



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County Pennsylvania

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West Pikeland Township Park Master Plan

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West Pikeland Township, Chester County, Pennsylvania

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Introduction

This planning project provides a vision for a new community park in West Pikeland Township, Chester County. The 62 acre park is the former White Farm, located on Conestoga Road, west of the Route 113 intersection. The park has not been officially named by the municipality and is referred to throughout this report as West Pikeland Township Park. The master plan illustrates the future vision for West Pikeland Township Park.

The planning process also explored park development considerations for a separate, 24 acre tract, referred to as Windolph Knoll. Information about Windolph Knoll is documented in Appendix A.

Planning Process

The West Pikeland Township Park Master Plan planning process included four parts:

1. Inventory and Assessment
2. Public Participation
3. Park Master Plan
4. Costs and Implementation

1. Inventory and Assessment

The natural resources and existing features of West Pikeland Township Park were viewed and assessed throughout the spring, summer, and fall of 2014. Natural resources and existing remnants of the former farm were explored and site opportunities and constraints were considered. The municipal and regional setting was investigated to consider surrounding land uses and potential and existing linkages to the park site.

2. Public Participation

Citizen and stakeholder input was sought throughout the planning process to broaden the consultant teams understanding of local recreation needs and interests and explore opportunities and issues associated with the park site. Public input was gathered by working with a task force committee and municipal staff, completing interviews and forums with stakeholders, and conducting two public meetings.

3. Park Master Plan

Conceptual alternative designs were developed to illustrate different approaches to develop West Pikeland Township Park to achieve the goals of the community. The task force reviewed the conceptual alternatives and provided direction for the preparation of the pre-final and final designs. The West Pikeland Township Park master plan reflects the findings and conclusions of the planning process.

4. Costs and Implementation

Probable construction cost opinions and a phasing plan for implementing the master plan were completed. Implementation strategies and considerations were identified.

West Pikeland Township Park

West Pikeland Township Park is located in the southwest side of West Pikeland Township. The Township is located northeast of Downingtown and contains the village of Yellow Springs. The park site is bordered by the Fairfields residential development to the south and property of the Mill at Anselma to the west and north. Conestoga Road (Route 401)

forms the majority of the northeast property line. Additional residential properties are interspersed along the west, north and east boundaries.



Background and History

West Pikeland Township (Excerpts, in part, from the West Pikeland Township Comprehensive Plan, 2010)

There is evidence in West Pikeland Township of early human and Native American inhabitants, followed by European settlement in the 1700s. William Penn granted the region, including West Pikeland to Joseph Pike, a merchant from Ireland, in 1703. The land area comprised 10,116 acres and was known as “Pikes-land” and initially included what are now both East and West Pikeland. In 1838 the area was split into East and West Pikeland.

Following settlement, much of the land was cleared for crops and livestock. Agriculture became the dominant industry and gristmills were constructed along the streams to process the grain. One of the most important of these mills is the Mill at Anselma, built in 1747 on Pickering Creek.

The Township became an important travel destination following the discovery of sulfur springs. Valued for their medicinal properties, people came from all over to bathe in the spring’s mineral waters. “Yellow Springs” grew into a well-known summer resort. Yellow Springs was the site of a hospital during the Revolutionary War and was used to treat the wounded of the Battle of Brandywine and those that fell ill while at Valley Forge.

As the region continued to grow, iron and steel industry developed. In 1871, the Pickering Valley Branch of the Reading Railroad Company was constructed between Phoenixville and Byers. Dairy products and iron ore were the main products carried by this system. Commercial and industrial activity declined in the twentieth century and mining ceased along with the operation of the rail line. The strong agricultural tradition continued, and West Pikeland is still recognized for its contribution to regional agriculture.

Today, West Pikeland Township is a second class township that has both a rural and suburban setting. Its proximity to Philadelphia, the Great Valley, and West Chester and easy access to the Pennsylvania Turnpike allow residents to commute to these major employment centers.

Mill at Anselma (Lightfoot Mill/Collins Mill) – This building is listed on the National Register and is also designated a National Historic Landmark (nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States). “The combination grist and lumber mill was built in 1747 by Samuel Lightfoot. It is an excellent example of a mid-eighteenth century mill operation vital to the region’s agricultural and commercial growth. It is architecturally significant because of its early date and largely original condition” (source: National

Register nomination form). Anselma developed as a commercial center and at one point supported the County's second largest creamery, as well as the gristmills, a general store and post office, the Franklin Hall School, and a train station. The grounds of the general store were well known as the location of tractor sales events held during the 1930s and 1940's. The abandonment of the railroad led to the decline of the village and there is little left to give evidence to this once important commercial area. A gristmill and several key historic homes still stand in this area, and together they serve as important reminders of the Township's historical development.

Opperman's Corner - The northwest corner of the intersection of Routes 113 and 401 was the site of a general store dating from 1871. It was owned by David Opperman and was known as the first store in the vicinity to carry ice cream. It operated until 1959 at which time it was demolished as part of a road improvement project.

Open Space Initiatives and Acquisition of the White Farm

Since 2008, the West Pikeland Land Trust, along with the West Pikeland Township Open Space Committee, has served as official advisor to the West Pikeland Township Board of Supervisors regarding open space protection initiatives. Since 2007, approximately 300 acres of open space has been protected, primarily through conservation easements. Conservation easements were paid for via the tax-based funding generated as a result of the township's 2007 Open Space Referendum. The referendum funding made possible the acquisition of the White Farm.

A significant portion of the private funding raised by the West Pikeland Land Trust (as a 501 (c) (3)) is used for trail improvement projects. These trail improvements on open space parcels provide West Pikeland Township residents a network of trails and expand upon the traditional recreational offerings.

In addition to municipal funding from the 2007 Open Space Referendum, West Pikeland Township secured funding from both Chester County and the Pennsylvania Department of Conservation and Natural Resources for the acquisition of the White Farm.

The White Farm will provide over 60 acres of land for public recreation. Additionally, approximately five acres of the tract will be set aside for future municipal uses.

West Pikeland Township Park System

West Pikeland Township has one existing park and three recreation open space parcels comprising 146.03 acres. The addition of the White Farm, at 62 acres, raises the park and recreation open space acreage to 208 acres. West Pikeland Township has been proactive in the preservation of open space. The 2010 West Pikeland Township Comprehensive Plan notes that 2,329 acres, or 36-percent of the municipal land area is preserved as parkland, open space, and conservation areas.

Pine Creek Park is 71.09 acres and the Township's only developed park. The park includes facilities for active recreation (soccer fields, playground, and picnic pavilion) and open area for the passive enjoyment of the natural setting. Trail explore the park's stream, woodlands, and meadows.

Pickering Grove is a 16.4 acre open space parcel. This site has a parking area and provides pedestrian access to fishing opportunities along Pickering Creek. The property is currently leased for six weeks during the summer by a private day camp.

Hallman's Field, a 34.7 acre parcel, located in the southern portion of what is known as the Pickering Creek Open Space, has direct access to Pikeland Road. The property has a deed restriction requiring that it be available to residents of the township as a ball field. The parcel is wet and not usable for competitive play. No parking is provided at the site.

Windolph Knoll is a 23.84-acre undeveloped parcel at the corner of Route 401 and Upper Pine Creek Road. See Appendix A for additional discussion on the recreation potential of this property.

Binkey Lee Preserve is a 112 acre nature preserve owned and managed by the Natural Lands Trust. Trails are developed throughout the property which are open for public use.

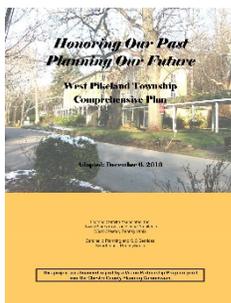


Local and Regional Planning Initiatives

The following local and regional planning initiatives were referenced as part of the planning process for the West Pikeland Township Park Master Plan.

Parks, Recreation, and Open Space Plan for the Federation of Northern Chester County Communities, 2012

– The plan was prepared as a guide for providing parks, recreation, and open space protection in the interest of public health and wellness and environmental conservation for the nine municipalities of northern Chester County, including West Pikeland Township. It was adopted as a supplement to each of the municipality’s comprehensive plans and can be implemented, in whole or in part, among two more willing communities. The plan recommends actions to foster active, healthy living and environmental conservation through parks, recreation, and open space. The Plan defines key strategies for establishing a premier parks system in Northern Chester County and the acquisition and development of West Pikeland Township Park aligns with the strategy to expand close-to-home recreation opportunities within the regional park system.



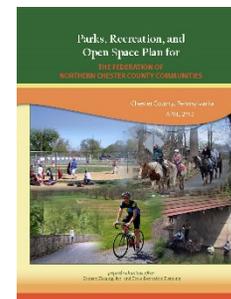
Recommendation 3.1 – Acquire and develop additional parkland for sports fields for both community sports leagues and general recreation. Survey Findings – 71% of respondents through that large parks with a mix of facilities were Important or Very Important

Plan Findings –

- Demand for sports fields by community sports leagues is high in Northern Chester County region.
- Due to heavy use of facilities by youth leagues, there are no adult sports leagues.
- Field capacity in the Region is so limited that no fields can be rested for maintenance purposes.
- Based on the number of teams engaged in organized sports in the area, an additional 19 diamond fields and 13 rectangular fields are needed.

West Pikeland Township Open Space, Recreation, and Environmental Resources Plan, 1992

– The Plan’s primary goal for recreation is to “provide a balance of passive and active recreation areas and facilities for the use and enjoyment of individuals, groups and families of all ages.”

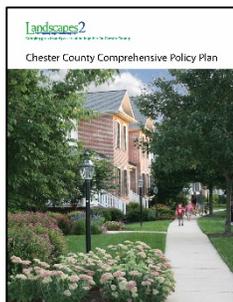


Goal 1 – Provide Lands Appropriate for Recreation – investigate the acquisition of additional lands to satisfy current park needs, and projected community park needs, in areas which are accessible from Routes 113 and 401 and centrally located to serve present and future populations. – The West Pikeland Township Park property is accessible from Routes 113 and 401 and is located to serve a majority of West Pikeland Township residents.

West Pikeland Township Comprehensive Plan, 2010 – This plan includes the following relevant goals.

- Goal 3-1 – Maintain quality of the Township’s special protection watersheds.
- Goal 3-2 – Protect sensitive terrestrial resources.
- Goal 9-3 – Provide sufficient facilities for active recreation.

Chester County Comprehensive Plan Policy Element, Landscapes2, 2009 – The resource goal of the Plan is to “protect, restore, and maintain the network of natural resources as a county-wide ecosystem that is integrated into the built environment while accommodating planned growth.” The open space and greenway goal is to “Acquire, enhance, and manage as essential infrastructure, an integrated network of protected open spaces that are linked together by greenways or trail corridors.” The Livable Landscapes map classifies the West Pikeland Township Park property within a “Suburban Landscape” with supporting maps listing the property within a “Growth Area.” “These areas are planned for a full range of public infrastructure services including Parks.”



Linking Landscapes, A Plan for the Protected Open Space Network in Chester County, PA, 2002 –

Parks and Recreation Objectives:

5.1 – Maintain and improve the quality of life and environment for residents of Chester County through the provision of parkland and recreation facilities.

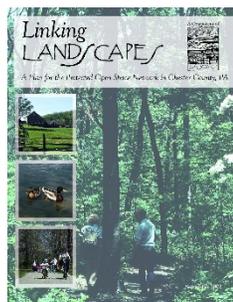
5.1.1 – Promote the protection of natural resources with parkland acquisition and stewardship.

5.1.3 – Provide new land for open space and recreational facilities to meet forecasted needs.

5.1.4 – Establish a trail and bikeway network to link residential areas, business uses, community facilities, and parks.

5.1.6 – Provide diverse active recreation facilities and programs.

Vision:

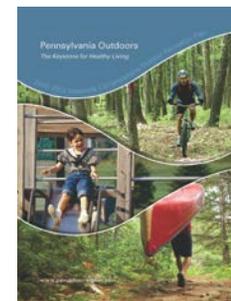


4.40 – Each municipality should contain at least one active recreation municipal park.

Pennsylvania Outdoors: Keystone for Healthy Living, 2009-2013 Recreation Plan –

Goals:

- Strengthen connections between outdoor recreation, healthy lifestyles, and economic benefits in communities.
- Reconnect people to the outdoors and develop a stewardship ethic through outdoor recreation opportunities and experiences.
- Develop a statewide land and water trail network to facilitate recreation, transportation and healthy lifestyles.



Resident Survey Results:

- Walking, wildlife viewing, birding were three of the top ten most popular activities, with walking as the most popular (84%).
- More than 80 percent of respondents feel that trails and greenways increase the value of nearby properties and nearly all believe that parks and natural areas exert a similar influence on property values.
- A majority of residents surveyed reported that “there is not enough protected open space near where I live,” and “open space near where I live is threatened by development.” Only about one-third feels that “there are enough public recreation areas close to where I live.”
- Nearly three-fourths of respondents rated environmental and conservation programs, as well as recreation programs at parks and recreation areas, as very or extremely important.

Demographics

The population data and projections for West Pikeland Township and Chester County are listed on the next page. The Township’s population has increased over the previous decade, although at a slightly lesser rate than the County. The population projections for West Pikeland Township suggest continued double-digit growth at a lesser rate than the previous decade. This suggests an ongoing need for expanded recreation amenities and opportunities.

The Township is getting older with the median age increasing by 4.9 years between 2000 and 2010. This indicates the need for recreation opportunities for residents to enjoy throughout their lifetime, including older residents.

West Pikeland Township is a relatively homogenous community with 95.2 percent of its population being categorized as White in 2010. African Americans make up 0.8 percent of the population, and Latino population is 2.3 percent.

Age Group	2000	2010
Under 5 yrs.	7.8%	4.8%
5 – 24 yrs.	26.2	30.2
25 – 44 yrs.	29.5	17.2
45 – 54 yrs.	19.1	22.7
55 – 64 yrs.	10.0	15.2
65 – 74 yrs.	4.6	6.6
75 – 84 yrs.	2.5	2.4
85 yrs. +	0.4	0.7
Median Age	38.9 yrs.	43.8 yrs.

Source: U.S. Census Bureau

Township / County	2000 Population	2010 Population	Percent Change	2020 Projection	2030 Projection	2040 Projection
West Pikeland Township	3,551	4,024	+ 13.32	4,366	4,954	5,296
Chester County	433,501	498,886	+ 15.08	538,809	607,407	647,330

Source: Population – U.S. Census Bureau, Population Projection – Delaware Valley Regional Planning Commission

Introduction

Public participation was a key component of the planning process for the West Pikeland Township Park Master Plan and included five components: a task force committee, stakeholder interviews, forums, on-line questionnaire, and public meetings.

Task Force Committee

West Pikeland Township appointed a 13 member task force committee that included representatives of the West Pikeland Land Trust, West Pikeland Open Space Committee, West Pikeland Township Park and Recreation Board, West Pikeland Township Board of Supervisors, West Pikeland Township Planning Commission, the West Pikeland Township Manager, and residents. The task force members were familiar with the park site and were tasked with steering the development of the master plan and working with the project consultants. The task force committee provided input throughout the planning process and attended task force committee and public meetings.

Key Person Interviews

The consulting team conducted key person interviews to obtain input regarding existing recreation programs, recreation needs in the community, and other relevant information to inform the planning process. Input was gathered from representatives of Natural Lands Trust, the Mill at Anselma, DARC (Downingtown Area Recreation Consortium), French & Pickering Creek Conservation Trust, West Pikeland Township Historical Commission, Lionville Youth Association (LYA), Glenmore Eagle Youth Association (GEYA), West Pikeland Township Arts & Culture Committee, and others. Interviewees were provided a brief background on the project and asked questions relative to their expertise or program and knowledge of West Pikeland Township Park.

Forums

Three groups were targeted for topical forums: adjacent landowners, sports programs, and conservation organizations. Adjacent landowners that adjoin the park property were invited to a forum to discuss their ideas and concerns about the future park. A conservation forum was attended by representatives of the Mill at Anselma and Natural Lands Trust. Discussion included cooperative opportunities, future plans for the Mill at Anselma, and the recreation and conservation potential of the park site. The sports program forum was conducted as multiple one-on-one interviews due to conflicting schedules.

On-Line Questionnaire

A short questionnaire was developed to provide residents another means of sharing their thoughts and ideas about the proposed park. The questionnaire was posted on the Township website from May to September, 2014 and 161 citizens participated. The questionnaire was developed to generate information about:

- Public preferences for the types of recreation facilities for the park.
- Concerns that citizens have about the park.
- Ideas for naming the park.
- Any related comments that citizens wanted to share about the future park.

Trails were the most preferred facility listed. Additional information about the questionnaire findings is provided in Appendix B.

Public Meetings

Two public meetings were held to present project findings to the public and solicit input at various stages of the design process. The first meeting was scheduled early in the planning process to gather general

input from the public regarding their ideas and concerns about West Pikeland Township Park. The meeting was held at the municipal building and approximately 80 residents attended. Input from the meeting guided the development of the conceptual alternative plans.

A second public meeting was held mid-way through the planning process to present the pre-final master plans for comment. The consultants described the planning process, key findings of the needs assessment, and the pre-final master plan design. Approximately 60 residents attended the meeting. Meeting discussion focused on explanation of the design, privacy concerns of nearby neighbors, and development costs.

The final public meeting to present the master plan for West Pikeland Township Park was held on March 2, 2015 as part of a West Pikeland Township Board of Supervisors work session. **Comments from the public and Board of Supervisors were addressed following the presentation. The Board of Supervisors approved the West Pikeland Township Park Master Plan by resolution.**

The public meetings were promoted through the municipal web-site, outreach to park neighbors, and flyers posted at public locations encouraging the public to attend and voice their thoughts on the West Pikeland Township Park Master Plan.

Findings of the Public Participation Process

The following summarizes the input and findings of the public participation process.

Visual Setting – The view of the park site from Conestoga Road was noted as important by numerous residents. Retaining the agrarian homestead setting with open fields and clustered structures as viewed from the roadway was preferred. Placement of built features such as

parking lots and fenced courts should not be located in the foreground of the view from Conestoga Road.

Diamond Fields – Lionville Youth Association (LYA) indicated that there is a need for a 70' baseline baseball field to accommodate youth ages 11-13 years old. Little League has recently introduced the 70' baseline field as a separate division. One field in the LYA service area has been temporarily converted to 70' baseline and a second field is needed. Participation by this age group is growing and a permanent 70' baseline field is desired. The LYA Board indicated that the need for a 70' baseball diamond is greater in their programming than the need for a third multi-purpose fields at the park site.



Multipurpose Fields – Soccer is growing in the area and GEYA is at



maximum capacity with the fields available and they are not able to rest fields. Lacrosse is growing in the area and fields are needed for this program. Additional flat multipurpose fields are needed in the community to serve youth programs of LYA and GEYA.

Tennis Courts – Tennis courts were identified as desired park facilities by attendees of the public meetings and by respondents to the on-line questionnaire. There is currently no youth program but tennis was noted as being very popular in the area. A tennis wall was requested as well as multiple courts.

Amphitheater/Stage/Special Events Area – Contrasting views were shared regarding the need for an amphitheater/stage. It was noted that there are other venues in the community for performing arts and a formal stage or amphitheater is not needed in the park. Alternatively, it was noted by the DARC Executive Director that there is no amphitheater in the service area and that amphitheaters and the activities they support are popular in other communities.

Playground – A playground was suggested by many stakeholders.

Special Events Area – An area to accommodate special events was suggested. The area was envisioned as a large, relatively flat area that could be programed for a variety of events and activities.

Trails – Many residents voiced their desire to walk in the new park and the on-line questionnaire identified trails as a priority feature. Trails were suggested at the public meetings and at the adjacent landowner forum.

Natural Resource Enhancements – Enhancements to the vegetative buffer along the small stream along the western property line and extending vegetation to link with the steeply wooded area east of the mill pond were suggested. Adjacent landowners of the Fairfield neighborhood suggested additional vegetation to supplement the existing hedgerow between their properties and the park. Meadows were suggested for the steeply sloped areas of the site to retain the agricultural aesthetic, minimize maintenance, and provide habitat area.

The Mill at Anselma – The mill is a historic and cultural destination in the community and offers a natural setting with an informal walking trail that extends to a pond located adjacent to the park property. The mill operator is open to making a trail



connection between the mill property and the park. Additionally, the trail could extend along the corridor of the former Pickering Valley Railroad to form a loop trail. These trails and access to the park from the mill will further the mill's goal of encouraging families to spend the day at the mill for education and fun. The mill also owns a tract of land west of the park site which they would like to farm as a demonstration area, but will require a bridge over the small stream on the park property for access.

- Retain the natural beauty of the site.
- Address community needs for both passive and active recreation.
- Provide walking opportunities.
- Explore connections to Anselma Mill.
- Address privacy concerns of adjacent neighbors

Project Goals

The following goals were defined for West Pikeland Township Park based on the findings of the planning and public participation process.

Introduction

West Pikeland Township Park is a new community park which will be developed on 60 plus acres of rolling farmland. While the majority of the tract was in agricultural production and currently exist as meadows, there is a small stream, wooded areas, wetlands, and hedgerows that will influence the park design. An inventory and analysis of the tract's natural and man-made resources was completed early in the planning process and subsequent field work was undertaken to view the site in different seasons.

A comprehensive resource inventory and analysis is critical to guide park planning. Park inventory and analysis:

- Defines areas that contain sensitive resources that should be protected, buffered, and/or enhanced.
- Considers the ability of resources to sustain and thrive with the continuation, addition, or introduction of public use.
- Explores resources that contribute to the visitor's experience.
- Evaluates man-made features to determine their appropriateness and utility in the park setting.
- Explores the context of the park site and surrounding area/region.
- Investigates potential site characteristics or resources that pose development or use limitations, concerns for health and safety of park visitors, or other concerns.

Good park design and relevant park master plans are born of a comprehensive resource analysis. Exploration of the West Pikeland Township Park site was the first critical step in creating a future vision for the park.



West Pikeland Township Park Site Analysis

The West Pikeland Township Park Site Analysis Map is provided at the end of this chapter.

General Site Data

Size/Location – The property is approximately 67 acres in size with 62 acres designated as parkland and five acres reserved for other municipal uses. The park site is located northwest of the intersection of PA Routes 113 (Pike Springs Road) and 401 (Conestoga Road).

Access - Access to the site is from Conestoga Road via Walnut Lane. Other access points may be possible, but there are limiting physical factors and the general location of the existing entrance is preferred. A high point, mid-way

along the Conestoga Road frontage and congestion and traffic queuing during peak travel times at the Routes 113 and 401 intersection are limiting factors. Any future entrance should align with access to potential future development on the north side of Conestoga Road.

