



The Patriots Path Plan

**East Whiteland
Township**

**Malvern
Borough**

**Tredyffrin
Township**

**A Development Guide
on How to Design and Build
The Patriots Path Trail Network**





The Patriots Path Plan

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on How to Design and Build
The Patriots Path Trail Network

Adopted By:

*The East Whiteland Township Board of Supervisors
on March 10, 2010*

The Malvern Borough Council on December 15, 2009

*The Tredyffrin Township Board of Supervisors
on February 22, 2010*





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EXECUTIVE SUMMARY

What is the Patriots Path?

The Patriots Path trail network will extend into East Whiteland Township, Malvern Borough and Tredyffrin Township in the Great Valley area of Chester County. Paved trails, sidewalks and other pathways will link three local properties that played special roles in the American Revolutionary War:

- Battle of the Clouds Park, a municipal open space in East Whiteland;
- The Paoli Battlefield Grounds in Malvern; and
- Valley Forge National Historic Park in Tredyffrin.

Walkers, runners, bike riders and other people on the Patriots Path will experience many different recreational and historic attractions. In some places, the Patriots Path will connect with public parks and other publicly accessible open spaces. Chester County recommended the basic alignment for the Patriots Path and detailed its historic importance in a 2007 report to the Chester County Commissioners.

Where will the Patriots Path go?

A 6.3-mile section of Chester County's Chester Valley Trail will be the east-west spine of the Patriots Path, from which four north-south segments will extend:

- ***The Valley Forge Segment*** - a 1.8-mile connection to Valley Forge National Historic Park (see pages 19-32);
- ***The Cedar Hollow Segment*** - a 1.8-mile pathway along the bed of the Warner Spur, a former freight line (see pages 33-42);
- ***The Valley Creek Segment*** - a 1.0-mile extension to East Whiteland's Valley Creek Park (see pages 43-48);
- ***The Malvern Segment*** - a 1.4-mile connection to the heart of Malvern Borough (see pages 49-58)

What is in this Patriots Path Plan?

For each segment of the proposed trail, the *Patriots Path Plan* recommends:

- A detailed trail alignment
- Specifications, such as trail width and surface
- Solutions to challenging design problems
- How to construct road crossings
- Trail support facilities, such as signs, parking, restrooms, etc.
- Links to adjacent amenities

Where are the priorities?

Phase I	Valley Forge Segment (high priority)
Phase II	Malvern Segment (high priority).
Phase III	Cedar Hollow Segment (moderate priority)
Phase IV	Valley Creek Segment (moderate priority)

What will it cost?

Estimated construction costs (in 2009 dollars):

Valley Forge Segment	\$ 610,000
Malvern Segment	\$ 787,000
Cedar Hollow Segment	\$ 1,448,000
Valley Creek Segment	\$ 174,000
Total	\$ 3,019,000

Average trail maintenance costs: Approximately \$7,000 per mile per year.

What partners will be involved in the Patriots Path?

Except for the parts in Valley Forge National Historic Park, each municipality will be responsible for building and maintaining the portions of the Patriots Path within its own municipal borders. Many partners (see pages 72-73) will be needed to help secure grant funds, provide input into trail construction plans, and assist in maintaining the trail. East Whiteland, Malvern and Tredyffrin plan to continue meeting about the Patriots Path, prepare joint grant applications to help fund it, and coordinate in the future on all related trail design and construction topics.

How was this plan prepared?

The committee that oversaw preparation of the *Patriots Path Plan* included representatives from Chester County, East Whiteland Township, Malvern Borough, and Tredyffrin Township. The committee met approximately once per month to produce a draft report that was the subject of three public meetings, one hosted by each of the three municipal planning commissions. Changes were made to the draft plan based on input received from these public meetings and review conducted by the Chester County Planning Commission. After additional refinements, the final plan was adopted by the governing bodies of the three municipalities pursuant to one public hearing held in each municipality.



