

2022

BRANDYWINE BATTLEFIELD HERITAGE INTERPRETATION AND CONNECTIVITY PLAN

A Multi-Municipal Plan for Birmingham, Chadds Ford, East Bradford,
Kennett, Pennsbury, Thornbury, and Westtown Townships

May 2022

BIRMINGHAM
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Brandywine Battlefield Heritage Interpretation Plan

Birmingham Township | Chadds Ford Township | East Bradford Township | Kennett Township | Pennsbury Township | Thornbury Township | Westtown Township

Advisory Committee

Mike Shiring, Birmingham Township
Mary Pat McCarthy, Birmingham Township
Mike Forbes, Birmingham Township
Maryann Furlong, Chadds Ford Township
Kathleen Goodier, Chadds Ford Township
John Snook, East Bradford Township
Bob Korbonits, East Bradford Township
Scudder Stevens, Kennett Township
Diane McGovern, Kennett Township
Joe Lisa, Thornbury Township
Michele Thackrah, Thornbury Township
Aaron McIntyre, Pennsbury Township
Judi Wilson, Pennsbury Township
Mila Robinson, Westtown Township
Daniel Campbell, Westtown Township
Verne Weidman, Member at Large

Project Grant Monitor

Jeannine Speirs, Chester County Planning Commission

Consultants

Brandywine Conservancy
PO Box 141, Chadds Ford, PA 19317
kmccaig@brandywine.org
610-388-8396

and

Miller Designworks
400 Franklin Ave, #118, Phoenixville, PA 194600
miller@millerdesignworks.com
610-917-0100

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Accepted

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Chapter 1

Introduction

Introduction

Overview

The purpose of this document is to produce a multi-municipal plan focused on interpreting the Battle of Brandywine within seven partner municipalities. The first of its kind, the Brandywine Battlefield Heritage Interpretation and Connectivity Plan may serve as a guide for heritage interpretation planning and connectivity in Chester and Delaware Counties, by establishing a plan structure for Heritage Centers, Interpretive Sites, trails and bikeways, and open space. The plan will aid in local heritage interpretation, tourism, economic development, and open space preservation efforts through identifying additional community interest around these topics through a robust public process. This plan will aid in the implementation of multiple Battlefield related plans that Chester County Planning Commission, Delaware County Planning Department, local municipalities, and partners have developed collaboratively, including the Brandywine Battlefield Preservation Plan, and associated Strategic Landscapes Plans. It will also serve as a tool to advance municipal goals and objectives.

The Brandywine Battlefield Heritage Interpretation and Connectivity Plan is a multi-municipal plan that spans seven communities located in Chester and Delaware Counties. The study area for this plan centers on Birmingham, Kennett, East Bradford, Thornbury, Pennsbury, and Westtown Townships in Chester County and Chadds Ford Township in Delaware County. The area of focus for this Plan, or its study area, is the area within these seven municipalities that also falls within the Brandywine Battlefield Boundary. Figure 1-1 (right) illustrates the study area in red, contrasted with the larger Battlefield Boundary in white. Municipal boundaries are denoted in gray and the border between Chester and Delaware Counties is highlighted in orange.

Figure 1-1: Brandywine Battlefield Heritage Interpretation Plan Study Area



Source: CCPC, Brandywine Battlefield Preservation Plan. Brandywine Conservancy modified.

Background Research

A significant amount of study and planning centered on the Brandywine Battlefield has occurred over the years. The Brandywine Battlefield Heritage Interpretation and Connectivity Plan is a product and outgrowth of those previous planning efforts. As part of the background research and data collection phase of this Plan, multiple existing regional and municipal planning documents were reviewed. This provided key information that helped inform the goals, objectives, concepts, themes, and active transportation network vision detailed in subsequent chapters. Existing planning documents that were a part of this research (see Appendix A for more detail) included the:

- Brandywine Battlefield Preservation Plan (2013)
- The British Left Hook – Preparing for Battle: Scennelltown & Strode’s Mill Strategic Landscapes Plan (2015)
- Strategic Landscape Preservation Plan: Rearguard Defense & Strategic Retreat – Preserving the Brandywine Battlefield (2015)
- Plum Run Corridor Master Plan (2019)
- Brandywine Valley Scenic Byway Corridor Management Plan (2016)

Each plan provided different concepts, recommendations, and information useful in shaping this document. This included a range of information such as themes and subthemes that could potentially be interpreted at different sites, troop movements, the events and timeline of the Battle of Brandywine, key sites that played a significant role in the Battle, historical research, trail concepts, open space preservation opportunities, and the statement of significance. The Brandywine Battlefield Preservation Plan established the Heritage Interpretation Network Concept in 2013, which was recently updated in 2019. This concept for an expansive and integrated heritage interpretation network spanning the entirety of the Battlefield is the foundation upon which the Brandywine Battlefield Heritage Interpretation Plan is built.

Heritage Interpretation Network

Through the development of the Brandywine Battlefield Preservation Plan, a concept was established to aid in creatively educating residents and visitors about the story of the Battle of Brandywine, the events of that day, the people it impacted, and the communities and landscapes it forever altered. The Battle of Brandywine took place on September 11th, 1777. One of the most intense battles of the American Revolutionary War, the Battle of Brandywine occurred across a substantial area of land within this region. In present day terms, the Battle of Brandywine took place across multiple municipalities in both Chester County and

Delaware County. Since the Battle did not occur on one singular, centralized site, the Brandywine Battlefield Preservation Plan outlined a multi-pronged approach for interpreting the Battle of Brandywine at a variety of sites. This future heritage interpretation network would knit together multiple sites in different communities and contexts, that together, would tell a larger, shared story about the Battle of Brandywine. This vision would be dependent on partnerships with various entities, including county governments, municipal governments, property owners, nonprofits, businesses, and enthusiastic volunteers. The Heritage Interpretation Network, illustrated below, establishes a hierarchy of sites within the Battlefield. This hierarchy includes several core components: Gateways, Heritage Centers, Interpretive Sites, and Viewing Corridors (see Figure 1-2).

Figure 1-2: Heritage Interpretation Network Concept.



Source: Chester County Planning Commission.

Gateways are the top of the hierarchy, have the most intensive use, and are outside the scope of this plan. Gateways provide visitors with a 30-to-90-minute experience and containing amenities such as bathrooms and ample parking. All interpretive and educational programming begins at a Gateway. These sites include the Brandywine Battlefield Park in Chadds Ford Township and West Chester Borough.

Heritage Centers are within the scope of this Plan. Heritage Centers are less intensive a use than Gateways. They provide a 15-to-30-minute experience for visitors and can be located in an area where a cluster of historic resources pertinent to the Battle of Brandywine exist. They may include amenities such as parking and bathroom facilities. Interpretation at

Heritage Centers may be indoors or both indoors and outdoors. At the time of the development of this Plan, two Heritage Centers existed, and one was far along in the planning process. The Marshallton Heritage Center and the Kennett Heritage Center were the two existing Heritage Centers, while the Strode's Mill Village Heritage Center was in progress. All three Heritage Centers were studied and served as models to inform the development of three new Heritage Centers in the eastern portion of the Battlefield, as part of this document.

Interpretive Sites, also within the scope of this plan, are smaller scale locations, with less amenities and less an intensive use in comparison to Heritage Centers. These are locations significant to the Battle of Brandywine and can work collaboratively in concert with Heritage Centers and Viewing Corridors, to highlight different themes and stories about key people, places, and events.

Viewing Corridors, while outside the scope of this plan, were reviewed and incorporated into conceptual designs for Heritage Centers and active transportation networks, where relevant. These areas provide scenic views of landscapes similar to how they may have appeared during the Battle of Brandywine. As such, these are opportunities for highlighting the landscape through future driving, biking, or walking tours.

Plan Scope and Intent

The focus of this Plan is on the eastern portion of the Heritage Interpretation Network Concept. Specifically, the project focused on vetting candidate sites for three new Heritage Centers to determine locations for them to be established in the future, vetting Interpretive Sites, vetting themes and subthemes, and exploring opportunities to link together clusters of Interpretive Sites with each Heritage Center through active transportation, such as sidewalks, trails, bikeways, and even water trails. It should be noted that the designs in this document, found in Chapters 1 through 4, are conceptual in nature. Conceptual designs require further studies, analysis, public engagement, and collaboration among property owners, municipalities, counties, and other partners prior to construction. The vision for these unique sites, and subsequent recommendations, were shaped in large part by a variety of groups, entities, and individuals that participated in this Plan's public outreach process.

Public Engagement

This Plan included a robust public outreach effort in order to shape the vision for three new Heritage Centers, a network of Interpretive Sites, innovative media tools to translate stories of important people, places, and events during the Battle at each site, and active transportation network conceptualization, including future pedestrian and bicycle connections. The plan was guided by a multi-municipal and multi-disciplinary Advisory Committee, including representation from the Board of Supervisors and Historical Commissions, Planning Commissions, or Open Space Committees in Birmingham Township, Chadds Ford Township, East Bradford Township, Kennett Township, Pennsbury Township, Thornbury Township, and Westtown Township. A total of four Advisory Committee meetings were held to share research, analysis, inventories, and draft materials for input and guidance.

Three public meetings were held as part of developing this plan to engage with residents, businesses, and potential visitors to the study area. Due to the ongoing COVID-19 pandemic, all meetings conducted were held virtually over Zoom. At the first public workshop, participants engaged in interactive exercises to provide key information regarding activities, amenities, and interpretive media that would make the Heritage Center sites successful and accommodating to visitors. Feedback about amenities such as seating areas, shade areas, and bathrooms and activities such as reading, walking, hiking, and self-guided exploration were several of the suggestions from the workshop that helped shape this Plan. The second public workshop included presentations of the draft visions for each Heritage Center, visions for pedestrian networks to link Heritage Centers to other key historical sites, such as Gateways and Interpretive Sites, and visions for a bicycle network to connect to farther distances within the study area. Ideas related to the concepts, including bicycle and pedestrian connections, helped shape the recommendations in Chapter 5. The third public meeting was an opportunity to present the draft plan to the public for further comment and suggestions. A summary of public input can be found in Appendix E.

This process also included an extensive key person interview effort to gather key information from a host of people and organizations, including property owners and representatives from candidate sites for Heritage Centers, municipal representatives, friends' groups, and nonprofits. As candidate sites were selected, the project team conducted multiple outreach meetings with willing property owners and representatives from each Heritage Center to gather information and obtain input on design considerations. Input such as preferred types of structures and their ideal siting on a property were generated from this outreach effort.

Birmingham Twp - Chadds Ford Twp - East Bradford Twp
Kennett Twp - Pennsbury Twp - Thornbury Twp (CC) - Westtown Twp

Virtual Public Workshop

BRANDYWINE BATTLEFIELD HERITAGE INTERPRETATION PLAN

DATE: January 27, 2021
TIME: 7 to 8:30 pm
LOCATION: Virtual via Zoom

You're Invited!

Join us for a free public workshop and learn about an exciting new plan to highlight the Battle of Brandywine across 7 communities in Chester and Delaware Counties. Are you interested in history and the unique stories surrounding the people, places, and events tied to the Battle of Brandywine? What about trails and open space? Then join us and share your thoughts and ideas to help shape this plan!

To register and receive the Zoom meeting details, visit:
<https://335.blackbaudhosting.com/335/Public-Workshop-for-the-Brandywine-Battlefield-Heritage-Interpretation-Plan>

Interested in learning more? Visit the project website at www.brandywine.org/our-work/brandywine-battlefield-heritage-interpretation



Study Area and Partner Municipalities

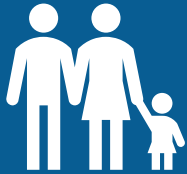
As part of developing this Plan, data was collected and analyzed as it relates to the study area's overall landscape, residential population, economic conditions, and potential visitorship. Data that summarizes tourism, visitorship, and experiential trends was gathered from Chester County Conference & Visitors Bureau and Visit DelCo. A summary of this information can be found in Appendix B.

In total, Birmingham, Chadds Ford, Kennett, East Bradford, Thornbury, Pennsbury, and Westtown Townships are a combined 43,834 acres in size. The study area for the Brandywine Battlefield Heritage Interpretation and Connectivity Plan is 18,574 acres in size.

Active Transportation Network

Mobility options within the study area are primarily auto centric, given the suburban and rural context. There are 180 miles of roadways and 42 bus stops in the project's study area. Despite this predominant use of automobiles for circulation, miles of sidewalks, trails, and bikeways currently exist and have been planned for the future. When built out, these new trails, sidewalks, and bikeways will provide additional opportunities for residents, employees, and visitors alike to explore their environs in an active and dynamic way. An inventory of the active transportation network in the study area indicated that:

- 9 miles of sidewalks currently exist
- 16 miles of trails currently exist
- 12 miles of in-road bikeways currently exist
- 25 miles of trails are planned for the future
- 9 miles of bikeways are planned for the future



Demographics

43,900 people live within Birmingham, Chadds Ford, Kennett, East Bradford, Thornbury, Pennsbury, and Westtown Townships. Approximately 40% of those residents live within the study area, for a total of 17,365 people.

- The median age within the study area is 47.3 years
- The average household size is 2.6 people

Educational attainment within the study area is relatively high, with close to three-fourths of the population having a post-secondary education.

- 2% of residents have no high school diploma
- 12% have a high school degree
- 14% have attended some college
- 72% have a bachelor's, graduate, or professional degree

Residents tend to be employed in white collar occupations. 7% of residents are employed in the service sector, 11% in blue collar positions, and 82% in white collar positions.

- Per capita income is \$72,759
- Median household income is \$136,675
- Median net worth is \$873,614

There are 923 businesses found within the study area, which employ a total of 9,132 people.

Goals and Objectives

An overarching goal for heritage interpretation efforts moving forward should reflect that all future planning continue to work with the Brandywine Battlefield Task Force, Brandywine Battlefield Park Associates, Chester County Planning Commission, and Delaware County Planning Department while implementing the recommendations of the Brandywine Battlefield Heritage Interpretation Plan. As part of this Plan, five goals and corresponding objectives were created focusing on the plan itself, heritage infrastructure and themes, open space and natural resources, bicycle, pedestrian, and watercraft connectivity, and visitor experience. Those goals and objectives are summarized below.

Goal 1: The Plan

Develop and implement a multi-municipal plan that promotes thematic and physical heritage interpretation and connectivity between key historic sites (Built or Land) within the Brandywine Battlefield National Historical Landmark project area in Birmingham, Chadds Ford, East Bradford, Kennett, Thornbury, Pennsbury, and Westtown Townships.

Objectives

1-1) Identify and plan for new heritage amenities in a coordinated, collaborative, and efficient way, using a regional scale approach.

1-2) Implement previous planning efforts, in particular the 2013 Brandywine Battlefield Preservation Plan, and its 2019 updated conceptual heritage interpretation network for the 35,000-acre Brandywine Battlefield.

1-3) Extend and expand on the interpretive and connective aspects identified in the Plum Run Corridor Master Plan.

1-4) Engage communities through a public participation process, including a multi-municipal task force, public meetings, project website, and key person interviews.

1-5) Prepare an Action Plan for implementation.

Goal 2: Heritage Infrastructure and Themes

Identify opportunities to expand heritage interpretation, local small-scale heritage tourism, and education about the Battle of Brandywine coordinated among the seven partner municipalities.

Goal 3: Open Space, Natural Resources, and Historic Resources/Landscapes

Identify opportunities to advance open space and natural resources conservation in partnership with historic preservation.

Objectives

- 2-1) Analyze options and determine appropriate locations for Heritage Centers in the study area.
- 2-2) Analyze options and determine appropriate locations for Interpretive Sites in the study area that will be interrelated both thematically and physically.
- 2-3) Develop general concept themes relating to the Battle of Brandywine to be elevated at each site.

Objectives

- 3-1) Inventory existing open space within the study area.
- 3-2) Identify potential preservation opportunities in the study area.
- 3-3) Highlight opportunities to preserve land that have both historic preservation benefits and open space conservation benefits.
- 3-4) Identify opportunities for natural features and landforms interpretation, particularly as they relate to the Battle.

Goal 4: Bicycle, Pedestrian, and Watercraft Connectivity

Identify opportunities to promote multi-modal connectivity between key historical sites.

Goal 5: Visitor Experience

Identify tools that can be used to promote a deeper visitor understanding of the Battle of Brandywine, the people who played a role, and the surrounding landscape.

Objectives

4-1) Identify existing and potential pedestrian linkages between Heritage Centers and Interpretive Sites.

4-2) Identify existing and potential bicycle linkages between Heritage Centers and Interpretive Sites.

4-3) Identify existing and potential opportunities to interpret the Battle of Brandywine on the Brandywine Creek Water Trail, from Marshallton to Chadds Ford.

Learning Objectives

5-1) Visitors learn about the important events, actions, or people associated with each Heritage Center or Interpretive Site.

5-2) Visitors understand the connectivity of each Heritage Center or Interpretive Site to the larger, 35,000-acre Battlefield.

5-3) Visitors understand the role historically underrepresented individuals and places played within the Battle of the Brandywine.

Behavioral Objectives

5-4) Visitors explore the network of heritage sites by foot, bike, boat, or car to actively learn and participate in connecting to the past.

Emotional Objectives

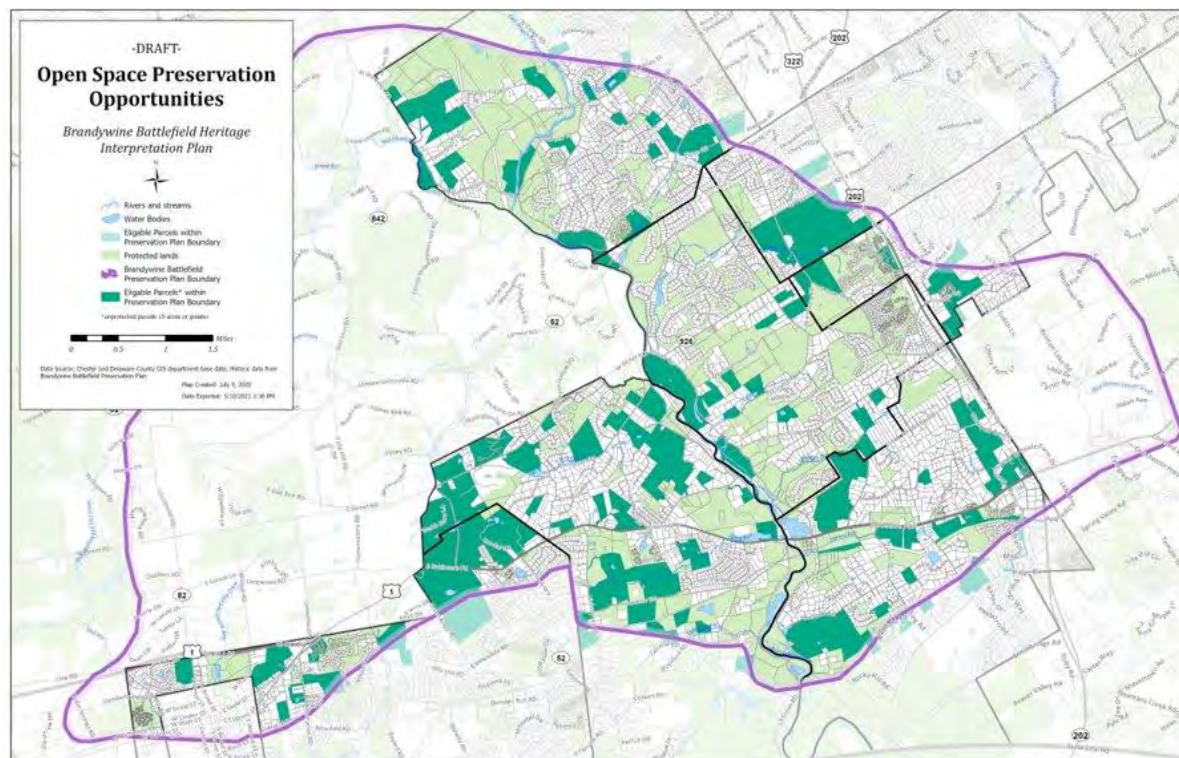
5-5) Visitors experience gratitude for the sacrifice of the soldiers, impact of the 18th local century agricultural community, and recognition of the importance of the Battle of Brandywine in the formation of this country.

Open Space Preservation

Open space preservation efforts within the region have been instrumental in protecting historic resources, natural resources, and agricultural lands. A significant legacy of open space preservation, one of the strongest examples in the entire Commonwealth of Pennsylvania, is present in Southeastern Pennsylvania. Within Chester County for example, 30% of the County has been protected via conservation easements, agricultural easements, deed restrictions, or consists of publicly owned lands, such as public parks. Map 1-1 below illustrates the entire Battlefield Boundary in purple. The areas of the seven Brandywine Battlefield Heritage Interpretation Plan municipalities that fall within that boundary, are shown prominently. Within this 18,574-acre Brandywine Battlefield Heritage Interpretation Plan study area, approximately 29% or 5,392 acres of land has been protected via conservation easements, agricultural easements, deed restriction, or are in public ownership. Existing protected lands are illustrated on the map to the right in light green. Dark green areas show unprotected parcels that are both eligible for preservation and fall within the Battlefield Boundary.

A variety of entities in Chester County and Delaware County have been instrumental in realizing this success with protecting open space. Such entities include Chester County, Delaware County, Chester County municipalities, Delaware County municipalities, private property owners, and nonprofit land trusts. The seven BBHIP municipalities and their residents have had a significant

Map 1-1: Open Space Preservation Opportunities



impact on protecting open space, natural resources, and scenic viewsheds within their communities and the Battlefield overall. Several partner municipalities have local open space funding programs to promote ongoing land preservation efforts, including Chadds Ford Township, East Bradford Township, Kennett Township, and Pennsbury Township.

Each municipality is home to notable open space preservation efforts including privately conserved lands and publicly accessible parks and preserves. In Birmingham Township, Sandy Hollow and the Brandywine Conservancy's Birmingham Hill are two such spaces which are designated as Interpretive Sites in this Plan. Open spaces in Thornbury Township include Thornbury Farm, a designated Heritage Center within this Plan, HOA open space adjacent to Thornbury Farm and elsewhere in the community, and multiple public parks, including Squire Cheyney Park. In Chadds Ford Township, Pott's Meadow, the Chadds Ford Historical Society and John Chads House, First State National Historical Park, lands along Brandywine Creek, and Brinton Run Preserve are several notable open spaces. East Bradford Township has many parks and preserves, including East Bradford Park, the Harmony Hill Nature Area, the Jefferis Ford Nature Area, Shaw's Bridge Park, and Starr Farm Park. Open spaces in Kennett Township include the Anson B. Nixon Park, the Lord Howe/Speakman Property, and Spar Hill. Pennsbury Township is home to a 54-acre Township Park located behind the Township Building. Open spaces in Westtown Township include Oakbourne Park and Arboretum, Tyson Park, and Plumly Farm Open Space, among others.

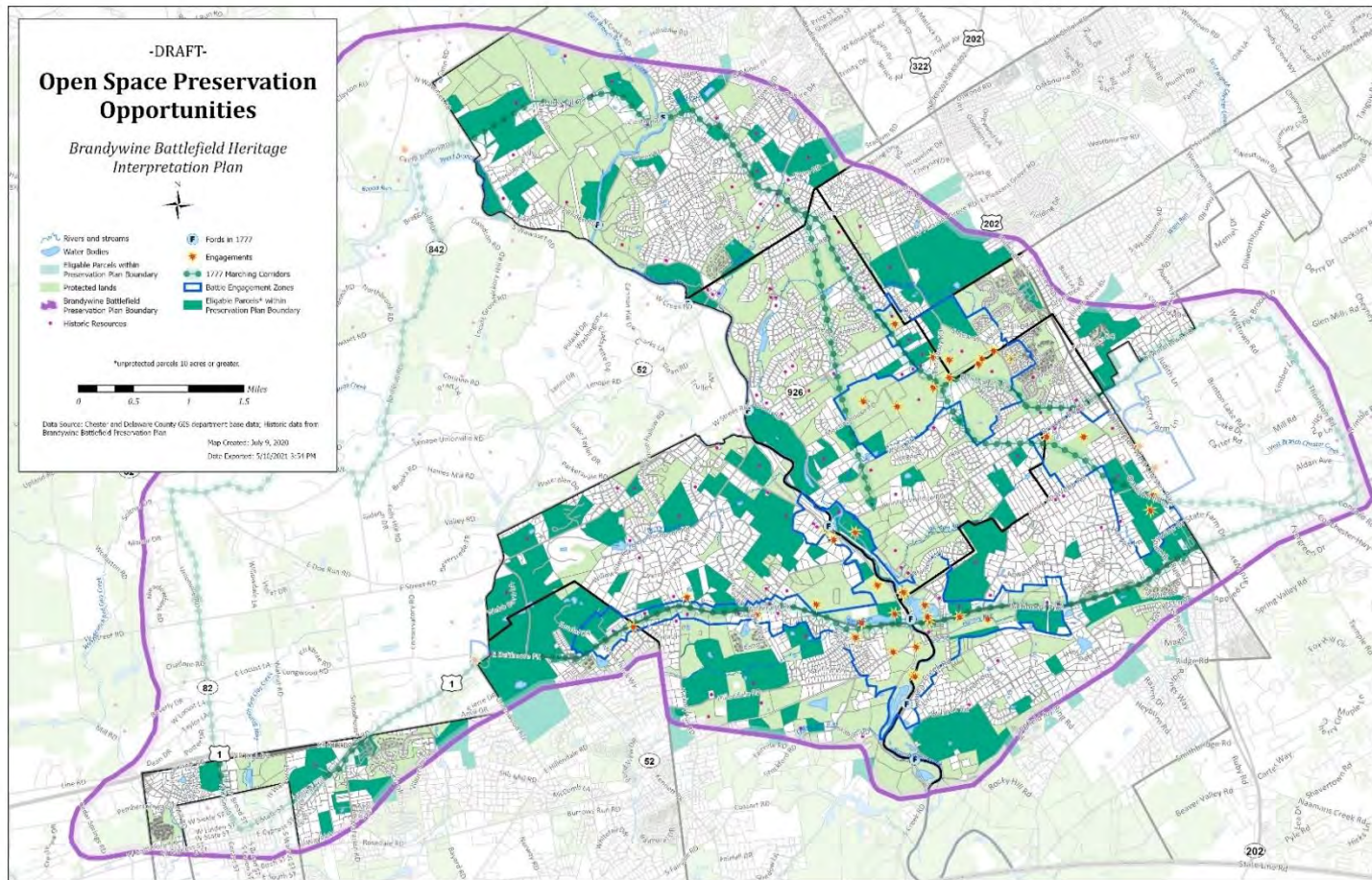
Many land trusts reside in the region, providing services for property owners and municipalities in their ongoing efforts to protect the open space, farmland, and natural resources. Such land trusts include the Brandywine Conservancy, Natural Lands, North American Land Trust, The Conservancy for Southern Chester County, and The Nature Conservancy.

While a significant portion of the Battlefield area and this project's study area has already been preserved, further land conservation opportunities exist. Continuing the legacy of open space protection in the study area, through voluntary efforts by property owners to place conservation easements or agricultural easements on their land, will have significant historic benefit, as it will provide additional opportunities to protect the landscape, natural resources, and historic resources critical to the Battlefield.

Map 1-2 illustrates protected lands and unprotected lands in relationship to known key historical data relevant to the Battle of Brandywine. This includes the Brandywine Battlefield Boundary in purple, historic resources as denoted by pink dots, engagement sites as denoted by red and yellow stars, the 1777 Marching Corridor, denoted by green dotted lines and arrows, fords present in 1777 marked by blue circles, and battle engagement zones, outlined in blue. This map serves as a tool to highlight the importance of shared protection efforts, between historic preservation and open space preservation. As open space protection efforts continue in

the partner municipalities, the Battle of Brandywine, heritage interpretation, and preservation of historic structures and landscapes will benefit from being factored in to land conservation efforts, including planning and prioritization.

