



**Report to the  
Chester County Board  
of Commissioners:**

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An evaluation of

# Patriots Path

Trail opportunities in the  
Eastern Great Valley



**Valley Forge National Historic Park**



**Wilson Farm Park**



**Paoli Memorial Grounds**



**King Street in Malvern**



**Wilson Road Underpass**



## CHESTER COUNTY BOARD OF COMMISSIONERS

Carol Aichele  
Donald A. Mancini  
Patrick C. O'Donnell



**Report to the Chester County Board of Commissioners:  
An Evaluation of Patriots Path Trail Opportunities  
In the Eastern Great Valley**

Chester County Planning Commission  
November 2007

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## Executive Summary

In the spring and summer of 2005, the Chester County Planning Commission (CCPC) conducted a preliminary feasibility study and field evaluation of a possible trail corridor that could link Valley Forge National Historic Park in Tredyffrin Township with both the Paoli Massacre Site in Malvern Borough and the Battle of the Clouds Park in East Whiteland Township. This trail would cover approximately nine miles. The main function of this Path would be to honor the sacrifice of the 53 continental soldiers who lie in the mass grave at the Paoli Massacre Site, as well as the other soldiers who gave their lives in the cause of liberty during the Campaign of 1777.

This investigation was recommended in *Linking Landscapes*, the Open Space Element of the Chester County Comprehensive Plan adopted by the Chester County Commissioners in 2002. Prior to the initiation of this project, CCPC coordinated with representatives of the above three municipalities, Valley Forge Park, and the Chester County Parks and Recreation Department. All five of these key stakeholders agreed that the Patriots Path should be studied. In winter of 2003, the Chester County Commissioners directed CCPC staff to complete an evaluation of the Patriots Path.

The findings of this evaluation are that the Patriots Path:

- Could be constructed largely on existing right-of-way with little if any new land acquisition, using a segment-by-segment approach. The member municipalities could each build their respective segments, Valley Forge Park could build its segment, and the County could build one segment, namely a portion of the County Chester Valley Trail from central Tredyffrin Township to western East Whiteland Township or to the future County Parks site in West Whiteland Township.
- Could provide economic benefits to industrial parks, retail shopping areas and real estate values throughout the eastern Great Valley, while improving public health and quality-of-life.
- Could create a regional project that is well suited to receive state, federal and private trails and sidewalk grants because it involves: urban revitalization; rails-to-trails; public-private partnerships; multi-municipal cooperation; County government; and National Park Service involvement.
- Could improve opportunities for the County Chester Valley Trail to receive greater assistance and perhaps funding from the State and federal governments, or private funding sources.
- Could provide added benefits if the Path was extended west to the Future County Park Site at Exton. Such an extension could create a major historic interpretation opportunity and recreation destination at the western end of the Path, with little to no additional land acquisition cost.
- Would be consistent with the comprehensive planning of the Path's three municipalities, as well as the planning of the National Park Service and the Chester County Parks and Recreation Department.

- Could provide historic interpretation opportunities dealing with the Campaign of 1777, and a trail that could lead recreational users away from Valley Forge Park. As a result, the Patriots Path would be consistent with the federally mandated mission of Park, which is to provide historic interpretation. The current use of the Park by large numbers of recreational hikers is in conflict with this mandate.
- Could create a trail link crossing the PA Turnpike, US Route 202 and the Norfolk Southern Rail Lines, thus setting the foundation for a county-wide trail network extending from the White Clay and Brandywine Valleys, through Valley Forge Park and north to the future County Schuylkill River Trail.
- Could create a pedestrian trail tunnel under the PA Turnpike between Valley Forge NHP and Wilson Farm Park in Tredyffrin Township. This new tunnel could be constructed as part of the planned PA Turnpike widening, and the PA Turnpike Commission has already expressed an interest in permitting this facility in their right-of-way.
- Could create a trail/sidewalk link under the elevated Norfolk Southern rail lines south of US Route 30. This underpass could link Malvern Borough sidewalks to the County Chester Valley Trail, the PA Route 29 industrial parks along PA Route 29, and the residential area along Conestoga Road in East Whiteland Township.
- Could result in the installation or upgrading of parking and restroom facilities in municipal parks along the Patriots Path, and could improve funding options for improved parking facilities at the Malvern Train Station.



## Part 1: Introduction

### A. Purpose of this Report

This report was prepared in order to evaluate the overall viability of establishing a network of sidewalks pedestrian trails, and bicycle trails that could permit local residents and visiting tourists to walk from Valley Forge National Historic Park to the Paoli Massacre Site as well as locations that were visited by British, German/Hessian and Colonial Troops as part of the Battle of the Clouds. The purpose of this evaluation is to provide:

- A preliminary inventory of historic resources
- A preliminary evaluation of trail users
- A preliminary evaluation of local planning issues
- A preliminary assessment of possible trail segments
- A preliminary evaluation of pedestrian and rail commuter conditions
- A listing of potential funding sources for further studies
- Recommendations for further actions

This report is not a detailed feasibility study, but rather it is a compendium of background information that could be used as the foundation for future studies focusing on segments of the Patriots Path. As **Figure 1.1** shows, the Patriots Path would extend across approximately nine miles. The Path would include a section of the County Chester Valley Trail measuring approximately six miles. This section is already in the design phase. As a result there is no need to complete a feasibility report for County Chester Valley Trail segment of the Patriots Path. Furthermore, some segments of the Patriots Path could extend along sidewalks, which could be designed using a landscape architecture plan, rather than a feasibility study. For these reasons, it maybe more effective if specific segments of the Patriots Path had their own engineering feasibility studies. This report has been designed to facilitate such future studies.

### B. Consistency with *Linking Landscapes*

In February 2002, the Chester County Board of Commissioners adopted *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA* as the Open Space Element of the Chester County Comprehensive Plan. *Linking Landscapes* included a number of “action items” which served as recommendation for further actions. Action Item 4.4 states that, “The County will study the feasibility of establishing a public trail with National Park Service Affiliate Status connecting the Paoli Massacre site with Valley Forge Park.” This report fulfills this action item, and also addresses the management and coordination aspect of Action Item 4.5 which states that, “The County will request that the National Park Service acquire conservation easements through donation or purchase on parcels surrounding National Park Service properties or secure management agreements with landowners of parcels surrounding National Park Service properties, and meet with the National Park Service regularly to discuss the status of its properties.”

## **C. Previous Stakeholder Coordination**

### **1. Coordination with Valley Forge Staff**

In the summer of 2002, staff from the Chester County Planning Commission (CCPC) developed mapping of all open undeveloped parcels surrounding Valley Forge Park and found that the Park was largely surrounded by development. This task was done to implement Action Item 4.5 noted above. This mapping demonstrated that there were only two linear corridors of open space that led into the Park, one to the south and one to the west. In August 2002, CCPC staff met with Valley Forge staff to discuss these corridors. At that meeting, Valley Forge staff noted that they might be interested in supporting a corridor preservation effort surrounding the Park. However, they also noted that the mission of the Park is historic interpretation, and not recreation or natural resource protection.

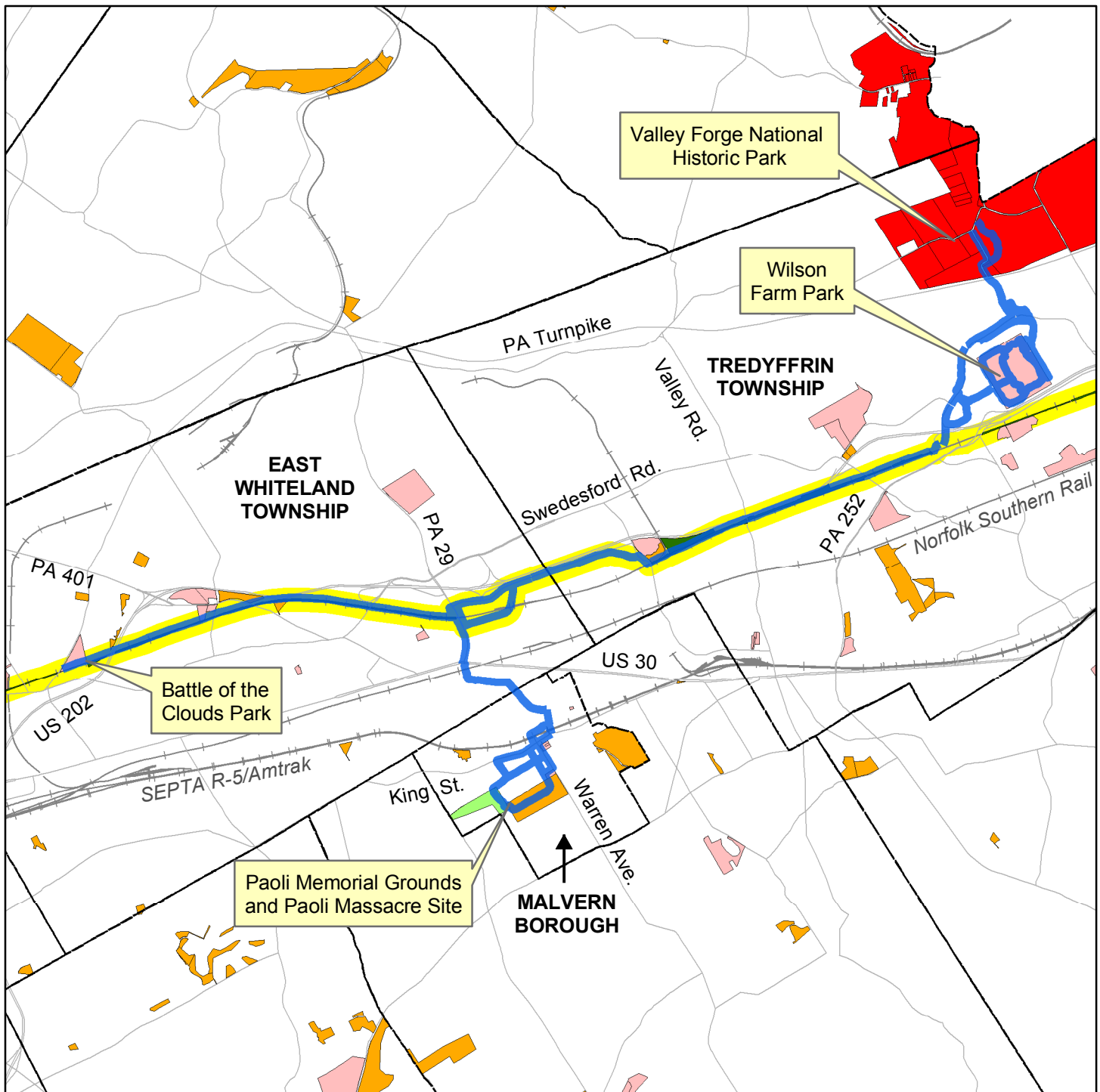
CCPC staff then notified Valley Forge staff that *Linking Landscapes* Action Item 4.4 called for the County to investigate linking Valley Forge Park with the Paoli Battlefield site. Valley Forge staff agreed that such a link might provide opportunities for historical interpretation. CCPC staff then agreed to conduct a field view and meet with representatives of each municipality in order to determine if such a link would be consistent with local planning. By October of 2002, CCPC staff had had met with local officials. Based on this coordination, it became clear that it may be possible to create a physical pedestrian link between Valley Forge Park and the Paoli Massacre Site utilizing segments of sidewalks, municipal trails and sections of the future County Chester Valley Trail. This coordination also determined that such a link would be generally consistent with local planning.

Furthermore, it was discovered that the County Chester Valley Trail could link to part of the Battle of the Clouds area. These findings were documented in a technical memorandum entitled *Preliminary Project Concept Summary for a Trail Connecting Valley Forge National Historic Site with the Paoli Massacre Site and the Battle of the Clouds Area*. In March of 2003 this technical memorandum was distributed to Valley Forge staff, the Chester County Parks and Recreation Department, and all three of the municipalities crossed by the proposed Path. All parties reviewed this memorandum and agreed that the project should be studied further.

In April of 2003, Arthur L. Stewart, the former Superintendent of Valley Forge Park, noted that his office had a strong interest in providing trail connections to the Park. However, he noted that there were no existing internal Park trail connections with Wilson Road. Superintendent Stewart also asked for an estimate of how many trail users might use the Path, which is a consideration as the Park wishes to avoid over-use of its trails. On May of 2003, CCPC staff responded that approximately 200,000 users per year could be expected on the trail, perhaps rising to 250,000 users per year as it becomes more publicized. This evaluation was based on County Struble Trail user counts.

### **2. Coordination with Chester County Agencies**

In Spring of 2005, John Mikowychock and Bob Folwell of the Chester County Parks and Recreation Department noted that project planning should address publicity, signage, the role of PennDOT, security, maintenance, potential funding through donations, ownership of adjacent property and Americans with Disability Act (ADA) compliance. In response to this input, a copy of the report was sent to representatives of SEPTA and PennDOT, and both commented that they had no objections to proposed



## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

### Figure 1.1 Concept Schematic

East Whiteland Township,  
Malvern Borough and  
Tredyffrin Township

#### Legend

- Feasible Patriots Path Routes
- Municipalities
- Valley Forge Park
- Acquired County Trail ROW
- Paoli Memorial Grounds
- Municipal Recreation Parks
- Municipal Open Space
- Major Roads
- Railroads
- Chester Valley Trail Proposed Alignment

0.5 0.25 0 0.5 Miles



1:63,360

Scale: 1" = Approx. 1 mile

Date: November 2007

Source: Chester County  
Planning Commission, 2007.



pedestrian link at this time. The Chester County Parks and Recreation Department subsequently recommended that the project, which by then had become known as the “Patriots Trail” should be called the “Patriots Path,” since it included sidewalks, and would not be a multi-use recreational trail along its entire length.

The findings of the technical memorandum were presented to the CCPC Board in September of 2003, which recommended further study. In December 2003, the Commissioners gave such approval and soon after CCPC staff began conducting research that resulted in a number of preliminary GIS maps. Due to staffing changes, the project was put on hold until early 2005, when it was again moved forward.

As a result of the preliminary stakeholder coordination of 2003, it was agreed that there should be geographic limitations set for this project. Chester County has a great abundance of Revolutionary War Era historic resources, and there was a concern that this project might include an area that would be too large to effectively manage. It was therefore agreed that the project limits would extend from Valley Forge Park south to the County Chester Valley Trail within Tredyffrin Township; along County Chester Valley Trail to the Battlefield of the Clouds Park in West Whiteland Township; and south from the County Chester Valley Trail to the Paoli Massacre Site in Malvern Borough. This area is shown on **Figure 1.1**. It was also agreed that there should be a user-shed evaluation to estimate the number of users that might patronize the Path.

#### **D. Existing County Plans and Studies**

Aside from the technical memorandum mentioned in *Section C* above, there have been no plans or studies that specifically address the Patriots Path as a whole unit. However there have been a number of planning initiatives that address sections of the Patriots Path. These include:

***Review of Chester Valley Railroad for Rail-to-Trail Potential (1992)*** - In October of 1992, the CCPC completed a report to the Chester County Board of Commissioners regarding the potential for converting the Chester Valley Railroad line into a public trail for recreational purposes. This study was completed soon after Conrail and PennDOT announced plans to abandon 22 miles of the Cedar Hollow Branch (also known as the Philadelphia and Chester Valley Railroad) from Bridgeport Borough in Montgomery County, west to Downingtown Borough. In 1995 the line was abandoned, and a 16-mile section was acquired by the Chester County Parks and Recreation Department.

The report noted that, “The location of the [County Chester Valley Trail] corridor can provide a substantial link between Valley Forge National Historic Park. . . and the Struble Trail in the Borough of Downingtown.” It also included a map which showed a “possible link to Valley Forge,” which extended north from the County Chester Valley Trail, up Chesterbrook Boulevard and from there north up Wilson Road to Valley Forge Park. Although the concept of the Patriots Path was not formulated until *Linking Landscapes* was adopted 2002, the general idea was being discussed as far back as 1992.

***Landscapes (1996)*** - In July of 1996, the Chester County Board of Commissioners adopted ***Landscapes: Managing Change in Chester County 1996-2020*** as the Comprehensive Plan Element of the Chester

County Comprehensive Plan. The Action Plan included in *Landscapes* states that with, “the participation of local officials and citizens, the County will prepare corridor enhancement plans or strategic plans for designated corridors.” *Landscapes* also includes two policies that address the need for trail planning:

- 4.3.2 Link concentrations of development through a network of corridors for non-motorized travel.
- 4.3.3 Enhance pedestrian and bicycle connections within and between residential, commercial, and employment areas, and between community facilities.

***Trail Analysis Map for the County Chester Valley Trail (2000)*** - In February of 2000, the RBA group, acting as consultant to the Chester County Parks and Recreation Department, completed a trails analysis map of the County Chester Valley Trail, from Church Farm Road to King of Prussia. This and other engineering studies were funded by a \$2.7 million grant the County received from PennDOT in 1996, as part of the Inter-modal Transportation Efficiency Act (ISTEA) of 1991. The *Trail Analysis Map* was completed as part of the pre-engineering phase of the project, and served the function of a feasibility study. This mapping presented aerial photographs marked with notes taken from field visits. These notes addressed a range of design issues ranging from possible locations for steps and bridges, to noisy conditions and areas of heavy traffic at grade.

***Linking Landscapes (2002)*** - As noted in **Section B**, *Linking Landscapes* specifically recommends that the Patriots Path should be evaluated. *Linking Landscapes* describes the County Chester Valley Trail as both a “Regional Priority Trail Corridor” and a “Future County Trail.” It also identifies a corridor extending from the County Chester Valley Trail to Valley Forge in the vicinity of Chesterbrook Boulevard as part of the Schuylkill Regional Recreation Corridor, which is also designated as a Regional Priority Trail. Regional Priority Trails are described as having “the greatest potential to link large areas of Chester County with trails that extend outside the County...”

## **E. DVRPC 2030 Plan**

The Delaware Valley Regional Planning Commission (DVRPC) is the Metropolitan Planning Organization for Delaware Valley Region consisting of Philadelphia and its nine surrounding suburban counties. Federal law grants the DVRPC a role in planning for transportation, land use and the environment within its region. These regulations mandate that DVRPC prepare and maintain a long-range plan with a minimum 20-year planning horizon. In the summer of 2005, the DVRPC adopted *Destination 2030, the Year 2030 Plan for the Delaware Valley* as the long-range plan for the region.

This *2030 Plan* includes a recommendation map entitled “2030 Conservation Focus Areas of Southeastern Pennsylvania.” This map shows a conservation area that extends along both sides of the Schuylkill River from Northern Chester and Montgomery Counties through Philadelphia. The Valley Forge Park portions of the Patriots Path would be located within this area. The *2030 Plan* also includes a recommendations map entitled “2030 Regional Trails Network of Southeastern Pennsylvania,” which shows the County Chester Valley Trail with one spur trail extending south into Malvern Borough, and

another spur extending north to Valley Forge Park in the vicinity of Valley Creek. The Patriots Path would therefore be consisted with the DVRPC's regional plan.

## **F. Study Corridor, Battle Zone, and Study Region**

The evaluation of the Patriots Path presented in this report focuses on a variety of topics ranging from historic structures to the demographics of potential trail users. *Figure 1.2* shows the following three evaluation areas that are addressed in this report:

**Study Corridor** - which includes all of the three municipalities through which the proposed Path would pass. This corridor will be used to identify physical features that might impact the final alignment of the Path, and any historic structures that might be in close proximity to the Path. This corridor is rather wide because a number of options still remain for where the actual trail alignment might be situated.

**Battle Zone** - which includes the Study Corridor municipalities and a number of municipalities surrounding them. This area held the majority of troop movements and engagements associated with the Battle of the Clouds and the Paoli Massacre. This zone extends approximately seven miles from the proposed trail alignment, and so can be regarded as a “user shed” identifying communities whose residents might use the trail. In *Linking Landscapes*, a 7.5-mile buffer is used as the “service area” for County Parks.

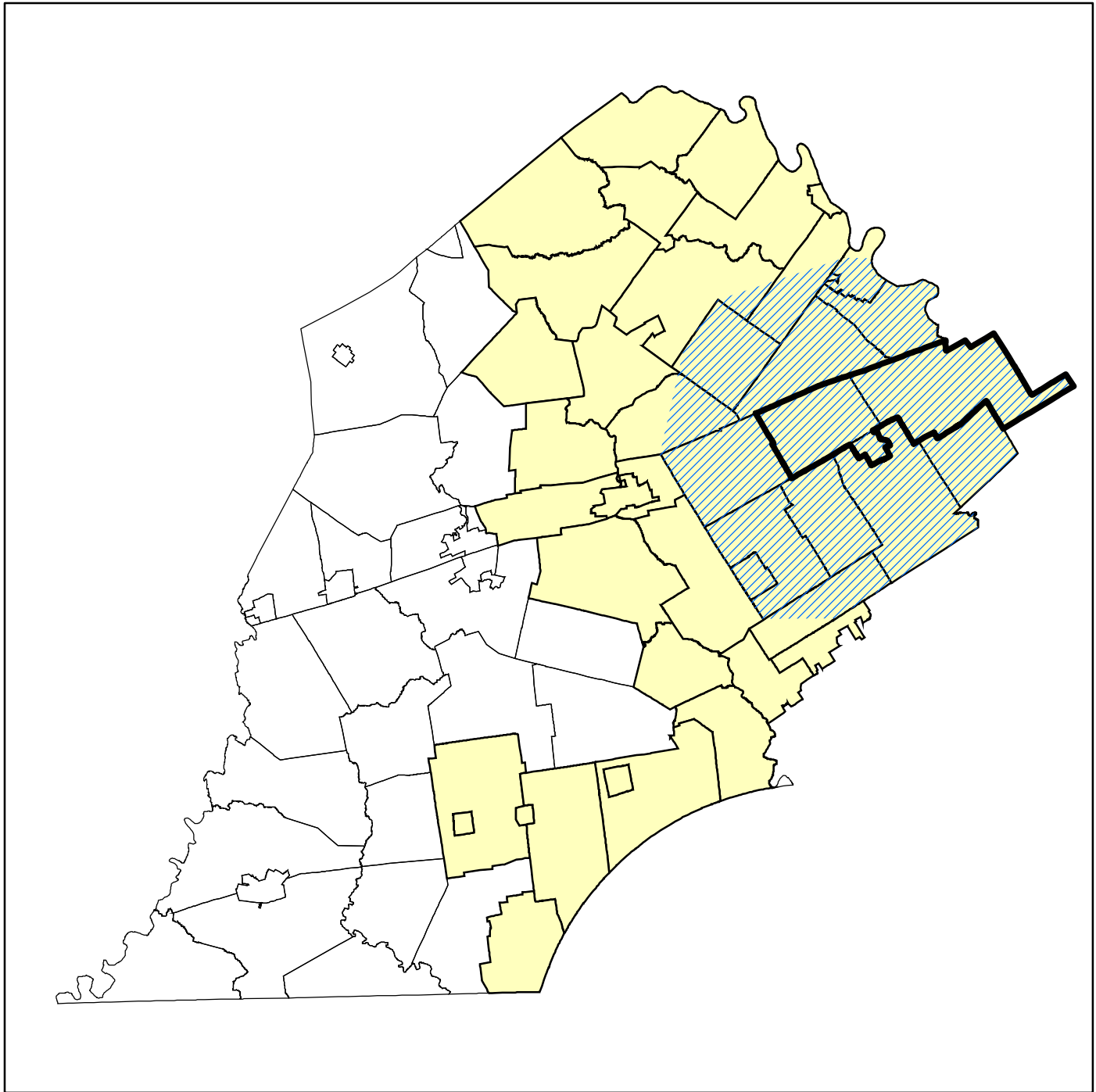
**Study Region** - which includes 42 municipalities in the eastern part of Chester County. Most of the municipalities in this part of the County are conducting some level of trail network planning. It is therefore anticipated that in the long term, these municipalities may have local trails that link to the County Chester Valley Trail or the County Schuylkill River Trail, and thus to the Patriots Path. This region can be used to determine the function that the Patriots Path may have as a major hiking and bicycling collector.

## **G. Political Representation**

Support from elected officials is a key to establishing and funding a trail project. The political representation for the three municipalities in the Study Corridor includes the following seven elected officials:

- **US Senate:**
  - Robert P. Casey, Jr., (East Whiteland Twp., Malvern Boro., and Tredyffrin Twp.)
  - Arlen Spector, (East Whiteland Twp., Malvern Boro., and Tredyffrin Twp.)
- **US Congress:**
  - James Gerlach, 6th Dist. (East Whiteland Twp. and Tredyffrin Twp.)
  - Joe Sestak, 7<sup>th</sup> Dist. (Malvern Borough)
- **PA State Senate:**
  - Andrew E. Dinniman, 19<sup>th</sup> Dist. (East Whiteland Twp., Malvern Boro., and Tredyffrin Twp.)
- **PA State House:**
  - Robert J. Flick, 167<sup>th</sup> Dist. (Malvern Boro.)
  - Carol A. Rubley, 157<sup>th</sup> Dist. (East Whiteland Twp. and Tredyffrin Twp.)





**An Evaluation of Patroits Path  
Trail Opportunities  
in the Eastern Great Valley**

**Figure 1.2**  
**Study Corridor, Battle**  
**Zone and Study Region**

Chester County

- Legend**
- Study Corridor
  - Battle Zone
  - Study Region
  - Municipalities

3 1.5 0 3 Miles



1:380,160  
Scale: 1" = Approx. 6 Miles  
Date: November 2007

Source: Chester County  
Planning Commission, 2007.

## **Part 2: Project Purpose, Needs and Benefits**

The primary purpose of Patriots Path will be to establish be a memorial to the soldiers who died at the Battle of the Clouds and the Paoli Massacre. Although the proposed Path will function primarily to link Valley Forge Park to the Paoli Massacre Site, it will also benefit its surrounding communities by addressing a number of local and regional planning needs described below.

### **A. Memorial to Fallen Soldiers**

Currently, the Paoli Massacre and the Battle of the Clouds have largely descended into obscurity, and are not well known to the general public despite their historic significance. Although Valley Forge National Historic Park provides a memorial to Revolutionary War casualties, it focuses on soldiers who died mostly due to disease and exposure, rather than to battle-related injuries. Furthermore, the Battle of the Clouds Park was not the actual location of that battle, and the Paoli Memorial Grounds are situated deep within a residential neighborhood. There is a need to better memorialize the soldiers who died in battle at Paoli and the Clouds in a way that will publicize their sacrifice to a broad spectrum of Americans. It is also important to make local residents aware of the role that their own communities had in the events that shaped the formation of the United States. The Patriots Path could help address these deficiencies, by providing thousands of recreational users, including children, with educational opportunities such as markers and interpretative signs highlighting the very landscapes of these battles.

### **B. Historic Interpretation**

Although Valley Forge Park provides excellent historic interpretation opportunities, it does not contain an actual battle location. Conversely, the Paoli Memorial and Massacre Site include a battle location and the mass grave of 53 soldiers, but these facilities have no staff available for historical interpretation. The Patriots Path could connect Valley Forge Park with two battlefield locations, a number of roads used for major troop movements and some significant historic structures. Groups led by Valley Forge Park staff, or volunteers, could lead hiking groups along the Path, thus providing interpretation at the Paoli and Clouds Sites. Self-guided tours could also be established. Furthermore, the roadways in the Great Valley could themselves become part of an historic interpretation byway, in much the same way as the National Park Service's Minute Man Trail. This Trail is located between the towns of Lexington and Concord in Massachusetts, and also deals with Revolutionary War troop movements.

### **C. Recreation Relief for Valley Forge National Historic Park**

The official mission of Valley Forge Park is historical preservation and interpretation, not recreation. Nonetheless, the Park had a total of 1.2 million recreational visitors in fiscal year 2003, which averages approximately 3,300 per day. This ongoing heavy use of an under-designed trail system has become a major management issue for Valley Forge Park. Although there is no guarantee that the Patriots Path will decrease the number recreational users in the Park, the proposed Path would create an additional trail facility, which may attract users who would otherwise walk in the Park. The Patriots Path might also provide an opportunity for bicyclists within Valley Forge Park to exit the Park and ride along the County Chester Valley Trail to Malvern Borough or the future Chester County Park at Exton (the former Church Farm property).

#### **D. Improving Pedestrian Opportunities**

There is currently no township-wide network of sidewalks in either East Whiteland or Tredyffrin Townships. Although Malvern Borough has a grid of sidewalks, this network does not extend far beyond the Borough boundaries. Expanding pedestrian trail access would improve public health by promoting walking in all these communities. It could reduce traffic to some degree, relieving traffic congestion and reducing vehicle emissions. The Patriots Path could provide a pedestrian trail that links together six public park facilities in three municipalities. The Path could also help to promote the County Chester Valley Trail as a central pedestrian spine linking much of East Whiteland and Tredyffrin Townships. It could create a pedestrian link connecting downtown Malvern Borough with the Whiteland Farm and Downeast neighborhoods in East Whiteland Township. Similarly, the Path could link the residences of Malvern Borough with the Great Valley Corporate Center, the Trinity Corporate Center and Paoli Industrial Park

#### **E. Improving Recreational Bicycling Opportunities**

*Sections C and D*, presented above, note how the Patriots Path could ultimately link trails within Valley Forge Park with East Whiteland Township and Malvern Borough. These trails would also accommodate bicyclists, from children and beginners, to more experienced long distance riders. Chester County already has a large network of bike routes (which are defined as roadways that have wide shoulders or low volumes.) In most parts of Chester County, bicyclists can ride for long distances on weekends or at mid-day, without having to cross many high volume roadways. However, eastern Chester County has many large roadways such as US Route 202 and the PA Turnpike, which pose major obstacles to bicyclists. The Patriots Path could provide crossings for many of the major roads in eastern Chester County, and thus address the need for safe bicycle crossings.

#### **F. Increasing Commuter Options**

Currently, residents who live north of the Norfolk Southern Line train tracks in East Whiteland Township have no functioning pedestrian access to the commuter train station in Malvern Borough. Likewise residents who live just south of the Norfolk Southern Line have no bicycle or pedestrian access to the industrial parks along PA Route 29. Research presented in *Part 5* of this report suggests that the Patriots Path might create a pedestrian link under the Norfolk Southern Rail lines, but that such a link would not be expected to increase the number of pedestrians using the Malvern Train Station. However, as road congestion and gasoline prices increase, bicycle and rail commuting can be expected to become more viable. The Patriots Path could also increase opportunities for unskilled labor, including local teenagers, to have a more affordable commute between the Malvern area and the industrial parks to the north. This benefit could assist employers who now find the need to raise salaries in order pay for rising transportation costs for their unskilled workers.

#### **G. Malvern Area Economic Development**

Over the past decades, the portion of East Whiteland Township north of Malvern Borough has developed into a major employment center hosting a number of industrial parks. There have also been a series of private and government initiatives to further develop the downtown-shopping district within Malvern

Borough. The Patriots Path could provide an amenity to the industrial parks by providing an opportunity for physical exercise during lunch or after work, and by creating a safe lunch-time pedestrian passageway through a heavily traveled road corridor. The Patriots Path could be used as a marketing tool to draw tenants, especially those in high-tech or service industries that prosper by retaining trained and experienced employees. The Patriots Path will also help to publicize Malvern businesses, by branding the downtown as part of a local historic destination. Because trails tend to have many users on Saturdays, the Patriots Path could be expected to boost weekend sales in Malvern, supporting the same types of food service and retail operations that might also cater to lunch-time shoppers from the nearby industrial parks.



## Part 3: Project Revolutionary War Era History

### A. Historical Background

#### 1. Roads and Landscapes as Historical Features

Because the project is first and foremost a memorial to the Continental soldiers who gave their lives at the Paoli Massacre and the Battle of the Clouds, it is important to understand the key events of these battles. Information on these battles was gathered from the sources listed on **Figure 3.1**. General background on the Revolutionary War was gathered from the 1996 *Encyclopedia of American History*, 7<sup>th</sup> Ed. Harper Collins Publishers, edited by J. Morris and R. Morris. Many well-known historic battles, such as Gettysburg, took place at a given location or battlefield. The Battle of the Clouds has no single battlefield location because it was a running battle, dominated by troop movements and a drawn-out retreat. Likewise the Paoli Massacre consisted of a meticulously executed fast-moving sneak attack, followed by a confused and hasty retreat. Thus, both of these events relate more to the movement and encampment of troops than any formal combat with well-defined battle lines.

#### 2. The Build-up to the Campaign of 1777

On July 4, 1776, the Thirteen Colonies declared their independence from Great Britain. One month later, 30,000 British troops, including 9,000 German mercenaries, landed in New York Harbor and joined forces already stationed there, commanded by Gen. William Howe. Battles during 1776 at Long Island, Harlem Heights and White Plains all went to the British, and the Continental Army was forced to flee across New Jersey into Pennsylvania. Washington's Christmas day attack on Trenton, and a British loss at Princeton, forced Howe to retreat to New York for the winter, while Washington camped in Morristown, NJ. Gen. Howe, using New York City as his base of operations, made plans to restore royal control in Colonies. His strategy called for the British Northern Army, under Gen. Burgoyne, to march south from Canada and attack New England, while Howe himself led an invasion into Philadelphia.

Philadelphia and its surrounding communities were the economic, agricultural and geographic center of the Thirteen Colonies, and by capturing it the British hoped to split the rebelling territories. In July 1777, Gen. Howe's army of some 15,000 men embarked from New York on 260 ships, with the intention of sailing up the Delaware River and laying siege to Philadelphia. This was the largest armada ever assembled in America. After Howe's ships were well out to sea, British scouts sent word that Delaware Bay was quite well defended, and so the General decided to sail up the Chesapeake Bay and attack Philadelphia from the south. In August of 1777, Howe's force, now reduced to 200 ships, landed in what is now Elkton Maryland, initiating the largest movement of troops in the Revolutionary War and the last encounter between the War's two supreme commanders: Washington and Howe (See **Figure 3.1**).

#### 3. The Battle of Brandywine

From his camp in Wilmington, DE, Gen. Washington sent troops to harass the British, and there was a skirmish at Cooches Bridge, south of Newark, DE. After Gen. Howe marched his army north through Kennett Square, it became clear to the Americans that the British planned to attack Philadelphia from the west. In order to stop the assault, Washington positioned his army of 11,000 men along the east branch of

the Brandywine Creek between Street Road (PA Route 926) and Brinton's Bridge Road. Local farmers had told him that this was the only place in which the British army would be able to ford the Creek. Unfortunately for the Americans, the farmers had grossly underestimated the agility of the British troops.

On September 11, 1777, Howe's army launched a two-prong attack. One wing departed Kennett Square along US Route 1, crossed the Brandywine at Chadd's Ford, and attacked Washington's left flank. A second wing traveled north from Kennett Square, along present day PA Route 82 and then turned east, more or less marching around present day Pocopson Township. This second wing forded the Brandywine Creek near what is now Jeffries Bridge and arrived at an area near Brimingham Road in Birmingham Township. From there they attacked Washington's right flank from behind. The inexperienced American troops were outmanned and out maneuvered. After losing 1,000 men, Gen. Washington retreated east along US Route 1. His forces regrouped near the City of Chester in what is now Delaware County, PA.

#### **4. Battle of the Clouds**

Following the Battle of Brandywine, Howe's army rested for a few days, and then marched north and divided into two wings. The western wing, composed mostly of professional Hessian troops, marched up present-day US Route 202, and along High Street into West Chester (see *Figure 3.1*), while the eastern wing went up present day PA Route 352. Meanwhile, Washington's forces made their way through Philadelphia, crossed the Schuylkill River, and marched west along US Route 30 past the General Warren Inn (*Photo 3.1*). Washington established his headquarters at Malin Hall on Swedesford Road and PA Route 29. His troops, presumably exhausted from their long march across the Delaware Valley, camped along Swedesford Road between Malin Hall and the White Horse Inn (*Photo 3.2*).

By now, both sides generally knew each other's location. When Gen. Howe's western wing arrived in West Chester, it divided yet again. Gen. Matthews led troops northward up Pottstown Pike (PA Route 100) to Indian King Tavern, while Gen. Von Donop's marched his Hessians up Phoenixville Pike to Boot Tavern. At the same time Gen. Cornwallis led the bulk of the British army north on PA Route 352 toward the White Horse Inn. On September 16, 1777, with the British advancing on three fronts, Washington began to line up his troops on a high spot just south of King Road near present day Immaculata College (*Photo 3.3*).

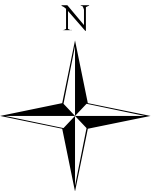
Once again, the British attacked using a two-pronged approach. The Americans were still organizing their battle lines when 5,000 Hessians hit Washington's right flank. Soon after, some 13,000 British forces charged his left side. There were only eleven American casualties, but it became clear to Washington that he had fallen into a trap. As the Continental Army retreated, the sky which had been wet and overcast all day, let loose a downpour. This driving rain, and the mud it created in the dirt roads, literally stopped the British in their tracks. The American forces used the opportunity to retreat north up Old Phoenixville Pike and Yellow Springs Road, ultimately reaching Warwick Furnace to the north. The retreat was guided in part by Gen. Anthony Wayne, an Easttown native who knew the landscape. As a result of fog and downpour, the battle became known as the "Battle of the Clouds." This battle was also called the "Battle of Warren and White Horse," after two inns that were used for British headquarters after the defeat.

# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 3.1**  
**The Campaign of 1777**

Maryland, Delaware and Pennsylvania

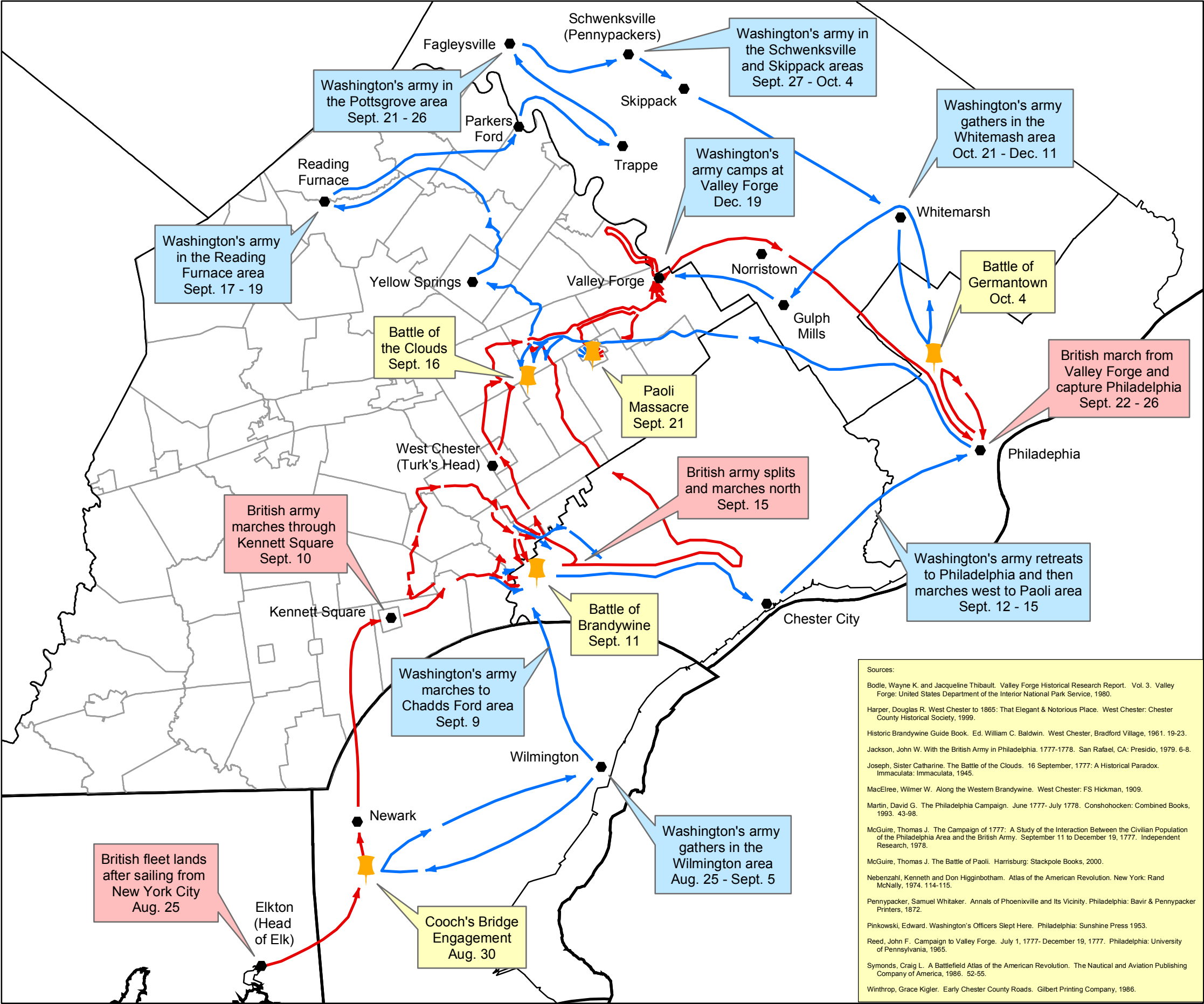
- Legend**
- Troop Destinations
  - 📌 Battle Sites
  - ➡ Continental Troop Movements
  - ➡ British Troop Movements
  - ▭ County Boundaries
  - ▭ Municipal Boundaries
  - ▭ State Boundaries



1:316,800  
Scale: 1" = Approx. 5 Miles  
Date: November 2007

Sources: See map inset.

Notes: All troop movements are approximate.  
Historic place names are in parenthesis.





### Photos of Historic Sites Relating to the Campaign of 1777



***Photo 3.1: General Warren Inn***

Looking west toward the General Warren Inn, which is still an operating restaurant along Old Lancaster Pike just south of Malvern. The new construction shown in the photo is an expansion to the restaurant.



***Photo 3.2: White Horse Inn***

Looking south across Swedesford Road toward the White Horse Inn (with the porch). This private residence is located in West Whiteland just west of the Patriots Path. Because it is surrounded by major roadways, it is largely inaccessible to pedestrians.



***Photo 3.3: Immaculata College***

Looking west along King Street at Immaculata College in East Whiteland. The Colonial army was flanked by the British at this site in the Battle of the Clouds. Surrounded by rail lines and highways, this site cannot be linked to the Patriots Path.



***Photo 3.4: Paoli Burial Ground***

Looking northwest toward the mass grave at the Paoli Memorial Grounds. This enclosure holds the remains of 53 colonial troop killed at the Paoli Massacre. The 19<sup>th</sup> Century limestone marker has deteriorated due to weathering, and so has been cased in Plexiglas.

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## **5. The Paoli Massacre**

The day after the Battle of the Clouds, September 18, 1777, Hessian mercenaries under Gen. Knyphausen marched up Ship Road, and turned east on Swedesford Road where they met with the larger British forces commanded by Gen. Cornwallis. The combined army camped at “Truduffrin,” a wide area south of US Route 202 and Swedesford Road between Valley Forge Road (northern PA Route 252) and Bearhill-Paoli Road (southern PA Route 252). They planned to rest there before the push to Philadelphia. However, two days earlier Washington had sent Gen. Wayne and a force of 1,500 men to secretly return back to the woods south of the Paoli Tavern to harass the Red Coats. At dawn on September 20, 1777, some 5,000 well disciplined British troops surprised Wayne’s camp in Malvern with an unusually quiet bayonet attack. That morning, 71 of Wayne’s men were captured and 53 killed, some in their sleep, in what came to be known as the “Paoli Massacre.” This event would become a rallying call as Continental soldiers vowed to “Remember Paoli.” The routes that Gen. Wayne’s troops took to get to and from the Paoli Massacre are not known (*Photo 3.4*).

## **6. Encampment at Valley Forge and Lessons Learned**

After chasing away Wayne’s forces, Gen. Howe marched east to Valley Forge Village on the Schuylkill River, and feigned an attack on Washington’s troops by marching upstream. Washington, whose supply of gunpowder (wrapped in paper covered musket cartridges) was largely ruined in the Battle of the Clouds downpour, retreated northward. Howe then reversed his army, crossed the Schuylkill and marched to Philadelphia. He captured the City with minimal opposition on September 26, 1777, about one month after he landed his ships in northern Maryland. On October 3, 1777, the Continental army attempted to retake Philadelphia at the Battle of Germantown, but was defeated. As winter approached, Washington marched his army north to Whitmarsh in Montgomery County, and then down the Schuylkill to Valley Forge, a strategic high ground. The Continental Army remained there from December 17, 1777 until June 19, 1778. During this time, Gen. Washington managed to hold together his demoralized, ill-equipped and sometimes hungry army, confounding critics on both sides who expected large-scale desertions.