Patriots Path Overview



PATRIOTS PATH OVERVIEW

Elements of the Patriots Path

The Patriots Path is a proposed trail network in East Whiteland Township, Malvern Borough, and Tredyffrin Township in the Eastern Great Valley area of Chester County. A primary objective of this trail network is to connect three local park and open space sites that have special American Revolutionary War significance:

- Battle of the Clouds Park, a municipal park in East Whiteland Township;
- The Paoli Battlefield Grounds, a recreation and open space property in Malvern Borough that is managed by the non-profit Paoli Memorial Association. This property is adjacent to the Paoli Battlefield site, which is owned by Malvern Borough.
- Valley Forge National Historic Park in Tredyffrin Township.

As part of connecting these historic park sites, the Patriots Path trail network will utilize a 6.3-mile section of Chester County's Chester Valley Trail in East Whiteland and Tredyffrin as its east-west spine. In addition to this east-west spine, the Patriots Path network will encompass four north-south segments:

- ***The Valley Forge Segment*** - a 1.8-mile connection between the Chester Valley Trail near the Chesterbrook Boulevard interchange of Route 202 and Valley Forge National Historic Park.
- ***The Cedar Hollow Segment*** - a 1.8-mile trail that will begin at the Chester Valley Trail and run northward on the bed of a former freight rail spur (the Warner Spur) that Tredyffrin Township now owns. In addition, a 1.0 mile extension into East Whiteland Township will connect this segment with one identified below - the Valley Creek Segment.
- ***The Valley Creek Segment*** - a 1.0-mile connection built between the Chester Valley Trail and Valley Creek Park, East Whiteland Township's largest municipal park. This segment will be constructed largely on public rights-of-way.
- ***The Malvern Segment*** - a 1.4-mile link between the Chester Valley Trail in the vicinity of Route 202 and Route 29 in East Whiteland Township and the Paoli Memorial Grounds and Paoli Battlefield in Malvern Borough.



Along the Cedar Hollow Segment

Nature of the Patriots Path

The Patriots Path will be a multi-purpose, non-motorized trail network. Using a combination of paved trails, sidewalks and other pathways, walkers, runners, bike riders and others who use the Patriots Path will have the chance to experience many different recreational and historic amenities. In several areas, the Patriots Path will connect directly with municipal parks and other publicly accessible open spaces.

The Patriots Path will traverse a variety of local settings. Some segments of the trail will be in urbanized areas. Other parts will be adjacent to suburban neighborhoods or business parks. Certain segments will be along heavily traveled roadways. Others parts will cross streams, pass through dense woodlands and run through scenic countryside.



Chesterbrook Boulevard and Route 202

Origins of The Patriots Path

In 2002, the Chester County Board of Commissioners adopted *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County*. That plan called for studying the feasibility of a trail between the site of the Paoli Massacre in Malvern Borough and Valley Forge National Historic Park in Tredyffrin Township. In 2007, The Chester County Planning Commission submitted its *Report to the Chester County Board of Commissioners: An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley*.

The 2007 Chester County *Report* accomplished important ground work for the Patriots Path by:

- Recommending the basic alignment for the trail.
- Detailing the historic justification for the trail.
- Enumerating how the trail would address local recreation, historic interpretation and other needs.
- Describing key design challenges that will be faced in building the trail.
- Naming key stakeholders in the area whose cooperation will be needed.



- Identifying important recreation sites and other locations the trail could connect with.
- Noting how the trail is consistent with other municipal, county, and National Park Service plans.
- Raising trail stewardship issues, such as operations, maintenance, security, and funding.
- Recommending next steps, including formulation of this Patriots Path Development Guide.

Following Chester County's lead, East Whiteland Township, Malvern Borough, and Tredyffrin Township each endorsed the Patriots Path concept in municipal planning documents approved by their governing bodies. The National Park Service joined in this consensus because of its interest in historic interpretation opportunities in the vicinity of the national park that could help tell the story of George Washington's famous winter at Valley Forge.

Historic Inspiration For the Patriots Path



The Continental Army's encampment at Valley Forge was the culmination of a phase of the American Revolutionary War called the Campaign of 1777. In August 1777, the British landed the largest armada ever assembled in American waters at the northern end of the Chesapeake Bay. Over 17,000 British troops and Hessian mercenaries then began marching north with the goal of capturing Philadelphia.