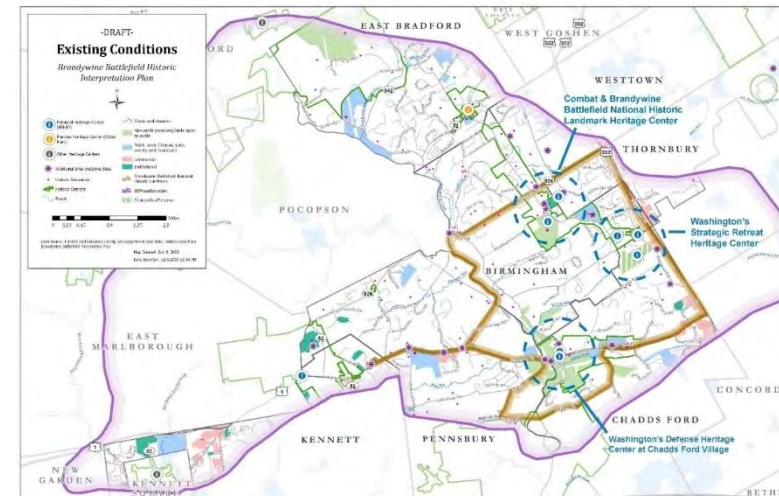
Map 1-2: Open Space Preservation Opportunities and Historical Sites and Corridors



Historical Sites

One component of developing this Plan included identifying, vetting, and determining where three new Heritage Centers could be established in the study area. Sites recommended in previous plans and efforts were brought forward, vetted with the Advisory Committee, and discussed with property owners, representatives, and municipal liaisons. Three clusters of potential sites evolved, one for each new Heritage Center. The Combat and Brandywine Battlefield National Historic Landmark Heritage Center candidate sites were centered on Birmingham Hill or Thornbury Farm in Birmingham and Thornbury Townships, respectively (Map 1-3). Washington's Strategic Retreat Heritage Center, candidate sites included Historic Dilworthtown, Brinton Run Preserve, or Dilworth Farm, in Birmingham and Chadds Ford Townships. Washington's Defense Heritage Center centered on Chadds Ford Village, including the Sanderson Museum, the Barn Shoppes, or Chadds Ford Historical Society. Key stakeholder interviews with property owners and representatives provided the opportunity for the project team to discuss the overall heritage interpretation network vision, and the role of the different elements within it, including Heritage Centers and Interpretive Sites, and gauge interest in which property owners would be willing to host a Heritage Center on their land. Through discussions with property owners, municipal representatives, and the Advisory Committee, the following sites were identified as the recommended Heritage Center sites:

Map 1-3: Heritage Center Candidate Sites



Thornbury Farm in Thornbury Township - Combat and Brandywine Battlefield National Historic Landmark Heritage Center

The Clouser House in Historic Dilworthtown in Birmingham Township - Washington's Strategic Retreat Heritage Center

Chadds Ford Historical Society in Chadds Ford Village in Chadds Ford Township - Washington's Defense Heritage Center

After engagement with property owners occurred and three new sites were identified as future locations for heritage interpretation, concepts for each site design and concepts for linking those sites across the entire study area were developed. For detailed renderings and descriptions, see Chapters 2, 3, and 4. For a summary of recommendations, see Chapter 5.

Bicycle, Trail, and Boating Connections

Given its expansive nature, the entirety of the Battlefield will be experienced by most visitors through vehicular means, such as personal cars and self-guided driving tours, like that which Chester County Planning Commission is developing to highlight the uniqueness of this region. Heritage Centers, nearby Interpretive Sites, and Viewing Corridors form smaller scale micro-networks within the larger Battlefield and Heritage Interpretation Network that provide opportunities for exploration via walking or biking. These micro-networks provide opportunities for residents and visitors to drive to Heritage Centers, park their cars, and explore the Heritage Center structure and grounds, nearby public Interpretive Sites, Viewing Corridors, and historic landscapes in active, dynamic, and no emissions producing ways.

Each micro-network illustrated in this Plan centers on one of three proposed Heritage Centers and strategic connections to link visitors to nearby Interpretive Sites. This intersection between active transportation and heritage interpretation provides

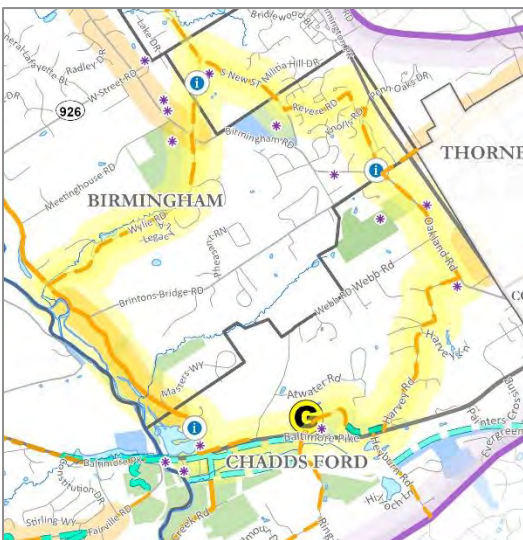


opportunities for the extension of learning, engagement with visitors, and exploration of the past beyond the boundaries of each individual site. For example, in progress and future off-road trails connecting Washington’s Defense Heritage Center at Chadds Ford Historical Society with a Gateway at the Brandywine Battlefield Park can provide the infrastructure necessary to support the development of self-guided tours using digital media tools and smartphones, guided walking or biking tours by volunteers, or space for special events and fundraisers, such as 5Ks to raise funds for the Battlefield and implementation and maintenance of these unique facilities. Signage and websites for each Heritage Center provide opportunities to connect residents and visitors with information about the active transportation network they can expect to find and links to information about self-guided tours. Physical wayfinding devices provide opportunities to cross promote heritage interpretation and the Battle of Brandywine with information about walking, biking, or boating routes, amenities, and information.

Conceptual Bicycle Connections

In addition to multimodal trails along the Route 1 corridor and along the Plum Run corridor that will accommodate pedestrians and bicyclists, in-road bicycle routes are highlighted within the study area. Similar to pedestrian and multimodal trails, much work has been done by participating municipalities and County governments to envision potential future routes for bicycle circulation. The vision outlined on Map 1-4 does not reflect every concept but focuses on those core connections to connect all three Heritage Centers with each other and with the two Gateways, while highlighting Viewing Corridors and select Interpretive Sites. A Heritage Center “Bike Loop Concept” is

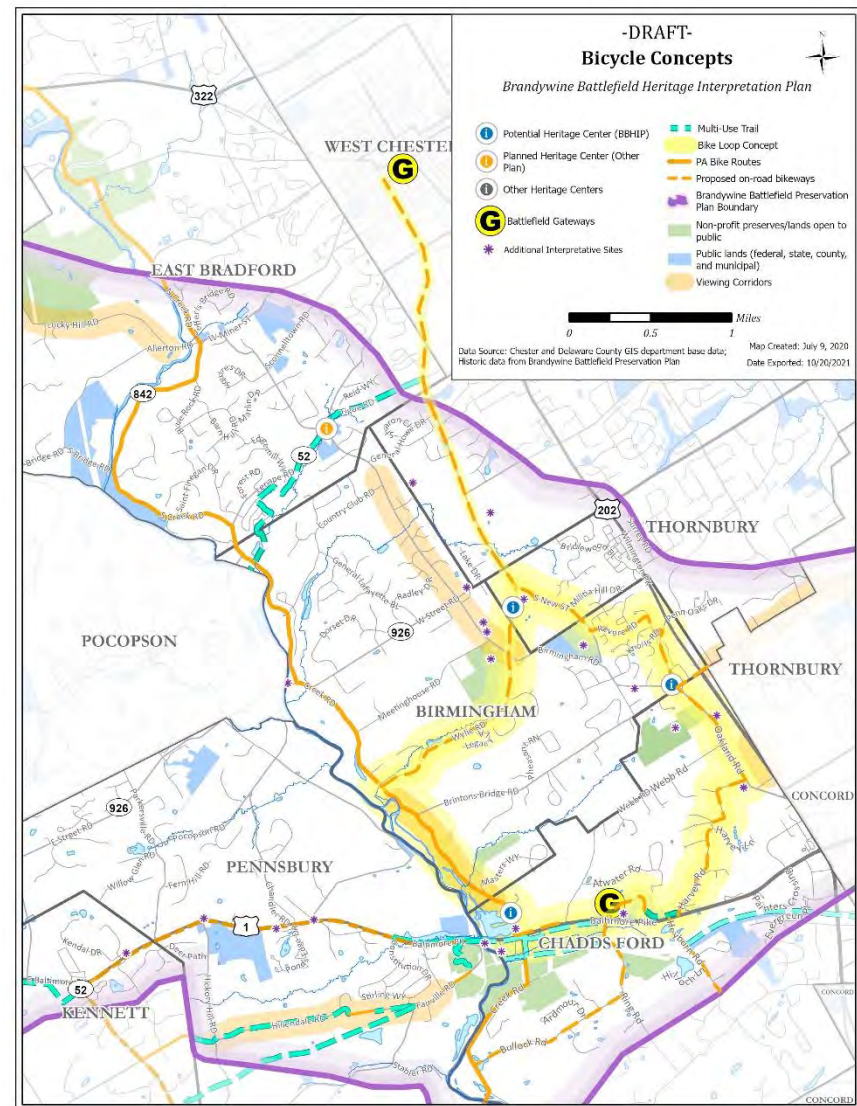
Map 1-5: Bike Loop Concept



illustrated on Maps 1-4 and 1-5. This local loop is recommended to consist primarily of dedicated shoulders, to create a separate space for bicyclists to move through the region without needing to share space with cars. This recommendation is reflective of input received during the public outreach process from residents interested in promoting active forms of transportation but concerned about the mixing of different modes of traffic without separate amenities such as shoulders. Much of the path along Route 1 would consist of a dedicated, off road, multimodal trail. Future feasibility studies of bikeways should

incorporate this feedback as well as feedback about the need to focus on key intersections to ensure the safe movement of bicyclists, pedestrians, and cars at those junctures.

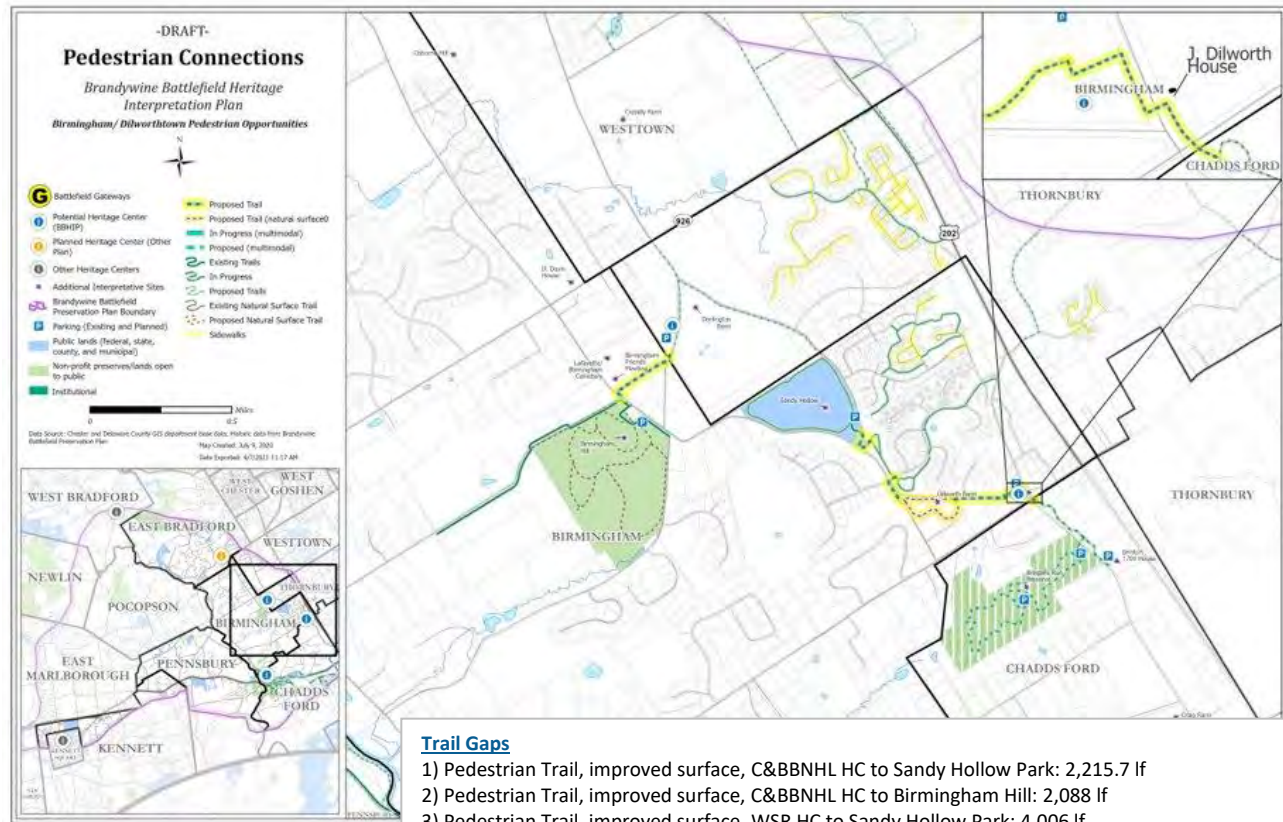
Map 1-4: Bicycle Connections



Conceptual Pedestrian Connections in Thornbury, Birmingham, and Chadds Ford Townships

The Combat and Brandywine Battlefield National Historic Landmark Heritage Center and Washington’s Strategic Retreat Heritage Center have the potential to be linked together through a dedicated, off road, pedestrian trail network. A disconnected network of formal and informal trails exists in neighborhoods and open spaces in Birmingham, Thornbury, and Chadds Ford Townships. Map 1-6 reflects the improved and natural surface pedestrian trails envisioned to link together the components of the Heritage Interpretation Network found in Birmingham, Thornbury, and Chadds Ford Townships. Multi-municipal efforts between the Townships, interested residents, and businesses can help create a more pedestrian friendly experience between Thornbury Farm and Historic Dilworthtown, while linking Interpretive Sites like Sandy Hollow, Dilworth Farm, Brinton Run Preserve, and Birmingham Hill. The trails highlighted in yellow to the right fill in gaps strategically between existing trail routes and connect these important heritage sites. When implemented, residents and visitors can park at either Heritage Center and explore the local sites by foot or bike. This map illustrates conceptual level connections and will require further study, analysis, and public engagement to determine their feasibility.

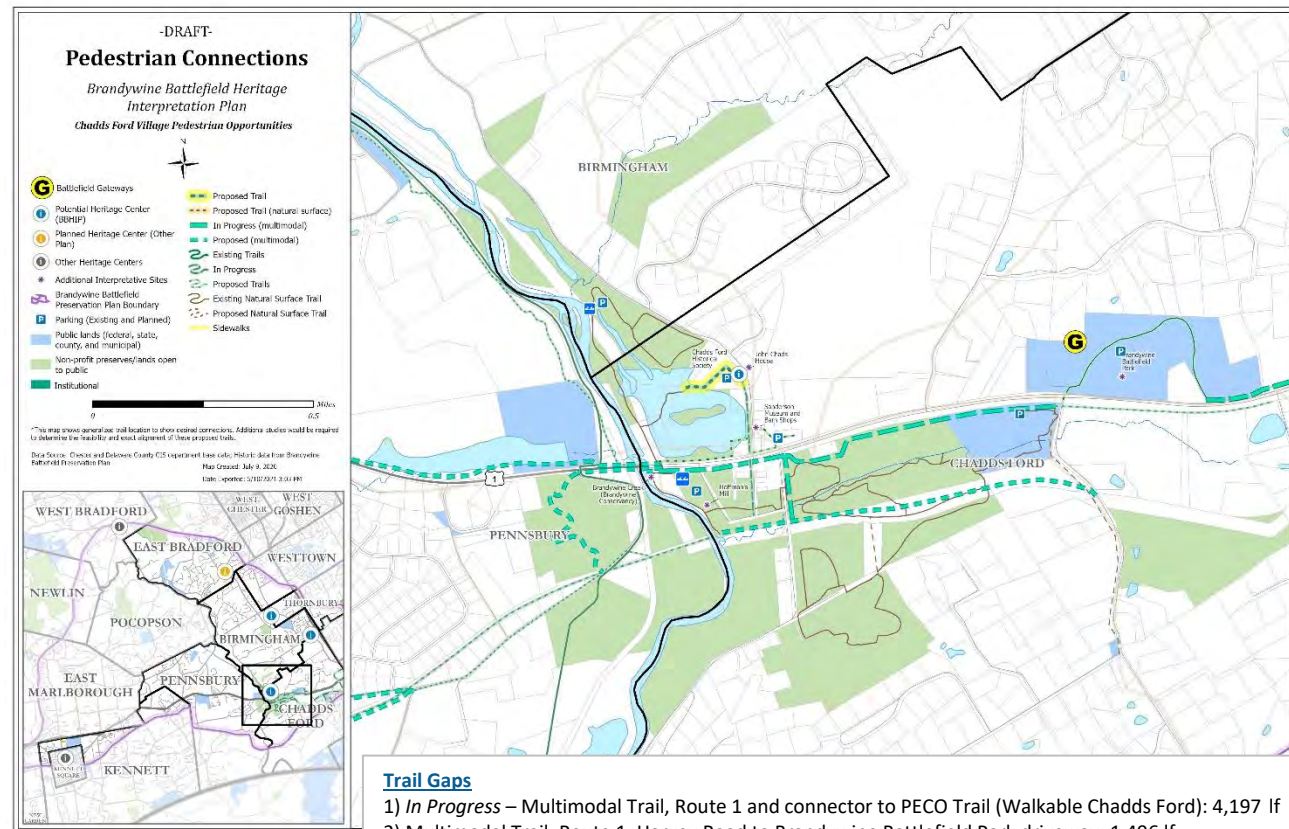
Map 1-6: Pedestrian Connections 1



Conceptual Pedestrian Connections in Chadds Ford Village

Washington’s Defense Heritage Center is the only Heritage Center within this Plan that has the potential to be connected to a Gateway, Viewing Corridor, and multiple Interpretive Sites, all within the same municipality. Efforts have been underway in Chadds Ford Township for years to create a more walkable and bike-friendly experience in the Township and the Chadds Ford Village for residents, businesses, and visitors alike. Map 1-7 reflects the multi-modal trails, pedestrian trails, and sidewalks, existing and envisioned, that can link together the disparate elements within the Heritage Interpretation Network in Chadds Ford Village. Much of the proposed routes are reflective of concepts illustrated in other plans, such as Walkable Chadds Ford and Chadds Ford Township’s Open Space, Recreation and Environmental Resources Plan. Map 1-7 illustrates conceptual level pedestrian connections, including a new natural surface trail linking the Heritage Center at Chadds Ford Historical Society with an existing boardwalk trail leading to Brandywine Creek, a potential Interpretive Site. Sidewalks linking the parking lot and ADA parking spaces with the future Heritage Center should be evaluated and modified, where necessary, to promote ADA access to the facility. A multimodal trail that is proposed by Chadds Ford Township along Route 1 would link multiple areas of Chadds Ford Village including

Map 1-7: Pedestrian Connections 2



Brandywine River Museum, Potts Meadow, the High Trail, and Chadds Ford Township's Municipal Building. This trail would terminate at the Brandywine Battlefield Park, a Gateway in the Heritage Interpretation Network. Multiple Interpretive Sites are located within walking or biking distance to the Washington's Defense Heritage Center, providing potential opportunities for cooperative heritage interpretation and future collaboration among partners.

Vehicular and Roadway Considerations

Future feasibility studies for trails or bikeways should analyze traffic calming measures and key intersections for improvements to ensure safe bicycle and pedestrian circulation. One concern highlighted was existing speed limits that are ignored, and what tools may be available to slow traffic such as increased enforcement by police, speed humps, or analyzing and potentially reducing speed limits in areas where Heritage Centers and Interpretive Sites exist. Municipalities should explore options to ensure roadways are comfortable experiences for all modes of transportation. This may involve partnerships with police departments to enforce speed limits and slow-down awareness campaigns or physical infrastructure to calm traffic. An additional concern gathered from the public outreach process included the cars, pedestrians, and bicycles mixing at key intersections:

- The intersection between S. New Street and 926/W. Street Road
- The Five Points intersection, between Birmingham Road, Old Wilmington Pike, Brintons Bridge Road, and Oakland Road
- The intersection between S. New Street and Birmingham Road

Boating Connections in Chadds Ford Village

Washington's Defense Heritage Center is the only Heritage Center in the study area with connections to a water body, the Brandywine Creek. Efforts have been underway to evaluate the Brandywine Creek as a Water Trail, including improved mapping and signage of public places for kayak, floating inner tubes, and canoes enter the creek, via the Brandywine Water Trail Feasibility Study (Figure 1-3, Water Trail Study Area). As signs are installed along Brandywine Creek, in particular where historic fords once existed, like that at Chadds Ford, opportunities may arise to combine efforts to fuse creek wayfinding signage with interpretive signage, reducing costs to implementation by coordinating planning efforts (Figure 1-4 Historic Fords and Water Trail Access Points). A put-in location at the Brandywine River Museum currently exists for direct access to the water. Efforts underway by the Brandywine Conservancy and Museum of Art to remove the breached dam north of Route 1 will allow the potential relocation of the put-in to be in closer proximity to the Heritage Center. Extensive efforts by multiple partners in Pennsylvania and Delaware have been underway for years to remove man-made dams to support fish passage, expand recreational opportunities on Brandywine Creek, and improve environmental conditions. The creation of longer stretches of unobstructed water provides the potential for merging heritage

interpretation with guided canoe or kayaking tours. These could be offered as part of a larger fundraising or revenue generating effort that could support the implementation and maintenance of interpretive structures and elements.



Figure 1-3: Water Trail Study Area

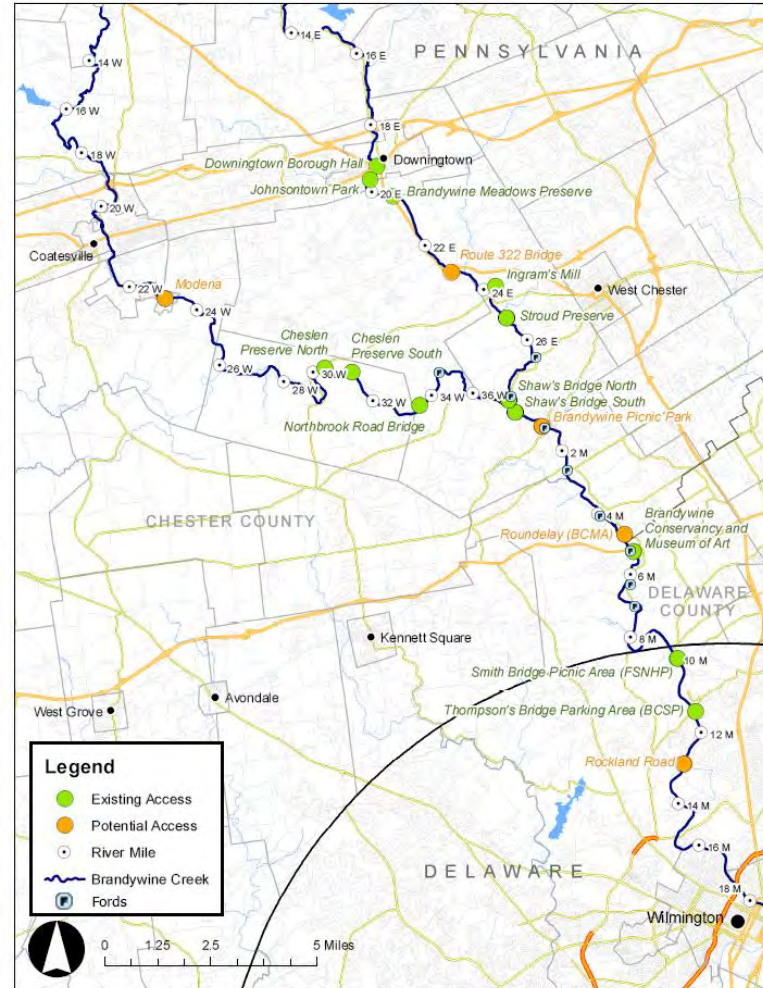


Figure 1-4: Historic Fords & Water Trail Access Points

Heritage Center Network

All Heritage Center candidate sites and Interpretive Sites were inventoried and analyzed in detail to identify existing conditions, opportunities, and challenges related to each site. This information was useful in shaping the concepts and recommendations found later in this plan. Summaries of this analysis can be found in the appendices, with the Heritage Center Sites Analysis located in Appendix C and the Interpretive Sites found in Appendix F.

The three new, recommended Heritage Centers are part of a larger network of six total Heritage Centers. Each Heritage Center is unique to its local context and tailored to fit the immediate surroundings, wishes of the property owner, and to reflect input gathered from the public engagement process for this Plan. The Heritage Center designs are conceptual in nature and will require further study to refine details prior to implementation. Recommendations for all three Heritage Centers are outlined in Chapter 5, *Recommendations*. One key recommendation outlined for each Heritage Center is to use the conceptual designs in Chapters 2, 3, and 4 as tools to inform the next step in the process: design and engineering of the building and site elements. The conceptual designs highlight core values and shared design principles with other Heritage Centers. For the purposes of this plan, the Marshallton Heritage Center and the Kennett Square Heritage Center served as models. Where possible, all three recommended Heritage Centers have similar features to create a sense of consistency and regularity that visitors can expect when visiting and experiencing each Heritage Center. However, each design also allows freedom and flexibility, to ensure designs are sensitive to the site and immediate context and are tailored to the vision of the property owners and the needs of the community. The core design principles for the recommended Heritage Centers in this Plan, include:

- **Consistency** with the overall Heritage Center network
- **Contextually Sensitive** to historic surroundings
- **Sustainability** to be carbon neutral where feasible
- **Equity & Accessibility** to provide access to building and site for all abilities
- **Environmentally Sensitive** to enhance wildlife habitat and native species
- **Connectivity** to include multi-modal connections and amenities

Input from the public workshops, advisory committee, key stakeholder interviews, and property owners was used to shape the concepts on the following pages. At the first public workshop, participants provided input through a series of interactive exercises to indicate key elements that would make a Heritage Center building and site successful. These elements included types of amenities that would improve visitor comfort, such as bathrooms, seating areas, and water fountains; media tools such as kiosks, sandwich

boards, and digital displays; and activities such as places to walk, read, and learn information about the Battle of Brandywine. The elements for each Heritage Center concept sketch on the following pages are intended to reflect best land development practices that minimize environmental impacts, integrate aesthetics with surroundings, and enhance habitat for wildlife. Recommended design principles for future Heritage Center buildings and sites include:

Minimize Environmental Impact

Minimize disturbance – all new structures and facilities are laid out in a manner that limits the area of site disturbance. New building footprints are kept to a minimum size consistent with the existing Heritage Center at Marshallton or smaller. New trails or walkways are proposed only where pedestrian facilities are needed to move visitors from the parking area to the Heritage Center and to nearby Interpretive Sites.

Minimize impervious surfaces – new parking areas and pedestrian facilities are envisioned to be designed with porous paving materials such as porous asphalt or porous pavers. Porous paving is instrumental in infiltrating stormwater runoff close to the source and thereby reduces runoff. Where feasible, existing parking facilities will be used as a shared parking resource in lieu of constructing new parking areas.

Avoid steep and precautionary slopes – areas with steep slopes and fragile soils are avoided to minimize risk of soil erosion.

Avoid removal of large native trees and woodlands – existing vegetation including individual trees, shrubs, and woodlands will be retained. Existing vegetation performs a valuable stormwater management function as it facilitates the infiltration and uptake of stormwater.

Substitute turf grass with native meadow species – turf grass is a useful groundcover in areas where high volumes of pedestrian traffic are anticipated. In areas where foot traffic will be limited, native meadow species will be used to stabilize disturbed areas. Native species do not require frequent mowing and are therefore lower maintenance. Native species have deeper root systems than turf grass and facilitate greater infiltration of stormwater. They provide visual interest especially in the late summer and fall seasons.

Integrated Aesthetics

Integrate new elements – plantings, pedestrian facilities, and parking areas are designed to be visually compatible with immediate surroundings. The scale and types of materials should be selected to carefully blend into the local vernacular.

Select showy varieties – visitors to the Heritage Centers are most likely to visit in the summer and fall seasons. The landscape plan will specify plants that will provide interesting colors and textures throughout the year but will be at their showiest during the busy summer and fall seasons.

Enhance Habitat for Wildlife

Remove non-native invasive plants - non-native invasive plants can be detrimental as most provide little or no food or shelter for wildlife. Invasive plants are known to spread rapidly and out-compete native plant species which are known to be much more beneficial for wildlife. Non-native plants will be removed in the immediate vicinity of the Heritage Center and related improvements.

Landscape with native plants – native trees, shrubs, and perennials are available in a wide array of cultivars that provide food for birds, wildlife, and pollinators. Native trees, shrubs, and perennials are readily available from a number of local nurseries.

Naturalize stormwater facilities – where stormwater infiltration facilities are required, they will be vegetated with native grasses and wildflowers to enhance stormwater infiltration and provide food and cover for wildlife.

Substitute turf grass with native meadow species – in areas where foot traffic will be limited, native plants will be used to stabilize disturbed areas and create habitat for wildlife. Native plants are known to provide shelter and sources of food for small mammals, birds, and insects throughout the year. Native plants provide visual interest during the late fall and winter months.

