. These include mature trees, traffic signal equipment, traffic signs, Fiber Optic Cable markers, utility poles, bus stops
Amount of regrading and piping of drainage will likely be less than Option I above.	
Alternative Option III - Trail along West Side of US 1	
<u>Advantages</u>	<u>Disadvantages</u>
In some areas under utilized, existing roadway shoulder can be used for trail ROW.	Requires acquisition of property from multiple property owners to accommodate trail.
Achieving this roadway shift would allow for a complete streetscape renovation of Route 1 in this section, which would be a plus for Hyattsville and the commercial viability of adjacent properties.	Appropriate buffers between the road and trail will be hard to achieve, unless the entire roadway is shifted east from one end of the project to the other.
	An additional at-grade crossing of Route 1 traffic will be introduced at Farragut St., presenting safety and design issues, and degrading trail level of service.
The safety of trail users crossing Armentrout Drive will be greatly enhanced as it will be moved to the leg of the intersection with almost no traffic.	Four additional trail/street crossings (plus driveway crossings) will be introduced, creating significant traffic safety issues typical of sidepaths on arterials with frequent intersecting cross streets
	Unless the roadway is relocated to the east, obstructions which reduce trail width, such as traffic signal equipment, utility poles, and buildings will be difficult to avoid or relocate.
	Requires portion of existing roadway for trail use; conflicts with right-side bus stop bay must be addressed at the Justice Center.
	Trail will need to be combined with the sidewalk throughout most of the corridor, presenting significant conflicts with pedestrians, business patrons and transit patrons.
	On-Street parking may be lost or compromised.

Alternative Option IV - Trail along East Side of US 1 w/ Roadway Shifting	
Narrower roadway may reduce traffic speed	Requires shifting of roadway and median to accommodate trail
Generally avoids CSX ROW, may eliminate the need to acquire additional ROW, or at least will minimize it.	
Appropriate buffers between road, sidewalk, trail and railroad can be provided in the southern section of the corridor.	Requires reduction in lane and median widths.
The quantity and duration of pinch points where the trail and/or buffer must be reduced to less than minimum standards will be less than Option II. The pinch point at the location of the centenary RR structure just north of Armentrout Drive can be eliminated.	May require elimination of the acceleration lane just north of Armentrout Drive.
Conflicts with some utility poles will be avoided or minimized, eliminating the need to relocate.	An increase in tree preservation is unlikely.
	A reduction of transit and trail user conflicts at bus stops will not be reduced much.

**Alternative Selected:** After review of the pros and cons by M-NCPPC officials, representatives from the Cities of Hyattsville and Riverdale Park, and County Councilmember Eric Olson's Office, Option 2 was selected as the most prudent at this time. The primary reason for selecting Option 2 was a strong desire among all parties to move the project forward in the near future and build as much of the trail in this corridor as possible with existing funding and funds reasonably expected to be obtainable, such as a state Transportation Enhancements award. This option was supported by the consultant team.

It should be noted that there was general agreement that if approved by SHA, it would be preferable to go with Option 4. Option 4 would increase the space available for the trail and buffer by narrowing the roadway from Armentrout Drive to Crittenden, and potentially in other areas where wide medians and unused left-turn lanes exist. However, at this time it does not appear that Prince George's County has the funding available to cover the added costs of this approach. And moreover, the current SHA Capital Improvement Program (a six year spending plan), does not have programmed (funded) improvements slated for this portion of Route 1.

Option 1 was not expected to be affordable or feasible due to the expected cost of ROW and track record of CSX railroad with regard to accommodating trails adjacent to their rail lines. Option 3 was not found to be desirable from a safety and operational point of view and did not offer enough potential cost savings to make it attractive despite its other drawbacks.

**Design Approach:** From Armentrout Drive, north to Farragut Street, the ROW is highly constrained. The primary constraints are the boundary location of CSX railroad property, which is typically well off of the western most tracks, and the extent of construction restrictions relative to an existing fiber optic cable located between the tracks and the sidewalk along Route 1. Based on the survey data the following list

shows available State Highway Administration ROW (Route 1) from the face of existing curb to the CSX property boundary.<sup>4</sup> These widths are presented from south to north, i.e. from Armentrout Drive to Farragut Street:

- From Armentrout Drive to Crittenden the ROW gradually widens from 11-14 feet; with one location of only 9 feet.
- From Crittenden to 42<sup>nd</sup> Place it varies from 14-15 feet
- From 42<sup>nd</sup> Place to 43<sup>rd</sup> Street it narrows from 15-9 feet
- From 43<sup>rd</sup> Street to Farragut Street it varies from 13 - 15 feet from

Given the spatial limitations described above, the key design criteria that will effect trail width and location pertains to the space allocated to the buffer between roadway and trail. Current AASHTO guidance requires providing either a 5-foot wide vegetated buffer between the face of curb and edge of trail, or a 3.5-foot buffer<sup>5</sup> with a vertical barrier. SHA concurs with this guidance and has communicated that it will require conformity to this design approach for plan approval. It should be noted that the current AASHTO guide does not specify why a barrier should be provided or what type of barrier. Toole Design Group interprets the guidance to be based upon the need to keep the trail user who may stray from the trail (such as a novice child learning to ride a bicycle) from going immediately into oncoming traffic. Where a 5-foot side recovery zone cannot be provided a vertical barrier designed to keep trail users on the trail is prudent. Given these constraints, the following approach to trail design is recommended:

Available ROW less than 9 feet (no drawing provided):

- 3.5-foot buffer with vertical barrier
- 4- to 5.5-foot trail

Available ROW 9 to 12.5 feet (see Figure 2, CS-A on page 10):

- 3.5-foot buffer with vertical barrier
- 5.5- to 9-foot trail width

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<sup>4</sup> At the time of writing this report, the surveyed property boundary between the CSX railroad and State Highway Administration ROW for Route 1 is approximate, and the nature of construction restrictions associated with the existing fiber optic cable already located within this corridor are unknown to Toole Design Group.

<sup>5</sup> 3.5 feet is the minimum buffer possible due to the need to keep vertical elements adjacent to moving traffic at least one foot off of the edge of the road and those adjacent to the trail at least 2 feet off of the edge of the trail. This leaves 0.5 feet for the width of the vertical element itself.

Available ROW 12.5 to 14 feet (see CS-B):

- 3.5- to 5-foot buffer with vertical barrier
- 9-foot trail width

Available ROW 12.5 to 14 feet (see CS-C):

- 5-foot (or greater) vegetated buffer (no vertical barrier required, fence optional)
- 9-foot trail width

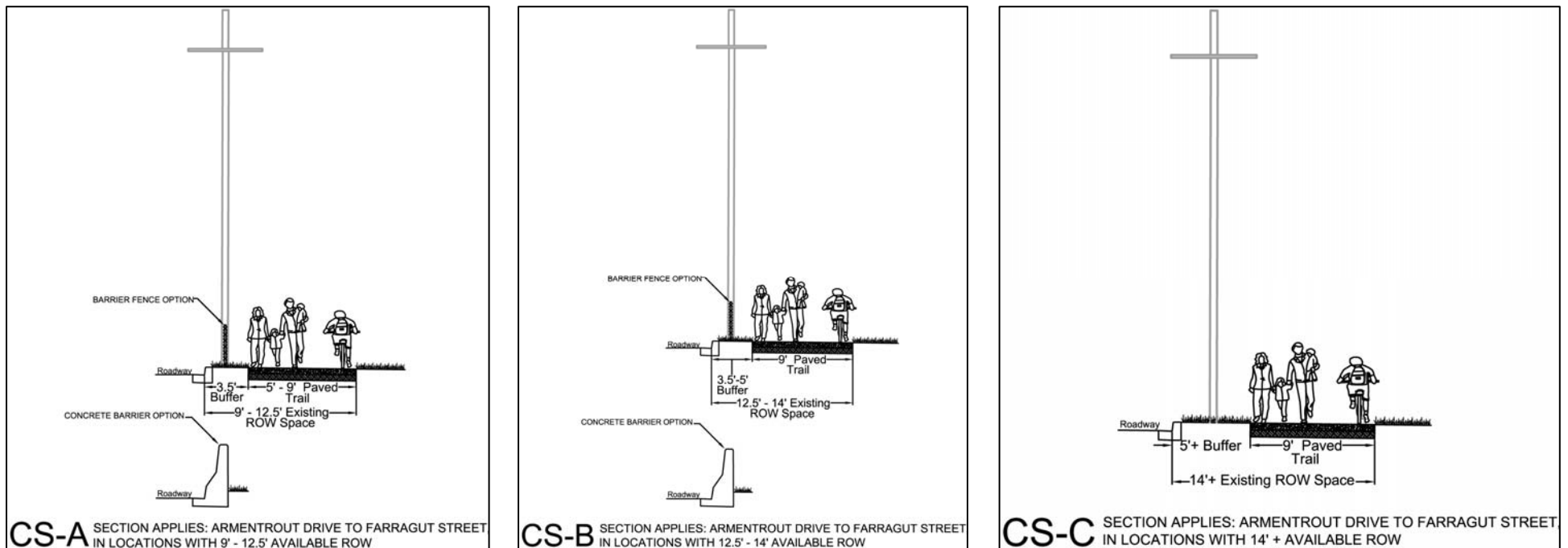


Figure 2: Typical Cross Sections along Rhode Island Avenue



Cross sections A and B show a fence as a vertical barrier with a half jersey barrier as another option. For aesthetic and trail experience reasons, a fence is preferred over a jersey barrier, however due to the speed of vehicles between Armentrout Drive and Crittenden Street, in this area a half jersey barrier would provide trail users greater protection (than a curb alone) from adjacent traffic. Such barriers can be painted or otherwise treated to improve their aesthetic quality.

Throughout the corridor, whether using a barrier or fence, periodic breaks in the barrier should be provided to lessen the potential for trail users to feel “hemmed in.” This approach is also an effective CPTED (Crime Prevention Through Environmental Design) design practice, providing trail users an actual escape option if a threatening person is encountered.