Walnut Lane is a public road with a 33-foot right-of-way that dead-ends at the farmstead and serves one additional residence. Walnut Lane has bituminous pavement that is very deteriorated.

Existing and Surrounding Land Use – The existing land use is agriculture. Surrounding land use includes:

- Two residential outparcels located along the northeastern property line along Conestoga Road. The land on the north side of Conestoga Road is undeveloped and currently includes several home sites.
- The Fairfield residential development is located south of the park site.
- East of the park is a commercial establishment located on the corner of Routes 113 and 401.
- Northwest of the park is a single family residence and lands of Anselma Mill. The pond and mill race that feed the mill are located just west of the property, separated by steep slopes.
- The corridor of the former Pickering Valley Railroad is located north of the park and separates the park property from the mill property.
- West of the site is private land and land owned by West Pikeland Township and Anselma Mill.

Zoning – The majority of the site is within the Residential Development (RD) Zoning District, with a portion near the Conestoga Road-Walnut Lane intersection in the Village Preservation (V-2) District.

Water Resources

Stream – An unnamed tributary to the Pickering Creek is located along the western property line. Chapter 93 of the Pennsylvania Code classifies the Pickering Creek to the Philly Suburban Water Company Dam as a HQ-TSF, MF. The TSF designation provides for maintenance of stocked trout and propagation of fish species indigenous to warm water habitat. The MF designation protects the passage, maintenance, and propagation of fishes which move to or from flowing water to complete their life cycle. The HQ, high quality designation provides special protections.

The stream corridor is separated from park by steep slopes and woodlands along the southern portion of the property line. The stream along the northern portion of the western property line is void of vegetation with eroded side slopes. Wetlands have been delineated along the stream through its course within the park.



Spring – A spring located near the southwest corner of the park property feeds into the stream. The spring is contained within a concrete structure.

Wetlands – There are two areas of wetlands on the park site: associated with the stream corridor, spring, and seeps along the western boundary and at the low lying area adjacent to Conestoga Road, associated with a drainage culvert that flows beneath the road.



Stormwater/Drainage – The park site drains in two directions. The eastern portion drains toward the wetlands along Conestoga Road and is conveyed beneath the road through an existing culvert. The western portion of the site drains toward the stream and pond on the Anselma Mill property by overland flow.

Land Resources

Soils – Eight soil classifications are present on the park site, which are characterized on the following chart. The soils are generally well drained with the exception of the CaB and Ha soils in the low lying portions of the site.

Soils of West Pikeland Township Park								
Soils	CaB – Califon Loam	GaB – Gladstone Gravelly Loam	GdC – Gladstone Gravelly Loam	GfD – Gladstone Gravelly Loam	GfF – Gladstone Gravelly Loam	Ha – Hatboro Silt Loam	PaD – Parker Gravelly Loam	UrB – Urban land – Gladstone Complex
Slope	3-8%	3-8%	8-15%	8-25%	25-50%	0-3%	15-25%	0-8%
Depth to Bedrock	72-99 inches	60-199 inches	60-199 inches	60-100 inches	60-100 inches	60-99 inches	60-118 inches	10-100 inches
Depth to Water Table	6-36 inches	> 80 inches	> 80 inches	> 80 inches	> 80 inches	0-6 inches	> 80 inches	> 80 inches
Flooding Potential	none	none	none	none	none	frequent	none	none
Prime Farmland	yes	yes	no	no	no	no	no	No

Topography – The site contains moderate to aggressive slopes with slopes ranging from four-percent to over 25-percent. Generally, the majority of the site slopes to the north. There is a small ridge to the west of the farm structures that creates east facing and west facing slopes. Slopes along the small stream and off-site pond along the western boundary face west and are the site’s steepest slopes. The wetlands along Conestoga Road occupy the site’s lowest elevations.

Site slopes exceed the percentage recommended (8%) for growing wheat on a north-south facing slope.

Vegetation – The park has a variety of vegetation with deciduous trees, forested riparian vegetation, evergreens, wetland vegetation, meadows, and maintained lawn areas. The vegetation is predominantly oriented along the tract boundaries as the majority of the site was previously in agricultural production. There are several mature canopy trees scattered along the lane and in the farmstead area. The woodland cover blankets the steeper topography on the western portion of the site. Beech and maple trees dominate the hillsides and understory is limited. An evergreen stand is located on the park and mill property near the pond. Hedgerow vegetation defines the southern property line and the eastern portion is a mature linear planting of white pine.



Invasive Species – Few invasive species were noted within the park boundary. Riparian areas are difficult to protect from invasive species and weed seeds which are often transported by waters.

Wildlife Habitat – The riparian corridor’s mature trees and evergreen stand provide important nesting and roosting habitat. Small mammals

such as squirrels, chipmunks, rabbits, and mice would typically occupy the site.



Views – The park site affords picturesque views, both into the site and from the site. The topography provides a superior vantage point from the uplands to view the rolling hills of northern Chester County. Views into the site are provided from the Conestoga Road frontage. The topography rises from the road elevation providing long views across the site.

Man-Made Resources and Influences

The majority of the site is undeveloped with the exception of the farmstead structures centrally located on the tract.



Farm Complex – An assortment of typical farm-related buildings are grouped together in the central area of the site. Many of the buildings are in poor condition and are slated to be removed by the Township. Structures include wooden sheds, a frame farmhouse, a pole barn, block and stone wall remnants from previous structures, and a stone bank barn with a wood frame bay and concrete silo.

The stone barn has been evaluated by a structural engineer and considered to be “in reasonably good condition and can be reused after repairs.” The wood frame bay and silo are recommended for removal.



Utilities / Infrastructure –

Electric – Electric service extends into the homestead area of the site on overhead wires along Walnut Lane.

Water – There are two dry wells under the house and water currently flows from the concrete spring house near the southwest corner of the property to the barn. It is assumed that the water pipes follow the mowed farm lane that extends southwest from the barn. Numerous monitoring wells are located throughout the southwest agriculture field from previous site feasibility studies.

Sanitary – Public sanitary sewer is not available at the park site. The existing farmstead was served by an on-lot septic system located west of the farmhouse.

Resource Analysis Conclusions & Planning Implications

Ecological –

- Site soils pose few limitations and are conducive to park development.
- The woodland and wetland area to the west is a beautiful asset. The woodlands should be enhanced with understory vegetation to promote regeneration, provide habitat, and define the property boundary.
- It is important to maintain a healthy vegetated riparian corridor with large, mature trees to hold the stream banks and prevent significant erosion. Minimize man-made disturbances along the riparian corridor that could negatively impact mature trees.



- The stream is a wildlife corridor. Enhance with riparian buffer vegetation that provides natural habitat and attracts diverse wildlife.
- Increase and enhance the vegetative buffer along the stream to protect the banks from erosion, filter pollutants before they reach the creek, and provide a visual transition from meadows to woodland.
- The site and stream are part of the Pickering Creek watershed and care should be taken during planning and development to protect the high quality water resource. The eroded creek channel, south of the pond, should be vegetated and stabilized.
- Monitor and remove invasive species along the creek banks, in wooded areas, and along hedgerows.

Functional –

- The steeply sloped terrain presents challenges for facility development, demonstration farming, and achieving ADA access.
- New well and on-lot septic will be needed to serve the park. Composting restrooms could be used in lieu of developing septic.
- Ingress and egress is available from Walnut Lane. Additional points of access are possible, but adequate sight distance must be verified. Proximity to Route 113 and traffic queuing must be considered.
- Respect the adjacent landowners. Existing hedgerows separate the park property from the Fairfields development but are thin in areas. Enhance the hedgerows with additional vegetation to provide an effective buffer between the properties.
- The low area south of the pond is a beautiful setting. The pond at the mill is attractive and will lure visitors to the Mill. Connect

the park to the Mill at Anselma and its key features: the pond, mill race, and mill.



- Trail connections to the Mill at Anselma and the Pickering Valley Railroad corridor creates an opportunity for a loop trail extending beyond the park site.
- The site offers sufficient size and diverse terrain for a system of trails. A perimeter trail has the potential to be approx. 1.5 miles long.
- Reduce lawn cover in un-programmed areas by developing no-mow/low maintenance meadows.

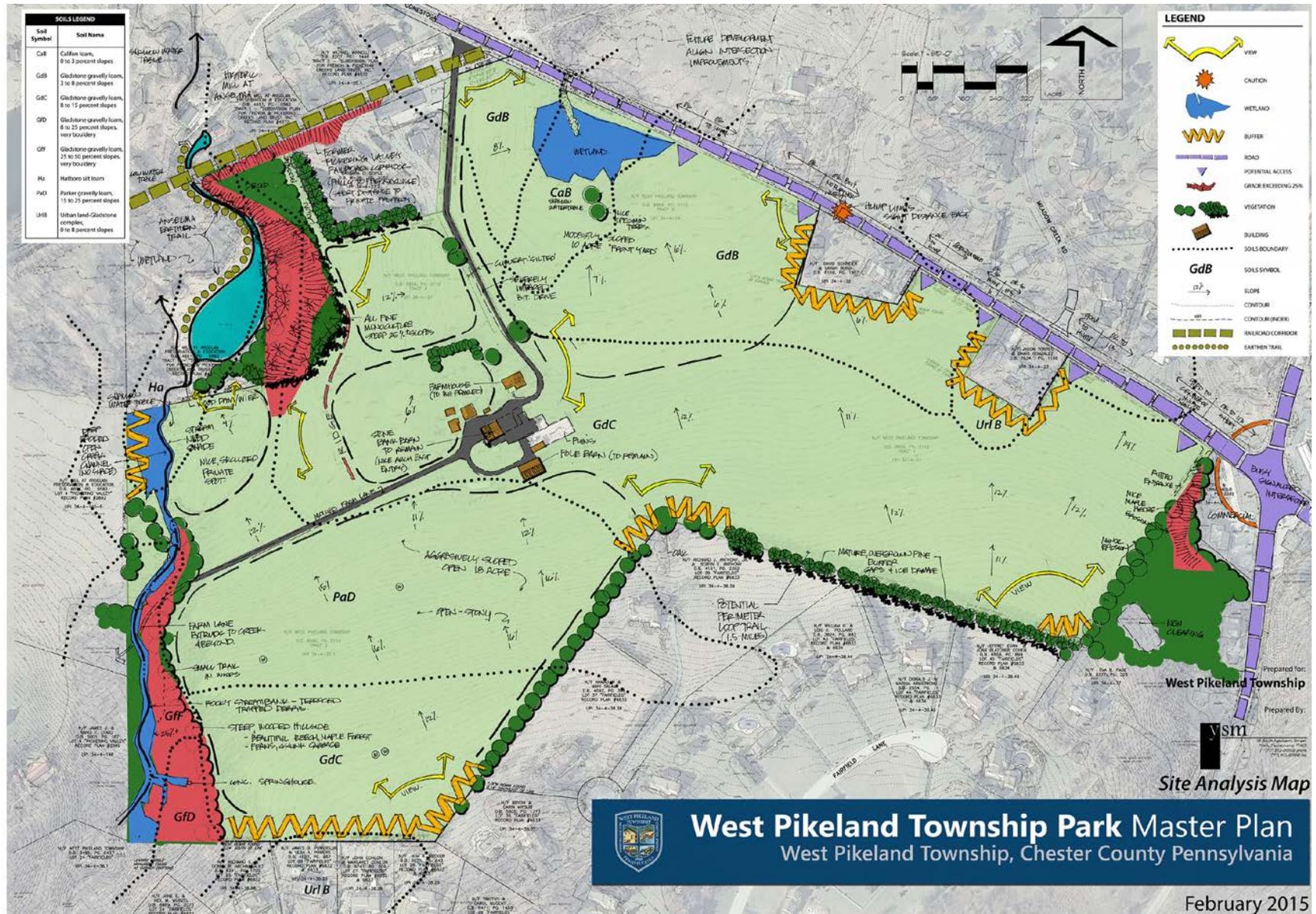
Recreational –

- The front yard of the park is very welcoming from Conestoga Road.

- The site's topography and preferred north/south orientation of athletic fields will be a challenge for the development of athletic fields.
- The area east of the farm structures offers the more gentle slopes and potential for athletic field and/or special events area development.
- The history of the farm, mill, railroad, and early settlements could be explored in the park.
- The barn offers a connection to the site's heritage and is a substantial structure. The barn should be repurposed for recreation or park support functions.



- The visual aesthetic of the property is best maintained by clustering built features in the area of the existing farmstead and minimizing development in the foreground.



Conceptual alternative designs were completed for West Pikeland Township Park with consideration of the goals established by the master planning process, the analysis of the park site and surrounding area, and public input. The Conceptual Alternative designs explored different options for park development and site enhancement and illustrate potential facility configurations and spatial relationships. The task force committee reviewed the Conceptual Alternatives and provided input and direction for the design of the Pre-Final Master Plan.

The West Pikeland Township Park site offers an opportunity to develop a community park to meet citizen’s recreation needs and interests. While the site is open and relatively large at 60 plus acres, the steep topography presents development challenges.

Anticipated park visitors include sports participants and spectators, naturalists that enjoy the outdoor setting and natural area, families, trail enthusiasts, visitors to the Mill at Anselma, and many others.

The Conceptual Alternative designs for West Pikeland Township Park address the following park development objectives:

- Prioritize the aesthetics of the open view from Conestoga Road into the park site.
- Define an area for future municipal services/complex.
- Buffer and screen residential properties to the south.
- Maintain the current point of access.
- Group buildings and “hub” improvements at the farmstead.
- Develop a trail network. Provide looping trails for a variety of trail experiences and lengths.
- Connect the trail network to the Mill at Anselma trail and Pickering Valley Railroad corridor.
- Naturalize steep areas and property boundaries to separate the park from adjacent residences, provide ecological benefits, and minimize maintenance.
- Maintain a sloped area clear for a sledding hill.

- Provide formal and informal picnic opportunities.
- Provide adequate parking area for each facility.
- Provide an area for community special events.
- Repurpose the barn.
- Provide convenient restrooms.
- Maintain upland open with meadow and agricultural uses. Benches along upper trail to take advantage of long views.
- Meet the requirements of the ADA.
- Improve the riparian buffer corridor. Expand the width of the corridor and plant with native vegetation.
- Add facilities to include:
 - Trails
 - Athletic fields
 - Playground
 - Game courts
 - Restrooms
 - Sledding hill

Conceptual Alternative A

Conceptual Alternative A prioritizes retaining and enhancing the natural features and openness of the site. Recreation facilities are centered on the farmstead “hub”. Agricultural activities are retained on five acres of the site to explore a “farm to mill to table” theme. Trails are introduced that extend and loop throughout the park. Amenities include:

- Lawn amphitheater centered on the upper stone barn elevation.
- A multi-purpose field (360’ x 225’). The field would also serve as an events lawn.

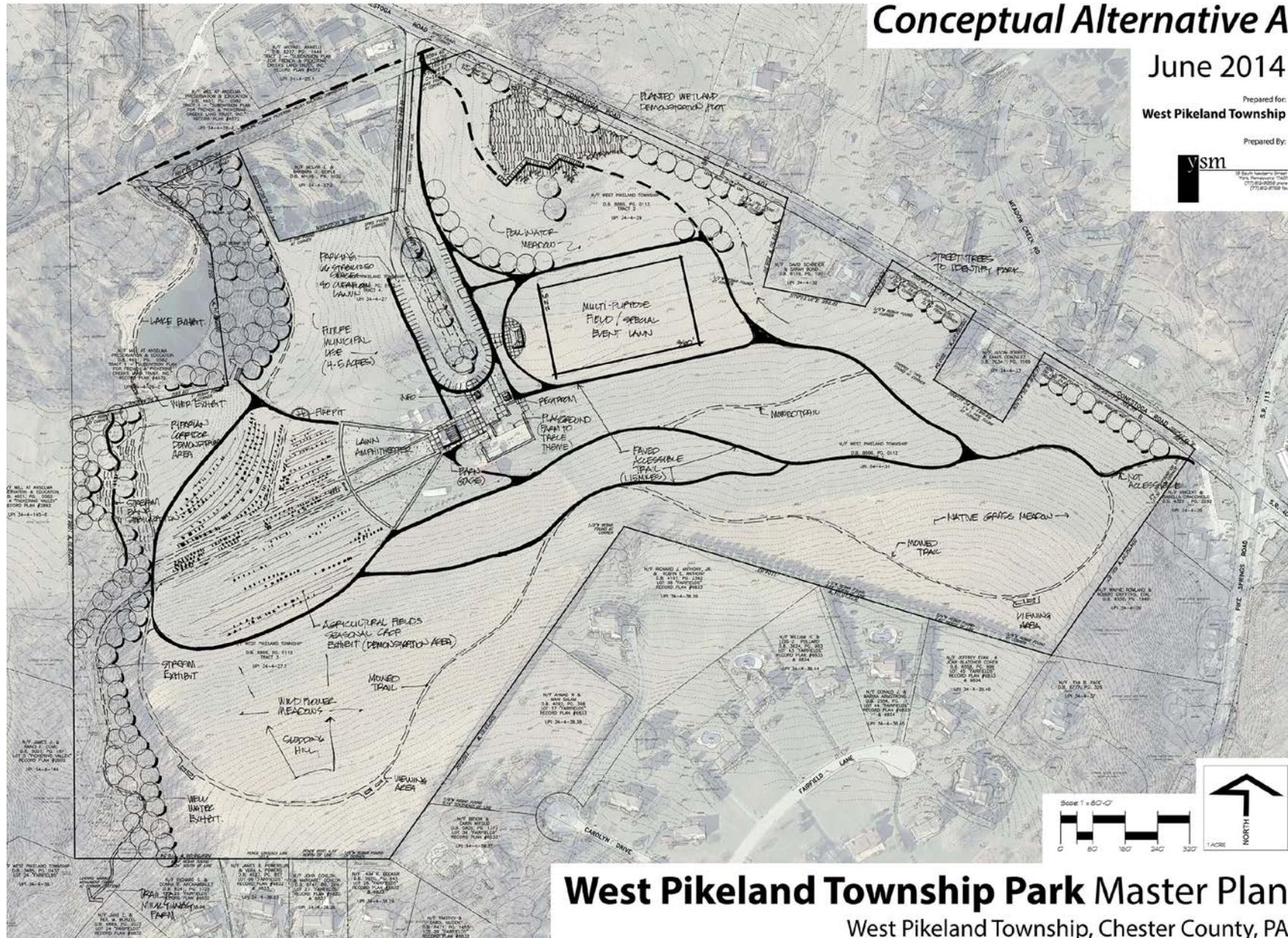
- A large pavilion, centered on the multi-purpose field for use as a stage during special events.
- Playground with agricultural theme.
- A trail system that extends throughout the site. The accessible trail measures 1.15 miles.
- Sledding hill and fire pit.
- Scattered education and demonstration areas to explore the following:
 - Riparian corridor
 - Stream
 - Spring head
 - Pollinator meadow
 - Pond
 - Wetlands
- A restroom and kiosk for park information postings, and parking located in the central “hub”.
- Future municipal use area located northwest of the central farmstead.

Conceptual Alternative A

June 2014

Prepared for:
West Pikeland Township

Prepared By:



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County, PA

Conceptual Alternative B

Conceptual Alternative B develops a layout that balances active and passive recreation. The view from Conestoga Road foreground includes a new farm lane (entrance drive) lined with trees. The grades are manipulated by introducing a “ha ha” that drops the elevation of the parking to a lower level, obscuring it in the view from Conestoga Road. Amenities include:

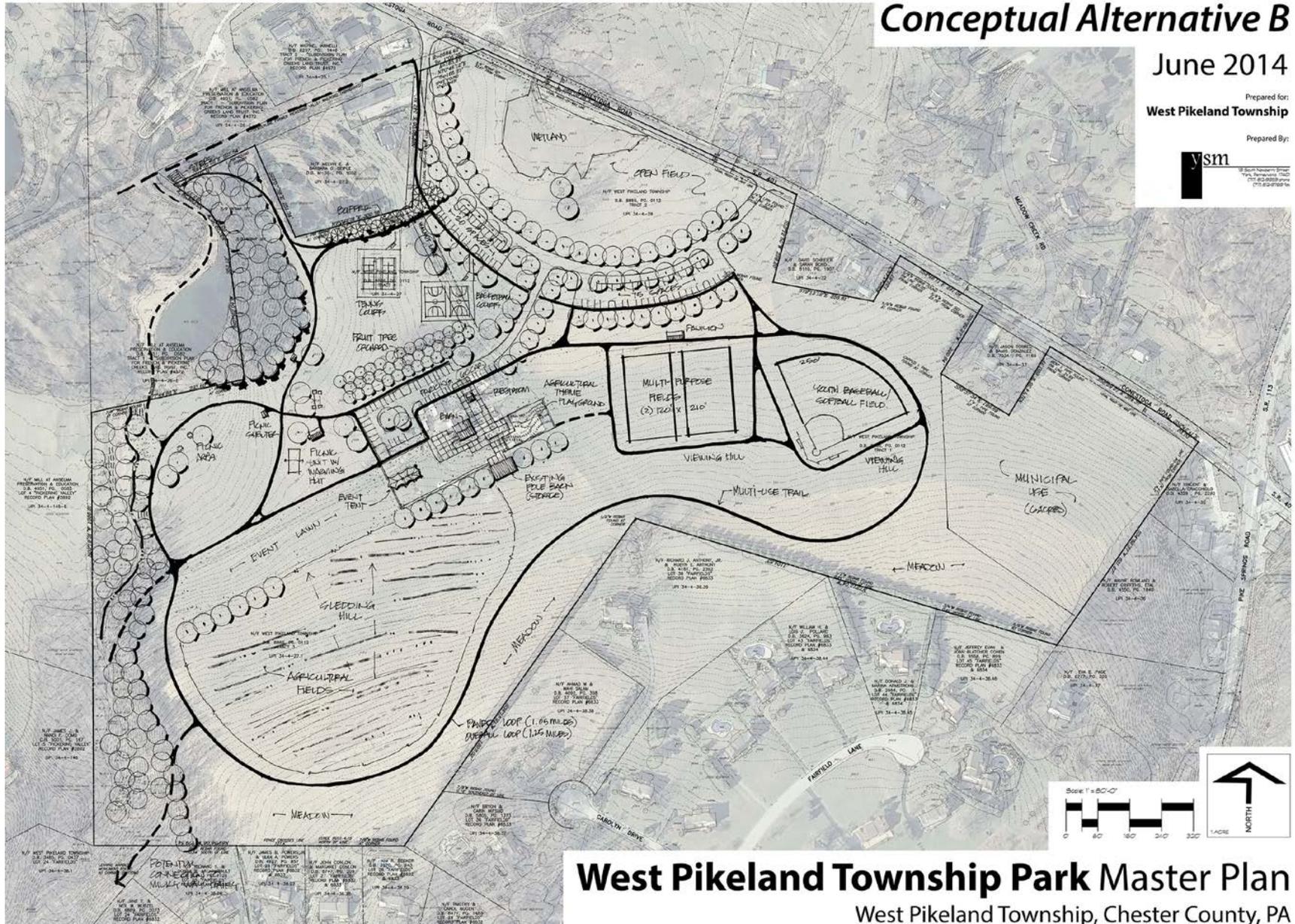
- Riparian corridor enhancements of native vegetation.
- An area designated for agricultural fields and sledding hill.
- An agriculture themed playground.
- Hub with functional facilities: restroom, parking, and storage in an existing pole barn. The stone barn is available for recreation programs.
- An events tent area and event lawn.
- Picnic areas with scattered picnic tables and small single table shelters.
- A picnic unit which includes a picnic pavilion with fireplace, grass volleyball court, and horseshoe pits.
- A large picnic pavilion centered on the north side of the multi-purpose field to double as a stage for programs and special events.
- Two multipurpose fields (U-10 soccer, 120' x 210'). The grading required to develop the flat plateau for the fields creates a viewing hill.
- Youth baseball/softball field with 60'/70' baseline and 250' outfield. The grading for the field creates a sloped viewing hill on the first base side of the field.
- Two basketball courts.
- Two tennis courts.
- A trail system that extends throughout the site. The accessible trail measures 1.05 miles.
- A “lane” access drive with stabilized turf parking spaced adjacent to a paved parking aisle.
- Future municipal use area located in the eastern corner of the site.