Select showy varieties – visitors to the Heritage Centers are most likely to visit during the summer and fall seasons. The landscape plan should specify plants that will provide interesting colors and textures throughout the year but will be at their showiest during summer and fall.

Create a resilient landscape - native plants are highly resilient under local growing conditions. Plants will be selected to thrive in local growing conditions and to adapt to extreme growing conditions that are anticipated as a result of climate change.



Chapter 2
Combat and Brandywine Battlefield
National Historic Landmark
Heritage Center at Thornbury Farm

Combat and Brandywine Battlefield National Historic Landmark Heritage Center at Thornbury Farm

Overview

This Chapter presents a plan for the Combat and Brandywine Battlefield National Historic Landmark Heritage Center and nearby Interpretive Sites. The chapter is organized by first providing an overview the selected site for a future Heritage Center and its context described in greater detail. Next, the Heritage Center Conceptual drawings and key information that describes the components both within the building and on the grounds are explained. Following that section, a suite of interpretive media tools tailored to this Heritage Center and site are introduced. Then, important Interpretive Sites in proximity to the Combat and Brandywine Battlefield National Historic Landmark Heritage Center, which provide additional opportunities for interpretation of the Battle of Brandywine, are highlighted. Interpretive Media for wayfinding sites are explained in greater detail in the following section. Lastly, the chapter includes information on themes and subthemes that may be interpreted at the Combat and Brandywine Battlefield National Historic Landmark Heritage Center and Interpretive Sites collectively, to help tell a larger shared story.

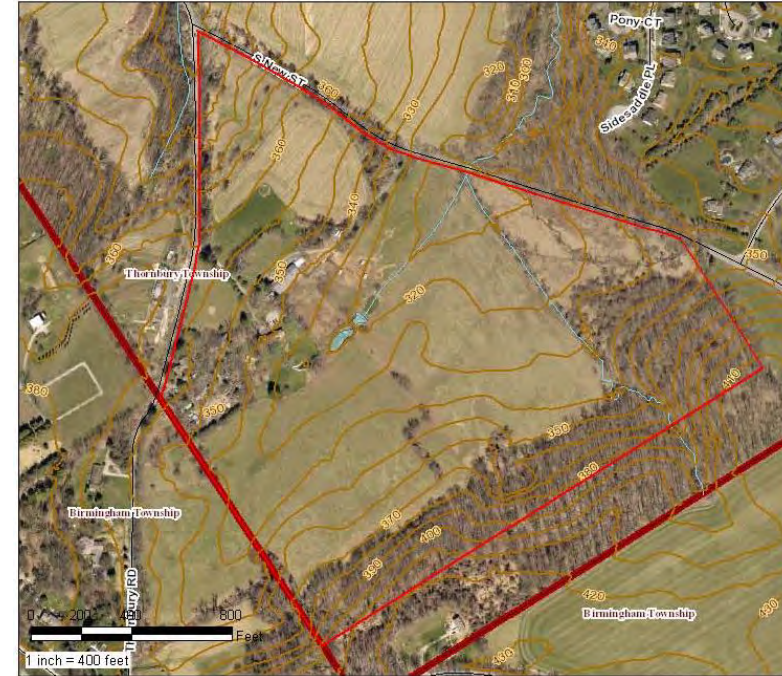
The Heritage Center presented in this chapter, the Combat and Brandywine Battlefield National Historic Landmark Heritage Center, will be located in Thornbury Township, at Thornbury Farm. Thornbury Farm currently has a significant presence in Thornbury Township and the greater Battlefield region. As part of developing this plan, the property owners of Thornbury Farm expressed an interest in being the host for one of these three new Heritage Centers. Through working with the property owners, the Task Force, and through public outreach including meetings and key stakeholder interviews, a vision for a new structure, located west of Thornbury Road, adjacent to the Thornbury Farm market, emerged. For more information related to the implementation of the concepts in this Chapter, and in the following chapters, see Chapter 5, *Recommendations* and Chapter 6, *Implementation*.

Site Context

Thornbury Farm is a working farm, with areas of the property accessible to the public. The farm is located in Thornbury Township, Chester County, within the heart of the Battlefield. While non-American Revolution era structures are present, such as the market, patio, and shade structure west of Thornbury Road, much of the property is largely unchanged from the American Revolution era period. There are several important period structures that served as a hospital, field headquarters and prison on the property. The property’s owners are also actively engaged in open space preservation, historic preservation, and interpretive activities.

The site (Map 2-1) is bounded by S New Street to the east and is bisected by Thornbury Road, from west to northeast. Publicly accessible uses are primarily clustered on the portion of the farm located due west of Thornbury Road. Land to the east of Thornbury Road is expansive and is primarily privately used. The site currently has private access and existing parking. Space for a new structure is available and could be visible from Thornbury Road. No sidewalks, trails, or bikeways currently exist on or along the property. Steep areas and wet areas are located in locations on the property, however the area immediately adjacent to Thornbury Road where public uses currently exist has limited topographic change and is not adjacent to a water body. The farm serves as a connecting piece between Birmingham Hill, Sandy Hollow, and the Meetinghouse and Cemetery.

Thornbury Farm Site



Left, Landscape at Thornbury Farm
Center, House at Thornbury Farm
Right, Interpretive Area at Thornbury Farm

Map 2-1, Existing Conditions at Thornbury Farm



Map 2-2, New Heritage Center Building at Thornbury Farm



Site Objectives

A concept for the Combat and Brandywine Battlefield National Historic Landmark Heritage Center to be located at Thornbury Farm in Thornbury Township was developed based on input from two public workshops, design interviews with the property owners, and input from the Advisory Committee (Map 2-2). The following summarizes design elements for inclusion at this Heritage Center. Elements that are recommended but are too detailed at this stage in the Heritage Center development process to be visible on the concept drawing, are noted as “not shown on plan.” Items that currently exist are also identified.



Heritage Center Building

The concept for the Heritage Center illustrates a new, standalone structure. The Heritage Center at the Village of Marshallton served as a model and inspiration for the Heritage Center at Thornbury Farm. The size and proportions illustrated on the draft conceptual plan mirror those found at the Village of Marshallton Heritage Center, approximately 20' x 30' or 600 SQ FT in total.



Building Features

The Heritage Center building should include the following elements in order to promote visitor comfort, be sensitive to the landscape and context, and be a responsible steward of the environment:

Overall Design & Materials – Designed to be an architecturally appropriate facility, to connect the visitor to the colonial era (i.e., similar to Marshallton). The Heritage Center is envisioned to incorporate durable and easy to maintain materials (i.e., flooring). (Not shown on plan)

Sustainability – Designed to be a carbon neutral facility, where feasible. Building is envisioned to incorporate design elements that conserve energy and water, such as LED lighting, energy-efficient windows, and low-flow fixtures. Renewable energy should be incorporated into the design, such as roof-mounted solar panels or shingles. Rebates for such installations should be researched.

HVAC – The Heritage Center is envisioned to be a climate controlled to increase visitor comfort while protecting any interpretive materials that may be displayed. (Not shown on plan)

Entry – The Heritage Center is envisioned to be designed as an inclusive structure, providing ADA entry and access.

Bathroom - The Heritage Center is envisioned to be designed as an inclusive structure, providing at least one ADA, gender neutral bathroom. (Not shown on plan)

Drinking water station – One water bottle refilling station or drinking water fountain is envisioned to be incorporated into the design to promote visitor comfort. A drinking water station for dogs could be incorporated along the exterior of the Heritage Center. (Not shown on plan)

Wi-Fi – Wi-Fi should be considered as part of the Heritage Center implementation, particularly if cell phone reception is an issue at the site. (Not shown on plan)

Security – The Heritage Center is proposed to be open during the current hours of operation for Thornbury Farm and the Market. The presence of Farm and Market Staff will serve as a deterrent to crime. A security system is recommended to be installed at the Heritage Center and parking area as an added protection measure for monitoring the facility and grounds. Cameras can be monitored on site staff or by the property owner remotely, via a smart phone. (Not shown on plan)

Interpretive Elements – The Heritage Center will incorporate a variety of interpretive media to engage visitors. See pages 2-10 through 2-11 for site specific interpretive elements. All Heritage Centers are recommended to include wayfinding, branding, and mapping for consistency.



Site Features

The Heritage Center site should include the following elements in order to promote create connectivity with nearby destinations, promote visitor comfort, and enhance the existing landscape:

Seating Areas – Seating is currently present at the covered patio area near the market and can be used by Heritage Center visitors. (existing)

Landscaping –New shrubs are envisioned along a short section of Thornbury Road as well as along the southern edge of the Heritage Center. Native grasses are recommended along the edge of the parking area. All recommended vegetation would consist of native plants that would provide interesting colors, textures, and forms particularly

during the summer months and into September.

Patio – A small, ADA accessible hardscaped area is illustrated along the eastern and southern sides of the Heritage Center. This area may provide opportunities for outdoor interpretation (i.e., demonstrations, etc.).

Parking & Automobile Access– No new parking is illustrated in the draft conceptual plan. Two ADA parking spots are illustrated in the parking lot immediately adjacent to the Heritage Center. Given that the current parking lot is comprised of gravel, it is recommended that this small area be repaved as a macadam surface in the future to promote accessibility. Additional parking spaces are available south of the proposed Heritage Center.

Trails & Crosswalks – A pedestrian route is illustrated along the western edge of Thornbury Road. This trail is envisioned to be 5' in width to accommodate pedestrian circulation. Porous paving should be considered during future design stages, if determined to be feasible. A proposed trail extends from this route through the parking lot via a new crosswalk. This route brings a visitor to the entry patio. An additional pedestrian path is illustrated along the western edge of the existing buildings to link the existing covered patio with the Heritage Center.

Bikeways & Amenities – A proposed bicycle route is illustrated along Thornbury Road. The bicycle route is envisioned to be in the form of a dedicated shoulder facility. A bicycle rack adjacent to the Heritage Center (not shown on plan) would provide a designated parking space for any bicyclists visiting Thornbury Farm and the Heritage Center.

Interpretive Elements – The site should incorporate interpretive media to engage visitors.

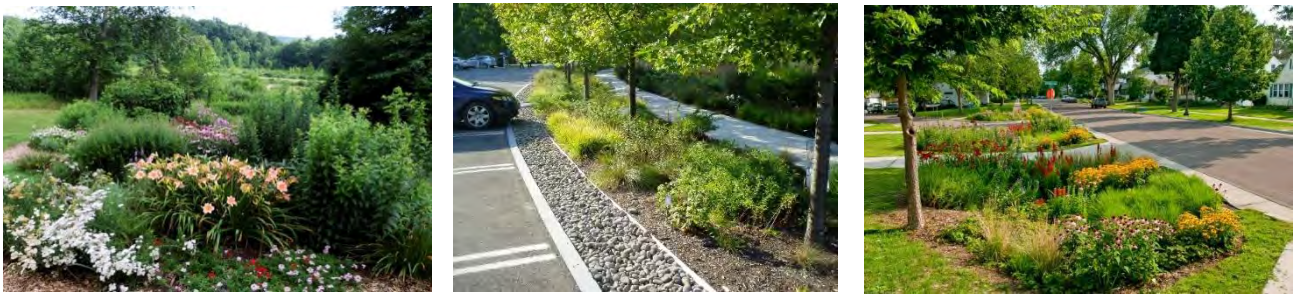
Lighting – Lighting should be limited to the Heritage Center building and parking areas to minimize light pollution while promoting a sense of safety.

Site Design Element Precedents

The following precedent images serve as examples of potential treatments to the Heritage Center site. These are not intended to be restrictive or to indicate the exact design of the elements to be installed at each Heritage Center site. Rather, these are presented to illustrate the overall character and features of landscaping, seating areas, and transportation infrastructure that can enhance and contribute to the design of a building and the landscape it sits in.



**Trails, Crosswalks,
Bikeways,
and Parking**



**Landscaping
and
Native Species**



**Seating
and
Patio Areas**

Interpretive Media for Heritage Centers

These recommendations should serve as guideposts rather than strict guidelines, as the interpretive media and execution will need to be a product of the interpretive themes being more fully developed and the interpretive design team should have leeway both in budget and design products to visually implement these Battlefield themes and narratives. As specific design ideas and deliverables are planned, these stated budgets can rise considerably depending on technologies and production levels involved. The concept is for a standalone new building approximately 250 to 400 sq ft with ADA approved bathroom(s) similar in nature to the Marshallton Village Heritage Center. The building can be an open concept floor plan that utilizes flexible or reconfigurable partitioning to create areas of focus for the interpretive media.

Interpretive Media Suggestions

With it being at the center of the Battlefield the larger floor space available lends itself to an iconic feature such as a large map table or floor projection mapping that helps orient the visitor to this spot in the Battlefield as a whole, the various troop movements, and the combat terrain. Other suggestions include:

- A large graphic timeline of September 10th through 12th events tied to a map.
- Graphic panels that help integrate the stories of the people who had war at their front door thrust on them, such as the farm across the road.
- Personalized accounts from all sides of the conflict graphically presented can help visitors connect and engage with these events.
- Reproduction artifacts can help visitors make sense of the theme. For instance, rifle, pack, and gear that the British would have carried for 9 hours of marching before even beginning to fight.
- The large space also allows for creative use of multimedia, but care must be taken to help isolate these offerings so as not to confuse or overload the sensory experience of the visitors.
- Both touch screen interactive and looping or motion activated media can be utilized to tell expanded storylines. For example: Who and what were the different types of soldiers involved and how were they equipped? What were their backgrounds and

reasons for being there?

- Accommodations (space, electronics, lighting) of live presenters and interpreters (e.g. Randell Spackman) to bring the story to life through dialogical interpretation.
- Additionally, graphics and take-aways (QR electronic or print) should help visitors see how to go outside the center and engage with the interpretive landscape through trails and interpretive walks or rides.

Budget Estimate

\$75,000 -(primarily print graphics) - \$150,000 to \$200,000 depending on multimedia elements.



Docent and experts share information

Heritage Center Remote Docents

With these types of Heritage Center sites, it would generally be very difficult to have staff or volunteers on site consistently. Outdoor interactive panels can be accessible to the public from dawn to dusk, while indoor exhibit access would be available only when the Farm Market/Event Space is open and staffed. However, with the use of video collaboration tools such as Zoom or Teams, rotating scheduled virtual docents could be available remotely for questions or presentations and help visitors connect to the different sites at a very low price point. A list of answers to FAQs could also be available for visitors.

This program also gives potential volunteers opportunities to work from home and share their knowledge even if not able to physically be at a site.

Budget Estimate

\$5,000 to \$7,000 per installation for monitor and webcam set up.

Interpretive Sites

Interpretive Sites are a core part of the overall heritage interpretation network concept for the Brandywine Battlefield. These locations play significant roles within the context of the Battle and provide opportunities for additional heritage interpretation. While not as intense a use as Heritage Centers, Interpretive Sites are destinations in their own right. Recommended interpretive media tools for use at these key locations are outlined on the following page. Sites located near the Combat and Brandywine Battlefield National Historic Landmark Heritage Center include:



*Left, Birmingham Hill
Center, Birmingham Friends
Meetinghouse
Right, Sandy Hollow Park*

1. Birmingham Lafayette Cemetery
2. Birmingham Friends Meetinghouse
3. Birmingham Hill
4. Darlington Farm
5. Sandy Hollow

Additional sites were suggested for inclusion as Interpretive Sites through the public outreach process. Those include:

1. Edgewood (1304 Birmingham Rd.)
2. Lafayette Monument (1311 Birmingham Rd.)

While the Combat and Brandywine Battlefield National Historic Landmark Heritage Center is located in Thornbury Township, all of these Interpretive Sites are located within Birmingham Township. Continued collaboration and partnerships among property owners of Interpretive Sites, property owners of Heritage Centers, municipalities, including both Birmingham Township and Thornbury Township, and Chester County will help with information sharing as the heritage interpretation network and its varied components

are implemented. Recommendations outlined in Chapter 5 highlight opportunities to connect residents and visitors to the area’s rich heritage, including virtual, in person, or self-guided tours by foot, bike, or car.

Interpretive Media for Wayside Interpretive Sites

These sites are much less complex in nature than the Heritage Centers with correspondingly smaller budgets. They are intended to be installed at significant locations or viewing corridors and provide a direct connection to these sites. Any of these interpretive media types could be used at the designated sites depending on the need.



Above, NPS style low profile panel

Level I: Low Profile

The first would be a low-profile panel installation. This level would consist of single or double low-profile NPS-style panel installation. Typically, they are stock all-weather anodized aluminum or powder-coated steel frame and a graffiti and UV resistant graphic panel. The panel content would provide context for the event or narrative at that location, describe a specific geographic or geologic feature, or create a key to the viewing corridor from that vantage point. The wood and painted panels and light laminated graphics currently in use should be replaced and coordinated as part of a BBP design system.

Budget Estimate

\$2,000 to \$3,000 per sign design and output. The installation costs can range greatly based on what is needed for site preparation. Occasional ongoing maintenance need for cleaning.



*Above
Upright
orientation*



*Right
Upright single
panel with map*

Level II: Upright Orientation

This level would be a bigger upright (even covered) installation with a different style display (or combination) that could potentially contain additional materials such as maps or brochures. These are often used to help orient visitors to a larger area, trail options, and site significance.

The larger panel size gives the opportunity for a more detailed trail map or photo stories. They can range from simple single panel to multi-sided covered self-guided discovery center with lockable bulletin case for changeable content.

Budget Range

\$4,000 to \$12,000 per sign design and output. The installation costs can also range greatly based on what is needed for site preparation.

Occasional ongoing maintenance needed for cleaning and restocking of pockets or changing of elements in bulletin case.



Pavilion example

Level III: Interpretive Pavilion

This Pavilion level is essentially what is recommended for the first phase of the Chadds Ford Historical Society Heritage Center, and it becomes almost a hybrid between the Heritage Center and the Wayside Interpretive. Smaller versions could be created at other locations, like Sandy Hollow or as proposed for Birmingham Hill in the Birmingham Hill Master Plan. While still geared to site specific interpretation, they also provide the exhibit interpretive space to weave together multiple story elements at scale. An example could be a semi-covered structure with multiple



Above, glass window interpretive panel

Below, three-paneled interpretive display



Above, interactive mechanical exhibit

upright panels and a glass “window” panoramic view over the battlefield which could have troop and artillery positions overlaid from that viewpoint, with low profile panels incorporated in front with topographic maps.

This level might also utilize custom fabrication elements that help tell the story, e.g., recovered barn beams and iron as support materials, or mechanical interactive exhibits like shown (image to left). They can also include additional elements from optical viewers to all-weather displays to Near-Field Communication (NFC), Bluetooth beacons and QR codes for smartphone enabled interaction.

Budget Estimate

\$50,000 to \$100,000 for sign design, fabrication and output depending on the complexity, materials, and additional elements such as NFC. The installation costs can again range greatly based on what is needed for site preparation. Including power and internet as needed. Ongoing maintenance for cleaning and remote monitoring of any digital or electronic equipment.



Above
Stone marker



WAUCHULA CITY HALL

THE CITY HALL OF WAUCHULA WAS BUILT IN 1927 AT A COST OF \$80,000. REGIONALLY KNOWN ARCHITECT M. LEO ELLIOT UTILIZED A SPANISH DESIGN FOR THE BUILDING, WHICH CONTAINED CITY OFFICES, AN AUDITORIUM, AND THE FIRE DEPARTMENT COMPLEX IN THE REAR.

THE AUDITORIUM BOASTED THE LARGEST SEATING CAPACITY OF ANY BUILDING SOUTH OF TAMPA WITH 859 SEATS, INCLUDED A LARGE STAGE, AMPLE DRESSING ROOMS ON EITHER SIDE, AN ORCHESTRA PIT FOR ABOUT TWENTY MUSICIANS, AND TWO PROJECTION ROOMS IN THE REAR FOR SHOWING MOVING PICTURES.

Right
Metal marker, brass plaque

Markers and Plaques

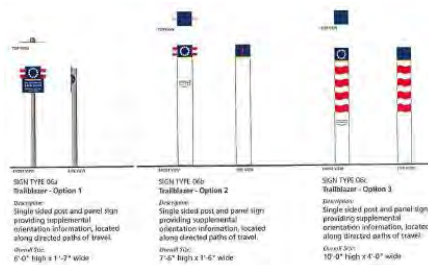
Used to mark a specific location, event, and/or person, these can range from small ground level types to larger traditional cast or engraved metal PHMC type plaques. (Note: the PHMC has its own program and procedure for official historical markers, but similar type plaques with Brandywine Battlefield branding can be created.) The ground level markers are useful where a location needs to be marked without disrupting the viewing corridor, whereas the mounted signs work well to designate spots or events at pull-offs or entrances or at buildings.

Budget Estimate

These markers can range from \$500 for a small (8 x 10) brass plaque to \$5000 for a 2' x 3' plaque.

Small stone markers start at around \$300 and go up from there depending on how they are produced.

Cast concrete "stone-like" products can range from \$200 to \$500.



Above Source:

Delaware County Planning Department,
Brandywine Battlefield National Historic
Landmark Gateway Sign System Design Intent
Documentation, 2009.

Wayfinding and Overall Branding

While not part of the scope of this plan, it is **strongly** recommended that before separate individual Heritage Center and Wayside Interpretive design plans are implemented, that a master branding and wayfinding design system is adopted so that all the sites and parts of this widely distributed Battlefield Heritage Interpretation Network be visually, interpretively, and physically connected. This will help the visitor navigate the area more easily, and to have a consistent “big picture” understanding of the events, context, and impact of the Battle in this region and its place in the overall American Revolution. This consistent visual voice should also carry through all the interpretive exhibits, printed collateral such as brochures and maps, and on all the online and digital content.

This phase is critical to the overall success of the Brandywine Battlefield Heritage Interpretive Plan’s implementation.

A major hurdle to overcome will be the variety of localized branding and wayfinding already implemented, in progress, or in discussion (e.g Brandywine Battlefield Park, Malvern’s Patriot Path, Marshallton and Kennett Square Heritage Centers), as well as planning begun but not implemented such as the 2000 Sign Design Guide example to the left.

Budget Estimate

\$75,000 to \$125,000 for assessment, branding, identity, design system, style guide and implementation examples.

Themes and Subthemes

The Combat and Brandywine Battlefield National Historic Landmark Heritage Center and nearby Interpretive Sites presents unique opportunities to educate visitors by highlighting themes, subthemes, and stories about the Battle of Brandywine in engaging and dynamic ways through the interpretive media recommendations identified earlier in this chapter. As content is created and partners implement heritage interpretation elements, careful consideration should be given to not only what stories The Combat and Brandywine Battlefield National Historic Landmark Heritage Center and nearby Interpretive Sites are uniquely suited to tell, but also what stories are already interpreted at nearby and interrelated sites, to avoid duplication of efforts, content, and stories. Further, where possible, sites should endeavor to interpret the Battle in a shared way, in recognition of their contribution to the local micro-network. Collaborative efforts between different sites, the Brandywine Battlefield Task Force, Thornbury Township, Birmingham Township, county governments, nonprofits, property owners and representatives, and Friend's Groups will ensure that individual themes, subthemes, and stories highlighted at the Heritage Center and Interpretive Sites will unite to tell a bigger picture and be part of a larger whole.

The main focus of heritage interpretation themes and subthemes through the lens of this Plan is to elevate and promote stories specific to the Battle of Brandywine. Existing and in progress Heritage Centers located in the Village of Marshallton, Kennett Square, and East Bradford Township all currently or will incorporate interpretive media through signage, panels, and interactive exhibits to detail the events, people, or places associated with the Battle of Brandywine. However, the communities that these Heritage Centers are located in have rich and varied histories, including other important stories to tell from different time periods. For example, the Kennett Heritage Center not only interprets the American Revolutionary War and the Battle of Brandywine, but it also highlights the community's connection to the Underground Railroad. In an effort to reflect the history of each community more fully, this section first focuses on potential themes and subthemes that may be interpreted in the future that center on the Battle of Brandywine, followed by potential themes and subthemes from other time periods, that may also benefit from interpretation to present visitors with a more complete picture of The Combat and Brandywine Battlefield National Historic Landmark Heritage Center, Interpretive Sites, Thornbury Township, and Birmingham Township overall.

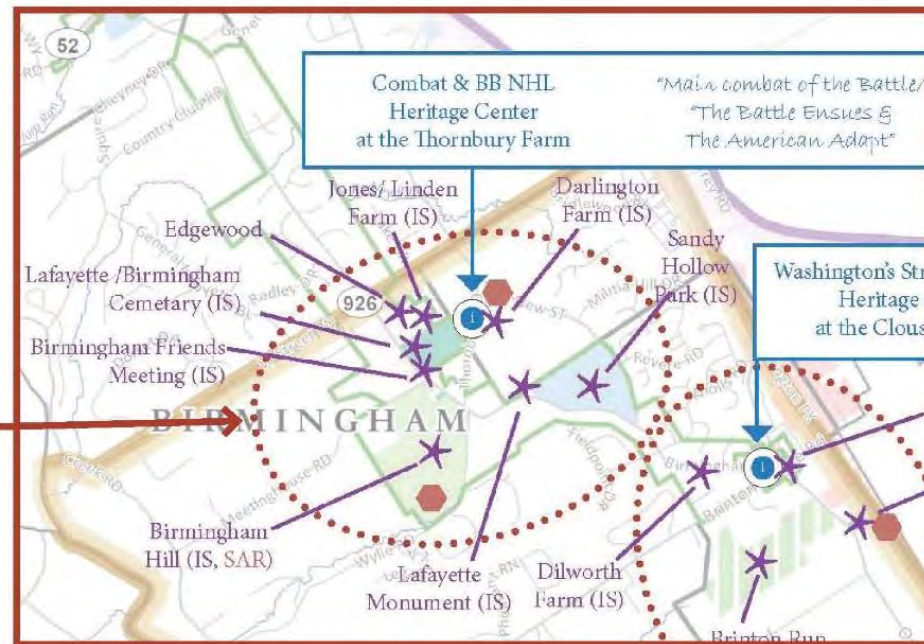
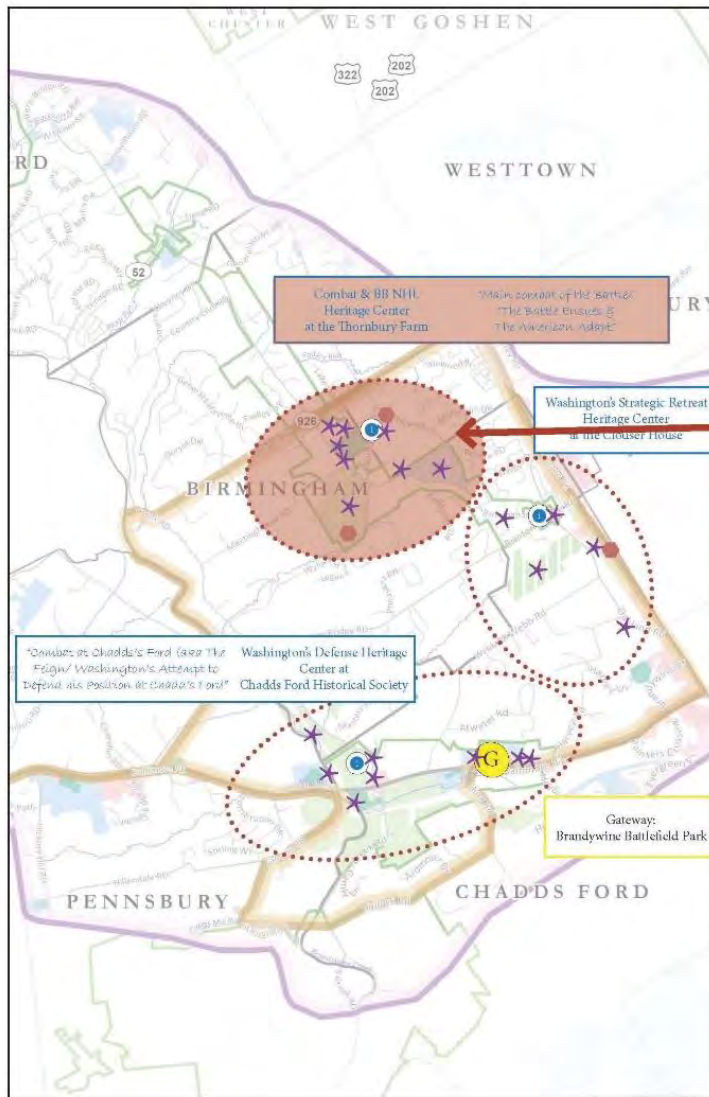
The themes and subthemes listed on the following pages (Figure 2-1, Figure 2-2) carry forward ideas from previous planning efforts, vetted through this planning process. The intention at this stage of development is not to be overly restrictive and limit themes or subthemes that may be worthwhile to be interpreted at the different sites (Map 2-3). Rather, the information below should be viewed as an umbrella of options that the Heritage Center and Interpretive Sites will evaluate and consider as implementation moves forward, to identify which are best to communicate, through physical and digital media tools.