It should be noted that while Option 2 was selected to avoid the cost of reconstructing portions of Route 1, ROW constraints will require relocation of a number of obstructions and utilities, including traffic signal poles, signal control boxes, cable boxes, etc. Moreover all of the valuable trees in the corridor (non pines) will need to be removed and replaced with new plantings. These requirements will result in significant costs, blunting a portion of the savings achieved by Option 2.

#### Alignment Around Power Poles and Curvature in the Trail Layout

Between Armentrout Drive and Farragut Street there will be a number of locations where the existing electric power poles will not be located in the 3.5 - 5-foot plus buffer. They will be located within the 7-9-foot area where the trail treadway needs to be located. Because it is assumed that the cost of moving one of these utility poles will be prohibitive for the project, there are two other options that can be used to address the problem:

- Split the trail in half (or rough halves) and route the southbound treadway on the west side of the pole adjacent to the buffer and route the northbound treadway on the east side of the pole (see CS-G on page XX for a drawing of this approach). Depending on the total ROW available and the offset of the pole from the curb, it may be necessary to narrow one or both treadways to 3 feet in width. Moreover, while 2 feet is the recommended minimum trail offset from a vertical element, 1 foot may be all that is possible.
- Narrow the trail significantly (possibly to as little as 6 feet) and route the entire trail to one side of the pole or the other, whichever provides the greatest space to work with. Again, a 1-foot offset from the edge of the trail to the pole may be all that is possible.

To ensure user safety in these compromised situations, signs, warning striping on the treadway, rumble strips or other devices designed to inform users of the compromised conditions and promote cautious behavior should be used.

## Trail Access

South of Farragut Street the RIATT has only select points of access from the Hyattsville neighborhood west of the corridor and only one from the east (Edmonston) because of the adjacent CSX freight railroad line. All of these access points are at intersections with Route 1: at Armentrout Drive, at Crittenden & 42<sup>nd</sup> Place, at 43<sup>rd</sup> Street and at Farragut Street.

**Armentrout Drive and Route 1:** This intersection was assessed extensively during the existing conditions phase of this project (see locations 1-2 in Table 2 below). This is the location where the RIATT will connect with the Northeast Branch Trail which crosses Route 1 on the south side of Armentrout Drive. This intersection has a host of bicycle and pedestrian issues which should be addressed given the presence of a major recreational trail crossing and new business activity on the northwest corner. Following is a summary of deficiencies:

- Sight lines between westbound approaching drivers and future southbound trail users at the northeast corner;
- No crosswalk or pedestrian signal actuators for crossing between the northeast and northwest corners, or between the southwest and northwest corners;
- Poor accessibility of pedestrian signal actuators at the southeast corner and south median refuge.
- Poor design of, or total lack of curb ramps;
- Poor design of trail user waiting areas and of the median refuge on Route 1;
- Lack of median refuge in Armentrout Drive;
- Insufficient time allocated to pedestrian crossing phases;
- No control of left turning traffic from Armentrout Drive during the pedestrian crossing phase on south side of the intersection; and
- Poor design of trail approach on southwest corner.

It is likely that there will not be sufficient funds allocated to the trail construction project to address all of the deficiencies at this intersection. However, it is important that the project accomplish improvements of the Armentrout Drive crossing. The following is recommended:

- Extending the curb of the northeast

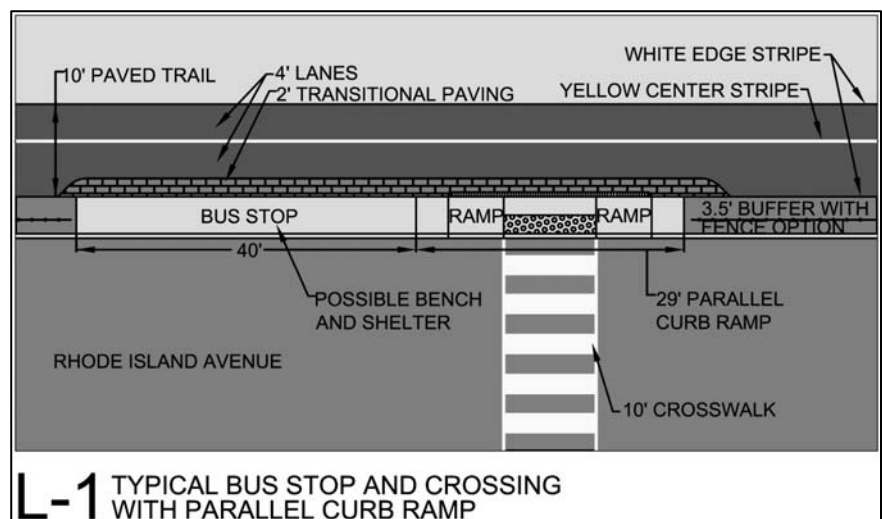


Figure 3: Access Design Along Route 1 - Parallel Curb Ramp

- corner into Armentrout Drive and tightening the curb radius;
- Providing a well designed waiting area on the northeast corner, proper trail width curb ramps and a bicyclist-accessible pedestrian signal actuator.
- Providing a median refuge;
- Installing countdown pedestrian signal heads;
- Improving the curb ramp and waiting area on the southeast corner and making the pedestrian signal actuator accessible for bicyclists; and
- Adjusting the signal phases to ensure sufficient trail user crossing times and turning movement controls.

North of Armentrout Drive the trail project should improve access at locations 3-8 as listed in Table 2 below. In summary, these improvements should include two relocated bus stops, consideration of two median refuges, installation of countdown pedestrian signal heads and re-striping six crosswalks with high visibility patterns. Because of ROW constraints in this area, parallel curb ramps should be used at all crossings between Armentrout Drive and Farragut Street (see Figures 3 and 4).

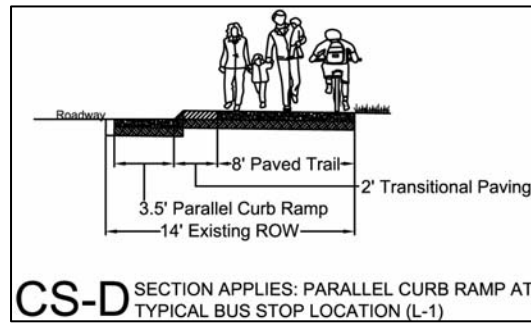


Figure 4: Cross Section at Parallel Curb Ramp

Table 2: Trail Access Locations (listed south to north)

Location #	Access Point / Cross Street	Location & Improvements	Responsible for Construction	Access Direction & Areas Served
1	Armentrout Drive at Route 1 (RI Ave)	New curb ramps, crosswalks, pedestrian signal equipment, etc. at the Northwest Branch Trail on SE corner	This Project	East—Bladensburg and Edmonston; South—Brentwoods and Mt. Rainier West--Hyattsville
2	Armentrout Drive at Route 1 (RI Ave)	NE corner receiving new crosswalk across Armentrout Drive and Route 1 from 41 <sup>st</sup> Place. Extend curb, improve sightlines, install median refuge, etc.	This Project	South—Brentwoods and Mt. Rainier West--Hyattsville
3	Crittenden at Route 1	SE corner receiving new crosswalk across Route 1 from eastbound Crittenden.	This Project; See Layout 1 (L1).	West--Hyattsville
4	42 <sup>nd</sup> Place at Route 1	NE corner receiving upgraded crossing across Route 1 from northbound 42 <sup>nd</sup> Place, consider eliminating left turn lane and installing a median refuge; Relocate bus stop to a location between 42 <sup>nd</sup>	This Project; See Layout 1 (L1).	West--Hyattsville

		Place and Crittenden.		
5	43 <sup>rd</sup> Street at Route 1	SE corner receiving new crosswalk across Route 1 from eastbound 43 <sup>rd</sup> Avenue	This Project; See Layout 1 (L1).	West--Hyattsville
6	43 <sup>rd</sup> Street at Route 1	NE corner receiving new crosswalk across Route 1 from westbound 43 <sup>rd</sup> Avenue	This Project; See Layout 1 (L1).	West--Hyattsville
7	Install a new mid-block xing across from the front door of the southern most building of the County Justice Center	In conjunction with the new xing, relocate bus stop located at the site of the closed CSX RR underpass to the east end of the new xing.	This Project; See Layout 1 (L1).	West--Hyattsville
8	Farragut Street at Route 1	SE corner receiving upgraded crossing from eastbound Farragut St.	This Project; See Layout 1 (L1).	West--Hyattsville

## **B.—Farragut Street to Ingraham Street**

### Trail Width and Treadways

The old trolley line corridor from Farragut Street north to Ingraham Street does not have the same ROW constraints that exist south of Farragut. In this area, much of the trail will be on a City of Hyattsville-owned parking lot, or other city property. It is expected that the trail cross section in this area will include an 11-foot paved path. In some areas the ROW will provide space to include a 6 to 8-foot soft surface trail on the west side, if this option is desired by the community (see full discussion in Section C of this report). The context of the trail corridor in this area changes every few hundred feet as it passes by the backsides of buildings, along parking lots and under bridges. As a result, the following design issues will need to be addressed, however, none are expected to create serious challenges:

- The gateway garden at the southern entry to downtown Hyattsville will likely be impacted by the trail alignment. It will either need to be reduced in size, moved or reconfigured, however sufficient space exists in the area to design a new attractive gateway to Hyattsville that will include the trail and serve both motorists and trail users.
- Parking on the east edge of the Hyattsville city parking lot will need to be reconfigured and some parking spaces may be eliminated. It may be possible to replace any eliminated spaces on the west side of the trolley line ROW, north of the Alt US 1 overpass.
- A trailhead is recommended for the area at the north end of the parking lot. By placing a trailhead at this location the quantity of parking provided nearer to Franklin’s Restaurant and other downtown businesses can be maximized. Moreover, trail users who need parking will be more inclined to use the spaces at the north end of the lot, which are currently underutilized unless there is a special event.
- Special attention should be given to landscaping, use of art, and other aesthetic treatments in this area to ensure screening of the backsides of

buildings, and trash storage and pick-up areas, separation from the active railroad ROW, beautification of the bridge abutments, and general enhancement of an area that is dominated by asphalt and concrete.