Conceptual Alternative B

June 2014

Prepared for:
West Pikeland Township

Prepared By:



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County, PA

Conceptual Alternative C

Conceptual Alternative C develops a community destination for a variety of recreation pursuits. Development is clustered on the more gentle slopes around the former farmstead hub. Facilities with fence and built improvements are located west of the existing lane and farm buildings to retain the open views into the site from Conestoga Road. Amenities include:

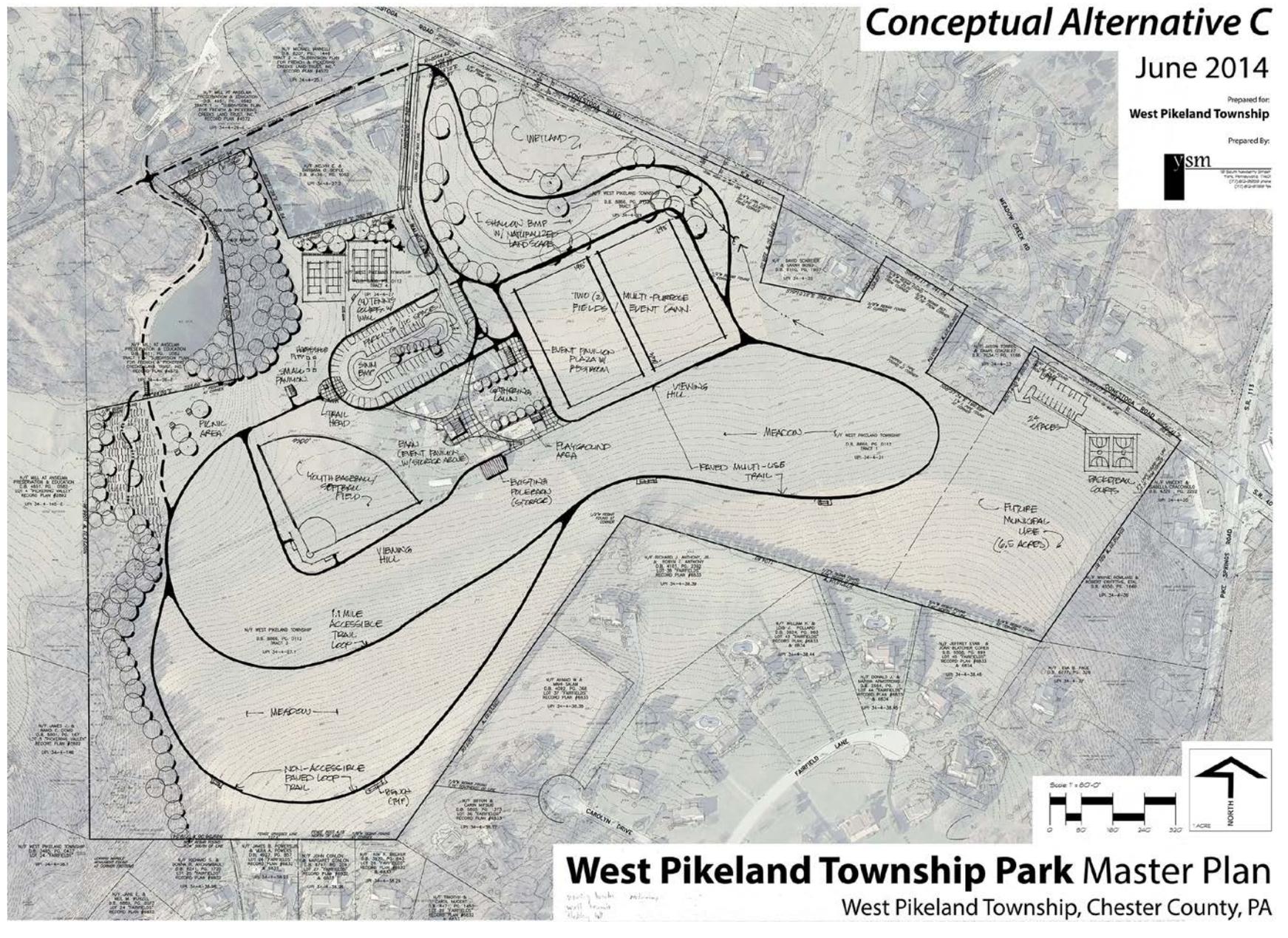
- Park hub developed with a playground with a small pavilion, gathering lawn, event pavilion and plaza with a restroom, and re-purposed stone barn with program and storage space.
 - The event pavilion and plaza is centered on a large flat plateau that can be used for special events.
 - Two multi-purpose fields (high school size, 195' x 330'). A sloped viewing hill will be created on the south of the fields.
 - One youth baseball/softball field (50-70' baseline and 300' outfield). A sloped viewing hill will be created along the first base side.
 - Four tennis courts and a tennis wall are developed west of the drive.
 - Two basketball courts are located in the eastern corner of the property. The basketball courts would share parking with the adjacent, future municipal uses.
 - Future municipal uses located in the eastern corner of the property encompassing 6.5 acres of the tract. A separate entrance is provided from Conestoga Road.
 - A picnic area with scattered picnic tables is located above the pond.
 - A picnic unit with a small pavilion and horseshoe pits is located west of the parking.
- Parking is located north of the farmstead hub. A trailhead with an information kiosk is established as part of the parking area to provide access to the trail system.
 - A comprehensive trail system is developed with 1.1 miles of accessible trails.
 - BMP's and naturalized landscaping are introduced.

Conceptual Alternative C

June 2014

Prepared for:
West Pikeland Township

Prepared By:



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County, PA

The following positive and negative aspects of the three conceptual alternative plans were considered by the Task Force Committee.

Conceptual Alternative A	
Positive	Negative
The parking and hub area are centralized on the previously developed portion of the site.	The park does not provide a wide variety or number of recreation improvements.
The view from Conestoga Road is maintained.	
The future municipal use area is located where shared parking can be developed within the park.	
Conceptual Alternative B	
Positive	Negative
The game courts are located in the same general area.	The future municipal use area is located in the eastern corner of the property. Traffic back-up from the nearby intersection will impact ease of ingress and egress. The existing topography is steep in this area.
	The parking and entry drive configuration appear to be expensive.
	The view from Conestoga Road into the park is interrupted by the trees, drive, and parking.
	Two separate parking areas are proposed and the drive to the western parking bisects the site and separates the courts from the athletic fields.
	The agricultural fields are located on steep slopes that exceed the slope recommended for wheat production.
	The multi-purpose fields are small and will require extensive grading.

Conceptual Alternative C	
Positive	Negative
A park hub is created that consolidates activities in the former farmstead area and area of more gentle slopes.	The future municipal complex is located near the intersection of Conestoga Road and Route 113. Traffic back-up from the intersection will impact ease of ingress and egress. The existing topography is steep in this area.
The upper, steeper slopes are maintained in meadow cover which stabilizes the slopes.	Basketball is separated from other park activities.
The multi-purpose field placement creates a large open lawn in the viewshed from Conestoga Road and facilities with fence and built features is located further from the roadway.	

The Task Force Committee reviewed the three conceptual alternative designs for West Pikeland Township Park and offered the following guidance for the development of the Pre-Final Master Plan design.

- Generally, Conceptual Alternative C facilities and layout was preferred.
- Locate the municipal 5 acres between the former farmstead and property to the north.
- Include basketball courts (2), tennis courts (2), and tennis wall near the park hub.
- Develop athletic fields as shown on Conceptual Alternative C.
- Develop a themed playground.
- Create a comprehensive trail system with loop trails and a mix of paved and grass trails.

- Reforest the west and south perimeter of the site.
- Maintain the farm vernacular through clustering of buildings in the central farmstead areas and include walls
- Develop a picnic unit with a warming shelter and grass volleyball court as shown on Conceptual Alternative C.
- The stone barn could be renovated and repurposed to have restrooms on the ground floor and accommodations for recreation programs above.

Pre-Final Master Plan

The Pre-Final Master Plan was developed for West Pikeland Township Park to reflect input from the Task Force Committee and general public. The pre-final design is a consolidation of the ideas and input from review of the Conceptual Alternatives into one cohesive master plan for the park site. The Pre-Final Master Plan was presented to the Task Force Committee at a project meeting and no substantive changes were recommended. A public meeting was held at the municipal building to present the Pre-Final Master Plan to the general public. The meeting was attended by residents, municipal representatives, and Task Force Committee members. The Pre-Final Master Plan is illustrated on the next page.



Introduction

The West Pikeland Township Park Master Plan defines the overall vision for the park. The Master Plan illustrates the physical configuration of proposed improvements and facilities and strategies for resource enhancements. The Master Plan was developed after thoughtful consideration of input from citizens, the Task Force Committee, and municipal representatives.

Recreation Opportunities

West Pikeland Township Park, as envisioned by the master plan, will offer a diverse array of recreation opportunities, from natural resource-based recreation, to competitive youth programs, to self-directed leisure activities. The range of public recreation opportunities provided at West Pikeland Township Park is listed below.

Resource Based Recreation – The parks meadows, hedge rows, riparian buffer and small stream offer opportunities for bird watching and nature study.

Education – The pedestrian connection to the Mill at Anselma offers visitors the opportunity to visit the Mill and mill property to view the historic mill structure and the pond and mill race. Historic information about the mill, 18th century agriculture, the sites natural resources, and the corridor of the former Pickering Valley Railroad could be shared with park visitors through interpretative signage.

Traditional Recreation – West Pikeland Township Park provides a unique natural setting for spending time with family and friends. Picnic areas, a playground, trails, the event lawn, and open space for games and activities are the backdrops for lifetime memories.

Group Outings and Programs – The picnic areas, pavilions, and open lawn areas provide space for families and community organizations such as the scout groups, school ecology clubs, service clubs, and others to

gather at the parks for their programs. The upper level of the stone barn and the event pavilion will be available for programs and gatherings.

Self-Directed Activities – Non-scheduled time is at a premium for many as we get caught up in the hectic pace of our day to day lives. West Pikeland Township Park provides a place to visit where many activities are not scheduled, where visitors can enjoy the park setting and facilities at their own pace and on their own terms. Walking, jogging, picnicking, sledding, and enjoying the playground are activities that visitors enjoy in the park on their own schedule.

Fitness and Wellness – Fitness extends lives, improves self-image, reduces health care costs, reduces isolation, and makes people happier. The park provides areas for people to walk and jog and spend time being active in the outdoors.

Competitive Sports – The baseball field and multi-purpose fields offer opportunities to participate in sports activities. The basketball courts, tennis courts, and grass volleyball court will support competitive and pick-up use.

Special Events Space – The event lawn can be programmed for special events and community activities. The lawn is located convenient to restrooms, parking, and drop-off area to support large gatherings.

West Pikeland Township Park Master Plan

West Pikeland Township Park Master Plan proposes recreational improvement and protects and enhance the site's natural resources. Facilities and activity areas are proposed to target the recreation interests of residents.

Recreation and Leisure Facilities

Event Lawn – An area on the east side of the parking area is designed as an event lawn and also developed with multi-purpose fields. A trail encircles the area and an event pavilion is located on the western end. Spectators

can bring lawn chairs and blankets to sit and view performances. Walkways connect the trail and event lawn to the drop-off at the parking area.



Theme Playground – An age-segregated playground is located in the central “hub” of park activities, near the stone barn and convenient to parking. The playground includes a tot lot for children ages two to five years old and a youth playground for ages six to twelve years old. An “agriculture – farm” theme is suggested to celebrate the agriculture history of the property and connect to the educational mission of the Mill at Anselma. Wall remnants from former farm buildings and new walls tuck the playground into the surrounding hillside and expand upon the farm theme.

Pavement and safety surface configuration and color create and separate the two areas. Benches, picnic tables, and shade trees complement the area and make it comfortable for caregivers. A small pavilion provides shade for birthday parties and casual use.



Tot lots and youth playgrounds must be developed within areas of safety surfacing and located for safe play. When developing playground areas, the following general guidelines should be incorporated into the design:

- The playground layout, equipment, and safety zone should comply with the Consumer Product Safety Commission (CPSC) Guidelines for Playground Safety.
- Playgrounds must meet the requirements of the Americans with Disabilities Act (ADA) which requires that an accessible route be provided from walkways/parking areas to the playground equipment and that a portion of the equipment offer activities that can be utilized by physically challenged children.
- Playgrounds should be age-segregated to accommodate children of different ages and abilities. The playgrounds should have signs identifying the age appropriate areas of play.

- American Society for Testing and Materials references for public playground safety:
 - F1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.
 - F2373 Standard Consumer Safety Performance specification for Public Use Play Equipment for Children 6 Months through 23 Months.
 - F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.

Playgrounds should be designed to stimulate imaginative play as well as physical activity. Playgrounds should be interesting environments that engage children while providing convenience facilities for adults such as benches and shaded areas.



Tennis Courts – Two tennis courts are proposed near the proposed basketball courts. The courts should be developed at the standard size of 36' x 78' with 12' clearance on the sides, 12' between and 21'

clearance on the ends. The court pavement should be developed with a 1% slope. The courts are shown with the preferred north-south orientation. A tennis wall is proposed on the north side of the courts for individual play and practice.

Basketball Courts – Two full size basketball courts are proposed for the park in the “hub” area. The full-courts are developed at 50' x 84', which is the standard PIAA (Pennsylvania Interscholastic Athletic Association) dimensions for a high school basketball court.

A ten-foot unobstructed area is provided on all sides of the court area, as recommended. The courts should be developed with 1.25-1.5 percent slope for proper surface drainage with a north-south orientation.

Development of the court area will require grading of the existing sloped terrain. A wall is proposed, south of the tennis and basketball courts to retain grade. In the area of the basketball courts the wall surrounds terraced seating for spectators.

Picnic Areas – Four picnic areas are suggested for the park as follows:

- Playground Picnic Area – This picnic area has a small picnic pavilion and several picnic tables under trees. This pavilion is within the playground area and convenient to lawn activities to the west to include lawn volleyball and sledding. A fireplace is incorporated into the pavilion to create a warming hut for winter activities.
- Event Pavilion Picnic Area – The large pavilion located west of the event lawn/multi-purpose fields is provided for large gatherings and functions. A plaza surrounds the pavilion and trails connect it to parking and the “hub” area.
- Western Picnic Area – This picnic area is removed from activity areas and located in the open space west of the tennis courts and overlooks the pond on the Anselma Mill property. The area is developed with scattered picnic tables and grills.



Stone Barn – The historic stone barn is retained in the park and repurposed to provide an indoor venue for programs on the upper level. The wood bents of the timber structure are interesting and the upper level and open timber loft provide a dramatic space for programs and rental. The lower level is repurposed as restrooms and storage.

Access to the upper level is provided via a paved trail that also provides plaza space at the west facing upper entrance, providing a setting for outdoor program and rental activities. A wall is suggested to enclose the gathering space and facilitate access.

Multi-Purpose Fields – Two multi-purpose fields are proposed for the park. The fields are developed at full size for high school competition at 195' x 330'. The fields are located with the preferred north-south orientation. The recommended thirty-foot minimum clearance, free of obstructions, has been provided on all sides for each field. The fields should be developed with 1.5-2 percent slopes for positive surface drainage.

Soil tests should be performed to determine the soil amendment requirements for turf grass development and proper field drainage for the multi-purpose fields and all other athletic fields. Developed as flat fields, the multi-purpose field can accommodate a variety of sports as

noted in the table below. All field sizes are in accordance with the layout requirements and standards of the National Federation of State High School Association.

Multi-Purpose Field Dimensions		
Field Type	Field Size	Minimum Sideline Clearances
Field Hockey	180' x 300'	15', 30' on player's side
Soccer	165-240' x 300-360'	10'
Football	160' x 360'	25'
Lacrosse	180' x 330'	18'

Baseball/Softball Field – The proposed a youth baseball field/softball field is developed with consideration of several divisions and baseline plugs should be set at 60' and 70'. Outfield is developed at 250'. The field is developed with a preferred orientation. The field should be graded with 1.5 to 2 percent slope and the topography of the site will require that the field is benched into the hillside, resulting in a viewing hill on the first base side of the field.



Lawn Volleyball Court – A lawn volleyball court is proposed near the park ‘hub’ and playground. The court is developed at the standard size of 30’ x 60’ with an unobstructed 10’ area surrounding the court boundary. The court should be graded with 1.5 – 2 percent slope. Posts for the net should be sleeved for winter removal and ease of maintenance.



Trails – Trails extend throughout the park to provide accessible routes to facilities and activity areas and provide opportunities for walking, jogging, and exploring the park. A hierarchy of trails is suggested with different surface material, depending on the trail location.

Bituminous pavement is suggested for the main trails which encircle and connect to facilities. The main trail is envisioned as an eight-foot wide trail and meet ADA criteria as an assessable route. The trail will accommodate multiple activities to include walking, jogging, and cycling.

Six foot-wide stonedust trails extend from the main trail to along the wetlands near Conestoga Road, to the Pickering Valley Railroad corridor,

the property of the Mill at Anselma, and to the informal picnic area. Stonedust is suggested in these areas to complement the more natural setting. Slopes on these trails should be generally less than three-percent to prevent unraveling and erosion from stormwater runoff. Trails segments over 3-percent should be paved to provide a stable, un-erosive surface.

Mowed trails are suggested for the meadow areas on the southern slopes of the property. These trails should be established and maintained at the width of two mower passes. Mowed trails should be located to traverse across the slope and avoid direct uphill/downhill locations which will be prone to erosion.

Trail mile markers should be installed along trails and kiosks should be developed at trailheads. Benches should be conveniently located along trails to provide areas to rest and enjoy the views.

Support Facilities

Restrooms – Restrooms are proposed in the lower level of the stone barn. The restrooms are centrally located in the park ‘hub’ and readily accessible to the parking area for maintenance. The restrooms will be served by an on-site disposal system and well water. Vandal resistant materials and fixtures and exterior security cameras are suggested.

Utilities – Infrastructure improvements are necessary at West Pikeland Township Park for the proposed uses and facilities as defined by the master plan.

Electrical service will be required for the restrooms and stone barn program/rental space, and for low level lights to guide visitors from the events lawn and stone barn to the parking areas to accommodate evening programming. Electrical service with locking outlets should be provided at the large events pavilion. The Township may want to consider adding ground-level flush locking outlets periodically along the walkway encircling the event lawn for use during special events.

A new well will be required to serve the restrooms and drinking fountains.

Entrance/Access and Parking – The existing access to the park site is maintained from Conestoga Road at Walnut Lane. Walnut Lane is realigned slightly to move the centerline to the northeast to locate the Lane entirely on park property and provide additional separation from the adjacent private residence. The entrance drive is developed at 18' wide and extends to the proposed parking area in the park 'hub'. The parking area is configured in a loop to provide continuous movement and convenient drop-off movement. Approximately 110 paved spaces, including accessible spaces are provided in the parking area. Additionally, approximately 60 overflow spaces are provided along the entrance drive. The overflow spaces are developed as stabilized turf.

The park drive should be paved and painted with markings to designate two-way travel. Accessible parking spaces must be developed with appropriate signage and pavement markings.



Natural Areas

Natural areas of West Pikeland Township Park include the small stream and its riparian corridor, the wetlands, and the wooded area on the western portion of the property.

Riparian Corridor – Large mature trees with minimal understory vegetation exist throughout the riparian corridor. This vegetation helps to stabilize the stream banks and prevent excessive erosion. Trees in the riparian corridor also serve as nesting and roosting habitat for birds and

shade the stream. Additional riparian vegetation is suggested along the northern reach of the stream on the park property to provide shade and stream bank stabilization.

Vegetated riparian corridors are critical to healthy streams and rivers. These vegetated lands contiguous to streams and river banks protect watercourses and promote water quality. Riparian corridors provide ecological benefits which include:

- Stabilize Stream Banks – Deep-rooted vegetation binds the soil along water courses, stabilizing the banks, and preventing erosion during periods of high runoff and flooding.
- Improve Water Quality – Vegetation along streams traps and treats sediment, nutrients, and pollutants before they enter the water course or groundwater.
- Enhance Wildlife Habitats – Trees, shrubs, and grasses along watercourses provide habitat, shelter, and travel corridors for many aquatic and land species.
- Reduce Flooding and Sedimentation – Vegetation retains stormwater runoff longer, improves infiltration, and filters sediment from flowing downstream during floods.
- Keep Streams Cooler and Healthier – Shade from riparian buffers cools the stream waters and increases food, oxygen, and habitat for aquatic life.
- Enhance Scenery – Vegetation along water courses adds beauty and diversity to the landscape.

The riparian corridor of West Pikeland Township Park should be enhanced with riparian buffer plantings of native vegetation to expand the benefits listed above and reduce maintenance.