Figure 2-1, Battle-Related Themes and Subthemes, The Combat and Brandywine Battlefield National Historic Landmark Heritage Center at Thornbury Farm

Theme: Main Battle-Related	Subtheme: Military Events Theme Area	Subtheme: 18 th Century Landscape Theme Area	Subtheme: Local Community Theme Area
<p>Main combat of the Battle/“The Battle Ensues & The Americans Adapt”</p>	<p>1A) British & American military strategy during battle combat</p> <p>1B) Washington understanding he had been flanked on his right & redirecting his strategy</p> <p>1C) Stevens Stand on Birmingham Hill</p> <p>1D) Sullivan’s Blunder</p> <p>1E) Lafayette’s Role in the Battle and American Revolution</p> <p>1F) Dr. Benjamin Rush/military hospital at Birmingham Meetinghouse/18th medicine</p> <p>1G) Military Weaponry</p>	<p>2A) Treating the injured</p> <p>2B) Still readable Battlefield Landscape</p> <p>2C) Impact of Terrain on Military - Topography, Land Features, and Quarries</p>	<p>3A) Battle impact on local civilians during battle</p> <p>3B) Quaker community and the Battle of Brandywine</p> <p>3C) Dr. Benjamin Rush/military hospital at Birmingham Meetinghouse/18th medicine</p> <p>3D) Treating the injured</p>

Map 2-3, Interpretive Bubble Diagram
Combat and Brandywine Battlefield National Historic Landmark Heritage Center and Interpretive Sites Cluster



Key

- Gateway
- Heritage Center
- Interpretive Sites
- Sons of American Revolution Marker



Figure 2-2, Non-Battle-Related Themes and Subthemes

Theme: Non-Battle-Related	Subtheme: History of Chadds Ford Village
History Of Chester County, PA’s Multi-Generational Rural Agricultural Tradition	1A) Chester County’s Changing Agricultural Industry 1B) Family Roles in Chester County Farming 1C) Native American Agricultural Tradition
Land Conservation Efforts of the 20th and 21st Centuries	2) Preserving the Brandywine Battlefield National Historic Landmark: Community Conservation

Additional ideas generated for potential interpretation through this planning effort for further analysis and vetting include:

- Native American connection to Sandy Hollow
- Quaker influence long term in the community
- Housing of prisoners (i.e., barn and springhouse at Thornbury Farm)

Public Input for Themes and Subthemes

At the first public workshop, participants engaged in exercises to what themes and subthemes they would most like to explore and learn about while exploring the Battlefield and these significant heritage sites. When asked who they would be likely to visit Heritage Centers with, the top three responses were with family, followed by friends, or by themselves. When asked what stories are important to highlight about **people** related to the Battle of Brandywine, workshop participants were in favor of the role of local civilians (i.e. Quakers, Women, People of Color), American/Continental Army and Allies (i.e. Lafayette and the French, etc.), followed by the British Army & Allies, and the impact on residents and businesses. When asked what stories are important to highlight about **the surrounding landscape or place** related to the Battle of Brandywine, workshop participants were in favor of information about Battlefield landscapes and features, surviving buildings and structures, and settlement patterns, as the top three. When asked what stories are important to highlight about **the events** related to the Battle of Brandywine, workshop participants were in favor of information about pivotal moments in the Battle, the Battle of Brandywine role in the American Revolutionary War, and the Battle of Brandywine engagements and skirmishes, as the top three. When asked what stories about **other moments** in time are important to highlight, workshop participants were in favor of village histories, Quaker history, and Native American history.

Site Evaluation Methods and Metrics

A significant amount of enthusiasm exists for heritage interpretation, historic preservation, and the Battle of Brandywine in the region as evidenced during the public engagement process for developing this plan. As content and designs for interpretive media at The Combat and Brandywine Battlefield National Historic Landmark Heritage Center and nearby Interpretive Sites progresses, Thornbury Township, the property owner, future friends' group, Brandywine Battlefield Task Force, Chester County Planning Commission, and other partners may benefit from tapping into this enthusiasm and local resource to both inform designs and as a tool to measure their effectiveness. Potential innovative methods for harnessing this engagement to promote the efficient and cost-effective design, fabrication, and implementation of information include:

Temporary Displays

- Pre-testing interpretive panels in draft form, on paper, by plotting them to scale. Include the proposed content, colors, and graphics associated with the particular type of interpretive media being tested.
- Plotting multiple versions of a design to install on the site as a temporary “pop-up” exhibit. Test the design scenarios with visitors, surveying them to learn what they find successful, what could be improved, and which is their preferred option.

Digital Tools

- Posting on social media pages, such as Facebook, Twitter, and Instagram to collect additional input
- Posting on social media pages to host a visual voting contest between design options
- Using digital surveying tools, such as Survey Monkey, to collect input from residents and stakeholders, where beneficial.

The Combat and Brandywine Battlefield National Historic Landmark Heritage Center and nearby Interpretive Sites may consider ways to identify the number of visitors engaging with the sites either in person or digitally, such as the number of visits to the Combat and Brandywine Battlefield National Historic Landmark Heritage Center’s dedicated webpage, a recommendation outlined in this Plan. Other methods to generate metrics about visitorship include physical trail counters installed on sites, where appropriate, the use of QR codes at buildings or on the grounds, or sign-in books (physical or digital) for visitors to join an email list serve for notifications of future events and as a tool to survey visitors to learn more about their experience.



Chapter 3
Washington's Strategic Retreat
Heritage Center at Historic Dilworthtown

Washington's Strategic Retreat Heritage Center at The Clouser House

Overview

This Chapter presents a plan for Washington's Strategic Retreat Heritage Center and nearby Interpretive Sites. The chapter is organized by first providing an overview of the selected site for a future Heritage Center and its context described in greater detail. Next, the Heritage Center Conceptual drawings and key information that describes the components both within the building and on the grounds are explained. Following that section, a suite of interpretive media tools tailored to this Heritage Center and site are introduced. Then, important Interpretive Sites in proximity to Washington's Strategic Retreat Heritage Center, which provide additional opportunities for interpretation of the Battle of Brandywine, are highlighted. Interpretive Media for wayfinding sites are explained in greater detail in the following section. Lastly, the chapter includes information on themes and subthemes that may be interpreted at Washington's Strategic Retreat Heritage Center and Interpretive Sites collectively, to help tell a larger shared story.

The Heritage Center presented in this chapter, Washington's Strategic Retreat Heritage Center, will be located in Birmingham Township, at Historic Dilworthtown. As part of developing this plan, the property owners of Historic Dilworthtown expressed an interest in being the host for one of these three new Heritage Centers. Through working with the property owners, the Task Force, and through public outreach including meetings and key stakeholder interviews, a vision for the renovation of an existing structure, the Clouser House, located north of Birmingham Road between Old Wilmington Pike and the Montessori School, emerged.

Site Context

Historic Dilworthtown is a village with space for businesses such as restaurants and a café that will allow public access for patrons. The village is in Birmingham Township, Chester County, and provides a unique destination for visitors to gather and dine within the Brandywine Battlefield (Map 3-1). The village itself falls within an historic district and is rich in resources, home to many historic buildings and structures, including the Five Points intersections between Birmingham Road, Brinton’s Bridge Road, and Old Wilmington Pike. The property’s owners are actively engaged in promoting and stewarding the village and its unique assets, while attracting local businesses to create a vibrant destination unique to the region. One building on the property, a twin called the Clouser House, is not intended for restaurant use and was generously suggested by the property owners as a location that could be renovated by a future tenant for conversion into a ground floor Heritage Center with office space above.

Historic Dilworthtown and Clouser House Site



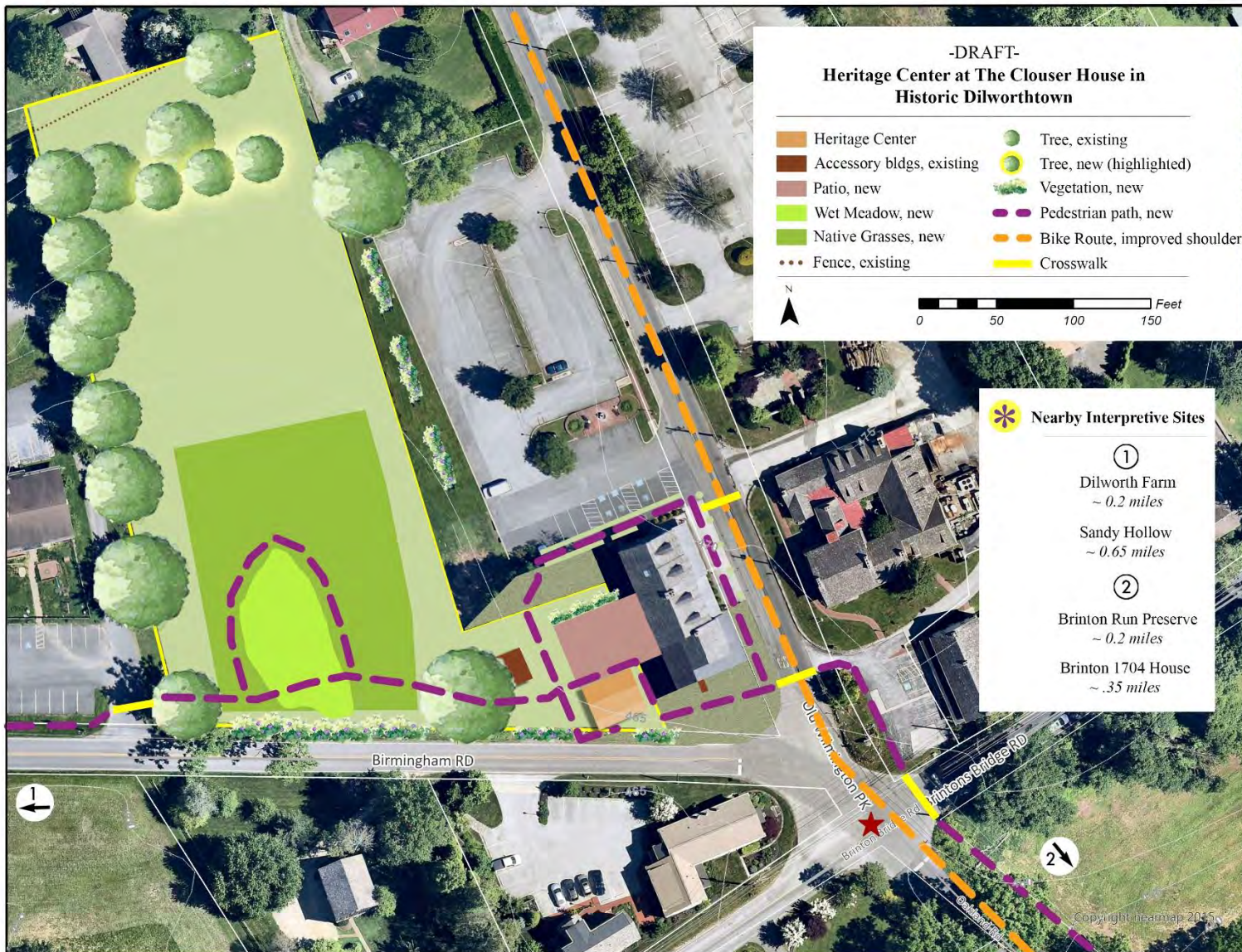
The Clouser House parcel is north of and adjacent to Birmingham Road and relatively flat. Within the village, two large parking lots are available for visitors east and west of Old Wilmington Pike. Future restaurant uses are clustered north of Brinton’s Run and Birmingham Roads, on either side of Old Wilmington Pike. A large open area exists on the Clouser House parcel, bounded by Birmingham Road to the south, the Montessori School to the west, a residential parcel to the north, and northeast, and a public parking lot to the east. A portion of this open space near Birmingham Road is often in a wet condition. Sidewalks exist along portions of Old Wilmington Pike. No trails or bikeways currently exist within the village or on the Clouser House parcel.



Map 3-1, Existing Conditions at The Clouser House



Map 3-2, Renovation of the Clouser House



Site Objectives

A concept for Washington’s Strategic Retreat Heritage Center to be located at Historic Dilworthtown in Birmingham Township, was developed based on input from two public workshops, design interviews with the property owners, and input from the Advisory Committee (Map 3-2). The following summarizes design elements for inclusion at this Heritage Center. Elements that are recommended but are too detailed at this stage in the Heritage Center development process to be visible on the concept drawing, are noted as “not shown on plan.” Items that currently exist are also identified.



Heritage Center Building

The concept for the Heritage Center illustrates the reuse of the Clouser House. The size of the structure illustrated on the conceptual plan is larger than the Village of Marshalltown Heritage Center, with the Clouser House consisting of two stories. The vision would include the 1st floor being used as the Heritage Center with the 2nd floor serving as office space for a future tenant. The building is approximately 2,000 square feet in size. The building appears to be sound, however it will require renovation prior to occupation, including a bathroom renovation for ADA compliance and possible façade improvements.



Building Features

The Heritage Center building should include the following elements to promote visitor comfort, be sensitive to the landscape and context, and be a responsible steward of the environment:

HVAC – The Clouser House currently has heating and air conditioning, which will increase visitor comfort while protecting any interpretive materials that may be displayed. (Not shown on plan, existing)

Entry – The Heritage Center is envisioned to be designed as an inclusive structure, providing ADA entry and access along the northern façade that faces the parking lot.

Bathroom - The Heritage Center is envisioned to be designed as an inclusive structure, providing at least one ADA, gender neutral bathroom. The bathrooms currently within the Clouser House are not ADA and will require renovation. (Not shown on plan)

Drinking water station – One water bottle refilling station or drinking water fountain is envisioned to be incorporated into the design, to promote visitor comfort. (Not shown on plan)

Security – The Heritage Center is proposed to be open during the hours of operation of the future tenant or the current hours of operation for other destinations in Historic Dilworthtown. The presence of the future tenants and patrons of the establishments in Historic Dilworthtown will serve as a deterrent to crime. A security system is recommended to be installed at the Heritage Center and parking lot as an added protection measure for monitoring the facility and grounds. Cameras can be monitored on site staff or by the property owner remotely, via a smart phone. (Not shown on plan)

Interpretive Elements - The Heritage Center will incorporate a variety of interpretive media to engage visitors. See pages 3-10 through 3-11 for site specific interpretive elements. All Heritage Centers are recommended to include wayfinding, branding, and mapping for consistency.



Site Features

The Heritage Center site should include the following elements in order to promote create connectivity with nearby destinations, promote visitor comfort, and enhance the existing landscape:

Seating Areas – Outdoor seating in the form of rocking chairs or benches would enhance the existing covered porch space. (Not shown on plan)

Open Space – The open space west of the Clouser House is envisioned in part as a future wet meadow area. This would repurpose this area of the site to enhance the environmental benefit it provides. The wet meadow is envisioned to be surrounded by a space comprised of native grasses. The wet meadow would also consist of native plants. This area may provide opportunities for outdoor interpretation (i.e., demonstrations, etc.).

Landscaping – Three new trees are envisioned along the northern edge of the wet meadow and native grass area. Native species are recommended for all trees. New shrubs are envisioned along a section of Birmingham Road, along the southern edge of the Heritage Center and along the edge of the wet meadow. This will enhance the streetscape while deterring cars from turning into the former parking area between the Clouser House and garage. New shrubs

are also illustrated along the western edge of the parking lot, replacing the row of trees that the obstructed the view of the open space. Native species are recommended for all landscaping.

Parking & Automobile Access– No new parking is illustrated in the conceptual plan. The existing parking lot has a wide drive aisle. The proposed concept narrows the drive aisle, shifting the existing ADA parking spaces north, to create a pedestrian space between the building edge and parking area.

Trails, Sidewalks & Crosswalks – A pedestrian route is illustrated along the northern edge of Birmingham Road. This trail is envisioned to be 5' in width to accommodate pedestrian circulation. Porous paving should be considered during future design stages, to determine if feasible. A proposed trail or boardwalk extends from this route around the wet meadow and native grass area, linking the Montessori School, neighborhoods, and destinations west of the site such as Dilworth Farm and Sandy Hollow, to the Heritage Center and greater Historic Dilworthtown. Access to the Heritage Center at the Clouser House is provided along both the northern facades, to accommodate visitors using this route and visitors using the sidewalk or trail connection proposed to link to the parking lot. A trail or sidewalk extends from the southern façade of the Heritage Center to link with the five points intersection. A crosswalk is proposed due south of the stop sign, crossing over Old Wilmington Pike. A sidewalk or trail is proposed along the eastern side of Old Wilmington Pike, in front of the Blue Pear. This route extends southward, crossing over Brintons Bridge Road, to access destinations south of the Heritage Center, including Brinton's Run Preserve and the Brinton 1704 House.

Bikeways & Amenities – A proposed bicycle route is illustrated along Old Wilmington Pike. The bicycle route is envisioned to be in the form of a dedicated shoulder facility, where feasible. A bicycle rack in or adjacent to the parking lot (Not shown on plan) would provide a designated parking space for any bicyclists visiting Historic Dilworthtown and the Heritage Center.

Interpretive Elements – The site should incorporate interpretive media to engage visitors.

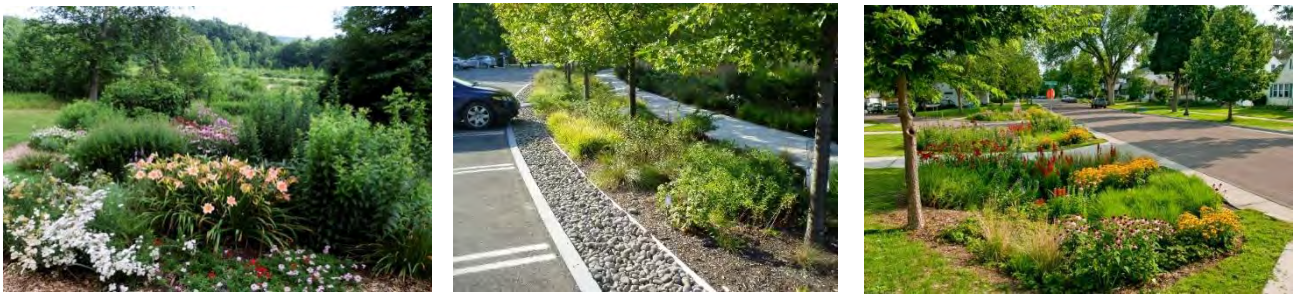
Lighting – Lighting should be limited to the Heritage Center building and parking areas to minimize light pollution while promoting a sense of safety.

Site Design Element Precedents

The following precedent images serve as examples of potential treatments to the Heritage Center site. These are not intended to be restrictive or to indicate the exact design of the elements to be installed at each Heritage Center site. Rather, these are presented to illustrate the overall character and features of landscaping, seating areas, and transportation infrastructure that can enhance and contribute to the design of a building and the landscape it sits in.



**Trails, Crosswalks,
Bikeways,
and Parking**



**Landscaping
and
Native Species**



**Seating
and
Patio Areas**



Wet Meadow

Interpretive Media for Heritage Centers

These recommendations should serve as guideposts rather than strict guidelines, as the interpretive media and execution will need to be a product of the interpretive themes being more fully developed and the interpretive design team should have leeway both in budget and design products to visually implement these Battlefield themes and narratives. As specific design ideas and deliverables are planned, these stated budgets can rise considerably depending on technologies and production levels involved. The draft concept here is for the adaptive reuse of the Clouser House situated adjacent to the Dillworthtown Inn. The 2-story frame structure will be refurbished, with the first floor being reconfigured and outfitted with an ADA bathroom and exhibit spaces. Approximately 375 sq ft in size, plus potential outdoor interpretive and demonstration space.

Interpretive Media Suggestions

Situated at the eastern edge of the Battlefield on the retreat corridor, this center is ideally situated to show the impact of war on civilian life, especially the Quaker farmers in the area. The structural necessity of keeping the two rooms on the bottom floor suggests the idea of two separate story areas.

- One room would be used for the specific Battle-related material, e.g., the end of the day's fighting and the subsequent withdrawal and how that had an impact from there through Valley Forge to the end of the war.
- The other room could be for a deeper dive into the life of the community impacted by the Battle, both the agricultural as well as the trades and merchants.
- Graphic panels would be used to illustrate these two-story lines.

- Given the presence of the historic inn and the large adjacent outdoor area, living history demonstrations could tie to the interior graphics.
- Potential multimedia could be utilized to show similar demonstrations.
- Additional reproduction artifacts and physical elements would generate connection and meaning.

Budget Estimate: \$65,000 to \$85,000



Docent and experts share information

Heritage Center Remote Docents

With these types of Heritage Center sites, it would generally be very difficult to have staff or volunteers on site consistently. However, with the use of video collaboration tools such as Zoom or Teams, rotating scheduled virtual docents could be available remotely for questions or presentations and help visitors connect to the different sites at a very low price point. A list of answers to FAQs could also be available for visitors.

This program also gives potential volunteers opportunities to work from home and share their knowledge even if not able to physically be at a site.

Budget Estimate

\$5,000 to \$7,000 per installation for monitor and webcam set up.

Interpretive Sites

Interpretive Sites are a core part of the overall heritage interpretation network concept for the Brandywine Battlefield. These locations play significant roles within the context of the Battle and provide opportunities for additional heritage interpretation. While not as intense a use as Heritage Centers, Interpretive Sites are destinations in their own right. Recommended interpretive media tools for use at these key locations are outlined on the following page. Sites located in close proximity to Washington’s Strategic Retreat Heritage Center include:

1. “James” Dilworth House
2. Brinton 1704 House
3. Craig Farm

Additional sites at greater distances Washington’s Strategic Retreat Heritage Center include:

1. Yellow House
2. Concord Friends Meetinghouse
3. Concord Municipal Building

Additional sites were suggested for inclusion as Interpretive Sites through the public outreach process. Those include:

4. Brinton Run Preserve
5. Dilworth Farm

While Washington’s Strategic Retreat Heritage Center is in Birmingham Township, these Interpretive Sites are located multiple municipalities, including Birmingham Township, Chadds Ford Township, Thornbury Township, Delaware County, Concord Township, and Newlin Township. Continued collaboration and partnerships among property owners of Interpretive Sites, property owners of Heritage Centers, municipalities, including both Birmingham Township and Chadds Ford Township, Chester County, and Delaware County will help with information sharing as the heritage interpretation network and its varied components are implemented. Recommendations outlined in Chapter 5 highlight opportunities to connect residents and visitors to the area’s rich heritage, including virtual, in-person, or self-guided tours by foot, bike, or car.



Brinton 1704 House

Interpretive Media for Wayside Interpretive Sites

These sites are much less complex in nature than the Heritage Centers, with correspondingly smaller budgets. They are intended to be installed at significant locations or viewing corridors and provide a direct connection to these sites. Any of these types could be used at the designated sites depending on the need.



Above, NPS style low profile panel

Level I: Low Profile

The first would be a low-profile panel installation. This level would consist of single or double low-profile NPS-style panel installation. Typically, they are stock all-weather anodized aluminum or powder-coated steel frame and a graffiti and UV resistant graphic panel. The panel content would provide context for the event or narrative at that location, describe a specific geographic or geologic feature, or create a key to the viewing corridor from that vantage point. The wood and painted panels and light laminated graphics currently in use should be replaced and coordinated as part of a BBP design system.

Budget Estimate

\$2,000 to \$3,000 per sign design and output. The installation costs can range greatly based on what is needed for site preparation. Occasional ongoing maintenance need for cleaning.



*Above
Upright
orientation*



*Right
Upright single
panel with map*

Level II: Upright Orientation

This level would be a bigger upright (even covered) installation with a different style display (or combination) that could potentially contain additional materials such as maps or brochures. These are often used to help orient visitors to a larger area, trail options, and site significance.

The larger panel size gives the opportunity for a more detailed trail map or photo stories. They can range from simple single panel to multi-sided covered self-guided discovery center with lockable bulletin case for changeable content.

Budget Range

\$4,000 to \$12,000 per sign design and output. The installation costs can also range greatly based on what is needed for site preparation.

Occasional ongoing maintenance need for cleaning and restocking of pockets or changing of elements in bulletin case.



Pavilion example

Level III: Interpretive Pavilion

This Pavilion level is essentially what is recommended for the first phase of the Chadds Ford Historical Society Heritage Center, and it becomes almost a hybrid between the Heritage Center and the Wayside Interpretive. Smaller versions could be created at other locations, like Sandy Hollow or as proposed for Birmingham Hill in the Birmingham Hill Master Plan. While still geared to site specific interpretation, they also provide the exhibit interpretive space to weave together multiple story elements at scale. An example



Above, glass window interpretive panel

Below, three-paneled interpretive display



Above, interactive mechanical exhibit

could be a semi-covered structure with multiple upright panels and a glass “window” panoramic view over the battlefield which could have troop and artillery positions overlaid from that viewpoint, with low profile panels incorporated in front with topographic maps.

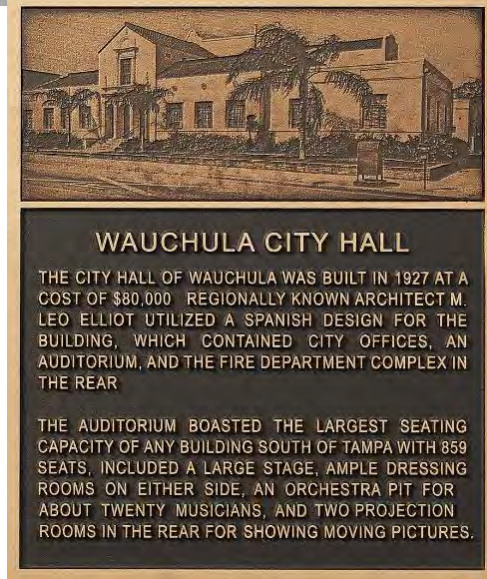
This level might also utilize custom fabrication elements that help tell the story, e.g., recovered barn beams and iron as support materials, or mechanical interactive exhibits like shown (image to left). They can also include additional elements from optical viewers to all-weather displays to Near-Field Communication (NFC), Bluetooth beacons and QR codes for smartphone enabled interaction.

Budget Estimate

\$50,000 to \$100,000 for sign design, fabrication and output depending on the complexity, materials, and additional elements such as NFC. The installation costs can again range greatly based on what is needed for site preparation. Including power and internet as needed. Ongoing maintenance for cleaning and remote monitoring of any digital or electronic equipment.



Above
Stone marker



Right
Metal marker, brass plaque

Markers and Plaques

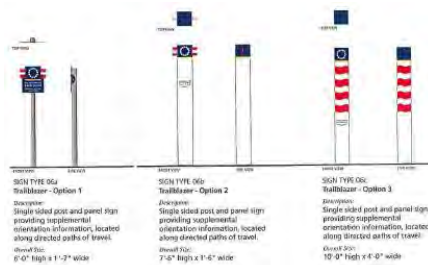
Used to mark a specific location, event, and/or person, these can range from small ground level types to larger traditional cast or engraved metal PHMC type plaques. (Note: the PHMC has its own program and procedure for official historical markers, but similar type plaques with Brandywine Battlefield branding can be created.) The ground level markers are useful where a location needs to be marked without disrupting the viewing corridor, whereas the mounted signs work well to designate spots or events at pull-offs or entrances or at buildings.

Budget Estimate

These markers can range from \$500 for a small (8 x10) brass plaque to \$5000 for a 2' x3' plaque.

Small stone markers start at around \$300 and go up from there depending on how they are produced.

Cast concrete “stone-like” products can range from \$200 to \$500.



Above Source:

Delaware County Planning Department,
Brandywine Battlefield National Historic
Landmark Gateway Sign System Design Intent
Documentation, 2009.

Wayfinding and Overall Branding

While not part of the scope of this plan, it is **strongly** recommended that before separate individual Heritage Center and Wayside Interpretive design plans are implemented, that a master branding and wayfinding design system is adopted so that all the sites and parts of this widely distributed Battlefield Heritage Interpretation Network be visually, interpretively, and physically connected. This will help the visitor navigate the area more easily, and to have a consistent “big picture” understanding of the events, context, and impact of the Battle in this region and its place in the overall American Revolution. This consistent visual voice should also carry through all the interpretive exhibits, printed collateral such as brochures and maps, and on all the online and digital content.

This phase is critical to the overall success of the Brandywine Battlefield Heritage Interpretive Plan’s implementation.