Alignment Around Power Poles and Curvature in the Trail Layout

Generally, the trail can be wholly aligned on one or the other side of the power poles in this area.

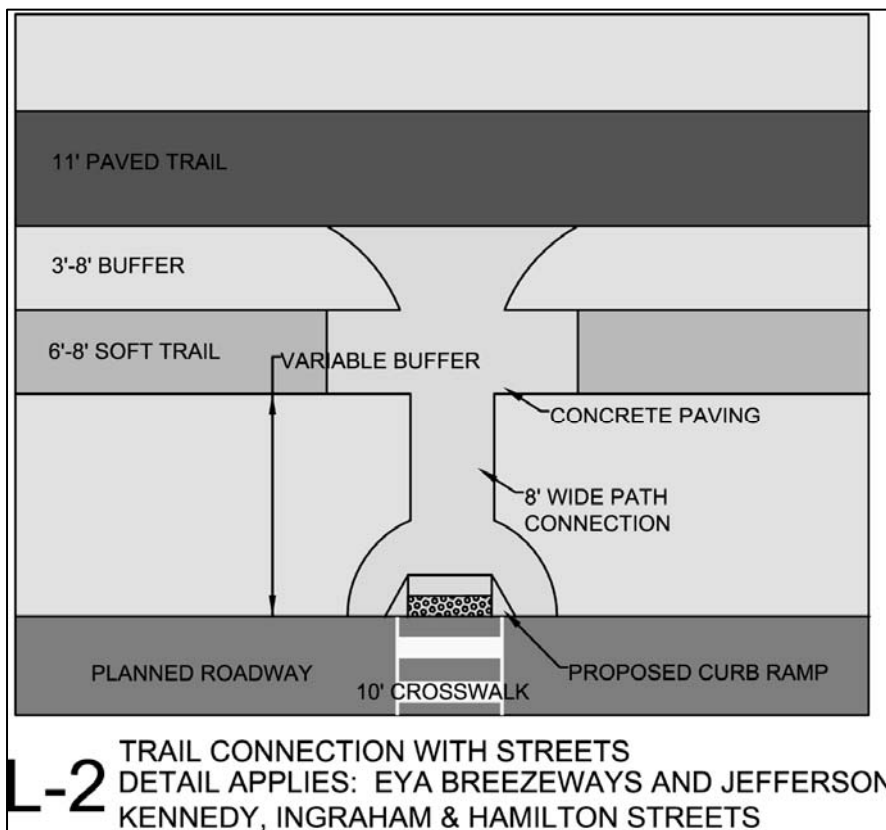
Trail Access

In this section, the RIATT has many points of access from the Hyattsville neighborhoods west of the corridor, as well as one of the few access points from east of the corridor. The design of trail access in this area is relatively straight forward. Layout 2 is a typical design that can be used at Hamilton Street, Ingraham Street and

locations in the EYA development. (Note that the soft surface trail in L-2 is optional.)

In addition to access from the sidewalk on the east side of Route 1 near Farragut Street, access locations 9-11 in Table 2 (continued) should be developed in this segment.

**Hyattsville Trailhead:** A trailhead should be developed at the north end of the Hyattsville city parking lot as a focal point for trail access in this area. Hard- and softscape features should be designed to create a uniquely Hyattsville signature on the trail. Because Hyattsville is committed to developing an Arts District, public art



**Figure 5: Typical Access Layout**

should be integrated into the landscape design. Amenities should include bicycle parking, seating, picnic tables, trash and recycling receptacles, a trail map, historic interpretation, a drinking fountain and shade trees. Covered bicycle parking should be provided in the City parking lot at a point nearby the Franklin's Restaurant. The stairway access to the Alt 1 bridge should be retrofitted with a bicycle rolling tray.



**Table 2 (continued): Trail Access Locations (listed south to north)**

Location No.	Access Point / Cross Street	Point of Access Detail	Responsible for Construction	Access Direction & Areas Served
9	Hyattsville City Parking Lot-- North End.	Access from Route 1 through the City Parking Lot adjacent to Franklin's Restaurant. Also access from southbound sidewalk on Baltimore Avenue (Alt 1) via Route 1.	This Project	West--Hyattsville & East--Edmonston
10	Hyattsville City Parking Lot, north of Baltimore Avenue	New trailhead and access at the north end of the parking lot. Also stair from northbound sidewalk on Baltimore Avenue (Alt 1) bridge to parking lot and across parking lot drive aisle to trailhead.	Exists	East--Edmonston
11	Hamilton Street	Curb ramp access to trail from dead end of Hamilton Street.	This Project; See Layout 2	

**C.—Ingraham Street to Riverdale Road**

**Trail Width and Treadways**

From the new Ingraham Street to Madison Street, there is generally sufficient ROW available to accommodate a dual treadway: i.e. both a paved asphalt path and a stone dust soft surface trail (see Figure 6).

**Soft-Surface Trail Design:**

While a variety of surface materials can be used for soft-surface treadways, crushed stone topped with stone dust or fines is recommended for expected heavy use and its low maintenance requirements. Stone dust will create a smooth and stable surface that is suitable for walking, pushing strollers, jogging and running. The width of the soft-surface path should be 6 to 8 feet, however it can be reduced to as little as 3 feet if needed. The soft-surface path should be located to the west of the asphalt path, to ensure direct linkages with sidewalks and crosswalks that provide trail access for pedestrians. By locating the soft surface trail west of the asphalt path, soft surface trail users will



**Figure 6: Dual treadway along the Schuylkill River Greenway in Philadelphia, PA**



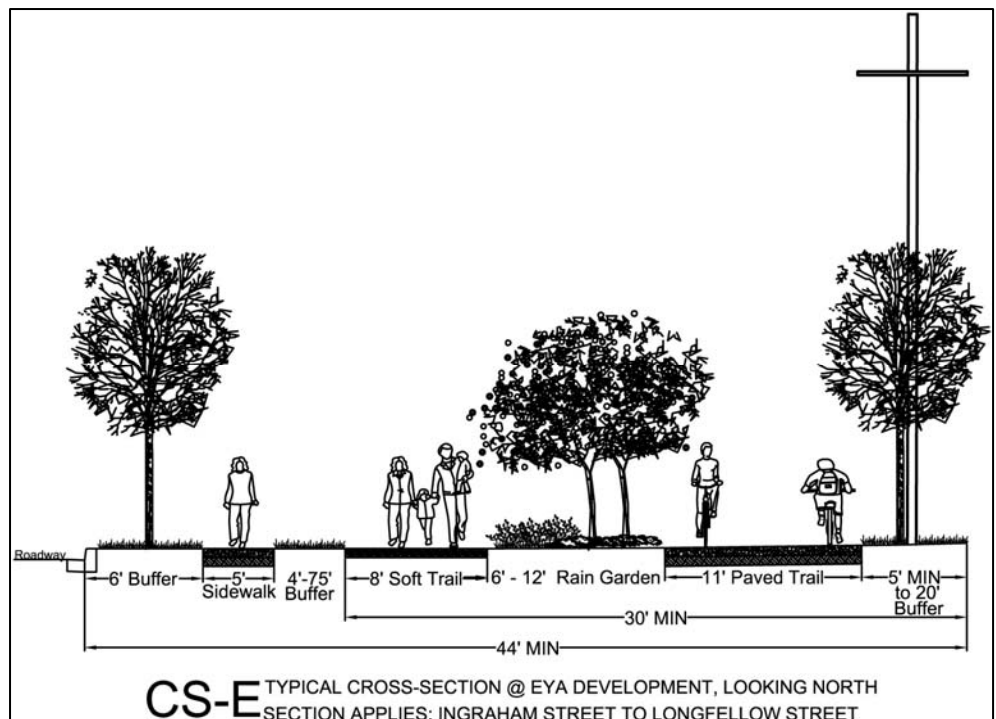
rarely be required to cross the path of the faster, wheeled trail users, thus reducing conflicts between trail users and providing a higher quality experience for both fast and slow moving trail traffic. Generally, the soft surface path should be separated from the asphalt path by 3 to 10 feet of vegetated buffer. To preclude the intrusion of gravel onto the hard surface treadway, where ROW constraints arise the soft-surface path should be merged with asphalt path rather than continued as a gravel shoulder of the paved path. Wherever the dual treadway design is implemented the type of buffer vegetation used can vary to fit the buffer width and overall context. Options include various combinations of grass, ornamental or native shrubs, rain garden plant material and ornamental or native trees. Plant materials should be selected also with CPTED principals in mind to ensure that good sightlines within the trail corridor are maintained.

The following cross section descriptions provide additional detail regarding recommended trail width and treadway layout as it applies to specific segments of the proposed trail:

**-From Ingraham to Longfellow Street**

In this section the trail will be constructed as a part of the adjacent development, a mixed use retail & residential community designed by EYA and currently under construction. Throughout most of the corridor adjacent to the EYA development, there is sufficient space for a hard surface path to be paralleled by a soft-surface trail as well as the sidewalk that is planned to be located on the east side of Road A (see Figure 7).

However, in the EYA development conditions approved by the County, EYA has agreed to develop a 10-foot wide hard surface trail. This treadway should be located so as not to preclude development of a parallel soft surface path located to the west, at a later date. Moreover, EYA may want to consider building an 11-foot trail, to conform to new



**Figure 7: Proposed Long Term Trail Design Adjacent to the EYA Development.**

urban trail standards.