Invasive Species – The riparian corridor, hedgerows, wooded areas, meadows, and wetlands should be monitored for invasive species. Any invasive species that currently inhabit the park site should be removed and native vegetation planted in its place. Riparian areas are difficult to protect

from invasive species and monitoring and removal efforts should be ongoing.

General Park Design Considerations

Recreation and Support Facilities

Americans with Disabilities Act – ADA – Parks are public facilities, and as such, must meet the requirements of the ADA. The US Department of Justice issues regulations under the Americans with Disabilities Act of 1990. The US Access Board publishes design guidelines of the ADA which can be referenced at www.access-board.gov.

Parks should have a parking area with designated accessible parking spaces and an accessible route (trail) that extends from the parking area or sidewalk to each park facility. For a trail to be considered an accessible route it must meet the following criteria:

- Trail Surface – Material must be firm, stable, and slip resistant.
- Width – Minimum clear tread width of 36-inches is required, with passing areas located at intervals of 200-feet maximum. Passing areas shall be 60-inches by 60-inches minimum. Passing spaces are not required on accessible routes with a clear width of 60-inches (5') or greater.
- Running Slope – Trail running slope shall not be steeper than 5% (1:20). Ramp with handrails on both sides of the ramp are required for slopes over 5%. Ramp running slope shall not be steeper than 8.33% (1:12).
- Cross Slope – Trails and ramps shall have a maximum cross slope of 2%.

Athletic fields are public facilities and accessible routes must extend to the spectator areas and to the field of play. Spectator areas should accommodate designated space for persons in wheelchairs to view field

activities. Additional ADA requirements that pertain to athletic facilities include:

- Within a site, an accessible route is required to connect to the boundary of each area of sport activity (ADA Section 206.2.2). A sports activity includes a field or court and where multiple sports fields and courts are provided, an accessible route is required to each field or area of sport activity.
- For court sports, at least one accessible route shall directly connect both sides of the court (ADA Section 206.2.12).
- At least one wheelchair space shall be provided in team or player seating areas serving areas of sports activity (ADA Section 221.2.1.4).

Additionally, the US Department of Justice and the Access Board has developed new guidelines covering access to trails, beaches, picnic areas, camping areas, and viewing areas. The guidelines supplement those the Board has issued for the built environment and address unique constraints specific to outdoor developed areas. The Accessibility Guidelines for Outdoor Developed Areas apply to all public projects. The following guidelines are outlined in the Accessibility Guidelines for Outdoor Developed Areas and summarized here, in part. Refer to the Access Board website for complete guidelines, www.access-board.gov/guidelines-and-standards/recreation-facilities/outdoor-developed-areas.

Picnic Facilities – Newly constructed picnic facilities shall provide accessible picnic units (outdoor space used for picnicking). Where picnic facilities contain two or fewer picnic units, each picnic unit shall be accessible. Where picnic facilities contain more than two picnic units, at least 20 percent but not less than two of the picnic units shall be accessible. Where picnic units are altered or added, the requirements above shall apply only to the picnic units that are altered or added until the number of accessible picnic units complies with the minimum number required for new construction.

Trails – Trail shall be accessible where the trail directly connects to a trailhead or another accessible trail. Newly constructed trails shall be accessible and altered trails that change the original design, function, or purpose of the trail shall be accessible. Where a condition (listed below) does not permit full compliance with a specific requirement on a portion of a trail, that portion shall comply with the specific requirement to the maximum extent feasible. Where it is impracticable for an entire trail to comply, the trail shall not be required to comply.

Conditions for exception to trail accessibility criteria:

1. Compliance is not feasible due to terrain.
2. Compliance cannot be accomplished with the prevailing construction practices.
3. Compliance would fundamentally alter the function or purpose of the facility or the setting.
4. Compliance is precluded by the:
 - Endangered Species Act (16 U.S.C. §§ 1531 et seq.);
 - National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.);
 - National Historic Preservation Act (16 U.S.C. §§ 470 et seq.);
 - Wilderness Act (16 U.S.C. §§ 1131 et seq.); or
 - Other Federal, State, or local law the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features

Parking – The parking areas should be developed to provide an appropriate stabilized surface for vehicle parking, and handicapped parking stalls should be paved and appropriately designated with signs and pavement markings. A porous bituminous pavement could be considered for the parking pavement in West Pikeland Township Park as it is accessible and has added water quality benefits. The cost of porous bituminous pavement is slightly greater than standard bituminous pavement and seasonal maintenance to blow off debris and dust is required to achieve and maintain the water quality benefits.

Site Furnishings – The park should have site furnishings that enhance the convenience of visiting the park and create a welcoming environment. Picnic tables should be provided at pavilions, and informally in clearings near activity areas. Benches should be provided at gathering places, and periodically along trails, especially where there are scenic views. Park furnishings that provide for the leisurely enjoyment of the park are suggested. Furnishings should consider the needs of seniors and persons with disabilities and includes picnic tables that accommodate wheel chairs and benches in shaded locations. Trash receptacles should be located in activity areas and at trailheads.

Park Architecture – Implementing the recommendations of the master plan will require the renovation of the stone barn and the development of new park structures. Park buildings with similar architectural style can be a unifying factor of a park and park system. The stone barn is a classic Chester County agrarian structure and should be renovated to retain its vernacular context. Proposed buildings should respond to the park site and vernacular setting and the building design should reflect the typical farm architecture of Chester County.

Similar building elements, such as, materials, proportions and massing, roof lines, colors, and other features will tie the buildings together and create a unified setting. In addition to unifying the park, if pavilions, restrooms, and other buildings are developed with similar design and complementary qualities, repairs and upgrades will be more standardized.

An architectural style that has natural qualities and is compatible with the settings of the park is suggested. Consider using native stone, wood, and natural colors. Pavilions could be pre-engineered and chosen from one of many pavilion manufacturers or specifically designed for the park. All structures must comply with various local, State, and Federal codes and guidelines, including the American's with Disabilities Act (ADA). Park architecture guidelines noted on the next page are recommendations to guide the park structure design.

Park Architecture Guidelines

Unifying Design – Buildings throughout the park should be similar in design and detail, while responding to context, function, and site characteristics. Building materials should be incorporated in other park elements, i.e. stone used for site walls or sign bases.

Building Style – The historic or vernacular style of existing or local traditional buildings and structures should be observed and highlighted in new building design if appropriate. Building materials and an earth tone color pallet that blends with the surrounding landscape should be used.

Complement the Park Setting – The buildings should relate to the topography and character of the setting, becoming an integral part of the park site and not forced upon the landscape.

Human Scale – The buildings should be human scale with wide roof overhangs to provide protection from the elements.

Vandal Resistant – Interior and exterior materials should be vandal resistant. Restrooms should have stainless steel fixtures, pavilion trusses should be closed, security lighting should be installed, exterior outlets should have locking covers, etc.

Expandable – The park structures should be built with expansion opportunities preserved as future needs arise as appropriate.

ADA Compliance – Public buildings must comply with the Americans with Disabilities Act requirements.

Green Design – Green materials and energy savings strategies should be incorporated into building designs. Consider developing LEED certified buildings.

West Pikeland Township should consider developing buildings that are LEED certified to promote “green” sustainable development within the park. LEED is an internationally recognized green building certification system, providing third-party verification that a building was designed and built using strategies aimed at improving performance in energy savings, water efficiency, CO₂ emissions reduction, improved indoor

environmental quality, and stewardship of resources and sensitivity to their impacts. LEED was developed by the U.S. Green Building Council to provide building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operation, and maintenance solutions.

Signage System Considerations – A comprehensive signage system is important to guide visitors to the park and inform and direct visitors once they are at the park site. A comprehensive signage system should include a park entrance sign, park rules sign, direction signs, trail mile markers, and interpretative signs. Currently there are no sign design standards for West Pikeland Township parks.

- Entrance Sign – An entrance sign should be located along the Conestoga Road frontage at Walnut Lane and include the park name and Township name and logo.
- Information Kiosk – One information kiosk is suggested at the parking drop-off area in the park ‘hub’. Kiosk orient visitors, provide information about the park, and include park and trail maps, park rules and policies, and park announcements. The kiosk could be developed as a two, three, or four sided sign structure to accommodate desired information.
- Interpretative Signs - Interpretative signs are suggested to provide information about historical, cultural, and/or natural features of the park. Interpretative signs opportunities in West Pikeland Township Park include:
 - Connection to the Mill at Anselma with information about the mill, mill race, and pond.
 - Pickering Valley Railroad.
 - History of the park site.
 - 18th Century Farmstead and description of the stone barn.

- 18th Century farming practices.
- Benefits of riparian buffer vegetation, wetlands, meadows.
- Directional Sign - Directional signs direct visitors to key features in the park such as the baseball/softball field, event lawn, trails, etc. Directional signs are typically located in park hubs and at trail intersections.
- Mile Marker - Mile markers should be located along trails to identify name and length.

Park Sign Development Guidelines	
Vandal Resistant	Utilize materials such as phenolic resin panels (no frame required) or fiberglass embedded panels (frame required) which resist abrasions, graffiti, solvents, etc.
Weather Resistant	Utilize materials that will not fade or otherwise degrade from sunlight, moisture, or the freeze/thaw cycle.
Meet PennDOT Regulations	Along PennDOT roadways use standard signs.
Promote Consistent Image	Develop a “family” of graphics (logo, font, colors, etc.) that will be used on signs throughout the park to unify the park. Work with professional graphic artists to create a layout template for each sign type and park logo.
Graphics	Utilize maps, graphic illustrations and photographs, and text to communicate the intended message.
Positive Message	Research indicates that positive messages are far more effective in reducing depreciative activities (littering) than negatively worded messages. ¹
Sign Illumination	Park identification signs located at the main entrances should be illuminated, where practical, so they are visible at night, fostering awareness of the parks.

¹ Recreation Research Update, Pacific Southwest Research Station – Wildland Recreation and Urban Cultures, October 1999 No. 31 (USDA Forest Service).

Park Signage System Guidelines		
Sign Type	Sign Purpose	Sign Locations
Park Entrance Signs	Identify park and park entrances.	Each public entrance to the park.
Information Kiosks	Provide information about the parks such as park policies, park and trail maps, special events and program calendar, etc.	At activity area hubs and major trailheads.
Directional Signs	Identify direction and distance to destinations.	At trailheads and activity area hubs.
Trail Signs	Identify trails of the park, provide length of trail.	At trailheads and trail intersections to guide users and identify cross trails.
Mile Markers	Identify location on a trail (mile indication visible from both sides of the marker).	At one-quarter mile intervals along trails.
Interpretative Signs	Provide environmental education, historic, cultural, and general interest information about the park site, its resources, or surrounding area.	At points of interest in the park and along the trails.
Traffic Signs	Traffic control and warn motorists of park activity areas.	Along the entrance drives and vehicular ways within the parks.
Safety Signs	Warn visitors of safety issues.	Strategically located as necessary.

Natural Resources and Infrastructure

Stormwater Management – Stormwater facilities will be required to accommodate the stormwater runoff generated from improvements and facilities introduced into the park. Stormwater collection and conveyance facilities should be designed to comply with the Township’s stormwater ordinances. Stormwater management facilities, such as detention, retention, or infiltration facilities, to reduce peak flows are not accommodated on the park master plan at this time. Further study to determine the type of stormwater management facility, the size, and location should be performed as part of the design and engineering for construction. Best Management Practice (BMP) principles should be used to manage stormwater where applicable. BMP’s such as rain gardens, filter strips, subsurface infiltration beds, and other low impact controls should be considered to control stormwater runoff.

Landscaping – Extensive landscaping is not necessary within the park due to the natural setting and existing cover. Landscaping should be introduced to solve problems and enhance the visual image and park function. Landscaping in West Pikeland Township Park is recommended in the following locations:

- Native vegetation to fortify existing hedgerows and woodlands. The southern hedgerows should be supplemented to provide visual buffering of the adjacent residences.
- Landscaping for shade (deciduous trees) and aesthetic enhancements in gathering areas (park hub, playground, gathering lawn, and informal picnic area) and parking areas.
- The park should be monitored for invasive species. Any invasive species that currently inhabit the site should be removed and native vegetation planted in its place.
- Plantings in low lying areas and engineered depressions (rain gardens) to absorb water and filter pollutants. Water loving plants should be introduced to eliminate surface water.

- Colorful perennials, shrubs, and flowering trees at the park entrances and main gathering areas to enhance the aesthetics of the setting.
- Plant deciduous trees surrounding and within islands of parking areas to provide shade for parked cars and reduce the effects of heat islands.
- Planting to visually buffer maintenance, storage, and other functional aspects of park operations from public view.
- Native grass and wildflower meadow plantings introduced in non-activity areas to provide habitat and minimize maintenance.

A well-designed landscape can lower maintenance requirements and long-term maintenance costs. Low maintenance, drought resistant plant material should be used. Elements such as signs should be placed within landscaped areas to minimize hand mowing. Mow lines should be established which reduce mowing, especially outside of activity areas. The main entrances to the park should be attractively landscaped with a signature design highlighting the facility. Consider low maintenance plantings for these areas that include native flowering shrubs, perennials, and warm season grasses to add color to the park.

Where planting is introduced into the park, native plant material should be used. Plant material native to Chester County is adapted to the geographic location and, as a result, will require less maintenance, withstand the extremes in climate change, be less susceptible to disease and pests, and propagate naturally. Native plant material will provide needed habitat and food for small mammals and birds. The introduction of native plants and enhancement of native plant areas will help reduce the opportunity for exotic species to establish a foothold on the site. Additionally, consideration should be given to choosing plant material that will withstand flooding for planting areas within the floodplain, as well as, withstand occasional wet conditions.

Woodlands Enhancements – The existing woodlands and hedgerows are maintained and enhanced in the master plan. Understory vegetation

should be added to the woodlands and additional deciduous and evergreen trees and shrubs added to the hedgerows to screen adjacent home sites. Native planting should consider the needs of wildlife and adaptability to the microclimate of the site. In general, oaks (white, black, scarlet, and red), hickories, black walnut, and American beech produce nuts that provide food for mammals and birds. These trees are large when mature and offer nesting sites for many bird species. Shrubs that provide excellent winter food for wildlife include hawthorn, crab apple, highbush blueberry, and staghorn sumac. For more information on native tree and shrub species that benefit wildlife in urban areas reference the following link: <http://pubs.cas.psu.edu/FreePubs/pdfs/UH128.pdf>. One stand of coniferous (evergreen) tree species is located above the off-site pond. Evergreens not only add diversity and natural beauty to a forested area, they provide shelter for wildlife from cold winter winds and provide important nesting cover and escape areas for songbirds. Evergreen planting can be accomplished through the planting of bare root seedlings or planting three to four foot tall balled and burlapped. Species of native evergreen trees that could be planted include eastern white pine, hemlock, red pine, Virginia pine, and eastern red cedar. According to the Pennsylvania Game Commission, establishing a C-, J- or S-shaped plantation will provide more edge habitat than a square or rectangular one. The PA DCNR Bureau of Forestry, Service Foresters should be consulted regarding technical assistance for woodland enhancements.

Meadow Planting – The open fields of the park are currently farmed with a cover crop. The master plan proposes that the southern steep sloped fields be developed as a naturalized wildflower and grass meadow. Meadow cover will provide habitat for birds and small mammals, reduce on-going maintenance associated with mowing, and aesthetically enhance the park. Establishing meadow areas takes patience. Many wildflowers will not bloom until their second year of growth. Four-to-eight-foot wide strips of maintained lawn areas should be provided adjacent to the meadow areas and along trails in meadows to create a visually pleasing transition to the meadow. Because meadows have a different appearance in the landscape, it is a good idea to inform park visitors about their use and the landscape

and environmental goals for the site. Creating meadows will increase biodiversity and habitat for wildlife, birds, and pollinators.

Hedgerows – The hedgerows along the southern property lines are retained in the design. They should be checked for invasive species and infill planted as necessary to retain their form and to function as a visual buffer for the adjacent residences.

Wetlands – The wetland along the Conestoga Road frontage adds to the diversity of the park's natural resources. This wet area is home to amphibians, water insects, sedges, and other water loving species. Interpretative signs could be placed in this area to provide a description of the wetland and its ecosystem role.

Best Management Practices – West Pikeland Township Park's natural resources are valuable assets and should be protected. Park development, as conceived in this master plan, will involve earthwork and construction activities. Best Management Practices are encouraged throughout the construction process to protect and stabilize resources. Examples of Best Management Practices are noted on the next page.

Best Management Practices		
BMP	Purpose	Application
Subsurface Infiltration Bed	Subsurface infiltration beds provide temporary storage and infiltration of stormwater runoff by placing storage media of varying types beneath the proposed surface grade.	Subsurface Infiltration beds are ideally suited for expansive, generally flat open spaces, such as lawns, meadows, and playfields, which are located downhill from nearby impervious areas.
Riparian Buffer Restoration	Stabilize slope, improve wildlife habitat, slow stormwater run-off	Areas of erodable soils and/or steep slope and at the edge of a stream and perimeter of pond.
Filter Strip	To trap sediment and convey run-off from paved surfaces to storm water channels and reduce run-off velocity	Adjacent to impervious surfaces and on gentle slopes. Adjacent to springs, streams, and ponds to filter sediment.
Grass Swales	Run-off conveyance, pollution, and sediment filtering device and increased ground water infiltration.	Where natural drainage ways can be incorporated into the storm water design in lieu of piped conveyance.
Rain Gardens / Bioretention	Shallow surface depression planted with native vegetation to capture and treat stormwater run-off, promoting infiltration and groundwater recharge.	Flexible in terms of size and infiltration. Great for treating direct source of run-off on an on-lot basis, such the run-off from a paved parking lot or building roof.
Flood Plain Restoration	Re-established a stream's floodplain and banks to stop stream bank erosion, improve stream health, provide species habitat for land animals and aquatic species, recreate wetland areas, increase riparian areas and reduce flooding overflow.	Can be easily integrated into the initial site planning process to prevent riparian problems from getting worse or can fix problems caused by historical practices.
Reduce Impervious Cover	Reduce stormwater run-off and promote infiltration.	Where development is proposed. Reduce driveway width, parking area dimensions, and paved areas to minimum dimensions. Utilize coarse aggregate porous surface in lieu of impervious pavement. Utilize stabilized turf for overflow parking.
Best Management Plan for Construction Activities	To prevent soil erosion, sediment, and other pollutants from entering springs, streams, ponds, etc.	Where development is proposed. Utilize during construction and post- construction period.

Sustainability & Green Design Considerations

Sustainability is a widely accepted concept that is often integrated into park development. Sustainability recognizes the impact of human actions on the natural world and promotes actions that align with conservation principles. Parks present opportunities to demonstrate and share environmental concepts and educate the general public about their role in the environment. Many park sites have embraced the concept of sustainability and have been developed with a sustainable site design approach that incorporates strategies that are ecologically based and compatible with the natural systems of the site. Sustainable park development additionally strives to repair and restore site systems and respect the function and process of the natural world. Andropogon Associates, Ltd developed the “Valdez Principles for Site Design” which promote a sustainable ecological model for site development.² The principles include:

- Recognition of Context.
- Treatment of Landscapes as Interdependent and Interconnected.
- Integration of the Native Landscape with Development.
- Promotion of Biodiversity.
- Reuse of Already Disturbed Areas.
- Making a Habit of Restoration.

Park development provides an opportunity to incorporate green design techniques and features. Integration of green design principals and products for construction of park sites is encouraged to minimize the impact on natural resources and promote sustainable development.

Guidelines for sustainable site development have been developed through an effort call The Sustainable Sites Initiative. The Sustainable Sites Initiatives

is a voluntary national guidelines and performance benchmarks for sustainable land design, construction, and maintenance practices. It is anticipated that these guidelines and performance benchmarks will be incorporated into the LEED Green Building Rating System.

Sustainable Design

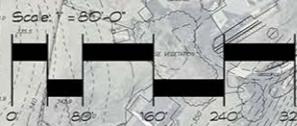
Sustainable design is a concept that recognizes human civilization is an integral part of the natural world and nature must be preserved and perpetuated if the human community is to sustain itself indefinitely. Sustainable design is the philosophy that human development should exemplify the principles of conservation, and encourage the application of those principles in our daily lives.

Source: Guiding Principles of Sustainable Design

² [Guiding Principles of Sustainable Design](#) (Denver Services Center: United States Department of the Interior, National Park Service, 1993), p. 41.

Green Design Considerations		
Consideration	Intent	Application
Erosion and sedimentation control	Reduce negative impact on air and water quality	Provide erosion control measures and best management practices (BMP's) during new construction activities. Eliminate or minimize impacts to steep slope areas.
Reduce site disturbance	Limit development to appropriate sites to reduce the impact on the landscape and habitat.	Construct improvements within existing clearings or developed areas.
Reduce heat islands	Minimize impact of microclimate.	Provide plantings in the large, expansive parking areas to break up the hard surface and promote stormwater runoff infiltration.
Stormwater management	Limit disruption and pollution of natural water courses, reduce increased runoff, and promote infiltration.	Promote infiltration of runoff with grass swales, rain gardens, etc. Utilize porous pavement to promote infiltration of stormwater runoff. Size parking areas to meet park need and provide turf overflow parking for high use occurrences and special events.
Reduce light pollution	Improve night sky visibility and reduce impact on nocturnal environments.	Limit lighting within parks. Where night lighting is necessary for safety and security, specify full cut-off fixtures and only the necessary lumens.
Innovative wastewater treatment	Reduce the generation of wastewater and potable water demand	Provide self mulching, compost, or other environmentally friendly treatment alternatives.
Recycled building materials	Limit the use of consumptive building materials	Utilize recycled building materials in new construction.
Local materials and suppliers	Support the local economy and reduce the environmental impact resulting from transportation	Purchase products locally produced or manufactured.
Maximize solar orientation	Reduce electric needs through proper building orientation.	Orient buildings to take advantage of natural light and heat and cooling summer breezes. Plant deciduous trees to cool buildings in the summer and allow solar access in winter.
Promote water conservation	Reduce water use to lower burden on supply.	Select native and drought tolerant plants to reduce watering and maintenance demands. Mulch landscape areas to retain moisture and minimize the need to water plants.