The Philadelphia Campaign of 1777 was an embarrassment for the Continental Army, and was initially regarded as a failure. However, after it was over, the Americans began to realize that they did not need to win conventional battles in order to win the war. After each defeat in 1777, Washington’s troops were able to flee to the hills or villages and regroup to attack yet again. The British were therefore forced to spend time and money, feeding and housing a massive army, often alienating the local residents over whose cropland they marched. The Continental Army’s tactic of attacking, retreating and regrouping was learned almost by accident in 1777, but it proved to be a valuable lesson. It was employed on purpose and quite effectively three years later in the Carolinas by Gen. Greene, one of the key officers in the Battles of Brandywine and the Clouds. The United States finally won its independence in 1783, after nine years of combat.

## B. Historic Troop Movements

### 1. Overview

**Figure 3.1** shows the general location of troop movements involved with the Campaign of 1777, beginning with the landing of British troops, including German/Hessian mercenaries, in Elkton Maryland, and ending with the British capture of Philadelphia. **Figure 3.2A** highlights events that took place in the Battle of the Clouds, while **Figure 3.2B** describes the Paoli Massacre. **Figures 3.2A** and **3.2 B** show the same geographic area and troop movements, but they are labeled differently to differentiate the two battles that took place in basically the same area. Both of these maps were based on a number of available publications, and should not be regarded as a detailed historic inventory.

**Figures 3.2A** and **3.2B** demonstrate how some troop movements occurred along roads that still exist, while other troop movements took place along roads that have been re-routed or were altogether demolished. These maps show how the British army, augmented by professional Hessian mercenaries, maneuvered a great deal more than the American citizen soldiers under Washington's command. This disparity is due to the fact that the British forces in the late 18<sup>th</sup> Century were arguably the best-trained army in the world. Thus their commanders were able to efficiently split their forces into wings, flank their opponent, and regroup. Conversely, the Continental Army, whose troops and officers had limited fighting experience, were less capable when it came to complex troop movements.

Officers of the British Army commonly sent written reports back to Britain detailing battles fought. As a result there are now many historic records, including maps, to indicate where British troops marched, fought and camped during the Campaign of 1777. The American commanders kept fewer records, and so less detail is known about their movements. Washington's own report of the Battle of the Clouds was short and understated, which historians view as a reflection of his embarrassment at having fallen into a trap and been forced to retreat.



## 2. Historic Road Inventory

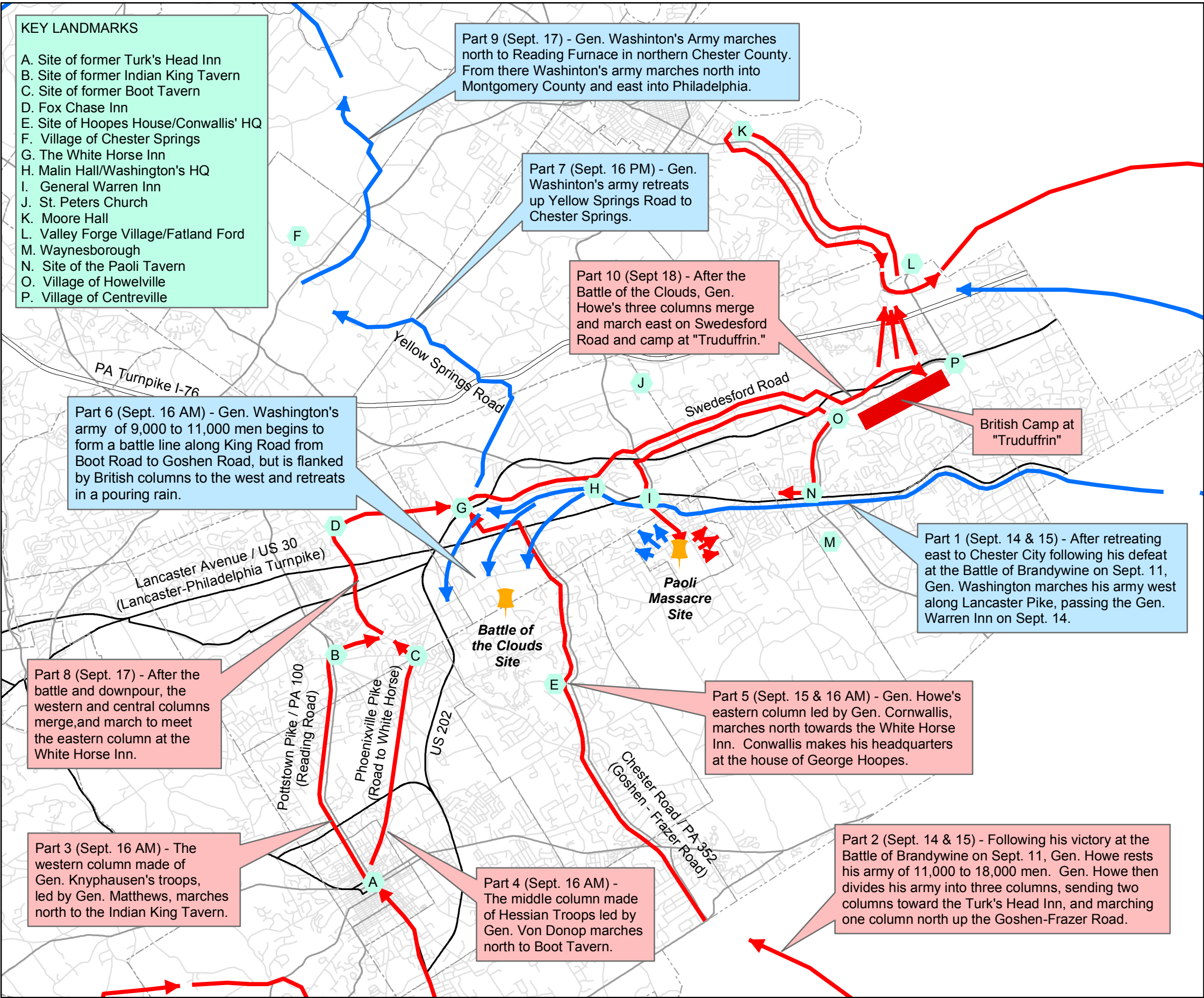
**Figure 3.3** lists a number of major roads that were used for troop movements during the Campaign of 1777. This listing is not based on a detailed historic study, but it still gives a sense of scale regarding the number of historically significant roads in the Battle Zone. Some of these roads still exist along their original alignment, and there is sufficient documentation to feel confident that they were used for troop movements. Other roads have changed alignment, or else there is some uncertainty as to whether they were used. It was common for troops to veer off a road or take a short cut across a field. For this reason, the table on **Figure 3.3** sometimes refers to the “area” near a road or intersection, to show that there is some uncertainty in the available historic records.

In 1777 most of the roads in Chester County would have been packed earth that went up and down hills and valleys, unlike the more level paved roads that now cross the County. Some of the roads traversed by the troops, such as Morehall Road (PA Route 29), follow the general alignment of the 1777 roadways. Some of these roads have been widened and graded to such an extent that they no longer have the overall character of the original roads. Other roads, like parts of Lancaster Avenue (US Route 30) or High Street in West Chester Borough, still have the general width and alignment they had in 1777. In some cases these unaltered roadways still retain buildings that date to the Revolutionary War Era, or else they have new structures that were built on top of the original 18<sup>th</sup> century foundations. Only Swedesford Road through the future County Park site in Exton retains the undeveloped open character that it did during the Revolutionary War Era.

# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

## Figure 3.2 A Battle of the Clouds Troop Movements

Eastern Chester County



0.7 0 0.7 1.4 Miles

1:95,040  
Scale: 1" = Approx. 1.5 Miles  
Date: November 2007

Sources: See Map. 3.1

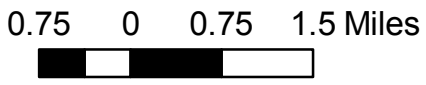
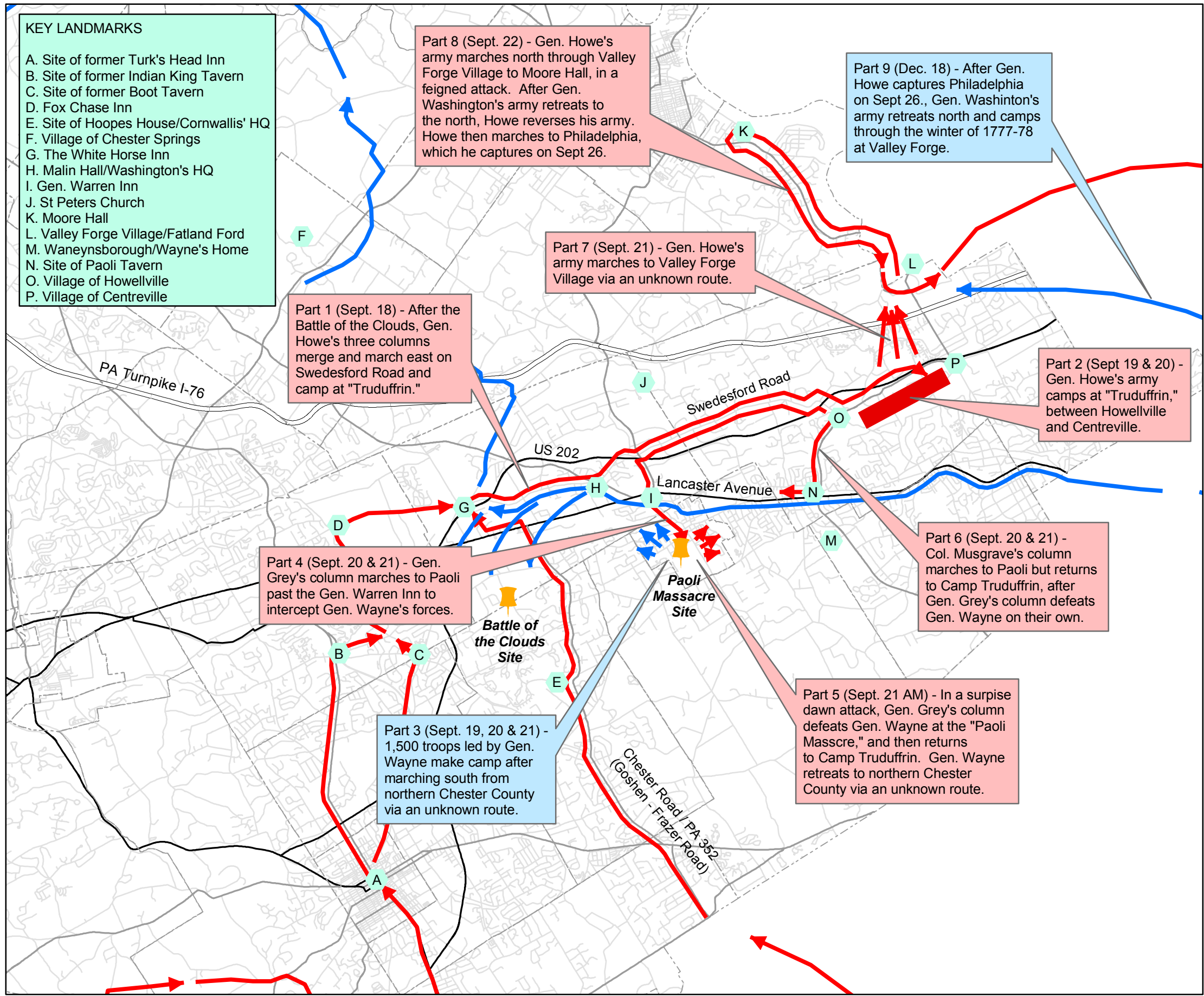
Notes: All troop movements are approximate.  
Historic place names are in parenthesis.



An Evaluation of Patriots Path  
Trail Opportunities  
in the Eastern Great Valley

Figure 3.2B  
Paoli Massacre  
Troop Movements

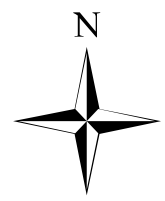
Eastern Chester County



1:95,040  
Scale: 1" = Approx. 1.5 Miles  
Date: November 2007

Sources: See Map. 3.1

Notes: All troop movements are approximate.  
Historic place names are in parenthesis.



*Figure 3.3: Historic Roads within the Study Corridor used for Troop Movements*

Map Key (Dates of Movements)	Commanding Officer (Troop estimates)	Road(s) Traveled
Map 3.2A: Part 1 (Sept. 14 & 15)	Gen. Washington (9-11,000 Americans)	Lancaster Ave./US 30 - from County Line Road west to the Conestoga Rd./PA 401. Conestoga Rd./PA 401 - from Lancaster Ave./US 30 north to Swedesford Rd. Swedesford Rd. - from Conestoga Rd./PA 401 west to Phoenixville Pike.
Map 3.2A: Parts 2 & 5 (Sept. 14, 15 & 16)	Gen. Cornwallis (11-18,000 British)	Chester-Sproul Rd./PA 352 - from Street Rd./PA 926 north to Lancaster Ave./US 30. Lancaster Ave./US 30 - from Chester-Sproul Rd./PA 352 west to the Planebrook Rd. Planebrook Rd. - from Lancaster Ave./US 30 north to Swedesford Rd.
Map 3.2A: Part 3 (Sept. 16)	Gen. Matthews (2-3,000 British*)	High St.-Pottstown Pike/PA 100 - from Gay St. area north to King Rd. King Rd. - from Pottstown Pike/PA 100 to Ship Rd.
Map 3.2A: Part 4 (Sept. 16)	Gen. Von Donop (2-3,000 British*)	Marshall St. - Phoenixville Pike area - from Gay St. area north to Ship Rd. Ship Rd. - from Phoenixville Pike to King St.
Map 3.2A: Part 6 (Sept. 16)	Gen. Washington (9-11,000 Americans)	Phoenixville Pike/PA 100 - from the Swedesford Rd. area north to Yellow Springs Rd. Yellow Springs Rd. - from Phoenixville Pike/PA 100 west to Kimberton Rd. (PA 113) area.
Map 3.2A: Parts 7 & 9 (Sept. 16 & 17)	Gen. Washington (9-11,000 Americans)	Kimberton Rd./PA 113 area - from Yellow Spring Rd. north to Old Kimberton Rd. Old Kimberton Rd. area - from Kimberton Rd./PA 133 northwest along or near Old Kimberton Rd., to Chester Springs Rd., to Flint Rd., and on to the north.
Map 3.2A: Part 8 (Sept. 17)	Gen. Knyphausen (5,000 British*)	Ship Rd. - from King Rd. north to Swedesford Rd.
Map 3.2A: Part 10 & Map 3.2B: Parts 1 & 2 (Sept 18, 19 & 20)	Gen. Howe (11-13,000 British)	Swedesford Rd. - from Ship Rd. east to Yellows Springs Rd. Swedesford Rd. - from Phoenixville Pike west to County Line Expressway/US 422.
Map 3.2b: Part 3 (Sept. 19, 20 & 21)	Gen. Wayne (1,500 Americans)	Unknown Route - from northern Chester County to Malvern Borough area
Map 3.2B: Parts 4 & 5 (Sept. 20 & 21)	Gen. Grey (2-3,000 British)	Swedesford Rd. - from Howellville Rd. area west to Moorehall Rd./PA 29 and back. Moorehall Rd./Warren Ave. - from Swedesford Rd. south to the 2 <sup>nd</sup> Ave. area and back.
Map 3.2B - Part 6 (Sept 20 & 21)	Col. Musgrave (2-3,000 British)	Wilson Rd. area - from Swedesford Rd. area north to Yellow Springs Rd. area.
Map 3.2B - Part 7 (Sept. 21)	Gen. Howe (11-15,000 British)	Wilson Road (assumed) - from Lancaster Ave./US 30 north to Yellow Springs Road and on to the north.

Note: \* Predominantly German Hessians; Blue rows indicate Continental troop movements; Red rows indicate British Troop Movements.



### 3. Troop Movements as Historical Interpretation Opportunities

The County Chester Valley Trail portion of the Patriots Path runs parallel to many of the major troop movements of the Campaign of 1777. Just south of the Path is Lancaster Pike, which was used by Washington to advance to the Battle of the Clouds. British Troops advanced towards Valley Forge along the Swedesford Road/US 202 corridor, just north of the Path. As **Figure 3.4** shows, there are eight locations where the Patriots Path could cross roads that were used for troop movements. These eight locations could be posted with historic markers or interpretive kiosks with maps explaining the significance of the troop movements at each location. Such interpretation areas might address the following events at the actual location where they occurred (the numbers below correspond to the number labels on **Figure 3.4**):

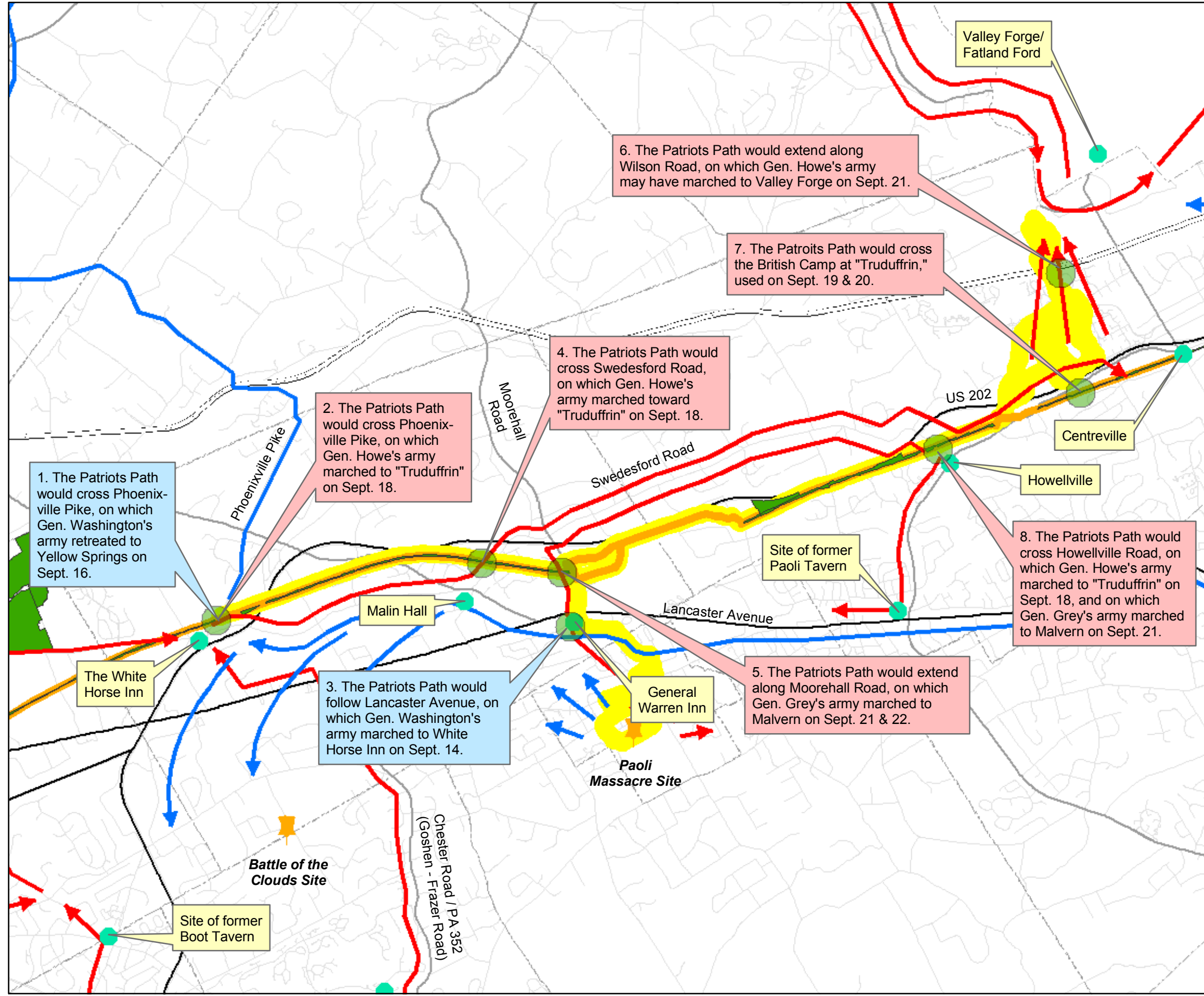
1. **Phoenixville Pike** - At this location, the Path would cross Phoenixville Pike, at the location where, Gen. Washington's Army of 9,000 to 11,000 soldiers retreated in September 16, 1777. Historic records clearly document this troop movement at this location.
2. **Phoenixville Pike** - At this location, the Path would cross Phoenixville Pike, at the location where Gen. Howe's Army of 11,000 to 18,000 soldiers marched to advance toward "Truduffrin" on September 18, 1777. Historic records clearly document this troop movement at this location.
3. **Lancaster Avenue/Old Lancaster Pike** - At this location, the Path would cross Old Lancaster Pike, which was once part of the same roadway that is now US Route 30. In 1777, this roadway was known as the Lancaster-Philadelphia Turnpike or "Lancaster Pike." It was used by Gen. Washington's Army of 9,000 to 11,000 soldiers on their way to the White Horse Inn and the Battle of the Clouds on September 14, 1777. Historic records clearly document that Gen. Washington passed by the Gen. Warren Inn on Lancaster Pike on September 14, 1777.
4. **Swedesford Road** - At this location, the Path would cross Swedesford Road where Howe's Army of 11,000 to 18,000 soldiers marched to advance toward "Truduffrin" on September 18, 1777. Historic records clearly document this troop movement at this location.
5. **Morehall Road** - At this location, the Path would cross the approximate location on Morehall Road where Gen. Grey's force of 2,500 to 5,000 soldiers advanced toward the Paoli Massacre on September 20 and 22, 1777. Historic records clearly document this troop movement at this location.
6. **Wilson Road** - At this location, the Path would extend along Wilson Road, along a route that appears to have been where Gen. Howe's troops marched toward Valley Forge on September 21, 1777. Historic records are not clear as to the troop movement at this location. Available mapping from 1883 shows Wilson Road as having the only bridge crossing of Valley Creek main stem and its eastern unnamed tributary (**Figure 3.5**). Thus it appears possible that Gen. Howe's troops may have marched along Wilson Road in this area.



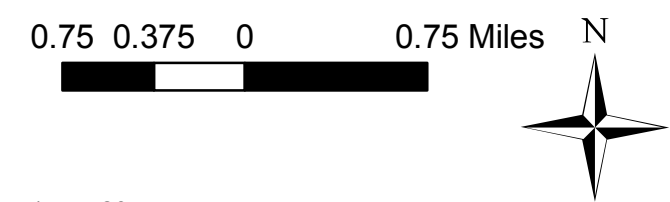
7. ***“Truduffrin”*** - At this location, the Path would pass through the expansive encampment south of the Route 202/Swedesford Road corridor between the villages of Howelville (near Bear Hill Road) and Centreville (near Valley Forge Road). This camp was used sometime between September 18 and 22, 1777, and historic records clearly document that it was established at this location. Historic hand-drawn maps of the camp show a series of encampments scattered along a number of hillsides between Lancaster Pike and Swedesford Road. Unfortunately, it is difficult to relate the landmarks presented on this crude field mapping to modern maps.
8. ***Howelville Road*** - At this location, the Path would cross the road used by Gen. Grey’s force of 2,000 to 3,000 soldiers on his advance to Paoli on September 20 and 21, 1777. This location was also used by Col. Musgraves’s 2,000 to 3,000 reinforcements, who marched south toward Paoli but did not arrive in time for the attack.

An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

Figure 3.4  
Eight Potential Historic Interpretation Opportunities  
Eastern Chester County



- Legend**
- Interpretation Opportunities
  - 📌 Battle Sites
  - ➡ Continental Troop Movement
  - ➡ British Troop Movement
  - ▭ Municipal Boundaries
  - ▭ County Parks Right of Way
  - ▭ Chester Valley Trail Proposed Alignment
  - ▭ Feasible Patriots Path Routes
  - PA Turnpike
  - US Highway
  - PA State Road
  - Local Roads
  - Key Landmarks



1:47,520  
Scale: 1" = Approx. 0.75 Miles  
Date: November 2007  
Sources: See Map. 3.1  
Notes: All troop movements are approximate.  
Historic place names are in parenthesis.



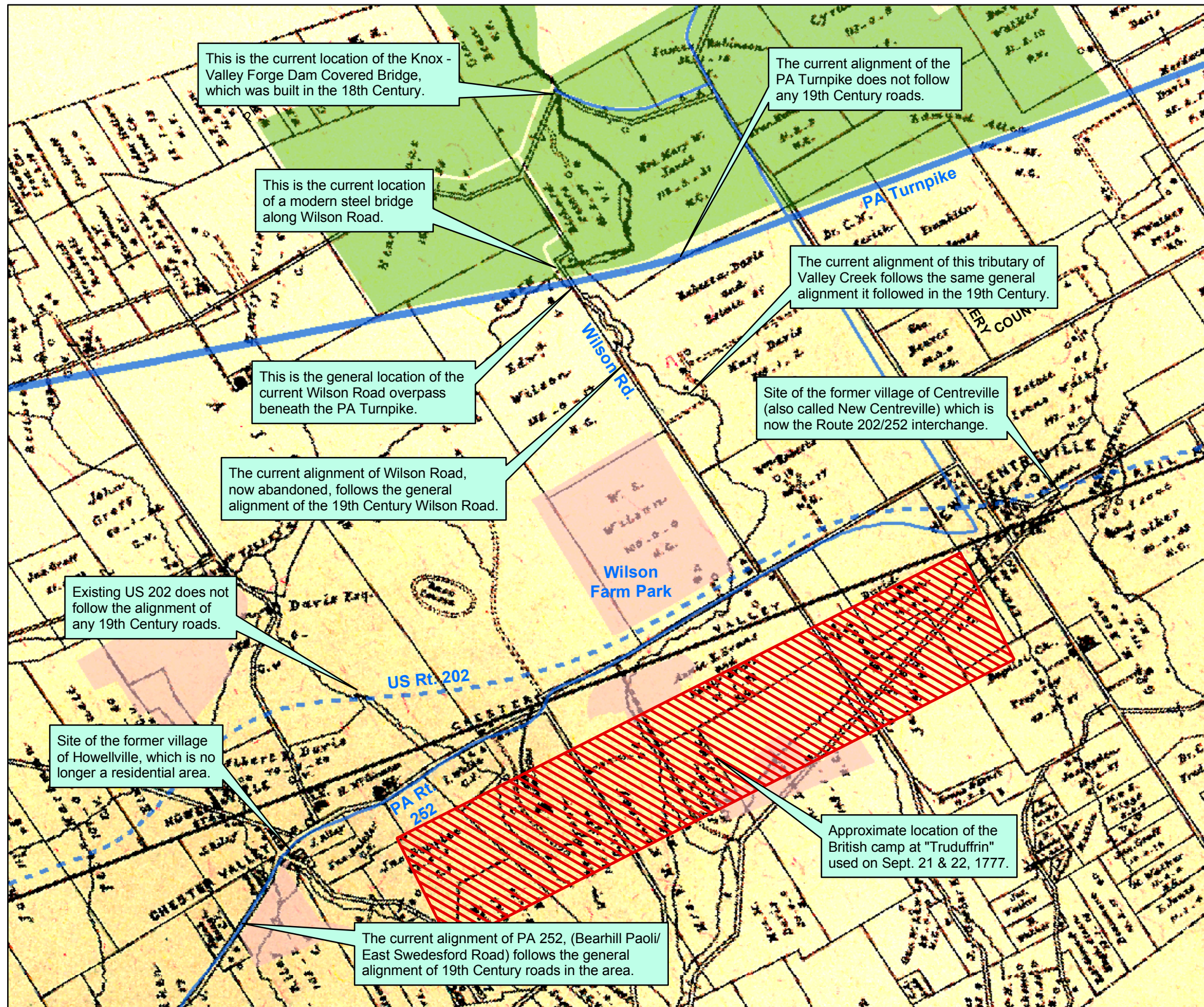
# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

## Figure 3.5 1883 Map of Tredyffrin

Tredyffrin Township

### Legend

- Valley Forge National Historic Park
- PA Turnpike
- US Highway
- PA State Road
- Municipal Recreation Parks



0.25 0.125 0 0.25 Miles



1:15,840  
Scale: 1" = Approx. 0.25 miles  
Date: November 2007

Sources: Historical Atlas of Chester County, PA (1883 Breous Farm Atlas), Chester County Planning Commission, 1998.

Note: Location of British Camp at "Truduffrin" is approximate.



These eight potential historic interpretation sites focus on an entire week's worth of troop movements from September 16<sup>th</sup> through the 22<sup>nd</sup>, 1777. As a result, the historic interpretation component of the Patriots Path would not focus on just one conventional battle, but rather the series of running battles and tactical maneuvers that made up the central phase of the Campaign of 1777. Therefore, the proposed Path could serve as a historical interpretation tool showing the link between Valley Forge Park and the Paoli Massacre Site, while also providing additional information regarding the tactics and counter-tactics that took place throughout the Great Valley.

These eight historic interpretation sites could be augmented at various locations with markers dealing with other topics relating to the Campaign of 1777. A total of 11 markers could be placed about every half mile along just the County Chester Valley Trail portion of the Patriots Path. As a result, recreational users could also be exposed to repeated historical interpretation markers. Such markers might address the Battle of the Clouds and the Paoli Massacre, as well as other topics such as:

- The importance of taverns and inns as strategic locations
- Nearby historic structures
- The occupation of the White Horse Inn by both the British and Americans
- Washington's camp between the White Horse Inn and Malin Hall
- The route of Washington's retreat from the Battle of the Clouds
- Impacts to the landscapes that resulted from marching tens of thousands of troops down rural roads and through small villages
- How Chester County residents viewed the battles, including Chester County's pacifist Quakers
- Gen. Howe's expansive camp at "Truduffrin"
- Gen. Howe's strategy of flanking
- Gen. Grey's ability to quietly march some 5,000 men to the Paoli Massacre
- Tactics learned by the Continental Army during 1777
- The role of German mercenaries (Hessians) by the British
- How supplies were acquired to feed these large armies
- African Americans and Native Americans in Washington's Army
- The camp followers, including women and children, that marched behind the troops

Even the trail bed of the Patriots Path could serve a historical interpretation function. In a number of places, users could literally walk the route the soldiers marched. The proposed Path extends through a variety of landscapes, and so it can demonstrate the topography and geography used during the week-long series of battles. Neither Valley Forge Park nor the Paoli Memorial Grounds can be used to demonstrate

tactical movements on such a large scale. Although the Brandywine Battlefield State Park, and its associated National Historic District cover a large area, there is no publicly accessible trail that links all parts of that battlefield area. Therefore, the Patriots Path could provide a unique opportunity for both history buffs and recreational users to better understand the significant role that Chester County communities played in the struggle for American independence.

## C. Historic Structures

### 1. Historic Structures and District Inventory

Presenting a detailed inventory of historic structures and districts within the Great Valley is beyond the scope of this report. However, there are a number of available existing sources that list historic sites within Chester County. The Chester County Planning Commission (CCPC) maintains a GIS database of historic properties that are listed on the National Register of Historic Places, or else are eligible for this listing. The adopted comprehensive plans for the Study Corridor municipalities also include maps showing selected historic structures. **Figure 3.6** shows the locations of historic structures identified by the CCPC that were present during the Revolutionary War Era, which ended in 1783. These properties are listed by name in **Figure 3.7**.

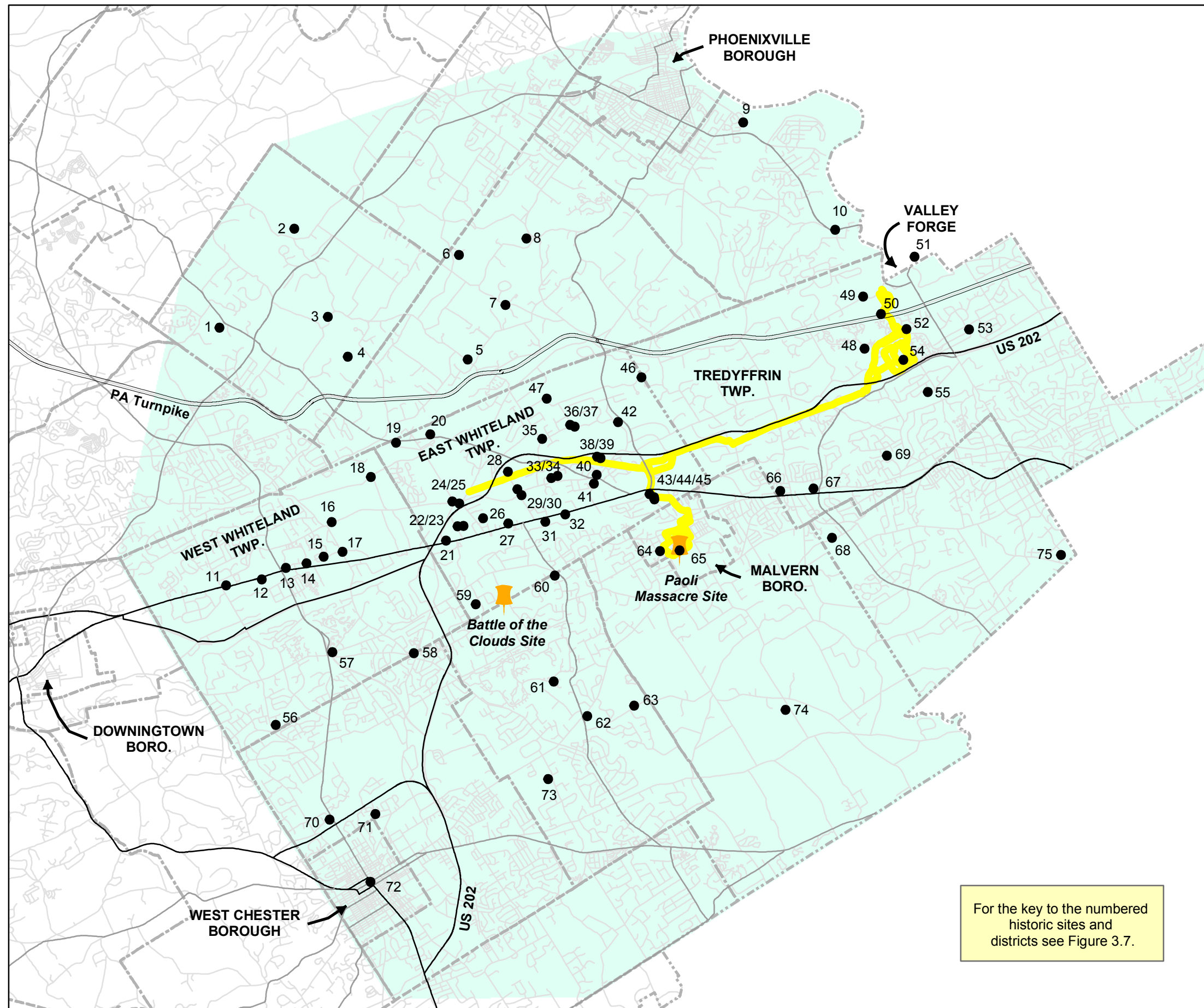
In 1970 the Delaware Valley Regional Planning Commission (DVRPC) published the *Inventory of History*, which listed historic sites in the Delaware Valley. This publication listed 188 historic sites within Chester County, many of which are also included in the CCPC GIS database. The DVRPC *Inventory* also included a number of other properties that relate to the Campaign of 1777, which are not mapped in **Figure 3.5**. Most of these properties are clustered in the vicinity of Valley Forge Park. They include:

- Capt. John Davis's Quarters
- Cornwallis's Headquarters
- DuPortail's Quarters
- Gen. Greene's Quarters
- Gen. Howe's Headquarters
- Gen. Knyphausen's Headquarters
- Gen. Lee's Quarters
- Knox's Quarters
- Maxwell's Quarters
- Poor's Quarters
- Potter's Quarters
- Pulaski's Quarters
- Wayne's Quarters

An Evaluation of Patriots Path  
Trail Opportunities  
in the Eastern Great Valley

Figure 3.6  
Historic Sites & Structures

Eastern Chester County





**Figure 3.7: Selected Revolutionary War Era Properties in the Battle Zone**

1. Lightfoot Mill 1747	40. Three Bottles Tavern 1720
2. Chester Springs Historic District 1720	41. Malin Hall 1700
3. Clinger-Moses Mill Complex 1764	42. "Cirneo" 1700
4. Ker-Feal 1775	43. Admiral/General Warren Inn (pre 1777)
6. Jacob Wisner House 1761	44. Blacksmith Shop General Warren Inn 1759
5. Middle Pickering Rural Historic District 1750	45. "Banks" 1780
7. Martin-Little House 1735	46. St. Peters Church in the Great Valley 1744
8. Charlestown Village Historic District 1740	47. First Amish Cemetery circa 1700
9. Moore Hall 1750	48. David Harvard House 1766
10. Von Steuben's Headquarters 1778	49. Stirling's Headquarter's 1739
11. Oaklands 1772	50. Lafayette's Headquarters (pre 1777)
12. Thomas Mill & Miller's House 1744	51. Valley Forge Village/NHP 1777
13. Zook House 1750	52. Cressbrook Farm 1740
14. Sleepy Hollow Hall 1741	53. Joseph Walker House 1757
15. John Cuthbert House 1773	54. Lee & Bradford's Headquarters (pre 1777)
16. Fox Chase Inn 1765	55. Richards, Jones Historic Complex 1735
17. Evans Lewis House 1717	56. George Hoffman House
18. Solitude Farm 1750	57. Site of former Indian King Tavern (pre 1777)
19. Lapp Log House 1700	58. Site of former Boot Tavern (pre 1777)
20. Henry Curtis House 1751	59. Jane McAfee 1704
21. Thomas Norris House 1778	60. Site of former Three Tuns Tavern (pre 1777)
22. Washington Baker circa 1730	61. Approx. site of former George Hoopes House (pre 1777)
23. McKee-Pearce House 1747	62. Goshenville Historic Dist./Former Goshen Meeting 1704
24. White Horse Village Store 1765	63. Spatz Property 1702
25. White Horse Tavern 1721	64. Paoli Memorial & Parade Grounds 1777
26. Isaac Richardson House 1720	65. Paoli Battlefield Site 1777
27. Chester County Academy 1775	66. Site of former Green Tree Inn (pre 1777)
28. Richard Richardson House circa 1740	67. Site of former Paoli Tavern (pre 1777)
29. R. Thomas & Family Cemetery 1754	68. Waynesborough 1724
30. Edward Kennison House 1745	69. Wetherby-Hampton-Snyder Log House 1700
31. Hibberd Family House 1734	70. John Hoopes House 1734
32. Benjamin Hibberd Farm 1700	71. Collins Mansion 1727
33. William Paschall House 1719	72. Site of former Turk's Head Inn (pre 1777)
34. William Latta House 1729	73. Goodwin Acres 1749
35. Abraham Lapp 1750	74. Isaac Garret Farm 1755
36. Williams-Davis House circa 1776	75. Saint David's Church & Graveyard 1767
37. Henry Kurtz House 1779	
38. John and James Malin House 1700	
39. John Malin Jr. Tenant House 1700	

Note: Dates are estimates based on available published information that has not been field verified.



## 2. Historic Interpretation at Historic Sites

Although the Battle Zone includes a significant number of historic structures, few of them are in close proximity to the Patriots Path corridor. Those that are nearby are mostly officers quarters associated with Gen. Washington's encampment at Valley Forge, which occurred in the winter of 1777-78, months after the Battle of the Clouds and the Paoli Massacre. As a result, it would appear that the emphasis of the historic interpretation for the Patriots Path should be troop movements and historic roadways, rather than events or persons associated with specific historic structures. The still-standing historic properties that are most important to Battle of the Clouds and the Paoli Massacre are:

- **Valley Forge Village/Fatland Ford** - This area is well known as the site of Gen. Washington's winter encampment after the Campaign of 1777. It was also the site of a village, and nearby ford. The Village was a strategic destination for Gen. Howe's army, which marched through it twice, before moving east to capture Philadelphia. This area is currently a National Historic Site.
- **General Warren Inn** – This property was a key destination point for Gen. Washington's march west along Lancaster Pike. Gen. Grey's forces also passed it as they marched to the Paoli Massacre. The Inn was originally called the "Admiral Warren Inn" in honor of a famous British naval officer. After the Colonies declared their independence, it was renamed the "General Warren Inn," after an American officer whose last name was also Warren. This property is currently an operating restaurant.
- **White Horse Inn** – This property was a key strategic point during the Campaign of 1777, and was occupied by both British and Colonial forces. This property is currently a private residence.
- **Malin Hall** – This property was Gen. Washington's general headquarters. It marked the eastern end of the Continental Army's camp along Swedesford Road prior to the Battle of the Clouds. This property is currently a private residence.

## D. Historic Interpretation Programming Opportunities

The proposed Patriots Path could provide many opportunities for historical interpretation programming. Because the Path would connect to Valley Forge Park, it could become an educational resource for tourists and student groups visiting the Park. Because the Path would link to municipal recreation trails, it could also provide historic opportunities to local residents and make historic education part of their overall recreation experience. Some possible historic interpretation opportunities include:

**Linking Battlefields to Valley Forge** - Although Valley Forge Park is a nationally significant Revolutionary War site, it does not include any battle fields. With the Patriots Path in place, groups of visitors could be taken on guided tours that could show the actual topography and distances that British and American forces crossed during the 1777 Campaign. School officials might appreciate offering students an opportunity to experience history while exercising. By linking the Park to locations where soldiers died in combat, Park staff might have new opportunities to discuss events that occurred outside the Park boundaries, thus increasing the scope of their historic programming.

***Philadelphia Campaign Cultural Context*** - The Philadelphia Campaign in Chester County consisted of a series of battles and troop's movements that took place in farmsteads, villages and small towns.

Thousands of armed soldiers marched through places where ordinary people lived and worked. The Patriots Path will pass through modern day communities where people still live and work. By walking the Path through suburban landscapes, users and students can be challenged to imagine how they would react if 5,000 foreign mercenaries were to walk down their street, or to set up military headquarters in the best hotel in the neighborhood.

***Demonstrating Military Tactics*** - The Patriots Path crosses the actual landscapes upon which British and American generals had to implement a battle plan. The Path crosses over waterways, and up hills that military planners had to consider when directing their troops. The Path therefore has an opportunity to demonstrate the conditions, such as landforms and weather, in which Washington and Howe had to operate. The Path might include interpretive displays demonstrating the value of securing the high ground or flanking an opponent. The linear nature of the Path could be used to demonstrate how close one army needed to be in order initiate musket fire or cannon fire against an opposing force.

***The Military and Cultural Significance of Inns and Taverns*** - There are a number of taverns, most of which no longer exist, that were strategic destinations for both the British and the Americans. The White Horse Inn is well documented to have been a strategic site that was sought after by both the British and Colonial armies. The General Warren Inn also had a role in the Campaign of 1777, and is still used as a restaurant. It might be possible for structures such as these to become the focus of educational tours or destinations for historic tourism. These buildings could demonstrate the importance that inns had in colonial America, and as military targets in the Revolutionary War. However, there would first have to be coordination with the property owners before any such programming could be pursued.

***Signage*** - Chester County has had great success with raising public awareness about watersheds and open space lands protected from developments. Strategically placed signs currently tell drivers when they are entering certain watersheds or open space preserves. Such an approach could also be taken with the Patriots Path on a pedestrian level. Where the Path crosses roads used for troop movements, signage could be erected describing the number of soldiers and circumstances that brought them there. Signs could also give directions to nearby historic buildings that played a role in the Campaign of 1777. Currently the Brandywine Valley in southern Chester and Delaware Counties has a system of signs to direct tourists to attractions in the vicinity of Chadds Ford, including areas associated with the Battle of Brandywine. This approach could also be applied to the Great Valley.

***Bicycle Related Historic Interpretation*** - Currently, a bicyclist can ride from Valley Forge Park in Montgomery County to the site of the Battle of Germantown in Philadelphia via public trails and back streets. Such a ride can be completed in one day. Valley Forge Park is already well suited as a bicycling destination. With the Patriots Path in place, guided historical bicycle tours could be conducted from the Park, including short trips to Malvern Borough, or longer trips to Revolutionary War sites in Philadelphia or Montgomery County.

**Potential for Expansion** - Much of eastern Chester County was crossed by some sort of troop movement in 1777, as shown previously on **Figure 3.2**. Many communities in eastern Chester County are currently working toward creating municipal trails, many of which will link into the County Chester Valley Trail. As this multi-municipal trail network grows, it is more likely that new trails will cross streets that had troop movements. Thus it may be possible to expand the historic interpretation opportunities as more municipal trails link into the network. **Figure 3.1** demonstrates that it may also be possible to extend the Patriots Path concept into Montgomery County, which already has a well-developed network of trails.