A major hurdle to overcome will be the variety of localized branding and wayfinding already implemented, in progress, or in discussion (e.g Brandywine Battlefield Park, Malvern’s Patriot Path, Marshallton and Kennett Square Heritage Centers), as well as planning begun but not implemented such as the 2000 Sign Design Guide example to the left.

Budget Estimate

\$75,000 to \$125,000 for assessment, branding, identity, design system, style guide and implementation examples.

Themes and Subthemes

Washington's Strategic Retreat Heritage Center and nearby Interpretive Sites presents unique opportunities to educate visitors by highlighting themes, subthemes, and stories about the Battle of Brandywine in engaging and dynamic ways through the interpretive media recommendations identified earlier in this chapter. As content is created and partners implement heritage interpretation elements, careful consideration should be given to not only what stories Washington's Strategic Retreat Heritage Center and nearby Interpretive Sites are uniquely suited to tell, but also what stories are already interpreted at nearby and interrelated sites, to ensure duplication of efforts, content, and stories is avoided. Further, where possible, sites should endeavor to interpret the Battle in a shared way, in recognition of their contribution to the local micro-network. Collaborative efforts between different sites, the Brandywine Battlefield Task Force, Birmingham Township, Chadds Ford Township, county governments, nonprofits, property owners and representatives, and Friend's Groups will ensure that individual themes, subthemes, and stories highlighted at the Heritage Center and Interpretive Sites will unite to tell a bigger picture and be part of a larger whole.

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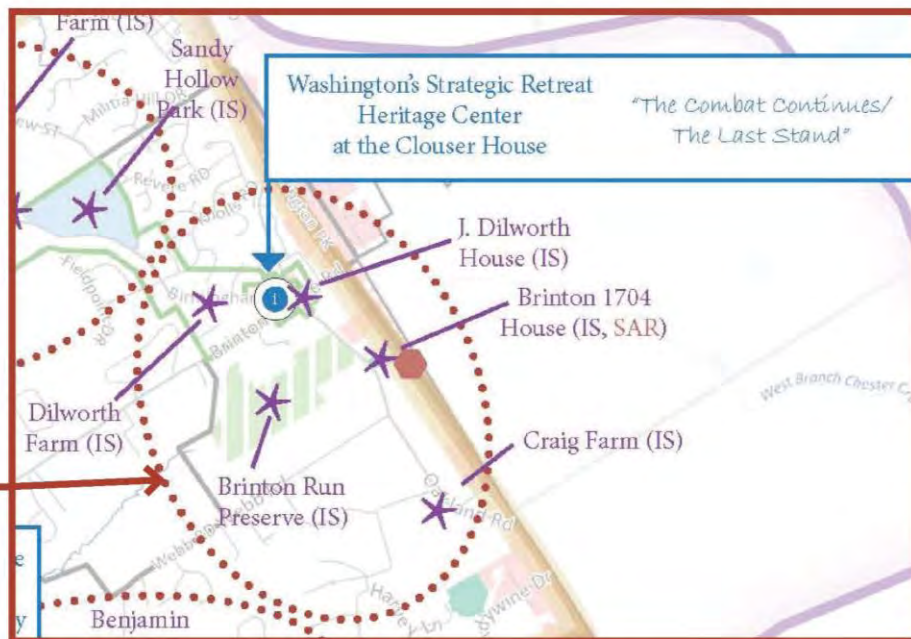
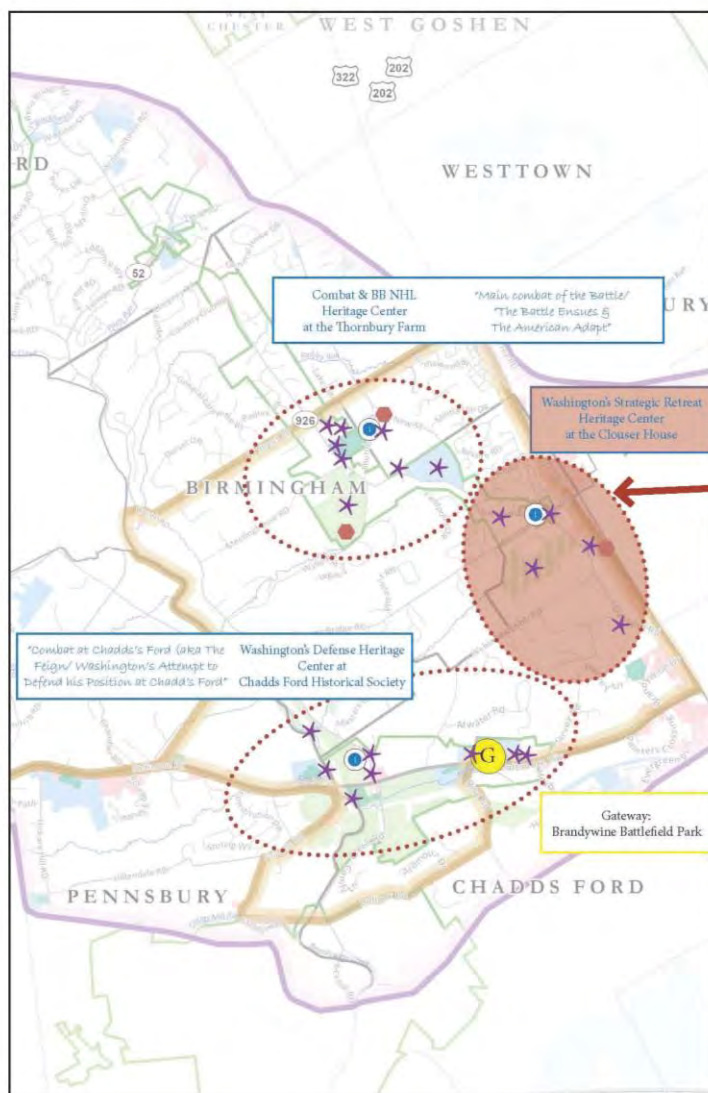
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Figure 3-1, Battle-Related Themes and Subthemes, Washington’s Strategic Retreat Heritage Center at the Clouser House in Historic Dilworthtown

Theme: Main Battle-Related	Subtheme: Military Events Theme Area	Subtheme: 18th Century Landscape Theme Area
The Combat Continues/The Last Stand	1A) Battle as a pivotal event in American Revolution 1B) Strategic retreating as a tactic maneuver 1C) Greene’s Rearguard Defense 1D) Pulaski’s charge	2A) Battle impact on local civilians within the area of the Heritage Center 2B) Impact of British* occupation 2C) Remembering those who sacrificed 2D) Battle impact on local population after occupation/long term * Note: British includes Hessians, Loyalists, aides, camp followers, etc.

Map 3-3, Interpretive Bubble Diagram
Washington's Strategic Retreat Landmark Heritage Center and Interpretive Sites Cluster



Key





-  Gateway
-  Heritage Center
-  Interpretive Sites
-  Sons of American Revolution Marker



Figure 3-2, Non-Battle-Related Themes and Subthemes

Theme: Non-Battle-Related	Subtheme: History of Chadds Ford Village
<p>History of Dilworthtown</p>	<p>1A) Dilworthtown through the Centuries</p> <p>1B) Architectural Styles and Functions of Dilworthtown buildings</p> <p>1C) Town Talk: Taverns and Gathering Places of Dilworthtown</p> <p>1D) Transportation/Travel in Colonial Brandywine Valley and Role of Crossroad Communities</p> <p>1E) Dilworthtown’s Five-points intersection history</p>
<p>Local People in the Brandywine Valley</p>	<p>2A) Quakers in the Community</p> <p>2B) Native Americans in the Community</p> <p>2C) People of Color in the Community</p> <p>2D) Women in the Community</p>

Public Input for Themes and Subthemes

At the first public workshop, participants engaged in exercises to identify what themes and subthemes they would most like to explore and learn about while exploring the Battlefield and significant heritage sites. When asked who they would be likely to visit Heritage Centers with, the top three responses were with family, followed by friends, or by themselves. When asked what stories are important to highlight about **people** related to the Battle of Brandywine, workshop participants were in favor of the role of local civilians (i.e. Quakers, Women, People of Color), American/Continental Army and Allies (i.e. Lafayette and the French, etc.), followed

by the British Army & Allies, and the impact on residents and businesses. When asked what stories are important to highlight about **the surrounding landscape or place** related to the Battle of Brandywine, workshop participants were in favor of information about Battlefield landscapes and features, surviving buildings and structures, and settlement patterns, as the top three. When asked what stories are important to highlight about **the events** related to the Battle of Brandywine, workshop participants were in favor of information about pivotal moments in the Battle, the Battle of Brandywine role in the American Revolutionary War, and the Battle of Brandywine engagements and skirmishes, as the top three. When asked what stories about **other moments** in time are important to highlight, workshop participants were in favor of village histories, Quaker history, and Native American history.

Site Evaluation Methods and Metrics

A significant amount of enthusiasm exists for heritage interpretation, historic preservation, and the Battle of Brandywine in the region as evidenced during the public engagement process for developing this plan. As content and designs for interpretive media at Washington's Strategic Retreat Heritage Center and nearby Interpretive Sites progresses, Birmingham Township, the property owner, future tenant, future friends' group, Brandywine Battlefield Task Force, Chester County Planning Commission, and other partners may benefit from tapping into this enthusiasm and local resource to both inform designs and as a tool to measure their effectiveness. Potential innovative method options for harnessing this engagement to promote the efficient and cost-effective design, fabrication, and implementation of information include:

Temporary Displays

- Pre-testing interpretive panels in draft form, on paper, by plotting them to scale. Include the proposed content, colors, and graphics associated with the particular type of interpretive media being tested.
- Plotting multiple versions of a design to install on the site as a temporary "pop-up" exhibit. Test the design scenarios with visitors, surveying them to learn what they find successful, what could be improved, and which is their preferred option.

Digital Tools

- Posting on social media pages, such as Facebook, Twitter, and Instagram to collect additional input
- Posting on social media pages to host a visual voting contest between design options
- Using digital surveying tools, such as Survey Monkey to collect input from residents and stakeholders, where beneficial.

Washington's Strategic Retreat Heritage Center and nearby Interpretive Sites may consider ways to identify the number of visitors engaging with the sites either in person or digitally, such as the number of visits to the Combat and Brandywine Battlefield National

Historic Landmark Heritage Center’s dedicated webpage, a recommendation outlined in this Plan. Other methods to generate metrics about visitorship include physical trail counters installed on sites, where appropriate, the use of QR codes at buildings or on the grounds, or sign-in books (physical or digital) for visitors to join an email list serve for notifications of future events and as a tool to survey visitors to learn more about their experience.



Chapter 4
Washington's Defense Heritage Center
at Chadds Ford Historical Society

Washington's Defense Heritage Center at Chadds Ford Historical Society

Overview

This Chapter presents a plan for Washington's Defense Heritage Center and nearby Interpretive Sites. The chapter is organized by first providing an overview of the selected site for a future Heritage Center and its context described in greater detail. Next, the Heritage Center Conceptual drawings and key information that describes the components both within the building and on the grounds are explained. Following that section, a suite of interpretive media tools tailored to this Heritage Center and site are introduced. Then, important Interpretive Sites in proximity to Washington's Defense Heritage Center, which provide additional opportunities for interpretation of the Battle of Brandywine, are highlighted. Interpretive Media for wayfinding sites are explained in greater detail in the following section. Lastly, the chapter includes information on themes and subthemes that may be interpreted at Washington's Defense Heritage Center and Interpretive Sites collectively, to help tell a larger shared story.

The Heritage Center presented in this chapter, Washington's Defense Heritage Center, will be in Chadds Ford Township. The Chadds Ford Historical Society currently has a significant presence in Chadds Ford Township and the greater Battlefield region. As part of developing this plan, the Chadds Ford Historical Society expressed an interest in being the host for one of these three new Heritage Centers. Through working with the property representatives, the Task Force, and through public outreach including meetings and key stakeholder interviews, a vision for a new kiosk or pavilion-like structure emerged, located on the property housing the Chadds Ford Historical Society in Chadds Ford Township, west of Creek Road.

Site Context

Chadds Ford Historical Society is located in Chadds Ford Village (Map 4-1). It owns and protects three pre-Revolutionary buildings open to the public as house museums: John Chads House, the Springhouse, and the Barns-Brinton House. The Chadds Ford Historical Society stewards these structures and the surrounding open space, providing an area for visitors and the community to gather to learn through house tours and special events. Chadds Ford Village itself falls within an historic district and is rich in historic resources, home to many historic buildings and structures, including John Chads House and Springhouse, Hoffman’s Mill, Washington’s Headquarters/Benjamin Ring House, and The Gilpin House. The Chadds Ford Historical Society is actively engaged in promoting and stewarding the landscape and its unique buildings, to serve as an historical and educational resource for the community.

Chadds Ford Historical Society Site



The Chadds Ford Historical Society property is located east and west of Creek Road. Land adjacent to the road is moderately steep, whereas land west of Creek Road, from the parking lot to Brandywine Creek, it relatively flat. In addition to public parking space for visitors, the grounds include shaded areas with trees and picnic tables. A large open space provides an opportunity to view the landscape as it may have looked during the Battle of Brandywine. Private property is located to the north and south, with property to the west owned by Brandywine Conservancy. Sidewalks link the visitors center with the springhouse and John Chads House. No trails or bikeways exist to connect the remainder of the village with the Chadds Ford Historical Society. However, plans have been developed to establish such connections in the future and are in advanced planning stages.



Barn Visitors Center



Springhouse, Interpretive Site

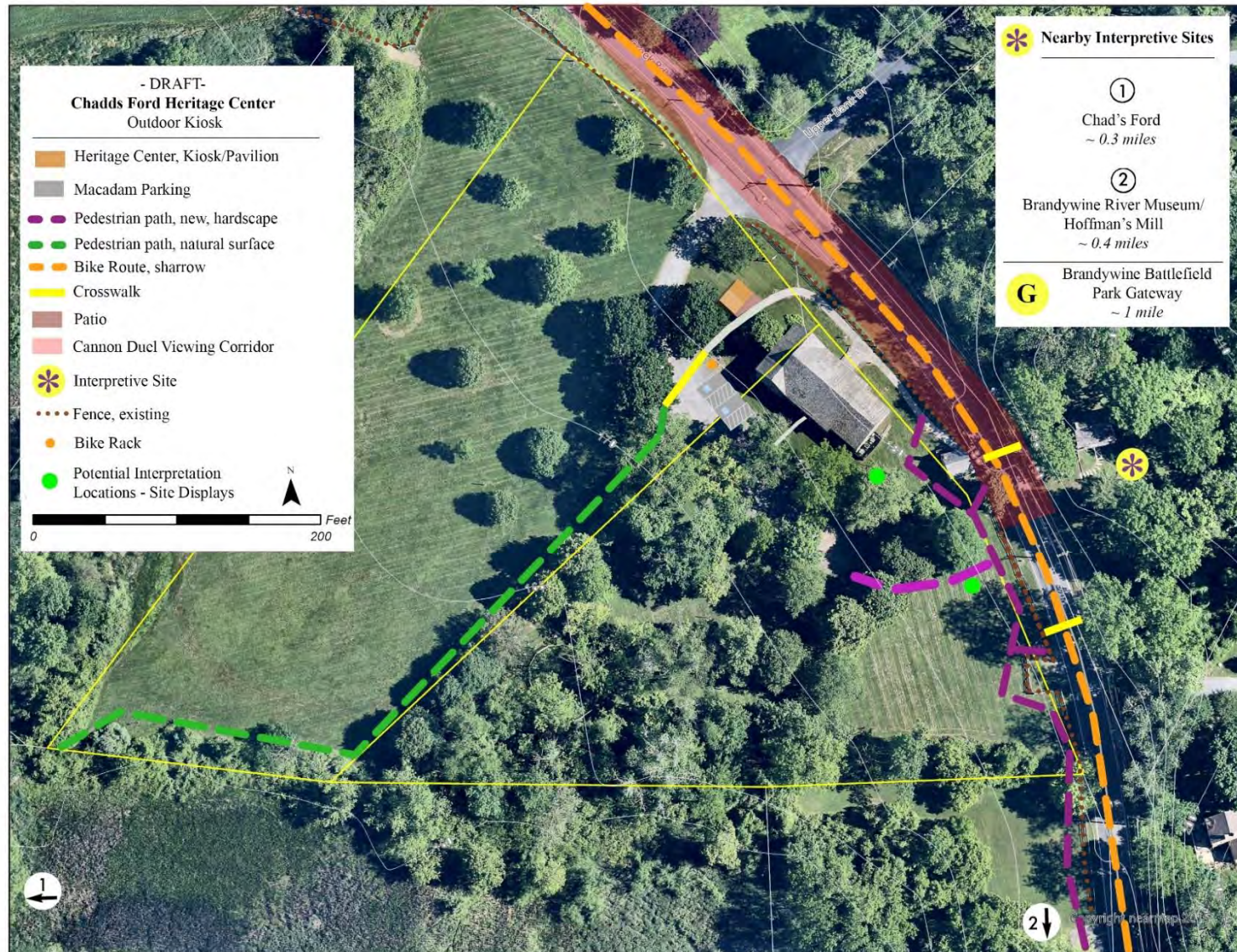


John Chads House, Interpretive Site

Map 4-1, Existing Conditions at Chadds Ford Historical Society



Map 4-2, New Heritage Center Kiosk at Chadds Ford Historical Society



Site Objectives

A concept for Washington’s Defense Heritage Center at the Chadds Ford Historical Society in Chadds Ford Township was developed based on input from two public workshops, design interviews with the property representatives, and input from the Advisory Committee (Map 4-2). The following summarizes design elements for inclusion at this Heritage Center. Elements that are recommended but are too detailed at this stage in the Heritage Center development process to be visible on the concept drawing, are noted as “not shown on plan.” Items that currently exist are also identified.



Heritage Center Building

The concept for the Heritage Center illustrates a new, standalone structure. The concept is a new kiosk or pavilion that could be built in phases subject to funding and maintenance responsibilities. Initially the kiosk would be open air except for an enclosed bathroom. The structure could be enclosed in the future if desired by the Chadds Ford Historical Society.



Building Features

Building features, in particular the siting and protection of interpretive media, should include measures to protect digital and print materials from the elements. At the time of this plan, Hurricane Ida caused historic flooding in Chadds Ford Township, causing substantial damage to many parts of the village. While the Chadds Ford Historical Society’s location and the topography along Creek Road is beneficial from a flooding perspective, future structures and sensitive equipment should be designed based on projected extreme precipitation events, flooding, and extreme heat anticipated in the area due to climate change. The Heritage Center should include the following elements to promote visitor comfort, be sensitive to the landscape and context, and be a responsible steward of the environment:



An example of an outdoor kiosk.

Overall Design & Materials – Designed to be an architecturally appropriate facility, being contextually sensitive to the property and nearby buildings and corridors (i.e., Chadds Ford Historical Society, springhouse, Cannon Duel Viewing Corridor, etc.). The kiosk is envisioned to incorporate durable and easy to maintain materials and with consideration for potential enclosure in the future. (Not shown on plan)

Security – The Heritage Center is proposed to be open during the same hours of operation of the Chadds Ford Historical Society Visitor Center and during special events when staff or volunteers are able to provide oversight. Outdoor interactive exhibits are proposed to be open from dawn to dusk throughout the year. The presence of CFHS volunteers will serve as a deterrent to crime. A security system is recommended to be installed at the Heritage Center and parking lot as an added protection measure for monitoring the facility and grounds. Cameras can be monitored on site by volunteers or by the property representatives remotely, via a smart phone. (Not shown on plan)

Interpretive Elements – The Heritage Center will incorporate a variety of interpretive media to engage visitors. See pages 4-10 through 4-11 for site specific interpretive elements. All Heritage Centers are recommended to include wayfinding, branding, and mapping for consistency.



Site Features

The Heritage Center site should include the following elements in order to create connectivity with nearby destinations, promote visitor comfort, and enhance the existing landscape:

Seating Areas – An existing picnic area can be found in the wooded area just south of the parking lot.

Open Space – Two large open spaces currently exist on the property and serves as spaces for events such as the Great Pumpkin Carve and Bike the Brandywine. This area may provide opportunities for outdoor interpretation (i.e., demonstrations, etc.). (existing)

Parking & Automobile Access– Pull-off parking for two cars along Creek Road, outside the entrance gate, will be provided for visitors who wish to access the outdoor exhibits when the Visitor Center is closed. Two ADA parking spaces are illustrated in the parking lot. Given that the current parking lot is comprised of gravel, it is recommended that this small area be repaved as a macadam surface in the future to promote accessibility. This Heritage Center is

the only Heritage Center of the three proposed in this plan, that is located along a viewing corridor - the Cannon Duel Viewing Corridor.

Trails, Sidewalks & Crosswalks – A pedestrian route is illustrated along the western edge of Creek Road. This trail is envisioned to be 5' in width to accommodate pedestrian circulation. Porous paving should be considered during future design stages, to determine if feasible. Connectors are proposed from this trail to two proposed crosswalks linking to the John Chadds House parcel. These crosswalks previously existed but were not replaced after a PennDOT repaving project. Future considerations should assess if the crosswalk should be of a more permanent and rustic materiality, such as a brick-colored stamped concrete or granite sets, or if paint or thermoplastic is sufficient. A trail connector is proposed to link the existing sidewalk between Creek Road and the Chadds Ford Historical Society with this route. A crosswalk is proposed to extend across the parking lot, linking to a path that connects with the new Heritage Center. The design of this crosswalk should reflect ADA standards. A natural surface trail route is illustrated along the edge of the open space, linking to the existing boardwalk trail that connects to Brandywine Creek.

Bikeways & Amenities – A proposed bicycle route is illustrated along Creek Road. The bicycle route is envisioned to be in the form of a dedicated shoulder facility, where feasible. A bicycle rack in or adjacent to the parking lot (Not shown on plan) would provide a designated parking space for any bicyclists visiting Chadds Ford Historical Society and the Heritage Center.

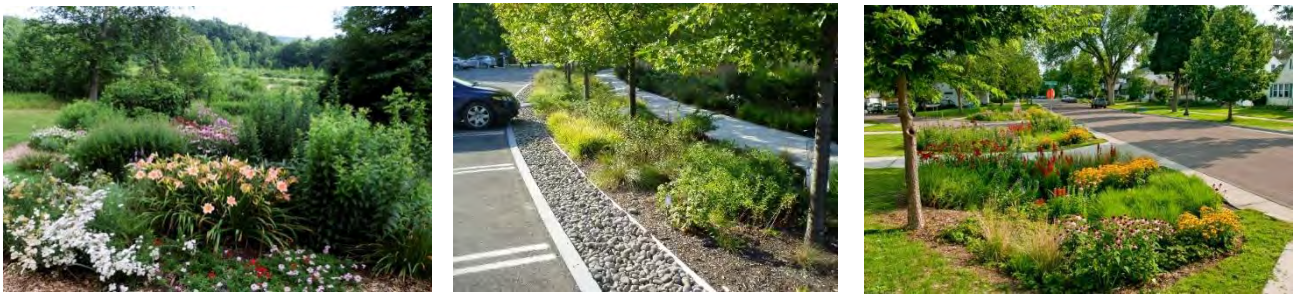
Interpretive Elements – The site should incorporate interpretive media to engage visitors.

Site Design Element Precedents

The following precedent images serve as examples of potential treatments to the Heritage Center site. These are not intended to be restrictive or to indicate the exact design of the elements to be installed at each Heritage Center site. Rather, these are presented to illustrate the overall character and features of landscaping, seating areas, and transportation infrastructure that can enhance and contribute to the design of a building and the landscape it sits in.



**Trails, Crosswalks,
Bikeways,
and Parking**



**Landscaping
and
Native Species**



**Seating
and
Patio Areas**

Interpretive Media for Heritage Centers

These recommendations should serve as guideposts rather than strict guidelines, as the interpretive media and execution will need to be a product of the interpretive themes being more fully developed and the future interpretive design team should have leeway both in budget and design products to visually implement Battlefield themes and narratives. As specific design ideas and deliverables are planned, these stated budgets can rise considerably depending on technologies and production levels involved. Washington's Defense Heritage Center location has two main options, with potentially a phased approach starting with Option #1 and completing at Option #2 subject to availability of funding and volunteers to monitor the facilities.

Option (or Phase) #1 is a standalone covered pole barn (see image to right) or open corn crib type building, approximately 250 to 350 sq ft in size, with large weatherable interpretive graphic panels affixed to the supports. The look of the building would be integrated with the 18th century farm and take advantage of the sloped terrain to refrain from blocking the street, path, and viewing corridor.

Option (or Phase) #2 is an enclosed version of this structure that would include an ADA bathroom. The structure would still maintain an outdoor deck or patio with integrated graphic panels interpreting the cannon duel and the ford.

Interpretive Media Suggestions

Washington's Defense Heritage Center is located in the southern part of the Battlefield and is the only center situated located along a designated viewing corridor, the Cannon Duel Viewing Corridor. The site should make use of its orientation to help visualize the Battle.

- The open side of the pole barn (Option #1) or overhanging deck or porch area (Option #2) could incorporate overlaid framed glass panels



Standalone covered pole barn

and low angled NPS type panels in a semicircle oriented towards the river and the two sides and provide information on the tactics and strategies employed. An interpretive window opens to the viewscape.

- The deck can also be used for performances, demonstrations, and dialogical interpretation with groups.
- Panels would describe the British “feign” and flanking maneuver.
- As this is the only site actually adjacent to Brandywine Creek, panels would detail its military strategic importance as well as the economic importance of fords and their connections to sites and villages such as Chadds Ford.
- Weatherable multimedia elements could be utilized to demonstrate the types and function and range of the various artillery utilized by the two sides.
- Panels could also help connect visitors to the walkable and rideable trails and the natural features of the area.
- Additional encased reproduction artifacts and physical elements would generate connection and meaning.

Budget Estimate: \$75,000 to \$150,000



Docent and experts share information

Heritage Center Remote Docents

With these types of Heritage Center sites, it would generally be very difficult to have staff or volunteers on site consistently. However, with the use of video collaboration tools such as Zoom or Teams, rotating scheduled virtual docents could be available remotely for questions or presentations and help visitors connect to the different sites at a very low price point. A list of answers to FAQs could also be available for visitors.

This program also gives potential volunteers opportunities to work from home and share their knowledge even if they are not able to physically be at a site.

Budget Estimate

\$5,000 to \$7,000 per installation for monitor and webcam set up.

Interpretive Sites

Interpretive Sites are a core part of the overall heritage interpretation network concept for the Brandywine Battlefield. These locations play significant roles within the context of the Battle and provide opportunities for additional heritage interpretation. While not as intense a use as Heritage Centers, Interpretive Sites are destinations. Recommended interpretive media tools for use at these key locations are outlined on the following page. Sites near Washington's Defense Heritage Center include:



*Left, John Chads House
Center, Hoffman's Mill
Right, The Gilpin House*

1. Brinton's Mill
2. John Chads House & Springhouse
3. Hoffman's Mill
4. Washington's Headquarters, Gilpin
5. Benjamin Ring House
6. Gideon Gilpin House
7. 1777 Fords: Chadds, Brintons, Jones, Wistars, Buffingtons, Pyles, and Gibsons

Additional sites were suggested for inclusion as Interpretive Sites through the public outreach process. Those include:

8. Sanderson Museum
9. Chadds Ford Barn Shops
10. Cannonball House at 1509 Creek Road
11. Howe's Headquarters/ George Gilpin Homestead
12. Greene's Quarters
13. Brandywine Baptist Church
14. Brandywine Creek

The Washington's Defense Heritage Center is unique in that it and all the Interpretive Sites listed above, save for select 1777 fords, are all located in Chadds Ford Township. Continued collaboration and partnerships among property owners of Interpretive Sites, property owners of Heritage Centers, and Delaware County will help with information sharing as the heritage interpretation network and its varied components are implemented. Recommendations outlined in Chapter 5 highlight opportunities to connect residents and visitors to the area's rich heritage, including virtual, in-person, or self-guided tours by foot, bike, car, or boat.

Interpretive Media for Wayside Interpretive Sites

These sites are much less complex in nature than the Heritage Centers, with correspondingly smaller budgets. They are intended to be installed at significant locations or viewing corridors and provide a direct connection to these sites. Any of these interpretive media types could be used at the designated sites depending on the need.



Above, NPS style low profile panel

Level I: Low Profile

The first would be a low-profile panel installation. This level would consist of single or double low-profile NPS-style panel installation. Typically, they are stock all-weather anodized aluminum or powder-coated steel frame and a graffiti and UV resistant graphic panel. The panel content would provide context for the event or narrative at that location, describe a specific geographic or geologic feature, or create a key to the viewing corridor from that vantage point. The wood and painted panels and light laminated graphics currently in use should be replaced and coordinated as part of a BBP design system.