Consideration	Intent	Application
Energy consumption	Minimize use of fossil fuels.	<p>Install a ground source geothermal heat pump system for heating and cooling of buildings.</p> <p>Connect park sites to regional trail systems so that non-motorized transportation modes can be used to access the site.</p> <p>Install solar powered amenities/features (lights, electric outlets, well power). Use of solar power also eliminates the need for electric trenches and distribution system.</p>
Use water efficiently	Maximize water collection to reduce burden on supply.	<p>Collect rainwater and runoff in rain barrels for watering landscaping and maintenance needs.</p> <p>Direct rainwater to rain gardens to promote groundwater recharge.</p> <p>Use high efficiency fixtures and composting toilets to reduce demand.</p> <p>Use re-circulating and water treatment systems for splash pads and spray features.</p>
Emphasize and promote recycling	Reduce the amount of new materials required and lower the demand for new materials to be produced.	<p>Reuse existing buildings, materials, and infrastructure.</p> <p>Build with salvaged materials whenever available,</p>
Participate in LEED and Sustainable Sites Initiative	Maximize the use of green solutions, strategies, and materials.	Use the LEED and Sustainable Sites Initiative project checklists for all aspects of design.



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County Pennsylvania

Prepared for:
West Pikeland Township

Prepared By:



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York, Pennsylvania 17402
(717) 852-9259 phone
(717) 812-9769 fax

February 2015

Park Improvement Phasing

Development of West Pikeland Township Park will be an investment in the recreation and conservation opportunities offered to residents of West Pikeland Township. Achieving the vision presented in the master plan for the park will require significant capital expenditures. As with most government investment in recreation facilities, it is anticipated that the investment will occur in phases over several years. To guide the improvements to West Pikeland Township Park, probable construction cost opinions have been prepared. The probable construction cost opinions correspond to the first phase of development as determined by the Task Force Committee and provides a line item costs for other improvements anticipated for future phases. Phase 1 of West Pikeland Township Park includes the following improvements and facilities:

Phase 1 – Bulk earthmoving, drive and a portion of the parking, fine grading the two eastern multi-purpose fields, trail surrounding the multi-purpose fields, infrastructure, screening/buffer at property lines. Total probable construction cost opinion for Phase 1: \$1,829,849

Appendix C includes a further breakdown of potential development phases for the park site based on discussions and recommendations of the Task Force Committee.

Probable Construction Cost Opinions

All costs provided in this plan are estimated based on the findings of this master planning process and knowledge of similar park development. An escalation cost has not been applied between the cost for Phase 1 and the costs for future improvements. Design and engineering fees are presented as a percentage of construction costs and will vary, based on actual phase of construction, permits, and features.

The probable construction cost opinions have been completed using Pennsylvania Department of Conservation and Natural Resources (PA

DCNR) format for use in future grant-funding applications. Costs are based on Pennsylvania prevailing wages for year 2014 construction. A fifteen-percent contingency is included in each cost opinion.

Construction Cost Opinion Assumptions and Exclusions

The Construction Cost Opinions for West Pikeland Township Park exclude the following items:

- Architectural design and structural engineering fees for renovations to the barn.
- Improvements to Conestoga Road or Route 113.
- Traffic engineering.
- Off-site trail improvements with the exception of trails to Anselma Mill, west of the pond and along the former railroad corridor.
- Utility service connection fees.
- Electric service distribution or upgrades.
- Easements for utility access.
- Utility relocation.
- Excavation or removal of rock or unsuitable materials.
- Remediation of soils and sinkholes.
- Soil amendments.
- Import of topsoil.
- Construction management.
- Construction inspections fees.
- Dumping/hauling fees.
- Interpretive signage message and graphic design.
- Off-site improvements and off-site engineering.

YSM is not a construction contractor and therefore probable constructions cost opinions are based solely upon our experience with construction. This requires YSM to make a number of assumptions as to actual conditions which will be encountered

on the site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; contractors' techniques in determining prices and market conditions at the time, and other factors over which YSM has no control. Assumptions were made based on our visits to the site and the review of available information. Stormwater management and erosion and sedimentation control costs are provided on a percent of construction cost and specific strategies for this work cannot be defined until the design and engineering phase.

LEGEND

1 PHASE DESIGNATION

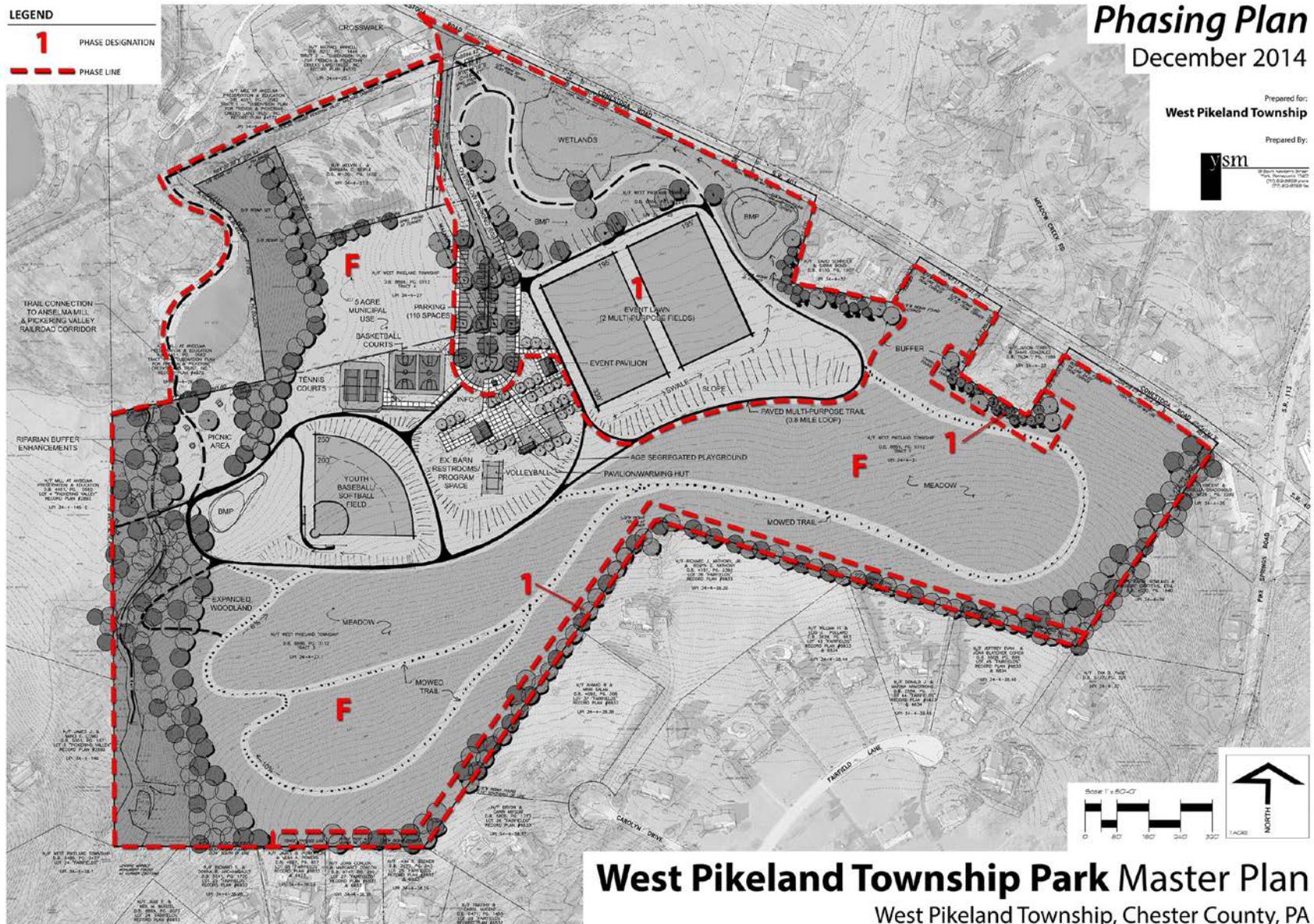
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Phasing Plan

December 2014

Prepared for:
West Pikeland Township

Prepared By:



West Pikeland Township Park Master Plan

West Pikeland Township, Chester County, PA

**Commonwealth of Pennsylvania
Department of Recreation and Natural Resources
Bureau of Conservation and Conservation
PROBABLE CONSTRUCTION COST OPINION**

Grantee: West Pikeland Township
Project Title: West Pikeland Township Park

Date Prepared 12/10/2014
DCNR Project No.

Phase 1

Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Demolition/Site Preparation			\$26,400
	A. Misc. Site Preparation	1 LS	\$2,000	\$2,000
	B. Building/structure demolition (Excluding barn)	1 LS	\$16,000	\$16,000
2	C. Pavement Removal	1,400 SY	\$6	\$8,400
	Earthwork			\$465,000
3	A. Strip/Stockpile/Replace Topsoil	14,000 CY	\$4	\$49,000
	B. Grading Operations	128,000 CY	\$3	\$416,000
3	Access Drive and 60 Parking spaces			\$126,500
	A. Excavation	1,600 CY	\$4	\$6,400
	B. 8" 2A Coarse Aggregate	4,750 SY	\$10	\$47,500
	C. 2.5" Binder Course	4,750 SY	\$8	\$38,000
	D. 1.5" Wearing Course	4,750 SY	\$7	\$33,250
4	E. Handicap Pavement Striping and Signage	3 SP	\$450	\$1,350
	6" Wide Aggregate Trail (1,400 LF)			\$11,115
5	A. Excavation	190 CY	\$4	\$665
	B. 2" Trail Mix Coarse Aggregate	950 SY	\$2	\$1,900
	C. 6" 2A Coarse Aggregate	950 SY	\$9	\$8,550
5	8" Wide Bituminous Trail (2,200 L.F.)			\$45,810
	A. Excavation	700 CY	\$4	\$2,800
	B. 6" 2A Coarse Aggregate	1,955 SY	\$9	\$17,595
	C. 2" Binder Course	1,955 SY	\$7	\$13,685
6	D. 1" Wearing Course	1,955 SY	\$6	\$11,730
	Concrete Pavements (5,600 sf total)			\$36,960
7	A. Standard Concrete	4,480 SF	\$6	\$26,880
	B. Decorative Concrete (20% of total)	1,120 SF	\$9	\$10,080
7	Signage			\$6,500
	A. Park Entrance Signage	1 LS	\$4,000	\$4,000
8	B. Information Kiosk	1 EA	\$2,500	\$2,500
	Site Amenities			\$96,600
9	A. Benches	4 EA	\$1,500	\$6,000
	B. Trash Receptacle	2 EA	\$1,200	\$2,400
	C. Vehicular Gate/Bollards	1 set	\$4,000	\$4,000
	D. Wood Privacy Fence	2,000 LF	\$28	\$56,000
	E. Pet Waste Disposal System	2 EA	\$300	\$600
	F. Ship and Install Site Amenities (40% of costs)	1 LS	\$27,600	\$27,600
9	Landscaping			\$137,700
	A. Lawn Seeding	36,000 SY	1.20	\$43,200
	B. Shade Trees	24 EA	450.00	\$10,800
	C. Property Line Buffer Planting	2,700 LF	10.00	\$27,000
10	D. Meadow Seeding	18,000 SY	3.15	\$56,700
	Utilities			\$112,400
11	A. Water Line Extension and Stub	1,200 LF	50.00	\$60,000
	B. Electric Trenching, Conduit, Wire, and Appurts.	1,700 LF	12.00	\$20,400
	C. Parking Area Light Fixture	8 EA	4,000.00	\$32,000
11	Stormwater Mgt and Erosion Control			\$170,398
	A. BMP's and Stormwater Management (8%)	1 LS	\$85,199	\$85,199
12	B. Erosion Control Measures (8%)	1 LS	\$85,199	\$85,199
	Bond Mobilization and Layout			\$148,246
13	A. Bond Mobilization and Layout (12%)	1 LS	\$148,246	\$148,246
	Contingency			\$207,544
14	A. 15% Contingency	1 LS	\$207,544	\$207,544
	Professional Fees			\$238,676
14	A. Design and Engineering Fees (15%)	1 LS	\$238,676	\$238,676
	Total			\$1,829,849

**Commonwealth of Pennsylvania
Department of Conservation and Natural Resources
Bureau of Recreation and Conservation
PROBABLE CONSTRUCTION COST OPINION**

Grantee: West Pikeland Township Date Prepared 2/25/2015
 Project Title: West Pikeland Township Park DCNR Project No.

		Future Phases		
Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Demolition/Site Preparation			\$3,000
	A. Misc. Site Preparation	1 LS	\$3,000	\$3,000
2	Earthwork			\$175,600
	A. Strip/Stockpile/Replace Topsoil	8,850 CY	\$4	\$30,975
	B. Grading Operations	44,500 CY	\$3	\$144,625
3	Access Drive and Parking (50 Spaces)			\$32,500
	A. Excavation	400 CY	\$4	\$1,600
	B. 8" 2A Coarse Aggregate	1,200 SY	\$10	\$12,000
	C. 2.5" Binder Course	1,200 SY	\$8	\$9,600
	D. 1.5" Wearing Course	1,200 SY	\$7	\$8,400
	E. Handicap Pavement Striping and Signage	2 SP	\$450	\$900
4	Bridges			\$40,000.00
	A. Pedestrian/Light Vehicular Bridge	1 EA	\$40,000	\$40,000.00
5	6' Wide Aggregate Trail (2,000 LF)			\$16,600
	A. Excavation	500 CY	\$4	\$1,750
	B. 2" Trail Mix Coarse Aggregate	1,350 SY	\$2	\$2,700
	C. 6" 2A Coarse Aggregate	1,350 SY	\$9	\$12,150
6	8' Wide Bituminous Trail (3,000 L.F.)			\$63,000
	A. Excavation	900 CY	\$4	\$3,600
	B. 6" 2A Coarse Aggregate	2,700 SY	\$9	\$24,300
	C. 2" Binder Course	2,700 SY	\$7	\$18,900
	D. 1" Wearing Course	2,700 SY	\$6	\$16,200
7	Basketball Courts (2)			\$79,465
	A. Fine Grading and Compaction	575 CY	\$4	\$2,300
	B. 8" 2A Coarse Aggregate	1,715 SY	\$10	\$17,150
	C. 2.5" Binder Course	1,715 SY	\$8	\$13,720
	D. 1.5" Wearing Course	1,715 SY	\$7	\$12,005
	E. Color Coat	1,715 SY	\$6	\$10,290
	F. Line Striping	2 CT	\$1,500	\$3,000
	G. Chain Link Fence	240 LF	\$50	\$12,000
	H. Posts/Goals and Nets	4 EA	\$2,250	\$9,000
				\$83,630
8	Tennis Courts (2)			\$83,630
	A. Fine Grading and Compaction	490 CY	\$4	\$1,960
	B. 8" 2A Coarse Aggregate	1,470 SY	\$10	\$14,700
	C. 2.5" Binder Course	1,470 SY	\$8	\$11,760
	D. 1.5" Wearing Course	1,470 SY	\$7	\$10,290
	E. Color Coat	1,470 SY	\$6	\$8,820
	F. Line Striping	2 CT	\$1,500	\$3,000
	G. 10 Foot High Chain Link (Vinyl Coated)	456 LF	\$50	\$22,800
	H. Gates	2 EA	\$400	\$800
	I. Post and Nets	2 SET	\$1,750	\$3,500
	J. Practice Wall	1 LS	\$6,000	\$6,000
				\$34,200
9	Youth Baseball/Softball Field			\$34,200
	A. Excavation Fine Grade and Compaction	1,500 CY	\$3	\$4,500
	B. Infield Mix	200 TON	\$27	\$5,400
	C. Backstop	1 LS	\$12,000	\$12,000
	D. Players Benches	2 EA	\$1,200	\$2,400
	E. Bases	1 SET	\$900	\$900
	F. Sideline Fencing	180 LF	\$50	\$9,000

10	Tot Lot (Ages 2-5)						
	A.	Play Equipment	1 LS	\$32,000	\$32,000	\$32,000	
	B.	Play Equipment Shipping & Installation	1 LS	\$12,800	\$12,800	\$12,800	
	C.	Excavation Fine Grade and Compaction	90 CY	\$4	\$360	\$360	
	D.	Concrete Curb Edging	210 LF	\$25	\$5,250	\$5,250	
	E.	Underdrain	60 LF	\$12	\$720	\$720	
	F.	Safety Surface Safety Surface (PIP Rubber)	2,400 SF	\$15	\$36,000	\$36,000	
11	Youth Playground (Ages 5-12)						
	G.	Stone Base and Filter Fabric	270 SY	\$10	\$2,700	\$2,700	
	A.	Play Equipment	1 LS	\$50,000	\$50,000	\$125,300	
	B.	Play Equipment Shipping & Installation	1 LS	\$20,000	\$20,000	\$50,000	
	C.	Excavation Fine Grade and Compaction	75 CY	\$4	\$300	\$20,000	
	D.	Concrete Curb Edging	220 LF	\$25	\$5,500	\$300	
	E.	Underdrain	100 LF	\$12	\$1,200	\$5,500	
12	Concrete Pavements (14,200 sf total)						
	F.	Safety Surface Safety Surface (PIP Rubber)	3,000 SF	\$15	\$45,000	\$45,000	
	G.	Stone Base and Filter Fabric	330 SY	\$10	\$3,300	\$3,300	
	A.	Standard Concrete	11,360 SF	\$6	\$68,160	\$93,720	
	B.	Decorative Concrete (20% of total)	2,840 SF	\$9	\$25,560	\$68,160	
	Signage						
	A.	Park Signage (Interpretive)	1 LS	\$2,500	\$2,500	\$13,000	
13	Signage						
	B.	Park Signage (Directional)	1 LS	\$8,000	\$8,000	\$2,500	
	C.	Information Kiosk	1 EA	\$2,500	\$2,500	\$8,000	
	Site Amenities						
	A.	Picnic Tables	17 EA	\$1,200	\$20,400	\$222,100	
	B.	Benches	18 EA	\$1,500	\$27,000	\$20,400	
	C.	Trash Receptacle	6 EA	\$1,200	\$7,200	\$27,000	
14	D.	Bicycle Rack	2 EA	\$850	\$1,700	\$7,200	
	E.	Pet Waste Disposal System	4 EA	\$300	\$1,200	\$1,700	
	F.	Flag	1 EA	\$3,000	\$3,000	\$1,200	
	G.	Vehicular Gate/Bollards	2 set	\$4,000	\$8,000	\$3,000	
	H.	Grills	1 EA	\$500	\$500	\$8,000	
	I.	Game Tables & Chairs	5 EA	\$2,500	\$12,500	\$500	
	J.	Ship and Install Site Amenities (40% of costs)	1 LS	\$32,600	\$32,600	\$12,500	
	K.	Lawn Volleyball Court	1 EA	\$1,800	\$1,800	\$32,600	
	L.	Retaining Seat Wall at Playground	150 LF	\$180	\$27,000	\$1,800	
	M.	Tiered Seat/Retaining Walls at Courts	330 LF	\$240	\$79,200	\$27,000	
	15	Pavilions					
		A.	Barn Rehabilitation Allowance	1,600 SF	\$300	\$480,000	\$649,000
		B.	Retaining/Seat Wall Allowance	100 LF	\$240	\$24,000	\$480,000
		C.	Event Pavilion	1 LS	\$80,000	\$80,000	\$24,000
16	D. Pavilion/Warming Hut						
	D.	Pavilion/Warming Hut	1 LS	\$65,000	\$65,000	\$80,000	
	Landscaping						
	A.	Lawn Seeding	66,000 SY	1.20	\$79,200	\$662,950	
	B.	Evergreen Trees	39 EA	250.00	\$9,750	\$79,200	
	C.	Shade Trees	72 EA	450.00	\$32,400	\$9,750	
	D.	Flowering Trees	57 EA	300.00	\$17,100	\$32,400	
17	E. Riparian Corridor Enhancements						
	E.	Riparian Corridor Enhancements	800 LF	65.00	\$52,000	\$17,100	
	F.	Meadow Seeding	150,000 SY	3.15	\$472,500	\$52,000	
	Utilities						
	A.	Parking Area Light Fixture	6 EA	4,000.00	\$24,000	\$472,500	
	B.	Event Pavilion Lighting	1 LS	6,000.00	\$6,000	\$24,000	
18	C. Warming Hut/Pavilion Lighting						
	C.	Warming Hut/Pavilion Lighting	1 LS	2,500.00	\$2,500	\$6,000	
	D.	Walkway Bollard Lighting	6 EA	1,800.00	\$10,800	\$2,500	
19	Stormwater Mgt and Erosion Control						
	A.	Stormwater Management (8%)	1 LS	\$194,176	\$194,176	\$388,351	
	B.	Erosion Control Measures (8%)	1 LS	\$194,176	\$194,176	\$194,176	
20	Bond Mobilization and Layout (12%)						
	A.	Bond Mobilization and Layout (12%)	1 LS	\$337,866	\$337,866	\$337,866	
21	Contingency						
	A.	15% Contingency	1 LS	\$473,012	\$473,012	\$337,866	
Professional Fees							
A.	Design and Engineering Fees (15%)	1 LS	\$543,964	\$543,964	\$473,012		
Total							
						\$4,170,387	

Implementation Tasks

The development of West Pikeland Township Park as depicted on the master plan will require additional planning, design, and approvals. The following list outlines the implementation tasks that may be required for development of West Pikeland Township Park. This list is provided for planning purposes and should not be considered all inclusive, as additional tasks, approvals, and permits may be required.

- Complete structural repairs to the barn to stabilize the structure until the full renovation begins.
- Apply for park development funding grants.
- Develop construction documents. Construction documents will design in detail and engineer the proposed improvements and associated amenities. Prepare a project manual including technical and bidding specifications.
- Prior to bidding and construction, obtain approvals from the various governing agencies. The following is a listing of typical approvals but may not be all-inclusive.
 - Municipal and County approval for land development plans, if required.
 - Chester County Conservation District approval for erosion and sedimentation control plans and NPDES Permit.
 - Pennsylvania Department of Environmental Protection approval for any work within the waters of the Commonwealth including delineated wetlands and stream encroachments.
 - Pennsylvania Department of Transportation approval for improvements within a PennDOT right-of-way.
 - Pennsylvania Department of Environmental Protection for sewage planning module approval.
 - Pennsylvania One Call. Pennsylvania law requires three

working days' notice for construction phase and ten working days in design stage.

- Approval from public utilities required for development such as electric service extensions.

Each of the above permits and approval are typically involved and will require advance planning to facilitate the process. Adequate preparation and review time should be allotted. Upon receipt of all required approvals and permits and completion of the construction documents, the project can be publicly bid for construction.