## Part 4: Field Observations and Evaluation

### A. Scope of the Field Observations

During the summer of 2005, a preliminary field view was conducted along a number of routes that were feasible for use by the Patriots Path. The purpose of this field view was to determine if there were any obstacles or opportunities for the proposed Path that could only be observed from the ground. Because the County Chester Valley Trail is already in the design/construction phase, there was no need to conduct a field view for that segment of the Patriots Path. As a result, field views were conducted for two sections of the Patriots Path: The Wilson Road/Chesterbrook Boulevard Section and the PA Route 29/Malvern Sidewalks Section.

### B. Field Observations for the Wilson Road/Chesterbrook Boulevard Section

Field observations were conducted for Wilson Road/Chesterbrook Boulevard Section in four areas, as presented below:

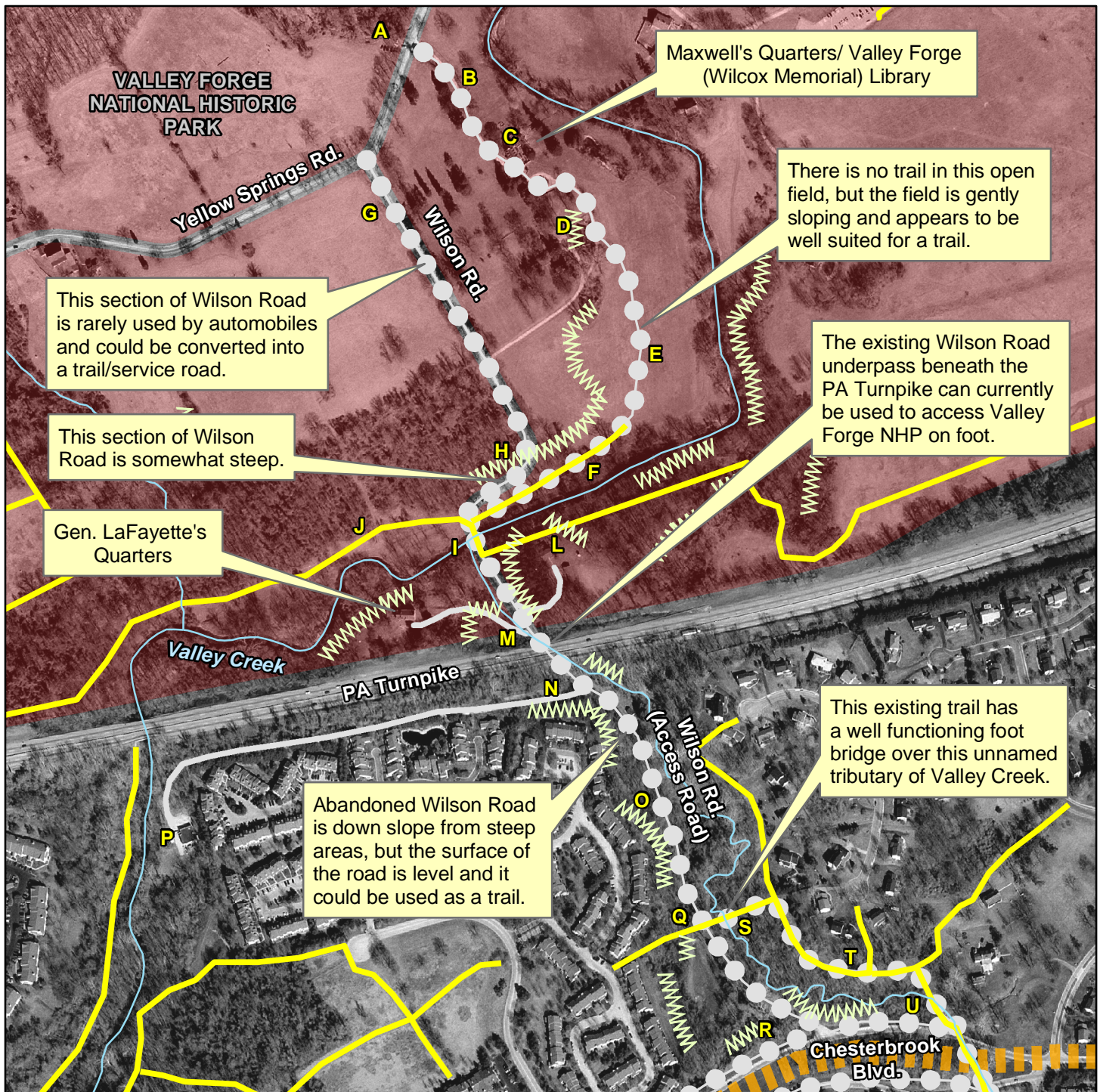
#### 1. Wilson Road Area

Within Valley Forge Park, there are two possible routes for the Patriots Path, as shown on *Figure 4.1*. The eastern route could begin at Yellow Springs Road, across the street from a small parking lot area (A). This route could extend along the driveway (B) that leads to Maxwell's Quarters, which also houses the Wilcox Memorial Library (C). This driveway is one lane with macadam in moderately good condition. Its grading is smooth and it has a gradual incline rising to the north. There is space on the lawn to the east side of this driveway for a trail to be added, or the driveway itself could become a trail.

The library building appears to have once been a farm estate with a number of associated buildings. This complex could serve as the northern trailhead for the Patriots Path. All the buildings are in need of repair, which might receive extra funding if they were designated as a trailhead. There is an oval driveway loop to the south of the building that could hold interpretive signage regarding the Patriots Path. South of the library is also a uniquely built stone springhouse, and building that appears to have been an 18<sup>th</sup> Century carriage house (D) which was converted to an automobile garage. This structure might be suitable for restoration as a trailhead visitor's center with restrooms.

From the library complex, the Patriots Path could extend south and west through an open field (E). This corridor would gently slope down toward Valley Creek, and then meet up with an existing trail (F). The western end of this existing trail is a level, 3-foot wide, packed earth primitive trail that gradually turns into a gravel-covered trail that appears to have once been an access road. This gravel trail (F) appears to have been washed out by floods. Its surface is flat but crossed by erosion channels, with many loose cobbles. This gravel trail extends west toward the bridge (I) over Valley Creek.










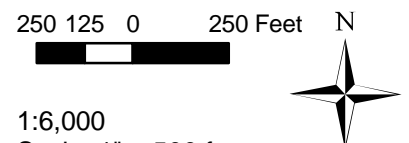
# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 4.1**  
**Wilson Road Area**

Tredyffrin Township

## **Legend**

-  Steep Slope Areas
-  Streams and Rivers
-  Existing Municipal/FVNHP Trails
-  Feasible Patriots Path Routes
-  Proposed Municipal Trail Links
-  Access Roads
-  Valley Forge Nat. Hist. Park



1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County  
Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols  
are referenced in the text.



The western route for the Patriots Path could extend along Wilson Road (G) south from Yellow Springs Road. In this area (G), Wilson Road is one and a half lanes. It is paved with gravel, but it has many potholes. The roadway is relatively flat with a gentle downhill incline to the south, until it reaches a steep hill (H). This steep section has erosion ruts and many loose cobbles (*Photo 4.1*). At the bottom of this hill, just north of the bridge over Valley Creek (I), there are two gravel-parking areas that could hold three to four cars each.

The bridge over Valley Creek (I) is one lane structure with steel sides and a wood plank surface, spanning approximately 60 feet (*Photo 4.2*). It is posted for 15 tons and appears to be in moderately good condition. North of the bridge, there is a one-foot wide pounded earth trail (J) extending to the west (*Photo 4.3*). This trail is flat and level. The trail is quite thin and compacted suggesting it may be a horse trail. South of the bridge is a wider trail (L) extending to the east, with a pounded-earth surface that is two to three-foot wide. It is a winding primitive path with an uneven surface. Neither of these two trails is well suited for use as the Patriots Path.

From the bridge over Valley Creek (I) south to the PA Turnpike underpass (M), Wilson Road is a one-lane gravel road (*Photo 4.4*). Just north of the underpass, there is a steep paved road branching off of Wilson Road to the east. This road appears to be a recently paved driveway that leads to a Park maintenance facility. At this same location, there is a gravel access road, which leads west to Lafayette's Quarters. The underpass is approximately 25 feet wide, 30 feet high and 90 feet long. There is unnamed tributary of Valley Creek which lies west of Wilson Road in this area (M). There is a culvert that appears to convey this tributary under the roadbed of the underpass. The tributary channel in this area is three feet deep and 10 to 15 feet wide, but it was entirely dry during field visits in August 2005.

Just south of the underpass (N) is a one-lane gravel road that extends a short distance, until it meets the paved portion of Wilson Road. Horse scat found on this section indicates that equestrians are using this underpass to access Valley Forge Park. The dry tributary mentioned above, is located on the east side of Wilson Road in this area (O). Wilson Road, south of the underpass is an access road that is posted for use by municipal vehicles only (*Photo 4.5*). It is used to access two utility buildings. One building is just south of the underpass. The other is off to the west (P) and can only be accessed via a driveway that parallels the PA Turnpike. The entire length of Wilson Road in this area (O) is 10 feet wide, with level and gently roiling macadam that is in moderately good condition with few potholes or cracks. This segment of Wilson Road is well suited for trail use from the underpass south to the intersection with Chesterbrook Boulevard (R).

An existing pedestrian trail crosses Wilson Road (Q). This trail is five feet wide, and is level and flat with macadam in moderately good condition (*Photo 4.6*). This local trail also crosses the dry tributary at a well-maintained modern bridge (S) with steel sides and a wood surface, which is six feet wide with a 15-foot span. The trail then extends east and south (T), behind the back yards of a number of residences, most of which have fencing or trees as a visual barrier. There are manholes (T) in this area, suggesting that it may be a sewer line corridor.



### Photos of Wilson Road in Valley Forge National Historic Park



***Photo 4.1: Wilson Road in Valley Forge NHP***

Looking north along the steeply sloping section of Wilson Road within Valley Forge NHP. The road surface is gravel without well-defined curbs. To the lower right is a loose gravel parking area that shows signs of erosion.



***Photo 4.2: Bridge over Valley Creek***

Looking south from Wilson Road in Valley Forge NHP at the bridge crossing Valley Creek. This is used for park vehicles, and would be well suited as a pedestrian trail crossing for the Patriots Path.



***Photo 4.3: Trails in Valley Forge NHP***

Looking west from Wilson Road in Valley Forge NHP. At the lower right, the edge of the road shows signs of erosion. There is also no clear indication of the hiking trail that begins at the fence break and extends to the west.



***Photo 4.4: Wilson Road Underpass***

Looking south from Wilson Road in Valley Forge NHP at the PA Turnpike bridge over Wilson Road. This could be the location of a pedestrian tunnel to be built as part of the planned widening of the PA Turnpike.

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### Photos of Wilson Road Area South of Valley Forge National Historic Park



***Photo 4.5: Wilson Road Access Road***

Looking north along Wilson Road access road toward the PA Turnpike bridge. The road surface is in good condition.



***Photo 4.6: Trail Linking to Wilson Road***

Looking west from Wilson Road access road toward a trail link that leads to a nearby residential community.



***Photo 4.7: Chesterbrook Pedestrian Tunnel***

Looking south at the pedestrian tunnel that crosses under the eastbound lane of Chesterbrook Boulevard. The trail surface is packed earth.



***Photo 4.8: Trails in Chesterbrook***

Looking south at the existing local trail network, with pedestrian bridges just south of Chesterbrook Boulevard near Wilson Road.

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The trail then extends south, crossing over the same tributary noted above, with a bridge (U) identical to the one above. Oddly enough, the stream channel has standing water at this location, even though it is upstream from the dry channel. Overall, this trail segment could be suitable for the Patriots Path, although there would have to be thorough coordination with nearby landowners.

## **2. Wilson Farm Park Area/North Side**

As **Figure 4.2** shows, there are two possible routes for the Patriots Path south of Wilson Road: one along Chesterbrook Boulevard, and one through Wilson Farm Park, which at the writing of this report, is partially constructed. The route through Wilson Farm Park could extend across Chesterbrook Boulevard via an existing trail (A). The trail in this area (south of the unnamed Valley Creek tributary), has 3-foot wide macadam that is level, but it is warped and covered with silt in places. This trail segment is located in the floodplain and appears to have sustained repeated flood damage.

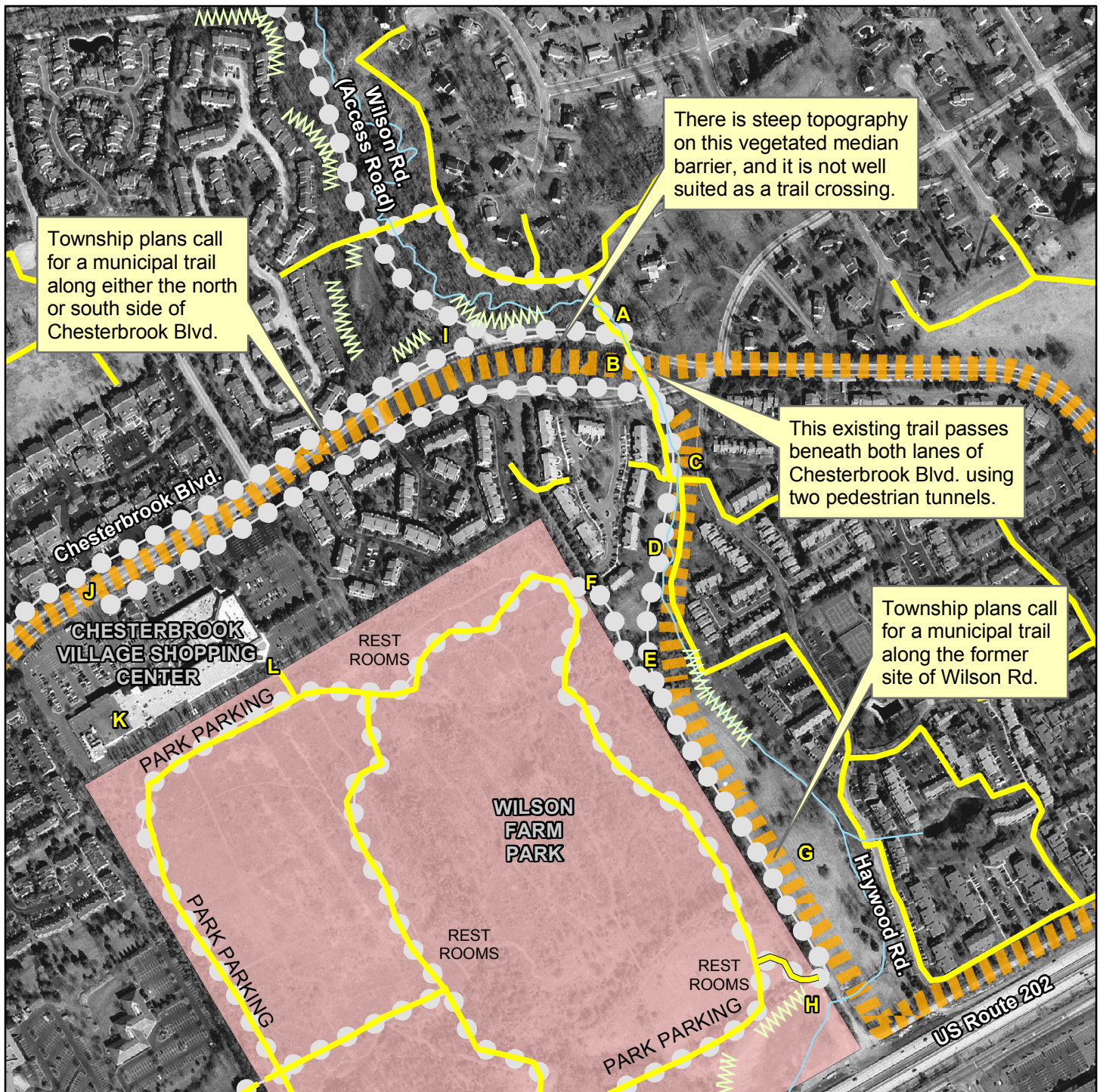
This trail crosses beneath the northern lane of Chesterbrook Boulevard via an egg-shaped pedestrian tunnel (B) that is approximately 7-feet tall, 4 to 5-feet wide and 75 feet long (**Photo 4.7**). The trail then continues south, and crosses the southern lane via a nearly identical pedestrian tunnel that is approximately 90 feet long. From this point the route could follow an existing trail (C) that runs through the residential development west of Haywood Road. This trail is 5-feet wide, flat and in excellent condition. This trail crosses the tributary to Valley Creek (C) via a wooden bridge in good condition, and winds through the development along Haywood Road (**Photo 4.8**).

From west of this wooden bridge, the Patriots Path route could extend due south along a mowed open space corridor that appears to be a utility corridor (D). This corridor leads into a wooded area (E), that appears to be level and was once the cart way for an abandoned section of Wilson Road. From here, the Patriots Path could go north, and enter Wilson Farm Park at its northeastern edge (F). This area (F) currently has a packed-earth “social trail,” that local residents have informally established through a clearing in the trees.

The Patriots Path could also extend from the wooded area (E) south through a large undeveloped area (G) that is designated as a future trail corridor in the Tredyffrin Township Comprehensive Plan. This area (G) is relatively level. It appears to be a utility corridor that would be well suited for a trail. This corridor could permit the Patriots Path to enter Wilson Farm Park from the southeast entrance (H). This entrance is a roadway that curves up an incline rising toward the west. There is a 3-foot wide sidewalk along the north side of this roadway.

The Patriots Path could also follow a route along Chesterbrook Boulevard, starting at the boulevard’s intersection with Wilson Road (A). Chesterbrook Boulevard consists of one lane in each direction separated by a vegetated or painted median barrier. Between Wilson Road and the entrance to the Chesterbrook Shopping Center (J), there are 5 to 6 foot wide shoulders, which are used during the day by pedestrians. This section of Chesterbrook Boulevard has been designated as a future trail site in the Tredyffrin Township Comprehensive Plan. In general, there is limited space to place a trail on the lawn areas next to Chesterbrook Boulevard, but a trail might be feasible using the shoulder areas.





## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

### Figure 4.2 Wilson Farm Park Area/ North Side

Tredyffrin Township

#### Legend

- Steep Slope Areas
- Streams and Rivers
- Existing Municipal Trails
- Sidewalks
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- Chester Valley Trail Proposed Alignment
- Valley Forge Nat. Hist. Park
- Municipal Recreation Parks
- Municipal Open Space

250 125 0 250 Feet N

1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007 (Aerial photography 2000)

Note: Yellow letters symbols are referenced in the text on the following pages.



A trail might not be feasible on the south side of Chesterbrook Boulevard near the entrance to the Chesterbrook Village Shopping Center (J). At this location, traffic turns in and out during the day, and especially on weekends, when grocery shoppers are active. The mall itself (K) has direct access to Wilson Farm Park (**Photo 4.9**) via a small trail segment (L). Therefore, the mall could serve to connect the Patriots Path to the Park, including the Park's restroom facilities. The mall could also be a resting stop for users of the Patriots Path, and might be an ideal location for a bicycle shop. Chesterbrook Village Shopping Center (K) hosts a Rite Aid Pharmacy as well as many food vendors including: Gazebo Coffee Company, Genuardi's Grocery Store, Manhattan Bagel, Pizzaland Restaurant, Rosatti Italian Water Ice, Royal Asian Cuisine, Stop and Go Burger, and Subway Sandwich Shop.



### Photos of Trail Links in and around Wilson Farm Park



***Photo 4.9: Trail Access to Wilson Farm Park***  
Looking south at Wilson Farm Park from the parking lot of Chesterbrook Village Shopping Center. This short trail spur leads from the mall to the Park.



***Photo 4.10: Trail in Wilson Farm Park***  
Looking west along the trails at the northern end of Wilson Farm Park. To the right are public parking spaces.



***Photo 4.11: Berm South of Wilson Farm Park***  
Looking southeast from the south end of Wilson Farm Park. To the left of the berm are trails and a public parking lot within the Park. To the right of the berm is US Route 202. Constructing a pedestrian bridge over the highway at this location would pose many challenges.



***Photo 4.12: Trails along Lee Road***  
Looking southwest at the local trails along Lee Road, just west of Wilson Farm Park. These trails are part of a local network that link to the western end of the Park.

### 3. Wilson Farm Park/West Side

There are two feasible routes for the Patriots Path that would extend through the area west of Wilson Farm Park, as shown in **Figure 4.3**. One route could extend west and south along Chesterbrook Boulevard, along a trail corridor that was recommended in the Tredyffrin Township Comprehensive Plan. In the vicinity of Chesterbrook Village Shopping Center, both lanes of Chesterbrook Boulevard (A) have five to six foot shoulders. These shoulder areas are level and gently sloping and might be suitable for a trail. The east side of Chesterbrook Boulevard in this area (B), is not as well suited for trail use as the west side. The west side is next to flat lawn areas, which might also be used for a trail. The east side is adjacent to steep lawn, and is much closer to residential units. As a result, it would seem more feasible that the Patriots Path might extend along the west side of the roadway.

There is an existing trail (C) that is just west of Chesterbrook Boulevard. This trail loops around a water retention area (C) that has a somewhat steep slope. This trail is 3 to 4 feet wide, but it is warped and has numerous repaired cracks. This trail becomes relatively level and flat to the south, where it crosses the entrance to the nearby office complex (D). From there, it continues south behind a buffer of trees that separates it from Chesterbrook Boulevard. The nearby office parking lot (F) has the potential to be used by Patriots Path users. This existing trail also crosses the Lee Road intersection (E) on the north and east sides only. This crossing is marked on the roadway with a painted strip that gives the appearance that it has brick pavers. There is a bus stop just south of this intersection. This trail crossing appears to have been designed specifically to permit bus commuters to cross the road.

The second feasible route for the Patriot Path, could extend the trail through Wilson Farm Park. This route could begin in the Park's northeast quadrant (G) and follow internal Park trails (**Photo 4.10**) to the west (H). From there, the route could extend south to the main park entrance (I). This route could extend along parking areas and near restroom facilities. Similarly, this route could also extend from the southeast quadrant (J), following internal park trails to the west, and from there, north to the main park entrance (I). This route could also pass by parking (K) and rest room facilities. Although this southern route extends near US Route 202 (L), it is not feasible to bridge the trail over the highway at this location (**Photo 4.11**).

Both of the above routes would take the Patriots Path out of Wilson Farm Park and onto the existing 3 to 5 foot wide trails along Lee Road (M). These trails are flat and in excellent condition (***Photo 4.12***). They lead west to the intersection of Chesterbrook Boulevard and Lee Road (E). These trails also extend along parking lots (N) along Lee Road that might be suitable for use by Patriots Path users.





## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 4.3**  
**Wilson Farm Park Area/  
West Side**

Tredyffrin Township

### Legend

- Steep Slope Areas
- Streams and Rivers
- Sidewalks
- Existing Municipal Trails
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- Chester Valley Trail Proposed Alignment
- Valley Forge Nat. Hist. Park
- Municipal Recreation Parks

250 125 0 250 Feet N

1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007  
(Aerial photography 2000)

Note: Yellow letter symbols are referenced in the text.



#### 4. US Route 202 Area

As **Figure 4.4** shows, there are two feasible routes for the Patriots Path between Lee Road (A) and the County Chester Valley Trail. One route could extend along Chesterbrook Boulevard (**Photo 4.13**), along a corridor (B) that was proposed in the Tredyffrin Township Comprehensive Plan. This route would likely have to lie to the east of Chesterbrook Boulevard for two reasons. First, the intersection with DuPortail Road (B) is posted prohibiting pedestrian crossing, which would mean all pedestrian access would have to be on the east side of road. Secondly, the shoulder on the west side of Chesterbrook Boulevard (C) becomes an on-ramp (D) onto US Route 202, eliminating that shoulder as a potential trail corridor area (**Photo 4.14**).

The east side of Chesterbrook Boulevard is more suitable for a trail corridor since it has a wider shoulder which turns into the driveway (C) of the Wyndham Hotel. The Chesterbrook Boulevard bridge over US Route 202 (E) has sidewalk on only the east side (**Photo 4.15**). The east side of Chesterbrook Boulevard, south of this bridge, has a wide shoulder on the east side (F). Therefore, the east side of Chesterbrook Boulevard is preferable as a trail route to the west side. This eastern route would require pedestrian crossings at the Wyndham Hotel entrance (C), and across the off-ramps of US Route 202 (D).

From the Chesterbrook Boulevard near the US Route 202 off-ramps (D), the Patriots Path could extend along the sidewalk on the east side of the bridge over US Route 202 (E). The proposed path could then extend south along an area of wide shoulder (F) that could be used for a trail (**Photo 4.16**). The construction plans for the County Chester Valley Trail already show a link between the bridge over US Route 202 and the alignment of the County Chester Valley Trail (G). There is an existing segment of sidewalk along Chesterbrook Boulevard (H) that extends from the County Chester Valley Trail to Swedesford Road. This portion of Swedesford Road was used by the British Army as they marched east from the Battle of the Clouds to their camp at “Truduffrin.” Extending a spur of the Patriots Path down this sidewalk could add an additional historic interpretation opportunity, to those already noted in **Part 3** on **Figure 3.4**.

An alternative Patriots Path route between Lee Road and the County Chester Valley Trail could extend the trail south beginning from Lee Road, either at its intersection with Chesterbrook Boulevard (A), or from the trails along Lee Road (I). From here the route could extend south along an existing trail (J). This route could then extend through the lawn area east of the Wyndham Hotel parking lot (J). This route could then extend west (K) between the hotel and US Route 202. There is a parking lot behind the service entrance/loading dock of the hotel (L). At this location there is a curb cut that suggests that there once was a road that led from this area (K) to Chesterbrook Boulevard (D). This area is now mowed lawn, just north of US Route 202. There is a drainage swale in this area, but it could be bridged or crossed with a culvert. This eastern route would require coordination with the hotel and PennDOT, but it would keep trail users away from the DuPortail intersection and the entrance to the hotel.

#### C. Evaluation for the Wilson Road/Chesterbrook Boulevard Section

The field observations of Wilson Road/Chesterbrook Boulevard Section raised a number of issues that may have to be addressed in future phases. These issues are:



**Limited Equestrian Use** - The Patriots Path will not be suitable for equestrian use except in Valley Forge Park. It may not be economically feasible for the proposed PA Turnpike pedestrian tunnel at Wilson Road to be large enough to permit horses. Trails through Wilson Farm Park and the Chesterbrook Industrial Park may also be unsuitable for horses due to the impact that steel shod horses hoofs have on macadam, and conflicts between horses and pedestrians, especially those with children or leashed dogs.

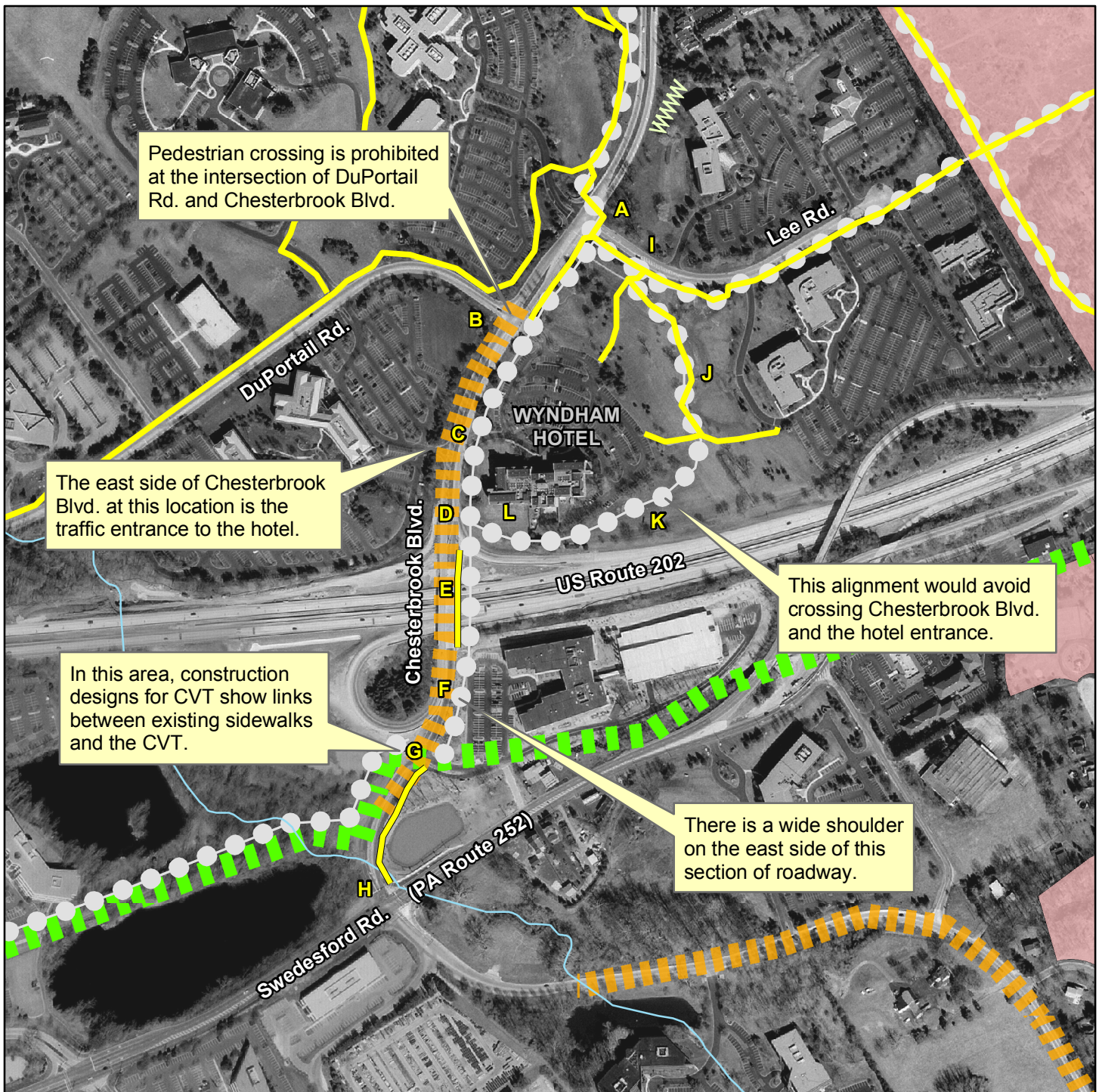
**Partnerships with Adjacent Landowners** - The office complexes in the area could become project partners, permitting Patriots Path users to park in their lots. Under this scenario, the complex owners could benefit by having recreational users on their property during evenings and weekends, thus improving security. The office complexes could also use the trail as an amenity to attract tenants. Similarly the Chesterbrook Village Shopping Center could become a partner, which might add trail users to its clientele, and make the mall a better location for restaurants and bike shops. The Wyndham Hotel could become a partner permitting the use of its right-of-way. The hotel might even advertise the trail as an amenity, perhaps even using the name the “Wyndham Patriots Path Hotel.”

**Disabled Trail Users** - The Patriots Path extends through landscapes traversed by British and American troops in 1777. Since these armies preferred to march on flat land, most of the proposed Path is located on level to gently rolling areas. As a result, most of the trail would likely be accessible by the disabled, although there may be areas with somewhat steep slopes. The steep areas of Wilson Road in Valley Forge Park and the pedestrian tunnels under Chesterbrook Boulevard do not appear to be ADA compliant. Any pedestrian tunnel under the PA Turnpike should be ADA compliant.

**Partnerships with PTC and PennDOT** - The Pennsylvania Turnpike Commission (PTC) could become a partner in maintaining the structural elements of the tunnel under the PA Turnpike. PennDOT could become a partner in providing trail right-of-way along Chesterbrook Boulevard and US Route 202. It may be necessary to reconstruct portions of Chesterbrook Boulevard in order to extend a trail along the shoulder of this roadway. PennDOT should also be involved in creating safe pedestrian crossings, and where needed, signalized intersections that accommodate trail users.

**Environmental and Issues** - The unnamed tributary of Valley Creek appears to have been hydrologically altered to such a great extent that portions of it are dry. The establishment of the Patriots Path along this tributary may raise awareness of this situation. Patriots Path trail planning might also include improvements to infrastructure that would help restore the flow of this waterway.

**Community Issues** - The effect of extending the Patriots Path through residential and commercial neighborhoods will require stakeholder input to assure that the project has public support. The proposed path would create a central trail collector that could be reached by smaller trails that lead out from the many residential developments east and west of Wilson Farm Park. Furthermore, the access building driveway (“P” on **Figure 4.1** above) could become a trail that would link Wilson Road with the existing trails located along Valley Creek in this area.



## An Evaluation of Patroits Path Trail Opportunities in the Eastern Great Valley

### Figure 4.4 US Route 202 Area

Tredyffrin Township

#### Legend

- Steep Slope Areas
- Sidewalks
- Streams and Rivers
- Existing Municipal Trails
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- CVT Proposed Alignment
- Municipal Recreation Parks

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1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols are referenced in the text.





### Photos of Trails and Sidewalks along Chesterbrook Boulevard



***Photo 4.13: Trail along Chesterbrook Boulevard***

Looking south along Chesterbrook Boulevard at the trails on the west side of the southbound lane of the Boulevard. In off-peak hours, hikers currently walk on the wide roadway shoulders (directly to the right of the cars pictured above).



***Photo 4.14: The On-ramp to US Route 202***

Looking south along southbound Chesterbrook Boulevard towards its bridge over US Route 202. The on-ramp to US Route 202 (to the right) occupies all of the Boulevard's wide shoulder in this area.



***Photo 4.15: The Bridge over US Route 202***

Looking south toward the Chesterbrook Boulevard bridge over US Route 202. There is a sidewalk only on the east side (left side) of this bridge.



***Photo 4.16: Wide Shoulder South of US Route 202***

Looking north toward the Chesterbrook Boulevard bridge over US Route 202. There is a wide shoulder leading to the sidewalk on the east side (right side) of this bridge.

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## D. Field Observations for the PA Route 29/Malvern Sidewalks Section

Field observations were conducted for PA Route 29/Malvern Sidewalks Section in four areas, as presented below:

### 1. PA Route 29 Area

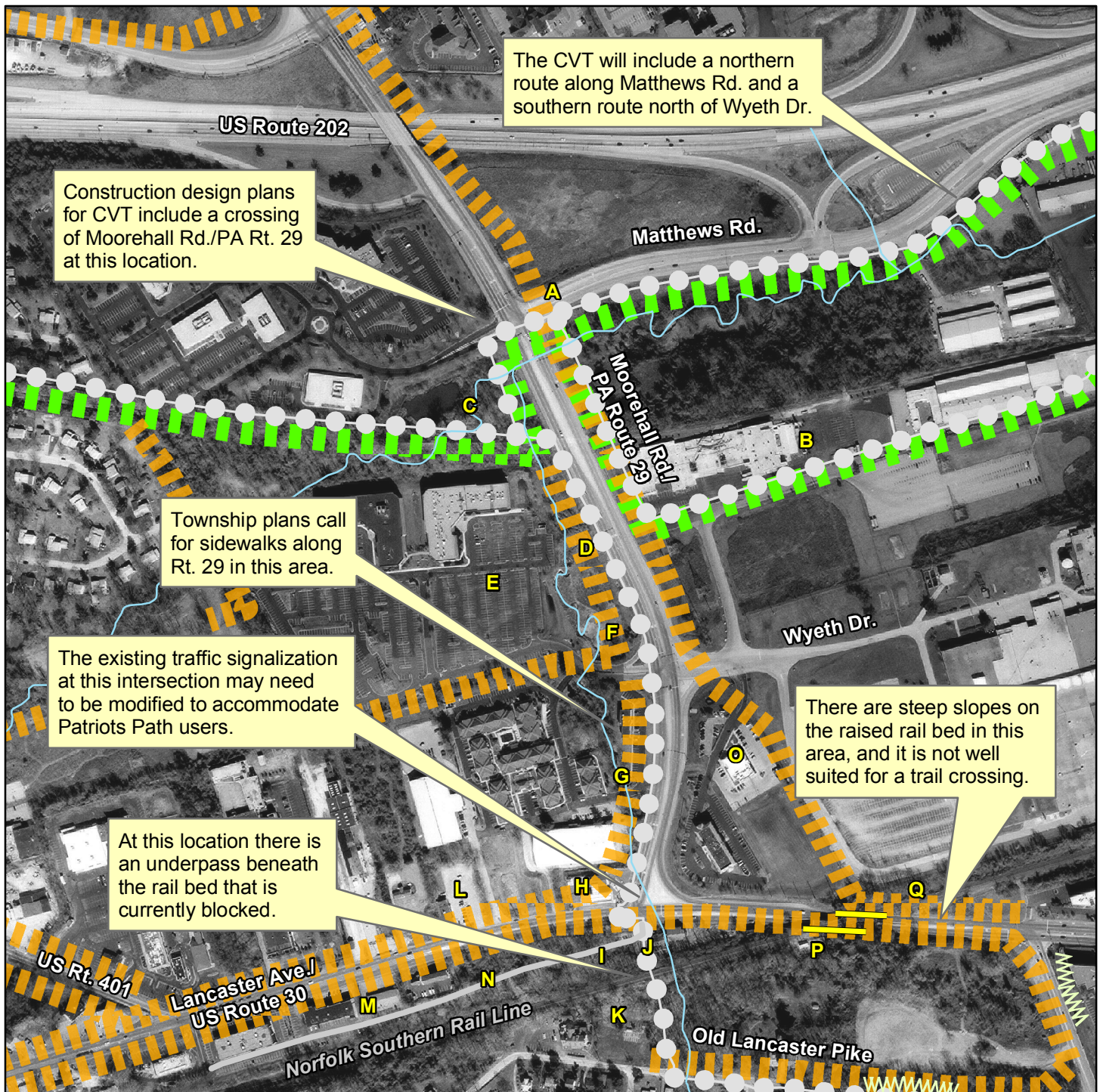
Near PA Route 29, the County Chester Valley Trail will split into two roughly parallel trail segments as shown on **Figure 4.5**. The northern segment (A) will extend along the south side of Matthews Road. The southern segment (B), will extend through a property that is currently undergoing major re-development. The exact alignment of the southern section may change based on as-built conditions. Both of these segments will meet at the intersection of Matthews Road and PA Route 29/Morehall Road (C). At this intersection the County Chester Valley Trail will cross PA Route 29, and extend off to the west. The Patriots Path could also use this crossing.

Along PA Route 29, there is only one feasible route for the Patriots Path. This route could begin where the County Chester Valley Trail intersects with PA Route 29. There is a Wawa convenience store and gas station on the northeast quadrant of this intersection (A). From this point the County Chester Valley Trail will extend west (C), and the Patriots Path could extend south (D). At this location (D), the western shoulder of PA Route 29 is wide enough to park a car (**Photo 4.17**). The East Whiteland Township Comprehensive Plan calls for sidewalks or trails to be established in this area. This section of roadways is flat and well suited for a trail. Trail users may also be able to use nearby parking (E) to access the Patriots Path.

The Patriots Path could continue south on PA Route 29 past a bus stop (F) north of the Wyeth Drive intersection. The Patriots Path could extend along the wide shoulder (G) southward to the western side of the intersection with US Route 30/ Lancaster Avenue. This intersection is signalized and would likely have to be modified to accommodate trail users. The eastern side of this intersection includes a turning lane that is difficult to cross by pedestrians (**Photo 4.18**). US Route 30 in this area (H) has two lanes of traffic in both directions, thin shoulders and no sidewalks. After crossing south over US Route 30, the Patriots Path could extend into an area now being used as a parking lot (I) and driveway/access road. This parking lot is well paved, and it holds 12 to 15 cars (**Photo 4.19**). There is a slight incline leading up to this parking lot from US Route 30.

This parking lot (I) appears to serve a two-story office building (J) that has the appearance of a converted former residential unit. From the parking lot (I), the Patriots Path could extend underneath the Norfolk Southern Rail Line, via an underpass that is currently blocked to its ceiling with fill material. Some of this fill material is soil, and both ends of the tunnel are now overgrown with thick vegetation (**Photo 4.20**). The Path would exit the south end of this tunnel and cross into the parking lot (K) of the General Warren Inn. This Inn was a key landmark during the Campaign of 1777 and is currently operating as a restaurant. The Inn building is on a separate tax parcel from the nearby parking lot. The parking lot tax parcel is presented as a public road on mapping dating to 1993.





## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

### Figure 4.5 PA Route 29 Area

East Whiteland Township

#### Legend

- Steep Slope Areas
- Sidewalks
- Streams and Rivers
- Access Roads
- Existing Municipal Trails
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- CVT Proposed Alignment

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1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols are referenced in the text.





### Photos of Road Shoulders and Right-of-Way along PA Route 29



***Photo 4.17: PA Route 29***

Looking south along PA Route 29 towards US Route 30. The wide shoulder and right-of-way of the southbound lane (to the right) could be suitable for a sidewalk.



***Photo 4.18: PA Route 29/US Route 30 Intersection***

Looking north along PA Route 29 from US Route 30. The right turn lane (to the lower right) from US Route 30 would be poorly suited for a pedestrian crossing.



***Photo 4.19: Blocked Underpass North Side***

Looking south from US Route 30 toward the blocked tunnel (behind the sign and barely visible) under the Norfolk Southern rail line. PA Route 29 (Moorehall Road) once extended through this tunnel.



***Photo 4.20: Blocked Underpass South Side***

Looking north toward the blocked tunnel (visible above the truck) under the Norfolk Southern rail line. PA Route 29 (Moorehall Road) once extended through this tunnel.

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The PA Route 29 corridor is dominated by industrial parks and highways, neither of which possess much in the way of amenities for trail users. Along the north side of US Route 30 (L), west of the proposed path, there is a Friendly's Restaurant, Royal Indian Cuisine and more restaurants to the west of PA Route 401. Because there are no sidewalks and thin shoulders along US Route 30 in this area, these restaurants would not likely be accessible to trail users. However, across the street (M) on the south side of US Route 30 is a Quinzos sub shop. This restaurant could be accessed by trail users via a driveway/service road (N) that extends to the parking lot near the blocked rail tunnel (I).

Current tax parcel mapping shows that the parking lot (I) and the driveway/service road are both located on just one elongated tax parcel. The owner of this parcel also owns two retail commercial buildings in a shopping center called the Century Plaza located to the west of the Quinzo's sub shop (M). If the Patriots Path were to include a spur that extended down the service road/driveway, trail users could access these buildings, making them well suited for restaurants or bike shops. Furthermore, the workers in the industrial parks along PA Route 29 (E) would be able to walk to these shops, perhaps during lunch. Given that there are few pedestrian access ways in this area, such a walking path could become an amenity for marketing the industrial parks, as well as a benefit to the stores in the shopping center.

East Whiteland Township's comprehensive plan also recommends that sidewalks be built along the east side of PA Route 29, extending behind the former Bob Evan's site (O) off Wyeth Drive. This sidewalk could cross the Norfolk Southern rail line near an existing road underpass (P). There are sidewalks at this underpass, but they are right next to traffic, with no shoulder separation. These sidewalks do not appear to be used, and are partially covered with eroded soil. The area to the east of these sidewalks (Q) is dominated by the steep hillsides of the raised railroad abutment. In its current condition, this bridge area (P) is not well suited for the Patriots Path. Extending the Patriots Path through this area could also bypass the Gen. Warren Inn, which is both a high value historic site, and a potential rest stop.

## 2. Malvern North Area

There is only one feasible route for the Patriots Path in the hilly terrain north of Malvern Borough, as shown on **Figure 4.6**. As noted previously, the Path could extend through the currently blocked underpass east of the General Warren Inn (A). From this location, the proposed path could extend east along the north side of Old Lancaster Pike (B), and not Warren Avenue. Some sources suggest that British Troops used Warren Avenue on their way to the Paoli Massacre. However, Warren Avenue is quite steep with little if any shoulders and steep slope on either side.