On their way to Philadelphia, the British defeated the Continental Army at the Battle of Brandywine. The British then engaged the Americans briefly in the general vicinity of what is now the campus of Immaculata College. Days later, the British killed 53 Continental soldiers in a surprise night time attack known as the Paoli Massacre. These American victims are buried in a mass grave at Paoli Memorial Grounds in Malvern Borough where the attack took place.

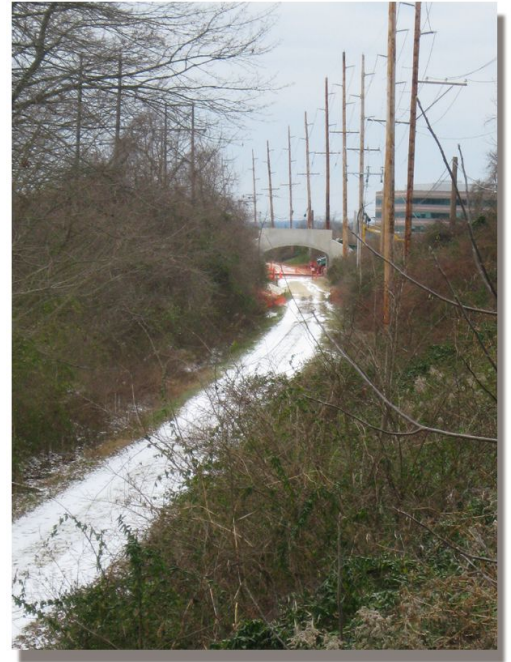
By the end of September 1777, the British succeeded in occupying Philadelphia. After failing to dislodge the British at the Battle of Germantown, Washington retreated to the Whitemarsh area and

then up the Schuylkill River to Valley Forge. Here the Continental Army camped in hardship from December 1777 to June 1778. The route of the Patriots Path will traverse some of the same ground that the British and Americans used for troop movements during the Campaign of 1777. While the Patriots Path concept encompasses a variety of recreation opportunities, the project was first inspired by the desire to commemorate the Campaign of 1777.

Goals of the Patriots Path

The Patriots Path will help meet several different needs in the Eastern Great Valley area. As identified in the 2007 Chester County *Report* and elsewhere, objectives for the Patriots Path include the following:

- Memorialize soldiers killed in action locally during the Campaign of 1777.
- Create opportunities for Valley Forge National Historic Park staff or others to lead tours that interpret nearby Revolutionary War era attractions (could also lead to self-guided historic tours).
- Build more walking, running and biking paths in response to the frequently heard desires of local residents and the needs of the area's many business park employees and other workers.
- Link many of the area's numerous publicly-accessible parks and open spaces, schools, neighborhoods, commercial area and other common destinations.
- Coordinate with the National Park Service's plans to upgrade parts of the trail system within Valley Forge National Historic Park.
- Generate more business for various retailers located near the Patriots Path. The positive local economic impacts of popular trails have been well-documented.



Chester Valley Trail in East Whiteland Township



Focus of This Plan

This Patriots Path Plan is designed to answer the following questions:



Obstructions along the Patriots Path trail bed

- What should be the detailed trail alignment, including through challenging design areas?
- What are the key physical limitations along the proposed trail route and how should we overcome them?
- What problems may be created by the trail's proximity to nearby land uses and how should we buffer the trail from these properties?
- What are key recreation sites, commercial destinations and historical interpretation opportunities along the trail?
- What trail construction specifications are most appropriate in the various parts of the trail network?
- What trail support facilities are appropriate?
- What will it cost to build the trail and how should construction be phased?
- What entities should be responsible for building the various parts of the trail?
- How should trail operations, maintenance security, and emergency access be handled?
- What should be the next steps in designing and constructing the trail?

Format of this Plan

Following this overview, the Patriots Path Plan contains the following three chapters:

Physical Inventory – This chapter identifies recreational resources in the three municipalities, emphasizing those to which the Patriots Path can link. Prevailing land use and zoning patterns along the trail route, relevant environmental conditions and the historic nature of the trail are also discussed with a focus on how they should be factored into designing and building the trail.