Early Implementation Projects

The vision created by the master plan will not happen immediately. Most often parks are developed in phases over time as grant funding becomes available. To sustain the excitement for park improvements that this planning process has generated, small projects could be undertaken to create momentum for the entire project. These small improvements will show progress and provide enhancements that will immediately benefit citizens. Potential early implementation projects that can occur immediately, without significant investment or the need for extensive design, engineering, or permitting include:

- Stabilize the barn and demolish other structures to be removed.
- Design and install a park entry sign at the entrance.
- Install native vegetation to supplement the southern hedgerows to buffer the adjacent residential property.
- Install fence along the southern property line to separate the park from the adjacent neighbors, where requested.
- Develop mowed trails through the existing meadows.

Introduction

West Pikeland Township has been investing in open space and community parks to enhance of the quality of life, conserve the community's rural scenic character and natural resources, and provide recreational opportunities for citizens of all ages and interests.

The purpose of this park master plan is to establish a course of action to complete the development of this 62-acre community park. As part of the master planning process, West Pikeland Township identified the importance of planning for the future operations, management, and support of the West Pikeland Township Park System as a whole. About 75 percent of the cost of a park over its lifetime goes to operations and maintenance. By addressing operations and maintenance while creating the park master plan, the Township will be able to make informed decisions about developing the park, allocating resources, budgeting, staffing, and partnerships.

In establishing this Operations, Management, and Financing Plan, the consulting team conducted interviews with key stakeholders in the community and the Township Manager; researched benchmarks and best practices; and reviewed Township information on management and budget.

West Pikeland Township's Parks and Recreation System

A Developing Park & Preserve System

West Pikeland Township has three park sites totaling 150 acres. They include one developed park for both active and passive recreational uses – Pine Creek Park (72 acres), one developed park for passive uses – Pickering Grove Park (16 acres) and one undeveloped property purchased to be developed as a park for both active and passive recreational uses – White Property (62 acres). The Township also owns

Windolph Knoll – a property containing 24 acres whose future use is to be determined.

A private non-profit organization runs a summer recreation program at Pickering Grove Park. Miss Betty's Day Camp, a summer day camp, has been active for over 50 years, providing summer-time fun and great experiences for children.

West Pikeland Township has been vigilant in protecting open space and natural resources through investment, securing grants, land use planning, and using parks and recreation as a strategy. Through the preservation of open space and the establishment of the Township's parks and recreation system, elected and appointed officials are working to achieve the community's goals for an excellent quality of life rooted in the Township's scenic rural character and active healthy living.

Parks & Recreation Organization and Staffing

As a Township of the Second Class, West Pikeland Township operates with an elected body, a five member Board of Supervisors, who set policy and a professional Township Manager who implements Board policy and manages Township operations.

The Park and Recreation Board is a nine-member advisory Board of residents, who are appointed by the Board of Supervisors for staggered five-year terms. The main purpose of the Park and Recreation Board is to make recommendations to the Board of Supervisors concerning the operation, conduct, and maintenance of the Township parks and recreation opportunities. In addition to the Park and Recreation Board, the Arts and Culture Committee nurtures an arts-friendly atmosphere in West Pikeland Township. This board advises the Board of Supervisors; serves as liaison to the many non-profits in our community; supports arts-related organizations; and encourages, oversees, and assists high quality fine arts and performing arts events at the Cultural Center. There is an opportunity for these two boards to collaborate in using the township parks as art and programming venues.

The Public Works Department maintains township parks. Typically, West Pikeland Township has the full time equivalent of 1.75 workers annually to take care of all public facilities. In addition, the Township contracts out grass mowing for public properties including the parks.

In a model approach to recreation services, West Pikeland Township is a partner in the Downingtown Area Recreation Coalition. DARC provides recreational programming for residents of the municipalities of Downingtown Borough and the Townships of West Pikeland, East Brandywine, East Caln, Upper Uwchlan, Uwchlan, Wallace, and West Bradford. Together, these municipalities have the services of a full-time professional parks and recreation programming staff to offer recreation services to the citizens. Few if any of these municipalities could afford to do this on their own. West Pikeland Township has demonstrated its commitment to innovative management and the delivery of recreation opportunities in a cost effective way through the Township's participation in this highly regarded recreation consortium.

In addition to working with DARC, the Township has a number of important parks and recreation partners including LYA (Lionville Recreation Association) and GEYA (Glenmoore Eagle Youth Association). These organizations provide a full range of youth sports using volunteers to manage and operate the leagues.

Financing

In 2014, the West Pikeland Township operating budget was \$1,968,608. This does not include capital funding. The total Parks and Recreation operating budget was \$46,850. Of this, the Recreation budget was \$4,050 for the contribution to DARC and special events. The operating budget for park maintenance was \$42,800.

Benchmarks Give Perspective

West Pikeland Township is allocating about 2.4 percent of its budget on recreation. Statewide the average municipal investment in parks and recreation as a ratio of the overall municipal budget is three percent.

Municipalities managing very successful parks and recreation systems allot a minimum of five percent of the municipal operating budget. With a population of 4,024, the Township is spending about \$11.64 on parks and recreation per capita. In Pennsylvania, the average municipal investment is about \$36 per capita. Nationwide, it is \$65 per capita.

In Park systems similar to West Pikeland Township, the typical cost of maintenance per acre for active recreation areas ranges from \$1,500 to \$3,000 per acre. In national award winning systems the cost per acre is more in the \$8,000 range. For natural areas, the annual cost of maintenance is around \$500 per acre. The Township's \$42,800 maintenance budget supports the care of its parks, preserves, trails, and open space network. Since costs and workload are not tracked per property in this developing park system, it is estimated that about \$37,800 goes for Pine Creek Park with 72 acres. Using \$1,500 and \$500 per acre for active and passive park acreage as benchmarks on the low end of typical park maintenance costs in township park systems, projections for what the Township would be allocating for park maintenance would go as follows. If about 1/3 of Pine Creek Park is developed for active recreation, about 24 acres would be considered active while about 47 acres would be maintained as natural. A cost of \$1,500/acre for active recreation would total \$36,000. The 47 natural acres at \$500/acre would total \$23,500. This would be a total estimated cost of \$59,500.

This information merely presents some benchmarks in order to frame parks and recreation planning in West Pikeland Township. The figures are not inherently good or bad, but instead offer perspective in considering how to move forward. Nor do the figures include the value of volunteers who contribute important knowledge, time and support for public parks

and recreation in West Pikeland. The 2014 value of a volunteer hour is about \$21.94 in Pennsylvania according to the Independent Sector.¹

Historically, West Pikeland Township generates about \$2,200 in fees from the rental of Pine Creek Park and Miss Betty’s Camp. The Township does not charge user fees for the use of ballfields as the volunteer organized sports leagues provide important community services for youth that the Township could not otherwise afford to operate on its own. It is a mutually beneficial partnership with valuable community benefits.

Recreation Opportunities, Management, and Maintenance

The development of the West Pikeland Township Park will occur over many years. The Township will phase in improvements as funding becomes available. As the park comes to life, recreation opportunities will expand, maintenance responsibilities will increase, and new partnership opportunities will emerge. The projections for recreation, maintenance, and costs are based upon the park development as a whole as depicted in the Park Master Plan.

Recreation Opportunities

West Pikeland Township’s second community park on the White Farm will offer many opportunities for fun, health, fitness, and building strong family and community bonds through socialization. In general, about 78 percent of the use of public recreation facilities is by park visitors using facilities at their own discretion. About 22 percent of use is for organized scheduled programs. The West Pikeland Township Park System’s main purpose is to provide facilities for the residents to use as they wish for recreation. Other uses will include athletic games and practice by regional sports leagues; programming by DARC; and two to three special events offered by the West Pikeland Township Park and Recreation

Board. Other opportunities may emerge such as performing arts in conjunction with the West Pikeland Township Arts and Cultural Committee and special events staged by other community based organizations working in partnership with West Pikeland Township. The following describes the recreational activities that visitors will be able to experience in the park.

Walking – The residents of West Pikeland Township indicated that their most preferred recreation opportunity in the park is walking. The Township’s second community park will offer a total of two miles of trail in a combination of paved and natural surfaces.

Playing and Watching Sports – Up to three ballfields will offer the opportunity for citizens to play and watch a variety of sports including soccer, field hockey, lacrosse and baseball/softball. Game courts for tennis and basketball can be used for drop-in play as well as having the potential for organized programs such as leagues, instruction, and competitions.

Getting and Staying Fit – According to the U.S. Surgeon General, the lack of physical activity is a major factor in the obesity epidemic in America. In West Pikeland Township Park, nature will provide an added value to the known benefits of physical activity - and repeated exercise in nature is, in particular, connected to better physical and emotional well-being. From park bench pushups to open air runs, fitness experts say the workout possibilities of parks are worth the consideration of even the most diehard gym users.

Family Play and Building a Sense of Community – Trends show that Americans have a strong desire to spend more time with the people they love, a trend born out in West Pikeland in which residents described their desire to have a park close to home to spend time with family and friends. By park, they described a nature-based facility with appropriate recreation facilities woven in – not a sports complex but truly a place to accommodate a variety of recreation pursuits. In addition to general

¹ http://www.independentsector.org/volunteer_time. August 1, 2014.

recreation areas, the park features an event space that could function as a venue for performances and special events. The park will also offer pavilions for rentals for community gatherings.

Year Round Outdoor and Indoor Possibilities – The park will function as a four season facility with opportunities for winter sports such as cross country skiing and sledding in addition to the usual nice weather activities both planned and self-directed. The barn has the potential to be restored to provide a public activity space as well as comfort facilities.

Enjoyment of Natural Resources, Scenic Rural Character, and the Great Outdoors – West Pikeland Township Park continues the Township's efforts to preserve the its rural scenic charm and natural resources. About two-thirds of the park will remain undeveloped due to its topography and site resources. Park visitors will be able to "get away from it all" by enjoying nature and serenity close to home.

Management

The West Pikeland Township Manager is responsible for managing parks and recreation. He will continue to schedule facilities, work with community sports leagues, oversee park maintenance, and coordinate with the Park and Recreation Board and the Arts and Cultural Committee regarding the park and recreational services.

The Park and Recreation Board will continue to operate in an advisory capacity in the development and operation of the park. It is expected that the Board will plan and implement up to three events in the park annually.

DARC will continue to fulfill its role as the primary provider of organized schedule recreation programs and in advertising recreation opportunities through its publications and website.

The community sports leagues will continue to provide support for the facilities including some maintenance and coordination and management of all leagues.

Maintenance

Maintenance management is the process by which West Pikeland Township plans, directs, controls, and evaluates the care of parks and recreation facilities. West Pikeland Township Park should reflect an inviting, clean, and attractive appearance; an effective level of service; and the reality of fiscal and human resource limitations of the Township.

Routine scheduled maintenance provides the foundation for effective park maintenance, security, safety, and risk management. A park that is well-designed and maintained attracts visitors. The more use a park gets, the less vandalism occurs and the safer it is. When park visitors see that a park is well cared for, the risk of vandalism and other undesirable anti-social behaviors tends to diminish. Parks that are not well tended get fewer visitors and more vandalism.

With a maintenance plan in place, there will be a clearly defined direction for the maintenance goals and operations. Making a repair on an emergency unscheduled basis costs seven times as much as it does to perform the task on a routine basis.

Maintenance Challenges and Opportunities

The Public Works Department maintains the parks. The Township also contracts out grass mowing. The Natural Lands Trust has provided important technical assistance in managing Pine Creek Park related to maintenance planning, zones, and natural resource care. The maintenance of West Pikeland Township Park will require a variety of skill sets including sports turf management, natural resource management, custodial care, and customer service. The conservation of the natural resources and scenic beauty of this park are crucial to community goals. Other tasks for this park include: citizen outreach and response, budgeting, procurement, personnel management, contract management, policy development, programming, and promotion. Most of these administrative tasks will fall to the Township Manager, Public Works, the Park and Recreation Board, and DARC.

Sustainable Park Design and Maintenance - Protection of the environment and rural character of this park is a primary goal of the park design and its future maintenance. Too often park design and maintenance focus on active recreation to the detriment of the park’s natural features and scenic beauty. The focus of this plan is on establishing and managing the park in a way that facilitates responsible public use in harmony with the natural features. Traditional park maintenance in the Township has been focused on mowing and trimming to attain a manicured appearance. While the public may come to expect a manicured appearance, it is important to educate them on why it is important for parks to set the bar in practices that promote the healthy natural elements of public lands such as water, wildlife, and vegetation. Adopting maintenance practices that conserve natural resources require planning, training, expertise, and public education.

Volunteers - Volunteers are often considered the means to managing parks. However, volunteers are not free. Volunteers require recruiting, training, supervision, recognition, and support. Someone must be in charge of volunteers and volunteer management. Township staff is lean and does not have the capacity for extensive volunteer management. Any efforts in volunteerism should be limited to major groups that can support the volunteer work and provide a solid chance of long-term sustainability.

Continued Need for Partnerships - Partnerships in sports leagues are crucial to sustain over time. Other partnerships can be formed in the future. Potential partnerships should be evaluated for the benefits, support required, and likelihood of sustainability for the life cycle of the project or program.

Funding Challenges - The major challenge for this park is capital and operating funding. The Township has already invested heavily in land acquisition for this park. Obtaining funding to acquire parkland is the easiest task. Obtaining grants to build facilities is harder. Securing the funds to maintain the park over its lifetime is the most difficult task.

Trends statewide show reluctance in local government to hire staff that requires salary and benefits. West Pikeland Township has demonstrated creative and innovative alternatives holistically through such practices as contracting out routine services, engaging in multi-municipal recreation services; and regional parks and recreation planning. This is notable and exemplary.

Typically revenues in parks and recreation are derived from special use facilities such as campgrounds, pools, skating rinks, sports facilities as well as from programs and activities. This park design does not have revenue generating facilities except for the potential of the restored barn. The small Township staff also precludes the generation of significant revenues from programs and services as that would require additional staffing.

Establish Maintenance Goals

West Pikeland Township Park Maintenance Goal
The goal of park maintenance in West Pikeland Township is to provide clean, safe, and attractive facilities for the conservation of cultural and natural resources as well as the healthful and enjoyable use by the people who live, work, and visit here through implementation of an efficient and effective management program.

The following guidelines can formalize the Township’s approach to park maintenance operations. The guidelines would apply to municipal employees, contractors and volunteers who assume responsibility for park maintenance tasks.

1. All maintenance will be accomplished in a manner displaying respect and concern for the environment as well as public and private property. Maintenance practices that are rooted in a strong conservation ethic are to be instituted.

2. Maintenance tasks will be accomplished in a way that does not endanger the health or safety of the employees nor the public.
3. All maintenance tasks will be performed as quickly and economically as possible without any loss in efficiency.
4. All equipment and materials will be operated and maintained in such a way as to insure safe, effective use and long life.
5. Work will be scheduled in such a manner as to make the most use of the resources of other community organizations who are involved or who may become involved.
6. Preventive maintenance will be used in a continuing effort to avoid major problems and correct minor ones.
7. All maintenance work will be performed with a sense of pride.
8. Capital replacement planning and budget depreciation to a park capital maintenance fund will be undertaken.

Maintenance Standards

Maintenance standards set forth the level of care that park and recreation facilities receive. They would apply to all township parks, not only West Pikeland Township Park.

Importance of Assigning Maintenance Standards - Assigning maintenance standards will enable West Pikeland Township to maintain West Pikeland Township Park and all of its other parks with respect to needs and resources. Targeting the appropriate level of care will enable the Township to direct resources to balance public use with cultural and natural resource conservation. The maintenance standards provide a common frame of reference for the community including elected and appointed officials, Township employees, maintenance staff, administration, contractors, partners, sponsors, park visitors, and the citizens. The common agreement will facilitate discussions and communications about the parks. This will enable elected and appointed officials and Township management to establish and implement policies

on use, fees and charges, volunteer requirements, staffing levels, contractual service requirements, and other issues that may emerge. It will also enable the Township to communicate with the public about the capacity of the municipality to undertake actions in response to citizen demands on the park(s), park maintenance tasks, natural resource protection actions, and requests for additional facilities and/or services.

National Recreation & Park Association Standards: An Approach - The National Recreation and Park Association advocates a system of maintenance modes for parks. Modes refer to the “way of maintenance” ranging from most intensive to least intensive. West Pikeland Township already operates with maintenance zones in Pine Creek Park and the modes are a take-off on that idea. The modes range as follows:

Mode I - State of the Art Maintenance

Mode II - High Level Maintenance

Mode III - Moderate Level Maintenance due to moderate levels of development

Mode IV - Moderately Low Level Maintenance

Mode V - High Visitation Natural Areas

Mode VI - Minimum Level Maintenance

To protect the Township’s investment in its second community park, to protect the natural beauty and resources of the site, facilitate safe and enjoyable use by park visitors, provide efficient and effective public service, and ensure park security, the following standards are proposed:

Inspections - Mode I - Park inspection of West Pikeland Township Park’s core visitation areas such as the playground and park hub should be done daily during peak season. Mode V should be done every other week in the natural areas. About 66 percent of the Park would receive minimal maintenance as a low visitation natural area. All formal playgrounds should follow CPSC (Consumer Product Safety Commission) guidelines. Recommendations for playground

inspections are daily or weekly. A copy of the CPSC inspection form is in the Appendix.

Turf Care - Turf care for the Park would include general park areas.

- Mode II - turf care would include 24 acre park hub. Should the Barn be restored, any lawn area would be maintained at a Mode I. The intent would be, however, that any landscape design minimize mowing and turf management. Meadow areas would be maintained at Mode IV.

Disease and Insect Control - Modes would vary by facilities.

- *Natural Areas - Mode III* – Disease and insect control is done only to insure public safety or when a serious problem discourages public use. It is crucial for West Pikeland Township to develop a natural resources management plan for the Park. The Natural Lands Trust has already done work with the Township so perhaps work could be extended to establishing a full natural resources management plan.

Floral Planting – Mode V - Floral planting should only be introduced where there is a community group to maintain them in accordance with a written agreement.

Tree and Shrub Care – Mode IV requires no pruning and care only to remove safety hazards.

Litter Control - Mode II which is once per day five days a week during peak season, weekly during non-peak, and monthly in cold weather months. Litter is always picked up after a special event. For special use facilities such as a picnic pavilion, the permittee should be responsible for litter pick-up while West Pikeland Township would remove it from the park.

Surfaces and Paths – Mode II so that surfaces are cleaned and repaired when appearance has notably been affected.

Repairs – Mode II - when safety, appearance or function is in question, repairs are made.

Restrooms - Mode I - should be done at least once per day. Special events or times of high use may warrant more than one service per day.

Projecting the Cost Basis for Maintenance

The maintenance budget must reflect the desired condition of park facilities in accordance with the financial resources available through township funds or alternative support. The maintenance budget to a large extent determines the quality of the park in terms of its safety, beauty, usability, and desirability as a place in which to spend one's time. Estimating what a park will cost to maintain helps in decision-making, staffing, the setting of fees, policy formulation, the allocation of resources, and securing non-traditional methods of support such as sponsorships and partnerships.

Cost Basis - Wages comprise most of the cost of park maintenance. The hourly rate for West Pikeland Township maintenance labor is \$19 with 40 percent in benefits and payroll taxes for a total hourly rate of \$27 rounded up from \$26.60. The plan assumes an equipment rate of \$40 per hour for heavy equipment and \$20 an hour for small equipment. Small equipment is mainly for trimming and since the Township contracts out trimming, that cost is part of the mowing contract and is not reflected in this table. Table 1 presents the estimated hour and equipment costs for the maintenance of West Pikeland Township Park upon development of the full master plan. It will be phased in over time as stages of the park are constructed.