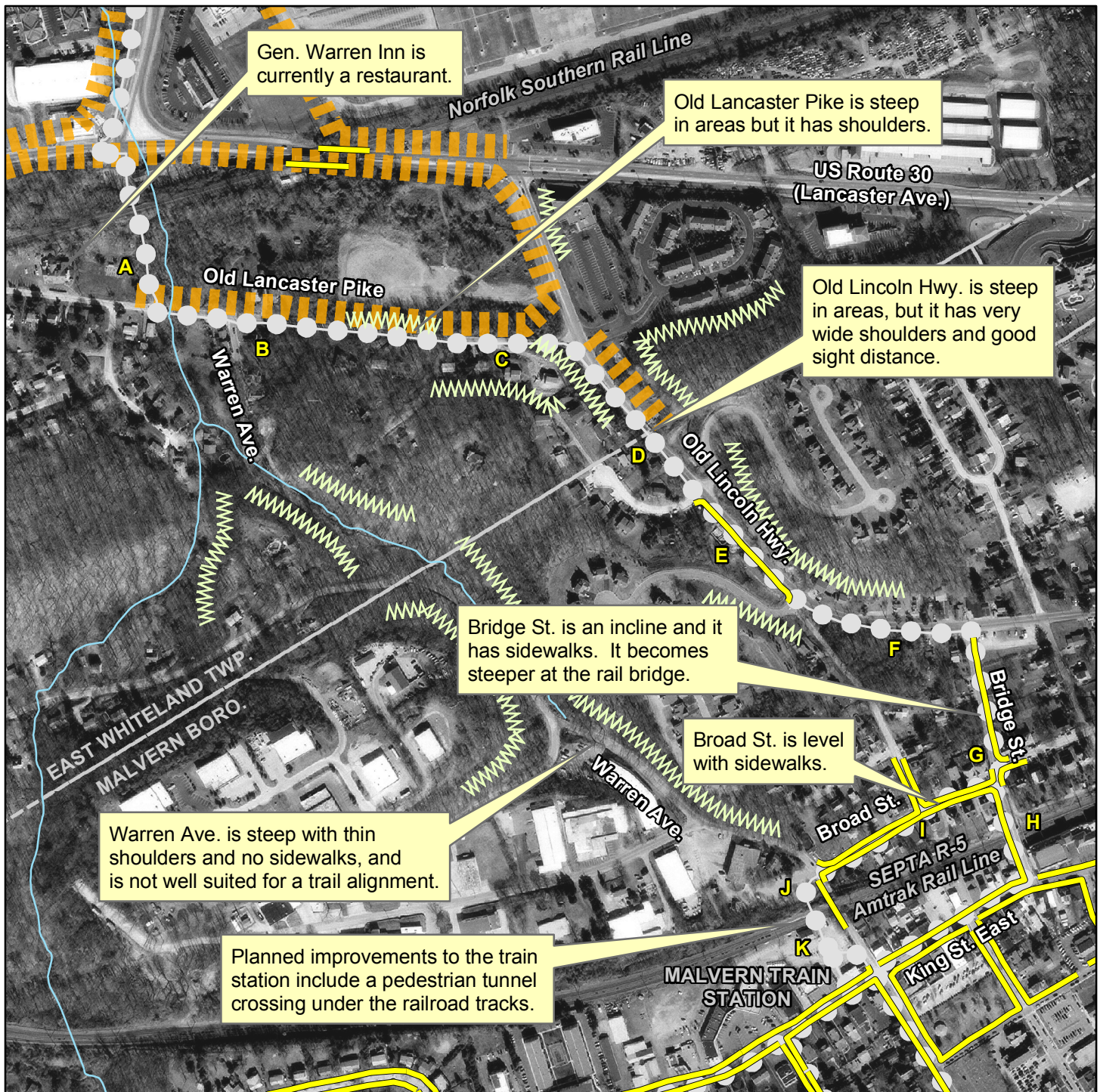
Old Lancaster Pike has a wide, unpainted shoulder on the north side, with an incline rising toward the east (**Photo 4.21**). Old Lancaster Pike becomes thinner, with no shoulders at a point (C) just west of its intersection with Old Lincoln Highway. From Old Lancaster Pike, the Patriots Path could extend south along the west side of Old Lincoln Highway (D). The west side of Old Lincoln Highway has an area with a wide shoulder (D), which leads to an area with sidewalks (E), which in turn leads to another area with a wide shoulder (F). Field observations of this region (**Photo 4.22**) found that this route was the least steep way to get to Malvern Borough.

From Old Lincoln Highway (F), the Patriots Path could extend south along Bridge Street (G). Bridge Street is quite steep. It has sidewalks on the east side, up to the intersection with Broad Street. North of this intersection (H) the sidewalk is only on the west side of Bridge Street, including the bridge over the SEPTA rail lines (**Photo 4.23**). The sidewalk along the bridge becomes very steep in places. This bridge could permit the Patriots Path to enter directly onto King Street East, which is part of Malvern Borough's central business district.

An alternative route for the Patriots Path could turn west from Bridge Street (G) and onto Broad Street (**Photo 4.24**). Broad Street (I) has sidewalks lined with red brick pavers on either side. This street is gently rolling and the sidewalks include many curb cuts and telephone poles. This route could extend west to the intersection with Warren Avenue (J), which is quite steep in this area. The sight distance at this intersection is poor. However, crossing at this intersection would allow trail users to walk to the parking lot (J) on the north side of the Malvern Train Station.

SEPTA has committed to constructing a pedestrian tunnel at the Malvern Train Station (K), which will permit commuters to walk underneath the SEPTA rail track from the northern parking lot to the station. There are also conceptual plans for creating a parking garage on the lot on the north side of the tracks (J). Such a lot would likely require the redesign of the intersection of Broad Street and Warren Avenue. Such a project might improve safety at this intersection, and provide parking for trail users on weekends, when commuters are not using the facility.





## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 4.6**  
**Malvern North Area**

East Whiteland Township  
and Malvern Borough

### Legend

- Steep Slope Areas
- Streams and Rivers
- Existing Municipal Trails
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- Sidewalks

250 125 0 250 Feet N

1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County  
Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols  
are referenced in the text.





### Photos of Roads and Sidewalks South of Downtown Malvern



***Photo 4.21: Old Lancaster Pike***

Looking uphill east along Old Lancaster Pike. The eastbound lane (to the right) has a wide shoulder that may be suitable for sidewalks.



***Photo 4.22: Old Lincoln Highway***

Looking uphill southeast along Old Lincoln Highway. The southbound lane (to the right) has a wide shoulder. It also contains sections with sidewalks that are not visible in this photo.



***Photo 4.23: Bridge Street Bridge***

Looking north from the Bridge Street Bridge toward Old Lincoln Highway. Sidewalks are present only the west side (left side) of the bridge, but they are only present on the east side (left side) of the road leading up to the bridge (behind the car).



***Photo 4.24: Broad Street Sidewalks***

Looking east along Broad Street towards Bridge Street. The sidewalks in this area have ornamental red brick. Utility poles and driveway ramps are common on the sidewalks along these streets.

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### 3. Malvern Central Area

As **Figure 4.7** shows, the Patriots Path has multiple routing options through Malvern Borough. The proposed Path could extend along sidewalks from Bridge Street (A), along King Street (B), and west to the Warren Avenue (C) intersection, which is signalized (**Photo 4.25** and **4.26**). From there, the route could extend past the Malvern Train Station (D) and the Malvern Shopping Center (E). It could then turn south onto Griffith Avenue (F) which does not have sidewalks along its entire length, but does have a wide right-of-way onto which sidewalks could be built. From Griffith Avenue, the Patriots Path could extend west to the Paoli Memorial Grounds via the sidewalks along Monument Avenue (**Photo 4.27**).

The Patriots Path could also enter downtown Malvern through the planned pedestrian tunnel near Warren Avenue (C), and follow the route above (**Photo 4.28**). Or the proposed Path could continue south along Warren Avenue (H) and turn west on 1<sup>st</sup> Avenue (I). 1<sup>st</sup> Avenue does not have sidewalks along its entire length but does have enough right-of-way for them to be built. 1<sup>st</sup> Avenue could be used to access the public trail (I) near Quann Municipal Park, which leads to the Paoli Massacre Site. Another possible route could take the Patriots Path to the intersection of Powellton Avenue and Monument Avenue (J) and from there, either south to the existing trail (I) or west to the Paoli Memorial Grounds (G).

All of these routes could take Patriots Path users through the Malvern Borough central business district. This area contains many home furnishing, antique and interior decoration stores. There is a public parking lot south of King Street East (B), and other parking areas, as well as on street parking. If Malvern's downtown were to link to the Patriots Path, parking concerns would need to be addressed in more detail. King Street and South Warren Avenue are local collector roads that get higher traffic volumes during rush hour. However, there are a number of 3 and 4-way stop signs along these roads. There is also a signal where they intersect, which slows traffic to some degree. This feature, along with the speed bumps throughout the residential grid in Malvern, makes the Borough generally well-suited for pedestrian use.

Trail users entering the downtown would have access to the Kohlerman Pharmacy and a Wawa convenience store, as well as restaurants including Anthony's Italian Restaurant, Beanie's Café, King Deli, Malvern Pizza, Nesting Flowers Gourmet Café and the Tuscany Restaurant. In general, the sidewalks in Malvern Borough are level. In some areas the sidewalks are older and the slabs have buckled with age. Many streets have gaps in their sidewalks. It appears that sidewalks were planned for many of these areas, but were never built. The residential areas through which the Patriots Path might extend, contain quaint older housing that appears to date from before World War II.





## An Evaluation of Patriots Path Trail Opportunities Eastern Great Valley

**Figure 4.7**  
**Malvern Central Area**

Malvern Borough

### Legend

- Steep Slope Areas
- Existing Sidewalks
- Streams and Rivers
- Existing Municipal Trails
- Feasible Patriots Path Routes
- Proposed Municipal Trail Links
- Municipalities
- Municipal Recreation Parks
- Municipal Open Space
- Paoli Memorial Grounds

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1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols are referenced in the text.





### Photos of Roads and Sidewalks of Central Malvern



***Photo 4.25: King Street/Bridge Street Intersection***  
Looking north from King Street toward the Bridge Street bridge over the Septa rail lines. Sidewalks are only on the west side (to the left).



***Photo 4.26: King Street in Downtown Malvern***  
Looking west along King Street toward its intersection with Warren Avenue. This crossing is in the center of the Malvern's retail business district.



***Photo 4.27: Monument Avenue***  
Looking west along Monument Avenue. There are sidewalks along this low volume road, and speed bumps as shown above, making this corridor well suited for pedestrians.



***Photo 4.28: Warren Avenue Underpass***  
Looking north along Warren Avenue toward the SEPTA R-5/Amtrak bridge over Warren Avenue. There is a narrow sidewalk on the west side (to the left) of Warren Avenue under the bridge. However, the low arch of the tunnel complicates walking on this particular section sidewalk.

#### 4. Malvern West Area

There are two possible routes that the Patriots Path could take to reach the Paoli Memorial Grounds, as show in **Figure 4.8**. At the intersection of 1<sup>st</sup> Avenue and Powellton Avenue, there is a trail (A) next to Quann Borough Park (**Photo 4.29**). The Quann Park trail leads south (B) and west (C) to the Paoli Massacre Site. This trail begins as an 8 to 10-foot wide macadam service road in good condition, which slopes downward toward the stream (**Photo 4.30**). There is a utility substation at the bottom of this access road. As it extends downhill, the road turns into a gravel path until it reaches a 5-foot wide, 60-foot long wooden deck that spans a wetland area. South of this, decking, the trail is pounded earth and mowed lawn approximately 8 to 10 feet wide.

This primitive path trail turns uphill to the west and enters the meadow (C) where the Paoli Massacre occurred (**Photo 4.31**). There is an interpretive sign at this location. The Patriots Path could extend from this point westward along the forest edge (D) to the mass grave of the 53 soldiers killed at the Paoli Massacre (E). There is also a monument and an interpretive sign at this location (**Photo 4.32**). From the burial site, the proposed route could extend south along the driveway entrance to the Memorial Grounds (F). This is a two lane driveway in good condition. The Patriots Path could extend along this roadway. There is also enough lawn to the west side of this drive to hold a trail. From the end of the driveway, the proposed Path could extend east onto Monument Avenue (G). There is no sidewalk on the south side of Monument Avenue near the driveway (H), by there is enough space for one to be built.

As described above, the Patriots Path could extend from the Quann Park trail (A) west into the Memorial Grounds. It could also extend from Monument Avenue (H) and southward to the Memorial Grounds (E). However, a more effective approach might be to create a loop trail using both routes, as described above. Such a loop would improve the user experience by eliminating backtracking. Also, this clockwise movement could be valuable from a historic interpretation perspective. It is known that the British marched south on Warren Avenue on their way to the Paoli Massacre, suggesting the British entered the Massacre Site property from the northeast. If trail users were to walk south on Warren Avenue to the Quann Borough Park trail, they would take a route that was similar to the one that the British took when advancing on Gen. Wayne's camp. Trail users would walk through a wooded area, just as the British did, before seeing the very field where the massacre occurred. From the battle site, trail users could then be led west to the mass grave, where they could see the results of the attack.





## An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 4.8**  
**Malvern West Area**

Malvern Borough

### Legend

- Steep Slope Area
- Streams and Rivers
- Sidewalks
- Existing Municipal Trails
- Feasible Patriots Path Routes
- CVT Proposed Alignment
- Municipalities
- Municipal Recreation Parks
- Paoli Memorial Grounds
- Municipal Open Space

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1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County Planning Commission, 2007  
(Aerial photography, 2000)

Note: Yellow letter symbols are referenced in the text.





### Photos of Trails Leading to the Paoli Massacre Site



***Photo 4.29: 1<sup>st</sup> Avenue and Quann Park***

Looking east along 1<sup>st</sup> Avenue toward Warren Avenue and Quann Park. The paved access road (to the right of the manhole) leads to a trail that currently provides pedestrian access the Paoli Massacre Site.



***Photo 4.30: Trail West of Quann Park***

Looking north along the access road off of 1<sup>st</sup> Avenue. An electric utility substation is off to the right at the bottom of the slope. The paved access road becomes a packed earth trail where the lawn transitions into forest.



***Photo 4.31: Trail to the Paoli Massacre Site***

Looking west uphill from the packed earth trail that extends from 1<sup>st</sup> Avenue. In the distance is the site of the Paoli Massacre. This view may be quite similar to the what the British troops saw when approaching the sleeping Colonial troops camped at this very site.



***Photo 4.32: Paoli Massacre Site***

Looking west from the Paoli Massacre site toward the mass grave at the Paoli Memorial. Suburban houses are clearly visible to the left. Two historic interpretation signs are located at the center and left of this photo.

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This loop concept could be expanded to improve tourism in Malvern Borough. If the Patriots Path were a loop that went to the Memorial Grounds via Warren Avenue, returned via Griffith Avenue (I) and King Street (J), and ended at the train Station (K), there could be twice as many businesses that would be passed by tourists. Creating a loop through the Borough might improve funding opportunities to add or upgrade sidewalks. Likewise, this loop might help in the funding of a landscape re-design at the Paoli Memorial Grounds. There is ample ground at this location for the design of a new trail leading from Monument Avenue (G) to the mass grave (E). Furthermore, the residential houses to the south of the mass grave present a visual distraction from this hallowed gravesite. Some sort of landscapes screening might be appropriate.

### **E. Evaluation for the PA Route 29/Malvern Sidewalks Section**

The field observations of PA Route 29/Malvern Sidewalks Section raised a number of issues that may have to be addressed in future phases. These issues are:

***Sidewalks and Multimodal Use*** - The Patriots Path along the PA Route 29/Malvern Sidewalks Section will not be well suited for horseback riding. Although the topography in this area is somewhat steep, it will still be suitable for use by adult bicyclists. However, it may not be an appropriate bike trail for smaller children. Furthermore, combining both pedestrians and bicyclists on the all of sidewalks of Malvern Borough may be prohibited by local ordinances. An alternative may be to dedicate sections of sidewalks and the streets next to them as a pedestrian path/bike route, with a pedestrian walkway on the sidewalks and a bicycle route on nearby lower-volume roads.

***Economic Development in East Whiteland*** - The Patriots Path might create a walkway that could link a number of retail buildings along the south side of US Route 30 with the industrial park properties along PA Route 29. Currently there are no pedestrian walkways that access either of these two areas. The Patriots Path might link these areas with a trail that could easily be reached on foot during lunch hour. There is already one restaurant (Quinzos Sub) in this retail area, and the presence of other restaurants in this area (Friendly's, and Royal India Restaurant) suggests that there is an existing customer base. Much of this trail link would extend along PA Route 29, which is not scenic. However, a section of this trail could extend through the wooded access road/driveway, giving lunch break users exposure to a forested area.

***Tourism Development in Malvern Borough*** - Malvern Borough could serve as the southern rest area for the Patriots Path. There are already a number of restaurants in the Borough. The Borough also has parking and shops, such as pharmacies that could meet trail users needs. The downtown area could therefore serve as a tourist destination, perhaps including a welcome center with restroom. Such a welcome center might be established in an existing shopping center. It is not likely that employees in the industrial parks along PA Route 29 could walk to the Borough's downtown and eat lunch, all within one 60-minute lunch hour. However, workers that wish to go walking during lunch might be able to walk to the downtown and back in an hour, thus increasing the visibility of shops in the Borough.



***Partnerships with Adjacent Landowners*** - Partnerships with adjacent landowners would be essential to establishing the Patriots Path. Along the PA Route 29 corridor, the proposed path could extend next to industrial parks, as well as the businesses along US Route 30, and the Norfolk Southern rail line. It could also pass by numerous businesses and residences in Malvern Borough and the Gen. Warren Inn, which could serve a dual purpose as a rest stop and historic interpretation. All of these stakeholders should be included in the early stages of any effort to establish a final alignment.

***Disabled Trail Users*** - The Patriots Path extends through landscapes traversed by British and American troops in 1777. Since these armies preferred to march on flat land, most of the proposed Path is located on level to gently rolling areas. Unfortunately, the landscapes north of Malvern Borough are located on the long ridgelines that make up the southern extent of the Great Valley. This valley essentially bisects all of Chester County, and from a trails planning standpoint, it is unavoidable. Given the existing rail lines, road network and development pattern, it is unlikely that the Patriots Path north of Malvern Borough can readily become ADA compliant. However, the Patriots Path may enable the redesign of sidewalks within Malvern, in a way that could improve disabled access between the downtown area and the Paoli Memorial Grounds.

***Coordination with Quann Park, Paoli Massacre Site and Paoli Memorial Grounds*** - The Patriots Path might serve as an impetus to conduct a master plan and redesign for Quann Park, the Paoli Massacre Site and the Paoli Memorial Grounds. Master planning could be initiated for each of these adjacent facilities either individually or as one joint project. The Paoli Memorial Grounds could be redesigned to be the southernmost trailhead for the Patriots Path. This property currently has a deteriorated limestone monument marker enclosed in a Plexiglas box. It also has no significant visual screening from the houses nearby, although trees have been planted in this area. A redesign of the Memorial Grounds could give the property a visual quality that is more fitting for a gravesite of 53 Revolutionary War heroes.

***Environmental and Community Issues*** - The Route 29/Malvern Sidewalk Area is largely built. The Patriots Path would extend mostly along existing roadways and sidewalks. As a result the proposed Path would not be expected to create any notable environmental impacts that are not already present. The effect of extending this trail through residential and commercial neighborhoods will require stakeholder input to assure that the project has public support.

## **F. Corridor Wide Environmental Observations**

There are a number of features that are best observed at a regional level. Environmental conditions effecting the establishment of trail include steep slopes and floodplains. In general, the Patriots Path avoids both floodplains and steep slopes. This is likely due to the fact that the proposed Path follows routes that were traveled by the British and Colonial Armies. Since these large armies avoided getting bogged down in wet areas, and aimed for strategic high ground, it should be not be surprising that the routes they chose were flat, dry uplands.

Floodplains should be considered in further phases of the Patriots Path project, but available mapping and field observations suggest that flooding will not limit the overall viability of the proposed Path. As **Figure 4.9** shows, the Patriots Path is crossed by larger floodplains areas in the following locations:

- **Valley Forge Park** - In this area the floodplains are along Valley Creek. The Patriots Path could utilize the existing bridge in this area, and so floodplains would be a concern but not a limiting factor.
- **Along the County Chester Valley Trail** - there are a number of locations along the County Chester Valley Trail where the Patriots Path would be crossed by floodplains. These areas have already been addressed by the construction design plans of the County Chester Valley Trail.
- **East of PA Route 29** - There are floodplains east of PA Route 29. In this area the Patriots Path will extend along sidewalks adjacent to roadways that already have constructed drainage facilities. As a result floodplains would be a concern in this area, but not a limiting factor.

Steep slopes should also be avoided in any trails projects, because such slopes cannot be easily traveled by the elderly or disabled. Trails that do not comply with the Americans with Disabilities Act (ADA) are less likely to receive government funding. Unfortunately, large scale trail projects, such as the Patriots Path cannot always completely avoid steep slopes. In such cases it is necessary to designate areas that are ADA compliant, and minimize the areas that are steep sloping. There are only two areas, both noted on **Figure 4.10**, where it appears that steep slopes will limit trail use by the disabled. These areas are:

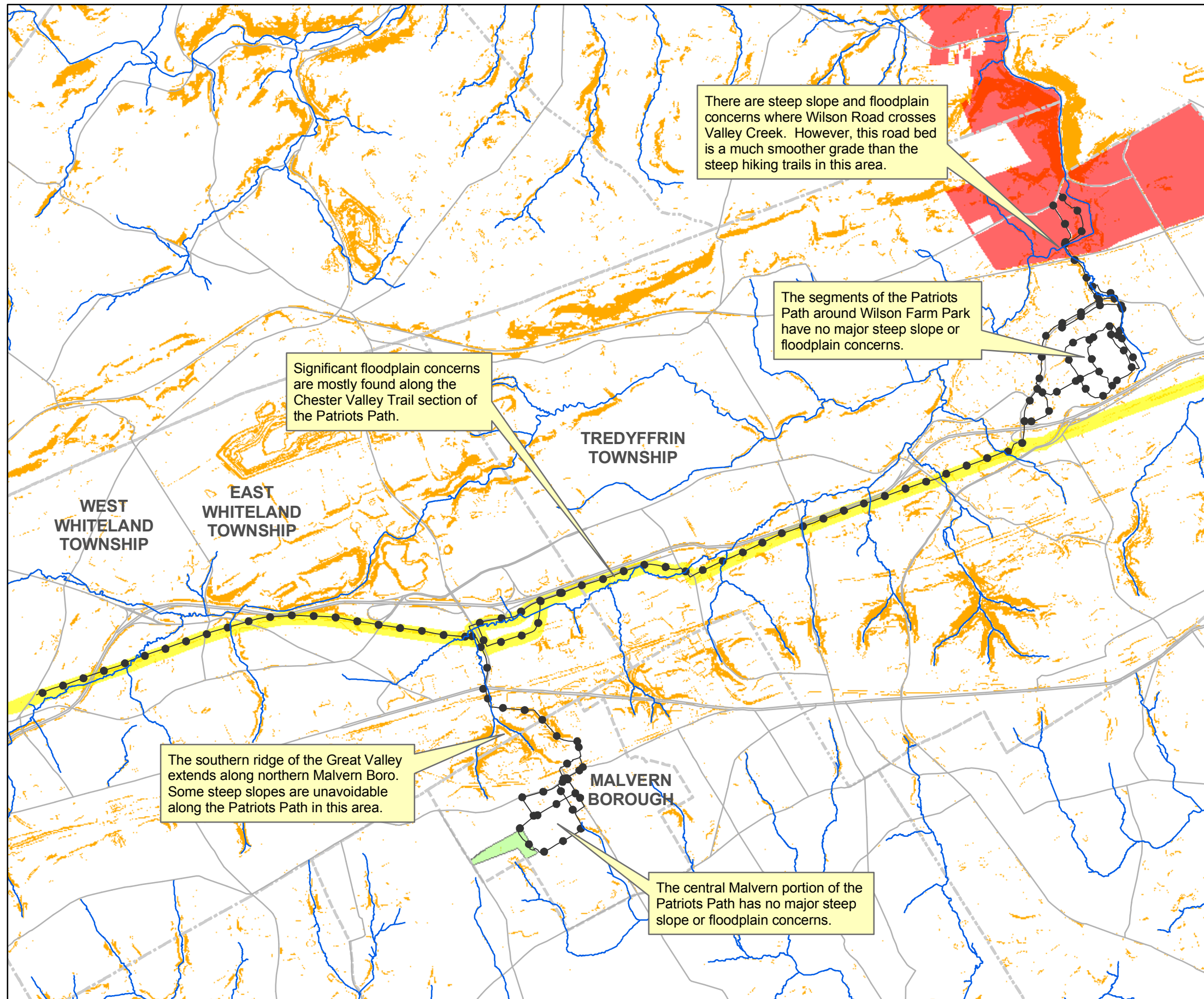
- **Wilson Road in Valley Forge Park** - Wilson Road just north of the bridge over Valley Creek is quite steep and shows signs of erosion. The alternative eastern alignment shown previously on **Figure 4.1**, would avoid this steep sloping area. The eastern alignment would also involve moderately sloping areas, but these would much better accommodate the elderly or disabled.
- **Northern Malvern Borough Area** - The section of the Patriots Path extending from the General Warren Inn, southward to King Street, would include steep slopes. This part of the Path would consist of sidewalks, whose paved surface would provide a stable surface for walking with crutches or riding in a wheel chair. However, the slopes in this area would make this section of the trail generally unsuitable for the elderly or disabled.

Mapping of streams and National Wetland Inventory (NWI) mapped wetlands were also reviewed for this report. As **Figure 4.9** shows, there are numerous stream crossings of the proposed path, none of which pose a significant limitation on trail construction. Mapping of wetlands was not included in this report, because available NWI Wetland maps showed no major wetland complexes present near the proposed Path. In general, there are small wetland areas throughout the study corridor, and small-unmapped wetlands can be expected to occur in low-lying areas.

# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

## Figure 4.9 Study Corridor Steep Slopes & Floodplains

Eastern Chester County



### Legend

- Streams and Rivers
- Feasible Patriots Path Routes
- Major Roads
- Municipal Boundaries
- Valley Forge Nat Hist. Park
- Paoli Memorial Grounds
- Chester Valley Trail Proposed Alignment
- 100 Yr. Floodplain - Non-engineered
- 100 Yr. Floodplain - Engineered
- 500 Yr. Floodplain
- 0 to 25% Slopes
- Over 25% Slopes

0.6 0.3 0 0.6 Miles



1:38,016  
Scale: 1" = Approx. 0.6 Miles  
Date: November 2007

Sources: CCPC, 2007

Along Wilson Road, there is an unnamed tributary of Valley Creek that is dry in areas. Given that this stream is located near where the limestone Great Valley meets the schist covered hills of Valley Forge, it is possible that there may be sinkholes that steal the water from this stream. Man made factors may also explain the stream's disappearance. Construction of the Patriots Path in the vicinity of the dry streambed may include mitigation projects to restore the flow to this waterway.

### **G. Corridor Wide Transportation/Sidewalk Features**

Railroads and highways cross the Patriots Path Study Corridor at many locations. These transportation features provide some of the best opportunities for creating a trail, and some of the greatest obstacles. As **Figure 4.10** shows, most of the Patriots Path would cross roadways with low to moderately low traffic volumes. In general, such trail crossings can be at-grade crossings that may warrant signalization. This map also shows that most of the high volume crossings already have signals, which might need to be modified to accommodate pedestrian use.

**Sections 4A** through **4D** presented previously provide details on where the Patriots Path would cross rail lines and roadways. Some of the other transportation and sidewalk related issues that should be addressed in future phases of the project include:

- **Improvements to Chesterbrook Boulevard** - the Patriots Path may be able to create a trail along Chesterbrook Boulevard. Such an alignment might require adding a trail or sidewalk along Chesterbrook Boulevard which way require an overall re-design of this roadway. Such a project might also add pedestrian improvements from Wilson Road, south across US Route 202, and from there, south to Swedesford Road. Such improvements might also include installing a larger pair of pedestrian culverts east of the intersection with abandoned Wilson Road. Enlarging these culverts might make them ADA compliant, possibly opening up all of the Patriots Path in Tredyffrin Township to elderly or disabled users.
- **Norfolk Southern Rail Bridge** - Coordination with Norfolk Southern Railroad will be required to determine if the blocked underpass on their property near PA Route 29 is structurally sound, and well suited for a trail use. This coordination may also include PennDOT. PennDOT District 6-0 regularly deals with Norfolk Southern on projects throughout the Delaware Valley, and at times they must negotiate for right-of-way. It is possible that during such negotiation PennDOT may wish to acquire a trail right-of-way under the blocked underpass as mitigation for a nearby highway project. As a result PennDOT may be the most effective public agency in terms of establishing a Patriots Path alignment that passed through the blocked rail underpass. The maintenance and liability for such a tunnel would also have to be coordinated.
- **US Route 30/PA Route 29 Intersection** - This intersection is currently signalized, but it is not well suited as a pedestrian crossing. Redesigning this intersection to accommodate trail users might also create pedestrian access from the offices along PA Route 29 to the retail stores and the Century Plaza shopping center on the south side of US Route 30 to the west of PA Route 29. The re-design on the access road/driveway leading to the shopping center might also be conducted as part of this effort.

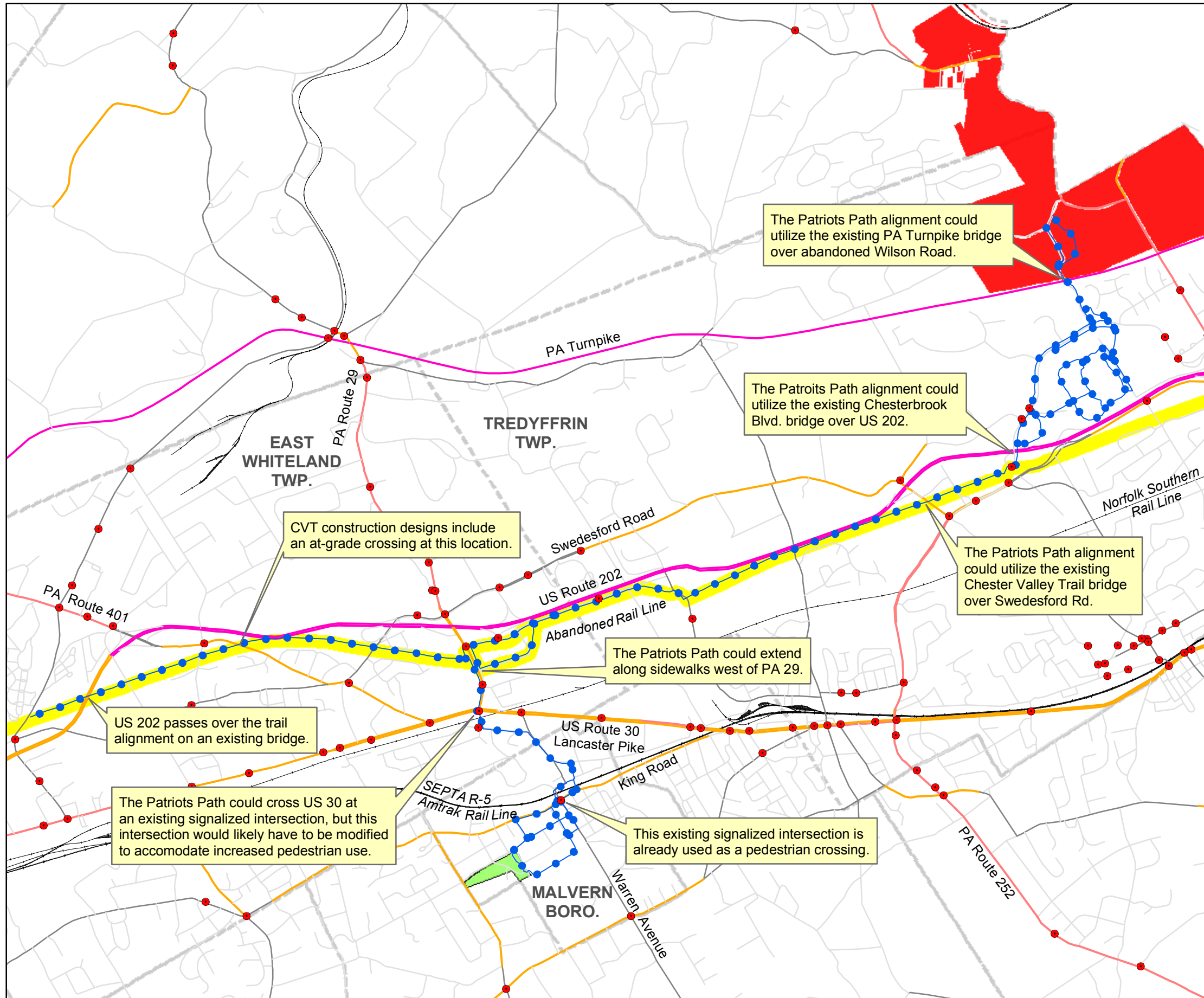


- ***Sidewalks and Trails in East Whiteland Township*** - The East Whiteland Comprehensive Plan recommends an extensive network of sidewalks or trails along many roads in the municipality. The Patriots Path could become an impetus for beginning the construction of a central portion of this network.
- ***Sidewalks in Malvern Borough*** - Many of the streets in central Malvern Borough have sidewalks, but there are gaps in some places. Extending the Patriots Path through Malvern Borough, and creating a loop trail through the central borough could become an impetus for beginning the construction of a gap-free pedestrian network.

# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

## Figure 4.10 Study Corridor Traffic & Transportation

Eastern Chester County



### Legend

- Existing Traffic Signals
- Feasible Patriots Path Routes
- PennDOT Traffic Volumes**
- Average Annual Daily Traffic**
- 0 - 2450
- 2451 - 7397
- 7398 - 13680
- 13681 - 25954
- 25955 - 53691
- Railroad Lines
- Valley Forge Nat. Hist. Park
- Paoli Memorial Grounds
- Chester Valley Trail Proposed Alignment
- Municipal Boundaries



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Scale: 1" = Approx. 0.6 Miles  
Date: November 2007

Sources: CCPC, 2007

## Part 5: Key Hubs and Spokes

### A. Hubs and Spokes Concept

The “Hubs and Spokes” approach to regional trail planning has been used throughout the nation, and is a featured element of *Pennsylvania Greenways: An Action Plan for Creating Connects* adopted by PennDOT and the DCNR in 2001. This approach sets out to create a network of trail and parks. These trails extend out from parks, like spokes extend out from hubs on a wheel. Ideally each trail should connect two hubs, which could be parks, trail heads or community centers such as a downtown area. The Patriots Path, along with other proposed municipal trails in the Study Corridor, could create such a network as shown in **Figure 5.1**. This map includes seven possible “Spur Trails” that could link municipal parklands to the Patriots Path. The following section shows how a Hubs and Spokes network could be established in the Study Corridor, with the Patriots Path serving as the central trail feature.

### B. Links to Municipal Parks

The Patriots Path could link together 10 municipal park properties as shown on **Figure 5.1**. These properties are

- **Wilson Farm Park** - This Tredyffrin Township park could be crossed by one of the feasible routes of the Patriots Path. This park already has parking facilities and restrooms for park users. These facilities may also be suitable for trail users hiking the Patriots Path.
- **Teegarden Park** - This township park could be reach via a spur that could extend along a trail corridor proposed in the Tredyffrin Township Comprehensive Plan. This spur would measure over one half mile in length. Thus spur would be so far from the Patriots Path, that it should not be regarded as an area for trail parking or restrooms. However, this trail spur and the park itself lie within the area that was used as the British camp at “Truduffrin.” Linking this park to the Patriots Path could therefore provide an additional historic interpretation opportunity.
- **Mill Road Park** - The southern end of this Tredyffrin Township park could be reach via a spur trail that could extend along a trail corridor proposed in the Tredyffrin Township Comprehensive Plan. This park is close to the Wilson Farm Park, which already has parking and restrooms. As a result, Mill Road Park would not be well suited as a possible location for these facilities. This township park could also be reached from its north side via a possible spur that could extend west from Wilson Road near Valley Forge Park along a municipal access road/driveway. This spur could link this access road/driveway to the existing pedestrian trails that link to the Mill Road Park west of Chesterbrook Boulevard.

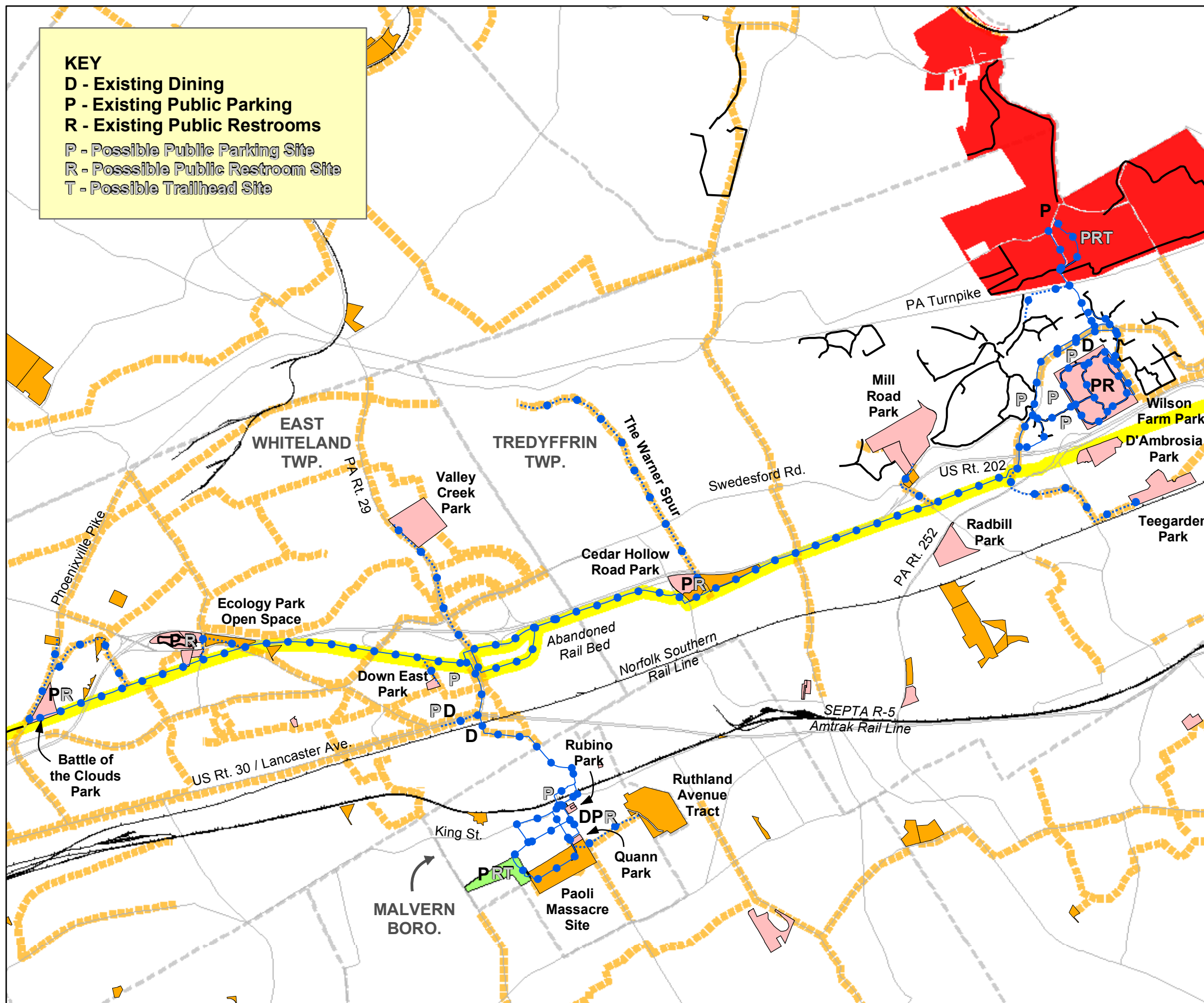
- ***Cedar Hollow Road Park/The Warner Spur*** - This Tredyffrin Township park could be reached directly from the County Chester Valley Trail segment of the Patriots Path. This park already has parking that could be used by trail users. It might also be a possible location for restroom facilities. This park also is linked to the Warner Spur, a section of abandoned rail line that the township is considering as a future trail. This trail leads north from the County Chester Valley Trail and onto an open space preserve owned by the Open Lands Conservancy. This rail-to-trail project would likely be both a link to the preserved lands and a destination unto itself. Because this park would hold the intersection of two major public trails, the park would be an ideal location for parking and restrooms.
- ***Valley Creek Park*** - This East Whiteland Township park could be reached by a spur that could extend along a trail/sidewalk corridor proposed in the East Whiteland Comprehensive Plan. This spur would measure over one half mile in length, and it is so far from the Path, that it should not be regarded as an area for trail parking or restrooms.
- ***Down East Park*** - This East Whiteland Township park could be reached by a spur that could extend along a trail/sidewalk corridor proposed in the East Whiteland Comprehensive Plan. This park is so small that it might be considered as a possible parking area, but it would not be as feasible as a restroom area.
- ***Ecology Park Open Space*** - This East Whiteland Township park could be reached via a spur trail. It already has parking that could be used by trail users. This park may be a possible location for restrooms.
- ***Battle of the Clouds Park*** - This East Whiteland Township park could be reached directly from the County Chester Valley Trail segment of the Patriots Path. A loop trail extending north from the park, up Phoenixville Pike, would link to two additional municipal open space properties. Adding this loop to the Patriots Path would reduce backtracking and could permit historic interpretation opportunities along Phoenixville Pike, which was used by Washington's Army when retreating from the Battle of the Clouds. There is parking available at this park that could be used by trail users. This park might also be a possible location for restroom facilities.
- ***Rubino Park*** - This Malvern Borough park could be reached directly from the Malvern Sidewalk segment of the Patriots Path. This park is small, but it has existing parking. It may be a suitable location for restrooms. However, downtown Malvern has many restaurants and shopping areas that might also provide opportunities for restrooms.
- ***Quann Park*** - This Malvern Borough park could be reached directly from the Malvern Sidewalk segment of the Patriots Path. This park is quite small, and likely would not have enough room for either parking or restrooms. It is also close to the Paoli Memorial Grounds, which does have parking.



An Evaluation of Patriots Path  
Trail Opportunities  
in the Eastern Great Valley

Figure 5.1  
Study Corridor  
Key Spokes and Hubs

Eastern Chester County



Legend

- Feasible Patriots Path Routes
- Possible Spur Trails
- Existing Municipal Trails
- Municipal Recreation Park
- Municipal Open Space
- Valley Forge Nat. Hist. Park
- Paoli Memorial Grounds
- Public Schools
- Rail Corridors
- Major Roads
- Proposed Municipal Trail Links
- Chester Valley Trail Proposed Alignment
- Municipal Boundaries

0.5 0.25 0 0.5 Miles



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Scale: 1" = Approx. 0.6 Miles  
Date: November 2007

Sources: CCPC, 2007

### C. Links to Parking and Trail Heads

As **Figure 5.1** shows, there are a number of public and private parking lots along the Patriots Path, which from a design standpoint, could be used by trail users. It would appear that there could be many modest sized parking facilities serving the Patriots Path, rather than one or two central parking areas. Later phases of the Patriots Path project would have to determine which publicly owned parking lots could accommodate trail users. Many of the parking lots along the proposed Path are large privately owned parking areas surrounding industrial properties. There would have to be stakeholder coordination with the owners of private parking lots to determine if they would be willing to permit trail users to park in their facility. Such partnerships can be of benefit to the industrial parks by bringing people to the facility on weekends, which can improve security.

Currently there are public parking facilities along the Patriots Path at the following locations:

- Wilson Farm Park
- Cedar Hollow Road Park
- Battle of the Clouds Park
- Downtown Malvern
- The Paoli Memorial Grounds

Later phases of this project would have to determine if these areas would need to be expanded in order to accommodate trail users. Further studies might also conclude that some of these areas should not be promoted as parking lots for trail users. Such studies should always take into consideration the fact that people trying to access any recreation facility may use nearby parking areas that are not formally designated for their use. There are also a number of existing private parking areas that may be suitable for use by trail users. In general, trail users could park in these lots in the evening and on weekends.

These parking areas include:

- The office buildings along Chesterbrook Boulevard
- The office buildings along PA Route 29
- The shops along the south side of US Route 30, west of PA Route 29
- The parking lot south of the rail line at the Malvern Train Station
- Parking along the streets and in shopping centers in Malvern Borough

Trailheads are typically areas where trail users can park and access a trail. Often these areas include some sort of signage, such as a map of the trail, and sometimes restrooms and other amenities. Given that the Patriots Path will serve as a memorial to the 53 men slain at Paoli, it would be appropriate for its trailheads to include historic interpretation signage. The following two trailheads could serve this function:

- ***Maxwell's Quarters in Valley Forge National Historic Park*** - This cluster of buildings currently provides limited parking for users of the library housed at this location. However, this area could become the northern trailhead for the Patriots Path, including parking, restrooms and an interpretive center. Designating this area as a trailhead may provide an opportunity for funds needed to repair the existing historic buildings, which are in need of restoration.

- ***Paoli Memorial Grounds*** - This property is the location of the mass grave of the 53 soldiers killed at Paoli. It has limited parking, but an extensive area of level undeveloped lawn. Thus it is well suited to house an outdoor interpretive center or restrooms. Designating this area as a trailhead may provide the opportunity for funds needed to restore the eroded limestone monument on top of the mass grave, and provide landscaping and privacy screening that is more fitting to a gravesite.

#### **D. Links to Trail Rest Rooms and Other User Facilities**

There are already restroom facilities in many of the municipal parks along the Patriots Path as noted on **Figure 5.1**. Some of these are portable units without plumbing, while others are constructed buildings. Future phases of the Patriots Path project would have to determine if these restroom areas could be used for the Patriots Path, or expanded. Existing indoor restroom structures are currently present only at the Wilson Farm Park. Additional or improved restroom facilities that serve Patriots Path users could be located at:

- Maxwell's Quarters
- Cedar Hollow Road Park
- Ecology Open Space Park
- Battle of the Clouds Park
- Various locations in downtown Malvern Borough
- The Paoli Memorial Grounds

Trail users might also use other facilities to purchase items that would be useful during their trip, such as sunglasses or band-aids. Such items would be available at the grocery store or pharmacy in the Chesterbrook Village Shopping Center, or the pharmacy in Malvern Borough.