**-From Longfellow Street to Madison Street**

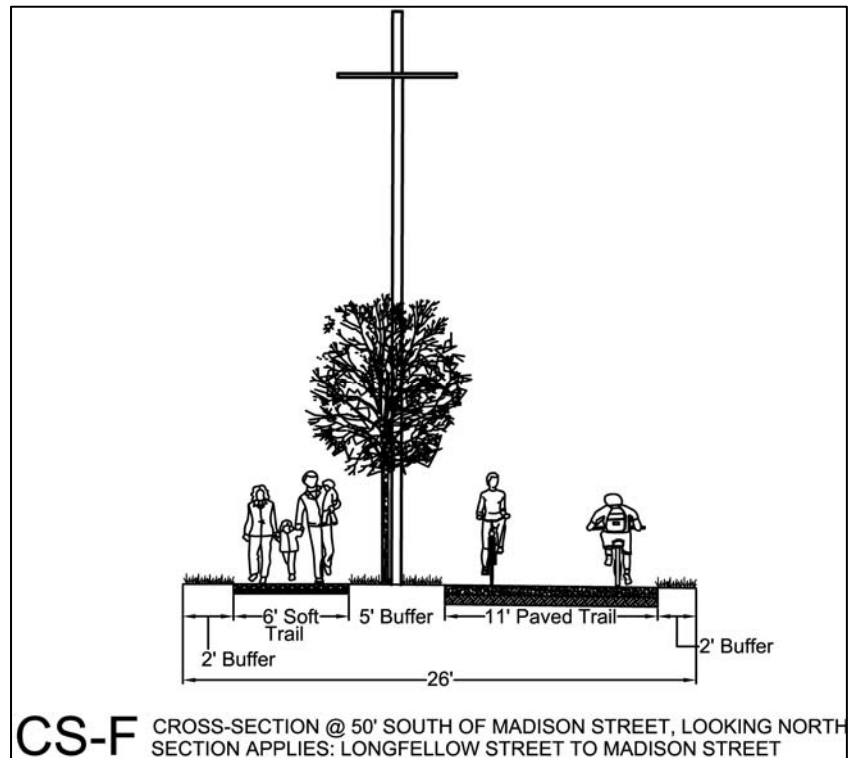
In this short segment of trail the paved treadway should be located east of the power poles so that a potential future soft surface treadway can be continued from the EYA development to Madison Street (see Figure 8).

**-From Madison Street to Cleveland Street**

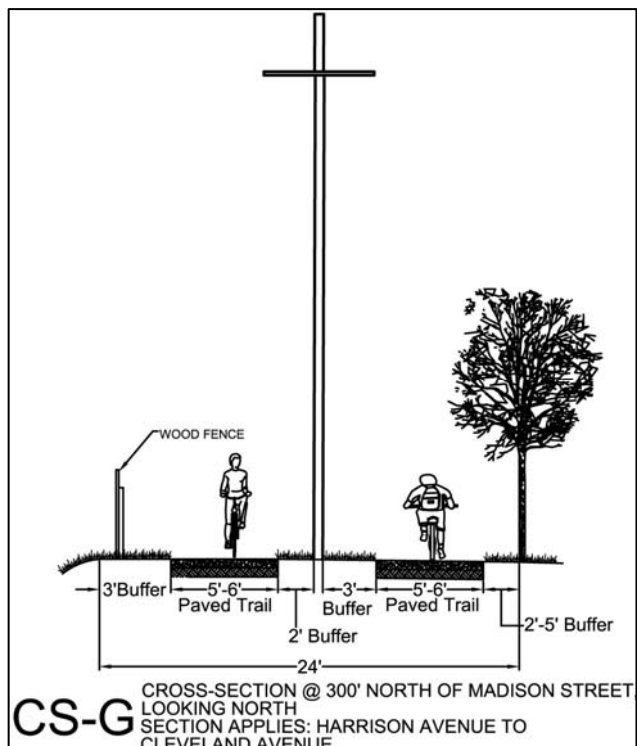
In this segment two cross sections may be possible, depending on the location of the fiber optic cables and distance of trail offset that is required. One option may be using a divided treadway, one for each direction of travel. A second option would be a single 11-foot treadway. If the trail is divided, the northbound treadway should be 5 feet wide and located east of the power poles the southbound treadway should be 5 feet wide and located west of the power poles. If a soft surface path is provided it may be located west of the power poles and separated from the asphalt path by 3-5 feet of lawn (see Figure 9).

**-From Cleveland/Oliver Streets to Riverdale Road**

At Cleveland and Oliver Streets the adjacent roadway is named Rhode Island Avenue. In this segment three cross sections are possible:



**Figure 8: Power Poles Can Separate Paved and Unpaved Paths**



**Figure 9: Power Poles Can Separate Treadways by Direction of Travel.**

- 1) Option 1: The width of Rhode Island Avenue can be reduced from 30 to 24 feet. A 5-7-foot buffer adjacent to the roadway can be maintained throughout. A 7-foot paved path can be located adjacent to the buffer. This slightly wider treadway can accommodate southbound trail traffic and northbound pedestrian traffic. A second 5-foot paved treadway can be located east of the power poles (see Figure 10).
- 2) Option 2: Again, the width of Rhode Island Avenue can be reduced from 30 to 24 feet. A variable 3 to 5-foot buffer and a variable 8 to 10-foot trail can be located between the face of curb and the line of power poles (no drawing provided).
- 3) Option 3: Rhode Island Avenue can be maintained at its current width. A variable 1 to 5-foot buffer can be located adjacent to the roadway. A 4-5-foot paved path can be located adjacent to the buffer. This treadway can accommodate southbound trail traffic. A second 5-foot paved treadway can be located east of the power poles. (No drawing provided.)

While three cross sections are possible along Rhode Island Avenue, Option 1 above is recommended. Option 2 and 3 each make it difficult to provide curb ramp access to the trail along the east side of Rhode Island Avenue. It is likely that ADA accessible ramps will not be feasible without compromising the trail and the safety of its users. While Option 1 eliminates parking on the east side of Rhode Island Avenue, currently underutilized parking is retained on the west side and is projected to be sufficient for town center events such as the Farmer's Market.

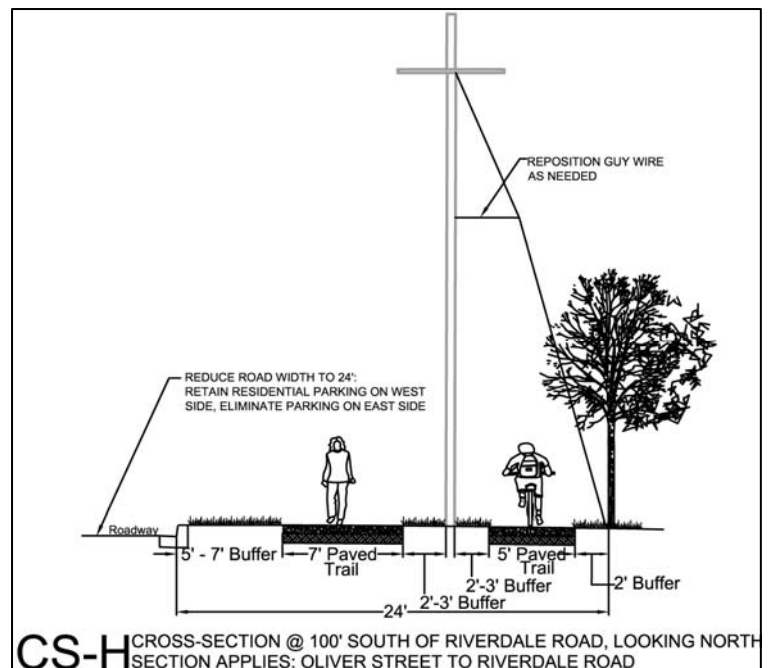


Figure 10: Option 1

### Alignment Around Power Poles and Curvature in the Trail Layout

In various locations along this section of the trail, ROW or other constraints will require the asphalt path to be reduced to less than 11 feet in width. Eight feet should be considered an absolute minimum. In some locations, the hard surface trail may be separated into north and south bound treadways to efficiently get around power poles or other constraints (see Figures 9 & 10). This design approach is already being utilized in sections of the trail that that have been built in College Park. In other locations, where one row of poles exists, hard surface trail may be laid out on one side of the poles and the soft surface trail on the other (see Figure 8).

Trail Access

The RIATT has many points of access from the neighborhoods west of the corridor; however it has no access from Edmonston to the east of the corridor because of the adjacent CSX freight railroad line. The layout of access paths, sidewalks and curb ramps should vary to address the unique circumstances of each location. Drawings L3-L5 provide examples of how access should be designed at Madison Street, Oliver Street and Riverdale Road. Table 2 continued describes access locations 12-20.