Table 1
West Pikeland Township Park
Maintenance Task Budget: Labor and Equipment

Maintenance Task	Units	Units/Hour	Total Hours/Task	Frequency X Hours	Hourly Rate	Total Cost
General Park Inspection						
Labor	Park	1 hour	1 hour	50 X 1 = 50	\$27	1,350
Equipment	Park	1 hour	1 hour	50 X 1 = 50	\$40	2,000
Total Park Inspection						3,350
Grass Cutting						
Grass Cutting & Trimming	24 acres	Based upon contract rounded up per weekly price.		Once per week for 30 weeks	\$500/week	15,000
Meadow Mowing	47 acres	Based upon contracted mowing		Twice annually	\$200	400
Total						15,400
Litter Control						
Pick-up labor	Focus Points	4 hrs.	4	60 X 4 = 240	\$27	6,480
Transfers - labor	8 barrels	1 ¼ hrs.	2	60 X 2 = 120	\$27	3,240
Equipment	1 truck	6 hrs.	6	60 X 6 = 360	\$40	14,400
Total Litter Control						24,120
Multi-Purpose Fields						
- Slit/Seed Flat Fields August						
Labor	2 fields	1 field/16 hours	32	1 X 32 = 32	\$27	864
Equipment	2 fields	1 field/16 hours	32	1 X 32 = 32	\$40	1,280
Total	2 fields					2,144
- Fertilize Flat Fields April, June, August, October						
Labor	2 fields	1 field/1 hour	2	4 x 2 = 8	\$27	216
Equipment	2 fields	1 field/1 hour	2	4 x 2 = 8	\$40	320
Total	2 fields					536
- Field Turf Aeration and Repair						
Labor	2 fields	1 field/6 hours	12	2 x 12 = 24	\$27	648
Equipment	2 fields	1 field/6 hours	12	2 x 12 = 24	\$40	960
Total	2 fields					1,608

Maintenance Task	Units	Units/Hour	Total Hours/Task	Frequency X Hours	Hourly Rate	Total Cost
- Field Turf Aeration and Repair						
Labor	2 fields	1 field/6 hours	12	2 x 12 = 24	\$27	648
Equipment	2 fields	1 field/6 hours	12	2 x 12 = 24	\$40	960
Total	2 fields					1,608
- Picking up trash and restoring fields to desirable appearance – fields and player and spectator areas						
Labor	2 fields	1 field/1 hours	2	60 x 2 = 120	\$27	3,240
Total	2 fields					3,240
Baseball/Softball Field						
- Repair/Regrade Baseball/Softball field						
Labor	1 field	1 field/8 hours	8	1 x 8 = 8	\$27	216
Equipment	1 field	1 field/8 hours	8	1 x 8 = 8	\$40	320
Total	1 field					536
- Seed Baseball/Softball Field						
Labor	1 field	1 field/3 hours	3	1 x 3 = 3	\$27	81
Equipment	1 field	1 field/3 hours	3	1 x 3 = 3	\$40	120
Total	1 field					201
- Fertilize Baseball/Softball Field						
Labor	1 Field	1 Field/1 hour	1 hour	2 x 2 = 4	\$27	108
Equipment	1 Field	1 Field/1 hour	1 hour	2 x 2 = 4	\$40	160
Total						268
- Drag Baseball/Softball Field						
Labor	1 Field	1 Field/.75 hour		16 weeks X 3/week = 48 48 x .75 = 36	\$27	972
Equipment	1 Field	1 Field/.75 hour		"	\$40	1,440
Total						2,412
Tree and Shrub Care						
Contract	Park	Cyclic		10% of planting budget		6,125
Trails						
- Bituminous Trail						
Annual prep Labor	.95 mile	1 mile/18 hours	.95 X 18 = 17	1 x 17 = 17	\$27	459
Equipment	.95 mile	1 mile/18 hours	.95 X 18 = 17	1 x 17 = 17	\$40	680
Routine Labor	.95 mile	1 mile/5 hours	.95 X 5 = 4.75	4 x 4.75 = 19	\$27	513
Routine Equipment	.95 mile	1 mile/5 hours	.95 X 5 = 4.75	4 x 4.75 = 19	\$40	760
Total Bitumin.Trail						2412

Maintenance Task	Units	Units/Hour	Total Hours/Task	Frequency X Hours	Hourly Rate	Total Cost
Aggregate Trail						
Annual prep - Labor	.34 mile	1 mile/36 hours	.34 X 36 = 12.25	1 x 12.25 = 12.24	\$27	330
Equipment	.34 mile	1 mile/36 hours	.34 X 36 = 12.25	1 x 12.25 = 12.24	\$40	490
Routine Labor	.34 mile	1 mile/4 hours	.34 X 4 = 1.36	4 x 1.36 = 5.44	\$27	147
Routine Equipment	.34 mile	1 mile/4 hours	.34 X 4 = 1.36	4 x 1.36 = 5.44	\$40	218
Total Aggregate Trail						1,185
Mowed Meadow Trail						
Labor	1 mile	Contract		6 times	\$100	600
Paved Surfaces						
Inspection, sweeping, cleaning - Labor	2,111 Sq. Yards	1,000/.1 hour	Rounded to ½ hour	8 x .5 = 4	\$27	108
Equipment	2,111 Sq. Yards	1,000/.1 hour	Rounded to ½ hour	8 x .5 = 4	\$40	160
Total	2,111 Sq. Yards					268
Playground						
Inspections	1 tot lot	1/1/2 hour	1 X .5 = .5	36 x .5 = 18	\$27	486
Repair and Preparation	1 tot lot	1/24 hours	1 X 24 = 24	1 X 24 = 24		648
Total	1 tot lot					1,134
Game Courts						
- Basketball Courts						
Labor	2 courts	1/hour	1 X 2 = 2	6 X 2 = 12	\$27	324
Total	2 courts					324
- Tennis Courts						
Labor			2			
Winterizing	2 courts	1 court/2 hrs.	2 X 2 = 4	1 X 4 = 4	\$27	108
Sweeping, cleaning, drain clearing, windscreen	2 courts	1 court/2 hrs.	2 X 2 = 4	4 X 4 = 16	\$27	432
Total						540

Maintenance Task	Units	Units/Hour	Total Hours/Task	Frequency X Hours	Hourly Rate	Total Cost
- Volleyball Court						
Labor	1 court	1/hour	1 X 1 = 1	6 X 1 = 6	\$27	162
Total	1 court					162
Pavilions						
Labor	2 pavilions	1 pavilion/1 hr.	2 X 1 = 2	20 x 2 = 40	\$27	1,080
Total	2 pavilions					1,080
Site Furnishings						
Picnic Tables - preparation	15	1 table/4 hours	15 X 4 = 60	1 x 60 = 60	\$27	1,620
Picnic Tables - routine	15	1 table/1 hr.	15 X 1 = 15	3 X 15 = 45	\$27	1,215
Benches - preparation	24	1 bench/3 hrs.	24 X 3 = 72	1 x 72 = 72	\$27	1,944
Benches - routine	24	1 bench/1 hrs.	24 X 1 = 24	3 x 24 = 72	\$27	1,944
Bicycle Racks - preparation	2	1 rack/5 hrs.	2 X 5 = 10	1 X 10 = 10	\$27	270
Bicycle Racks - routine	2	1 rack/.5 hrs.	2 X .5 = 1	4 X 1 = 4	\$27	108
Bollards - routine	2 sets	1 set/.5 hrs.	2 X .5 = 1	4 X 1 = 4	\$27	108
Grills – check and clean	3	1/.8 hrs.	3 X .8 = 2.4	4 X 2.4 = 9.6	\$27	259
Grills – Repair	3	1 / 4 hrs.	1 X 4 = 4	4 X 4 = 16	\$27	432
Game tables & chairs – preparation	5	1 set / 5 hrs.	5 X 5 = 25	1 X 25 = 25	\$27	675
Game tables & chairs – routine	5	1 set / .5 hrs.	5 X .5 = 2.5	4 X 2.5 = 10	\$27	270
Park Signage	System	4 hrs.	1 X 4 = 4	4 X 4 = 16	\$27	432
Total						9,277
Restrooms						
Restroom Cleaning	2	1 / .8 hrs.	2 X .8 = 1.6	150 x 1.6 = 240	\$27	6,480
Total						6,480
TOTAL Additional Labor Hours					1,194.28	
TOTAL Labor and Equipment						\$85,010

Annual Estimated Park Maintenance Cost

The annual cost of maintaining West Pikeland Township's park on the former White Farm is estimated at \$85,010. This is a cost of about \$1,269 per acre, which falls on the lower end of typical park maintenance costs in southeastern Pennsylvania.

The cost projections are based upon the present management practices and the estimate of the requirements of the tasks that would be part of regular park maintenance. The largest costs are in staffing at \$32,238 and contracting of grass mowing at \$15,000. The majority of labor costs are for litter pick-up and removal and custodial services for restroom cleaning. The cost projections also include the cost of equipment.

The revenue projections for the park are at about \$6,000. The park design has limited potential for revenues through fees and charges as it is primarily designed for use by citizens at their own discretion. Programming is done by DARC and revenues from program go back to DARC for the benefit of West Pikeland Township and its DARC partners in the form of programs and services.

Achieving Township Goals Through Parks and Recreation

Because of the significance of West Pikeland Township Park, it is important to strive to also maintain a focus on the Township's public parks and recreation system as a whole. Fortunately, the level of public support and interest in the parks is high. Research into successful park and recreation systems elsewhere conducted by the Trust for Public Land and the National Recreation & Park Association offers guidance for how West Pikeland Township can organize its operations as a major new facility is added over the next ten years or so. The factors common in successful award winning parks and recreation systems throughout the

United States include the following:

1. Parks must rank high on the political agenda to get funded.²
2. The public is involved in the planning, design and operation of the park.
3. The park design conveys a strong vision and purpose for the park.
4. The parks are programmed with many and varied activities for visitors of all ages.
5. The parks and each of their facilities are safe and clean. Clean, attractive appearance is crucial to a park's success and positive perception by the public and the business community.
6. A mix of public and private funding sources support park improvements and operation.
7. Community parks are an organizing element for initiatives such as economic development, neighborhood improvement, increasing livability of the municipality, tourism and so on.
8. Parks & Recreation departments, advisory boards, directors and staff must play a leadership role in insuring that parks are part of overall community and economic planning.³

These factors can serve as the model for West Pikeland Township's parks and recreation system. The key recommendations detailed below were derived from the involvement of the Master Plan Study Committee, input from township management, key person interviews, and the experience of planning team.

² Harnik, Peter. (2000) **Inside City Parks**. Washington, D.C.: Trust for Public Land. p xi.

³ Garvin, Alexander and Berens, Gayle. (1997) **Urban Parks and Open Space**. (New York: Urban Land Institute) pp 36-40.

1. Establish the Importance of the Parks with Core Values and a Mission

Elected and appointed officials need to have a clear vision for the parks in order to get behind them and support them. In defining the vision and mission for West Pikeland Township Park, the community public participation process identified important values as the foundation for planning and operating the park. These included:

Core Values

- Sustainability, conservation and stewardship,
- Outstanding public service,
- Fiscal responsibility,
- Partnerships through collaboration with citizens and community based organizations, and
- Contributions to the outstanding quality of life of West Pikeland Township through parks and recreation.

West Pikeland Township Park Mission

The mission of West Pikeland Township Park is to protect the ecological integrity and scenic rural character of West Pikeland Township while providing recreational opportunities for the community.

2. Continue to Involve the Public in Park Planning, Design, Programming and Operation

- Continue to involve the public in park planning as the master plan is phased in over time.
- Public support is vital to park success. The Board of Supervisors working in collaboration with Park and

Recreation Board the will be a major force in advancing the development of West Pikeland Township Park.

- Continue to involve the public in park planning as the master plan is phased in over time.
- Consider establishing a Park Friends group to support the park and its future development, programming, and operation.
- Join the Pennsylvania Parks & Recreation Society to take advantage of the current information available about parks, recreation, funding, and technical support. One of their services is a “no match” grant program of \$2,500 called RecTAP. The RecTAP grant can be used to solve a problem, tackle an issue or seize an opportunity. It enables the Township to address a specific idea in a relatively short timeframe. Projects that the Township could consider include the establishment of a park friends groups; addressing a fundraising initiative; workload cost tracking for maintenance; natural resource management planning; and other subjects that could support the Township’s interests.

3. Implement the Park Master Plan

Follow the recommendations in phasing in the park improvements. Continue the momentum begun in the master planning process by developing a work plan for year one.

- Consider applying for grants in the first year in order to stoke momentum: the Pennsylvania Department of Conservation and Natural Resources Community Conservation Partnerships and the Pennsylvania Department of Community and Economic Development. These grants can be used to match each other.
- Look for other community champions to take on a planning element such as the new ballfields, the playground, or other park features that lend themselves to collaboration.

4. Make the Park A Lively Place with Many Recreation and Educational Opportunities

Recent research by the RAND Corporation commissioned to study the use of parks found that the number one factor in getting people to use parks and increasing the use of public parks was programming. This study was commissioned as part of a public health initiative in getting people to be more active in order to prevent disease. The proposed master plan reflects the community values and site conditions regarding the rural heritage, natural resources, and recreation needs of West Pikeland Township residents. These programs and recreation opportunities will make the park an active, lively place for people to enjoy the great outdoors close to home. Continue to work with DARC, community based organizations that provide recreation opportunities such as the sports leagues, and township boards including Park and Recreation and Arts and Culture on programs, activities and events.

5. Establish a Standardized Maintenance and Management Program.

Over the years that West Pikeland Township has been maintaining public parks, the maintenance requirements have become somewhat normalized. In fact, the Township has a line item budget for trails and mowing. Other tasks could be quantified in order to estimate the cost of new park development or improvements. Developing additional maintenance resource requirement standards would help to strengthen the capability of the Township, the Park and Recreation Board, Board of Supervisors and Township Management in planning for and allocating the resources necessary to perform these maintenance functions. This information will also help in planning the phasing in of the master plan and other park developments or improvements. Information that should be quantified includes:

- Workload
- Labor requirements and contracted services

- Material and Supply requirements
- Equipment
- Utilities and Energy

Since the operation of park and recreation facility maintenance is conducted as part of other maintenance in a way that works well for the Township now based upon the level of parks and recreation development, it is not currently quantified. The following section outlines and approach for formalizing the park maintenance management system.

Workload Cost-Tracking

The first step in standardizing work in the development of planned maintenance management system is to quantify the workload and costs of associated materials, supplies and equipment, sometimes known as workload/cost tracking. This can include:

- Park tasks such as mowing, snow-removal, leaf pick-up, litter pick-up, vandalism repair
- Natural resource management
- Trails – which the Township already tracks
- Indoor facilities
- Special use facilities such as ballfields that can be configured as cost centers

Policies

As West Pikeland Township Park is developed, official effective policies need to be in place regarding park operations and use. Other policy needs will emerge over time. The point is to spend time on policies that are needed to ensure sustainable operating practices but not to spend time on generating prolific rules and regulations. Policies should make operations easier, smoother, and facilitate the generation of public support. Examples of policies

that should be considered in the immediate time frame based upon the current park operations scenario include on the following.

Revenue Policy– Develop a formal revenue policy for parks and recreation that specifies the Township’s philosophy on alternative revenue sources and policies on fees and charges, grants, gifts, donations etc.

Gifts and Donations Policy – It is the intent of West Pikeland Township to encourage and facilitate public and private gifts, bequests, and such contributions that enhance, beautify, improve, supplement, support, or otherwise benefit the Township’s park and recreation system. The true costs of installation, maintenance and cyclic replacement for park donations should be considered as part of the donation price. Provisions regarding the repair and replacement of such equipment should be defined.

Sponsorships - West Pikeland Township can seek sponsorships for events and services. The purpose of such sponsorships is to increase the Township’s ability to deliver services to the community and/or provide enhanced levels of service beyond the core levels funded from the municipal general fund. In appreciation of such support, the Township should set forth a formal policy to provide sponsors with suitable acknowledgement of their contributions. However, such recognition for park and recreation facility improvements should adhere to the aesthetic values and purpose of township parks. In addition, such recognition must not detract from the visitor's experience or expectation, nor would it impair the visual qualities of the parks or be perceived as creating a proprietary interest. The following link connects to Portland, Oregon’s policy on sponsorships that can be a model for West Pikeland Township: <http://www.portlandonline.com/shared/cfm/image.cfm?id=155566>

Naming Rights - Naming Rights are a financial transaction and form of advertising in which a corporation, business, individual or other entity purchases the right to name a facility or event, typically for a defined period of time. For large properties like a community building or an athletic field, the term ranges from three to 20 years. The distinctive

characteristic for this type of naming rights is that the buyer gets a marketing property to promote products and services, promote customer retention, or increase market share.

<http://www.sanangelotexas.us/vertical/sites/%257BBD27ED61-E710-4F56-8954-CC319F012B3D%257D/uploads/%257B44D52FEE-D53C-44D4-ABFA-5EBF6E7DE67B%257D.PDF>

Advertising - The intent of an advertising policy is to generate revenues from paid advertising and sponsorships to offset some of the costs associated with producing program brochures and other informative literature, maintaining and improving athletic and other recreation facilities, and procuring capital equipment related to recreational facilities which would not otherwise be funded in the department budget. The policy must be rooted in the aesthetics and mission of the parks as well as the visitor experience. The following link provides a model of an advertising policy from Los Alamos for adaption in West Pikeland Township.

<http://recreationguy.com/wp-content/uploads/2011/09/Recreation-Advertising-Policy.pdf>

Risk Management

Having safe facilities for visitors as well as protecting the public investment is essential to West Pikeland Township. Public perception that the parks are safe is important to their success. As part of establishing safe parks that limit the Township’s exposure to liability, effective risk management can help to protect both park visitors and the municipality. Coordination with West Pikeland Township’s insurance carrier throughout the development and operation of the park would be helpful in reducing risk. Supportive insurance carriers offer advice, on-site assessment and sometimes grant funding to support safe facilities through proper maintenance management. Their advice will be helpful in identifying and adopting practices to insure visitor and park safety.

Risk Management is a standard operating practice of parks and recreation agencies. Risk includes the possibility that harm could result from a hazard that would cause personal injury, death, property damage, economic loss or damage to the environment. To manage risk in all township parks including West Pikeland Township Park, three steps are needed:

Risk Identification and Assessment – It is necessary to identify all of the sources of potential hazards in the parks. The Township must have knowledge at all times of any risk related to the park. This includes park conditions as well as the employees or volunteers that might make the Township subject to liability as the result of how they complete their duties, and any other liability.

Risk Assessment – The Township should inspect and evaluate the parks and each facility as part of its ongoing park and recreation system operating practices. This would also include tracking of the incidents of injury reported in the parks.

Risk Management Plan – The Risk Management Plan is important for both safe operations as well as in establishing credibility in case of litigation. The plan should include the following documents all of which should be reviewed by the township solicitor:

- Statement that the Township is committed to safety for citizens, municipal employees and Township facilities
- Program registration information
- Accident forms
- Health forms if appropriate
- Participation forms and waivers
- Rental agreements and leases
- Program dates and documents
- Operations information and policies

- Reports for maintenance and procedures.
- Inspection program and reports
- Policy on background checks for Township employees, volunteers working with children and for permittees of municipal facilities who are providing community recreation services.

Emergency Response

Consultation with emergency responders about the parks' operations and design features would be important. The proposed park design includes access for emergency response vehicles. Many emergency response teams are using GIS to establish methods for identifying locations where people are in need of assistance.

6. Funding: A Mix of Public and Alternative Resources

Preparing the Maintenance Budget

Estimating what the park will cost to maintain helps in decision-making, staffing, setting of fees and charges, policy formulation, budget planning, resource allocation and securing non-traditional methods of supporting park operations such as partnerships. Since the current labor, materials, supplies and equipment have not been detailed as expected with a relatively new and growing parks and recreation system and a small level of resources available to carry out daily functions, information is not available regarding what it costs to meet the current maintenance demands. Therefore projections for park maintenance costs are based upon best practices and benchmarks from parks and recreation systems elsewhere.

Management and Staffing

Park Maintenance Staff – Based on the facilities and maintenance modes recommended for this park, an additional 1,195 hours in labor will be required to maintain West Pikeland Township Park. This is a Full-Time Equivalent (FTE) of .57 worker.

Outside Contractors – In addition to the FTE requirement for labor, the Township will also contract out two tasks: mowing and trimming and tree care. The other routine task to consider contracting out is the custodial care of the restrooms.

Materials and Supplies

Since materials and supply costs require a projection, budgets from other parks served as the basis for formulating potential allocations. For materials and supplies we are recommending using between \$5 and \$7 dollars per labor hour to set a materials and supplies budget. This translates into a range of \$5,975 to \$8,365. For estimation, consider using \$7,000.

Utilities and Energy

The utility and energy budget needs to be based upon the park improvements not present conditions. This plan recommends developing a cost projection for energy for the parks. The addition of any buildings and lighted outdoor facilities should include the cost of energy or energy alternatives as a factor.

Equipment

West Pikeland Township has been able to avoid many major equipment costs such as tractors by contracting out maintenance. As the park system develops, a capital replacement program for park equipment such as trucks and sports field maintenance equipment should be undertaken.

Training

Since most of the parks and recreation budget is devoted to personnel, ensuring that they have state-of-the-art information and training in parks and recreation would be an important investment. A suggested formula for staff development is one to two percent of the parks and recreation budget annually. Training can include a mix of conferences and seminars as well as planned in-house meetings in which staff would request an outside guest to address of topic of interest to the Township related to parks and recreation. For West Pikeland Township, the training budget should be about \$2,000 based upon budget projections.

Cyclic Capital Maintenance

In addition to daily, monthly, seasonal, and annual repairs, the park requires cyclic maintenance repairs. Having support and the justification to adequately plan for the regular capital repair and equipment replacements in park is a challenge. Cyclic maintenance deals with the normal replacement of a capital item such as a roof. Cyclic repairs are a function of weather, use, and other circumstances such as natural events. The cyclic repairs are shown in the following table. Because the time frame is years away, projecting actual costs is not possible. The American Public Works Association recommends budgeting two to four percent of the development costs annually to establish as a capital reserve account for cyclic repairs. Advances in technology will also impact the future costs based upon changes in design and materials. Cyclic repair and replacement considerations include the following:

Infrastructure – Roads, parking lots, trails, utility lines for water, sewer and electric. 10 – 30 years.

Play Equipment – 10-15 years.

Buildings and Structures – Roofs, furnishings, picnic tables and benches, shelters, bridges, fencing. 10-30 years.

Equipment – Trucks, cars, tractors, trailers, and other large units based upon number of hours of operation, miles used and repair costs.

Budget Projection

Table 1 West Pikeland Township Park Projected Operating Budget	
This parks and recreation budget presents the projected operating costs for West Pikeland Township Park. It will be phased in as the park is developed and improved.	
Labor – 1,195 hours estimated	\$32,265
Equipment - value of equipment used for tasks	32,220
Mowing contract	15,400
Tree Contract	6,125
Materials and Supplies	7,000
Utilities	TBD
TOTAL	\$93,010 ((\$1,373 per acre overall or \$3,000 per acre for the park hub and \$477 per acre for natural areas)
CIP Reserve Budget – 2% of development costs annually in fund dedicated to cyclic repairs and park improvements with phasing.	To be determined

Table 1 presents the projected operating budget of \$93,010 for the maintenance of West Pikeland Township Park. This budget comes out to about \$1,374 per acre cost overall. This is below the typical range of about \$1,500 to 3,000 per acre in Townships in the area. Workload and budget analysis offers further refinement in the budget for this park, which would bring it in line with costs in similar park systems. The cost of maintaining the park hub area in which active facilities are concentrated translates into about \$3,000 per acre while the cost of the natural areas would be about \$477 per acre. With a population of 4,024 this equates

to about \$23.11 per capita. The statewide average is about \$36. In these economic times, the topic of financing is challenging. At the same time public recreation close to home is very important for citizens especially for families looking for ways to spend time together that do not cost too much money. Public parks and recreation offer many opportunities for that. If high quality facilities are available, that is a tremendous public service and in line with the opinion of West Pikeland Township residents

Table 2 West Pikeland Township Parks & Recreation Potential Revenue Sources	
Item	Projection
2 Pavilions - rental at \$50 (average) per day for 25 days.	\$1,250
Field Use Fees	0
Potential program fees from programs and special events	To be worked out with DARC
Special Events Sponsorships	\$1,000
Park Friends – 100 at \$25	\$2,500
TOTAL Projections	\$6,000

Table 2 presents the revenues for West Pikeland Township Parks. Potential revenues for parks and recreation could be derived from pavilion rentals, programs, a friend’s organizations and user fees.

Capital Funding

Capital funding for the West Pikeland Township Park system should be broken out into two separate components: Park Capital Development Funding and Park Capital Maintenance Funding. The Township’s current park and open space planning documents indicate that after the development of the Township’s second community park there will not be an identified need for the development of future active parkland in the Township. The development of this park is expected to be undertaken

within the next 5 years. It is expected to be paid for using a combination of grants, loans, open space earned income taxes⁴, and general Township debt. The Park Capital Development Fund would require a combination of financing resources up front that equaled the cost of the park. For financing purposes, the initial useful lifespan of the park would range from 20 to 25 years; therefore a loan with debt service over this timeframe would also be appropriate, if needed to develop the park.