Detailed Trail Recommendations – The Chester Valley Trail is the spine of the Patriots Path trail network. Chester County’s engineering and design for the Chester Valley Trail is well underway. Accordingly, this chapter focuses on detailed recommendations for the four segments of the Patriot Path network that will extend out from the Chester Valley Trail:

- **The Valley Forge Segment**
- **The Cedar Hollow Segment**
- **The Valley Creek Segment**
- **The Malvern Segment**

For each of these four trail segments, this chapter recommends:

- A detailed alignment
- Specific trail types and uses
- Solutions for special design problems
- Specifications to which the trail should be built
- Required road crossings
- Recommended trail support facilities (signs, parking, restrooms, trail heads, etc.)
- Links to adjacent amenities

Trail Implementation – This chapter identifies the best ways to move the Patriots Path from plans to reality. Preliminary design and construction cost estimates, construction phasing, trail operations and maintenance costs, and trail stewardship responsibilities are the main topics discussed.



Man-made relics along the Patriots Path trail corridor



PHYSICAL INVENTORY



PHYSICAL INVENTORY

RECREATIONAL RESOURCES

Chester Valley Trail



Chester Valley Trail in Exton

As already noted, the Chester Valley Trail is the east-west trunk line from which the other segments of the Patriots Path trail network will branch out. The portion of the Chester Valley Trail in East Whiteland Township and Tredyffrin Township is the part most immediately relevant to the Patriots Path. However, you need to look at the full extent of the Chester Valley Trail to understand how the Patriots Path will become part of a larger regional trail network.

Chester County is constructing the Chester Valley Trail on former railroad right-of-way between the County's Struble Trail in Downingtown Borough and the Chester County/Montgomery County boundary in King of Prussia. From that point, Chester County and Montgomery County are cooperating on bridging the Schuylkill River to connect the Chester Valley Trail with the Schuylkill Valley Trail in Norristown.

The Schuylkill Valley Trail runs east-west along the Schuylkill River and connects Philadelphia with Valley Forge National Historical Park. It will eventually extend through the Pottstown area to Berks County. The Schuylkill Valley Trail also links to the Perkiomen Trail and other north-south segments of Montgomery County's growing trail network. The accompanying map shows additional trail connections that people using the Chester Valley Trail and the Patriots Path trail network will be able to make.

For planning purposes, Chester County divides the Chester Valley Trail route into three phases:

- *From Downingtown Borough to Ship Road in West Whiteland Township (the western border of the new Exton County Park site):*

The design for this trail segment is not completed, and this segment has not been scheduled for construction.

- *From Ship Road to Route 29 in East Whiteland Township:*

This segment is Phase I. Chester County plans to complete final design and begin constructing it soon. The County expects it will take approximately 8 months to build this section once construction begins.

- *From Route 29 to the eastern end of the trail at the Schuylkill River in Montgomery County:*

This segment is Phase II. Chester County has an agreement with PennDOT to assume ownership of this portion of the trail. The County's goal is to begin building Phase II as soon as Phase I is finished.

The Chester Valley Trail is open to the public from the new Exton County Park site in West Whiteland Township to Phoenixville Pike at Battle of the Clouds Park in East Whiteland Township. This "demonstration section" is not yet paved. But the County did clear it, grade it, and surface it with crushed stone.

By cooperating with private developers, Chester County has already paved short sections of the trail in the following locations:

- Straddling Route 100 in West Whiteland Township.
- Near Valley Creek Boulevard in West Whiteland Township.
- At Malin Road in East Whiteland Township.

To date, private developers have agreed to build three other sections of the trail:

- A lengthy segment between Valley Creek Boulevard in West Whiteland Township and Mill Road in East Whiteland Township.
- A short segment straddling Route 29 in East Whiteland Township.
- A portion near the intersection of Chesterbrook Boulevard and Route 202 in Tredyffrin Township.

Appendix A lists each place in East Whiteland Township and Tredyffrin Township where the Chester Valley Trail will cross an existing road. That appendix also identifies the type of crossing Chester County will construct at each of these locations.