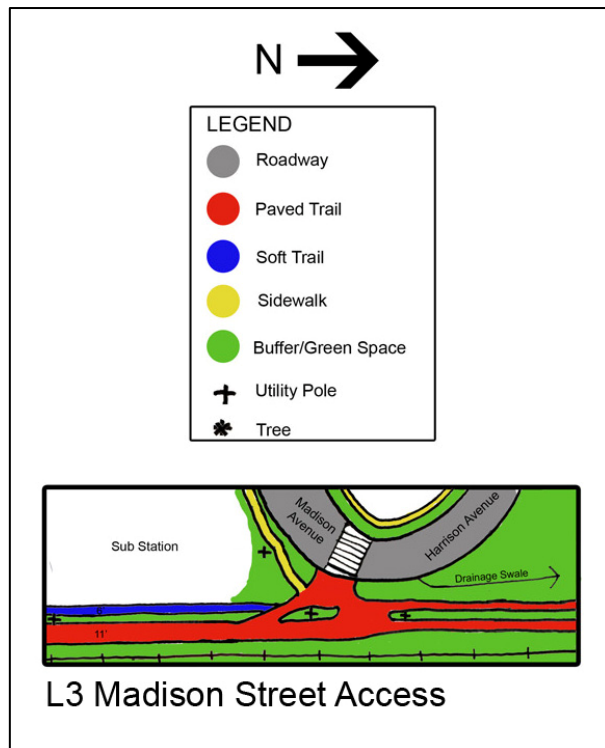


Figure 13: Access Design at Madison Street near PEPCO Substation

Figure 11: Access Design at Oliver Street

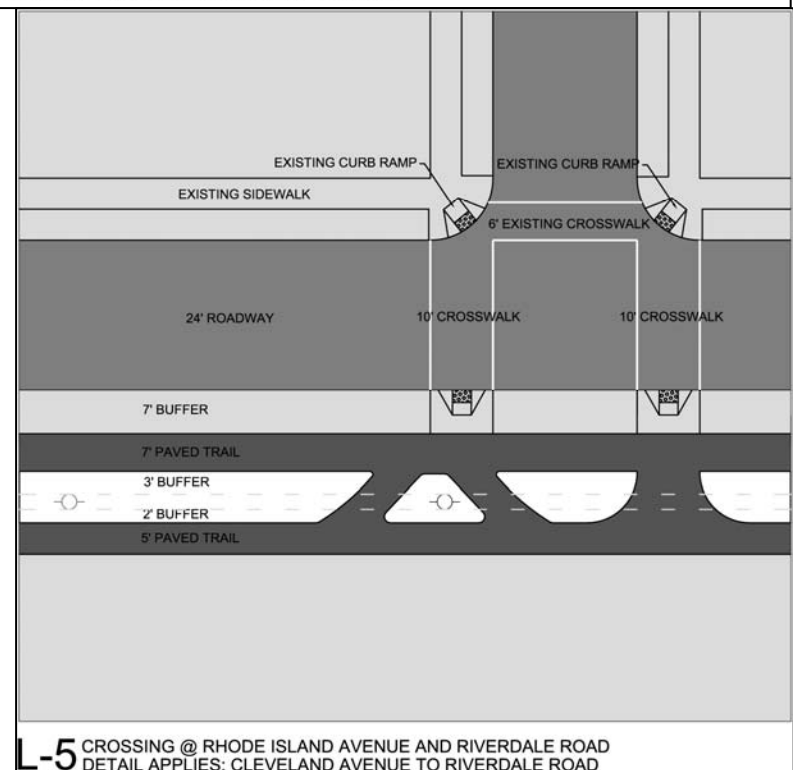
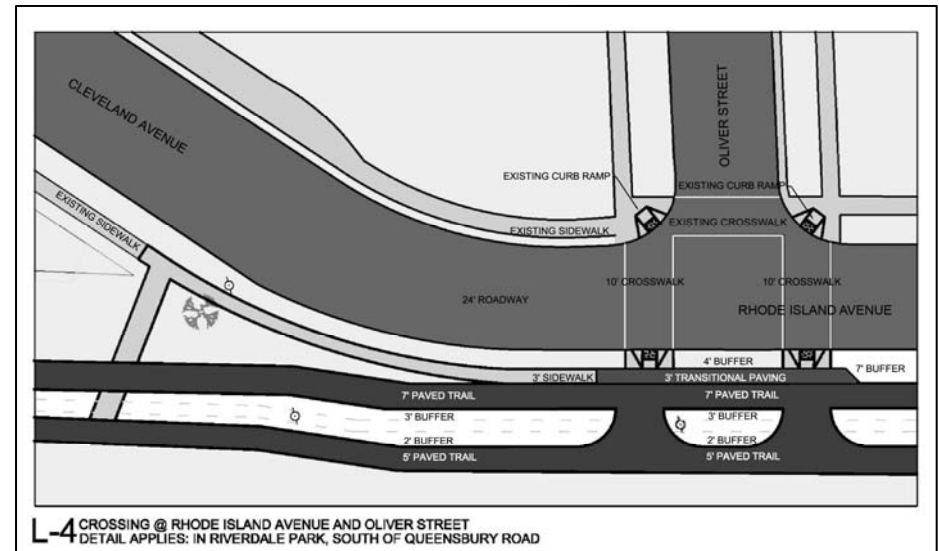


Figure 12: Access Design at Riverdale Road

**Table 2 (continued): Trail Access Locations (listed south to north)**

Location No.	Access Point / Cross Street	Point of Access Detail	Responsible for Construction	Access Direction & Areas Served
12	New Ingraham Street (EYA development)	Potential curb ramp and path across Future Arts District Hyattsville Development.	Unknown See Layout 2	Possible access point depending on development plans.
13	Jefferson Street (EYA)	Crosswalks and curb ramps on both sides of Jefferson, and path across plaza or open space should be provided.	EYA—Partially in existing plan. (Copy EYA layout for Longfellow)	West--Hyattsville
14	South end of Road A (EYA)	Crosswalk, curb ramp and path across open space should be provided by EYA development.	EYA—Not in existing plan. See Layout 2	West--Hyattsville
15	Residential Walk-Through	Crosswalk, curb ramp and path across open space should be provided by EYA development.	EYA—Not in existing plan. See Layout 2	West--Hyattsville
16	Longfellow Street	Path across plaza or open space should be provided by EYA development.	EYA - Modify alignment in existing plan.	West--Hyattsville
17	North end of Road A	Crosswalk, curb ramp and path across open space adjacent to south edge of sub station should be provided by EYA development.	EYA—Not in existing plan. See Layout 2	West--Hyattsville
18	Madison Street/Harrison Avenue	Crosswalk, curb ramp at end of Madison Street should be provided.	This Project See Layout 3	West—Hyattsville & Riverdale Park
19	Oliver Street/Cleveland Avenue	Crosswalks and curb ramps from sidewalks along Oliver Street should be provided.	This Project See Layout 4	West--Riverdale Park
20	Riverdale Road	Crosswalks and curb ramps from sidewalks along Riverdale Road should be provided.	This Project See Layout 5	West--Riverdale Park

**D.-- From Riverdale Rd. through the Riverdale Park Town Center Parking Lot**

**Trail Width and Treadways**

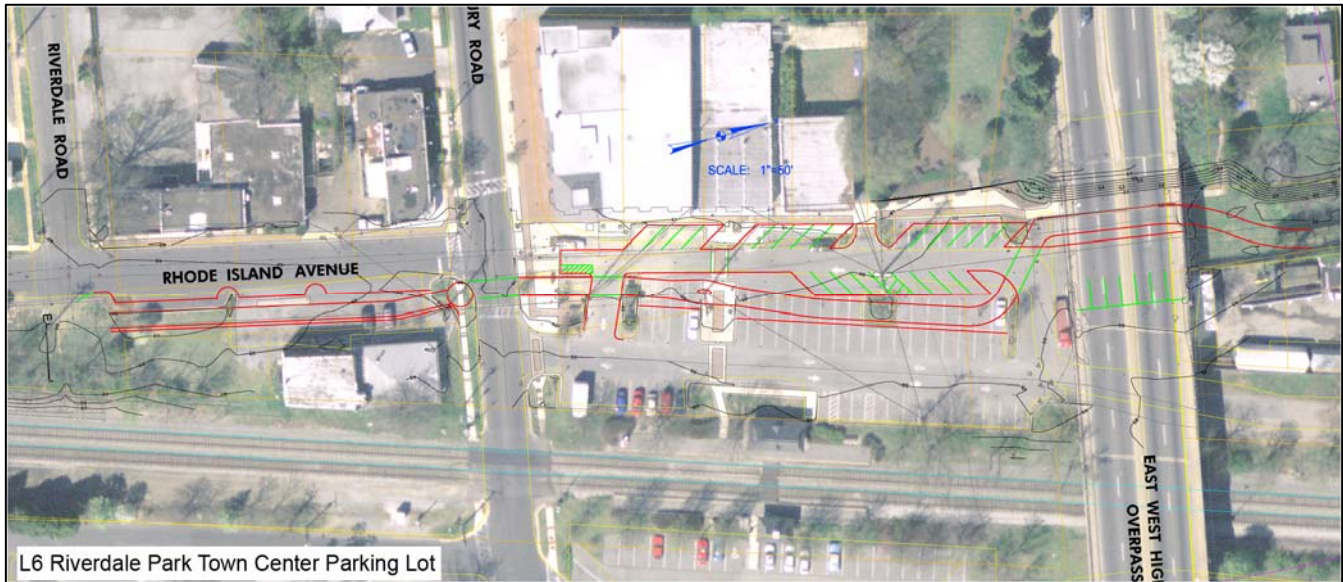
Generally, the hard surface path should be 11 feet wide between Riverdale Road and East-West Highway (see Figure 14). However in front of the businesses just south of Queensbury the trail can be narrowed to 9 feet in order to provide more space for pedestrian access or outdoor business activities. In the center of the parking lot, on the large pedestrian island, the trail should be split into two treadways around the



electric power pole, one for each direction of travel. Each treadway may be approximately 5-7 feet wide.

A number of alignment options through/around the parking lot were examined. For a number of reasons the option adjacent to the CSX tracks was found to be unworkable, primarily because of RR equipment and mature trees. Expanding the sidewalk on the west side of the parking lot was considered but found to be problematic due to creating pedestrian/trail user conflicts in front of the retail businesses and elimination of parking access directly in front of the shops.

**Figure 14: Proposed Alignment Through Riverdale Park Town Center (Layout 6)**



The alignment recommended (Layout 6) has a number of benefits that other alignments did not necessarily offer (see Figure 14).

- It preserves parking directly in front of the retail business strip.
- It aligns trail users in the proper/best location for crossing Queensbury Street.
- It retains one whole row of parking without modification.
- It avoids crossing the trail traffic across the two way drive aisle/street that provides access to a number of industrial businesses north of the parking lot. This street carries primarily truck traffic.
- It provides enough space for an 11 foot trail. It also provides enough space for 2 foot or greater clear spaces on each side of the trail. The buffer spaces should be sufficient to provide space for lawn, tree planting, fencing and bumper overhang that will not encroach on the travelway of the trail.
- No power poles will need to be relocated.
- It minimizes tree loss and replacement.
- It minimizes parking loss.

**Modifications to Parking:** A total of 18 parking spaces are lost with the alignment recommended. A total of 49 spaces are impacted. However, by using forty-five



degree, back-in-angle parking and for Class A/B small-size, we were able to replace 31 spaces. Existing parking is roughly equivalent to Class A/B small-size laid out in a different configuration.