Budget Estimate

\$2,000 to \$3,000 per sign design and output. The installation costs can range greatly based on what is needed for site preparation. Occasional ongoing maintenance need for cleaning.



*Above
Upright
orientation*



*Right
Upright single
panel with map*

Level II: Upright Orientation

This level would be a bigger upright (even covered) installation with a different style display (or combination) that could potentially contain additional materials such as maps or brochures. These are often used to help orient visitors to a larger area, trail options, and site significance.

The larger panel size gives the opportunity for a more detailed trail map or photo stories. They can range from simple single panel to multi-sided covered self-guided discovery center with lockable bulletin case for changeable content.

Budget Range

\$4,000 to \$12,000 per sign design and output. The installation costs can also range greatly based on what is needed for site preparation.

Occasional ongoing maintenance need for cleaning and restocking of pockets or changing of elements in bulletin case.



Pavilion example

Level III: Interpretive Pavilion

This Pavilion level is essentially what is recommended for the first phase of the Chadds Ford Historical Society Heritage Center, and it becomes almost a hybrid between the Heritage Center and the Wayside Interpretive. Smaller versions could be created at other locations, like Sandy Hollow or as proposed for Birmingham Hill in the Birmingham Hill Master Plan. While still geared to site specific interpretation, they also provide the exhibit interpretive space to weave together multiple story elements at scale. An example



Above, glass window interpretive panel

Below, three-paneled interpretive display



Above, interactive mechanical exhibit

could be a semi-covered structure with multiple upright panels and a glass “window” panoramic view over the battlefield which could have troop and artillery positions overlaid from that viewpoint, with low profile panels incorporated in front with topographic maps.

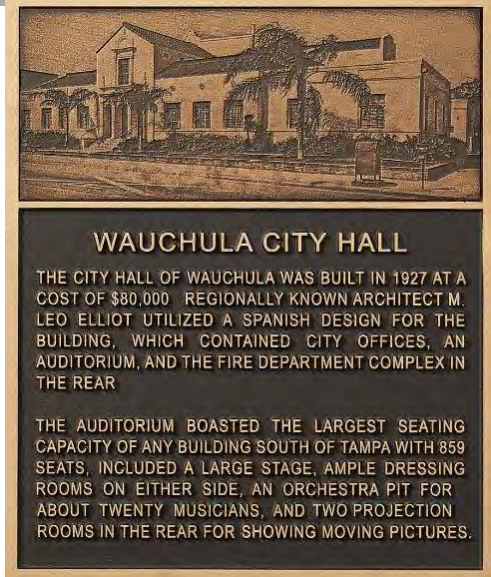
This level might also utilize custom fabrication elements that help tell the story, e.g., recovered barn beams and iron as support materials, or mechanical interactive exhibits like shown (image to left). They can also include additional elements from optical viewers to all-weather displays to Near-Field Communication (NFC), Bluetooth beacons and QR codes for smartphone enabled interaction.

Budget Estimate

\$50,000 to \$100,000 for sign design, fabrication and output depending on the complexity, materials, and additional elements such as NFC. The installation costs can again range greatly based on what is needed for site preparation. Including power and internet as needed. Ongoing maintenance for cleaning and remote monitoring of any digital or electronic equipment.



Above
Stone marker



Right
Metal marker, brass plaque

Markers and Plaques

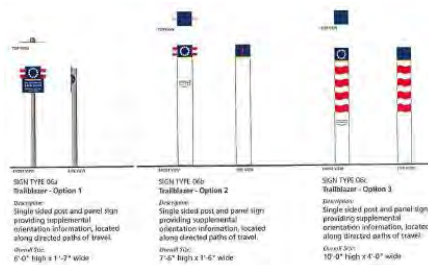
Used to mark a specific location, event, and/or person, these can range from small ground level types to larger traditional cast or engraved metal PHMC type plaques. (Note: the PHMC has its own program and procedure for official historical markers, but similar type plaques with Brandywine Battlefield branding can be created.) The ground level markers are useful where a location needs to be marked without disrupting the viewing corridor, whereas the mounted signs work well to designate spots or events at pull-offs or entrances or at buildings.

Budget Estimate

These markers can range from \$500 for a small (8 x10) brass plaque to \$5000 for a 2' x3' plaque.

Small stone markers start at around \$300 and go up from there depending on how they are produced.

Cast concrete “stone-like” products can range from \$200 to \$500.



Above Source:

Delaware County Planning Department,
Brandywine Battlefield National Historic
Landmark Gateway Sign System Design Intent
Documentation, 2009.

Wayfinding and Overall Branding

While not part of the scope of this plan, it is **strongly** recommended that before separate individual Heritage Center and Wayside Interpretive design plans are implemented, that a master branding and wayfinding design system is adopted so that all the sites and parts of this widely distributed Battlefield Heritage Interpretation Network be visually, interpretively, and physically connected. This will help the visitor navigate the area more easily, and to have a better “big picture” understanding of the events, context, and impact of the Battle in this region and its place in the overall American Revolution. This consistent visual voice should also carry through all the interpretive exhibits, printed collateral such as brochures and maps, and on all the online and digital content.

This phase is critical to the overall success of the Brandywine Battlefield Heritage Interpretive Plan’s implementation.

A major hurdle to overcome will be the variety of localized branding and wayfinding already implemented, in progress, or in discussion (e.g., Brandywine Battlefield Park, Malvern’s Patriot Path, Marshallton and Kennett Square Heritage Centers), as well as planning begun but not implemented such as the 2000 Sign Design Guide example to the left.

Budget Estimate

\$75,000 to \$125,000 for assessment, branding, identity, design system, style guide and implementation examples.

Heritage Interpretation Themes

Washington's Defense Heritage Center and nearby Interpretive Sites presents unique opportunities to educate visitors by highlighting themes, subthemes, and stories about the Battle of Brandywine in engaging and dynamic ways through the interpretive media recommendations identified earlier in this chapter. As content is created and partners implement heritage interpretation elements, careful consideration should be given to not only what stories Washington's Defense Heritage Center and nearby Interpretive Sites are uniquely suited to tell, but also what stories are already interpreted at nearby and interrelated sites, such as at the Brandywine Battlefield Park Gateway, to avoid duplication of efforts, content, and stories. Further, where possible, sites should endeavor to interpret the Battle in a shared way, in recognition of their contribution to the local micro-network. Collaborative efforts between different sites, the Brandywine Battlefield Task Force, Chadds Ford Township, county governments, nonprofits, property owners and representatives, and Friend's Groups will ensure that individual themes, subthemes, and stories highlighted at the Heritage Center, Interpretive Sites, and gateway, will unite to tell a bigger picture and be part of a larger whole.

The main focus of heritage interpretation themes and subthemes through the lens of this Plan is to elevate and promote stories specific to the Battle of Brandywine. Existing and in progress Heritage Centers located in the Village of Marshallton, Kennett Square, and East Bradford Township all currently or will incorporate interpretive media through signage, panels, and interactive exhibits to detail the events, people, or places associated with the Battle of Brandywine. However, the communities that these Heritage Centers are located in have rich and varied histories, including other important stories to tell from different time periods. For example, the Kennett Heritage Center not only interprets the American Revolutionary War and the Battle of Brandywine, but it also highlights the community's connection to the Underground Railroad. In an effort to reflect the history of each community more fully, this section first focuses on potential themes and subthemes that may be interpreted in the future that center on the Battle of Brandywine, followed by potential themes and subthemes from other time periods, that may also benefit from interpretation to present visitors with a more complete picture of Washington's Defense Heritage Center, Interpretive Sites, and Chadds Ford Township overall.

The themes and subthemes listed on the following pages (Figure 4-1, Figure 4-2) carry forward ideas from previous planning efforts, vetted through this planning process. The intention at this stage of development is not to be overly restrictive and limit themes or subthemes that may be worthwhile to be interpreted at the different sites (Map 4-3A and Map 4-3B). Rather, the information below should be viewed as an umbrella of options that the Heritage Center and Interpretive Sites will evaluate and consider as implementation moves forward, to identify which are best to communicate, through physical and digital media tools.



Figure 4-1, Battle-Related Themes and Subthemes, Washington’s Defense Heritage Center at Chadds Ford Historical Society

Theme: Main Battle-Related	Subtheme: Military Events Theme Area	Subtheme: 18th Century Landscape Theme Area
Combat at Chadds’s Ford (aka The Feign/ Washington’s Attempt to Defend his Position at Chadd’s Ford)	1A) Knyphausen’s position his eastern column on the west side of the Brandywine & his deliberate feign to keep Washington distracted while Cornwallis completed the flank 1B) Brinton’s Ford cannon duel & Maxwell’s troops crossing the Brandywine and getting shot at by both sides 1C) American encampment 1D) American approach from DE and Washington choosing the battle location at defense of the Brandywine 1E) American Reconnaissance & Communication to Washington	2A) Multi-generational rural agricultural tradition 2B) Prosperous commerce/industry foundation* 2C) Brandywine Valley Quaker settlement* 2D) Battle impact on local civilians within the Heritage Center area

Additional ideas generated for potential interpretation through this planning effort include:

- Women’s Role in the Battlefield
- Queen’s Rangers Loyalist unit advance down Great Nottingham Road
- Historic water-powered mills on local waterways
- Local iron production in English supply chains
- * Quaker and Commerce/Industry themes more relevant where sites have meetinghouses or forges or mills in existence

**Map 4-3, Interpretive Bubble Diagram
Washington's Defense Heritage Center and Interpretive Sites Cluster**

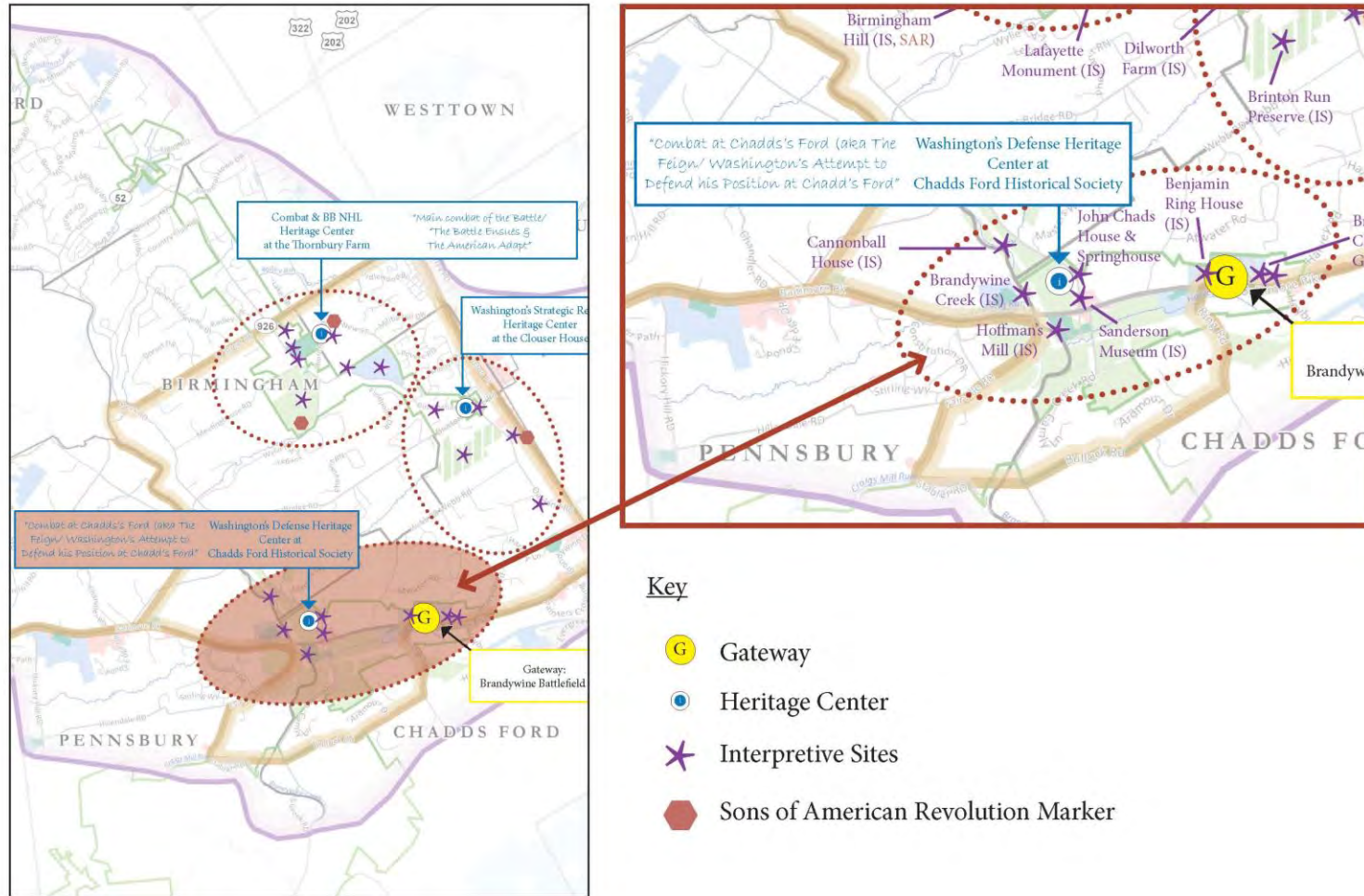




Figure 4-2, Non-Battle-Related Themes and Subthemes

Theme: Non-Battle-Related	Subtheme: History of Chadds Ford Village	Subtheme: Local People in the Brandywine Valley
Where Wyeth Meets Washington	1A) Chadds Ford through the Centuries 1B) Center of 18th Century Commerce 1C) Adaptive Reuse	2A) Quakers in the Community 2B) People of Color in the Community 2C) Women in the Community + Multi-Generational Rural Agricultural Traditions

Public Input for Themes and Subthemes

At the first public workshop, participants engaged in exercises to what themes and subthemes they would most like to explore and learn about while exploring the Battlefield and these significant heritage sites. When asked who they would be likely to visit Heritage Centers with, the top three responses were with family, followed by friends, or by themselves. When asked what stories are important to highlight about **people** related to the Battle of Brandywine, workshop participants were in favor of the role of local civilians (i.e. Quakers, Women, People of Color), American/Continental Army and Allies (i.e. Lafayette and the French, etc.), followed by the British Army & Allies, and the impact on residents and businesses. When asked what stories are important to highlight about **the surrounding landscape or place** related to the Battle of Brandywine, workshop participants were in favor of information about Battlefield landscapes and features, surviving buildings and structures, and settlement patterns, as the top three. When asked what stories are important to highlight about **the events** related to the Battle of Brandywine, workshop participants were in favor of information about pivotal moments in the Battle, the Battle of Brandywine role in the American Revolutionary War, and the Battle of Brandywine engagements and skirmishes, as the top three. When asked what stories about **other moments** in time are important to highlight, workshop participants were in favor of village histories, Quaker history, and Native American history.

Site Evaluation Methods and Metrics

A significant amount of enthusiasm exists for heritage interpretation, historic preservation, and the Battle of Brandywine, in the region, as evidenced during the public engagement process for developing this plan. As content and designs for interpretive media at Washington's Defense Heritage Center and nearby Interpretive Sites progresses, Chadds Ford Township, the property representatives, future friends' group, Brandywine Battlefield Task Force, Delaware County Planning Department, and other partners may benefit from tapping into this enthusiasm and local resource to both inform designs and as a tool to measure their effectiveness. Potential innovative method options for harnessing this engagement to promote the efficient and cost-effective design, fabrication, and implementation of information include:

Temporary Displays

- Pre-testing interpretive panels in draft form, on paper, by plotting them to scale. Include the proposed content, colors, and graphics associated with the particular type of interpretive media being tested.
- Plotting multiple versions of a design to install on the site as a temporary "pop-up" exhibit. Test the design scenarios with visitors, surveying them to learn what they find successful, what could be improved, and which is their preferred option.

Digital Tools

- Posting on social media pages, such as Facebook, Twitter, and Instagram to collect additional input
- Posting on social media pages to host a visual voting contest between design options
- Using digital surveying tools, such as Survey Monkey to collect input from residents and stakeholders, where beneficial.

Washington's Defense Heritage Center and nearby Interpretive Sites may consider ways to identify the number of visitors engaging with the sites either in person or digitally, such as the number of visits to the Combat and Brandywine Battlefield National Historic Landmark Heritage Center's dedicated webpage, a recommendation outlined in this Plan. Other methods to generate metrics about visitorship include physical trail counters installed on sites, where appropriate, the use of QR codes at buildings or on the grounds, or sign-in books (physical or digital) for visitors to join an email list serve for notifications of future events and as a tool to survey visitors to learn more about their experience.



Chapter 5

Recommendations

Recommendations

This chapter identifies key strategies to assist in advancing the vision of the Brandywine Battlefield Heritage Interpretation Network Concept. The recommendations on the following pages relate to Heritage Centers, interpretation sites, interpretive media and associated tools, sidewalks, trails, bikeways, natural resource protection, and open space preservation efforts in the eastern region of the Battlefield identified within this Plan. The completion of the recommendations falls to many different partners including private property owners, volunteers, nonprofit organizations, municipalities, and County governments. While some efforts may be advanced by one entity, some may benefit from multiple partners, and could be implemented in a joint manner. Continued collaboration among different partners will be critical in ensuring the successful implementation of the recommend actions. The Brandywine Battlefield Task Force will serve as the regional entity that oversees and provides guidance on all new interpretive facilities including Heritage Centers, Interpretive Sites, and their interpretive elements.

Given the widespread enthusiasm and interest in heritage interpretation in this region, wherever possible partners should share information and collaborate with each other to reduce costs, improve efficiencies, and promote consistency. A creative mix of funding sources, including donations, acquisition of grants, and coordinated fundraising efforts will be help reduce the cost to plan, design, and construct the following projects and efforts. Potential funding sources for these recommendations are listed in greater detail in Chapter 6, *Implementation*.

The implementation matrices on the following page, Figures 5-1 through 5-9, outline a suite of recommendations. Each matrix is organized based on topic. One matrix is presented for each Heritage Center. Additional matrices are provided for Interpretive Sites, media tools, active transportation, open space preservation, natural resource preservation and restoration, and general recommendations. The recommendations described on the following pages include a prioritization ranking of short-term, medium-term, and long-term, and ongoing initiatives defined as the following:

- Short Term = 0 to 3 years
- Medium Term = 3 to 6 years
- Long Term = 6+ years
- Ongoing = Recommendations with no end timeframe



Figure 5-1, Implementation Matrix Combat and Brandywine Battlefield National Historic Landmark Heritage Center

No.	Recommendation	Priority	Lead Parties	Key Partners
Heritage Center Formation				
1-1	<p>Establish a friend’s group to support the development of the Combat and Brandywine Battlefield National Historic Landmark Heritage Center. Recruit members from local Historic Commissions, BB Task Force members, landowner. Engage with the Friends of Martin’s Tavern to learn from their effort to establish a friend’s group for the Marshallton Heritage Center. Friend’s group activities may include, but are not limited to:</p> <ul style="list-style-type: none"> • Assisting with fundraising efforts in consultation or partnership with the Brandywine Battlefield Task Force • Promoting and marketing the Combat and Brandywine Battlefield National Historic Landmark Heritage Center to residents and visitors • Planning and helping staff special events at the Combat and Brandywine Battlefield National Historic Landmark Heritage Center 	Short Term	Volunteers	Property Owner, Thornbury Township Historic Preservation Commission, CCPC, Brandywine Battlefield Task Force, Friends of Martin’s Tavern
1-2	Establish a legal provision for public access to/at the Combat and Brandywine Battlefield National Historic Landmark Heritage Center between the property owner and Thornbury Township (such as a permanent access easement).	Short Term	Thornbury Township, Property Owner	CCPC, Brandywine Battlefield Task Force

Planning and Design				
1-3	Acquire funding through grant applications, fundraising, and/or private donations to conduct design and engineering for new construction of the Heritage Center and Heritage Center related site elements.	Short Term	Property Owner, Friend's Group	Thornbury Township, CCPC, Brandywine Battlefield Task Force
1-4	Conduct design, engineering, surveying, and permitting to support the construction of a new Heritage Center structure. Design and engineering should incorporate site elements associated with the interpretation of the Battle of Brandywine and that relate to the Heritage Center Concept outlined in this Plan.	Short Term	Property Owner, Friend's Group	Thornbury Township Historic Preservation Commission, CCPC, Brandywine Battlefield Task Force
Physical Projects – Construction, Renovation, Restoration, or Implementation				
1-5	Acquire funding through grant applications, fundraising, and/or private donations to construct the Heritage Center and install interpretive media within the Heritage Center and on the grounds, where needed.	Medium Term	Friend's Group, Property Owner	Thornbury Township, CCPC
1-6	Construct the Heritage Center and site elements.	Medium Term	Property Owner, Friend's Group	Thornbury Township Historic Preservation Commission, CCPC,

				Brandywine Battlefield Task Force
Interpretation				
1-7	Consult and collaborate with the Thornbury Township Historic Preservation Commission and the Brandywine Battlefield Task Force’s Historic Resources Subcommittee to ensure the plan, design and heritage interpretation media developed is consistent with the list of themes and subthemes listed in this Plan.	Medium Term	Property Owners, Friends Group	Thornbury Township Historic Preservation Commission, Brandywine Battlefield Task Force, CCPC, Friends Group
1-8	Design and launch a dedicated webpage for the Combat and Brandywine Battlefield National Historic Landmark Heritage Center. A webpage will serve multiple functions, including: <ul style="list-style-type: none"> • Short term: Educate residents and visitors about the Heritage Center concept • Short term: Highlight progress made towards implementing concept • Long term: Educate residents and visitors about the Heritage Center and connect them to digital wayfinding and interpretive materials • Long term: Link residents and visitors to information about other Heritage Centers and Interpretive Sites within the greater Brandywine Battlefield Heritage Interpretation Network 	Short Term	CCPC, Brandywine Battlefield Task Force	Property Owner, Thornbury Township Historic Preservation Commission, Friends Group

1-9	Develop a self-guided audio walking tour to highlight the Combat and Brandywine Battlefield National Historic Landmark Heritage Center, landscape, and nearby Interpretive Sites (i.e. Marshallton's Audio Walking Tour). Ensure consistency with the driving tour of the Battlefield, where applicable. (See recommendations 6-8)	Long Term	Thornbury Township Historic Preservation Commission	Property Owner, CCPC, Brandywine Battlefield Task Force, Visitors Bureaus
1-10	Identify joint opportunities to promote the Heritage Center and the larger Brandywine Battlefield Heritage Interpretation Network through shared events, educational programs engaging schools and students, tours, or initiatives with other Heritage Centers, Interpretive Sites, and/or gateways.	Long Term	CCPC, Brandywine Battlefield Task Force	Property Owner, Thornbury Township Historic Preservation Commission, Friends Group



Figure 5-2, Implementation Matrix Washington's Strategic Retreat Heritage Center

No.	Recommendation	Priority	Lead Parties	Key Partners
Heritage Center Formation				
2-1	<p>Establish a friend's group to support the development of the Washington's Strategic Retreat Heritage Center. Recruit members from local Historic Commissions, BB Task Force members, landowner. Engage with the Friends of Martin's Tavern to learn from their effort to establish a friend's group for the Marshallton Heritage Center. Friend's group activities may include, but are not limited to:</p> <ul style="list-style-type: none"> Assisting with fundraising efforts in consultation or partnership with the Brandywine Battlefield Task Force 	Short Term	Volunteers	Property Owner, Birmingham Township Historical Commission, CCPC, Brandywine Battlefield Task Force,

	<ul style="list-style-type: none"> Promoting and marketing Washington’s Strategic Retreat Heritage Center to residents and visitors Planning and helping staff special events at the Washington’s Strategic Retreat Heritage Center 			Friends of Martin’s Tavern
2-2	Establish a legal provision for public access to/at Washington’s Strategic Retreat Heritage Center between the property owner and Birmingham Township (such as a permanent access easement)..	Short Term	Birmingham Township, Property Owner	CCPC, Brandywine Battlefield Task Force
2-3	Acquire a tenant to occupy the office space within the upper level of Clouser House, above the proposed Washington’s Strategic Retreat Heritage Center.	Short Term	Property Owner	
Planning and Design				
2-4	Acquire funding through grant applications, fundraising, and/or private donations to conduct design and engineering for renovations to the Clouser House and Heritage Center related site elements.	Short Term	Friend’s Group, Tenant (if nonprofit), Property Owner	Birmingham Township, CCPC
2-5	Conduct design, engineering, surveying, and permitting to transform the first floor of Clouser House into a Heritage Center. Design and engineering should incorporate site elements associated with the interpretation of the Battle of Brandywine and that relate to the Heritage Center Concept outlined in this Plan.	Short Term	Tenant, Property Owner, Friend’s Group	Birmingham Township Historical Commission, CCPC, Brandywine Battlefield Task Force

Physical Projects – Construction, Renovation, Restoration, or Implementation

2-6	Acquire funding through grant applications, fundraising, and/or private donations to renovate the first floor of Clouser House and install interpretive media within the Heritage Center and on the grounds, where needed.	Medium Term	Friend’s Group, Tenant (if nonprofit), Property Owners	Birmingham Township, CCPC
2-7	Renovate the first floor of Clouser House and construct site elements.	Medium Term	Tenant (if nonprofit), Property Owners	Friend’s Group, Birmingham Township Historical Commission, CCPC, Brandywine Battlefield Task Force

Interpretation

2-8	Consult and collaborate with the Birmingham Township Historical Commission and the Brandywine Battlefield Task Force’s Historic Resources Subcommittee to ensure the plan, design and heritage interpretation media developed is consistent with the list of themes and subthemes listed in this Plan.	Medium Term	Tenant (if nonprofit), Property Owners	Birmingham Township Historical Commission, Brandywine Battlefield Task Force, CCPC, Friends Group
2-9	Design and launch a dedicated webpage for Washington’s Strategic Retreat Heritage Center. A webpage will serve multiple functions, including:	Short Term	CCPC, Brandywine Battlefield Task Force	Property Owners, Birmingham Township Historical

	<ul style="list-style-type: none"> • Short term: Educate residents and visitors about the Heritage Center concept • Short term: Highlight progress made towards implementing concept • Long term: Educate residents and visitors about the Heritage Center and connect them to digital wayfinding and interpretive materials • Long term: Link residents and visitors to information about other Heritage Centers and Interpretive Sites within the greater Brandywine Battlefield Heritage Interpretation Network 			Commission, Friends Group
2-10	Develop a self-guided audio walking tour to highlight the Washington’s Strategic Retreat Heritage Center, landscape, and nearby Interpretive Sites (i.e. Marshallton’s Audio Walking Tour). Ensure consistency with the driving tour of the Battlefield, where applicable. (See recommendations 6-8)	Long Term	Birmingham Township Historical Commission	Property Owners, CCPC, Brandywine Battlefield Task Force
2-11	Identify joint opportunities to promote the Heritage Center and the larger Brandywine Battlefield Heritage Interpretation Network through shared events, educational programs engaging schools and students, tours, or initiatives with other Heritage Centers, Interpretive Sites, and/or Gateways.	Long Term	CCPC, Brandywine Battlefield Task Force	Property Owners, Birmingham Township Historical Commission, Friends Group



Figure 5-3, Implementation Matrix Washington's Defense Heritage Center

No.	Recommendation	Priority	Lead Parties	Key Partners
Heritage Center Formation				
3-1	<p>Establish a sub-committee of the Board of Directors at the Chadds Ford Historical Society to support the development of the Washington's Defense Heritage Center. Recruit members from local Historic Commissions, BB Task Force members, landowner. Engage with the Friends of Martin's Tavern to learn from their effort to establish a friend's group for the Marshallton Heritage Center. Friend's group activities may include, but are not limited to:</p> <ul style="list-style-type: none"> Assisting with fundraising efforts in consultation or partnership with the Brandywine Battlefield Task Force Promoting and marketing the Washington's Defense Heritage Center to residents and visitors Planning and helping staff special events at the Washington's Defense Heritage Center 	Short Term	Chadds Ford Historical Society Board of Directors	Chadds Ford Historical Society, Chadds Ford Township Planning Commission, CCPC, DCPD, Brandywine Battlefield Task Force, Friends of Martin's Tavern
3-2	Establish a legal provision for public access to/at Washington's Defense Heritage Center between and the property owner and Chadds Ford Township (such as a permanent access easement).	Short Term	Chadds Ford Township, Chadds Ford Historical Society	CCPC, DCPD, Brandywine Battlefield Task Force