Parks and Open Spaces in the Three Municipalities

Numerous parks, other publicly-accessible open spaces and homeowner association lands exist alongside or nearby the Patriots Path route in East Whiteland Township, Malvern Borough and Tredyffrin Township. To different degrees, these properties could become featured attractions along the trail route with direct and convenient pedestrian access to the trail itself. Parks and publicly-accessible open spaces in the three municipalities are shown in green on the accompanying map. Appendix B includes detailed maps and listings of parks, schools, and publicly-accessible open spaces in each of the three municipalities.

East Whiteland Township

Three parts of the Patriots Path trail network are located in East Whiteland:

- A part of the Chester Valley Trail.
- The Valley Creek Segment.
- Part of the Malvern Segment.

The 2003 *East Whiteland Township Park and Recreation Plan* identifies 118.0 acres of Township-owned community parks, neighborhood parks, tot lots, nature preserves and other open spaces. The Township is also home to several private recreation properties and public schools.

Battle of the Clouds Park (10.7 acres), an active recreation park on Phoenixville Pike, is the western terminus of the part of the Patriots Path that is evaluated in this plan. An undeveloped Great Valley School District property and a planned Township park currently known as the Swanenburg property (16.2 acres) lie just west of Battle of the Clouds Park adjacent to the Chester Valley Trail.



Soccer in East Whiteland Township

Six recreation-related properties are adjacent to the Patriots Path portion of the Chester Valley Trail in the central part of East Whiteland Township. From west to east, these sites include:

- The Chester Valley Golf Club (171.8 acres).
- K. D. Markely Elementary School (46.6 acres).
- The Conestoga Trail fields at the East Whiteland Township Building (11.2 acres).
- Ecology Park (15.0 acres), a passive open space with walking trails that is directly across Conestoga Road from the Township Building.
- East Whiteland's undeveloped Rubino property (7.0 acres).
- A small common open space property (2.1 acres) in the Chester Valley Knoll neighborhood.

The Valley Creek Segment of the Patriots Path trail network will run north from the Chester Valley Trail east-west spine along Route 29 to East Whiteland's Valley Creek Park (32.2 acres). Valley Creek Park is directly adjacent to the privately-owned Siemen's Fields, adult baseball/softball fields in the Great Valley Corporate Center.

The Patriots Path network in East Whiteland will include part of the Malvern Segment. However, the part of that segment within East Whiteland does not pass alongside any parks or other publicly-accessible open space sites.

Malvern Borough

Malvern has a small but varied park system. The Malvern Segment will connect the main trunk of the Patriots Path near Route 202 and Route 29 in East Whiteland Township to Malvern Borough. Within Malvern Borough, four Borough-owned open spaces and one privately-owned but publicly-accessible open space are adjacent to the proposed route of this segment:

- Burke Park (1.4 acres), a small civic space and pocket park at Warren Avenue and Roberts Avenue.
- Horace J. Quann Park (1.6 acres), a neighborhood park at Warren Avenue and First Avenue.



Marker on the Paoli Battlefield



- The Paoli Memorial Grounds (22.0 acres), which is a property owned by the non-profit Paoli Memorial Association. The Paoli Memorial Association operates the portion of the tract that includes a monument and parade grounds commemorating the Paoli Massacre. The Malvern Park and Civic Association manages the part of the site that features playground equipment, a tennis court, and baseball/softball fields used by the Great Valley Little League.
- Paoli Battlefield Site (40.0 acres), the site where the Paoli Massacre actually took place. It is owned by Malvern Borough.
- Randolph Woods (48.0 acres), which is a wooded, undeveloped parcel owned by Malvern Borough.

Tredyffrin Township

Tredyffrin has an extensive park, recreation and open space system. It includes 337.3 acres owned by the township alone. Tredyffrin is home to three parts of the Patriots Path Trail network:

- A part of the Chester Valley Trail.
- The Valley Forge Segment.
- The Cedar Hollow Segment.