The recommended layout has flexibility in a number of locations where additional parking can be regained:

- The northwest set of stalls near the open space could be retained as currently designed gaining one space.
- A parallel space or truck loading stall can be added just north of the large pedestrian island near the middle of the lot.
- The trail width under E-W Highway could be reduced and additional parallel or possibly head-in stalls could be added back to that area.
- Two to four parallel spaces could be added at the north end of the lot along the east-west drive aisle adjacent to the MD 410 overpass.
- Additional parking could be formally added to one or both sides of Rhode Island Avenue north of MD 410.

Some of the drawbacks to the recommended layout could also be mitigated with further design adjustments:

- The two sets of stalls on the western edge of the lot could be moved east a couple feet to reduce the pedestrian space lost in front of the retail establishments. This requires shifting the trail to the east and potentially reducing trail width to 10 feet, or
- The same two sets of stalls could be converted to parallel parking, increasing parking loss by 4 stalls, but significantly improving the pedestrian space in front of the businesses. This layout would be similar to the existing layout in this area, but with an enlarged sidewalk area.

#### **Opportunities:**

- The recommended layout provides an opportunity to move the clock pedestal to better location and improve the plantings on that island.
- Small trees in the existing landscape layout can be retained, or replaced with improved species because the planting areas can be enlarged to support shade trees.

**The Farmers Market:** A weekly Farmer's Market takes place in the parking lot on Thursdays. While a detailed analysis of the spatial needs of the market could not be analyzed, the recommended layout should serve the market needs in a similar fashion as the existing lot. However, a greater portion of the lot may need to be used for market stalls, the pedestrian circulation should be enhanced by having three parallel north-south corridors, the sidewalk fronting the retail, the drive aisle in front of the retail, and the trail itself.

Trail Access

The Riverdale Park town center will be a primary point of access for the RIATT. Because of the at-grade crossing of the CSX rail line at Queensbury, this location provides access for neighborhoods both east and west of the trail.

**Table 2 (continued): Trail Access Locations (listed south to north)**

Location No.	Access Point / Cross Street	Point of Access Detail	Responsible for Construction	Access Direction & Areas Served
21	Queensbury	Crosswalk and curb ramps at crossing of Queensbury.	This Project See Layout 6	West-Riverdale Park and Hyattsville; East—Riverdale Park & Edmonston
22	Historic Church Site	Stair to open space, but no pathway to sidewalk on E-W Hwy.	City of Riverdale Park	E-W Hwy eastbound sidewalk

**E.--From the East-West Highway overpass to Albion Road**

Trail Width and Treadways

In this segment, ROW should be sufficient to provide for a 6-8 foot soft surface path, a 5 to 10-foot separating buffer, and an 11-foot asphalt path. A 6-foot soft surface path width should be sufficient south of the Post Office facility (see Figure 15). Depending on the character and layout of the proposed Cafritz development near Albion Road, the 8-foot width may be more appropriate north of the Post Office facility (see Figure 16).

Alignment Around Power Poles and Curvature in the Trail Layout

The RIATT, like most trolley lines is almost arrow straight. However, development of an arrow straight trail is not desirable from an aesthetic point of view. The RIATT should take advantage of the generous width of the right of way north of Riverdale Park Town Center, to provide gentle curvature in the paved path. This will help maintain trail user interest and safety. Locations where the paved path must be threaded through opposing power poles provide an opportunity to add curvature. There may be other locations as well where available space will allow for breaking the potential monotony of a straight treadway.

As in the EYA segment of the trail where a soft surface trail is provided, it is recommended that it be located on the west side of the paved path at least as far north as the Post Office Facility. However, through the future Cafritz development, it may be preferred to have the soft surface trail on the east side of the asphalt path. The design of the Cafritz development and layout of buildings, roads and features in

the site plan should guide this decision. It does not present a problem to cross the two treadways and periodically shift the soft surface path to the east side of the paved path.

North of MD 410 two approaches should be utilized regarding trail layout around the large electric power poles in the corridor.

1. Where there are two parallel rows of poles the hard surface path will pass between the poles (see Figure 15). Typically, the poles are not opposite each other, but offset by considerable distance. Where they are opposing or near to opposing, the space between the poles is typically 14-16 feet. By swinging the trail

alignment to an angle perpendicular to the opposing poles the trail should be able to be fit between them with 1.5 to 2 feet of clear space on each side. Where there is less than two feet of clear space, the travelway on the asphalt path can be narrowed with edge striping to

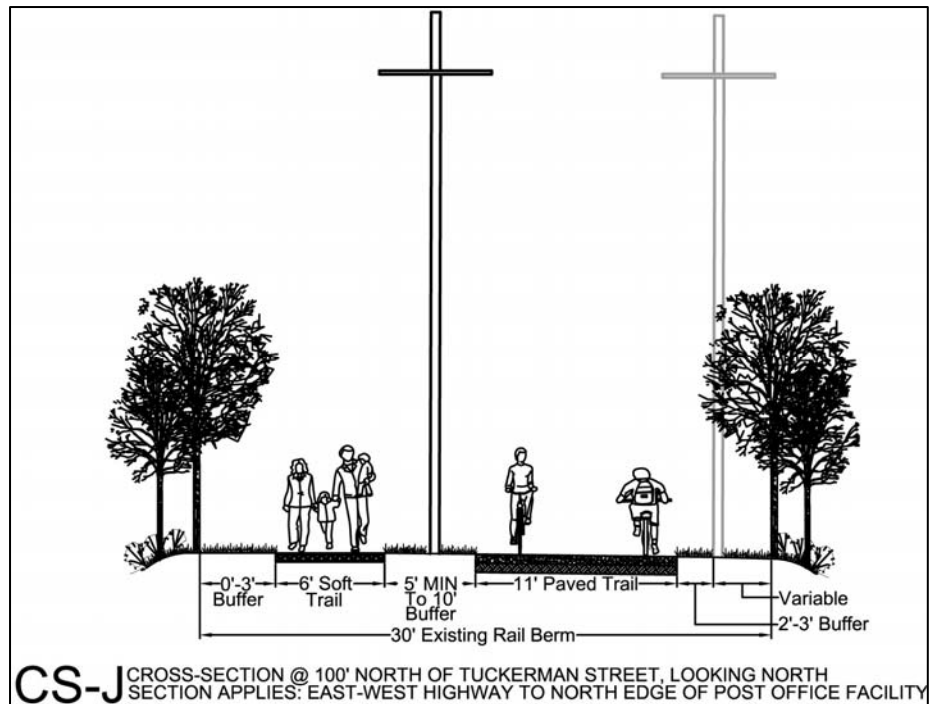


Figure 16: Dual Treadway Trail Reduces Conflicts Among Trail Users

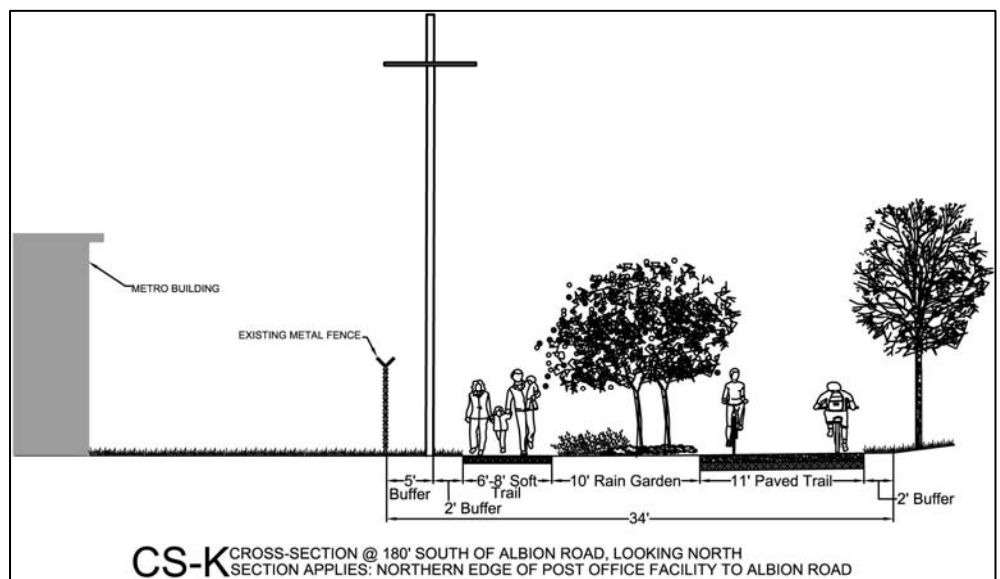


Figure 15: Potential Cross Section Near Albion Road

create the minimum 2-foot clear zones. Additionally, yellow hazard striping should be used. Another suggested design feature is to wrap the bottom 10-15 feet of each pole with a decorative and reflective material, increasing safety at night and improving the aesthetic qualities of the corridor.

2. If there is sufficient space on the either side of a series of poles, both treadways may be laid out on one side of the power poles (see Figure 16).

### Trail Access

The RIATT has only a few points of access in this segment of the trail. From the neighborhoods west of the corridor, Riverdale Park and University Park, there is access at MD 410 (north sidewalk), Sheridan Street and Tuckerman Street. From the industrial areas east of the corridor access locations are typically through parking lots of commercial enterprises. Drawings L7 and L8 provide examples of how the access paths should be laid out at access locations 24 and 26. Table 2 lists the proposed points of access, beginning at the southern project limit and progressing to the northern limit.