#### **E. Links to Tourist Destinations/Dining Opportunities**

The Patriots Path could link to two possible tourist destinations, each of which would be well suited for trail and bicycle related tourism. The first would be Maxwell's Quarters in Valley Forge Park. This cluster of buildings could serve as a trailhead with parking and restrooms, and perhaps an interpretive center. This might be an ideal starting location for groups from schools or youth clubs that wish to hike the Path. The second potential tourist area would be downtown Malvern Borough with its shops and restaurants. Dining opportunities, which may involve simply buying water or sodas, are found in four locations along the Patriots Path, as shown above in **Figure 5.1**. These dining areas are:

- ***The Chesterbrook Village Shopping Center*** - This area, which already has a trail link to nearby Wilson Farm Park, has many restaurants and a grocery store.
- ***The PA Route 29/US Route 30 Corridor*** - This area already has restaurants. If a spur trail extended from the Patriots Path along the access road/driveway west of the blocked rail tunnel, the retail stores on the south side of US Route 30 could be within walking distance of the Patriots Path, as well as some of the offices along PA Route 29.

- ***The Gen. Warren Inn*** - This historic structure, which was a key landmark during the Campaign of 1777, is currently operating as a restaurant, serving dinner. There may be opportunities for this business to offer a lunch or brunch menu to trail users.
- ***Downtown Malvern*** - This area has a number of restaurant, cafés and delicatessens, that would be well suited to serve trail users.

#### **F. Links to Public Schools and Commuter Centers**

As **Figure 5.1** above shows, there are six public schools in the areas surrounding the Patriots Path, but none of these are located near the Path or any proposed trail that might lead to it. There is one school south of Ecology Park Open Space, which might link to the Path. However the sidewalks/trails that would create this link, are only in the conceptual planning stage. Therefore, school access would not be a major component of the Patriots Path.

The Patriots Path could create a pedestrian walkway connecting the Malvern Train Station with the industrial parks along PA Route 29. However the link between these two sites would be too far to encourage commuters to walk to these businesses from the train station. Numerous studies have shown that most pedestrians are only willing to walk ½ mile to access a train station or bus stop. The blocked rail tunnel under the Norfolk Southern rail lines is over ½ mile away from the Malvern Train station. Furthermore, the route connecting the blocked tunnel to the train station is mostly up hill. Therefore commuter access would not be a major component of the Patriots Path.

The Patriots Path could provide increased opportunity for bicycle commuting, permitting residents of Malvern borough to ride to the office complexes north of US Route 30. Only a small fraction of commuters in the United States use bicycles. Bicycle commuters typically commute through cities, where owning and parking an automobile can be quite expensive. However, with expected increases in gas prices, and the ongoing urbanization of eastern Chester County, bicycle commuting is likely to increase, especially among low wage earners and teenagers. The opportunity for bicycle commuting could one day serve as a marketing tool for office owners along the PA Route 29 corridor.

#### **G. Links to a Countywide Trails Network**

As **Figure 5.2** shows, most of the municipalities in the eastern half of Chester County have recommended corridors for future trail or trail/sidewalk construction as part of their municipal comprehensive plans. In most instances, these inter-municipal trail networks are proposed to link to similar trail networks in adjacent municipalities. This map also shows future Chester County trails that the Chester County Parks and Recreation Department has plans to construct. A total of 28 municipalities in central and southern Chester County can reasonably be expected to link to the County Chester Valley Trail in the next few decades. There are 11 municipalities that can reasonably be expected to link to the County Schuylkill River Trail, which will extend through Chester, Berks and Montgomery Counties.

There are two somewhat distinct trail networks in Chester County, which are separated by the Pennsylvania Turnpike. The Turnpike serves as pedestrian obstacle primarily due to its width, which is



two lanes in each direction, often with a vegetated median barrier. The Turnpike is also raised above grade, or depressed below grade in many areas. As **Figure 5.2** shows, there are only two municipally identified locations where trail links across PA Turnpike are feasible, and both are in northern Tredyffrin Township. One is the Wilson Road underpass that could be part of the Patriots Path. The other is the Yellow Springs Road underpass. Thus the Patriots Path could provide a unique opportunity to link northern and southern Chester County via pedestrian trails.








**Figure 5.2** also shows that a section of the Schuylkill River Trail in Montgomery County, will link Phoenixville Borough with Valley Forge Park. There is already a trail that links the portions of Valley Forge Park with Montgomery County's Perkiomen Trail, and the completed section of the regional Schuylkill River Trail. This regional trail is commonly called the "Manayunk Trail" because it extends south and east along the River into the Manayunk neighborhood in the City of Philadelphia. By linking Valley Forge Park to the trails south of the PA Turnpike, the Patriots Path might give 28 central and southern Chester County municipalities access to the trail networks in Philadelphia, Montgomery and Berks Counties. The county-wide trail network in Berks County will ultimately link the Schuylkill River Trail to the Appalachian Trail. From a broader perspective, the Appalachian Trail links with the Potomac trail which extends from York County, PA to Washington, DC. Thus the Patriots Path could provide a key link in connecting Chester County residents to a multi-municipal, multi-county, and multi-state trail network.

# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

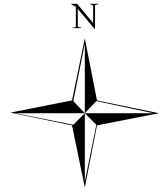
**Figure 5.2**  
**Countywide Spokes and Hubs**

Chester County

## Legend

-  National Historic Parks
-  State Parks
-  County Parks & Future Park Sites
-  Municipal Active Recreation Parks
-  Feasible Patriots Path Routes
-  Pennsylvania Turnpike
-  Municipal Boundaries
-  Existing Municipal Trails
-  Proposed Municipal Trail Corridors
-  Future Chester County Trails\*
-  Future Montgomery County Trails
-  Potential Trail Links to Chester Valley Trail\*\*
-  Potential Trail Links to Schuylkill River Trail\*\*

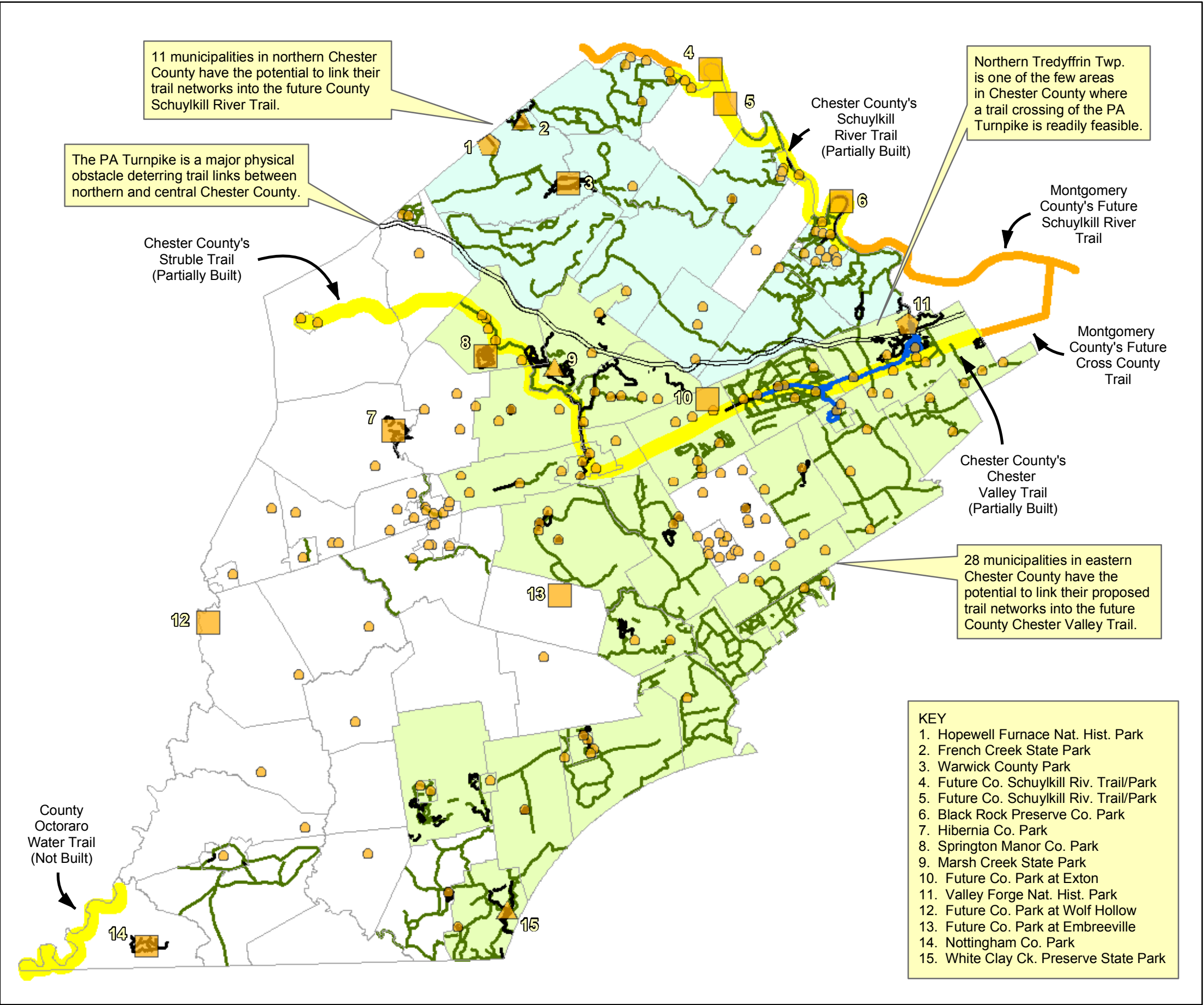
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Scale: 1" = Approx. 4 Miles  
Date: November 2007

Source: CCPC, 2007

Notes:  
\* As presented in Linking Landscapes.  
\*\* Potential trail links are based on trail corridors recommended in municipal comprehensive plans. Both existing and proposed municipal trail alignments are approximate.



## Part 6: Potential Users Evaluation

### A. Demographics

The demographics for the Patriots Path were evaluated according to the three study areas shown previously on *Figure 1.2*. The smallest of these areas is the “Study Corridor,” which consists of the three municipalities crossed by the Path. *Figure 6.1* shows that the Study Corridor population in 2000 was under 43,000. This table also shows that that the Study Corridor is projected in increase by over 5,100 in the next twenty years. Most of that growth would occur in the two townships, but not in the Borough. This growth is likely to increase demands for trail recreation in close proximity to the Patriots Path.

*Figure 6.2* presents current population figures for the “Battle Zone,” which consists of the municipalities that were in the areas that were crossed by troops during the Battle of the Clouds and the Paoli Massacre. The Battle Zone has a shape similar to a circle with a 7-mile radius surrounding the communities along the Patriots Path. The Chester County Department of Parks and Recreation uses a 7.5-mile radius “service area” for all its County Parks, and designs those facilities to serve a population of 100,000. As *Figure 6.2* shows, there are well over 200,000 residents in the Battle Zone, which suggests that the Patriots Path would easily meet the user criteria of a County Park. By 2020, this user-shed is projected to increase by over 30,000.

The Study Region current population is shown in *Figure 6.3*. This table lists all the residents who live in Chester County municipalities that have included mapping of trail corridors in their Comprehensive plans, their Official Maps, or on other planning documents. In general, this area covers all of Chester County east of the Brandywine River. As *Figure 6.3* indicates, the year 2000 population for all the municipalities in the Study Area is over 310,000. Thus the Battle Zone, with a 2000 population of approximately 210,000, represents about two-thirds of the people in the Study Region. Clearly, the Patriots Path would extend through communities with a higher concentration of residents relative to the eastern half of the County. Given that the Patriots Path would be a trail that involves public education regarding historic events, it would be appropriate to locate it in such a highly populated region. By 2020, the Study Region is projected to grow by just under 64,000.

*Figure 6.1: Study Corridor Population*

<b>Municipality</b>	<b>1980</b>	<b>2000</b>	<b>2020</b>	<b>Change '00-'20</b>	<b>% Change '00-'20</b>
<i>Total</i>	<i>34,486</i>	<i>42,714</i>	<i>47,880</i>	<i>5,166</i>	<i>10.8</i>
East Whiteland Twp.	8,468	9,333	10,560	1,227	11.6
Malvern Boro.	2,999	3,059	3,210	151	4.7
Tredyffrin Twp.	23,019	29,062	30,920	1,858	6.0

*Figure 6.2: Battle Zone Population*

<b>Municipality</b>	<b>1980</b>	<b>2000</b>	<b>2020</b>	<b>Change '00-'20</b>	<b>% Change '00-'20</b>
<i>Total</i>	<i>159,916</i>	<i>213,237</i>	<i>243,860</i>	<i>30,623</i>	<i>14.4</i>
Charlestown Twp.	2,770	4,051	5,450	1,399	34.5
Downingtown Boro.	7,650	7,589	8,030	441	5.8
East Bradford Twp.	3,219	9,405	12,740	3,335	35.5
East Goshen Twp.	10,021	16,824	19,780	2,956	17.6
East Pikeland Twp.	4,410	6,551	7,730	1,179	18.0
East Whiteland Twp.	8,468	9,333	10,560	1,227	13.1
Easttown Twp.	9,064	10,270	11,870	1,600	15.6
Malvern Boro.	2,999	3,059	3,210	151	4.9
Phoenixville Boro.	14,165	14,788	15,680	892	6.0
Schuylkill Twp.	5,993	6,960	8,680	1,720	24.7
Tredyffrin Twp.	23,019	29,062	30,920	1,858	6.4
Uwchlan Twp.	8,364	16,576	20,000	3,424	20.7
West Chester Boro.	17,435	17,861	17,890	29	0.2
West Goshen Twp.	16,164	20,495	24,060	3,565	17.4
West Pikeland Twp.	1,536	3,551	5,670	2,119	59.7
W. Whiteland Twp.	9,581	16,499	20,460	3,961	24.0
Westtown Twp.	6,774	10,352	10,760	408	3.9
Willistown Twp.	8,284	10,011	10,370	359	3.6



**Figure 6.3: Study Region Population**

<b>Municipality</b>	<b>1980</b>	<b>2000</b>	<b>2020</b>	<b>Change '00-'20</b>	<b>Change '00-'20</b>
<i>Total Study Region</i>	222,860	310,308	374,220	63,912	20.6
Avondale Boro.	891	1,108	1,340	232	20.9
Birmingham Twp.	1,584	4,221	6,300	2,079	49.3
Caln Twp.	9,639	11,916	14,750	2,834	23.8
Charlestown Twp.	2,770	4,051	5,450	1,399	34.5
Downingtown Twp.	7,650	7,589	8,030	441	5.8
East Bradford Twp.	3,219	9,405	12,740	3,335	35.5
E. Brandywine Twp.	4,690	5,822	6,960	1,138	19.5
East Caln Twp.	2,187	2,857	3,270	413	14.5
East Coventry Twp.	4,085	4,566	5,350	784	17.2
East Goshen Twp.	10,021	16,824	19,780	2,956	17.6
East Nantmeal Twp.	1,222	1,787	2,060	273	15.3
East Pikeland Twp.	4,410	6,551	7,730	1,179	18.0
East Vincent Twp.	4,739	5,493	6,660	1,167	21.2
East Whiteland Twp.	8,468	9,333	10,560	1,227	13.1
Easttown Twp.	9,064	10,270	11,870	1,600	15.6
Kennett Twp.	4,201	6,451	8,970	2,519	39.0
Kennett Sq. Boro.	4,715	5,273	5,540	267	5.1
London Britain Twp.	1,546	2,797	3,510	713	25.5
London Grove Twp.	3,531	5,265	8,090	2,825	53.7
New Garden Twp.	4,790	9,083	13,710	4,627	50.9
North Coventry Twp.	7,164	7,381	7,420	39	0.5
Pennsbury Twp.	2,604	3,500	4,240	740	21.1
Phoenixville Boro.	14,165	14,788	15,680	892	6.0
Pocopson Twp.	2,331	3,350	4,330	980	29.3
Schyulkill Twp.	5,993	6,960	8,680	1,720	24.7
South Coventry Twp.	1,556	1,895	2,310	415	21.9
Spring City Boro.	3,389	3,305	3,280	-25	-0.8
Thornbury Twp.	1,323	2,678	3,820	1,142	42.6
Tredyffrin Twp.	23,019	29,062	30,920	1,858	6.4
Upper Uwchlan Twp.	1,805	6,850	12,200	5,350	78.1
Uwchlan Twp.	8,364	16,576	20,000	3,424	20.7
Wallace Twp.	1,881	3,240	4,370	1,130	34.9
Warwick Twp.	2,350	2,556	2,650	94	3.7
West Bradford Twp.	7,343	10,775	12,880	2,105	19.5
West Goshen Twp.	16,164	20,495	24,060	3,565	17.4
West Grove Boro.	1,820	2,652	3,100	448	16.9
West Pikeland Twp.	1,536	3,551	5,670	2,119	59.7
West Vincent Twp.	1,992	3,170	4,350	1,180	37.2
W. Whiteland Twp.	9,581	16,499	20,460	3,961	24.0
Westtown Twp.	6,774	10,352	10,760	408	3.9
Willistown Twp.	8,284	10,011	10,370	359	3.6

**Figures 6.4 and 6.5**, show that the percentage of people under the age of 18 for both the Study Corridor and the Battle Zone is approximately 25 percent of the total population. The percentage of people over the age of 65 is between 12 and 15 percent. The remaining population, roughly 60 percent, is comprised of working-age adults between the ages of 18 and 65. These figures are generally consistent with those for the County as a whole, and the state. As a result, it is likely that the Patriots Path will not need any special planning focusing on youth or the elderly.

**Figure 6.4: Study Corridor Age Demographics**

<b>Municipality</b>	<b>Total</b>	<b>Under 18</b>	<b>% Under 18</b>	<b>18 To 64</b>	<b>% 18 to 64</b>	<b>65 and Over</b>	<b>% 65 and Over</b>
<i>Chester County</i>	43,3501	113,582	26.2	269,242	62.1	50,677	11.7
<i>Total Study Corridor</i>	41,454	9,628	23.2	25,763	62.1	6,063	14.6
East Whiteland Twp.	9,333	2,244	24.0	5,758	61.7	1,331	14.3
Malvern Boro.	3,059	615	20.1	1,987	65.0	457	14.9
Tredyffrin Twp.	29,062	6,769	23.3	18,018	62.0	4,275	14.7

**Figure 6.5: Battle Zone Age Demographics**

<b>Municipality</b>	<b>Total</b>	<b>Under 18</b>	<b>% Under 18</b>	<b>18 To 64</b>	<b>% 18 to 64</b>	<b>65 and Over</b>	<b>% 65 and Over</b>
<i>Total Battle Zone</i>	213,237	51,360	24.1	135,625	63.6	26,252	12.3
Charlestown Twp.	4,051	1,045	25.8	2,604	64.3	402	9.9
Downingtown Boro.	7,589	1,923	25.3	4,594	60.5	1,072	14.1
East Bradford Twp.	9,405	2,581	27.4	5,964	63.4	860	9.1
East Goshen Twp.	16,824	3,741	22.2	10,003	59.5	3,080	18.3
East Pikeland Twp.	6,551	1,693	25.8	4,043	61.7	815	12.4
East Whiteland Twp.	9,333	2,244	24.0	5,758	61.7	1,331	14.3
Easttown Twp.	10,270	2,660	25.9	5,789	56.4	1,821	17.7
Malvern Boro.	3,059	615	20.1	1,987	65.0	457	14.9
Phoenixville Boro.	14,788	3,321	22.5	9,419	63.7	2,048	13.8
Schuylkill Twp.	6,960	1,632	23.4	4,467	64.2	861	12.4
Tredyffrin Twp.	29,062	6,769	23.3	18,018	62.0	4,275	14.7
Uwchlan Twp.	16,576	5,005	30.2	10,482	63.2	1,089	6.6
West Chester Boro.	17,861	2,389	13.4	13,861	77.6	1,611	9.0
West Goshen Twp.	20,495	5,387	26.3	12,900	62.9	2,208	10.8
West Pikeland Twp.	3,551	1,091	30.7	2,192	61.7	268	7.5
West Whiteland Twp.	16,499	4,132	25.0	10,909	66.1	1,458	8.8
Westtown Twp.	10,352	2,789	26.9	6,541	63.2	1,022	9.9
Willistown Twp.	10,011	2,343	23.4	6,094	60.9	1,574	15.7

**Figures 6.6** and **6.7** show the General Income Characteristics for the Study Corridor as well as the Battle Zone. These figures indicate that, on average, the residents of the Study Corridor, the Battle Region and the County are wealthier than the state and national averages. In general, well-maintained trails increase or stabilize property values. The Study Corridor outranks both the country and the state in per capita income and median family income. Therefore, the establishment of the Patriots Path as a recreational and historic interpretation trail would likely maintain local property values and offer economic benefits to nearby businesses. The higher income residents surrounding the Patriots Path would also be more likely to invest in bicycles and baby strollers designed for trail use.

**Figure 6.6: Study Corridor General Income Characteristics**

<b>Municipality</b>	<b>Median Household Income</b>	<b>Median Family Income</b>	<b>Per Capita Income</b>
<i>United States</i>	<i>\$41,994</i>	<i>\$50,046</i>	<i>\$21,587</i>
<i>Pennsylvania</i>	<i>\$40,401</i>	<i>\$49,184</i>	<i>\$20,880</i>
<i>Chester County</i>	<i>\$65,295</i>	<i>\$76,916</i>	<i>\$31,627</i>
East Whiteland Twp.	\$69,500	\$75,818	\$30,258
Malvern Boro.	\$62,308	\$79,145	\$35,477
Tredyffrin Twp.	\$82,258	\$105,183	\$47,584

**Figure 6.7: Battle Zone General Income Characteristics**

<b>Municipality</b>	<b>Median Household Income</b>	<b>Median Family Income</b>	<b>Per Capita Income</b>
Charlestown Twp.	\$89,813	\$101,922	\$41,878
Downingtown Boro.	\$45,979	\$53,468	\$21,634
East Bradford Twp.	\$100,732	\$109,459	\$41,158
East Goshen Twp.	\$64,777	\$86,720	\$37,775
East Pikeland Twp.	\$72,850	\$86,343	\$31,774
East Whiteland Twp.	\$69,500	\$75,818	\$30,258
Easttown Twp.	\$95,548	\$109,103	\$51,028
Malvern Boro.	\$62,308	\$79,145	\$35,477
Phoenixville Boro.	\$42,500	\$54,424	\$22,911
Schuylkill Twp.	\$86,092	\$97,032	\$43,379
Tredyffrin Twp.	\$82,258	\$105,183	\$47,584
Uwchlan Twp.	\$81,985	\$90,486	\$33,785
West Chester Boro.	\$37,803	\$51,018	\$19,073
West Goshen Twp.	\$71,055	\$84,574	\$32,487
West Pikeland Twp.	\$105,322	\$111,760	\$48,616
West Whiteland Twp.	\$71,545	\$81,868	\$35,031
Westtown Twp.	\$85,049	\$96,318	\$36,894
Willistown Twp.	\$77,555	\$93,057	\$45,101

## **B. Disabled Access**

There are no reliable statistics on the number of disabled people in the Study Corridor or Battle Zone. The US Census enumerates people with “self reported” disabilities, but this figure is generally regarded as unreliable because some individuals who report themselves as disabled may not fit the definition that is accepted by the medical profession. Furthermore, many elderly people do not regard themselves as being disabled, even though they may have mobility limitations that would clearly be regarded as disabled were they to occur in a young adult. According to the Cerebral Palsy Association of Chester County, the standard measure for estimating the number of persons with physical disabilities is 0.6 percent of the population. Using this standard, the Patriots Path would serve over 2,500 disabled persons in the Study Corridor, and 1,200 in the Battle Zone.

The field observations presented in **Part 4** of this report indicate that some parts of the Patriots Path will not be accessible to the disabled, and so will not be in compliance with the Americans with Disability Act (ADA). The steep sloping areas along Wilson Road and along the roadways north of Malvern Borough will likely fail to meet ADA slope standards. The pedestrian tunnels under Chesterbrook Boulevard currently can not easily accommodate most wheelchairs, but these underpasses could be enlarged. There are also a number of other areas where there are locally steep slopes or features such as thin or buckled sidewalks that create an uneven walking surface. Fortunately, the Patriots Path is long enough that can still be expected to include extensive sections of trail that will be ADA compliant. The goal for the construction of this project should therefore be to provide as much ADA compliant surface as possible, with the understanding that not all areas will be ADA compliant.

## **C. Local and Regional Trail Users**

Given the limited scope of this report it is impossible to determine with precision how many people will use the Patriots Path. However, given the trail planning efforts currently underway in municipalities throughout the Study Region, it is possible that in the coming decades, the patriots Path might be linked to a network of local and regional trail that extend from New Castle County, DE through eastern Chester County and north to Montgomery County. Ultimately such a network may extend up and down the Schuylkill River from Reading, PA and the Appalachian Trail to Philadelphia and the East Coast Greenway. Even if such a regional network were established, it would be likely that the bulk of the Patriots Path users would still be local residents.

As stated previously in **Part I**, Chester County Planning Commission staff estimates that 200,000 to 250,000 users per year could be expected to use the Patriots Path. Most of these users would likely be repeat visitors. This estimate is supported by user counts of the existing County Struble County Trail, which is located in a suburban setting quite similar to that of the Patriots Path. The County Struble Trail had 2.6 miles of paved surface, and had an annual estimated user count of over 105,000 for the year 2004. It is reasonable to assume that the Patriots Path, which would be more than twice that long, could host 200,000 to 250,000 visitors on an annual basis. Numbers of this magnitude are also supported by user counts from the Parks staff at nearby Montgomery County. The 2004 annual user counts for the 11.5 mile Schuylkill River Trail was over 460,000. For the 5.5 mile southern Section of the Perkiomen Trail, from the Schuylkill River to Collegeville, the annual user count was over 850,000.



## Part 7: Consistency with Municipal and National Park Land Planning

### A. Summary

All three of the study corridor municipalities address trails planning in adopted elements of their respective comprehensive plans. Each municipality recommends a municipal wide network of trails (including sidewalks in Malvern Borough), and proposes that this network link with adjacent municipalities. If all three municipalities were to fully implement their trail plans, a multi-municipal trail network could be created that links Valley Forge Park with the Paoli Massacre Site and the Battle of the Clouds Park. It is therefore reasonable to conclude that the Patriots Path concept is generally consistent with all three municipal comprehensive plans, and directly consistent with many of the recommendations within these plans.

The National Park Service is currently in the process of completing a General Management Plan/ Environmental Impact Statement (GMP) for Valley Forge Park. Valley Forge staff has indicated that all of the build alternatives in the GMP will call for a trail extending out of the Park at the Wilson Road underpass. The National Park Service also has a strategic plan for the Park, which is not a land planning document. However, the strategic plan sets long-term goals for issues such as providing appropriate recreation opportunities, historic interpretation opportunities, and education opportunities. All of these opportunities could be expanded through the Patriots Path. It is therefore reasonable to conclude that the Patriots Path concept is consistent with National Park Service planning for Valley Forge Park.

### B. East Whiteland Township

In 1993, the East Whiteland Township Supervisors adopted a *Parks, Recreation and Open Space Plan*, which recommended examining “the feasibility of a link trail system using PECO right-of-way, Township-owned property and Conrail line if abandoned in the future.” It also called for the Township to pursue “access easements an/or land acquisition for completion of a link trail system.” The Plan Map included in this document showed a schematic design for a trail network that connected what is now the Chester Valley Trail to loop trails that extend north to the Great Valley Middle and High School and the Swedesford Road/Conestoga Road residential area. In December 2001, the Supervisors adopted an updated Comprehensive Plan, which included an action plan of 17 items, one of which was to “Implement a Trail System.”

In May 2003, the Township Supervisors adopted a *Park and Recreation Plan*, which dedicated a section to “Developing a Township-wide Trail System” and included these implementation recommendations:

- Work with Chester County to complete the East Whiteland portion of the Chester Valley Trail.
- Develop a trail system throughout East Whiteland.

The *Plan* calls for the Township trail system to link together Township parks with other open spaces, commercial hubs, communities, transportation hubs and office parks. It also notes that the Township trail system should take into consideration, “a trail being considered by the Chester County Planning Commission to connect Valley Forge National Historic Site with the Paoli Massacre Site in Malvern Borough and the Battle of the Clouds Park in East Whiteland Township.” The *Plan* calls for this

municipal-wide trail system to utilize public rights-of-way along existing roads as much as possible. It also recognizes that the trail system may be built in phased segments in which each segment would extend to a logical terminus, even if there are gaps in the network that must be connected later.

The proposed municipal trail links presented in East Whiteland Township 2003 *Park and Recreation Plan*, which relate to the Patriots Path, are presented in **Figure 5.1**. As this map shows, East Whiteland Township's proposed trail network incorporates the County Chester Valley Trail as a key feature serving as central collector for all other municipal trails. Furthermore, this municipal network extends along PA Route 29 from Valley Creek Park south to the Malvern Borough sidewalk network. The Patriots Path is consistent with the 2003 *Plan* at a remarkably detailed level.

### **C. Malvern Borough**

In November 1992, Malvern Borough Council adopted a *Parks Recreation and Open Space Plan*, and in September 1999, they adopted an updated *Comprehensive Plan*. These documents both included recommendations that relate in general terms to the Patriots Path. However, in December 2002, Malvern Borough adopted a *Revitalization Plan*, which built on the policies set forth in the previous two plans. This *Revitalization Plan* included 24 specific recommendations, 11 of which can be directly related to the Patriots Path concept, as shown in **Figure 7.1**. These 11 recommendations deal primarily with creating a unified downtown commercial district identity, and with modifying vehicular traffic flow within the Borough to better accommodate pedestrians.

If the Patriots Path were established, King Street in Malvern would be the only existing downtown along the trail, making central Malvern a major rest stop for historic tourists and recreational hikers. In other words, visitors hiking from Valley Forge Park might buy lunch and use restroom facilities in Malvern Borough, and then return to Valley Forge Park. This scenario might work well with teenage school groups who could hike the trail as part of an historical interpretation experience beginning and ending in Valley Forge Park. Such a hike could occur in mid-week as part of a school trip. The Borough, which already has a distinctive style of historic architecture, might also market its downtown using this Revolutionary War historic interpretation "identity."

Malvern's proposal for increasing parking and better accommodating pedestrians would also accommodate the Patriots Path. On weekends, when recreational hikers and bicyclists are more likely to use the Path, Malvern's downtown and train station could serve as a parking area where trail users could begin a round trip with Valley Forge Park as the destination. SEPTA's proposed train station parking improvements, which would not be heavily used by commuters on weekends, could be used by trail users at that time. Offering free parking at a station on weekends might be a way to encourage trail users to park there. Weekend trail use may also promote local businesses by bringing potential customers into downtown Malvern Borough for a Sunday brunch, or shopping for a sandwich and a drink to take along for the hike.

**Figure 7.1 Malvern Revitalization Plan Recommendations**

<b>Recommendation</b>	<b>Patriots Path Implication</b>
<i>Economic Development and Redevelopment Recommendations</i>	
3. Institute a downtown façade improvement program. (Focusing in King Street)	Extending the Patriots Path along King Street might provide tourists to local shops and provide an additional justification for grant applications.
5. Institute more cooperative marketing activities (Focusing on downtown retailers)	Establishing the downtown as an historic trail destination might provide a single “branding” that local businesses could cooperatively market.
<i>Public Infrastructure Recommendations</i>	
1. Extend Malvern’s sidewalks and curb replacement program, with the Valley View Road/Miner Street area as the next target area.	Establishing the Patriots Path along sidewalks north and south of the train station, and north of the Paoli Memorial might promote a unified design standard, and improve trail grant applications.
3. Develop a unified theme for welcome signs at all major entrances to the Borough (Including North Warren and the north end of Old Lincoln Highway)	Such signs could welcome hikers along the Patriots Path, and provide markers that will help orient users whose final destination is the Paoli Memorial.
5. Create a landscapes planting island on West King Street (In part to slow traffic entering the downtown)	Slowing traffic entering the downtown would provide an improved pedestrian environment.
6. Work closely with the Paoli Battlefield Preservation Fund to implement the approved Paoli Battlefield Master Plan.	Creating a pedestrian link between Valley Forge Park and the Paoli Battlefield could raise the visibility of the Battlefield and improve funding opportunities for implementing the Master Plan.
7. Complete the proposed greenway between the Ruthland Tract and the Paoli Battlefield site.	The proposed greenway trail would link Powellton Avenue to the Paoli Battlefield site, and could be used as the Patriots Path access to the site.
<i>Transportation Recommendations</i>	
1. Assess the feasibility of constructing a public parking garage on the north side of the Malvern Train Station.	Such a public garage could serve as a parking lot for trail users on weekend, when commuter use would be low. Adding this weekend use might improve the likelihood of funding by SEPTA.
2. Work with SEPTA to ensure completion of the pedestrian tunnel between the SEPTA parking lot on the north side of the railroad tracks and Malvern Station.	This tunnel might serve as the Patriots Path crossing of the R-5 Rail line, and improve opportunities for a tunnel upgrade in the future.
3. Establish an additional public parking area on King Street west of Warren Avenue.	This lot might also provide parking for trail users on Sundays, when commercial use would be lower.
4. Construct a raised intersection on King Street at Powellton Avenue to enhance pedestrian safety near the Malvern shopping center.	Slowing the traffic entering the downtown would provide an improved pedestrian environment.

Source: *Malvern Borough Revitalization Plan*, 2002.

#### **D. Tredyffrin Township**

In 1986, the Tredyffrin Township Supervisors adopted a *Comprehensive Plan*, whose open space elements focused primarily on the acquisition and development of open space. However it did note that the trails within Valley Forge Park were “connected” to the internal trails within the Chesterbrook development. The *Plan* also noted that, “informal trail recreation opportunities can be found in a patchwork of parks, open space areas, utility rights-of-way and on private lands. Where feasible, a more comprehensive trail network could be developed from the existing base... ..to offer expanded recreational opportunity to Township residents while providing links between various recreational facilities, centers of activity and residential neighborhoods.”

In May 2005, the Tredyffrin Township Supervisors adopted a *Park Recreation and Open Space Plan* as an update to their 1992 *Open Space, Recreation and Environmental Resources Plan* (OSRER). The 2005 *Plan* lists the Patriots Path by name, as one of four “Recreation Corridors,” that are included as part of the Township’s existing park, recreation and open space system. This *Plan* discusses the need to maintain pedestrian access beneath the PA Turnpike along abandoned Wilson Road. A recreation survey conducted for the 2005 *Plan* found that 78 percent of respondents said they would use a multi-use trail system, while only 13 percent said they would not. This survey also found that 74 percent of respondents would support spending Township funds to develop a multi-purpose paved trail system.

There were a number of topics addressed in the “Goals and Recommendations” chapter of the 2005 *Plan* that relate to the Patriots Path. This chapter included a trail evaluation, which recommended that trails should be established along the entire length of Chesterbrook Boulevard, and along the eastern edge of Wilson Farm Park from just north of US Route 202 to Chesterbrook Boulevard. Both of these proposed trail corridors were designated as being a high priority. This trails evaluation also determined that Chesterbrook Road crossing of US Route 202 was a suitable pedestrian trail crossing, while the Valley Forge Road Crossing of US Route 202 was unsuitable.

The 2005 *Plan* listed one key recommendation regarding trails, which was to “Begin to Establish a Linked Multi-Use Trail System.” This recommendation proposed that the County Chester Valley Trail would serve as a trail collector for local feeder trails. It also proposed a comprehensive trail system approach that included the following elements:

- Pathways, both roadside pathways and off-road pathways
- New sidewalks that extend the existing sidewalk system, and
- On-road bike lanes, which consist of space on existing roads designated exclusively for bicycle riding

In September 2001 the Tredyffrin Township Supervisors adopted the *Paoli Community Master Plan*, a study conducted jointly with Willistown Township. This *Plan* called for the existing Paoli train station east of South Valley Road to be relocated west of South Valley Road and expanded into a transportation center with a parking garage and bus lanes. This project, which is still moving forward, would also include improvements to the North Valley Road Bridge over the SEPTA R5/Amtrak rail bed and the possible realignment and reconstruction of the Cedar Hollow Road bridge over the SEPTA R5/Amtrak



rail. These bridges may provide improved pedestrian access across the SEPTA R5/Amtrak lines, but these crossings would be quite far from Malvern Borough, or any feasible crossing of the Conrail Lines. As a result, the Paoli Station improvements should not be considered as a viable element of the Patriots Path.

### **E. Valley Forge National Historic Park**

In 2002, the National Park Service began work on a General Management Plan/Environmental Impact Statement (GMP) for Valley Forge Park. The National Park Service requires that such plans be completed periodically for units within the National Park System. The GMP serves as a plan describing the general approach the National Park Service will follow in managing Valley Forge Park for the next 15 to 20 year. In a sense, it is the equivalent of a municipal comprehensive plan. The GMP is in the public review draft stage, after which the final GMP is anticipated to be accepted by the National Park Service in a Record of Decision.

The establishment of a trail through the Wilson Road underpass is included in the draft GMP. This trail would extend from Wilson Road south of the Park, under the PA Turnpike underpass and northward into Wilson Road within the Park. Currently Wilson Road within the Park is a township road, but it is usually used by fewer than five vehicles a day, and sometime less. The GMP recognizes that Wilson Road could be converted into a trail that would also accommodate access vehicles. The topography of Wilson Road within the Park is steep at some locations, but given that the surrounding topography is also steep, the use of Wilson Road as a trail may be the only practicable trail option. Because Wilson Road is a township road, municipal involvement will be required.

In 2000, the staff at Valley Forge Park completed a *Strategic Plan* for fiscal years 2001 through 2005, which contained a mission statement and a series of goals under a variety of categories. The National Park Service mission statement for Valley Forge Park was developed based on the Park's legislated mandate found in the Act of Congress, PL 94-337, and supplemented by PL 96-287 (section 310). This is a two part mission statement, dealing with the park mandated purpose and primary significant. It reads:

*Purpose:* The purpose of Valley Forge National Historical Park is to preserve and protect those historic landscapes structures, archeological resources, and objects that commemorate the sacrifices and achievements of the Continental Army under General George Washington during the encampment of 1777-1778, and to educate the American people and the world about the heroic suffering, hardship, determination and resolve of the Continental Army that led to the emergence of a unified spirit.

*Significance:* The primary significance of Valley Forge National Historical Park can be summarized as follows: Few places evoke the spirit of patriotism and independence, represent individual and collective sacrifice, or demonstrate the resolve, tenacity and determination of the people of the United States to be free, as does Valley Forge. The Valley Forge story has been a source of inspiration for Americans and the world for over 200 years. Here, in spite of want and

suffering, the Continental Army under General George Washington's leadership survived, and emerged as a cohesive, more disciplined fighting force.

Valley Forge possesses the historic landscapes, structures, archeological resources, and objects that are tangible links to one of the most defining events in our nation's history. The unique resources from the encampment period, as well as the other cultural and natural layers linked to the historic events at Valley Forge, provide a powerful connection to this defining point in our history for present and future generations.

This mission statement clearly demonstrates that the function of Valley Forge Park is historic interpretation and preserving historic landscapes and features. It does not call for the Park to be developed as a recreational facility, despite the fact that local park users commonly use it for recreation. If the Patriots Path is to be consistent with the Park's mission, the Path should provide opportunities for historic interpretation. Furthermore, the Path, which will be in part a recreational facility, cannot be publicized or marketed in such a way as to imply that the Park is a recreational destination. The Patriots Path would be a linear feature, and so it would not function well to preserve landscapes. However the Path could be used to raise public awareness of local roads that were used for troop movements.

The *Strategic Plan* also describes twelve "external factors" influencing the Park. Two of these external factors relate to the Patriots Path. They are:

- "Valley Forge National Historical Park is fast becoming an island of land surrounded by development. Southeast Pennsylvania has experienced extensive development, with the area immediately around Valley Forge Park almost completely developed. The park sits at a major transportation hub, is trisected by state roads, a railroad corridor, and is utilized as a daily commuter route. In addition, the popularity in recreational pursuits and physical fitness has increased the number of incompatible activities that are identified routinely and brings increasing pressures on the resources of the park."
- "The local communities have viewed the park as a place for all sorts of passive, and increasingly active recreation. The phenomenal growth in physical fitness related activity has over loaded facilities and is impacting the historic scene presented to the visiting public. Most community open space plans rely on the park to fulfill at least some of their open space requirements. The need to limit and reverse the growth in the recreational trend, particularly within the historic core, will generate some negative public and local government reaction and may diminish support for the park."

Both of these factors address the recreational over use of the Park. Since the Park's purpose is not recreation, it was not designed for, nor does it have the infrastructure to accommodate, increasing recreational use. The Patriots Path could be expected to provide improved pedestrian access into the Park, which might result in more users entering the Park. However, the Path could also provide users, especially bicyclists, with an improved exit out of the Park. The Patriots Path might also draw bicyclists to a non-Park destination, namely downtown Malvern Borough. It is therefore important that the

planning and design of the Patriots Path focus on “draining” the overflow of users from the Park, in addition for providing improved access to the Park.

The *Strategic Plan* also includes a number of long term goals, most of which deal with park administration, the museum collection, natural resource protection, or archeological resources. The goals that relate to the Patriots Path are presented in **Figure 7.2**.

**Figure 7.2 Valley Forge Strategic Plan Long Term Goals**

<b>Long Term Goal</b>	<b>Patriots Path Implication</b>
11a1 - Visitor Satisfaction – By September 30, 2005, 95% of park visitors are satisfied with appropriate park facilities, services and recreational opportunities.	By providing a trail that also includes historic interpretation opportunities, the Patriots Path would provide visitors with an additional appropriate recreational opportunity.
11b1 - Long-term Goal Performance Target: By September 30, 2005, 86% of Valley Forge National Historic Park visitors understand and appreciate the significance of the park.	By providing historic interpretation opportunities relating to battles of the Campaign of 1777, the Patriots Path would provide users with an additional understanding of the significance of the park.
11b1X - Educational Programs: By September 30, 2005, 86% of 9,000 students participating in National Park Service formal education programs understand America's cultural and natural heritage as preserved by the National Park Service and its programs.	The Patriots Path could be used by pre-teen and teenage students to better understand the landscapes and distances traveled during the Campaign of 1777.

Source: *Valley Forge National Historic Park Strategic Plan for Fiscal Years 2001-2005*, 2000

## **Part 8: Stakeholder Issues**

A draft copy of this document was provided to the stakeholders listed below during the winter of 2006/2007. Chester County Planning Commission (CCPC) staff then gave presentations to these stakeholders to request their input. Copies of the correspondence from these stakeholders are included in *Appendix A*. A summary of stakeholder issues is presented below.

### **A. Valley Forge National Historic Park**

October 5, 2006, CCPC staff met with staff from Valley Forge Park and they were supportive of the trail concept. The major issue raised by park staff was the potential increase in park users that might access the park via Wilson Road. Valley Forge Park currently has to deal with a high volume of park users both on foot and on bicycles. In January 2007, park staff completed a Public Review Draft of their General Management Plan/Environmental Impact Statement (GMP). This document shows Wilson Road north of the PA Turnpike as a proposed trail on GMP Figure 2-10. Page 1-31 of the Draft GMP also considered trail partnerships including a trail access to the Paoli Massacre Site. During the meeting with CCPC staff, park staff noted that they could not realistically offer to take responsibility for the maintenance, liability, and security of a potential pedestrian tunnel at Wilson Road under the turnpike.

### **B. Malvern Borough Stakeholders**

On October 5, 2006, CCPC staff met with the Malvern Borough Planning Commission and they were supportive of the trail concept. They noted that the historic resources at Paoli Battlefield were being managed by the Paoli Battlefield Preservation Fund, who should be involved in any programming for the Patriots Path. They noted that the Borough was supportive of the trail concept, but that other ongoing projects had a higher priority in terms of management and funding. They also recommended that the Patriots Path within the Borough follow the route shown in *Figure 8.1*.

### **C. Tredyffrin Township Stakeholders**

On September 21, 2006 CCPC staff met with the Tredyffrin Township Planning Commission and they were supportive of the trail concept. They noted that the Township is already pursuing a trail link between Valley Forge Park and Wilson Farm Park. They proposed that the preferred link between these two sites should extend along the old Wilson Road right-of-way, which would enter Wilson Farm Park from the north near its northeast corner.