Cedar Hollow Road Park (24.1 acres) is an active recreation site on the Chester Valley Trail portion of the Patriots Path. It is situated at the point where the Patriots Path intersects with the Cedar Hollow Segment. Further eastward along this segment of the trail, Tredyffrin has a cluster of parklands situated within approximately $\frac{1}{4}$ -mile of the trail. North of the trail, these include Mill Road Park, a 55.9-acre active recreation site, the undeveloped Duportail South Side Open Space (3.2 acres) and the undeveloped Swedesford Road open space (5.7 acres). Just south of the trail, these include the partially developed Radbill Park (18.0 acres) and the privately-owned Field of Dreams baseball park (15.7 acres). While these four recreation properties are not directly adjacent to the trail, they could be tied to it in the future with short pedestrian connections constructed along roadside rights-of-way.



Louis D'Ambrosia Park

There is a portion of the Chester Valley Trail within Tredyffrin that is east of the Patriots Path. That segment of the Chester Valley Trail is not the immediate focus of this plan. However, it should be noted that Louis D'Ambrosia Park (15.4 acres), the Devon-Stratford Little League's Clark Field (2.4 acres) and certain homeowner association lands are adjacent to that portion of the Chester Valley Trail.

The segment of the Patriots Path that will connect the Chester Valley Trail to Valley Forge National Historic Park runs adjacent to homeowner association lands associated with the Chesterbrook development on both sides of Chesterbrook Boulevard.

At the northern end of this spur, trail users will enter the southwestern corner of Valley Forge National Historic Park (3,500 acres) after walking through a pedestrian tunnel under the Pennsylvania Turnpike. Valley Forge Park features nearly 30 miles of trails for walking, biking and horseback riding. Over 1.3 million people visit the park each year.

In addition to the main trunk line of the trail and the segment connection to Valley Forge National Historic Park, Tredyffrin contains the Cedar Hollow Segment portion of the Patriots Path network. As noted earlier the intersection of the Chester Valley Trail and the Cedar Hollow Segment borders Tredyffrin's Cedar Hollow Road Park, a 24.1 acre active recreation site on the south side of Route 202.

On the north side of Route 202, the Cedar Hollow Segment abuts homeowner association lands that separate a residential neighborhood from Route 202. Further north approaching Swedesford Road, the Cedar Hollow Segment passes within approximately 1/10 of a mile of additional homeowner association property. On the north side of Swedesford Road, the Cedar Hollow Segment runs directly adjacent to Cool Valley Preserve (33.2 acres), which is owned by the Open Land Conservancy. At the northern tip of the Cedar Hollow Segment there are two interconnected Open Land Conservancy properties: Cedar Hollow Preserve (67.0 acres) and Miller Preserve (2.3 acres).



Cool Valley Preserve in Tredyffrin Township



LAND USE PATTERNS

The various segments of the Patriots Path network traverse a wide variety of settings. Prevailing land use and property ownership patterns in the area of each trail leg can be summarized as follows:

The Chester Valley Trail in East Whiteland Township

The portion of the Patriots Path that is coterminous with the Chester Valley Trail in East Whiteland runs through the center of the Township virtually parallel to Route 202. The segment of trail west of Route 29 passes through a suburban environment characterized mainly by residential neighborhoods and some undeveloped residentially-zoned land. With exceptions, most of this residential development consists of single-family detached subdivisions.

In the vicinity of the Route 202/Route 29 interchange, the Patriots Path environment changes significantly. On the east side of Route 29, the Patriots Path runs adjacent to the large, high density Uptown Worthington mixed use development now under construction. The trail borders the Uptown Worthington and Great Valley Corporate Center from the east side of Route 29 to the East Whiteland/Tredyffrin municipal border.



Route 29 and Route 30 intersection

The Valley Creek Segment

Between the Chester Valley Trail and East Whiteland's Valley Creek Park, the Patriots Path will be largely along or within Route 29 right-of-way. This portion of Route 29 is a highly congested roadway with two lanes of traffic in each direction. The road is bordered by the Uptown Worthington development, Great Valley Corporate Center, Valley Creek Park and various office and hotel uses.

The Malvern Segment

The Malvern Segment is situated in East Whiteland Township and Malvern Borough. It begins in a highly developed, heavily congested section of East Whiteland south of Route 202 at the point where the Chester Valley Trail crosses Route 29. The Malvern Segment will then head southward and cross Route 30, a heavily traveled, commercialized, four-lane roadway.