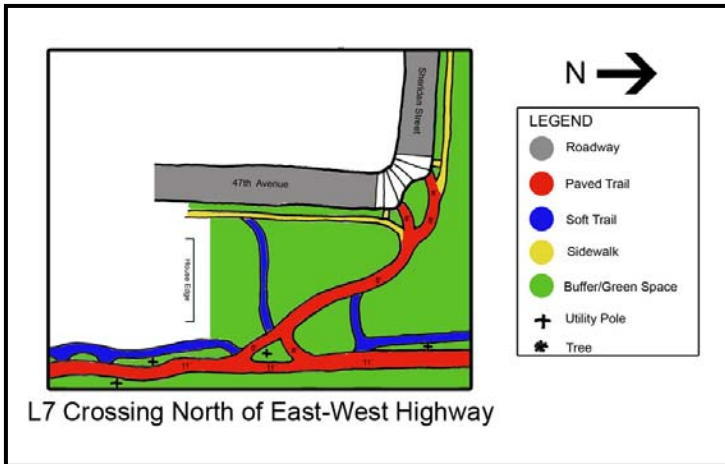
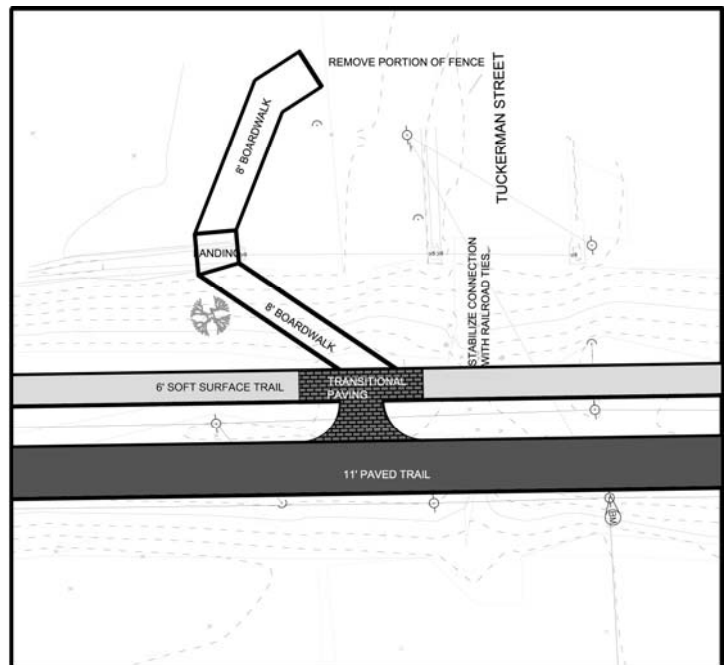


Figure 18: Sheridan Street Access



L-8 CROSSING @ TUCKERMAN STREET

Figure 17: Potential Access Design for Tuckerman Street

**Table 2 (continued): Trail Access Locations (listed south to north)**

Location No.	Access Point / Cross Street	Point of Access Detail	Responsible for Construction	Access Direction & Areas Served
21	Queensbury	Crosswalk and curb ramps at crossing of Queensbury. See Layout 5	This Project	West-Riverdale Park and Hyattsville; East—Riverdale Park & Edmonston
22	Historic Church Site	Stair to open space, but no pathway to sidewalk on E-W Hwy.	City of Riverdale Park	E-W Hwy eastbound sidewalk
23	North edge of East-West Hwy.	Existing stair; retrofit with bicycle rolling tray.	This Project	E-W Hwy westbound sidewalk
24	Sheridan Street	Connecting paths and curb ramps..	This Project See Layout 7	West—Riverdale Park and University Park
25	Between Sheridan and Tuckerman	Stabilize slope of existing informal access with RR tie stair and gravel fill.	This Project	West-Riverdale Park and University Park
26	Tuckerman Street	Stabilize slope of existing informal access with RR tie stair and gravel fill. Add ADA boardwalk ramp, or combination fill and boardwalk.	This Project See Layout 8	West—Riverdale Park and University Park
27	Tuckerman Street	Stabilize slope of existing informal access with RR tie stair and gravel fill.	Private Property Owner	East—Industrial area between RR ROWs
28	Cafritz Development South	To be determined at a later date	Cafritz Development	West—University Park; East and West Cafritz Development
29	Cafritz Development Central	To be determined at a later date	Cafritz Development	West—University Park; East and West Cafritz Development
30	Albion Road	Curb ramps	Existing	West—University Park; East and West--College Park

### **General Access Issues**

There are two access issues for which resolution is outside the scope of this project, but which should be noted in this document for planning purposes. Each of these issues will effect RIATT trails users once the trail is completed.

- 1) **Crossing Route 1**—Many trail users will come from and return to the residential neighborhoods and communities west of Route 1.
  - a. From Farragut north to Madison, it is assumed that the City of Hyattsville and EYA will be addressing crossing issues in conjunction with the Arts District buildout and overall revitalization plans.
  - b. North of Madison to MD 410, the City of Hyattsville and Town of Riverdale Park should engage the SHA, if they have not already done so, regarding bicycle and pedestrian crossing improvements.
  - c. North of MD 410, TDG recommends that County planners, the Town of University Park and Town of Riverdale Park engage the SHA about installation of crossing improvements at Wells Parkway and/or Tuckerman Street. This area will become a logical place to cross Route 1, however because the streets on each side of Route 1 do not line up, pedestrian crossing accommodations have not been provided and conditions are very poor.
  - d. As a part of the Cafritz development further north on Route 1, it is expected that Route 1 crossing enhancements will be addressed, perhaps this development should address the location described in (d) above, as well.
- 2) **Crossing the CSX Railroad line**—
  - a. Currently, between Queensbury and Armentrout Drive, there are several dirt tracks through the lawn and underbrush to unsanctioned track crossings that have been created by local residents and employees who walk and bike in the area. These crossings have evolved because legal crossings are very far apart. Legal crossings exist at Queensbury, Baltimore Avenue (Alt Route 1), and Armentrout Drive. This project acknowledges a significant existing need for bike/pedestrian crossings of the CSX rail line. It also acknowledges that the RIATT will only increase the demand for, and usage of, the existing unsanctioned crossings. Considering grade separated or at-grade crossings of the railroad are not in the scope of this project, however this report provides a mechanism for flagging this need. The City of Hyattsville, Town of Riverdale Park, Town of Edmonston, State Highway Administration, and potentially WMATA (bus service provider) should consider engaging CSX about the potential for providing some form of improved crossing(s). One grade-separated crossing possibility that might be considered is rehabilitating and reopening the underpass located at the old Hyattsville station stop.
  - b. Interest has been expressed regarding the need for a grade separated crossing of the CSX rail line in the area just east of the Cafritz property, to connect to the M Squared development along River Road.
  - c. It should be noted that the design of the trail should not include a) any improvements to the informal paths used to access unsanctioned crossings, or b) any other feature designed to encourage or legitimize their usage.



## Trail Waysides

Trail waysides are locations along the path where seating is available, and potentially other user amenities such as water fountains, bicycle parking racks, trash receptacles, etc. These locations may also have small areas paved with brick or decorative materials and special plantings. Interpretive information signs telling relevant stories about the history of the corridor or about the natural landscape can also be located at waysides. The Anacostia Trails Heritage Area should be recruited to find funding and provide leadership for an interpretive sign initiative.

The following locations are recommended for potential wayside development:

- Near Franklin's Restaurant at the north end of the Hyattsville-owned parking lot;
- Near the stub end of Kennedy or Longfellow Streets in the EYA development;
- At Madison Street in Riverdale Park (small);
- At Cleveland/Oliver in Riverdale park (small);
- The Riverdale Park Town Center already serves this need;
- Near Sheridan, north of E-W Highway (small);
- At the south edge of the Cafritz development; and
- In the center of the Cafritz development.

It is unlikely that sufficient ROW will be available for waysides south of Farragut Street, however bus stops will serve as locations with benches for resting and the Melrose Park playground area at Armentrout Drive can serve as a wayside at the south end of the corridor.

## Trailheads

Trailheads provide locations for potential support services similar to waysides, but with added features to provide remote trail users services related to beginning or ending their trail experience. Trail users primary needs at urban trailheads include the following: motor vehicle and bicycle parking, benches, drinking fountains, food, wayfinding guidance (signs and map panels) and interpretive information.

Motor vehicle parking needs for this trail are modest and can be accommodated using existing parking already located near the trail corridor. Primary existing parking locations include the Hyattsville City lot and the Riverdale Park Town Center lot. Some parking will also be available on street in College Park, Riverdale Park, and in the EYA development.

Food and water is generally best provided by retail establishments. However, consideration should be given to providing a public drinking fountain at the Hyattsville and Riverdale Park town center parking lots. Other potential locations are the Melrose Park (M-NCPPC) or Tuckerman park (Riverdale Park). Benches, bicycle parking and interpretive information has been discussed in the context of wayside design.

Two types of wayfinding guidance can be provided at trailheads. At a minimum, MUTCD trail guide signs should be provided at each of the access points listed in the table. The trail should be identified by name at all access points and roadway intersections. Guide signs should also provide distance and directions to major locations along the entire trail route (NW Branch Trail to REI in College Park), as well as directions and distances to destinations just off the corridor in nearby neighborhoods, especially the Anacostia Tributaries Trail System.

The second type of guidance is a trail system and neighborhood area map. These large map panels (~36" x 48") should be located at major trailheads or waysides, such as Melrose Park, Downtown Hyattsville, in the EYA development, Riverdale Park Town Center, and at the Cafritz development.

## Lighting

TDG recommends that pedestrian scale lighting be installed throughout the trail corridor, even in areas where existing street lighting is already in place or planned along with new streets. The value of trail lighting is many fold: it significantly enhances public safety and security, it lengthens the timeframe (especially in winter) during which the trail can be used, especially for transportation, and it enhances the aesthetic quality of the space. The architectural style of the lighting design could be the same throughout or vary based upon the desires of the local municipalities. Low energy lighting to conserve electricity and reduce operating costs is recommended. Lighting design that minimizes night sky pollution and protects adjacent homeowners from intrusive lighting levels is also recommended.

## Trail Construction, Maintenance and Management Issues

**Construction:** It is anticipated that due to finding limitations, the trail will be constructed in phases. Projected costs for each phase and funding availability are key factors for determining the prioritization of phases for development. Estimated costs will also be a key factor in determining the scope of each phase, and as a result how many phases will be necessary to complete the trail. Because cost estimates are not yet available at the time of this report, a preliminary set of phases is offered here. This set of phases is based on providing the trail in increments that can be fully utilized upon completion, and other factors that are known at this time.