### **D. East Whiteland Township Stakeholders**

On September 27, 2006 CCPC staff met with the East Whiteland Planning Commission and they were supportive of the trail concept, especially as it related to improving sidewalks and trails along the PA Route 29 Corridor. They were also supportive of the concept of unblocking the blocked Norfolk Southern rail underpass near the intersection of US Route 30 and PA Route 29. East Whiteland





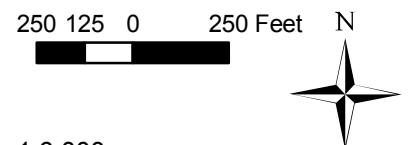
**An Evaluation of Patriots Path  
Trail Opportunities  
in the Eastern Great Valley**

**Figure 8.1  
Malvern Borough  
Recommendation**

Malvern Borough

**Legend**

- Municipalities
- Municipal Recreation Parks
- Paoli Memorial Grounds
- Municipal Open Space
- Borough Recommended Corridor



1:6,000  
Scale: 1" = 500 feet  
Date: November 2007

Source: Chester County  
Planning Commission, 2007  
(Aerial photography, 2000)



Township staff noted that there were proposals for a developer to construct a segment of the County Chester Valley Trail from the area around Battle of the Clouds Park, west to the future County park site at Exton. They recommended that CCPC staff meet with representatives of West Whiteland Township to discuss extending the trail west to the future park site.

#### **E. West Whiteland Township**

On February 12, 2007, CCPC staff met with Carolyn Hanel, the Parks and Recreation Director of West Whiteland Township and she was supportive of the trail concept. She expressed an interest in extending the Patriots Path west into the future County park site at Exton as shown in **Figure 8.2**. This site, formerly part of the Church Farm School, would be well suited for inclusion into the Patriots Path since it was crossed by British troops advancing to the Battle of the Clouds. As **Figure 3.2A** previously showed, forces under Gen. Knyphenhausen and Gen. Matthews marched passed the Fox Chase Inn and along Swedesford Road, which bisects the park site. This open parkland is one of the few remaining undeveloped areas in the region which still retains the rural character it had during the Revolutionary War Era. Thus, the park could become an historical interpretation destination, as well as a recreation destination drawing hikers and bicyclists who would otherwise be limited to staying within Valley Forge Park.

#### **F. Chester County Parks and Recreation Department**

On November 13, 2006, CCPC staff met with the Board of the Chester County Parks and Recreation Department, and they were supportive of the trail concept. The key issue raised involved how the trail would be publicized, including signage, and how the project would link to existing collector trails. The Chester County Parks and Recreation Department emphasized their priority is completing the County Chester Valley Trail and the County Schuylkill River Trail, which would limit their role in pursuing the Patriots Path. Through discussions with Parks staff, it was determined that County government would not be well-situated to coordinate with Norfolk Southern regarding the potential pedestrian underpass. This was primarily because there is no County property near that crossing. They suggested that a municipal government, or even private land owners may wish to request a permit for a crossing from Norfolk Southern. Parks staff further suggested that PennDOT may be able to take a role in coordinating with Norfolk Southern if intersection improvements were made at the intersection of US Route 30 and PA Route 29.

#### **G. PA Department of Transportation (PennDOT)**

On January 17, CCPC staff met with Matthew Bochanski, the Bicycle and Pedestrian Coordinator for PennDOT District 6-0. He noted that PennDOT would be supportive of the trail concept, and emphasized the need for the trail to comply with PennDOT and American Association of State Highway and Transportation Officials (AASHTO) design standards. He noted that PennDOT was open to considering the Patriots Path when developing mitigation strategies for other transportation related projects in the area. Such projects might include improvements to intersections so as to add pedestrian crossings.



#### **H. PA Turnpike Commission (PTC)**

On March 1, 2007, CCPC staff met with Don Steele of the PTC and they were supportive of the trail concept. On April 28, 2007, the PTC notified the CCPC, Valley Forge Park staff and Tredyffrin Township that they intended to keep open the old Wilson Road access way in anticipation that it will serve as a pedestrian walkway under the PA Turnpike.

#### **I. Southeastern PA Transit Authority (SEPTA)**

On January 24, 2007, CCPC staff met with Glen Morris of SEPTA. He noted that SEPTA was supportive of the trail concept, and the possibility that it may encourage bicyclist to access Valley Forge Park by rail via the Malvern Station. Due to ongoing funding shortfalls, SEPTA does not anticipate there would be trail-related construction initiatives pursued for the Malvern Station other than those currently under consideration.

#### **J. Schuylkill River Greenway Association (SRGA)**

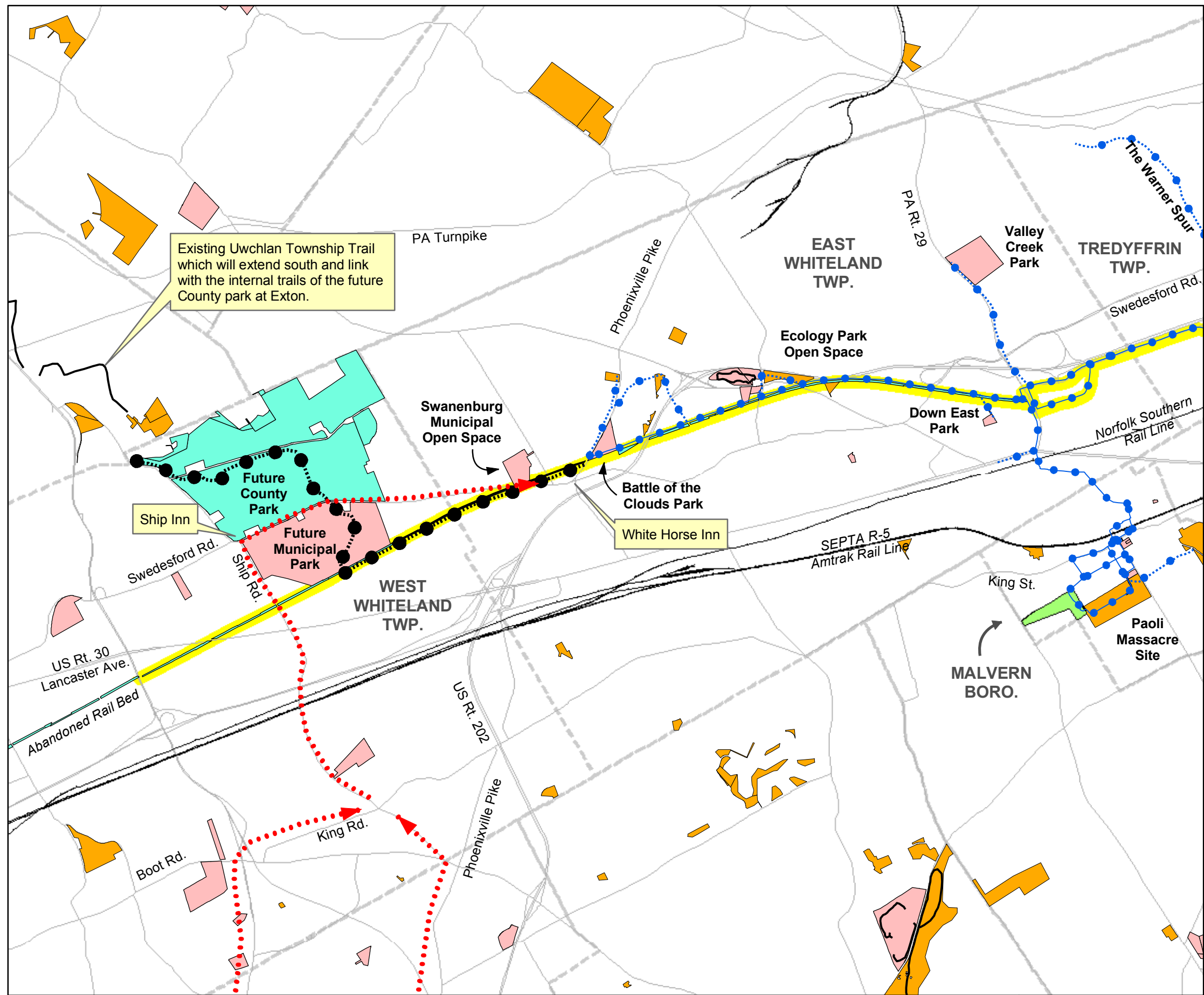
On March 7, 2006, CCPC Staff met with Kurt Zwinkl of the Schuylkill River Greenway Association, and he was supportive of the trail concept. Mr. Zwinkl then presented the concept to the SRGA board, and they determined that SRGA could not take a management role largely because their priority is to complete a number of trail projects already underway. However, SRGA was open to the idea of awarding a trail master plan/design grant to a non-profit organization or municipality for this project. SRGA grants are competitive and would likely require local planning that included a preferred alignment and addressed right-of-way. SRGA has also expressed an interest in coordinating with the Patriots Path so that it might have signage and publicity that could tie in with the SRGA managed trails along the Schuylkill River Corridor.



# An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley

**Figure 8.2**  
**Possible Patriots Path Extensions**

Eastern Chester County



## Legend

- ▶ Hessian March to White Horse Inn
- Possible Patriots Path Extension
- Feasible Patriots Path Routes
- Possible Spur Trails
- Existing Municipal Trails
- Municipal Recreation Park
- Municipal Open Space
- Valley Forge Nat. Hist. Park
- Future County Park at Exton
- Paoli Memorial Grounds
- Major Roads
- Rail Corridors
- Chester Valley Trail Proposed Alignment
- Municipal Boundaries



1:38,016  
Scale: 1" = Approx. 0.6 Miles  
Date: November 2007

Source: CCPC, 2007

## **Part 9: Funding for Acquisition, Design/Construction and Programming/Land Management**

### **A. Federal Funding Opportunities**

#### **1. Federal Funding for Acquisition**

The Federal Government would not be expected to acquire any property or easements for the Patriots Path. However the Federal Government may choose to contribute federal funds for the acquisition of property in-fee or easements acquired by municipalities or Chester County. Americans with Disabilities Act requirements would have to be addressed for sections of the corridor that receive federal funds.

#### **2. Federal Funding for Design/Construction**

The Federal Government may choose to contribute federal funds or in-kind services for the design and construction of the Patriots Path. A contribution of in-kind services could be cost effective since the National Park Service already has design and construction staff with expertise in recreational trails and historic interpretation sites. National Park Service design staff could also be more familiar with National Park Service standards, and so could present an overall landscapes design that is consistent with Valley Forge Park. The Wilson Road section of the Patriots Path that extends through Valley Forge Park could remain as federally owned property, and if needed, it would be improved using federal funds. Likewise, any trail linking the Wilcox Library at Maxwell's Headquarters could be constructed using federal funds.

All sections of the Patriots Path lie within the Schuylkill River Watershed, with the exception of the sidewalks of central and northern Malvern Borough. In 1995 the Commonwealth of PA designated the entire Schuylkill River Watershed as a State Heritage Corridor. In 2000, the US Congress designated it as a National Heritage Area, with a mission to "Conserve, interpret and develop the historical, cultural, natural and recreation resources related to the industrial and cultural heritage of the Schuylkill River Valley. The Schuylkill River Greenway Association (SRGA) serves as the administrator for both the state and federal heritage corridor. SRGA also administers grants to municipalities that cover 25 to 50 percent of costs for studies and implementation projects. These funds are limited, and in general SRGA grants have been awarded to projects that focus on the main stem of the Schuylkill River.

In 1991, the US Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which provided about \$155 billion of federal funding for highway, highway safety and mass transportation projects throughout the nation. ISTEA also included funding for non-motorized transportation facilities such as bicycle and pedestrian trails. In June 1998, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) was passed by the US Congress. TEA-21 provided \$198 billion for the purpose of continuing and expanding the programs established by ISTEA. In 2005 the President signed the Safe, Accountable, Flexible & Efficient Transportation Equity Act - a Legacy for Users (SAFETEA-LU). This law, commonly called SAFE-TEA, provided over \$286 billion to continue and expand programs created under TEA-21.

SAFE-TEA includes three programs that are commonly used to fund non-motorized transportation projects. These programs are:

- ***Transportation Enhancements (TE)*** - Under SAFE-TEA, a portion of the federal funding provided to each state for surface transportation is authorized to be distributed through the Transportation Enhancement (TE) Program. The TE Program is not a grant but rather a reimbursement program in which the federal government will fund a part of a project cost, once the project is completed. In Pennsylvania, the TE Program is administered by the Pennsylvania Department of Transportation (PennDOT), but funds are awarded through a collaborative process involving PennDOT, the Delaware Valley Regional Planning Commission, and the Pennsylvania Transportation Enhancements Advisory Committee.

The TE Program provides funds for two categories of surface transportation projects that provide funds for bicycle or pedestrian trails. The TE fund category called “*Provision of facilities for pedestrians and bicycles*” provides funding for only the construction of new facilities for pedestrian or bicycle use, or improvements to existing trail facilities. This provision does not include sidewalks or required curb ramps. The TE fund category called “*Preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails)*” provides funding for the planning, acquisition, rehabilitation and development of active and abandoned corridors for public uses including pedestrian and bicycle trails. Any state agency, county or municipal government or non-profit organization is eligible for TE funds.

- ***The Congestion Mitigation and Air Quality (CMAQ) Improvement Program*** - The CMAQ Improvement Program of SAFE-TEA provides Federal funding for projects that serve the general public and produce a reduction of harmful emissions related to transportation. The CMAQ Program is not a grant but rather a reimbursement program in which the federal government will fund a percent of a project cost, once the project is completed. In Southeastern Pennsylvania, the Delaware Valley Regional Planning Commission (DVRPC) administers the CMAQ program, but funds are awarded through a collaborative process involving PennDOT and the Federal Highway Administration.

The CMAQ Program provides funds for the establishment of bicycle or pedestrian trails, through the fund category called “*Bicycle and pedestrian projects.*” This category provides funding for a wide variety of activities including the designation of bike lanes on roadways and the construction or reconstruction of paths tracks or areas only for the use of pedestrian or other non-motorized modes of transportation. Eligibility requirements allow funds to be awarded to any public agency, incorporated private firm, or non-profit entity

- ***Recreational Trails Program*** - In Pennsylvania, the Department of Conservation and Natural Resources (DCNR) administers and distributes Recreational Trails Program funds. This Program provides grants to develop and maintain recreational trails for motorized and non-motorized recreational trail users. Municipal governments, private individuals and private organizations are eligible to receive these grants.

All three of these SAFE-TEA programs may be applicable to the Patriots Path, because the proposed path would:

- Provide facilities for pedestrians and bicycles
- Preserve abandoned railway corridors through conversion for pedestrian or bicycle trails
- Produce a reduction of harmful emissions related to transportation by improving access to a commuter rail line
- Establish a recreational trail

### **3. Federal Funding for Programming/Land Management**

The Federal government would only be responsible for maintaining and patrolling the sections of the Patriots Path within Valley Forge Park, which would likely require no additional costs. If Valley Forge staff were to maintain or patrol the Wilson Road pedestrian tunnel, either alone or in cooperation with Tredyffrin Township or Chester County, no major new expenses would be anticipated. If Valley Forge staff were to become the lead agency providing programming along the entire length of the Patriots Path, the National Park Service may have to provide additional staff funding.

## **B. State Funding Opportunities**

### **1. State Funding for Acquisition**

The Commonwealth of Pennsylvania would not be expected to acquire any property for the Patriots Path. The PA Turnpike Commission (PTC) may donate an easement on a pedestrian tunnel underneath the PA Turnpike. Likewise, PennDOT may donate or permit the use of right-of-way along state roads. PennDOT might also acquire trail right-of-way as a way to mitigate the impact of a highway project in the region.

In May of 2005, Pennsylvania voters approved a referendum for \$625 million bond to be dedicated to continuing the Growing Greener program initiated in 1999. Since 2000, Growing Greener funding has been used to fund acquisition grants to municipalities under the Community Conservation Partnership Program (CCPP). The PA Department of Conservation and Natural Resources (DCNR) administers the CCPC grant. The CCPP awards acquisition grants to municipalities from the following funds:

- ***The Keystone Recreation, Park and Conservation Fund*** was established by PA Act 1993-50. It awards funds for open space and recreation through two grant programs that usually provide 50 percent of funding. The Keystone Community Recreation Grants Program provides funds for the acquisition of land for park and recreation purposes. The Keystone Rail-to-Trails Program Grant can be used by municipalities for the acquisition of abandoned railroad right-of-way for trails and adjacent lands necessary for trail access and user facilities. Although most of the Patriots Path right-of-way is already on public land, this acquisition grant should be considered.
- ***The Recreational Trails Fund*** receives funding through SAFE-TEA and award funds to municipalities for trail projects through the Pennsylvania Recreational Trails Grants. Although these



grants receive federal transportation funding, they are administered by the DCNR. These grants can award up to 50 percent of a project cost for the acquisition of non-motorized trails.

## 2. State Funding for Design/Construction

The Commonwealth of Pennsylvania should not be relied upon to design or construct any segments of the Patriots Path. However, it would be reasonable to assume that the PTC might provide the design and construction of the Wilson Road pedestrian tunnel as part of their Turnpike widening project. Similarly, PennDOT would have to be involved with the design, and perhaps construction, of new or improved sidewalks or intersections that are crossed by the Patriots Path.

Since 2000, Growing Greener funding has been used to fund design and construction grants to municipalities under the Community Conservation Partnership Program (CCPP). The PA Department of Conservation and Natural Resources (DCNR) administers the CCPP grant. The CCPP awards design/construction grants to municipalities from the following funds:

- ***The Keystone Fund Community Recreation Grants Program*** provides funding for trails planning and feasibility studies under the grant category of “Planning and Technical Assistance.” Under the category of “Development” this program will fund the rehabilitation and development of park and recreation facilities. It will also fund “Small communities development,” for communities such as Malvern Borough with a population of 5,000 and below.
- ***The Recreational Trails Fund*** receives funding through SAFE-TEA and awards funds to municipalities for trail projects through the Pennsylvania Recreational Trails Grants. These grants are administered by the Pennsylvania DCNR but receive federal transportation funding. These grants can award up to 80 percent of a project cost for the development of non-motorized trails.

In recent years, state funding for community projects such as trails has also been available through the Pennsylvania Legislative Initiative Program. Under the Community Revitalization Grants within this program, State legislators can award funding on an annual basis for a wide range of community projects. The funding is limited and grants are usually developed as the state budget is being formulated. Recently there have been discussions of eliminating this program, and its future is uncertain. This program should not be regarded as a consistent funding source for the Patriots Path, but it should be considered as a possible resource, most likely for design and construction. This program can be awarded by one or more legislators, or by a delegation, which may be appropriate for the Patriots Path given that it crosses five legislative districts.

The Pennsylvania Historical and Museum Commission (PHMC) administers a program to assist local communities in nominating sites for state historical markers. These markers are blue metal signs with yellow printing and the State seal, which are common along roadways through the Commonwealth. Limited matching grants of up to \$650 are available from PHMC for the manufacture of markers, and nominators should be prepared to share in the costs of their marker's fabrication.

### **3. State Funding for Programming/Land Management**

The Commonwealth of Pennsylvania would not be expected to conduct programming or land management for the Patriots Path. Since 2000, Growing Greener funding has been used to fund trail maintenance grants to municipalities under the Community Conservation Partnership Program (CCPP). The PA Department of Conservation and Natural Resources (DCNR) administers the CCPP grant. The CCPP awards maintenance grants to municipalities from the Recreational Trails Fund, which receives funding through SAFE-TEA and award funds to municipalities for trail projects through the Pennsylvania Recreational Trails Grants. These grants are administered by the DCNR, but receive federal transportation funding. These grants can award up to 80 percent of a project cost for maintenance of non-motorized trails.

### **C. County Funding Opportunities**

#### **1. County Funding for Acquisition**

County government would not be expected to acquire any property or easements for the Patriots Path. However the County Government may choose to contribute re-imbursement funds for the acquisition of property in-fee or easements acquired by municipalities. If needed, Chester County may also acquire right-of-way or land in-fee along the County Chester Valley Trail.

The Chester County Department of Open Space Preservation (DOSP) administers an Acquisition and Development Grant to municipalities as part of the Chester County Landscapes 21<sup>st</sup> Century Fund Municipal Grant Program. Municipalities can use this grant to acquire land for trails. The County will reimburse a maximum of 50 percent of the approved cost up to \$250,000.

#### **2. County Funding for Design/Construction**

The above mentioned Chester County Landscapes 21<sup>st</sup> Century Fund Municipal Grant Program, can also be used by municipalities for the development of new trail or the rehabilitation of existing trails. The County will reimburse a maximum of 50 percent of the approved cost up to \$250,000. The 21<sup>st</sup> Century Fund Municipal Grant Program can also fund the design and construction of municipal park facilities, which could include trailhead features such as parking, restrooms and signage for historic interpretation.

The 21<sup>st</sup> Century Fund Community Revitalization Program can also be used to fund sidewalks or parking facilities including garages within urban centers that have completed Urban Revitalization Plans. Malvern Borough is the only Patriots Path Municipality that would be eligible for this grant program. In 2004, this funding was used to install 6,980 square feet of concrete sidewalk in Malvern Borough along Miner Street, Valley View Road, and Old Lincoln Highway. As an urban area, Malvern Borough would have to provide at least a 25 percent match for this grant, and that money could be any non-county funds such as state, SEPTA or privately donated funds.

The Chester County Department of Community Development (CDC) distributes federal funds for activities that install, construct, or rehabilitate public facilities such as streets, streetlights, curbs, and sidewalks. These activities are funded primarily with Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development. CDBG funded projects must

primarily serve areas with a concentration of low and moderate-income people. The only part of the Patriots Path that is eligible for the CDGB program is in East Whiteland Township on the west side of PA Route 29 from Matthews Road south to the tracks of the Norfolk Southern rail line. These grants are highly competitive, and projects must clearly demonstrate a positive impact on low-income communities.

### **3. County Funding for Programming/Land Management**

County government would not be expected to provide funding for programming or land management for the Patriots Path, outside the County Chester Valley Trail. However the Chester County Parks and Recreation Department would be responsible for land management, and limited programming, along the County Chester Valley Trail.

## **D. Municipal Funding Opportunities**

### **1. Municipal Funding for Acquisition**

All three municipalities in the study corridor have provided funding for municipal recreation in recent years as part of their normal operating budgets. East Whiteland Township includes capitol expenditures for parks and recreation as part of its overall capitol budget. Each year the township's Park and Recreation Board present a budget to the elected supervisors. During the 1990s, Malvern Borough expended between 34,000 and 38,000 of its general fund for recreation, which was approximately 2 to 3 percent of their total annual expenditures. In 2004, Tredyffrin Township budgeted over \$700,000 for operating expenditures, of which 75 percent was spent on personnel.

These municipalities could raise funds for recreational projects through user-fees, bond issues or special fundraisers. User fees are not well suited for a trails project since there are multiple access points. However, capitol improvements along the Patriots Path could be funded through bonds or special fundraisers, such as charity walk along the path. Municipalities also have a number of other options for acquiring land. These include:

- ***In-fee Acquisition*** – in which a municipality purchases land, and all the rights to the land, at a market value cost, using procedures that are common to any land transaction between private entities.
- ***Donated Property*** – in which a landowner donates land in-fee to a municipality.
- ***Bargain Sale*** – in which a landowner sells a property for a reduced rate and then donates the remaining value of the land to the municipality.
- ***Condemnation*** – in which a municipality exercises its right of eminent domain and condemns land for a trail. Condemnation should be avoided if possible. If it is required, there should be a clearly demonstrated value to the public. In general, condemnation for a trails project is used to acquire segments that are essential in linking together larger trails, thus creating a community network. Condemnation is not always adversarial, and in some instances a landowner may prefer condemnation to an outright sale. This scenario is known as a “friendly” condemnation.

- ***Donated Pedestrian Easements*** - in which a landowner or developer donates an easement on a privately owned property. This easement permits the general public to walk across the property. Usually these easements are for short trail segments located between two publicly owned trails segments.
- ***Mandatory Dedication*** – in which a municipality requires developers to dedicate land, or a fee-in-lieu of land for public recreation. The PA Municipalities Planning Code (Act 247) requires that the municipality adopt a recreation plan and an appropriate ordinance before land or fees can be accepted.
- ***Purchase and Lease Back*** – in which a municipality purchases a property in-fee, and then places a pedestrian easement on parts of the property, and then leases the land back to the original owner.

## **2. Municipal Funding for Design/Construction**

Municipalities can provide general or special bond funding for the design or construction of trails or sidewalks. Municipal funding is usually required as a match to County or State grants, as described above.

## **3. Municipal Funding for Programming/Land Management**

Most municipalities manage municipal trails using the same staff and funding earmarked to manage all other public lands. Many municipalities are not involved in recreational programming, and instead rely on sports leagues or “friends-of” groups. Some Chester County municipalities are members of a multi-municipal recreation organization such as the Downingtown Area Recreational Consortium. Such an organization could be created to focus the programming along the Patriots Path.

## **E. Private Funding Opportunities**

### **1. Private Funding for Acquisition**

Private organizations, such as the William Penn Foundation, should be considered, but not anticipated, as a funding source for land acquisition for the Patriots Path. In general, trails funding in the Delaware Valley has been funded through local and state grants rather than private organizations. In some municipalities, a private developer building in certain zones can be required to build trails as part of the normal land development process. Such an approach can reduce the need for public entities to acquire new land for trails.

### **2. Private Funding for Design/Construction**

Private organizations, such as the William Penn Foundation, should be considered as a funding source for the design and construction of the Patriots Path. In recent years, PECO Energy has funded grants under \$10,000 for trails projects in Chester County. In some municipalities, trails can be built by a private developer as part of the land development process. Such construction should occur during road and sidewalk construction, and prior to the completion of the units.

Trail design and construction may also be funded by in-kind contributions from corporations that build new developments along the Patriots Path. An example might be the redevelopment of the Worthington



Steel Site. In 2004, redevelopment plans for the former steel plant east of PA Route 29 were submitted to the Chester County Planning Commission for review. These plans included new residential, retail and office units. Such a project might require improvements to the intersections of PA Route 29 with US Routes 202 and 30. Sidewalks and crossings that create links in the Patriots Path might be included in such improvements.

### **3. Private Funding for Programming/Land Management**

Private organizations, such as a “Friends of” Group or a Watershed Association, could provide volunteers that will assist in the programming and maintenance on the Patriots Path.

## **F. Landowner Partnership Funding Opportunities**

### **1. Landowner Partnership Funding for Acquisition**

Landowners who become partners in this project would not be expected to acquire new property for the Patriots Path. However, landowners such as industrial parks may donate trail easements on the lawn areas within their properties.

### **2. Landowner Partnership Funding for Design/Construction**

Landowners who become partners in this project would not be expected to design or construct sections of the Patriots Path. However, landowners such as firms within industrial parks may wish to link their internal trails to the Patriots Path. In such cases, the municipality may request that the landowner design and construct the intersection of their internal trails with the Patriots Path. Such an effort may also include repaving sections of the Patriots Path that lead to the trail intersection. In this way, the landowner gets the benefits of linking to the Patriots Path, without the expenditure of public funds.

### **3. Landowner Partnership Funding for Programming/Land Management**

Landowners who become partners in this project would not be expected to provide programming or land management for the Patriots Path. However, landowners that donate or sell a recreation easement to the municipality may be required to maintain the eased area as part of the right-of-way agreement.

## **Part 10: Maintenance, Security and Programming Roles**

### **A. Possible Federal Role**

The Valley Forge Park staff will continue to provide maintenance and security along Wilson Road within the Park's limits. The PA Turnpike Commission (PTC) has expressed a willingness to consider replacing the PA Turnpike Bridge over Wilson Road with a pedestrian tunnel. However, the PTC does not wish to have general maintenance and security responsibility for this structure. Valley Forge staff should consider taking responsibility for security and maintenance for this structure, or sharing that responsibility with Tredyffrin Township.

Valley Forge Park staff currently provide extensive programming focusing on the Revolutionary War era. Such programming is not currently provided by state, county or local governments, none of whom are experienced in this field. As a result, Valley Forge Park should consider expanding their programming to emphasize the historical significance of the Battle of the Clouds, the Paoli Massacre and the troop movements that took place as part of the Campaign of 1777. Because Valley Forge NPH staff already has extensive experience with historical programming, it would seem reasonable to assume they could play the lead role in programming for the Patriots Path.

### **B. Possible State Role**

Because the Patriots Path does not extend into any State recreational properties, it is unlikely that there would be any state role in terms of staffing, maintenance, programming and security. The PA Turnpike Commission (PTC) does not wish to have general maintenance and security responsibility for the proposed pedestrian tunnel beneath the PA Turnpike at Wilson Road, as noted above. The PTC could however, be expected to maintain the structural integrity of the Wilson Road pedestrian tunnel. PennDOT may be involved in trail crossings of state roads and maintaining sidewalks along state roads.

### **C. Possible County Role**

The Chester County Parks and Recreation Department staff will provide maintenance, security and programming for the County Chester Valley Trail. This programming will focus on natural and cultural resources appreciation, as well as recreation issues, such as trail safety. Such programming is already being conducted at existing County facilities such as the County Struble Trail and Black Rock Preserve.

Chester County Parks and Recreation Department park rangers are currently providing security for the developed and undeveloped portions of the County Chester Valley Trail, and have a familiarity with the issues involved in patrolling a recreational trail. As a result, the Chester County Parks and Recreation Department should consider patrolling the entire length, or key portions of the Patriots Path outside of Valley Forge Park, including the proposed Wilson Road Tunnel. County policy forbids County Park Rangers to patrol non-county property. To resolve this policy, some kind of County recreation right-of-way may be required on the entire Patriots Path.

#### D. Possible Municipal Role

Municipal staff, including local police, will provide security for any municipally owned or managed trail segments within the Patriots Path. Municipal staff will also provide maintenance and programming for the any municipally owned or managed trail within the Path. In general, municipal programming for recreational trails is limited to user safety, and as a result the Patriots Path municipalities would not be well suited to take a major role in trail programming. Municipalities have extensive experience with maintaining public recreational facilities, and so it would seem reasonable to assume they could take full responsibility for maintaining the non-County and non-federal sections of the Patriots Path.

#### E. Possible Friends-of Groups

A “friends-of” group could provide volunteer assistance in the overall maintenance of the Patriots Path by organizing trail clean-ups, which may include trimming back overgrown vegetation. Furthermore a friends-of group could form a civilian “Town Watch” and assist in programming or leading hikes. Such activities would have to be coordinated with federal, County and local governments.

#### F. Possible Private-Public Partnership Roles

The sections presented above describe a possible public/private partnership in which local landowners and residents join together with many levels of government. *Figure 10.1* below summarizes the possible roles and responsibilities that could be involved with the maintenance, security and programming of the Patriots Path.

*Figure 10.1 Possible Partnership Roles*

Possible Partners	Possible Maintenance Role	Possible Security Role	Possible Programming Role
Federal	Valley Forge staff could maintain trails within Valley Forge Park, and perhaps the Wilson Road Tunnel.	Valley Forge staff could patrol the trails within Valley Forge Park, and the Wilson Road Tunnel.	Valley Forge staff could implement programming over the length of the Patriots Path, in coordination with County and local staff.
State	PTC staff could maintain the structural integrity of the Wilson Road Tunnel.	None	None
County	County Parks staff could maintain the County Chester Valley Trail.	County Parks staff could patrol the Patriots Path along the Chester Valley Trail.	County staff could coordinate with Valley Forge staff.
Municipal	Municipalities could maintain their sections of trails and sidewalks, perhaps including the Wilson Road Tunnel.	Municipal police could patrol their respective sections of trails/sidewalks, and perhaps the Wilson Road Tunnel.	Municipal staff could coordinate with Valley Forge staff.
Friends-of Group	Volunteers could assist in maintaining the entire length of the Patriots Path.	Volunteers could assist in a “town watch” over the entire length of the Patriots Path.	Volunteers could assist Valley Forge staff.

## **Part 11: Similar Existing Facilities**

There are a number of existing parks and trails throughout the country that offer a variety of historical interpretation and recreation opportunities to their visitors. Some of these parks have physical features that are similar to the Patriots Path concept, while others present models of management partnerships that could be applied to the Patriots Path. Although some of these sites are quite different from the Patriots Path, they all include different aspects of the Path's potential, be it history, recreation, or regional cooperation. These parks and trails were all established with the support and involvement of partnership and management members, and all of these have proven to be a success.

### **A. Heritage Rail Trail County Park, York County, PA**

The Heritage Rail Trail County Park in York County, PA is a trail that relates to a battle, much like the proposed Patriots Path. This trail was established in 1992 and extends 21-miles from the City of York south to the Mason Dixon Line. From there, it connects to a 20-mile long trail in Maryland, the Northern Central Railroad Trail. Historic structures located along the trail include historic train stations. York County also offers a variety of seasonal rides on the trail that are led by guides, including the Sunset Scramble Bike Ride and the Moonlight Bike Ride. One of the historic train stations is now home to a museum dedicated to the heritage rail trail.

The Heritage Rail Trail follows the Northern Central Railroad that linked Washington, D.C., Harrisburg, upstate New York and Lake Ontario. Leading up to the Battle of Gettysburg, this railroad was a target of the Confederate Army. After the battle, President Lincoln traveled on this line, stopping in Hanover Junction. Today, the Hanover Junction train station serves as the trail's museum, having been restored to its 1863 appearance. The New Freedom Station has also been restored to its 1935 appearance. Both the Hanover Junction and New Freedom railroad stations are listed on the National Register of Historic Places. The Heritage Rail Trail also includes the Howard Tunnel, which is the oldest continuously operational railroad tunnel in the world. It opened in 1838 and was recently rehabilitated in 2003.

### **B. Delaware and Lehigh National Heritage Corridor, Pennsylvania**

Delaware and Lehigh National Heritage Corridor is similar to the Patriots Path in that it includes hiking trails and National Historic Landmarks, and has the potential to eventually link up to more trails beyond its five county region. This Heritage Corridor was designated in 1988 and is presented in three segments: the Anthracite Region, the Lehigh Valley Region and the Delaware Valley Region. Technically speaking, this Corridor is both a State Heritage Park and a National Heritage Corridor, stretching more than 150 miles, and serving a population of 1.5 million. The backbone of the Corridor is the Delaware Canal, the Lehigh Navigation System and the historic Lehigh and Susquehanna railroad. The Corridor has visitor's centers at Jim Thorpe Landing and the Crayola Factory in Easton. Stops along this trail include, the Mercer Museum, the former Bethlehem Steel site, and Washington Crossing Historic Park.

The Delaware and Lehigh Canal National Heritage Corridor Commission, the National Park Service and the Commonwealth of Pennsylvania provide management for the corridor. The Corridor has a Management Action Plan, which creates uniform graphics and signage. This plan includes strategies to,



preserve wetlands and natural areas, and restore and adaptively reuse major historic structures. Together, the Heritage Corridor and New Jersey's Delaware and Raritan State Park host a series of looping trails connecting Pennsylvania and New Jersey, using five bridges. Trail connection bridges are located in the Pennsylvania towns of Uhlerstown, Lumberville, Center Bridge, Washington Crossing and Morrisville. Visitors can access to the canal towpaths in both states, and can bike or walk a complete loop back to their car.

### **C. Minute Man National Historic Park/Battle Road Trail, Massachusetts**

Minute Man National Historic Park, located 22 miles outside of Boston, includes a trail that extends through historic sites and landscapes that are associated with the American Revolution, much like the proposed Patriots Path. This Historic Park was created in 1959 to preserve significant historic structures and landscapes associated with the earliest battles of the American Revolution. Today, it consists of over 900 acres, including original segments of Battle Road, where on April 19, 1775, the colonial militia and Minutemen took up arms against the British. Minute Man Park includes two visitor centers, one in Lexington, and the other in Concord overlooking the North Bridge.

The focus of Minute Man Park is the Battles of Lexington and Concord. At Concord's North Bridge, visitors can see the place where Colonial militia men fired the famous "shot heard 'round the world." The Park also boasts a quiet landscape that includes Daniel Chester French's Minute Man Statue, as well as a five-mile "Battle Road Trail," where users can retrace the steps of the British as they fled back to Boston under fire from Colonial militia men. Parts of this trail follow the original route of Battle Road of April 19, 1775. This Park also preserves "The Wayside," the 19<sup>th</sup> Century home of literary giants Louisa May Alcott, Ralph Waldo Emerson, and Nathaniel Hawthorne. Other areas of special interest along the trail include the site where Paul Revere was captured, the restored 18<sup>th</sup> Century Smith House and Hartwell Tavern. Hartwell Tavern is now a living history center staffed by Park Rangers, dressed in period costumes.

### **D. Overmountain Victory National Historic Trail, South Carolina**

The Overmountain Victory National Historic Trail in South Carolina was established in 1980 as the first National Historic Trail in the nation. Like the Patriots Path, this trail follows Revolutionary War troop movements. This 20-mile trail crosses through mountainous terrain following the route the Continental Army took in 1780 in order to defeat the British at the battle of Kings Mountain. In 1975, local citizens marched the route as part of Bicentennial celebration. Since then the Overmountain Victory Trail Association (OVTA) holds its own annual 14-day march along the path, from the Appalachians to the Piedmont region.

The Trail includes a hiking trail, a paved road and a highway-based trail. Stops along the Trail include Kings Mountain National Military Park, Rocky Mount, Sycamore Shoals, the Yellow Mountain Gap, and the Roan Mountain State Park. In its entirety, the trail covers 220 miles and four states. The Trail includes three routes: the public motor route, the route the OVTA uses each year, and the actual historic route, which is usually inaccessible. The Trail is managed through a cooperative effort of the National

Park Service, the National Park Service, the U.S. Forest Service, the US Army Corps of Engineers, the OVTA, local governments, and historical societies, as well as the states involved.

### **E. Fredericksburg & Spotsylvania National Military Park, Virginia**

Fredericksburg & Spotsylvania National Military Park (FSNMP) is a Civil War park that includes trails, historic roadways and tavern stops, similar to the Patriots Path concept. This Park was dedicated in 1927, and is known as the “bloodiest Landscape in North America.” At these battles some 85,000 men were wounded, and 15,000 killed. Within the Park is the Spotsylvania Battlefield History Trail, which is actually a series of loops trails totaling 7 miles. The trails are marked by red and blue “blaze” signage to show the paths of confederate and union armies. The battlefields are marked with white “blazes”.

The Bloody Angle Walking Tour is another feature of the park. This trail follows a 200-yard stretch, where soldiers fought for over 20 hours. FSNMP also includes a driving tour of the Battle of Todd’s Tavern. This is the location is where Union forces were delayed in their arrival to Spotsylvania, long enough to allow the Confederates to arrive first. The tavern was also the headquarters for different battles and was occupied and re-occupied a number of times. Along with guided tours and self guided hikes, the FSNMP offers a variety of programming including “History at Sunset” tours and the National Cemetery Annual Luminaria, where one candle is lit in the field for each fallen soldier.

### **F. The Cuyahoga Valley National Park, Ohio**

The Cuyahoga Valley National Park, established in 2000, links the urbanized areas of Cleveland and Akron Ohio by trail along the remains of the old Ohio & Erie Canal. The Patriots Path would also link communities in an urbanized setting. The 33,000 acre Park offers examples of both 19<sup>th</sup> and 20<sup>th</sup> Century sustainable farming, and includes surrounding parks that are part of the “Metroparks” system, including the Hale Farm & Village and the Brecksville and Buckeye Trails. The Park has stone monuments located along a portion of the old canal towpath in one-mile increments, to denote the historic distance from the Port of Cleveland on Lake Erie. Portions of the 20-mile towpath portion of the trail are paved with crushed limestone for bicyclists.

This National Park has five visitor’s centers. The Park’s trails include backcountry hiking trails and the Ohio & Erie Canal Towpath, which has graded biking and hiking trails. According to the National Park Service, the Park is one of the “most strategically located resources in reach of urban America, and is as valuable as the Golden Gate National Recreation Area in San Francisco.” The National Park Service manages the park in cooperation with others who own property within its boundaries, including Cleveland Metroparks, serving Summit County.

## Part 12: Additional Options and Opportunities

### A. National Park Service Affiliated Area Status Opportunities

Based on preliminary research, it appears that the Patriots Path could be an ideal candidate for designation as a National Park Service Affiliate Area. There are 388 sites known as “Units,” which make up the National Park System. These Units are classified in many different categories. Units are usually owned managed and operated by the National Park Service. An “Affiliated Area” is a nationally significant site that is not a National Park Service owned Unit, but is managed as if were. There are 28 Affiliate Areas throughout the nation. Nearby examples include Philadelphia’s Old Swedes Church, and the Delaware & Lehigh Canal National Heritage Corridor located in eastern Pennsylvania. *Linking Landscapes* includes a number of Action Items that promoted National Park Service Affiliate Area designation for trails or historic sites in Chester County.

In May of 2002, CCPC staff contacted Joseph DiBello, the Manager of the Stewardship and Partnership Team of the National Park Service office in Philadelphia. He noted that it takes an Act of the U.S. Congress in order for a site to get National Park Service Affiliate Area status. No study documentation is required in order for a site to received Affiliate Area status. However, the property owner must agree to maintain and operate the site in such a way that it will meet the standards of the National Park Service. Furthermore the National Park Service must agree that the site is significant enough to be granted Affiliate Status. The site must have what the National Park Service calls “integrity.” When a property has Affiliate Status, the National Park Service can provide minor or major assistance, usually of a technical nature. The National Park Service can also provide publicity and in some cases funding. There is also a “National Trails” program, which works quite similarly.

Mr. DiBello noted that his Stewardship and Management Team provides assistance to community groups working on projects involving National Park Service sites. Chuck Barcz is part of this Team, and has worked with local governments and residents in southern Chester County on behalf of the White Clay Creek National Wild and Scenic River. Mr. DiBello mentioned that the concept of a trail linking the Paoli Massacre Site with Valley Forge Park would be well suited to receive Affiliate Status, and that his team could work on such a project. He also said that his team might be able to help in promoting the protection and proper management of land along such a trail.

### B. Streetscaping and Landscaping Opportunities

Although the main feature of the Patriots Path would be a hiking trail, the overall facility would also include sidewalks, way-finding signs, historic interpretation sites and trailheads with parking and perhaps restrooms. All of these features would require some form of landscaping or streetscaping. These non-trail facilities may be better suited for community development grants than conventional trail grants. Some issues to consider regarding these facilities are:

***Sidewalks*** - Much of the Patriots Path along PA Route 29 and in the Malvern area would extend along existing or new sidewalks. In the Malvern area, the Patriots Path might provide an impetus to fill in the gaps in the existing sidewalk system. Malvern Borough has already begun to use red brick decorative

pavers in some of its newer sidewalks. A design such as this could be employed throughout the Patriots Path. Furthermore, a unique sidewalk design, including crosswalks could be used to mark the Patriots Path. The National Park Service Minuteman Trail in Boston passes through urban sidewalks in the central part of the city. Each of these “Minuteman” sidewalks has a unique red brick double line passing through it, which turns around corners to permanently mark the winding path of the trail. Such a marking system could be employed on Patriots Path sidewalks, and even be installed at crosswalks.

**Historic Markers** - *Figure 3.4* identified possible historic interpretation sites along the Patriots Path. In general these areas are locations where the Path crosses roads that were used for major troop movements. These intersections could be marked with historic markers that include text and maps explaining the Campaign of 1777. Such markers already exist at the Paoli Massacre Site. The markers might even include panels that can be read by trail users, and panels that can be viewed from vehicles driving along the road. Such markers might also improve pedestrian safety by making drivers aware that a trail crossing is ahead.

**Street Signage** - Many of the major roadways in the eastern Great Valley were used for troop movements during the Campaign of 1777. These streets could be periodically marked with a small symbolic sign that indicates that they have historic significance. It is unlikely that heavily traveled major roadways such as UA Route 30 or PA Route 29 would ever become tourist draws, but adding some form of signage would help publicize the historical identity of the Eastern Great Valley to thousands of commuters each day.

**Way-finding Signage** - Way-finding signs, which direct traffic or pedestrians toward attractions in a specific region, could be developed for the Patriots Path and the eastern Great Valley. Ideally these signs would have a common design so as to give a unified identity to the area. If the Patriots Path becomes integrated with Valley Forge Park, there may be opportunities for this signage to follow the graphic standards of the National Park Service. Tourists throughout the nation are familiar with the park signs, and using their design might help casual passers-by to take an interest in the Patriots Path.

**Intersection Improvements** - The Patriots Path would require many trail crossings at intersections that do not currently accommodate pedestrians. Such crossings could be included in ongoing intersection improvements, which are common in eastern Chester County as traffic volumes increase. Intersection improvements along the Patriots Path could be standardized to include unique crosswalk striping design that relates to the Revolutionary War Era.

**Logo Identity Development** - A unique and appropriate logo could be designed for the Patriots Path, which could be used on signs, historic markers, streetlights, maps and brochures. This logo could help provide a unified identity to the various elements of the Patriots Path such as trails, sidewalks, roadways, bridges and trail heads.