Planning and Design				
3-3	Acquire funding through grant applications, fundraising, and/or private donations to conduct design and engineering for new construction of the Heritage Center and Heritage Center related site elements.	Short Term	Chadds Ford Historical Society, Friend's Group	Chadds Ford Township, DCPD, Brandywine Battlefield Task Force
3-4	Conduct design, engineering, surveying, and permitting to support the construction of a new Heritage Center structure. Design and engineering should incorporate site elements associated with the interpretation of the Battle of Brandywine and that relate to the Heritage Center Concept outlined in this Plan.	Short Term	Chadds Ford Historical Society, Friend's Group	Chadds Ford Township Planning Commission, CCPC, DCPD, Brandywine Battlefield Task Force
Physical Projects – Construction, Renovation, Restoration, or Implementation				
3-5	Acquire funding through grant applications, fundraising, and/or private donations to construct the Heritage Center and install interpretive media within the Heritage Center and on the grounds, where needed.	Medium Term	Friend's Group, Chadds Ford Historical Society	Chadds Ford Township, DCPD
3-6	Construct the Heritage Center and site elements.	Medium Term	Chadds Ford Historical Society, Friend's Group	Chadds Ford Township Planning Commission, CCPC, DCPD, Brandywine

				Battlefield Task Force
3-7	Collaborate with PennDOT to reestablish former crosswalks across Creek Road.	Short Term	Chadds Ford Historical Society	PennDOT, Chadds Ford Township
Interpretation				
3-8	Consult and collaborate with the Chadds Ford Township Planning Commission and the Brandywine Battlefield Task Force's Historic Resources Subcommittee to ensure the plan, design and heritage interpretation media developed is consistent with the list of themes and subthemes listed in this Plan.	Medium Term	Chadds Ford Historical Society, Friend's Group	Chadds Ford Township Planning Commission, Brandywine Battlefield Task Force, CCPC, DCPD, Friends Group
3-9	Design and launch a dedicated webpage for Washington's Defense Heritage Center. A webpage will serve multiple functions, including: <ul style="list-style-type: none"> • Short term: Educate residents and visitors about the Heritage Center concept • Short term: Highlight progress made towards implementing concept • Long term: Educate residents and visitors about the Heritage Center and connect them to digital wayfinding and interpretive materials 	Short Term	CCPC, DCPD, Brandywine Battlefield Task Force	Chadds Ford Historical Society, Chadds Ford Township Planning Commission, Friends Group

	<ul style="list-style-type: none"> Long term: Link residents and visitors to information about other Heritage Centers and Interpretive Sites within the greater Brandywine Battlefield Heritage Interpretation Network 			
3-10	Develop a self-guided audio walking tour to highlight the Washington’s Defense Heritage Center, landscape, and nearby Interpretive Sites (i.e., Marshallton’s Audio Walking Tour). Ensure consistency with the driving tour of the Battlefield, where applicable. (See recommendations 6-8)	Long Term	Chadds Ford Township Planning Commission	Chadds Ford Historical Society, CCPC, DCPD, Brandywine Battlefield Task Force
3-11	Identify joint opportunities to promote the Heritage Center and the larger Brandywine Battlefield Heritage Interpretation Network through shared events, educational programs engaging schools and students, tours, or initiatives with other Heritage Centers, Interpretive Sites, and/or Gateways.	Long Term	CCPC, DCPD, Brandywine Battlefield Task Force	Chadds Ford Historical Society, Chadds Ford Township Planning Commission, Friends Group



Figure 5-4, Implementation Matrix Interpretive Sites'

No.	Recommendation	Priority	Lead Parties	Key Partners
Interpretive Sites Formation				
4-1	Continue engaging and collaborating with Interpretive Sites property owners to highlight planning efforts related to interpreting the Battle of Brandywine across the region.	Ongoing	Battlefield Heritage Interpretation Plan municipalities, CCPC, DCPD	Brandywine Battlefield Task Force
4-2	Procure easements for any proposed interpretive signage not located within rights-of-way.	Short Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD, Brandywine Battlefield Task Force
4-3	Develop content, fabricate, and install interpretive media at Interpretive Sites in connection with themes and stories told at nearby Interpretive Sites, Heritage Centers, and Gateways.	Medium Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD, Brandywine Battlefield Task Force, Friends Groups
4-4	Continue the installation of Sons of American Revolution Markers on key historic sites within the Battlefield Heritage Interpretation Plan partner municipalities.	Ongoing	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD, Brandywine Battlefield Task Force



Figure 5-5, Implementation Matrix Media Tools and Interpretation

No.	Recommendation	Priority	Lead Parties	Key Partners
Planning & Design				
5-1	<p>Conduct a comprehensive master branding and wayfinding study to ensure all sites in the Battlefield Heritage Interpretation Network are visually, interpretively, and physically connected. This will help the visitor navigate the area more easily, and to have a better “big picture” understanding of the events, context, and impact of the Battle in this region and its place in the overall Revolution. This consistent visual voice should also carry through all the interpretive exhibits, printed collateral such as brochures and maps, and all the online and digital content.</p>	Short Term	CCPC, DCPD, Brandywine Battlefield Task Force	Battlefield Heritage Interpretation Plan municipalities
5-2	<p>Update the design of the Brandywine Battlefield Park Associates website to inform visitors about the heritage interpretation network and provides links to apps, digital tours, and site information, including links to each Heritage Center’s and Interpretive Site’s dedicated webpage.</p> <p>Design and launch a dedicated webpage each Heritage Center. A webpage will serve multiple functions, including:</p> <ul style="list-style-type: none"> • Short term: Educate residents and visitors about the Heritage Center concept • Short term: Highlight progress made towards implementing concept 	Short Term	Brandywine Battlefield Park Associates, Brandywine Battlefield Task Force, CCPC, DCPD	Battlefield Heritage Interpretation Plan municipalities, Friends Groups, Volunteers, property owners, nonprofits

	<ul style="list-style-type: none"> • Long term: Educate residents and visitors about the Heritage Center and connect them to digital wayfinding and interpretive materials • Long term: Link residents and visitors to information about other Heritage Centers and Interpretive Sites within the greater Brandywine Battlefield Heritage Interpretation Network 			
5-3	Update municipal websites to include links to the master website and/or Heritage Center and public Interpretive Site websites for destinations located within the Township.	Short Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD, Brandywine Battlefield Task Force, property owners, friends groups
Physical Projects – Construction, Renovation, Restoration, or Implementation				
5-4	Develop content, fabricate, and install interpretive media elements in the Combat and Brandywine Battlefield National Historic Landmark Heritage Center and on the grounds, using the recommendations outlined in Chapter Two as a guidepost.	Medium Term	Property Owner, Friend's Group	Thornbury Township Historic Preservation Commission, CCPC, Brandywine Battlefield Task Force
5-5	Develop content, fabricate, and install interpretive media elements in the Washington's Strategic Retreat Heritage Center and on the grounds, using the recommendations outlined in Chapter Three as a guidepost.	Medium Term	Property Owner, Friend's Group	Birmingham Township Historic Commission, CCPC, Brandywine

				Battlefield Task Force
5-6	Develop content, fabricate, and install interpretive media elements in the Washington's Defense Heritage Center and on the grounds, using the recommendations outlined in Chapter Four as a guidepost.	Medium Term	Property Owner, Friend's Group	Chadds Ford Township Planning Commission, CCPC, DCPD, Brandywine Battlefield Task Force



Figure 5-6, Implementation Matrix Active Transportation

No.	Recommendation	Priority	Lead Parties	Key Partners
Planning and Design				
6-2	<p>Conduct feasibility studies of the following proposed pedestrian trails. Ensure ADA access is a key component of plans, in particular for routes connecting to Heritage Centers. Evaluate potential traffic calming measures and identify intersection improvements, where needed.</p> <p><i>Tier 1 (Heritage Center Connections)</i></p> <ul style="list-style-type: none"> • Combat and Brandywine Battlefield National Historic Landmark Heritage Center at Thornbury Farm to Sandy Hollow Park (2,215.7 linear feet) 	Short	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD

	<ul style="list-style-type: none"> Washington’s Strategic Retreat Heritage Center to the Five Points Intersection (300 linear feet) <p><i>Tier 2 (Heritage Center Connections)</i></p> <ul style="list-style-type: none"> Combat and Brandywine Battlefield National Historic Landmark Heritage Center at Thornbury Farm to Birmingham Hill (2,088 linear feet) Washington’s Strategic Retreat Heritage Center at Historic Dilworthtown to Sandy Hollow (4,006 linear feet) 			
6-3	<p>Conduct preliminary design and engineering for multimodal and pedestrian trail projects. Ensure ADA access is a key component of plans, in particular for routes connecting to Heritage Centers. See lists above in 6-1 and 6-2 for trail segments.</p> <p><i>Tier 1 (Heritage Center Connections)</i></p> <ul style="list-style-type: none"> Plum Run (6,252.43 linear feet) Southern Chester County Trail 	Medium	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD
6-4	<p>Procure trail easements or lease agreements. See lists in 6-1, 6-2, and 6-3 for trail segments.</p>	Long	Battlefield Heritage Interpretation Plan municipalities	Property owners
6-6	<p>Complete feasibility studies of proposed bikeways as dedicated shoulders. Evaluate potential traffic calming measures and identify intersection improvements, where needed.</p> <p><i>Tier 1 (Heritage Center & Interpretive Site Connections)</i></p>	Short	Battlefield Heritage Interpretation Plan municipalities	PennDOT, CCPC, DCPD

	<ul style="list-style-type: none"> • BBHIP Bike Loop: Creek Road, Wylie Road, Birmingham Road, Thornbury Road, S New Street, Revere Rd, Summer Way, Knolls Road, Old Wilmington Pike, Oakland Road, Harvey Road, Brandywine Battlefield Park driveway (50,582.4 linear feet or 9.58 miles) <p><i>Tier 2 (Gateway Connections)</i></p> <ul style="list-style-type: none"> • West Chester Gateway Spur: S New Street (17,888. 4 linear feet or 3.4 miles) 			
6-7	Explore potential opportunities with existing informal neighborhood trails. Identify where existing footpaths exist and communicate with neighboring HOAs to learn whether or not there is interest in linking such trails together to create longer routes that connect residents to Interpretive Sites and/or Heritage Centers.	Medium	HOAs, Volunteers	BBHIP municipalities
Interpretation				
6-10	Developing a guided canoe or kayak tours to highlight the importance of the landscape, waterways, key historical sites, open space preservation, and natural resource preservation, through the lens of the Battle of Brandywine.	Medium Term	CCPC, Brandywine Battlefield Task Force	Property owners, nonprofits, Battlefield Heritage Interpretation Plan municipalities
6-11	Explore developing virtual tours (walking, running, biking, and/or kayaking/canoeing) to provide an accessible means for experiencing the Battlefield for those of all abilities.	Long Term	CCPC, Brandywine Battlefield Task Force	Property owners, nonprofits, Battlefield

				Heritage Interpretation Plan municipalities
Physical Projects – Construction, Renovation, Restoration, or Implementation				
6-13	<p>Install amenities to support bicycle and pedestrian circulation, including:</p> <ul style="list-style-type: none"> • Bike racks • Water bottle filling stations • Wayfinding signage <p>Coordinate installation of amenities to support walking and kayaking/canoeing tours.</p>		Property owners	Battlefield Heritage Interpretation Plan municipalities
6-14	Leverage the land development process to assist in constructing the sidewalks, trails, and/or bikeways outlined in this Plan, where applicable	Ongoing	Battlefield Heritage Interpretation Plan municipalities	
6-15	Apply for grant funding and/or conduct fundraising to provide financial resources to support the construction of the sidewalks, trails, and bikeways outlined in this Plan.	Ongoing	Battlefield Heritage Interpretation Plan municipalities, nonprofits	PennDOT, CCPC, Delaware County Planning Department

6-16	<p>Construct the sidewalks, trails, and bikeways outlined in this Plan.</p> <p><i>Tier 1 (Gateway Connections)</i></p> <ul style="list-style-type: none"> Walkable Chadds Ford to Brandywine Battlefield Park Gateway: Route 1 multimodal trail and Creek Road connector to PECO Trail (4,197 linear feet) <p><i>Tier 2 (Heritage Center Connections)</i></p> <ul style="list-style-type: none"> Walkable Chadds Ford to Washington’s Defense Heritage Center: pedestrian connection from Chadds Ford Historical Society to Route 1 multimodal trail (867.5 linear feet) <p><i>Tier 3 (Interpretive Site Connections)</i></p> <ul style="list-style-type: none"> Boardwalk connection north of/adjacent to Route 1 (1,271 linear feet) Five Points Intersection at Historic Dilworthtown to Brinton Run Preserve and Brinton 1704 House (2,000 linear feet) 	Ongoing	Battlefield Heritage Interpretation Plan municipalities, nonprofits, property owners	PennDOT, CCPC, Delaware County Planning Department
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Figure 5-7, Implementation Matrix Open Space Preservation

No.	Recommendation	Priority	Lead Parties	Key Partners
Land Preservation				
7-1	Continue to protect open space in the region, including lands significant to the Battle of Brandywine. Consider the following with the prioritization of unprotected open space within the Brandywine Battlefield:	Ongoing	Battlefield Heritage Interpretation	CCPC, Nonprofit Land Trusts

	<ul style="list-style-type: none"> • <i>Tier 1</i> – Historically significant lands within the National Historic Landmark • <i>Tier 2</i> – Historically significant lands located adjacent to preserved lands and outside the National Historic Landmark • <i>Tier 3</i> – All other unprotected lands 		Plan municipalities	
7-2	Where they currently exist, retain dedicated open space taxes to generate revenue for future agricultural and/or conservation easements.	Ongoing	Battlefield Heritage Interpretation Plan municipalities	Land trusts
Planning and Design				
7-3	Consider adopting an Official Map and Ordinance to aid in the ongoing preservation of open space within the Brandywine Battlefield Heritage Interpretation Plan partner municipalities if one currently does not exist.	Medium Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, Nonprofit Land Trusts
7-4	Consider updating municipal Open Space, Recreation, and Environmental Resource Plans or Land Preservation Plans to incorporate historic resources into open space prioritization methodologies, in particular for properties important to the Battle of Brandywine.	Medium Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, Nonprofit Land Trusts

Data Collection & Analysis				
7-5	Quantify the amount of carbon sequestered within the Brandywine Battlefield to highlight the shared benefits open space preservation, natural resource protection, and historic preservation have with climate mitigation.	Long Term	CCPC, Brandywine Battlefield Task Force	Battlefield Heritage Interpretation Plan municipalities, Land Trusts
Interpretation				
7-6	Highlight the rich legacy of open space preservation at Heritage Centers and with interpretive media tools, such as walking tours, websites, etc. to educate visitors on the success municipalities, Chester County, Delaware County, and land trusts have achieved over time.	Medium Term	Friend's Group	Battlefield Heritage Interpretation Plan municipalities, CCPC, land trusts



Figure 5-8, Implementation Matrix Natural Resource Preservation and Restoration

No.	Recommendation	Priority	Lead Parties	Key Partners
Physical Projects – Construction, Renovation, Restoration, or Implementation				
8-1	Partner with nonprofits, property owners, and volunteers to expand the tree canopy along steep slopes, increasing opportunities for carbon sequestration, reducing flooding along creeks and streams, and increasing habitat for wildlife. Slopes	Ongoing	Battlefield Heritage Interpretation	Nonprofits, Land Trusts, Volunteers, Friend's Groups

	where archaeological remains are likely present should not be candidate sites for tree planting initiatives.		Plan municipalities	
8-2	Partner with nonprofits, property owners, and volunteers to expand the tree canopy along riparian buffer areas, increasing opportunities for carbon sequestration while reducing flooding along creeks and streams, and increasing habitat for wildlife. Riparian areas where archaeological remains are likely present should not be candidate sites for tree planting initiatives.	Ongoing	Battlefield Heritage Interpretation Plan municipalities	Nonprofits, Land Trusts, Volunteers, Friend's Groups
Data Collection & Analysis				
8-3	Inventory and map Heritage Trees to establish a repository of existing historically significant trees as a tool for natural resource preservation and heritage interpretation efforts.	Medium Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, Nonprofits, Land Trusts
8-4	Identify opportunities to adapt to a changing climate with an emphasis on protecting historic resources, sites, and landscapes from the effects of extreme precipitation through the strategic use of vegetation (i.e. green stormwater infrastructure) in locations where archaeological remains are not present.	Long Term	Battlefield Heritage Interpretation Plan municipalities, property owners	CCPC, Nonprofits, Land Trusts
8-5	Conduct a vulnerability assessment to identify opportunities to adapt to a changing climate, in particular in relationship to historic resources and recommended Heritage Center sites and Interpretive Sites	Short Term	Battlefield Heritage Interpretation Plan municipalities, CCPC, DCPD	Property Owners, Friend's Groups Nonprofits, Land Trusts

Interpretation				
8-5	Highlight local natural resources, such as native plants, waterways and EV streams, Heritage Trees, prime agricultural soils, etc. at Heritage Centers and with interpretive media tools, such as walking tours, websites, etc. to educate visitors on native species.	Long Term	Friends Groups	CCPC, Brandywine Battlefield Task Force

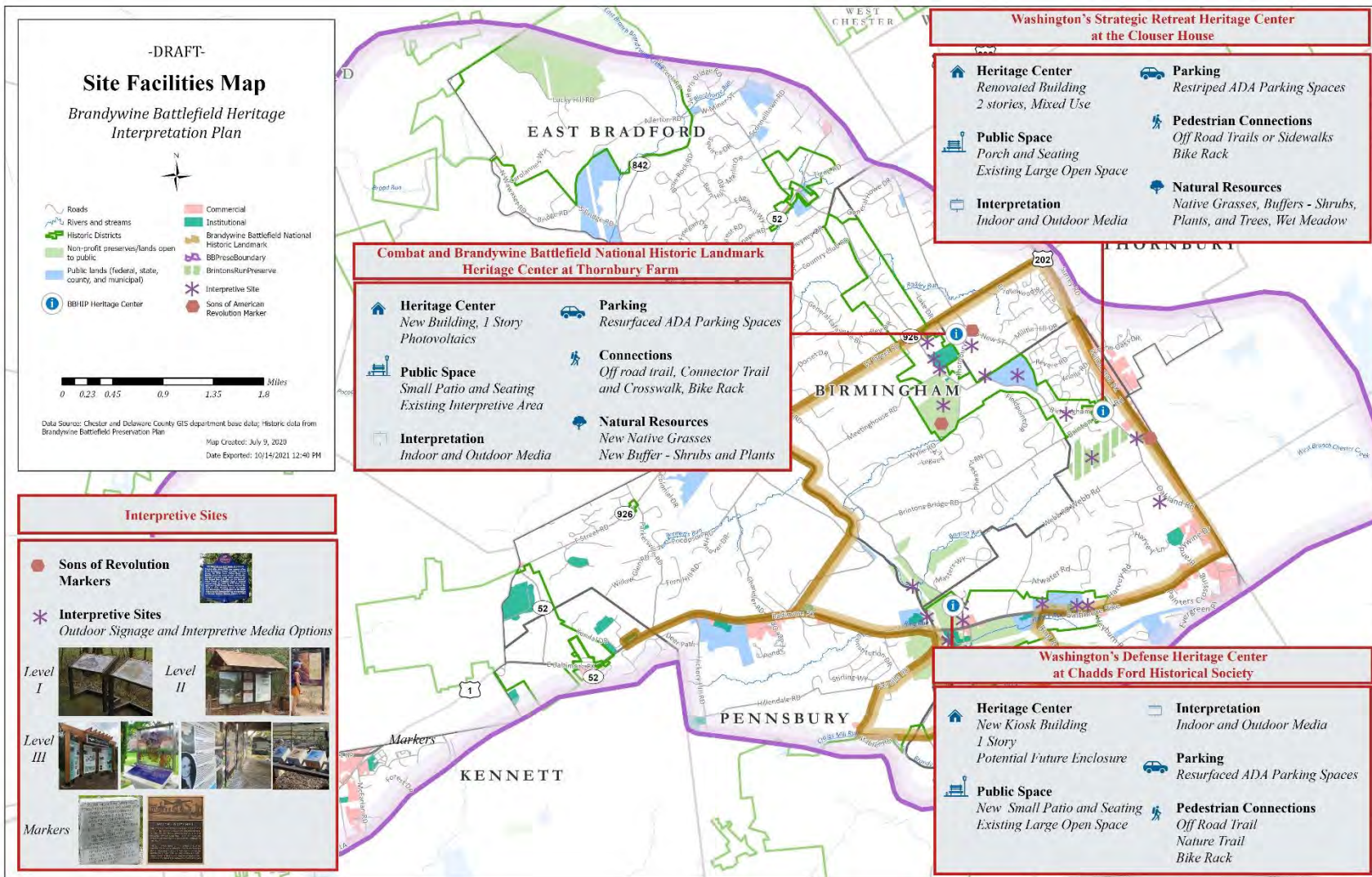


Figure 5-9 Implementation Matrix General

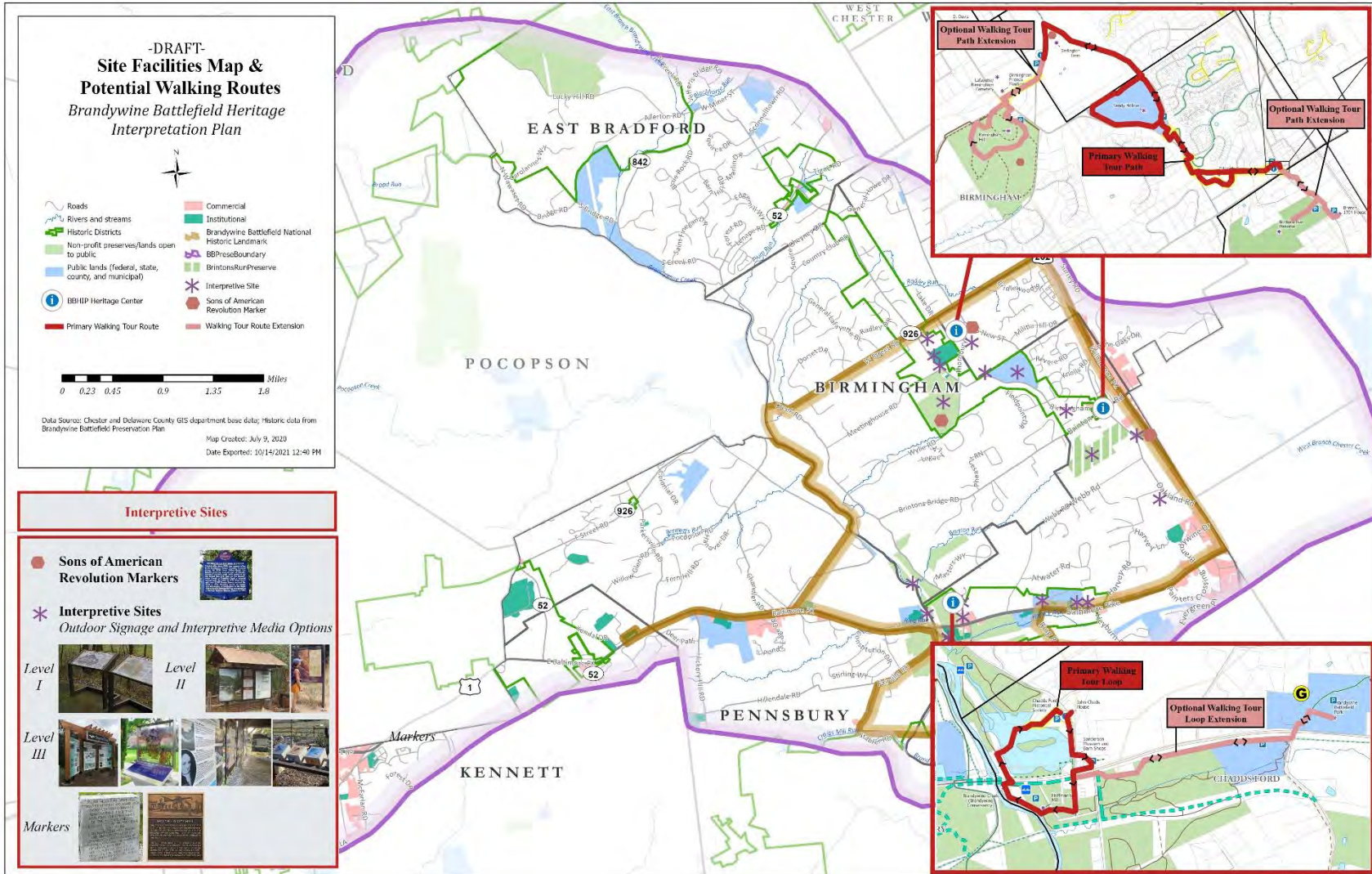
No.	Recommendation	Priority	Lead Parties	Key Partners
9-1	Establish a central point of contact of the BB HIN to advise, provide guidance, and/or conduct a plan review of all Heritage Center site plans and interpretive media development and installation at Heritage Centers and Interpretive Sites, to ensure consistency with this Plan, the Brandywine Battlefield Preservation Plan, and Associated Strategic Landscapes Plan.	Short Term	CCPC and DCPD or Brandywine Battlefield Task Force	Battlefield Heritage Interpretation Plan municipalities
9-2	Consider developing a cooperative purchasing agreement among Brandywine Battlefield partner municipalities to support the implementation of infrastructure, interpretive materials, and other items of shared interest that relate to the vision for the Battlefield.	Medium Term	Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD
9-3	Evaluate existing funding sources and collectively assess and identify new funding sources to support both implementation and ongoing maintenance costs associated with the operation of Heritage Centers, Interpretive Sites, and Gateways.	Short Term	CCPC, DCPD	Battlefield Heritage Interpretation Plan municipalities
9-4	Inventory existing resources and identify opportunities to share resources where they exist, to reduce to cost to operate and	Short Term	Battlefield Heritage	Friends Groups

	maintain Heritage Centers. (i.e., shared equipment, shared volunteers, etc.)		Interpretation Plan municipalities, CCPC, DCPD	
9-5	Consider developing joint grant applications for similar efforts between multiple Heritage Centers (i.e., design and engineering, multi-municipal trail construction, etc.) to streamline efforts.	Ongoing	Friends Groups, Battlefield Heritage Interpretation Plan municipalities	CCPC, DCPD

Map 5-1, Site Facilities Heritage Centers and Interpretive Sites



Map 5-2, Connectivity Heritage Centers and Interpretive Sites





Chapter 6

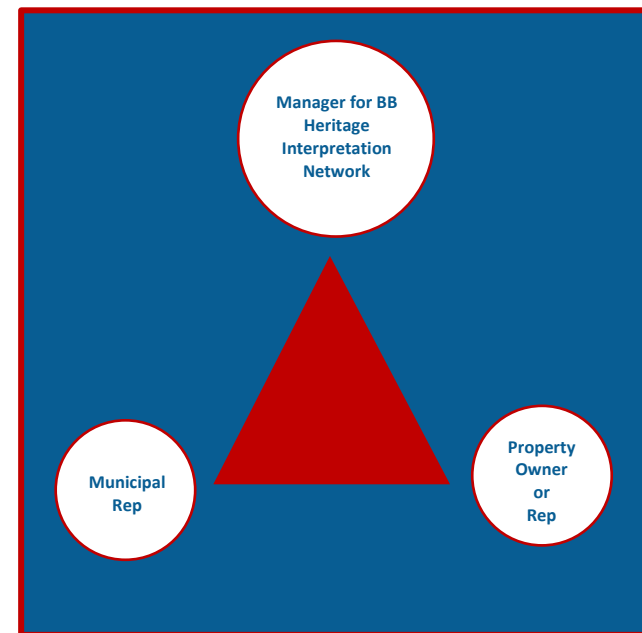
Implementation

Implementation

This chapter summarizes key information to guide the implementation of the strategies outlined in Chapter 5, *Recommendations*. Chapter 6, *Implementation*, is divided into multiple parts. The first part focuses on the roles and responsibilities of those key individuals, groups, and governmental entities whose involvement will be necessary to ensure that the recommendations in this Plan are implemented. The second part provides estimated costs associated with the core components found in the design concepts and overall plan recommendations. This chapter concludes with the identification of potential funding opportunities to assist in further planning, design, or construction of the key topics included within this plan, including heritage interpretation and historic preservation, site planning and design, building design, open space preservation, sustainability, and bicycle and pedestrian connectivity. These funding sources are intended to serve as a fiscal toolbox and resource for municipalities, nonprofits, and applicable property owners.