On the south side of Route 30, the Patriots Path will extend through a Norfolk Southern Railroad underpass, which at this time is entirely blocked with fill. On the opposite (south) side of this railroad underpass, the trail will connect to a parking lot that serves the General Warren Inne. To get from this restaurant parking lot southward to King Street in Malvern Borough's business district, the Patriots Path will utilize Old Lancaster Pike, Old Lincoln Highway, and Bridge Street. This leg of the trail presents certain design challenges dealt with elsewhere in this Development Guide. However, as far as characterizing prevailing land patterns, this segment can best be described as an older residential area comprised mainly of small lot detached and attached homes.

Along King Street in Malvern, the Patriots Path will go into the heart of Malvern's busy downtown commercial area. It will then turn south and use residential streets within the Borough to reach the Paoli Memorial Grounds and Paoli Battlefield historic open space and recreation sites.

The Chester Valley Trail in Tredyffrin Township

The portion of the Patriots Path that is comprised of the Chester Valley Trail in Tredyffrin closely parallels Route 202. From west to east, this trail segment begins at the Tredyffrin/East Whiteland municipal border. Here, the trail passes through the wooded portion of the Vanguard Corporate Center tract before it runs alongside Township parkland and passes between Route 202 and several single family detached neighborhoods. It then traverses adjacent business parks before coming to Chesterbrook Boulevard. At Chesterbrook Boulevard, the Patriots Path will turn north to connect with Valley Forge National Historic Park (the portion of the trail to be known as the Valley Forge Segment). East of Chesterbrook Boulevard, the trail will continue as the Chester Valley Trail through Tredyffrin Township and into Montgomery County.



King Street in Malvern



The Cedar Hollow Segment

The Cedar Hollow Segment is mostly in Tredyffrin with a short extension into East Whiteland Township. It begins at the Chester Valley Trail adjacent to Cedar Hollow Park. Running northward, it then crosses over Route 202 on a former railroad bridge. Between Route 202 and Swedesford Road, the trail is bordered on both sides by large lot, low density, single-family residential development. From Swedesford Road north to Church Road, the trail passes through highly scenic, exurban countryside. This segment includes a high, wooded passage over the Valley Creek. In short, the Cedar Hollow Segment takes users from a very congested section of Tredyffrin to some of Township's least densely developed areas.

The Valley Forge Segment

The portion of the Patriots Path network that will connect the Chester Valley Trail with Valley Forge National Historic Park extends through a highly developed part of Tredyffrin. Starting at the Chester Valley Trail on the south side of Route 202, the Patriots Path will make use of the interchange bridge that carries Chesterbrook Boulevard over Route 202. On the north side of Route 202, the trail will be built along existing and new sidewalk on Chesterbrook Boulevard in front of a hotel property. A short connection will tie the trail to Wilson Farm Park via Lee Road, which is bordered by a hotel and business park uses.



Trail crossing over Valley Creek

From the intersection of Lee Road and Chesterbrook Boulevard, the Patriots Path will follow Chesterbrook Road rights-of-way to Wilson Road. On this stretch, Chesterbrook Boulevard is fronted on both sides by townhouses and a shopping center on one side that are part of the large Chesterbrook development. Between Chesterbrook Boulevard and the pedestrian tunnel under the Pennsylvania Turnpike that leads to Valley Forge Park, the trail will follow Wilson Road. This section of Wilson Road, which is limited to Township vehicles only, runs between wooded home owners association property on both sides.

ENVIRONMENTAL CONDITIONS

Three maps are included that illustrate prominent environmental features in the Patriots Path area. These maps and fieldwork conducted along the proposed trail route do not reveal any intractable environmental constraints to designing and constructing the trail as described in the next chapter of this Development Guide entitled *Detailed Trail Recommendations*.

Each of the three municipalities through which the Patriots Path will pass has adopted formal plans devoted at least in part to preserving the natural environment. Each has also adopted zoning and/or subdivision and land development regulations to help protect their community's environmental amenities. Engineering and construction plans for building the Patriots Path that respect sensitive environmental conditions and that comply with relevant municipal regulations should result in a multi-purpose trail that does not adversely affect the integrity of the trail's natural surroundings.