**Street Trees** - Guidelines and funding for street trees could be included in the overall construction of the Patriots Path. Sections of the Patriots Path extend through highway corridors and industrial parks, which have few if any trees. These areas could be planted, providing shade for hikers and improving the visual



and ecological environment of these currently open landscapes. Numerous studies have show that appropriate street trees also improve real estate property values.

***Bridge Construction and Improvements*** - The Patriots Path would extend across a number of small streams. The County Chester Valley Trail section of the Path would also cross many roadways. Guidelines for Patriots Path bridges could also be developed, perhaps using designs that relate to the Revolutionary War Era. These unique bridges would improve the scenic viewsheds of the Eastern Great Valley while publicizing its identity as a heritage area. A fine example of such a bridge is the off-ramp from Longwood Gardens on to US Route 1 in Southern Chester County. The Bridge Street Bridge in Malvern might be well suited for such a restoration, perhaps as parts of is normal maintenance.

***Paoli Train Station Improvements*** - The Patriots Path could serve as an impetus to improve the Paoli Trail Station. Such improvements might include multi-level parking on the north side of the station. This lot could also serve as a parking trailhead for the Patriots Path on weekends when trail users would most likely use the facility, while commuters would not. The western quadrant of intersection of Broad Street and Warren Avenue would most likely be used as the entrance to this lot. As a result this project would likely improve that intersection, making it more suitable for pedestrian use.

***Restoration or the Wilcox Library/Maxwell's Quarters*** - The existing structures that make up the Wilcox Library/Maxwell Quarters in Valley Forge Park are in disrepair. One of these structures appears to be a 19<sup>th</sup> Century carriage house that was converted into an automobile garage in the 20<sup>th</sup> Century. The Patriots Path might serve as an impetus to restore the Wilcox Library as a trailhead, and remodel the garage building into restroom facilities and perhaps an indoor trailhead information center focusing on the Patriots Path. Such a renovation could be a major financial undertaking. However, if federal funding were allocated specifically for the Patriots Path, there would be improvements to Valley Forge Park, without taking funds away from the Park's annual budget. Such funding could also apply to the trailhead at the Paoli Memorial Grounds discussed below.

***Improvements to the Paoli Massacre Site and the Paoli Memorial Grounds*** - These two properties are adjacent to each other and both relate to the Paoli Massacre. It would seem logical that they should share a similar landscaping. Both of these properties commemorate a solemn location, namely a mass grave, and yet both are surrounded by suburban style housing. The Paoli Memorial grounds include a ruin of a 19<sup>th</sup> Century limestone gazebo, and a mass grave that is marked by a highly deteriorated limestone obelisk. The Patriots Path might serve as an impetus to create a trailhead with parking and restroom facilities at the Memorial Grounds. Landscaping including trees or appropriate fencing could be added to give the memorial ground a more private environment that is suitable for a gravesite. This design could even recognize that the surrounding area is a living residential community, and note that the men who died at Paoli did so to permit American residential communities like Malvern to exist.

***Restroom Facilities*** - *Figure 5.1* identifies existing restroom facilities along the Patriots Path, and a number of possible future restroom facilities, mostly located in municipal parks. These facilities could be designed using guidelines and designs that relate to the Revolutionary War Era. At first glance such a

concern with restroom aesthetics may seem excessive. However, these facilities are heavily used by trail users, and an unpleasant restroom experience can leave a lasting negative memory, which reduces tourism and its economic benefits.

***Trail Spur along US Route 30 in East Whiteland - Figure 5.1*** includes a possible spur of the Patriots Path that could extend west from PA Route 29 between the Norfolk Southern Rail Line and US Route 30. This spur could create a trail that would permit employees in the industrial parks along PA Route 29 to walk to the restaurants in the Century Plaza Shopping center. The alignment of this spur is entirely on private property, and local zoning and land development ordinances would affect the viability of this walkway. If constructed, this spur could serve as an impetus to restore the wooded area that buffers it from US Route 30. Given the location, such a restoration would not aim to create a natural woodland, but rather a function park-like vegetated area that is safe for pedestrians and suitable for an urbanized setting.

### **C. Heritage Area Tourism/Marketing for the Chester Valley**

The Eastern Great Valley is rich with historic structures and roadways used for troop movements as shown in **Figure 3.1**. There are also a number of regional and local trails that are being proposed in the Eastern Great Valley, as shown in **Figure 5.2**. It would not be feasible to link all of these historic structures with trails. However, the Eastern Great Valley could become a tourism heritage area, much like the Brandywine Valley in southern Chester County. The Brandywine Valley along US Route 1 is a corridor that includes historic sites and major tourism attractions such as Longwood Gardens. There are attractive way-finding signs along the major roads in this area, which serve to direct tourists. Because these signs all have the same design, they also establish a marketing “identity” that is consistent throughout the Brandywine Valley.

The parks, trails and shopping areas within the Eastern Great Valley from Paoli west to Downingtown could become a heritage tourism area focusing on the Campaign of 1777, with the Patriots Path as its central feature. Such a corridor could begin just east of the King-of-Prussia Mall. Way-finding signs directing motorists to the Eastern Great Valley attractions could be posted at the intersections of US Route 422/US Route 202 and I-76/US Route 202. The King of Prussia Mall is a major regional retail center, and way-finding signs near it could be expected to be viewed by large numbers of potential shoppers. As a result, a unified marketing approach to the Eastern Great Valley could provide economic benefits to the region while raising awareness of the historic significance of eastern Chester County.

### **D. Opportunities for Trail Expansion**

As **Figure 3.1** shows, the Campaign of 1777 took place throughout Chester, Delaware, Montgomery and Philadelphia Counties, with most of the activity in Chester and Montgomery Counties. **Figure 5.2** shows that the future County Schuylkill River Trail will link into a trail network along the Schuylkill River that crosses into Montgomery County. It therefore seems feasible that the Patriots Path might be able to be expanded into a larger network of trails in Montgomery County. Southern Montgomery County has numerous Revolutionary War sites, and so has a great potential for trail-related historic interpretation. A multi-county approach to linking battle-related sites has already been successful with the Brandywine Battlefield, which extends into Delaware and Chester County.

**Figure 5.2** shows that the future County Park Site at Exton and the County Struble Trail will both be linked to the County Chester Valley Trail. It would be feasible to extend the Patriots Path to the east to make it link with these two County facilities, at a future date. This possible second phase could link the Patriots Path with the section of Swedesford Road that is within the future County Park Site at Exton. This segment of road is unique in that it is the only undeveloped roadway that was used by troops in the Campaign of 1777. Extending the Patriots Path to this roadway could provide trail users with an opportunity to view the kind of rural landscapes that the troops in the Revolutionary War would have crossed.

There would also be a value to extending the Patriots Path east to the County Struble Trail, which will link to Marsh Creek State Park as show on **Figure 5.2**. This link could permit trail users in Valley Forge Park, especially bicyclists, with an alternative recreational destination. In effect, extending the Patriots Path to Marsh Creek State Park might reduce the number of bicyclist in Valley Forge Park. Extending the Patriots Path to the County Struble Trail might also increase the pedestrian access to Valley Forge Park, reducing the need for more parking spaces. At the same time, this link could physically spread out the number of trail users in eastern Chester County, thus reducing the high density of trail users within Valley Forge Park.

## **E. Opportunities For Programming**

**Part II** of this report describes six parks throughout the nation that have similar features to the Patriots Path. Some of the programs used at these parks might be applied to the Patriots Path. The Cuyahoga Valley National Park includes a trail along an old canal tow path. Stone markers note how far the trail is from the Port of Cleveland on Lake Eire. Similar markers could be erected on the Patriots Path noting the distances from Valley Forge Park and the Paoli Massacre Site. Once a year, Fredericksburg & Spotsylvania National Military Park in Virginia lights luminaries in the battlefield for every soldier killed at those battles. A similar event could be held at Paoli with 53 lanterns.

Overmountain Victory National Historic Trail in South Carolina has a hiking trail and a highway trail to show troop movements during the Revolutionary War. In a sense, the programming of this highway trail has a marketing value because it makes commuters aware of the hiking trail. The Patriots Path could use Swedesford Road in a similar manner. The Heritage Rail Trail in York County includes seasonal bike rides led by guides. Such rides could also be established on the Patriots Path to commemorate the Battles of September 1777 or the 4<sup>th</sup> of July. These rides would publicize the trail as a link to Valley Forge Park, and might encourage bicyclists to leave the Park, thus relieving some of the recreational overuse.

## **F. Task Force Options**

The partner agencies involved with the Patriots Path should consider creating a task force, including but not limited to, representatives of the three municipalities, Valley Forge Park, the Chester County Parks and Recreation Department, trail users, local landowners, industrial parks, and retail business owners. Such a task force could provide input on the acquisition, design and construction of the trail.

However, it would be up to the municipalities, the National Park Service and the Chester County Parks and Recreation Department to manage the acquisition, design and construction of the trail. One of the major roles of the task force could be to raise funds and public awareness, which are activities that are well suited for a non-governmental agency.

Following the construction of the trail, the task force could become a friends-of group, providing assistance in programming and land management by organizing volunteers and coordinating with public agencies. Such an approach was successfully taken in southern Chester County in regards to the White Clay Creek. During the 1990s, a task force was created to manage the studies that were required in order for the Creek to be designated as a National Wild and Scenic River. After the Creek was designated, the task force became the Wild and Scenic River Management Committee.



## **Part 13: Goals, Objectives and Recommendations**

### **A. Goals and Objectives**

The findings of the previous sections indicate that it would be feasible to establish a trail linking Valley Forge National Historic Park to the Paoli Massacre Site. The findings also suggests that implementing the Patriots Path could be guided by some basic goals and objectives, as presented below:

#### **Goals:**

- The Patriots Path should be established and managed through a partnership of Valley Forge Park, Chester County and the municipalities through which it passes.
- Trail segments and facilities of the Patriots Path should be funded, designed and constructed by the municipalities through which it passes, except for the County Chester Valley Trail, which should be the responsibility of Chester County, and sections within Valley Forge Park which should be the responsibility of the National Park Service.

#### **Objectives:**

- The Patriots Path should become affiliated in some manner with the National Park Service, and managed by a steering committee that coordinates with the National Park Service.
- The Patriots Path steering committee should include representatives from Chester County, Valley Forge Park, the municipalities through which the Path passes, and other key stakeholders.

The findings of the report also suggest a number of recommendations, which are listed in the following sections. This project is in the preliminary planning stage, and so these recommendations may have to be revised or added to. These recommendations should not be viewed as the final word, but rather as a list of actions that can get the process started, and initiate other more detailed studies and design efforts.

### **B. Patriots Path Partnership**

Establishing the Patriots Path as a multi-municipal facility will likely require that the above described partnership pursue the following recommendations:

- P1. Develop a strategy for funding the Patriots Path using local, County, state and federal funding, and if possible funding provided through federal legislation or through assistance from state or national elected officials.
- P2. Develop a strategy for determining what parts of the Patriots Path will not be well suited for disabled users, and for accommodating disabled users wherever feasible.
- P3. Develop an agreement by which the Patriots Path members would fund and provide security and maintenance for the entire length of the Patriots Path.

- P4. Develop a graphic design identity for the Patriots Path that would be uniform throughout the length of the Path and include design standards for way-finding signs, paving materials, historic interpretation markers, restrooms and other facilities.
- P5. Pursue attaining affiliate status or some other level of association as an element of the National Park System.

### **C. Malvern Borough Trail Segments and Facilities**

Establishing the Patriots Path in Malvern Borough will likely require that the Borough pursue the following top priority and short term recommendations, perhaps through its planning commission:

- M1. Top Priority Recommendation: Determine a final alignment of the Patriots Path, perhaps as a loop through the Borough, after coordinating with local business, residential and public agency stakeholders, which may include PennDOT and SEPTA.
- M2. Short Term Recommendation: Developing a plan for constructing sidewalks and trails along the final alignment. This plan should include design and aesthetic standards for sidewalks paving and streetscape features. This Plan should be developed in coordination with East Whiteland Township.

The Borough should also consider pursuing the following long-term recommendations:

- M3. Long Term Recommendation: Pursue improving the Malvern Trail Station in a way that will help to establish the Patriots Path. Such improvements could include including the pedestrian tunnel, construction of a new parking structure, and improvements to the Broad Street/Warren Avenue intersection.
- M4. Long Term Recommendation: Pursue improving the Bridge Street Bridge so that it will be better suited as a pedestrian walkway. This effort may involve coordination with PennDOT and SEPTA.
- M5. Long Term Recommendation: Pursue a joint master planning study for the Paoli Massacre Site and the Paoli Memorial Grounds that will include designs for landscaping and the construction of a trailhead. This trailhead may include parking, restrooms and historical displays, and may use similar design elements to the northern trailhead, which may be in Valley Forge Park.
- M6. Long Term Recommendation: Pursue a cooperative planning effort with local business and retail commercial property owners that designates specific businesses near the Patriots Path as rest stops and restroom facilities for Patriots Path users. This effort may include developing a marketing identity for downtown Malvern Borough that draws on heritage tourism and trail based recreation.
- M7. Long Term Recommendation: Consider working with nearby municipalities, local businesses and the Chamber of Commerce to develop a retail marketing strategy that involves promoting the Eastern Great Valley as a heritage tourism area.

**D. East Whiteland Trail Segments and Facilities (Not including the County Chester Valley Trail)**

Establishing the Patriots Path in East Whiteland Township will likely require that the Township pursue the following top priority and short term recommendations, perhaps through its planning commission:

- E1. Top Priority Recommendation: Coordinate with Norfolk Southern and the property owners on either side of the blocked tunnel under the Norfolk Southern rail lines in order to address their right-of-way concerns.
- E2. Short Term Recommendation: Determine a final alignment of the Patriots Path after coordinating with local business, industrial park, residential and public agency stakeholders, which may include PennDOT and Norfolk Southern.
- E3. Short Term Recommendation: Developing a plan for constructing sidewalks and trails along the final alignment. This plan should include design and aesthetic standards for sidewalk paving and streetscape features. This Plan should be developed in coordination with Malvern Borough.

The Township should also consider pursuing the following long-term recommendations:

- E4. Long Term Recommendation: Pursue improving intersections along US Route 30 and PA Route 29 in a way that will help to establish the Patriots Path. This Plan should be developed in coordination with PennDOT.
- E5. Long Term Recommendation: Pursue municipal recreation planning that designates specific municipal parks near the Patriots Path as rest stops or restroom facilities for Patriots Path users.
- E6: Long Term Recommendation: Consider working with nearby municipalities, local businesses and the Chamber of Commerce to develop a retail marketing strategy that involves promoting the Eastern Great Valley as a heritage tourism area.
- E7: Long Term Recommendation: Consider coordinating with the owners of the White Horse Inn, the General Warren Inn, and Malin Hall to determine if these private properties could become involved with historic programming Patriots Path activities, such as tours. Such coordination could also involve staff of Valley Forge Park.
- E8. Long Term Recommendation: Consider coordinating with the industrial parks along PA Route 29 and the retail shopping businesses along US Route 30 west of PA Route 29, to determine their interest in linking these two locations with a sidewalk and pedestrian trail that would be a spur to the Patriots Path. This could be included in the coordination for E1.

E9. Long Term Recommendation: Consider conducting studies and stakeholder coordination to determine if the Patriots Path could be extended west along the County Chester Valley Trail to the future County Park at Exton, located in West Whiteland Township. Such studies could be coordinated with the Chester County Parks and Recreation Department and West Whiteland Township.

**E. Tredyffrin Trail Segments and Facilities (Not including the County Chester Valley Trail or Valley Forge Park)**

Establishing the Patriots Path in Tredyffrin Township will likely require that the Township pursue the following top priority and short term recommendations, perhaps through its planning commission:

T1. Top Priority Recommendation: Coordinate with the PA Turnpike Commission and Valley Forge Park in order to address right-of-way and design issues regarding the pedestrian tunnel under the PA Turnpike at Wilson Road. Such coordination could also address maintenance and security responsibilities.

T2. Short Term Recommendation: Coordinate with PennDOT and the property owners on either side of Chesterbrook Boulevard from Wilson Road to the bridge over US Route 202, in order to address their right-of-way concerns.

T3. Short Term Recommendation: Coordinate with landowners whose properties include trails that may be a part of the Patriots Path, or may be linked to the Path. This coordination should discuss right-of-way and trail use issues. These landowners may include residential complexes, office complexes, the Wyndham Hotel and the Chesterbrook Village Shopping Center.

T4. Short Term Recommendation: Determine a final alignment of the Patriots Path after coordinating with local business, industrial park, residential and public agency stakeholders, which may include PennDOT.

T5. Short Term Recommendation: Develop a plan for constructing sidewalks and trails along the final alignment. This plan should include design and aesthetic standards for sidewalk paving and streetscape features. This Plan should be developed in coordination with Valley Forge Park.

The Township should also consider pursuing the following long-term recommendations:

T6. Long Term Recommendation: Pursue improving intersections along Chesterbrook Boulevard in a way that will help to establish the Patriots Path. This Plan should be developed in coordination with PennDOT.

T7. Long Term Recommendation: Pursue municipal recreation planning, which designates specific municipal parks near the Patriots Path as rest stops and restroom facilities for Patriots Path users.



T8. Long Term Recommendation: Consider working with nearby municipalities, local businesses and the Chamber of Commerce to develop a retail marketing strategy that involves promoting the Eastern Great Valley as a heritage tourism area.

T9. Long Term Recommendation: Pursue municipal park master planning, which uses design elements and signage to highlight Radbill, Louis D'Ambrosia and Teagarden Parks as part of the Camp "Truduffrin" area used by the entire British army under General Howe.

T10. Long Term Recommendation: Study options for the restoration of the dry tributary of Valley Creek east of Wilson Road, as part of overall trail planning in that area. This effort may involve coordination with Valley Forge Park.

## **F. County Chester Valley Trail Segments**

Establishing the Patriots Path along the County Chester Valley Trail will likely require that County staff pursue the following top priority and short-term recommendations:

C1. Top Priority Recommendation: Pursue private, state and federal assistance to complete the Patriots Path sections of the County Chester Valley Trail.

C2. Short Term Recommendation: Coordinate with the Northeast Regional Office of the National Park Service to determine if they could cooperate with a Patriots Path steering committee.

The County should also consider pursuing the following long-term recommendations:

C4. Long Term Recommendation: Consider conducting studies and stakeholder coordination to determine if the Patriots Path could be extended west along the County Chester Valley Trail to the future County Park at Exton, located in West Whiteland Township. Such studies could be coordinated with East Whiteland Township and West Whiteland Township.

## **G. Valley Forge Park Segments and Facilities**

Establishing the Patriots Path in Valley Forge Park will likely require that Park staff pursue the following top priority and short-term recommendations:

V1. Top Priority Recommendation: Coordinate with the PA Turnpike Commission and Tredyffrin Township in order to address right-of-way and design issues regarding the pedestrian tunnel under the PA Turnpike at Wilson Road. Such coordination could also address maintenance and security responsibilities.

V2. Short Term Recommendation: Determine the viability of extending a trail east of Wilson Road and restoring the Wilcox Library/Maxwell's Quarters building complex as a northern trailhead for the Patriots Path. This trailhead may include parking, restrooms and historical displays, and may use similar design elements to the southern trailhead, which may be in Malvern Borough.

V3. Short Term Recommendation: Determine a final alignment of the Patriots Path within Valley Forge Park.

The park staff should also consider pursuing the following long-term recommendations:

V4. Long Term Recommendation: Study options that park staff may have for taking a leadership role in developing historical recreation programming for the entire Patriots Path.

V5. Long Term Recommendation: Study options for the restoration of the Wilson Road Bridge over Valley Creek so that it will be better suited as a pedestrian walkway. This effort may involve coordination with PennDOT.

V6. Long Term Recommendation: Study options for the restoration of the dry tributary of Valley Creek east of Wilson Road, as part of overall trail planning in that area. This effort may involve coordination with Tredyffrin Township.

## Part 14: Next Steps for Implementation

### A. Multi-Municipal Design and Scope of Work Study

The Chester County Planning Commission held coordination meetings with the major Patriots Path stakeholders during the winter and spring of 2007, as noted in *Part 8*. As a result, it became clear that it was not possible to pursue the design and engineering phases of the project under the sponsorship of the Chester County Planning Commission (CCPC), the Chester County Parks and Recreation Department, the National Parks Service, or the Schuylkill River Greenway Association (SRGA). Therefore, the most viable sponsor for the design and engineering phases would be the municipalities crossed by the Patriots Path, working in coordination with the Chester County Parks and Recreation Department, the CCPC and possibly SGRA.

It may be possible for one or more municipalities to pursue state and SRGA grants to develop the engineering plans for the Patriots Path. To be better situated to receive such an engineering grant, CCPC recommends that the member municipalities pursue the design studies that establish a final corridor for the Patriots Path. Such a corridor would ideally be adopted by the board of supervisors. The Chester County Vision Partnership Program grant might be a means for funding such a study. Furthermore, East Whiteland Township may also need to pursue a permit to open the underpass beneath the Norfolk Southern rail line near the intersection of PA Route 29 and US Route 30.

*Appendix B* presents the most recent DCNR general information and scope of work guidelines for rails-to-trails planning projects. These guidelines might serve as a model for a request-for-proposal that municipalities could use to hire a consultant to complete a design study. *Appendix C* presents the 2007 program guidelines for the SRGA's Schuylkill River Heritage Grant Program. It may be valuable to tailor any design study for the Patriots Path to be consistent with this program as well as state grant programs.

A multi-municipal trail design study could be partially funded by Chester County through the Vision Partnership Program as a special project/trails master plan. Under VPP, special projects do not need to be adopted. However, the municipality must formally accept the recommendations contained in the document through a letter transmitted to the County. For multi-municipal, projects, the County may make grants of up to 90 percent of the eligible project costs, not to exceed \$25,000. Under this scenario, two municipalities could expend \$1,000 each for a study costing \$20,000.

This design study could have a broader focus than just the Patriots Path. This study could also include the Warner Spur, sidewalks, or internal trails such as those within the Paoli Memorial Grounds. Such a study would be a pre-engineering study that would identify the final corridor and destination points and include a preliminary inventory of right-of-way issues. This study may also include preliminary public outreach to adjacent landowners, and any other planning work needed prior to engineering and environmental studies which would determine the final trail alignment.

## **B. Implementing Trail Segments**

The field observations presented previously in *Part 4* suggest that the most viable approach to constructing the Patriots Path would involve the planning and design of seven major trail segments. Each of these segments could be implemented independently, and each could provide economic and community benefits even if the others are never completed. Some type of design studies, construction plans and public involvement would need to be developed for each of these segments.

These design studies and construction plans would not necessarily have to be complex, detailed documents. For example, the construction or improvements to the East Whiteland Township sidewalks along PA Route 29 could be implemented like any other sidewalk project. Public involvement would have to be a major component of any of these segments, along with stakeholder input from nearby landowners, local businesses and industrial park owners.

The seven segments could be implemented through the following initiatives:

- ***Valley Forge Park constructing a link from Yellow Springs Road to the Wilson Road Pedestrian Underpass, and perhaps establishing a trail head at the Wilcox Library/Maxwell's Quarters.*** The National Park Service has staff and expertise that could implement this segment. However, the topography, costs and the planning requirements required for construction in a National Park, might give this segment a high level of difficulty to construct.
- ***PA Turnpike Commission (PTC) constructing the Wilson Road Pedestrian Underpass.*** Given that the PTC has staff, expertise and funding to dedicate to this underpass, this segment could be anticipated to have a low level of difficulty to construct.
- ***Tredyffrin Township Constructing a link from the Wilson Road Pedestrian Underpass to the County Chester Valley Trail at Chesterbrook Boulevard.*** The Township has experience with constructing trails and recreation facilities in and around Wilson Park. However, the Patriots Path alignments in the township extends near many private properties and high volume roadways, including a crossing of US Route 202. The implementation of the Patriots Path in Tredyffrin Township would have a moderate level of difficulty.
- ***Chester County Parks and Recreation Department constructing a link along County Chester Valley Trail from Chesterbrook Boulevard to the Battle of the Clouds Park or the Future County Park at Exton.*** The Chester County Parks and Recreation Department has already completed preliminary designs for the County Chester Valley Trail and gone through an extensive public involvement process. Funding for the County Chester Valley Trail has been secured. However, the project has been delayed because of a change in consultants mid-way through the project. As a result of this delay, the County Chester Valley Trail can be regarded as having a moderate level of difficulty.



- ***East Whiteland Township constructing a link from the County Chester Valley Trail near PA Route 29, beneath the Norfolk Southern Rail Bridge, and south to the Malvern Sidewalk system.*** The construction of sidewalks along the streets in the township will not have a great level of difficulty. However, extending the Patriots Path under the Norfolk Southern rail line may require extensive coordination, or may prove difficult if the existing tunnel requires repair or reconstruction. Until more information is gathered on the tunnel, it would be best to regard the East Whiteland Township segment as having a moderate to high level of difficulty.
- ***West Whiteland Township establishing a link through their future municipal park connecting County Chester Valley Trail and the future County park site at Exton.*** Given that this link is already part of the master planning for the two parks involved, this link can be regarded as having a low level of difficulty.
- ***Malvern Borough establishing links along its sidewalks from East Whiteland to the Paoli Massacre Site/Memorial grounds, and perhaps establishing a trail head at the Paoli Memorial Grounds.*** This segment involves improvements to sidewalks and streetscapes that the Borough has already begun on its own. The creation of a trailhead at the Paoli Memorial Grounds would require funding, but the site is relatively level and undeveloped, making it well suited for a trailhead. Overall, the Malvern Borough segment would have a low to moderate level of difficulty.

### **C. Conclusions**

Based on the findings of this study, it appears that there are readily available options for managing and funding the later stages of this project, such as final design and engineering. The earlier stages of the project, such as determining a final alignment, may present more of a challenge. The Patriots Path would be a new type of multi-municipal project for Chester County, and none of the potential partners have much experience in initiating such a project.

The most effective approach to pursuing this project would therefore need to focus initially on finding a paid consultant or qualified volunteer consultant to write a Request-for-Proposal and Scope-of-Work for a multi-municipal trail study. Such a multi-municipal trail study, might be funded through the County VPP program. This study should be written to:

1. Identify a preferred alternative that would cross municipal borders and be adopted or officially approved by the elected governments of the partner municipalities.
2. Facilitate future County, State and SRGA grants for trails and streetscapes including sidewalks.
3. Provide the background needed for East Whiteland Township and perhaps Malvern Borough and SEPTA, to request that Norfolk Southern unblock the rail underpass.
4. Provide background on what intersections could be improved by PennDOT to include pedestrian facilities and crossings.
5. Provide technical information focusing on pedestrian and recreational access rather than historic interpretation, while at the same time making recommendations about possible historic interpretation opportunities that can be developed through further initiatives.
6. Begin preliminary public and stakeholder meetings.

7. Begin preliminary outreach to adjacent property owners and effected businesses and employment centers.

Given the level of interest in creating regional pedestrian network of trails and sidewalks, this study might focus on an entire network of trails between Valley Forge Park, the Paoli Massacre Site and the future County park site at Exton. This study would focus on a broader network that includes the Patriots Path. Such a study would not include a detailed historical analysis or recommendations for historic programming, but could include an evaluation of opportunities for landscape features such as kiosks, interpretive signs and tails heads, which could be locations where historic interpretation content could be presented.

## **Appendix A:**

### **Correspondences**

- 4/14/03: From Arthur L. Stewart, VFNHP to William H. Fulton, CCPC
  - 4/17/03: From John P. Mikowychok, CCPRD to Jake Michael CCPC
  - 9/8/03: From Matthew Bochanski, PennDOT to William H. Fulton, CCPC
  - 6/13/05: From William H. Fulton, CCPC to Alexander Jensen, PTC
  - 7/6/05: From Michael A Caldwell, VFNHS to Bradley J. Heigel, PTC
  - 12/6/06: From Mimi Gleason, Tredyffrin Township to Jake Michael, CCPC
  - 2/27/07: From Sandra L. Kelly, Malvern Borough to Ronald T. Bailey, CCPC
  - 3/5/07: From Terry H. Woodman, East Whiteland Township to Ronald T. Bailey, CCPC
  - 7/30/07: From Kurt D. Zwikl, Schuylkill River National & State Heritage Area to Ronald T. Bailey, CCPC
-

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# United States Department of the Interior

NATIONAL PARK SERVICE  
Valley Forge National Historical Park  
P.O. Box 953  
Valley Forge, Pennsylvania 19482-0953

IN REPLY REFER TO:

L3215 VAFO(S)

APR 14 2003

Mr. William H. Fulton  
Executive Director  
Chester County Planning Commission  
Government Services Center, Suite 270  
P.O. Box 2747  
West Chester, PA 19380-0990

RECEIVED

APR 16 2003

PLANNING COMMISSION

Dear Bill:

Thank you for your letter of March 14, 2003 describing a proposed trail connecting Valley Forge National Historical Park with the Paoli massacre site and the Battle of the Clouds site. In earlier meetings with Jake Michael of your staff, the proposal was described in general terms and we expressed interest in it.

We have a strong interest in providing trail connections that will enable more of our visitors to arrive on foot and by bicycle than in automobiles. A goal that we have shared with the public is to reduce the level of through-traffic and visitor traffic in the park. The current general management plan / environmental impact statement (GMP/EIS) process has proposed a range of conceptual alternatives to achieve this.

At the same time, we are concerned that the infrastructure of the park may be handling close to its limit in the numbers of pedestrians, skaters, and bicyclists who presently use it. Particularly in terms of bicycles, we already see damage to archeological and sensitive natural sites from levels of use that never were anticipated when the Commonwealth established the original trail system in the park. Because the park is a national historic landmark, we need to be judicious in considering whether to add any additional trails.

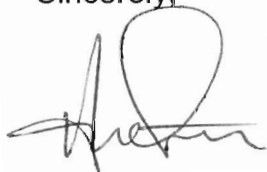
The proposed trail would enter the park at a point (Wilson Road) where currently there are no connections to existing park trails. As part of the GMP/EIS process, we will consider alternatives for and impacts of a connection, including an alternative for no-action. As you note in the review draft, Part H.3, "the project will create a major recreational trail in one of the most heavily populated regions

of Southeastern Pennsylvania." In order for us to continue to consider this link, we will need from the Planning Commission an estimate of the potential volume of users of the trail, supported by relevant research.

I would like to emphasize our interest in the trail and make clear that my only concern is from potential adverse impacts of over-use. If you are able to provide appropriate quantification of potential use, we will be able to determine how to proceed with this appealing project.

I would be delighted to discuss this with you. You may also call Deirdre Gibson, Chief of Planning, at 610-783-1047.

Sincerely,


A handwritten signature in black ink, appearing to read 'Arthur L. Stewart', with a large, stylized loop at the end.

Arthur L. Stewart  
Superintendent

**CHESTER COUNTY**  
**Department of Parks & Recreation**  
601 Westtown Road, Suite 160  
West Chester PA 19380-0990  
Voice Telephone: (610) 344-6415  
Fax: (610) 344-5469  
E-Mail: [jmikowychok@chesco.org](mailto:jmikowychok@chesco.org)

Date: April 17, 2003

To: Jake S. Michael, Open Space Planner  
Chester County Planning Commission

From: John P. Mikowychok, Director 

Subject: Valley Forge Trail Comments


.....

This is in response to your request for comments regarding the connection between Valley Forge National Historic Site with the Paoli Massacre Site *et al.*

Enclosed are Bob Folwell's review comments. To these, I would add:

1. A discussion on how this trail will be publicized, including signage, brochures, etc.
2. Who will address maintenance of the signage (assuming that signage is an inevitable part of this project).

I agree with Bob Folwell's comments regarding an analysis of program (ie., who will use this trail, and its various segments and recommended short trail lengths). I assume that an analysis of these connections to Valley Forge Park (VFP) will include an analysis of the impacts of those connections to areas connected within the Park. For example, increased trail connections to VFP may result in considerable increase in day use (traffic moving into the park as well as from the park), as local people use the trail to access the park. If VFP staff are in general agreement with this, it should be successful.

pc: Robert C. Folwell, Capital Projects Coordinator  
 William H. Fulton, CCPC Executive Director

# COUNTY OF CHESTER

## INTEROFFICE MEMORANDUM

**To:** John Mikowychok, Director

**From:** Robert C. Folwell *RCF*

**Subject:** Valley Forge NHS to the Paoli Massacre Site Planning Commission Stakeholder Draft Comments

**Date:** April 10, 2003

Comments relative to my review of the attached Draft, dated March 13<sup>th</sup>, 2002, are as follows:

1. General Comment: It is recommended that PennDOT be brought into the process as a stakeholder since the concept will cross their roads and partially use their rights-of-way.
2. Part G: Ownership, Maintenance, and Security Issues: Add a comment relative to maintenance and security relative to private property and state owned roads and crossings.
3. Part I: Potential Funding: Add a comment to encourage donations of trail easements and segment construction through and property through a municipal Land Development process.
4. Part J: Possible Next Steps: Item2, bullet 6, should be clarified to read, "Tredyffrin Township" instead of "Tredyffrin Borough". Also suggest adding PennDOT to the list of reviewers.
5. Part J: Possible Next Steps: Suggest a determination of ownership and a review of a trail program (who will use it when) with an eye towards ADA compliance be performed prior to preparation of any Preliminary Master Plans. These tend to be make or break issues that should be identified early to refine the alignment and determine if a trail plan should go forward.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION  
www.dot.state.pa.us



7000 Geerdes Boulevard  
King of Prussia, PA 19406  
September 8, 2003

The County of Chester  
Planning Commission  
Government Services Center, Suite 270  
601 Westtown Road  
PO Box 2747  
West Chester, PA 19380-0990  
Attn: William H. Fulton, AICP  
Executive Director

Dear Mr. Fulton:

This is a response to your letter dated August 15, 2003 concerning the *Preliminary Concept Summary for a Trail Connecting Valley Forge National Historic Site with the Paoli Massacre Site and the Battle of the Clouds Area*.

We do not have any particular comments to the conceptual trail. However, we offer the following for consideration during later stages of the trail development:

- Any encroachment or crossing of PENNDOT's Right-of-Way will require a *Highway Occupancy Agreement*
- Design of pedestrian facilities should comply with our *Publication 13M, Design Manual 2, Chapter 6, Pedestrian Facilities*.
- Design of bicycle facilities should comply with our *Publication 13M, Design Manual 2, Chapter 16, Bicycle Facilities* in conjunction with the *1999 AASHTO Guide for the Development of Bicycle Facilities*

If you have any other questions please call me at (610) 205-6840.

Sincerely,

A handwritten signature in dark ink, appearing to read "Matthew Bochanski". The signature is fluid and cursive, written over a light-colored rectangular background.

Matthew Bochanski  
District Bicycle & Pedestrian Coordinator

**RECEIVED**

SEP 09 2003

PLANNING COMMISSION



# THE COUNTY OF CHESTER

## COMMISSIONERS

Carol Aichele  
Andrew E. Dinniman  
Donald A. Mancini

WILLIAM H. FULTON, AICP  
Executive Director

## PLANNING COMMISSION

Government Services Center, Suite 270  
601 Westtown Road  
P.O. Box 2747  
West Chester, PA 19380-0990  
610-344-6285  
Fax: 610-344-6515



Sent 6/14/05 AM  
cc's sent

June 13, 2005

Alexander Jansen  
Chief Engineer  
Pennsylvania Turnpike Commission  
700 South Eisenhower Boulevard  
Middletown, PA 17057

Re: Turnpike Bridge Over Wilson Road

Dear Mr. Jansen:

At the request the Chester County Board of County Commissioners, the Chester County Planning Commission is conducting a study of a possible pedestrian trail, known as the Patriot's Path, which would link Valley Forge National Historic Park (NHP) in Tredyffrin Township to the Paoli Massacre Site in Malvern Borough. The Patriots Path would more or less follow the path that British and American Troops traversed in 1777 through Chester County during the Revolutionary War.

This Patriots Path study is currently underway and is scheduled to be completed in the summer of 2005. We have coordinated with the manager of Tredyffrin Township in this effort, and the Township has included the Patriots Path in the recently updated open space section of its comprehensive plan. We have also met with representatives of Valley Forge NHP, who have encouraged us to complete the study.

The preliminary results of our study suggest that the PA Turnpike Bridge over abandoned Wilson Road is probably the most effective alignment for the Patriots Path to access Valley Forge NHP. Furthermore it appears possible that up to 15,000 British troops marched along the section of abandoned Wilson Road now bridged by the PA Turnpike. Currently, pedestrians are informally using the abandoned Wilson Road underpass to access Valley Forge NHP from the nearby Chesterbrook neighborhood.

On April 9, 2005, my staff met with Walt Green and representatives of STV and Urban Engineers to let them know that there is an interest in maintaining some sort of pedestrian pathway beneath the PA Turnpike along the abandoned section of Wilson Road in Tredyffrin Township. At that meeting, Mr. Green noted that the PA Turnpike Commission has found that a bridge is no longer warranted in that area, but he noted that some kind of pedestrian oriented passage might be feasible. He also recommended that we contact you in writing to express our interest in seeing that pedestrian access is continued beneath the PA Turnpike along abandoned Wilson Road.

Page: 2

June 13, 2005

Re: Turnpike Bridge Over Wilson Road

I am grateful for the time that Mr. Green and the staff at STV and Urban Engineers have taken to listen to our concerns, and am pleased that the PA Turnpike Commission is willing to consider our trail planning effort as part of its roadway improvement project. If you have any questions or would like more information, please feel free to contact Jake Michael at 610-344-6285.

Sincerely,

A handwritten signature in black ink, appearing to read "William H. Fulton". The signature is fluid and cursive, with a small "w.c." or similar mark at the bottom right of the signature.

William H. Fulton, AICP  
Executive Director

WHF/JM/kp

cc: Judy DiFilippo, Chairman, Tredyffrin Township Supervisors  
Joseph Janasik, Manger Tredyffrin Township  
Deirdre Gibson, Valley Forge NHP  
Walt Green, PTC  
Daniel Leinheiser, Urban Engineers  
James Toth, STV  
Bob Folwell, CCPRD  
Lee Whitmore, CCPC  
Jake Michael, CCPC

RECEIVED

JUL 11 2005

PLANNING COMMISSION

A3815 VAFO(S)

JUL 6 2005

Mr. Bradley J. Heigel, PE  
Total Reconstruction Manager  
Pennsylvania Turnpike Commission  
P.O. Box 67676  
Harrisburg, Pennsylvania 17106-7676

Dear Mr. Heigel:

The Pennsylvania Turnpike adjoins the southern boundary of Valley Forge National Historical Park for two miles. The upcoming widening of the turnpike will benefit visitors who will find less congestion on the road. There also will be impacts to park resources and visitors within the park, both during construction and for the long term, and we want to work with you to consider them.

I met with Walt Green in April and outlined some of the issues that are of concern to the National Park Service, including appropriate signage on the turnpike; storm water runoff in the Valley Creek watershed; storm water runoff and resulting erosion from the rest stop; light pollution from the rest stop; the vegetative buffer between the turnpike and the park; and noise protection for Lafayette's Quarters. I requested the opportunity for my staff to meet with appropriate individuals from the commission to work on these issues. Walt has retired, and I attach a copy of an April 7, 2005 letter to him for your information.

Since my meeting, I have come to understand from Tredyffrin Township and Chester County that there are two additional issues that Walt did not discuss with me. The first issue is the future of the Wilson Road Bridge. As my staff told STV, Inc. during a fact-finding visit to the park, the Valley Forge NHP General Management Plan/Environmental Impact Statement (GMP/EIS), which has been in preparation for three years and will be published this fall, identifies Wilson Road to continue to be the key trail connection between the park and Tredyffrin Township. This plan has been fully coordinated with the township and county. As township and county officials have informed the commission, Wilson Road also has been identified as the connection to the Chester Valley Trail and the planned Patriots' Trail. During the GMP/EIS planning process, we have considered alternate connections for this trail, which will receive high

volumes of bicycle use, and have eliminated them from further consideration because of unacceptable impacts to park resources. Therefore, it is essential that pedestrian/bicyclist access remain open.

The Wilson Road Bridge also accommodates Wilson Run, a tributary to the Commonwealth-designated Exceptional Value, Class-A Valley Creek. The run is part of a larger multi-jurisdictional effort to restore Valley Creek. I encourage you to include best management practices in your alternatives for treatment of the run under the Wilson Road Bridge. I would be happy to consult with you on this matter.

The second recent issue is the potential for traffic detours through the park during the time that the Route 252 Bridge over the turnpike is under construction. The current average annual daily traffic on Route 252 is over 8,000 vehicles. No other roads in the park can safely accommodate this level of additional traffic. It is essential that you work with both the park and also PennDOT on consideration of any detours.

Because of the number and magnitude of potential impacts to the park and its visitors, I requested from Walt the opportunity for my staff to meet with appropriate individuals from the commission to work on these issues. My staff made a similar request during a meeting with the commission's consultant, STV, Inc. As additional issues are disclosed, it is clear to me that the park and the commission must develop a working relationship with regular communication. I look forward to sitting down with you.

Sincerely,

/s/ Michael A. Caldwell 

Michael A. Caldwell  
Superintendent

Enclosure

cc: Joseph Janasik, Manager, Tredyffrin Township  
William H. Fulton, Executive Director, Chester County Planning Commission

bcc: Mimi Gleason, Tredyffrin Township  
✓ Jake Michael, Chester County Planning Commission  
Deirdre Gibson  
Lewis Rogers  
Jeff Kangas



BOARD OF SUPERVISORS  
TREDYFFRIN TOWNSHIP

*Supervisors:*

Judy L. DiFilippo, *Chairman*  
Warren E. Kampf, *Vice Chairman*  
Bill DeHaven  
Mark DiFelicianantonio  
Paul J. Drucker  
E. Brooks Keffer  
Robert W. Lamina

CHESTER COUNTY  
1100 DuPortail Road  
Berwyn, PA 19312-1079  
  
(610) 644-1400 FAX (610) 993-9186  
Email: [tredyffrin@tredyffrin.org](mailto:tredyffrin@tredyffrin.org)  
Website: [www.tredyffrin.org](http://www.tredyffrin.org)

Mimi Gleason  
*Township Manager*

Lamb McErlane PC  
*Solicitor*

December 5, 2006

Jake Michael  
Chester County Planning Commission  
601 Westtown Road, Suite 270  
P.O. Box 2747  
West Chester, PA 19380-0990

Dear Jake,

Enclosed are Tredyffrin Township's comments about "An Evaluation of Patriots Path: Trail Opportunities in the Eastern Great Valley." The comments were compiled by Tredyffrin's Sidewalks, Trails and Paths Committee, reviewed by our Planning Commission and approved by the Board of Supervisors.

First, Tredyffrin strongly supports the concept of the Patriots Path and compliments the Chester County Planning Commission on the quality of the report. The Patriots Path is a clever concept that should improve opportunities for both recreation and historical interpretation within the county. As the path evolves it will surely complement and be complemented by the proposed Tredyffrin network of sidewalks, trails, and paths.

Tredyffrin is already taking steps to expand on that network and advance the Patriots Path concept. The Board of Supervisors has approved 2007 funding for a bike lane on Chesterbrook Boulevard between Wilson Road and the Chester Valley Trail.

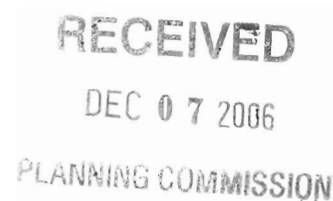
Thank you for your efforts thus far. Please let me know how Tredyffrin can continue to support this project.

Sincerely,



Mimi Gleason  
Township Manager

cc: Tredyffrin Sidewalks, Trails and Paths Committee



# **Tredyffrin Township Comments about “An Evaluation of Patriots Path: Trail Opportunities in the Eastern Great Valley” by the Chester County Planning Commission**

---

## **I. Routing Considerations**

### **A) Connection to Valley Forge National Historical Park Trail Network**

The proposed terminus of the Patriots Path in Valley Forge National Historical Park (VFNHP) is near the Knox Estate Library off Wilson Road. This location, however, is isolated from the main VFNHP network, can only be safely accessed by vehicle (after navigating the dangerous Yellow Springs Road covered bridge / Route 252 corner), and has very limited parking.

A much safer connection is needed to and from the VFNHP network of trails and roads.

Consider a connecting trail within Valley Forge Park, from Wilson Road near the turnpike underpass / LaFayette's Quarters to the visitor parking area and the Joseph Plumb Martin trailhead near General Knox Quarters. Routing options from Wilson Road include a trail south and east of Valley Creek (perhaps along the old forge tucked away in that corner?), or preferably using the existing trail alignment north and west of the creek which makes use of the existing bridge across the creek to the trailhead at General Knox's quarters.