Roles and Responsibilities

The Brandywine Battlefield Heritage Interpretation and Connectivity Plan is unique in its scope, spanning seven municipalities, two counties, and requiring the support of property owners, local and county governments, nonprofits, and interested citizens in order to advance its implementation in a consistent and strategic manner. Given the Heritage Centers and Interpretive Sites identified in this Plan are owned by a variety of landowners, including private citizens, nonprofits, and governmental entities, a key recommendation of this plan is to designate a central point of contact, a “project manager,” who can serve as a resource for both property owners and municipalities. This role will be key to ensure the recommendations in this plan are implemented and that as opportunities arise to interpret each site, property owners, representatives, and friend’s groups have support and guidance to aid in implementing the interpretive media tools designated within this plan. This primary point of contact will also be key to connecting property owners with resources, such as branding packages and design guidelines for interpretive media (a recommendation of this Plan),



potential grant funding opportunities, and information about best practices and local models to assist in the advancement of these strategies. It is recommended that the Brandywine Battlefield Task Force be the designated point of contact for the Brandywine Battlefield Heritage Interpretation Network (BB HIN), and that two Managers are defined – a Chester County representative from the Task Force as the point of contact for Chester County sites and a Delaware County representative from the Task Force as the point of contact for Delaware County sites. The managers for the BB HIN would be connected into information about funding opportunities, special events, plans, studies, and interested volunteers. This information could be disseminated on an as needed basis to Heritage Center and Interpretive Sites property owners and Friends Groups to assist in their efforts to build, renovate, construct, install, and interpret.

Continued communication with property owners, nonprofits, municipalities, County governments, friend’s groups, and volunteers will be beneficial to support efforts, highlight successes, and communicate challenges that arise that create barriers to implementation. Wherever possible, working within existing frameworks, communication streams, and committee meetings will increase efficiencies. Municipalities may want to consider inviting Heritage Center and Interpretive Sites property owners, representatives, or tenants to Township Historical Commission meetings or Planning Commission meetings where no Historical Commission or Committee is present, one to two times per year to share information, discuss potential resources, and share progress made towards implementation, until the Interpretive Sites and Heritage Centers are realized.

The implementation of the Heritage Centers in Marshallton and Kennett Square were significantly driven by friend’s groups partnering with engaged property owners. The advancement of the Heritage Center at Stroud’s Mill is being significantly driven through East Bradford Township. The Heritage Centers proposed in this plan are similar in some facets to the three existing and in progress Heritage Centers, but also have differences unique to each site. A critical next step for each Heritage Center is the formation of friend’s groups (or sub-committee of the Board of Directors), who can help shepherd the advancement of key recommendations, including fundraising, marketing, and interpretation. Given the role each property owner, municipality, and county government had in the formation of this plan, those same entities will be invaluable to connecting local residents and interested volunteers together that are interested in forming a friend’s group for each Heritage Center, assisted by existing friend’s groups, such as those in Marshallton Village and Kennett Square.

Estimated Costs

Estimated costs associated with the recommendations outlined in the previous chapter are highlighted below in Figure 6-1. Creative ways to offset or reduce costs should be explored wherever possible. This may include donations from interested stakeholders and volunteers, including donated time, materials, or services. Where costs can be reduced by cooperative purchasing and joint efforts among municipalities, nonprofits, or property owners, it is recommended those be explored. It should be noted at the time of writing this plan, due to COVID-19's impact on supply chains, labor shortages, and inflation, costs of many products are higher than typical. This may make it more difficult to purchase items through delayed delivery time, or due to experienced increases in cost, such as those related to the building industry like lumber. While many of the recommendations will require time to complete additional studies, factors such as supply chain impacts, product availability, and inflated costs should be thoughtfully considered.

Key:

X = Applicable to each column/location/partner

Gray = Numbers line item correspond to in Chapter 5, *Recommendations* charts.

Figure 6-1, Estimate of Probable Costs, Overall

No.	Item	Estimated Cost	C & BBNHL Heritage Center	Washington's Strategic Retreat Heritage Center	Washington's Defense Heritage Center	Interpretive Sites	Entire Heritage Interpretation Network	BBHIP Municipalities (where applicable)
Heritage Center Formation								
1 (1-1, 2-1, 3-1)	Establish a friend's group or sub-committee	\$0	X	X	X			
2 (1-2, 2-2, 3-2)	Establish a legal provision for public access	\$5,000	X	X	X			
3 (2-3)	Acquire a tenant to occupy the office space in the Clouser House	\$0		X				

Planning and Design

4 (1-3, 2-4, 3-3)	Acquire funding through grant applications, fundraising, and/or private donations	\$0	X	X	X			
5 (1-4, 2-5, 3-4)	Design, engineering, survey, and permitting for new construction of Heritage Center buildings and site elements	\$100,000	X	X	X			
6 (5-1)	Comprehensive master branding and wayfinding study - assessment, branding, identity, design system, style guide and implementation examples	\$75,000 to \$125,000					X	
7 (6-1, 6-2, 6-6)	Feasibility studies for multimodal, pedestrian trails, and/or bikeways trails	\$70,000						X
8 (6-3)	Preliminary design and engineering for multimodal, pedestrian trails, and/or bikeways trails projects	TBD						X
9 (6-4)	Procure trail easements or lease agreements	TBD						X
10 (6-7)	Explore potential opportunities with existing informal neighborhood trails	\$0	X	X				

11 (7-3)	Consider adopting an Official Map and Ordinance as open space protection tool	\$5,000 to \$10,000						X
12 (7-4)	Consider updating municipal Open Space, Recreation, and Environmental Resource Plans or Land Preservation Plans to incorporate historic resources into open space prioritization	\$20,000 to \$70,000						X
13 (9-1)	Establish a central point of contact or BB HIN to advise and provide guidance. This could include conducting plan reviews of all Heritage Center site plans and interpretive media development applications and installation	\$0					X	
14 (9-2)	Consider developing a cooperative purchasing agreement among Brandywine Battlefield partner municipalities	\$0						X
Physical Projects – Construction, Renovation, Restoration, or Implementation								
15 (1-5, 2-6, 3-5, 6-15)	Acquire funding through grant applications, fundraising, and/or private donations	\$0	X	X	X	X	X	X
16 (1-6)	Construct a new Heritage Center building	\$100,000	X					

17 (2-7)	Renovate the Clouser House into a Heritage Center	\$100,000		X				
18 (3-6)	Construct a new Heritage Center kiosk/pavilion	\$75,000			X			
19 (1-6, 3-6)	Construct a patio adjacent to the Heritage Center	\$10,000	X		X			
20 (1-6)	Install solar panels (rebates may be available)	\$10,000	X					
21 (5-4, 5-5, 5-6, 7-6, 8-5)	Heritage Center Interpretive Exhibits - develop content, fabricate, and install interpretive media	\$65,000 to \$200,000	X \$75,000- (primarily print graphics) to \$150,000 to \$200,000 depending on multimedia elements	X \$65,000 to \$85,000	X \$75,000 to \$150,000			
22 (3-7)	Collaborate with PennDOT to reestablish former crosswalks across Creek Road.	\$7,000			X			
23 (4-1)	Continue engaging with Interpretive Sites property owners	\$0				X		

24 (4-2)	Procure easements for any proposed interpretive signage outside right-of-way	\$2,000				X		
25 (4-3)	Develop content, fabricate, and install interpretive media at Interpretive Sites:	Below				X		
26 (4-3)	Level I: Low Profile - per sign design and output. <i>Installation and maintenance costs additional.</i>	\$2,000 to \$3,000				X		
27 (4-3)	Level II: Upright Orientation- per sign design and output. <i>Installation and maintenance costs additional.</i>	\$4,000 to \$12,000				X		
28 (4-3)	Level III: Interpretive Pavilion - for sign design, fabrication and output. <i>Installation and maintenance costs additional.</i>	\$50,000 to \$100,000				X		
29 (4-3)	Markers and plaques	\$200 to \$5,000				X		
30 (5-4, 5-5, 5-6)	Monitor and webcam set up for remote docents for Heritage Centers.	\$5,000 to \$7,000	X	X	X			
31 (4-4)	Installation of Sons of American Revolution Markers	\$2,000				X		
32	Vegetation	Below						

(1-4, 2-5)								
33 (8-1, 8-2)	Tree plantings on riparian areas and steep slopes	TBD					X	X
34 (2-5)	Wet meadow	\$30,000		X				
35 (1-4, 2-5)	Landscaping	\$20,000	X	X				
36 (1-4, 2-5, 3-4)	Install site furniture, including:	Below	X	X	X			
37 (1-4, 2-5, 3-4, 6-13)	Bike racks	\$500	X	X	X			
38 (1-4, 2-5, 3-4, 6-13)	Water bottle filling stations	\$1,500	X	X	X			
39 (6-13)	Wayfinding signage	TBD	X	X	X			
40 (1-4, 2-5, 3-4)	Bench	\$800	X	X	X			

41 (6-16)	Construct sidewalks, trails, and bikeways	Below		X				
42 (6-16)	Sidewalks	\$32 per linear foot	X	X	X			
43 (6-1, 6-3, 6-16)	Multimodal trails	\$75 to \$125 per linear foot						X
44 (6-2)	Pedestrian trails – natural surface	\$3 per linear foot	X	X	X			
45 (6-16)	Pedestrian trails – improved surface	\$20 per linear foot	X	X	X			
46 (6-6)	In-road bikeways (dedicated shoulder)	\$20 to \$65 per linear foot						X
47 (6-14)	Leverage land development process to construct sidewalks, trails, and/or bikeways	\$0						X
48 (1-4, 2-5, 3-4)	Repave and/or restripe ADA parking spaces	\$5,000	X	X	X			

Heritage Interpretation (Programmatic, Other, Etc.)								
49 (1-7, 2-8, 3-8)	Consult and collaborate with municipal commissions and Brandywine Battlefield Task Force	\$0	X	X	X	X		
50 (5-2, 1-8, 2-9, 3-9)	Design the Brandywine Battlefield Park Associates website to include links to Heritage Center Sites, Interpretive Sites, apps, digital walking tours, etc. Design and launch a dedicated webpage for each Heritage Center.	\$40,000	X	X	X		X	
51 (6-9)	Develop a self-guided audio walking tour for each Heritage Center and associated Interpretive Sites	\$0	X	X	X	X		
52 (6-10)	Develop a guided canoe or kayak tour	\$0			X	X		
53 (6-11)	Explore developing virtual tours for walking, running, biking, and/or kayaking/canoeing	\$0	X	X	X	X		
54 (1-10, 2-11, 3-11)	Identify joint opportunities to promote Heritage Centers and Interpretive Sites	\$0	X	X	X	X		
55 (5-3)	Update municipal websites to include links to the master website and/or	\$500						X

	Heritage Center and public Interpretive Site websites							
Land Preservation								
56 (7-1)	Continue to preserve open space, including lands significant to the Battle of Brandywine.	TBD					X	X
57 (7-2)	Retain dedicated open space taxes, where they exist.	\$0					X	X
Data Collection & Analysis								
58 (7-5)	Quantify the amount of carbon sequestered within the Brandywine Battlefield.	\$5,000					X	
59 (8-3)	Inventory and map Heritage Trees	\$5,000 to \$10,000					X	X
60 (8-4)	Identify opportunities to adapt to changing climate through strategic use of vegetation						X	X
61 (8-5)	Vulnerability assessment to identify opportunities to adapt to a changing climate	\$15,000 to \$25,000					X	X
62 (9-3)	Evaluate existing funding sources and identify new funding sources for operation and maintenance costs	\$0					X	

63 (9-4)	Inventory existing resources to identify opportunities to share resources	\$0	X	X	X		X	X
64 (9-5)	Consider developing joint grant applications.	\$0	X	X	X			

Figure 6-2, Estimate of Probable Costs, Combat & Brandywine Battlefield National Historic Landmark Heritage Center

Heritage Center Cost Estimate		
Combat & Brandywine Battlefield National Historic Landmark Heritage Center at Thornbury Farm		
16	Heritage Center Building	\$100,000
21	Heritage Center Interpretive Exhibit	\$75,000- (primarily print graphics) to
		\$150,000 to \$200,000 depending on multimedia elements
30	Remote docent webcam and monitor	\$5,000 to \$7,000
20	Solar panels (rebates may be available)	\$10,000
38	Water bottle filling station (1)	\$1,500
19	Patio	\$10,000
40	Bench (1)	\$800
35	Landscaping	\$20,000
48	Parking lot improvements	\$5,000
45	Trails	\$44,315
37	Bike rack (1)	\$500
Implementation Total		\$202,800 to \$329,800
	Utilities	\$2,500
	Insurance	\$1,200
	Website	\$150
	Materials	\$1,000
Annual Operating Expenses Total		\$4,850
	Special events/fundraiser (1x per year)	\$1,000 to \$5,000
	Advertising	\$500 to \$1,000
Annual Potential Revenue Total		\$1,500 to \$6,000

Figure 6-3, Estimate of Probable Costs, Washington’s Strategic Retreat Heritage Center

Heritage Center Cost Estimate: Washington’s Strategic Retreat Heritage Center at the Clouser House in Historic Dilworthtown		
17	Heritage Center Building – Renovation of Clouser House	\$75,000
21	Heritage Center Interpretive Exhibit	\$65,000 to \$85,000
30	Remote docent webcam and monitor	\$5,000 to \$7,000
38	Water bottle filling station (1)	\$1,500
34	Wet meadow	\$30,000
35	Landscaping (trees, shrubs, native grasses)	\$20,000
40	Bench (1)	\$800
48	Parking Lot Improvements	\$5,000
42, 45	Trails	\$22,500
37	Bike rack (1)	\$500
Implementation Total		\$177,800 to \$199,800
	Utilities	\$2,500
	Insurance	\$1,200
	Website	\$150
	Materials	\$1,000
Annual Operating Expenses Total		\$4,850
	Special events/fundraiser (1x per year)	\$1,000 to \$5,000
	Advertising	\$500 to \$1,000
Annual Potential Revenue Total		\$1,500 to \$6,000

Figure 6-4, Estimate of Probable Costs, Washington's Defense Heritage Center

Heritage Center Cost Estimate: Washington's Defense Heritage Center at the Chadds Ford Historical Society in Chadds Ford Village		
18	Heritage Center Building – Kiosk Pavilion	\$75,000
21	Heritage Center Interpretive Exhibit	\$75,000 to \$150,000
30	Remote docent webcam and monitor	\$5,000 to \$7,000
38	Water bottle filling station (1)	\$1,500
40	Bench (1)	\$800
48	Parking Lot Improvements	\$5,000
44, 45	Trails	\$20,000
37	Bike rack (1)	\$500
19	Patio	\$10,000
Implementation Total		\$187,800 to \$264,800
	Utilities	\$2,500
	Insurance	\$1,200
	Website	\$150
	Materials	\$1,000
Annual Operating Expenses Total		\$4,850
	Special events/fundraiser (1x per year)	\$1,000 to \$5,000
	Advertising	\$500 to \$1,000
Annual Potential Revenue Total		\$1,500 to \$6,000

Figure 6-5, Estimate of Probable Costs, Interpretive and Wayfinding Tools

Interpretive and Wayfinding Tools		
51	Walking Tour (izi.travel/en)	\$0
52	Guided canoe or kayak tour	\$0
53	Virtual tours (walking running, biking, kayaking/canoeing)	\$0
	Rack Cards or Brochures	\$2,000

Figure 6-6, Estimate of Probable Costs, Interpretive Sites

Interpretive Sites		
Level I		
26	Low Profile Sign design and output	\$2,000 to \$3,000
	<i>Installation and Site Prep</i>	<i>Varies</i>
Level II		
27	Upright Orientation	\$4,000 to \$12,000
	<i>Installation and Site Prep</i>	<i>Varies</i>
Level II		
28	Interpretive Pavilion	\$50,000 to \$100,000
	<i>Installation and Site Prep</i>	<i>Varies</i>

Markers		
29	Markers and Plaques	\$200 to \$5,000
31	Sons of American Revolution Markers	\$2,000

Funding Opportunities Summary

Recommendations described in Chapter 5 can be implemented by a variety of sources, including county staff, municipal staff, property owners, nonprofit entities, friends' groups, and/or volunteers. Recommendations will likely require a mix of financial resources for implementation. Volunteers, friends' groups, and other entities may provide partnership opportunities to explore that can assist with implementation, while requiring minimal to no financial support.

Figures 6-7 through 6-9 on the following pages list potential sources of funding for components within this Plan. Given the multi-faceted and comprehensive nature of the Brandywine Battlefield Heritage Interpretation Plan and its recommendations, funding information is organized into one of several topics, including:

- Funding sources for historic preservation and heritage interpretation
- Funding sources for trails, sidewalks, and bikeways
- Funding sources for open space preservation
- Other funding sources

Each funding chart includes the name of the grant program, the entity managing the grant program, and a brief description of the funding source and associated details. Funding sources include opportunities through public entities, such as federal, state, regional, or county entities, as well as private entities, such as foundations. Chester County, Delaware County, and organizations such as the Brandywine Conservancy may be able to assist with grant writing, and in certain cases, with securing matching funds for design and construction, such as for trails, bikeways, or sidewalk projects.



Figure 6-7 Potential Funding Sources for Historic Preservation and Heritage Interpretation

The following organizations and affiliated programs provide funding historic preservation and/or heritage interpretation. Efforts within partner municipalities to protect historic resources and interpret the history of the Battlefield, the Battle of the Brandywine, and the people involved and impacted by that moment in time may consider the following sources as potential avenues to facilitate planning and implementation projects. These funding sources can assist in the implementation of the recommendations outlined in Chapter 5 for Heritage Centers and Interpretive Sites, found on Figures 5-1, 5-2, 5-3, and 5-4.

No.	Program	Entity	Details
1	American Battlefield Protection Program	National Park Service	<ul style="list-style-type: none"> • Public, Federal government • Battlefield Interpretation Grants • Battlefield Restoration Grants • Website: http://www.nps.gov
2	Historic Preservation Fund	National Park Service	<ul style="list-style-type: none"> • Public, Federal government • Website: http://www.nps.gov
3	Save America’s Treasures Grants	National Park Service	<ul style="list-style-type: none"> • Public, Federal government • Website: http://www.nps.gov
4	Cultural and Historical Support Grant Program	Pennsylvania Historical & Museum Commission	<ul style="list-style-type: none"> • Public, State government • Website: Museum Support (pa.gov)
5	Keystone Historic Preservation Planning Grants	Pennsylvania Historical & Museum Commission	<ul style="list-style-type: none"> • Public, State government • Website: Keystone Planning Projects (pa.gov)
6	Keystone Historic Preservation Construction Grants	Pennsylvania Historical & Museum Commission	<ul style="list-style-type: none"> • Public, State government • 50% match

			<ul style="list-style-type: none"> • \$5,000 to minimum request • \$100,000 maximum request • Website: Keystone Construction Projects (pa.gov)
7	Certified Local Government Grant Program	Pennsylvania Historical & Museum Commission	<ul style="list-style-type: none"> • Public, State government • Website: http://www.phmc.pa.gov
8	Historical and Archival Records Care Grants	Pennsylvania Historical & Museum Commission	<ul style="list-style-type: none"> • Public, State government • Website: Records Care Grants (pa.gov)
9	Community Conservation Partnerships Program	Department of Conservation and Natural Resources	<ul style="list-style-type: none"> • Public, State government • Website: Grants (pa.gov)
10	Preservation Partnership Program (PPP)	Chester County	<ul style="list-style-type: none"> • Public, County government • Website: Preservation Partnership Program Chester County, PA - Official Website (chesco.org)
11	Vision Partnership Program (VPP)	Chester County	<ul style="list-style-type: none"> • Public, County government • Competitive grant for municipal plans and studies • 30% match • 2-year timeframe to complete the grant • Website: Vision Partnership Program (chescoplanning.org)
12	Unspecified	American Friends of Lafayette	<ul style="list-style-type: none"> • Private foundation

13	Program for Capacity Building, General Operating, Environmental, and Capital & Endowment	Chester County Community Foundation	<ul style="list-style-type: none"> • Private foundation • Website: Apply for Grants Nonprofit Grant Opportunities Chester County Nonprofit Grants Chester County Community Foundation (chescof.org)
14	PECO Green Region Program	Natural Lands	<ul style="list-style-type: none"> • Nonprofit • Annual competitive grant program for private funds • 50% match: \$10,000 maximum • 18-month timeframe to complete the grant • Website: PECO Green Region - Natural Lands (natlands.org)
15	Mini-Grant Program for the Brandywine Creek Greenway	Brandywine Conservancy	<ul style="list-style-type: none"> • Eligible for Brandywine Creek Greenway municipalities and nonprofit entities • Minimum \$2,000 request, Maximum \$10,000 request • 50% match • 1 year timeframe to complete the grant • Website: Mini-Grant Program Brandywine Conservancy and Museum of Art



Figure 6-8 Potential Funding Sources for Active Transportation

The following organizations and affiliated programs provide funding for trails, sidewalks, and/or bikeways. Efforts within partner municipalities to connect residents, businesses, and visitors to gateways, Heritage Centers, historic districts and villages, and publicly accessible Interpretive Sites within the Battlefield may consider the following sources as potential avenues to facilitate the planning and/or design of bicycle and pedestrian connections. These funding sources can assist in the implementation of the recommendations outlined in Chapter 5, Figure 5-6, Implementation Matrix for Active Transportation Recommendations (p. 5-19).

No.	Program	Entity	Details
1	Transportation Improvement Program (TIP)	PennDOT	<ul style="list-style-type: none"> • Public, State government • Website: Four & Twelve Year Plans (penndot.gov)
2	Transportation Alternatives Set Aside (TA)	PennDOT	<ul style="list-style-type: none"> • Public, State government • Federal transportation funds • Match requires funding all pre-construction activities • \$50,000 minimum and \$1,000,000 maximum • 2-year timeframe to complete design, right-of-way, and utility clearance • Website: Transportation Alternatives Set-Aside (penndot.gov)
3	Greenways, Trails and Recreation Program (GTRP)	Commonwealth Financing Authority (CFA) with Department of Community and Economic Development (DCED) & Department of	<ul style="list-style-type: none"> • Public, State government • Annual, competitive grant program for state funds (Act 13) • 15% match: \$250,000 maximum • 2 to 3-year timeframe to complete the grant

		Conservation and Natural Resources	<ul style="list-style-type: none"> Website: Greenways, Trails and Recreation Program (GTRP) - PA Department of Community & Economic Development
4	Multimodal Transportation Fund (MTF)	Commonwealth Financing Authority (CFA) with Department of Community and Economic Development (DCED)	<ul style="list-style-type: none"> Public, State government Annual, competitive grant program for state funds (Act 89) 30% match: \$100,000 minimum; \$3,000,000 maximum 3-year timeframe to complete the grant Website: Mini-Grant Program Brandywine Conservancy and Museum of Art
5	Community Conservation Partnership Program (C2P2)	Department of Conservation and Natural Resources (DCNR)	<ul style="list-style-type: none"> Public, State government Annual, competitive grant program Various federal and state funds 50% match Website: Grants (pa.gov)
6	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Delaware Valley Regional Planning Commission (DVRPC)	<ul style="list-style-type: none"> Public, Municipal Planning Organization (MPO) Federal transportation funds Match requires funding all pre-construction activities Website: Congestion Mitigation and Air Quality Improvement Program (CMAQ) DVRPC
7	Transportation Improvements Inventory/Program (TII/TIP)	Delaware Valley Regional Planning Commission (DVRPC)	<ul style="list-style-type: none"> Public, Municipal Planning Organization (MPO)

			<ul style="list-style-type: none"> Website: FY2021 Transportation Improvement Program for Pennsylvania (FY21-24) (dvrpc.org)
8	Transportation Alternatives Set Aside (TA)	Delaware Valley Regional Planning Commission (DVRPC)	<ul style="list-style-type: none"> Public, Municipal Planning Organization (MPO) Federal transportation funds Match requires funding all pre-construction activities \$50,000 minimum and \$1,000,000 maximum 2-year timeframe to complete design, right-of-way, and utility clearance Website: Transportation Alternatives Set-Aside Program (TA) DVRPC
9	Vision Partnership Program (VPP)	Chester County Planning Commission	<ul style="list-style-type: none"> Public, County government Competitive grant for municipal plans and studies 30% match 2-year timeframe to complete the grant Website: Vision Partnership Program (chescoplanning.org)
10	PECO Green Region Program	Natural Lands	<ul style="list-style-type: none"> Nonprofit Annual competitive grant program for private funds 50% match: \$10,000 maximum 18-month timeframe to complete the grant Website: PECO Green Region - Natural Lands (natlands.org)

11	People for Bikes Community Grant Program	People for Bikes	<ul style="list-style-type: none"> • Non-profits, municipalities • 50% match: \$10,000 maximum • Two grant rounds per year, 1 in the spring and 1 in the fall • Website: http://www.peopleforbikes.org
12	Mini-Grant Program for the Brandywine Creek Greenway	Brandywine Conservancy	<ul style="list-style-type: none"> • Eligible for Brandywine Creek Greenway municipalities and nonprofit entities • Minimum \$2,000 request, Maximum \$10,000 request • 50% match • 1 year timeframe to complete the grant • Website: Mini-Grant Program Brandywine Conservancy and Museum of Art

It should be noted that trails that do not offer ADA accessibility and service small residential areas are less likely to receive state funding from PennDOT or DCNR but may be eligible for private or corporate funding. Trail design and engineering costs are typically the responsibility of the grantee. Grantors cover a portion of the construction costs and require a local match that varies by grant program. The TCDI grant is one exception where the grant can cover planning, design, engineering, and construction costs. Townships can leverage municipal funds to secure partial or complete grant funding for trail construction projects. Chester County grant programs, including the Vision Partnership Program and the Preservation Partnership Program, will be a primary source of funds for municipal planning projects.



Figure 6-9 Potential Funding Sources for Open Space Preservation

The following organizations and affiliated programs provide funding for open space preservation and land conservation. Ongoing efforts within partner municipalities to protect open space within the Battlefield may consider the following sources as potential avenues to facilitate the protection of lands with valuable historic, cultural, or natural resources. These funding sources can assist in the implementation of the recommendations outlined in Chapter 5, Figure 5-7, Implementation Matrix for Open Space Preservation Recommendations (p. 5-24).

No.	Program	Entity	Details
1	American Battlefield Protection Program	National Park Service	<ul style="list-style-type: none"> Public, Federal government Website: http://www.nps.gov
2	Community Conservation Partnerships Program (C2P2), Keystone Recreation, Park and Conservation Fund	Department of Conservation and Natural Resources	<ul style="list-style-type: none"> Public, State government Annual, competitive grant program Various federal and state funds 50% match Website: Applying for Grants (keystonefund.org)
3	Preservation Partnership Program (PPP)	Chester County	<ul style="list-style-type: none"> Public, County government Municipal acquisition Park and trail improvements 50% match 2-year timeframe to complete the grant Website: Preservation Partnership Program Chester County, PA - Official Website (chesco.org)
4	Open Space & Recreation Municipal Grant Program	Delaware County	<ul style="list-style-type: none"> Public, County government

			<ul style="list-style-type: none"> • Website: Delaware County Announces Municipal Grant Program for Open Space (delcopa.gov)
5	Local Open Space Conservation Funds	Chadds Ford Township	<ul style="list-style-type: none"> • Public, local government • Dedicated tax for open space funding • \$0.0028 Tax Rate • Approved in 2005 • Website: Chadds Ford Township (chaddsfordpa.gov)
6	Local Open Space Conservation Funds	Kennett Township	<ul style="list-style-type: none"> • Public, local government • Dedicated tax for open space funding • 0.25% Tax Rate • Approved in 2005 • Website: Kennett Township, PA Official Website
7	Local Open Space Conservation Funds	East Bradford Township	<ul style="list-style-type: none"> • Public, local government • Dedicated tax for open space funding • 0.25% Tax Rate • Approved in 1998 and 2000 • Website: East Bradford
8	Local Open Space Conservation Funds	Pennsbury Township	<ul style="list-style-type: none"> • Public, local government • Dedicated tax for open space funding • 0.079% Tax Rate • Approved in 2009 • Website: Pennsbury Township
9	American Battlefield Trust	Mt. Cuba Foundation	<ul style="list-style-type: none"> • Private foundation • Website: Mt. Cuba Center Gardening on a Higher Level (mtcubacenter.org)

10	Mini-Grant Program for the Brandywine Creek Greenway	Brandywine Conservancy	<ul style="list-style-type: none"> • Eligible for Brandywine Creek Greenway municipalities and nonprofit entities • Minimum \$2,000 request, Maximum \$10,000 request • 50% match • 1 year timeframe to complete the grant • Website: Mini-Grant Program Brandywine Conservancy and Museum of Art

Other Potential Funding Sources

As mentioned in the previous chapter, a creative mix of funding sources, including donations, acquisition of grants, and coordinated fundraising efforts will help reduce the cost to plan, design, and construct the plans, projects, and interpretation efforts. Additional avenues to explore include private donations from individuals, larger fundraising efforts, campaigns, or crowdsourcing, private foundations, donated time from volunteers and professionals, which may serve as an in-kind match on grant applications, groups or clubs dedicated to the American Revolution, key figures, and events, and unique funding sources, such as local funding for municipalities from the American Rescue Plan and the American Jobs Plan.