Water Features

The accompanying *Water Features* map shows that the route of the trail lies within two watersheds: the Valley Creek Watershed and the Little Valley Creek watershed. Valley Creek flows southwest to northeast. It is joined by Little Valley Creek, its main tributary, about three miles above the point where Valley Creek flows into the Schuylkill River.



Valley Creek is a State-designated Exceptional Value Waterway. This is the state's highest water quality designation and is the most protected category of waterway. Wastewater discharged into Valley Creek must meet the state's highest treatment standards. Valley Creek is the subject of an active restoration effort involving state government, local government, environmental organizations and others.

The former trail bed upon which the Chester Valley Trail is being built crosses the floodplain of the Valley Creek and its tributaries for short distances at three places in East Whiteland. The proposed Valley Creek Segment of the Patriots Path network crosses streams in two locations: one at the intersection of Route 29 and Route 30 and one north of Route 202 along a portion of Route 29 carried over Valley Creek by a bridge. The Cedar Hollow Segment is proposed to cross Valley Creek north of Swedesford Road in a location high above the creek. The Valley Forge Segment would cross Valley Creek via a bridge in Valley Forge National Historic Park. Completion of the Patriots Path network as proposed in the next chapter will not result in any new disturbance of wetland areas.

Woodlands and Natural Areas

The accompanying Woodlands and Natural Features map shows the route of the Chester Valley Trail running through or alongside woodlands in several locations. Since the Chester Valley Trail follows a former rail line, changing the corridor from a railroad to a trail will not create any new woodland disturbances except: a) where the need has arisen to trim back vegetation that now encroaches on the former rail bed; and b) where there is a need to make brief crossings in certain small locations. The same is true of the Cedar Hollow Segment, which follows the former Warner Spur. The Valley Forge Segment also runs through some wooded areas, both along the Township vehicles only section of Wilson Road and adjacent to trails within the Valley Forge National Historic Park. Through its entire length, the Patriots Path will require only isolated, extremely small areas of woodland encroachment.

Sensitive Natural Areas are the other feature shown on the *Woodlands and Sensitive Natural Features* map. Sensitive Natural Areas are sites of statewide or local importance due to their biotic or geological amenities. The source for these designations is the Natural Areas Inventory, which was prepared by the Pennsylvania

Science Office of the Nature Conservancy. Only two such sites are adjacent to the proposed route of the Patriots Path and each one is permanently protected. One, near the intersection of Church Road and St. John's Road, is owned by the Open Land Conservancy. The other one is on federal property in Valley Forge National Historic Park

Steep Slopes

The accompanying *Steep Slope* map shows steep slopes in two categories: slopes with a grade between 15% and 25%, and slopes over 25%. As noted above, much of the Patriots Path system will be built on former rail corridor, including the Chester Valley Trail and the Cedar Hollow Segment. Much of it will be in road rights-of-way. In these cases, establishing trails over previously disturbed ground will not introduce any new steep slope disturbance.

In certain small areas, such as in north Malvern, portions of the trail are proposed for construction on previously undisturbed areas with steep slopes. Another such area is on the Atwater property, which is proposed for use to help connect the Cedar Hollow Segment with East Whiteland's Valley Creek Park. These sections will present some unavoidable problems with accessibility. However, for a large scale trail project, not all trail segments need to be 100% accessible, as long as there are opportunities for physically handicapped people to get a meaningful and similar recreation experience, which they will be able to get on other parts of the trail.

HISTORIC CHARACTER

As described earlier, the inspiration for the Patriots Path was the desire to construct a pedestrian connection between public open space properties with American Revolutionary War significance - more specifically three locations that relate to the Campaign of 1777. The Valley Creek Segment of the Patriots Path is to be constructed along Route 29 rights-of-way in East Whiteland Township. This is a high growth, recently developed, business corridor with virtually no remaining signs of its historic past. Each of the three other segments (the Cedar Hollow Segment, the Malvern Segment, and the Valley Forge Segment) will feature a trail route that: a) passes by at least one or more buildings with 18th century origins; or b) travels through semi-rural locations reminiscent of Revolutionary War era countryside. The detailed recommendations contained in the next chapter note specific historic properties along or nearby the proposed trail route that merit special attention.