### **B) To and within the Wilson Farm Park Area**

The draft Patriots Path Plan suggests several routing options for this section. The most enjoyable and safest route is on the Wilson Road right-of-way, from VFNHP across Chesterbrook Boulevard and directly into Wilson Farm Park.

Information highlighting the many relevant Revolutionary sights and activities within Tredyffrin could be provided in Wilson Farm Park. This information could be part of a display at the Jones Log Barn or it could be in a separate kiosk area.

The Path would exit Wilson Farm Park and continue around the corporate offices and/or hotel before joining the Chester Valley Trail.

Experienced cyclists will most likely avoid Wilson Farm Park and bicycle along Chesterbrook Boulevard to the Chester Valley Trail.

## **C) Additional Historical Interpretive Locations**

There are additional revolutionary period items of interest that should be included along the Patriots Path, and in its literature:

- Knox's Quarters
  - o possible terminus location mentioned in I.A in the plan
- Jones Log Barn
  - o The Tredyffrin Historic Preservation Trust plans to reconstruct the Jones Log Barn in Wilson Farm Park as a potential educational and visitor's center. Programming could include the Township's role in the Revolution as well as other local history. This vision should be coordinated with the Patriots Path to avoid any duplication of effort, leverage all available funding sources, and ensure a seamless experience for Path users with respect to historic interpretation of the Revolutionary era.
- Howell Tavern location
  - o Visible from CVT overpass on West Swedesford Road
  - o Site of General Grey's Quarters during the British encampment
  - o Site of a hospital for wounded after the Paoli Massacre
  - o Torn down in the 20<sup>th</sup> century
- British Encampment
  - o Location visible from CVT overpass on West Swedesford Road and from Chesterbrook Boulevard
  - o Site of 15,000 British before, during, and after the Paoli Massacre
  - o Possible spur trail from Westlakes to Field of Dreams and Teegarden Park along PECO lines
- Wilson Road
  - o Was Wilson Road the route used by the British after the Tredyffrin encampment?

## **II. General Considerations**

### **A) Chesterbrook Boulevard**

Chesterbrook Boulevard is a Township road, not a State road as implied in the plan.

### **B) Coordination with the American Revolutionary Center**

Consideration should be given for the proposed American Revolutionary Center. The ARC can be expected to draw even more users to VFNHP and the surrounding municipalities. With its mission of telling the entire story of the Revolution, it can be a good complement to the Patriots Path, and potentially drive additional volume above and beyond typical recreational usage. There may be an opportunity for shared programming. The ARC can be expected to have a national marketing campaign similar to the National Constitution Center.

Add recommendations for VFNHP programs or brochures that make visitors aware of the Patriots Path, its location, and its historic relationship to the Park.

### **C) Users**

Since the Patriots Path is a collection of on-road bike lanes, multi-use trails, sidewalks, and off-road paths, routes will need to be identified for both hikers and bikers along the entire length of the Path.

### **D) Trail Uniformity**

While sidewalk and trail design and implementation would be pursued independently by each entity, guidelines for uniformity in the design of signage will be needed.

### **E) Use of the name “Patriots Path”**

There is another Patriots’ Path in Morris County, NJ. Will this cause any confusion or funding conflicts? See <http://www.mtnlakes.org/Environment/patriots.htm>

### **F) Next Steps**

A loose coalition of representatives from each effected municipality, the VFNHP, and the County should be formed and meet to start to make the Patriots Path a coordinated reality. Is there benefit to creating an umbrella organization with 501(c)3 status?



February 27, 2007

Mr. Ronald Bailey  
Executive Director  
Chester County Planning Commission  
601 Westtown Road, Suite 270  
P O Box 2747  
West Chester, PA 19380-0990

RE: PATRIOTS PATH

Dear Mr. Bailey:

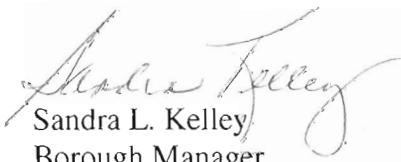
At the meeting of Borough Council on December 19, 2006, following a presentation by the Chairman of the Malvern Planning Commission, Council voted unanimously to support the Chester County Planning Commission's efforts with this project and will work with the Commission cooperatively, subject to the Borough's final review of the Commissions nuances of the Trail.

I have enclosed a copy of the Malvern Planning Commissions Report to Borough Council and a copy of the Paoli Battlefield Preservation Funds comments on the Patriots Path Trail Opportunities that I hope you will find helpful.

This is a truly worthwhile project and we look forward to assisting you in any way that we can.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Sandra L. Kelley  
Borough Manager

Enclosures

**RECEIVED**

MAR 02 2007

PLANNING COMMISSION





# Paoli Battlefield Preservation Fund

An IRC 501(c)(3) Pennsylvania Non-Profit Corporation

December 19, 2006

Borough Council  
Borough of Malvern  
Malvern, PA 19355

Subject: Comments on Patriots Path Trail Opportunities

The Paoli Battlefield Preservation Fund (PBBF) strongly endorses the concept of the Patriots Path Trail project and recommends that the Borough of Malvern participate in its future planning and implementation. It will preserve unique and strategically important military routes and encourage increased public educational opportunities through historical interpretive signage placed at the actual locations during the Revolutionary War. It will provide a significant expansion of passive recreational activities as well as tourism benefits.

PBBF would like to point out some historical inaccuracies, based on the extensive research of Thomas McGuire (Malvern Preparatory School instructor and author of "The Battle of Paoli" and "The Philadelphia Campaign, Volume I") and some additional suggestions for other improvements to Paoli Battlefield site.

The Patriots Path route options, coming into the Borough of Malvern, seem to be under the impression that the British forces approached the Battlefield site via N. Warren Avenue. This is incorrect. British Major General Charles Grey did not know the actual location of Wayne's encampment. He forced a local blacksmith from the General Warren Village to guide them up South Hill. This blacksmith showed them a route to the east of the American encampment - from the Gen. Warren Inn, eastward along Old Lancaster Pike and up what is now Old Lincoln Highway to the current Longford Avenue. During the Revolutionary War period Longford Avenue was an extension of Morehall Rd. (Rt. 29) leading to a Schuylkill River ford. Gen. Anthony Wayne had placed a picket (look-out) of 15-18 men at the corner of Old Lancaster Pike and Longford Ave. This picket was over-run by the British but they were able to fire warning shots. The British forces then moved up Longford Rd. until they reached another picket site near the corner of Channing and East 1<sup>st</sup> Avenues. This picket was also brutally overrun and the British followed farm paths into the current Paoli Battlefield Historical Park. It should be noted that the blacksmith's actions were pivotal in saving the Americans from a greater defeat. He could have easily led the British forces up Sugartown Rd., to the west of the American encampment. If he had done so, the Continental Pennsylvania Line would have been trapped between Grey's force and a large British blocking force waiting near the Paoli Tavern. When the British forces attacked from Longford Rd., they allowed Wayne's forces to escape west along King Rd.

Hopefully, Patriots Path will be able to utilize the abandoned railroad underpass next to the Gen. Warren Inn as a pedestrian route from the Rt. 29 sections of the proposed trail. Then the trail would best follow Old Lancaster Rd to Old Lincoln Highway, past Longford Ave. to Bridge St., over the railroad tracks, to King St. The trail route would then follow King St. to either Channing Ave. (the more historically accurate route) or Warren Ave. to lead into the Paoli Battlefield Historical Park area. As a walking trail, PBBF would

recommend the route go to 1<sup>st</sup> Ave and lead to the existing Park trail which starts at the western edge of Quann Park (near the Pump area). However, PBPF has no objection to using Memorial Ave. leading to the Paoli Memorial Grounds as an alternative.

PBPF has no objection to the concept of locating the Patriots Path route out of the Paoli Battlefield Park and Paoli Memorial Grounds to lead through the downtown Borough area and back to Bridge St. However, PBPF would prefer to have a segment of the trail along Monument Ave. to the Sugartown Rd. intersection. It is at this location that a cannon broke down in a fence gateway that stalling Wayne's orderly withdrawal and where Gen. Wayne rallied the Pennsylvania Line to cover the retreat. Future interpretive signs in this area would be an important educational addition. This segment could be a "spur" on the trail.

PBPF would enthusiastically join with the Borough to solicit funds or grants to improve sidewalk and bike lane road improvements along the trail routes within the Borough as well as for Historical Park improvements, such as restroom structures and ADA improvements to the trails in the Historical Park to accommodate increased public usage.

PBPF strongly suggests that the Borough expand historical interpretive signage along the Patriots Path route. This would include signs at the corner of Longford Ave. and Old Lincoln Highway (picket site), at the Channing and E. 1<sup>st</sup> Ave. (picket site), Quann Park trail entrance, and Monument Ave. and Sugartown Rd. (picket site, cannon breakdown, rallying point).

The Borough may want to consider options to secure a section of the wooded parcel located between Longford Ave. and Old Lancaster Highway as the location of the picket site and signage. We do not know the current ownership of the property, but since it forms a narrow "V" at the intersection, the tip would not have much development potential and its current woodland condition should be preserved.

Since this project will be a combination of federal (Valley Forge Historical Park), state, county and municipality efforts, PBPF see this as an opportunity to explore increased historical and educational opportunities with Valley Forge NHP. It should be remembered that the Pennsylvania Battlefields Protection Act of 1999, which provided funds to purchase the Paoli Battlefield, also includes a section authorizing the Department of Interior to "provide technical assistance to the borough of Malvern to assure the preservation and interpretation of the Paoli Battlefield's resources". The implementation of the Patriots Path trail may be the time to pursue a closer link between Valley Forge NHP and the Paoli Battlefield and our educational programs.

Finally, PBPF feels that the Borough should look to additional trail options with the surrounding townships. East Goshen, Easttown and Willistown all have historical resources and parks that may have potential to be linked through a trail system (e.g., Historic Waynesborough, E. Goshen Park, old Goshen Village, and Historic Sugartown).

PBPF is willing to participate in any committees or study groups to pursue the Patriots Path proposal.

Bruce A. Knapp  
President

**Malvern Planning Commission Report to Borough Council**  
**Recommendations Regarding Patriot's Path Draft Plan**  
**December 19, 2006**

Stated Primary Purpose

- Provide a link between Valley Forge VHP, Paoli Massacre site and Battle of the Clouds

Stated Primary Benefits

- Provide a memorial to fallen soldiers
- Excellent historical interpretation opportunities
- Recreational relief for Valley Forge NHP
- Improved pedestrian, bicycling and commuter opportunities
- Economic development for Malvern area
  - Improved marketing and branding potential
  - Increased pedestrian traffic and weekend shopping potential

Connecting the Path to Malvern Borough and the Paoli Battlefield site

The Planning Commission members expressed support for the Patriot's Path concept and noted that the Borough's recent efforts toward expanding the sidewalk network support the plan. The Commission expressed the following preferences regarding the route the path might take in the Borough:

- **Figure 4.5** shows the challenges involved in traversing from the proposed Chester Valley Trail (CVT) across Route 30
  - No relevant Borough related recommendations
- Follow Old Lincoln up to Bridge Street (See **Figure 4.6** for options)
  - Old Lincoln is clearly preferable to the Warren Ave option, which has limited potential for feasible pedestrian access
  - Going from Old Lincoln to Bridge is preferable to the Londford option because it is less steep and has better existing and future potential pedestrian access.
- Bridge Street to King Street (See **Figure 4.6** for options)
  - This is preferable to the West Broad Street option because it is simple and quicker to the central business district, and does not require a difficult navigation under the train tracks.
- King Street to Powelton (See **Figure 4.7** for options)
  - This is preferable to the Warren option because it takes the path through the heart of the business district and lines up easily with the easternmost entrance to the Battlefield.
  - This is also preferable to the Griffith option, which just extends the path through an additional residential area.
- Powelton to Monument Ave. (See **Figure 4.8** for options)
  - Establish a loop from this point to the Battlefield via the eastern trail entrance at the south end of Powelton and the main entrance to the Battlefield site at the Memorial Grounds along Monument Avenue.

Additional Comments and Considerations:

- The plan recommends consideration of a welcome center with restrooms somewhere to accommodate increased pedestrian traffic.
- It is unlikely that the path north of the Borough could be made ADA compliant. We agree and recommend against efforts to seek full compliance in the battlefield area that may hinder the integrity of the Battlefield site plan.
- The Patriot's Path draft plan is largely consistent with the recommendations contained in the Borough Revitalization plan regarding promotion of the unified downtown commercial district identity and making the Borough more pedestrian friendly.
- The plan states that Patriot's plan municipalities would not be well suited to take a major role in trail programming, however the plan expects that they would assume full responsibility for maintaining the non-County and non-federal sections of the path. We agree with these assertions.

Recommended Action:

Page 106 of the Patriot's Path draft plan includes a list of short-term and long-term recommendations relating to the Malvern Borough segment of the trail. The Planning Commission recommends that Borough Council commit to the two short-term recommendations and review the desirability of the long-term recommendations for future consideration.

**Our Mission:**

To operate  
and manage  
a safe, reliable,  
cost effective  
and valued  
toll road  
system.

April 18, 2007



**Pennsylvania Turnpike Commission**

*America's First Superhighway*



Mr. Ronald T. Bailey, Executive Director  
The County of Chester Planning Commission  
601 Westtown Road  
P.O. Box 2747  
West Chester, Pa 19380-0990

**Re: Patriots Path**

Dear Mr. Bailey:

I am writing in response to your letter dated March 5, 2007 regarding the Pennsylvania Turnpike's bridge over old Wilson Road just south of the Valley Forge National Historical Park (VFNHP) in Tredyffrin Township.

Based on the information provided in the draft copy of *An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley*, we understand that this structure is subject to use by pedestrians to access the VFNHP. We also understand that as such, this structure could become a key link of the Patriots Path corridor. Accordingly, we are pleased to advise you that we plan to keep the structure over Wilson Road open in anticipation that it will contribute to the recreational value of Patriots Path and serve as a pedestrian gateway to the VFNHP.

If you have additional questions, or if we may be of further assistance to you in this matter, please feel free to contact me at (717) 939-9551, ext. 5775.

Sincerely,

Kevin W. Scheurich  
Engineering Project Manager

KWS/lk

Cc: Mimi Gleason, Manager, Tredyffrin Township  
Michael Caldwell, Superintendent, VFNHP  
Deirdre Gibson, Chief of Planning, VFNHP  
Lee Whitmore, CCPC  
Jake Michael, CCPC  
Alphonse Lepore, Pennsylvania Turnpike Commission  
Donald Steele, Pennsylvania Turnpike Commission, Eastern Regional Office  
Mark Kinnee, Urban Engineers, Inc.  
Lugene Keys, KCI Technologies, Inc.  
Technical File



1-877-736-6727  
paturndpike.com





**EAST  
WHITELAND  
TOWNSHIP**

209 Conestoga Road

Frazer, Pennsylvania 19355-1699

Township Office: 610.648.0600

Fax: 610.648.0388

Sewer Operations: 610.644.2985

[www.eastwhiteland.org](http://www.eastwhiteland.org)

**BOARD OF SUPERVISORS**

John Mott

P. Joseph Corrigan

Virginia McMichael

Terry H. Woodman  
*Township Manager*

George Lokken  
*Financial Administrator*

Gene Dooley  
*Chief of Police*

William H. Steele  
*Public Works Director*

Kenneth N. Battin  
*Director of Codes & Life Safety*

G. Eric Reed  
*Codes Enforcement Officer*

March 5, 2007

Mr. Ronald Bailey, Director  
Chester County Planning Commission  
601 Westtown Road, Suite 270  
P.O. Box 2747  
West Chester, PA 19380-0990

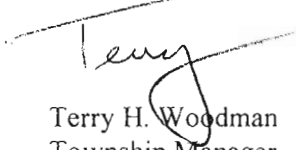
Re: Patriots Path Trail

Dear Ron:

Thank you for providing us with a draft copy of *An Evaluation of Patriots Path Trail Opportunities in the Eastern Great Valley*. As a Township we support the concept of extending the Patriots Path corridor along the planned County Chester Valley Trail within East Whiteland Township. We also support the concept of extending the corridor south along PA Route 29 to the intersection of US Route 30, and from there south through the currently blocked rail overpass tunnel to Old Lancaster Pike and Old Lincoln Highway.

We understand that the trail corridors presented in your draft report are conceptual, and that design studies and coordination with stakeholders and the public will be required before final alignments can be determined. We look forward to working with you and your staff to make this path happen.

Sincerely,

  
Terry H. Woodman  
Township Manager

cc: Board of Supervisors  
Jake Michaels, Open Space Planner





**SCHUYLKILL RIVER**  
NATIONAL & STATE HERITAGE AREA

140 College Drive

Pottstown, PA 19464

484-945-0200

Fax: 484-945-0204

E-mail: [info@schuylkillriver.org](mailto:info@schuylkillriver.org)

[www.schuylkillriver.org](http://www.schuylkillriver.org)

July 30, 2007

Mr. Ronald T. Bailey  
Executive Director  
Chester County Planning Commission  
601 Westtown Road, Suite 270  
P. O. Box 2747  
West Chester, PA 19380-0990

Dear Mr. Bailey:

Thank you for the opportunity to comment on the construction of the proposed Patriots Path that could link Valley Forge National Historical Park with the Paoli Massacre Site in Malvern and the Battle of the Clouds Park in East Whiteland Township, Chester County.

The Schuylkill River Greenway Association, managers of the Schuylkill River Heritage Area, discussed the issue at their July 12, 2007 Board of Directors meeting. Our board believes this trail has the potential to serve as a valuable historical and recreational project, because it connects several important sites of the American Revolution and is consistent with our goals and objectives. Despite the fact that some of the proposed trail is outside of the official boundary of the Schuylkill River Heritage Area as defined by our management plan as the Schuylkill River Watershed, we still support your initiative.

While we suggest that plans to design and construct the trail should move forward, we are unable to offer our organization as the project managers at this time because of limitations on both human and financial resources. However, we would be willing to accept a grant application funded through the Department of Conservation and Natural Resources Heritage Area Grant Program from a municipality or non-profit in the Heritage Area to design and construct the trail. The Schuylkill River Heritage Area is also willing to share our trail sign system manual with appropriate officials so a new sign system does not have to be designed at an additional cost.

We would be willing to meet with community leaders to discuss both funding and our sign system and to tour the site. Again, thank you for bringing this project to our attention.

If the Schuylkill River Heritage Area can be of further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Kurt D. Zwikl", written over a horizontal line.

Kurt D. Zwikl  
Executive Director

KDZ/ck

cc: Jake Michael  
Dwight Powell  
Robert Folwell  
Tim Fenchel



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## **Appendix B:**

**PA Department of Conservation and Natural Resources  
Rails-to-trails Planning Projects;  
General Information and Scope of Work**

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Commonwealth of Pennsylvania  
Department of Conservation and Natural Resources (DCNR)  
Bureau of Recreation and Conservation (Bureau)

**COMMUNITY CONSERVATION PARTNERSHIPS PROGRAM**



Planning Project

## RAILS-TO-TRAILS PLANNING PROJECTS

### **General Information and Scope of Work Guidelines**

**INSTRUCTIONS:** The following general information and examples of specific work tasks are provided to assist in the development of a scope of work for Rails-to-Trails Feasibility Studies and Master Site Plans, mainly for converting abandoned rail lines or rail-with-trail projects. A menu of scope options is provided. Some tasks could be applicable to either of the study types. We encourage you to develop your proposed scope tailored to meet the planning needs of your project, and submit this with your grant application. If your project is selected for funding, a detailed project scope must be submitted and approved by the Bureau before proceeding with the project.

#### **I. GENERAL INFORMATION**

- A.** Before submitting a grant application and developing your scope of work, please contact the Bureau's Regional Advisor for your area of the Commonwealth to discuss your project and to develop a scope of work that meets your needs and the Bureau's requirements. (A directory of Regional Advisors can be found in the Application Manual or by visiting the DCNR website at: [www.dcnr.state.pa.us](http://www.dcnr.state.pa.us))

**B. Expectations of the Bureau**

To ensure an adequate study, the Bureau has several expectations for rail-trail studies. The purpose of your study/plan should be developed to ensure that these expectations are met.

1. Substantial citizen involvement/public participation throughout the process.
2. For feasibility studies, we expect a thorough examination and analysis of all local questions or concerns and physical and economic limitations to

determine if it is feasible to develop and operate the proposed trail. If the trail is considered feasible, we expect a series of recommended actions that set forth proposed actions, priorities and costs.

3. For master site plans, we expect an examination and analysis of existing conditions and proposed trail uses to create a trail design map and supporting text. The supporting text should include a series of recommended actions to develop, manage, and maintain the trail. Actions should be in priority order with cost estimates when appropriate.

#### **C. Public Participation**

Your scope of work must include a public participation process that will substantially involve the community to ensure that local issues are identified and addressed. Special attention should be given to involve adjacent property owners and impacted local municipalities. Please review the "Public Participation Guide" for specific information. Grantees must have an approved public participation process that includes at least a study committee and two public meetings. Several past grant recipients have found citizen surveys and key person interviews to produce useful results with rail-trail projects.

#### **D. Study Report Organization and Final Products**

The final study report must cover all scope of work tasks in a logical order in a bound document, beginning with an executive summary, and followed by clearly labeled sections for each of the study's components. The Bureau recommends that twenty-five (25) copies of the narrative report be provided to the municipality(s)/owner(s). The exact number of copies must be stated in the Request for Proposal and should be determined based on the grantee's needs. Three (3) written, bound copies and one (1) electronic version of the final report must be submitted to DCNR.

#### **E. Agency**

The term "agency" is used throughout this Scope of Work Guidelines and refers to the entity that is preparing the plan such as one municipality, a regional recreation commission, an inter-governmental planning effort, etc.

## **II. SCOPE OF WORK ELEMENTS – RAILS-to-TRAILS FEASIBILITY STUDY**

### **Background Information**

*Applicability:* Feasibility studies are conducted to determine the feasibility of converting an abandoned railroad right-of-way (ROW) to a trail. The extent of such studies varies

depending on public support, ownership status, and the existence of environmental hazards and structural challenges like bridges, tunnels, culverts, etc. Your study should address the major issues so that local decision-makers have sufficient information to decide whether rail-trail acquisition activities should be pursued.

*Project determined feasible:* If, through this planning process, your agency determines that the trail is feasible, we will expect this study that produces sufficient mapping and documentation to proceed to the acquisition and development phase. **DCNR does not require the preparation of an additional rail-trail master plan.** Any additional site-specific design work required for trail construction is an eligible activity when selected for funding under Development Project grants.

*Project determined not feasible:* A feasibility study can be managed so that it can be stopped at identified decision-making points. The study should not continue if it becomes obvious to local decision-makers that trail development is not feasible at this time. This could result from too many non-supportive property owners, extensive environmental clean-up requirements, structure impediments (bridges, tunnels, etc.), lack of public support, etc.

*Scope of work:* You will be expected to address the eight major tasks provided below. **We do not require you to address every provided sub-task, but to tailor your project scope of work to meet the needs of your agency and project.** If selected for funding, Bureau staff will assist grantees in finalizing the scope of work.

#### **A. Study Purpose**

1. Describe why the study is being conducted.
2. Describe the right-of-way (ROW) under study.
3. Provide general mapping of the study area.
4. Identify any boundaries or limitations of the study.

#### **B. Legal Feasibility**

You must determine if it is feasible to obtain free and clear title to the ROW. Ownership patterns of rights-of-ways can be complicated and hinder development of rail-trail projects.

1. Determine the ownership status of the ROW.
  - a. Identify property owners and contact, if appropriate, to describe the project and determine level of interest in supporting the project.

- b. Determine and recommend the level of title search activity required for the ROW for which clear title is not evident.

Optional -- title search activities may be an eligible work task depending on the amount of work needed.

- 2. Identify property owners adjacent to the ROW and/or located on potential trail alternative routes and contact these owners if appropriate.
- 3. Based on results from above, evaluate acquisition and/or easement agreement options such as type of agreements required, preferred arrangement from property owners, etc.

### **C. Demand for and Potential Use of Trail**

- 1. Provide general demographics of potential trail users.
  - a. Define reasonable project service area.
  - b. Describe the community character (rural, urban centers, suburbs, industrial zones, etc.).
  - b. Project area population information and demographic patterns (current and projected).
  - c. Develop profile of potential trail users (bikers, walkers, horseback riders, cross country skiers, etc.).
- 2. Analyze potential demand and use of the trail.
  - a. Estimate initial usage levels.
  - b. Project future usage levels.
  - c. Estimate seasonal demand versus year-round demand.
- 3. Identify and evaluate potential trail linkages/connectors, including:
  - a. Possible connections to neighboring developments for both recreational and commuter use by residents and employees; and,
  - b. Possible connections with other existing or proposed trails.

- 4. Compatibility of trail development with adjacent land uses.

Identify and address potential impacts on adjacent land uses (agricultural lands, industrial properties, school facilities, businesses, residences, etc.)

**D. Physical Inventory and Assessment of the ROW (Field visits should be performed as needed)**

1. Prepare detailed mapping of proposed trail alignment at an appropriate scale. (You must determine what existing mapping is available from local planning agencies, USGS, railroad company, etc. that can be provided to your consultant.)
2. Physiographic analysis -- Identify and map:
  - a. The length, dimensions and ROW boundaries;
  - b. Steep slopes;
  - c. Topography (Use of topographic information on USGS maps is acceptable);
  - d. The composition of the railroad bed (materials and integrity);
  - e. Surrounding land use; and,
  - f. Erosion and drainage problems along the trail.
3. Natural Features Inventory -- Identify and map:
  - a. The adjacent or intersecting streams;
  - b. Significant natural features (lakes, ponds, rock outcroppings, wetlands, floodplains, etc.); and,
  - c. Existing vegetation and wildlife analysis (identify any species of concern or sensitive habitat areas in the project area and/or the existence of aggressive, weedy species/major invasive plants).
4. Wildlife Analysis within the Corridor.
  - a. Identify and map existing livestock crossings.
  - b. Detail any wildlife that may be harmful to trail users or that the trail would negatively impact habitat
5. Structures within the Corridor.
  - a. Provide a general assessment of existing bridges, canals, culverts, and/or tunnels.
  - b. Provide a general assessment of existing trail buildings (train stations, etc.).
  - c. Identify potential and/or obvious trail encroachments.



6. Infrastructure and Utilities.

- a. Identify and map the location of utilities in relationship to trail and alternative trail locations (water, sanitary sewers, electrical and gas lines, telephone, etc.).
- b. Assess the capacity of these utilities to serve trail development.
- c. Determine instances where the physical location of utilities may be an impediment to trail development.

7. Intersections and Access Points.

- a. Identify and map existing road crossings, active rail lines, driveways, etc.
- b. Inventory access points located within the corridor for possible vehicular and pedestrian access to and through the corridor.

8. Environmental Hazards.

Based on preliminary assessments, determine the need for environmental assessment studies relative to toxic waste disposal or other environmental hazards

-Or-

Conduct a Phase I environmental assessment (for decision-making purposes, more detailed assessments may be necessary).

**E. Prepare a Trail Concept Plan**

1. Develop a trail concept plan incorporating all data obtained and conclusions reached in tasks B through D.
2. Plan map should identify the:
  - a. Trail location and any alternative routes within municipalities;
  - b. Proposed location of trailheads and related facilities (restroom, water, emergency telephone, lighting, parking, maintenance, etc.);
  - c. Areas with single and/or double tread pathways;
  - d. Areas for trail barriers and emergency access;
  - e. Areas needing natural buffers and/or screening; and,
  - f. Proposed linkages to parks, schools, neighborhoods, etc.
3. Develop conceptual designs for mitigating potential conflicts between pedestrians and other proposed trail users (bicyclists, horseback riders, etc.).

4. Identify auxiliary facilities necessary to operate the trail and provide conceptual designs for these areas such as rest areas, parking facilities, fencing or buffer systems, drainage systems, emergency vehicle access, facilities to meet the needs of persons with disabilities.
5. Identify and prepare conceptual designs for facilities required to restrict use of the path.

**F. Trail Operation, Maintenance, and Security**

1. Determine ownership/maintenance/management options for involved entities.
2. Identify potential roles of public and non-public agencies.
3. Identify areas for in-kind contributions from involved entities.
4. Propose the appropriate organizational structure to provide trail maintenance, operation and security.
5. Identify typical trail maintenance tasks, both routine and periodic.
6. Work with involved parties to propose individuals or groups responsible for maintenance tasks.

**G. Financial Feasibility**

1. Provide a cost estimate for any required land acquisition or purchase of easements.
2. Prepare cost estimates for developing the trail and for proposed facilities.
3. Develop a phased implementation plan. (Typically, development activities start with the trail section with the least complications.)
4. Provide typical management and maintenance budgets from similar trails.
5. Develop a sample budget for staffing and maintenance, including all anticipated cost categories with projections of operating expenses and revenues per project phase.
6. Identify potential sources for capital and operating revenues such as, but not limited to, grants, direct municipal contributions, user fees, private sector support, etc. Evaluate which are the most likely funding sources.

## **H. Public Participation**

Note: In your scope of work, you will need to identify the consultant's role.

1. Grantee -- Develop a well-rounded and representative study committee and discuss its involvement in the planning process.
2. Conduct needed study committee meetings and public meetings with representatives from impacted municipalities, local business leaders, neighborhood and community groups, and adjacent property owners.
3. Conduct other public participation techniques like surveys of adjacent property owners, key person interviews, etc. as needed.
4. Provide a written summary of the public participation process results.

## **I. Summary**

Provide an executive summary of study findings and recommendations.

## **J. Final Product(s)**

1. Prepare a draft report that describes the study methodology, study findings, and recommendations and provides required mapping. (You must determine and specify how many copies are needed.) The Department must approve the draft and may request revisions to the draft before a final plan is prepared.
2. The Bureau recommends that twenty-five (25) copies of the narrative report be provided to the municipality(s)/owner(s). The exact number of copies must be stated in the Request for Proposal and should be determined based on the grantee's needs. Three (3) written, bound copies and one (1) electronic version of the final report must be submitted to DCNR.

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### III. SCOPE OF WORK ELEMENTS -- RAIL-TRAIL MASTER SITE PLANS

#### **Background Information**

*Applicability:* Master plans are developed when a municipality or appropriate organization has acquired an abandoned railroad rights-of-way without first conducting a rail-trail feasibility study. The planning process includes many of the tasks discussed above in rail-trail feasibility studies. More attention, however, is placed on detailing the proposed development of the rail-trail project.

*Typical Tasks:* Below is a summary of the major tasks expected within this type of project. Refer back to the more detailed discussion under feasibility studies.

#### **A. Study Purpose (see page 3 of this document)**

#### **B. Legal Feasibility**

Generally, ownership issues should have been resolved at time of acquisition or easement. If, however, your agency must conduct more detailed title search activities on specific trails sections, please provide needed work tasks here.

#### **C. Evaluate Potential Trail Users**

By acquiring the trail, we assume your agency believes that there is sufficient demand and interest in the trail. Actually development of the trail requires some thought about how the trail will be used and by whom. Often, calls or meetings with identified stakeholder groups are conducted to determine their level of interest in the project. These groups may include hiking, biking, ATV users, snowmobilers, cross-country skiers, anglers, equestrians, in-line skaters, persons with disabilities, etc. Please review work tasks identified under this section in the feasibility study (page 4) and determine which sub-tasks are appropriate. Additional tasks could include:

1. Identify and interview potential trail users.
2. Determine the impact of various user groups on the trail's development (surface, width, conflicting uses, facilities, etc.)

#### **D. Physical Inventory and Assessment of the ROW**

Expect to spend more time on this task than in feasibility studies. General assessments become much more extensive to generate realistic design solutions. Consider including these additional sub-tasks when incorporating the ones listed on Task D (pages 5-6):

1. The cost to obtain existing aerial photography of the trail corridor. This is done to provide better base maps and for enhanced planning purposes.
2. Videotaping of the property from helicopter or light airplane again for future planning purposes.
3. A phase 1 environmental site assessment if initial assessments conclude that one should be conducted.
4. More detailed evaluations of trail structures such as culverts, underpasses, bridges, tunnels, etc. These evaluations must determine present condition and potential rehabilitation cost.
5. The identification of opportunities for historic interpretation.
6. Perform boundary surveys on identified areas. Generally, a detailed boundary survey of the entire trail is too costly. The Bureau does not require boundary surveys at this planning stage. Such work is conducted if selected for development funds.

#### **E. Prepare a Trail Master Site Plan**

1. Develop a trail master plan incorporating all data obtained and conclusions reached from the physical assessment.
2. The trail plan should identify the:
  - a. Trail location and layout, treadway materials, general design and construction standards based on anticipated uses and accessibility for disabled persons;
  - b. Standards for horizontal and vertical clearance;
  - c. Location and conceptual designs of trailheads, trail signs, highway signs, parking area, trail amenities (water, emergency telephone, lighting, benches, maintenance storage, etc.);
  - d. Areas with single and/or double tread pathways;
  - e. Areas for trail barriers and emergency access;
  - f. Areas needing natural buffers and/or screening;
  - g. Proposed linkages to parks, schools, neighborhoods, etc.; and,
  - h. Conceptual designs for mitigating potential conflicts between pedestrians and other proposed trail users (bicyclists, horseback riders, etc.)

#### **F. Trail Operation, Maintenance, and Security**

If long-term trail ownership, operation and maintenance issues have not been resolved, include appropriate tasks listed on page 7. Typically, the development of an emergency vehicle access plan is included here.



**G. Financial Feasibility**

Include, at a minimum, sub-tasks #G-2 to #G-6 (page 7) included in your proposed scope of work.

**H. Public Participation**

Include, at a minimum, sub-tasks #H-1, 2, and 4 (page 8). We recommend including other appropriate public participation techniques like a citizen survey or interviews of key "stakeholders".

**I. Final Products**

1. Prepare an executive summary of study findings and recommendations.
2. Prepare a draft report that describes the study methodology, study findings, and recommendations and provides draft mapping of the proposed trail. (You must determine and specify how many copies are needed.) The Department must approve the draft and may request revisions to the draft before a final plan is prepared.
3. The Bureau recommends that twenty-five (25) copies of the narrative report, any summary documents, appropriate mapping, etc., be provided to the municipality(s)/owner(s). The exact number of copies must be stated in the Request for Proposal and should be determined based on the grantee's needs. Three (3) written, bound copies and one (1) electronic version of the final report must be submitted to DCNR.
4. You may want to include one color-rendered drawing of the trail, artist renderings of proposed trail amenities, etc.

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## **Appendix C:**

**Schuylkill River Heritage Area Grant Program;  
Program Guidelines for 2007**

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# **SCHUYLKILL RIVER**

## **NATIONAL & STATE HERITAGE AREA**

### **Schuylkill River Heritage Area Grant Program** *Program Guidelines for 2007 Grant Round* *January 2007*

#### **A. Statement of Purpose**

The Schuylkill River Heritage Area (SRHA) celebrates the unique and nationally significant cultural landscape of the Schuylkill River watershed and attempts to bring a variety of federal, state, local, and private resources to bear on the Heritage Area's preservation, revitalization, and promotion.

The Schuylkill River Heritage Area provides grants to non-profit organizations and municipal and county governments to develop programs and projects that address SRHA's five core goals— resource conservation (natural & cultural), education and interpretation, recreation, community revitalization, and heritage tourism— in unique, meaningful, and sustainable ways. Supported projects must satisfy at least one of the five goals and the most successful projects will incorporate multiple goals. Successful projects will also attempt to address the larger context in which their projects exist. The Schuylkill River Heritage Area Grant Program is funded by the Pennsylvania Department of Conservation and Natural Resources (DCNR) through the Pennsylvania Heritage Areas Program (PHAP) and is administered in partnership with the National Park Service.

SRHA grants are available to organizations within its boundaries. The Schuylkill River Heritage Area is defined as the entire Schuylkill River watershed within Schuylkill, Berks, Chester, Montgomery, and Philadelphia Counties. While the Schuylkill River serves as the spine of the Heritage Area, the boundaries also include all of the river's major tributaries and the lands that they drain.

SRHA Grants are awarded based upon the criteria laid out in the Schuylkill River Heritage Area Management Plan and Environmental Impact Statement, *Living with the River*, published in 2003. *Living with the River* is intended to guide programs and projects within the Schuylkill River watershed that encourage partnerships, establish linkages between sites and resources, work to build a regional identity, and help preserve a sense of place. The SRHA Management Plan is available in PDF format at [www.schuylkillriver.org](http://www.schuylkillriver.org)



## **B. Types of Support**

Grants will be available in the 2007 Round for the following types of projects:

### **Heritage Development**

Heritage Development grants are available to eligible organizations to undertake planning and implementation projects that will enhance existing heritage tourism and recreational attractions that are currently open to the public or to develop new attractions that are not currently open to the public. Eligible projects may include feasibility studies, curriculum planning, site planning, preservation and interpretive plans, construction drawings and specifications, preservation, restoration, rehabilitation of historic structures, landscaping, exhibit construction and other specialized projects.

**Special Purpose Planning/Study** – Special Purpose Planning/Study grants are available to non-profit organizations and local and county governments to undertake a focused study or plan needed to implement initiatives, or elements of an initiative, and other projects related to the goals of SRHA. These grants are intended to be flexible and the scopes of individual projects may be negotiated on a case-by-case basis.

- Eligible expenses include consultant fees, research, site survey, public participation and meetings, report copying and distribution.
- Maximum award: up to \$40,000

**Implementation** – Implementation grants are available for non-planning projects that relate to the goals and initiatives outlined in Living with the River. These grants are typically for “bricks-and-mortar” projects, but may include the production of curriculum materials and exhibit construction. Project must demonstrate sound planning and be coordinated by organizations that are capable of managing the project after completion in a sustainable manner.

- Eligible expenses include labor and materials, consultant fees, printing and postage, community participation and public meetings and signage.
- Maximum award: up to \$40,000

### **Reconnections**

Reconnections is a program of the Schuylkill River Heritage Area that seeks to physically and programmatically reconnect people with the Schuylkill River and its tributaries. In many ways, the industrial past of the Schuylkill River and its tributaries resulted in vast stretches of the riverfront being severed from community centers by factories, rail lines, canals and other man-made barriers. In other places the rural and agrarian nature of the community gave people little reason to go to the river. Reconnections seeks to remedy the actions of the past and positively affect public perception of the River in engaging, sustainable and environmentally and contextually sensitive ways.

Reconnections grants are available to municipal governments, county agencies, non-profit community development corporations, and other non-profit organizations to undertake planning and implementation projects that “reconnect” people and places—visually and physically—with the Schuylkill River and its tributaries.

Examples of eligible projects may include waterfront trail planning or construction, planning studies that link downtown commercial districts with the Schuylkill River or one of its tributaries, feasibility studies for the rehabilitation of waterfront or trailside buildings for economic development activities (boat or bicycle rentals, cafes, services that cater to trail users, boat launches, etc.) Projects that involve multiple municipalities or that approach waterfront access and development in a holistic manner are encouraged, as are projects that incorporate communities on opposite sides of the river or tributary.

**Planning/Study** – Planning/Study grants are available for new plans or study projects. These studies may and should complement existing open space plans, Main Street plans and other previous studies as appropriate.

- Eligible expenses include consultant fees, printing and postage, community participation and public meetings and report distribution.
- Maximum award: up to \$25,000
- Other DCNR funds, including C2P2 grants, are not considered eligible match.

**Implementation** – Implementation grants are available for construction activities and other “hard costs”.

- Eligible expenses include labor and materials, signage, banners, etc.
- Maximum award: up to \$40,000
- Other DCNR funds, including C2P2 grants, are not considered eligible match.

### C. Grant Period

All Schuylkill River Heritage Area grants made through the Heritage Parks Program are for a period of four years. Grants made during the 2007 grant round will expire on June 30, 2011. Work completed prior to the grant award is not considered eligible for reimbursement. However, grants may be utilized for defined scopes of work that are part of a larger, ongoing project (e.g. lighting and landscaping for a larger restoration project). Award announcements are generally made in late Fall and funds are expected to be available in Spring 2008.

### D. Grant Payments

Grant payments are made as reimbursements for eligible expenses. Recipients must submit a Reimbursement Request along with invoices and cancelled checks to SRHA as evidence of payment. SRHA will review the requests and issue a check within 30 days of receipt of the request. Final payment will not be made until all final reports have been submitted to SRHA and all contract requirements have been met.

### E. Match Requirements

All SRHA grants have a match requirement, with the match amount determined by the type of project and grant award. In general, **Planning/Study** grants have a 25% match requirement and **Implementation** grants have a 50% match requirement. A portion of each match must be derived from private, non-governmental sources such as private foundations, fundraisers, individual contributions, etc. Private matches generally must equal a minimum of 10% of the total grant award. SRHA will be happy to discuss your project funding structure with you if you have questions or need assistance.

### F. Reporting & Auditing

All grant recipients will be required to provide a bi-annual progress report to SRHA in a format determined by SRHA and DCNR for the duration of the project. Upon submission

of the Final Reimbursement Request, recipients will be required to submit a final contract narrative (one page), financial report (including confirmation of match sources), and copies of all final study documents or project photos. **Planning/Study** grant recipients must provide four (4) hard copies and two (2) electronic copies of each final report prepared with grant funds to SRHA. Report copies are considered eligible expenses, so please budget accordingly. **Implementation** grant recipients will be required to acknowledge SRHA and DCNR on a new or existing permanent sign and provide four (4) color copies of one or more photographs of the completed project and sign in lieu of a printed report. Acknowledgement signs are considered eligible expenses and should be included in the project budget.

Grant contracts will be audited internally prior to final payment and will remain open until the expiration of the contract. A professional auditing firm will audit all project files following the expiration of the contract and a Contract Close-Out letter will be issued at that point.

#### **G. Heritage Partners/Heritage Communities Program**

All grant recipients will be required to participate in the Heritage Partners/Heritage Communities program that is being created by SRHA. The Heritage Partners program is a no fee membership program for nonprofit museums, cultural institutions, historic sites, tourism, and other entities within Schuylkill, Berks, Chester, Montgomery, and Philadelphia Counties. The goal is to create dynamic, mutually beneficial partnerships and linkages amongst historic sites, tourism agencies, and advocacy organizations under the umbrella of the Schuylkill River Heritage Area. Participating organizations may include historic sites, museums, arts & culture organizations, community development corporations, etc.

Heritage Partners will be asked to identify the type of organization they are, their themes/interests, and provide detailed contact information and information about accessibility, hours of operation, admission fees, and other visitor services. As part of the Partnership, organizations will be asked to provide website linkages and reciprocal organizational memberships for SRHA, and assist with brochure distribution and cross promotion of events and SRHA merchandise.

All Heritage Partners will be listed in a fully searchable online database that will be marketed throughout our region, state and nation with the assistance of the National Park Service, the Alliance for National Heritage Areas, DCNR, and regional Convention & Visitors Bureaus. SRHA will provide website linkages, reciprocal organizational membership, and will use the list of participating Heritage Partners as a basis for targeted mailings, grant notification, stakeholder identification, gateway center information, and events listings.

Municipalities, including boroughs, townships, and counties will have the opportunity to participate in this program at the same level of benefits as private nonprofit organizations, but will receive the designation of Heritage Community. All grant recipients will be asked to publicly acknowledge SRHA at the award of the grant and the completion of the project. The venues, formats and details of this acknowledgement will be developed in consultation with SRHA.

## **H. Application Process**

Applicants to the 2007 Grant Round are asked to submit a **Letter of Intent** prior to the submission of a full application. Successful applicants will then be invited to meet with a member of the SRHA staff to discuss the project and submit a full proposal. Proposals will then be ranked and submitted to DCNR for interagency review and funding. Awards are based upon annual appropriations made to the Heritage Parks and Growing Greener programs by the Pennsylvania General Assembly. Awards are announced in mid-late Fall, based upon the passage of the Commonwealth's annual budget.

### **Application Timeline and Important Dates:**

January 22, 2007.....Application materials available online at [www.schuylkillriver.org](http://www.schuylkillriver.org)

February 21, 2007 .....Letters of Intent due to SRHA office no later than 4:00PM

February 23, 2007.....Invitation to Submit letters and full application materials mailed

March 23, 2007.....Final Applications due to SRHA offices no later than 4:00PM

Letters of Intent should not exceed three (3) full pages, not including a cover letter. Organizations may only submit one Letter of Intent per grant cycle. Please clearly indicate in all letters the type of grant for which you are applying. Applicants who are invited to submit a full application will be asked to meet with a member of the SRHA staff to discuss the project more fully.

All Letters of Intent are due to SRHA at the address below by 4:00PM on February 21, 2007, 2006.

Schuylkill River Heritage Area, ATTN: Grants Program, 140 College Drive, Pottstown, PA 19464.

Please contact the Grants Program Coordinator with questions regarding the grant program, a specific project, or general questions about the Schuylkill River National & State Heritage Area. Information about the Heritage Area can be found online at [www.schuylkillriver.org](http://www.schuylkillriver.org).

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