### Phase 1—East -West Highway to Albion Road

This phase should be developed with the following components:

- a) From Albion Road to Tuckerman Street, an interim trail should be developed in the form of a gravel road (see Figure 19). This will create connectivity and continuity with the College Park section of the trail, but minimize the initial investment. It appears that utility work is underway or expected in this area. If this is the case, building a finished trail product is not recommended as the utility work is likely to damage the trail. Moreover, the design and layout of the trail in this area should be done in conjunction with the design of the overall Cafritz development, and the finished trail product should be constructed toward the end of the buildout of that development, again to ensure that major construction activities do not damage the finished product.

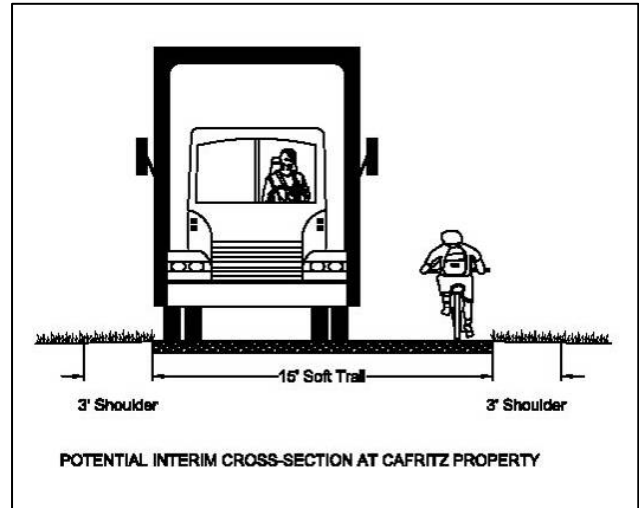


Figure 19: Interim Trail for Cafritz Property

- b) The access improvements for locations 23, 24, 25 and 26 should be constructed in conjunction with the main trail.
- c) Construction of the soft surface path between Tuckerman and MD 410 is recommended. This short segment will serve as an example of the advantages that a dual treadway trail offers. It may be advisable to construct the soft surface path for the rest of the segment as a part of building the final trail through the Cafritz development.

### Phase 2—Riverdale Town Center Parking Lot

This phase from the end of the trail on the north edge of the E-W Highway overpass to Queensbury can be undertaken as a stand alone phase with a transition for trail users to the travelway of Rhode Island Avenue on the south side of Queensbury.

### Phase 3—Riverdale Road South

The logical end points for this phase are Riverdale Road in the north and Madison or Longfellow on the South end. Whether the southern endpoint of this phase is Madison or Longfellow depends upon the construction status of the EYA development in the Longfellow area. EYA is currently planning to build out the portion of its development east of Route 1 in increments, beginning with some retail buildings near Jefferson Street. However the timing and pace of their project build out will be driven by larger economic issues and the local housing market.

**Phase 4—Longfellow to new Ingraham (EYA)**

This phase will be built by EYA however it is not clear whether it will be built at the beginning or end of their development process on the east side of Route 1. However, if constructed early in the process, because it is on the back edge of the property, no damaging effects to a finished trail would result from the adjacent construction activity. If EYA were to build its trail later in the development process perhaps they would install an interim gravel trail in the short term, similar to that suggested for Phase 1, and install the completed at the end of their phased build-out.

**Phase 5—Ingraham to Hyattsville City Parking Lot at Franklin’s Restaurant**

This phase is slated to be publicly funded however its timing is generally based upon the timing of the EYA section just to the north. Without the EYA section, this segment is of no value. The reverse is also somewhat true, once the EYA section is built, this additional segment will be in high demand.

**Phase 6—Franklin’s Restaurant to Crittenden Street**

While it would not be ideal, if funding availability is a factor, it may be workable to build a trail on the east side of Route 1 as far south as Crittenden and provide improved crossings to the west side. Transition to on-street bicycling on Route 1 southbound is reasonable due to the presence of a wide striped-shoulder, as is the transition to Crittenden, which can be followed west to the new access to the NW Branch through the back of the Melrose Park area using 41<sup>st</sup> Street.

**Phase 7—Crittenden Street to Armentrout Drive**

As noted above, combining Phases 6 and 7 as described here would be preferred. However, at Armentrout Drive, for traffic and trail user safety it is recommended that trail construction be combined with an upgrade of the entire Armentrout/Route 1 intersection, which has deficiencies on all four legs. Because this adds cost to the project, if funding availability is an issue, Phase 7 could be a separate effort. It should be noted that once phases 1-5 are in place, from a public relations point of view it will be difficult to build the trail as close to the NW Branch Trail as Crittenden Street and not finish the project to Armentrout Drive. However, with appropriate collaboration with the citizens and city government of Hyattsville and broader trail using public, an improved intersection should be accepted as worth the wait.

**Maintenance:** The RIATT is expected to have typical trail maintenance and management needs. These include the following:

- Trimming of vegetation and mowing; control of invasive species and poison ivy.
- Clearing debris after storms.
- Periodic trail sweeping especially for access paths and curb ramps at access locations.
- Litter control and trash removal.
- Maintenance and watering of special plantings.
- Maintenance of trailhead areas.

- Treadway maintenance—repairing/replacing damaged trail surfaces and base material, re-striping worn pavement markings, and addressing damage due to erosion. The dual treadway and many access locations will require a greater maintenance effort than a single treadway trail with fewer points of access.
- Replacing and maintaining signs.
- Maintaining drainage ditches and culverts.

Maintenance will be the responsibility of the local municipal governments which own their respective portions of the trail ROW: the Town of Riverdale Park, the City of Hyattsville, and the City of College Park. To take advantage of certain economies of scale these communities should consider coordination and cost sharing with regard to purchase of maintenance equipment and the application of local public works forces to maintenance tasks.

In the southern section of the trail, where it parallels Route 1, maintenance activities will need to be coordinated with the State Highway Administration and CSX Railroad. It may be useful for the City of Hyattsville to develop written maintenance agreements with these entities to clarify roles and responsibilities.

To augment municipal forces the local governments should organize citizens (trail users and trail neighbors) in each community to assist with maintenance activities. Maintenance needs also present an opportunity for youth and adult community service organizations such as Rotary, Lions and scouts to undertake community service projects. Moreover, the town center business groups, EYA and Cafritz development's property management companies will have a stake in quality maintenance as well. Formal Adopt a Trail programs have been a successful tool for other trails and for Prince George's County M-NCPPC for the Anacostia Tributaries Trail System. Activities that can most effectively be undertaken with volunteer support include the following:

- Clearing debris after storms.
- Litter control and trash removal.
- Maintenance and watering of special plantings.
- Maintenance of trailhead areas.
- Regular patrols, surveillance and prompt reporting of maintenance needs.

**Management and Access Control:** With three municipal governments involved, managing the RIATT will require diligent coordination. Each municipality should establish a lead contact person to deal with trail management matters. Additionally, a team of staff with representatives from Planning, Police and Public Works and Parks may need to be established to coordinate roles and activities. Such a group may need to be constituted as an inter-municipal body, and include citizen representatives as well.

A critical understanding that local governments could easily overlook in the early life of a trail such as this, is that the trail using public will not know or care which municipality or which department within a municipality is responsible for a particular issue or problem when it arises. If the public gets the sense that reporting issues or

problems does not lead to concerned and competent responses, the managing agencies could lose their most useful and effective allies in the management and maintenance process.

Access control is a key management issue. Locked, removable bollards may be installed at certain access points to prohibit unwanted motor vehicles from using the trail. It will be necessary to provide keys to appropriate authorities so that access can be provided in case of emergency or for convenience of maintenance activities. Access will also need to be provided to utility companies that have infrastructure in the corridor. To ensure access and protect the trail from damage, easements and maintenance agreements may need to be developed with the Washington Suburban Sanitary Commission (WSSC), Potomac Electric Power Company (PEPCO), CSX Railroad and others. It should be noted that an added benefit of providing a 10 to 11-foot trail in much of the corridor, is that it will be wide enough to support maintenance trucks and other large vehicles, without sustaining damage.

The following management and access control issues should be addressed by the managing municipal governments prior to opening the trail for public use:

- Who will manage access and how will this be done?
- Will permits be issued for non-emergency access needs?
- Will there be a single phone number for the public to call to report trail maintenance and management problems? How will response be managed?
- How will information about management and maintenance be communicated to the public and government agencies? Through a website, using signs posted on the corridor?
- How will ongoing communications be maintained about changing conditions on the trail or policy changes? Through a website, through a listserve, using the media, through municipal communication publications and mailings?
- How will emergency response be organized and facilitated? Local EMTs, police and fire department personnel should be oriented to the trail to ensure their familiarity with it. Emergency response dispatchers should also be familiarized with the trail and have it added to their GIS database of public places in the community from where 911 calls may originate.

**Policing and Emergency Response:** For effective law enforcement and public safety assurance the Hyattsville and Riverdale Police Departments should provide regular patrol and surveillance. This can be accomplished effectively with bicycle mounted police units which are also effective at policing the nearby commercial districts. Because the local municipal police forces are relatively small and law enforcement for College Park is provided by Prince George's County Police, it may be cost effective for a number of law enforcement agencies to determine how they can best work together and share the financial and staffing responsibilities. Law enforcement agencies that should be involved in this consultation include the following:

- Hyattsville City Police Department
- Riverdale Park Town Police Department
- Prince George's County Police Department



- M-NCPPC Park Police (who have bicycle and horse mounted patrols already working in the Anacostia Tributaries Trail and park system).

To further ensure public safety along the trail, the following three methods can be useful to provide additional support for local law enforcement personnel:

- Installation of blue phones, such as those that are used on the University of Maryland campus;
- Organization of volunteer citizen patrols—they allow for planned surveillance coverage during hours where law enforcement staff cannot be scheduled; if provided communications equipment they can maintain close communication with local law enforcement officers who are not likely to be far away at any given time.
- By using and maintaining CPTED design and maintenance principals. In addition to careful selection and location of plant material, an effective trail design element is installation of quarter or tenth-mile markers which can be used by trail users to give a more precise location of an emergency situation.