The Park Capital Maintenance Fund is a fund that slowly builds over time to pay for the future replacement or rehabilitation of park infrastructure after the park's initial lifespan. It is a process to keep the Township's Park System safely maintained without budgetary spikes. Upon the park's dedication, the total replacement cost and useful life cycle of each park component is totaled and adjusted for expected inflation by the time repairs would be needed. An annual capital depreciation cost for the park is then factored into each yearly budget cycle and set aside in the reserved Park Capital Maintenance Fund. This is the most critical component to keeping a park maintained adequately over time.

The Township has a policy that general, on-going park maintenance activities like grounds care, playground safety mulch, and park labor are funded through the Township's General Fund. Major capital replacements such as playground equipment, paved trail rehabilitation, and pavilions are funded through the Park Capital Maintenance Fund.

Recommendations for Moving Forward

To keep pace with the development of the new park and community expectations as well as to allocate resources effectively, enhancing

capacity and expertise in the functional areas of park management is crucial. Consider the following:

- A. Use the eight-point model of successful parks and recreation systems to pattern West Pikeland Township's parks and recreation system. Having this vision of successful parks and recreation systems in mind will help in planning, decision-making and in the allocation of time and resources.
- B. Develop an implementation plan for the Park Master Plan. Include in this plan an action plan for year one with specific steps, roles, and responsibilities defined and funding sources determined including plans for grant applications.
- C. Join the Pennsylvania Recreation & Park Society. Consider seeking \$2500 non-match RecTAP grants to help the Township work on special issues or opportunities related to West Pikeland Township Park.
- D. Develop a workload/cost tracking system for the Township parks and recreation facilities. By generating information to understand the real cost of labor, equipment, supplies and utilities, the Township will be able to allocate resources most effectively. The Township would also be able to establish policies on fees and charges based on actual cost recovery. It is impossible to manage what you do not count and track. This information is vital for making decisions such as contracting out tasks, charging fees, setting policy, deciding service levels and so on.
- E. Work with the Natural Lands Trust to develop a natural resource plan for township parks starting with West Pikeland Township Park. Adopt an implementation schedule with roles and responsibilities to ensure that the plan is carried out.

⁴ PA Act 115 of 2013 allows up to 25% of the annual Open Space EIT to be used for the development of parkland purchased with open space funds.

- F. Work on developing policies on revenues, gifts and donations, and naming of facilities. The first priority is on naming of facilities in order to name this park officially.
- G. Create an employee development program related to parks, recreation, and natural resource management. Establish a five-year program that will enhance the expertise of staff working on parks. This could include seminars, workshops, training programs, memberships, and visitation to other township Parks and Recreation Departments. Devote a percentage of the annual operating budget for training. One good idea obtained at a training program often more than pays for the cost of the training.
- H. Offer programs in West Pikeland Township Park to attract park visitors who will hopefully turn into park supporters and stewards.
- I. Strive to track the testimonials and benefits of this park to the community. Task the Park and Recreation Board to conduct program and facility user evaluations and interviews with park visitors, program users, facility renters and others. This kind of information helps elected officials to make informed decisions based upon real public sentiment of actual users. This is much different information that what is generally captured at public meetings.

Introduction

Windolph Knoll is a 23.84 acre open space property owned by West Pikeland Township. The parcel was acquired in 2005. The majority of the tract is in agricultural production with the edges of the tract lined with hedgerows. There are no buildings on the tract.

An inventory and analysis of the tract's natural resources was completed to consider the recreation potential of the site.

Windolph Knoll Site Analysis

The Windolph Knoll Site Analysis Map is provided at the end of this chapter.

General Site Data

Size/Location – Windolph Knoll is 23.84 acres in size. The site is located in the southern portion of the Township, at the southeast corner of Route 401 (Conestoga Road) and Upper Pine Creek Road.

Access - Access to the site is located at an informal earthen drive mid-way along the Upper Pike Creek Road frontage. Several additional potential access locations were identified along Upper Pine Creek Road, just north of the informal entrance and on the eastern end of Conestoga Road. The existing earthen entrance has adequate sight distance to the north but sight distance to the southwest is limited by the bend in the road.

Existing and Surrounding Land Use – The existing land use is agriculture. Surrounding land use includes:

- Rural residential land use surrounds the property on all sides.

- A single commercial building is located on the northeast side of Conestoga Road near its intersection with Upper Pine Creek Road.
- A commercial landscape venture exists between the site and the Pennsylvania Turnpike.
- The Pennsylvania Turnpike is located south of the tract.

Zoning – The site is within the Residential Development (RD) Zoning District. The Residential and Conservation District (RC) is located on the north side of Conestoga Road.

Water Resources

There are no water resources on the property.

Stormwater/Drainage – The site drains in three directions. A ridgeline traverses the site generally from north to south and drainage flows to the west, north, and east away from this ridgeline. An inlet and culvert conveys water beneath Conestoga Road, mid-way along the property frontage. A second inlet is located near the intersection of Conestoga Road and Upper Pine Creek Road.

Land Resources

Topography – The site contains moderate to aggressive slopes with slopes ranging from five-percent to over 25-percent. A prominent ridgeline extends through the site from north to south. The gentlest slopes are located at the summit of the ridge, close to the southeast property line. Steep slopes are located along both road frontages that exceed 25-percent.

Soils – Two soil classifications are present on the tract, which are characterized on the following chart. The soils are well drained. The soils data indicates that there is sufficient depth to bedrock for the development of structures, although two rock outcrops were noted near the northeast property corner.

Soils of West Pikeland Township Park		
Soils	GdB – Gladstone Gravelly Loam	GdC – Gladstone Gravelly Loam
Slope	3-8%	8-15%
Depth to Bedrock	60-199 inches	60-199 inches
Depth to Water Table	> 80 inches	> 80 inches
Flooding Potential	none	none
Prime Farmland	yes	no

Vegetation – Vegetation on the site is limited to hedgerows along three property lines with the exception of a small stand of woods at the southwest corner of the property. Hedgerows are located on the northwest, southwest, and southeast property lines. The hedgerow vegetation is relatively thin and includes maples and scrub vegetation. The hedgerows include invasive species and debris, dumped in various locations.

The small area of woods includes some nice mature deciduous trees as well as blow-downs and invasive species.

Invasive Species – Invasive species were noted in the hedgerow vegetation and as understory to the small woods. Invasive species include multi-flora rose.

Wildlife Habitat – The hedgerows and small woods provide habitat for small mammals such as squirrels, chipmunks, rabbits, mice and other animals that would typically occupy the site.

Views – A long view to the north is provided from the summit of the ridgeline near the southeast property line.

Man-Made Resources and Influences

The site is undeveloped with the exception of several monitoring wells located throughout the tract.

Utilities / Infrastructure –

Electric – An overhead electric line extends along the Conestoga Road frontage but does not extend into the site.

Adjacent Landowners – The property to the southeast appears to use the municipal property for material storage and landscape waste.

Road Noise – Road noise from the Pennsylvania Turnpike is noticeable when at the site.

Resource Analysis Conclusions & Planning Implications

Ecological –

- Site soils pose few limitations, and are conducive to park development. The rock outcrops noted do pose concern that there may be pinnacles of rock that warrant further investigation.
- The small woodlands should be enhanced with understory vegetation to promote regeneration and provide habitat.
- Fortify hedgerows to increase wildlife connectivity.
- Identify, monitor, and remove invasive species within the hedgerows and in the woods.

Functional –

- The steeply sloped terrain presents challenges for facility development and achieving ADA access.
- A water well and on-lot septic system will be needed if the site is developed as a public park. Composting restrooms could be used in lieu of developing on-lot septic.

- Ingress and egress is available from Upper Pine Creek Road. Access is possible from Conestoga Road at the eastern end of the site.
- Respect the adjacent residential landowners. Existing hedgerows separate the property from neighbors should be enhanced with additional native vegetation to provide an effective buffer between properties.
- The size of the site offers recreation development opportunity, however, the site's topography will be a challenge for the development of athletic fields and courts.

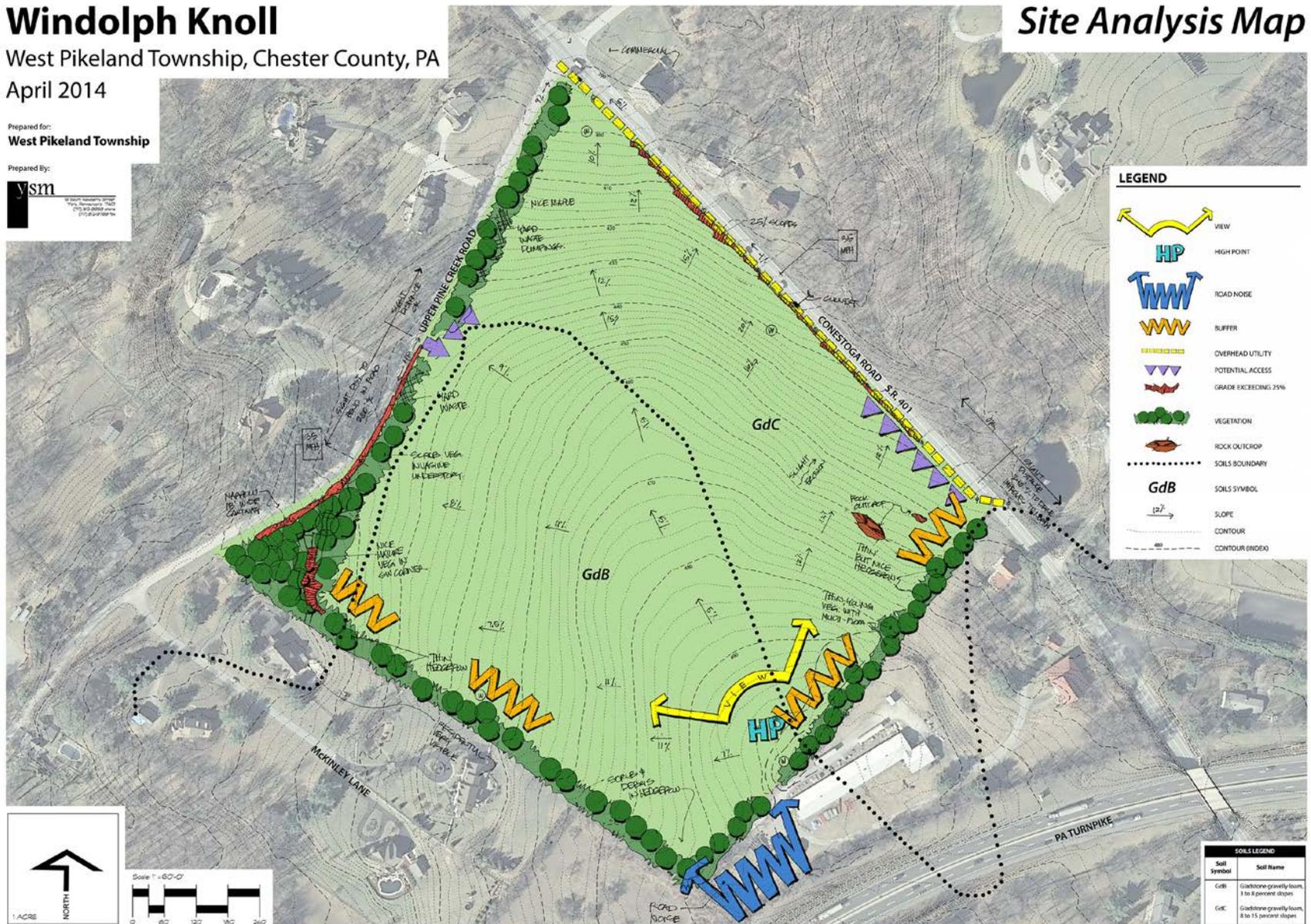
Windolph Knoll

West Pikeland Township, Chester County, PA

April 2014

Prepared for:
West Pikeland Township

Prepared by:



**West Pikeland Township
Online Public Comment
May – September 2014**

Purpose of the Public Online Commenting

West Pikeland Township provided citizens with the opportunity to make comments about the park master plan for the former White Farm site. The Township's goal was to generate information about:

- Public preferences for the types of recreation facilities preferred for the park,
- Concerns that citizens had about the park,
- Ideas for naming the park, and
- Any related comments that citizens had about the future park.

Responses

161 citizens participated in the online commenting. Only 10 were non-residents.

Preferred Facilities

Trails were the most preferred facility. More than half of the respondents indicated that they would like to see safe places to walk and bicycle in the park. Other facilities listed each by fewer than 10 respondents included:

- Tennis courts
- Picnic areas
- Dog park
- Disc golf
- Farming and a CSA
- Playground
- Sledding with a fire pit
- Restrooms
- Shooting range

Concerns

Of the 114 concerns, the majority was in support of the park. The respondents provided questions on connections to the regional trail system, serving citizens of all ages, and specific facilities.

The preservation of the scenic rural character of the park was important to the respondents. Keeping the view of the dark night skies intact is important. Preservation of the farm theme in park development would be an asset.

Concerns regarding the physical design were related to traffic volume and safety leaving the park, access to the neighborhood and impacts on neighboring residents. Noise, vandalism, and litter that could be generated from the park were of concern.

The cost of development and park maintenance was listed concerned some respondents. While some respondents were concerned about spending too much money on the park, others indicated that they wanted the Township to plan for proper development and the long-term care of the park.

Comments

Respondents used the opportunity to provide general comments to address more ideas on facilities, support for the park, examples of other parks that they like, and opinions mostly in favor of the park. Past discussions about sewage treatment arose here with a few respondents expressing their opposition to using the new park for sewage treatment. Residents, particularly from the Fairfields, commented on the importance of preserving their privacy when the park is being planned, developed and operated.

- Park should be for all, not a sports/LYA dominated park
- Use natural materials in construction
- Add trees for shade
- Connect the park to other trails in the area
- Make this a destination for families: have pavilion, programs, movies etc.
- General opposition to lighting
- Don't make this a sports complex – make it for everyone
- Add play equipment
- Keep as much open space as possible
- Deal with traffic concerns and ensure that it is safe to enter and leave the park

Park Names Suggested

Names suggested primarily fell along the lines of West Pikeland Park, Chester Springs Park, White Farm Park and something historic. In all, 101 suggestions were offered as shown in the attached list.

West Pikeland Park Master Plan

Q4 What do you think a good name for the park would be?

Answered: 101 Skipped: 00

#	Responses	Date
1	I would have to spend a bit of time in the park to tell you that...	8/8/2014 12:25 PM
2	West Pikeland Park	8/2/2014 10:18 AM
3	Some tribute to the White would be great. Elmer White was born in the farm house. The members of his family are kind and caring people	8/1/2014 1:28 PM
4	Unnecessary Park	8/18/2014 1:04 PM
5	White Farm Park	7/31/2014 11:01 AM
6	Something with Conestoga in it.	7/18/2014 7:09 PM
7	Opperman's Corner Park in Chester Springs	7/18/2014 10:35 AM
8	Public Diversion of Funtia Park	7/10/2014 11:32 PM
9	Pickering Park	7/2/2014 7:50 PM
10	West Pikeland White Farm Community Park	8/23/2014 10:33 PM
11	West Pikeland Community Park	8/23/2014 4:25 PM
12	Something historic.	8/20/2014 5:39 PM
13	I don't know	8/19/2014 5:12 PM
14	Conestoga Park (as memorial to historic Conestoga road)	8/17/2014 7:44 PM
15	Anselma Hills	8/18/2014 8:33 AM
16	Chester Springs Community Park	8/15/2014 8:08 PM
17	Farm Park	8/15/2014 12:50 PM
18	No opinion.	8/15/2014 11:03 AM
19	The White Farm	8/14/2014 9:00 PM
20	Colonial Park	8/14/2014 10:30 AM
21	Conestoga Park	8/13/2014 10:56 PM
22	Opperman's Corner Park	8/13/2014 3:59 PM
23	Anselma Park	8/13/2014 2:56 PM
24	Anselma Park	8/13/2014 9:57 AM
25	White Park	8/13/2014 9:54 AM
26	The White Farm	8/12/2014 11:52 PM
27	Chester Springs Park I think this name would be "perfect" to have a park in Chester Springs to be called that.	8/12/2014 11:40 PM
28	The White Park	8/12/2014 10:18 PM
29	White Elephant Township Park	8/12/2014 10:06 PM
30	? No idea, would need time to think about it.	8/12/2014 8:42 PM
31	White Farm Park	8/12/2014 6:14 PM
32	Name it after the White Farm Park	8/12/2014 5:21 PM

1 / 3

k Master Plan

69	Yellow Springs Park	6/11/2014 1:28 PM
70	White Farm Park or the Park at White Farm	6/11/2014 1:22 PM
71	no preference	6/11/2014 1:14 PM
72	Can we get a sponsor to pay to name it annually like Citizens Park	6/11/2014 12:52 PM
73	Chester Springs Recreational Park	6/11/2014 12:50 PM
74	West Pikeland Park	6/11/2014 12:44 PM
75	West Pikeland Park	6/11/2014 12:35 PM
78	West Pikeland Park	6/11/2014 12:33 PM
77	OPEN SPACE not a park	6/11/2014 12:29 PM
78	Since the park has been the Whites' family farm for many generations—it should be called Whites' Park	6/11/2014 12:16 PM
79	something historically significant to the township or that reflects the previous owners of the land.	6/11/2014 12:16 PM
80	Pickering Park	6/11/2014 12:11 PM
81	It should be something like West Pikeland Community Park. There is no need to dedicate it to any individual or group.	6/11/2014 12:02 PM
82	No thoughts on this.	6/11/2014 11:56 AM
83	Arselina Park or Pickering Creek Park.	6/11/2014 11:47 AM
84	Pickering Creek Park? Chester Springs Community Park?	6/11/2014 11:47 AM
85	west pikeland community park	6/11/2014 11:47 AM
86	White Farm Park	6/11/2014 11:46 AM
87	Chester Springs Sports Park	6/11/2014 11:44 AM
88	Arselina Preserve	6/11/2014 11:42 AM
89	WHY NOT USE THE NAME TO INCLUDE WEST PIKELAND—LET PEOPLE KNOW WHERE AND WHO SET UP THE PARK	6/11/2014 11:38 AM
90	Hillside Park	6/11/2014 11:37 AM
91	arselina park	6/11/2014 11:37 AM
92	Chester Springs Community Park	6/11/2014 11:35 AM
93	Lightfoot Park honoring original owner of adjacent Hill, and I'm guessing probably also owned White acreage at that time.	6/11/2014 11:34 AM
94	West Pikeland Community Park	6/11/2014 11:33 AM
95	Central Park	6/11/2014 11:31 AM
96	West Pikeland Park or Chester Springs (not White Park)	6/11/2014 11:30 AM
97	Arselina Park	6/11/2014 11:30 AM
98	West Pikeland Community Park	6/11/2014 11:30 AM
99	(no preference)	6/11/2014 11:29 AM
100	White Farm Park	6/11/2014 11:29 AM
101	n/a I'd rather not name it...I don't like it in that location	6/11/2014 11:28 AM

Pikeland Park Master Plan

33	West Pikeland Community Park	6/12/2014 4:50 PM
34	Pikeland Park?	6/12/2014 4:48 PM
35	West Pikeland community park	6/12/2014 1:34 PM
36	White Farm Park	6/12/2014 11:54 AM
37	The Whites Farm	6/12/2014 11:34 AM
38	Yellow Springs Park	6/12/2014 10:28 AM
39	Anselma Park	6/12/2014 10:00 AM
40	Open Space and Recreation	6/12/2014 9:21 AM
41	White	6/12/2014 8:28 AM
42	Chester Springs Park	6/12/2014 7:37 AM
43	NB- your survey invitation says the park is on Pikeland Rd (RL 401) but I believe you mean Conestoga RD. Conestoga Park? Joseph Pike Park?	6/12/2014 7:15 AM
44	... someone's name who serviced in West Pikeland.. really no idea	6/11/2014 9:59 PM
45	no ideas....west pikeland should be in the name somewhere to identify location	6/11/2014 9:37 PM
46	White Farm Park	6/11/2014 8:59 PM
47	Not sure – something perhaps using the names Anselma, Picketing, Conestoga or the family names of the farmers, millers, or such... if historically pertinent – to again capitalize on the history of the Township.	6/11/2014 8:50 PM
48	Chester Springs Park or Conestoga Park or West Pikeland Park	6/11/2014 7:10 PM
49	Anselma Station Park or WP Community Park or Oppermann's Corner Park	6/11/2014 6:59 PM
50	no idea	6/11/2014 6:46 PM
51	No ideal	6/11/2014 6:41 PM
52	Freedom Park	6/11/2014 6:34 PM
53	Conestoga Pike Park	6/11/2014 6:13 PM
54	Pikeland Park	6/11/2014 6:08 PM
55	Life	6/11/2014 5:51 PM
56	West pikeland serenity park	6/11/2014 5:31 PM
57	Whilamorne	6/11/2014 5:23 PM
58	Anselma Park	6/11/2014 4:39 PM
59	Anselma Park	6/11/2014 4:35 PM
60	No opinion	6/11/2014 3:49 PM
61	Peace Park	6/11/2014 2:51 PM
62	West Pikeland/White community Park	6/11/2014 2:49 PM
63	White Farm Park (Think the name since it was a farm before conveys the township's concern to preserve open space for the community)	6/11/2014 2:42 PM
64	Patriots Park	6/11/2014 2:18 PM
65	Chester Springs Memorial Park & can include A memorial to fallen soldiers, to serve as a reminder to all visitors, or price that was paid for our freedom?	6/11/2014 2:05 PM
66	Up A Hill Park	6/11/2014 2:03 PM
67	?	6/11/2014 2:02 PM
68	Anselma Mill Park	6/11/2014 1:27 PM

Park Improvement Phasing

Development of West Pikeland Township Park will be an investment in the recreation and conservation opportunities offered to residents of West Pikeland Township. Achieving the vision presented in the master plan for the park will require significant capital expenditures. As with most government investment in recreation facilities, it is anticipated that the investment will occur in phases over several years. To guide the improvements to West Pikeland Township Park, probable construction cost opinions have been prepared to correspond to the various phases of development as determined by the Task Force Committee. The following defines the suggested park improvement areas for the phased development of West Pikeland Township Park:

Phase 1 – Bulk earthmoving, drive and a portion of the parking, fine grading the two eastern multi-purpose fields, trail surrounding the multi-purpose fields, infrastructure, screening/buffer at property lines.

Phase 2 – Hub area with event pavilion, playground with small pavilion/warming hut, plaza space, plantings, and trail around the hub area.

Phase 3 – Softball/baseball field, two tennis courts, two basketball courts, informal picnic area, and trail around western field.

Phase 4 – Barn renovations and restrooms and associated walks/ramps and walls.

Phase 5 – Meadow improvements and upper lawn trails.

Floating Phase– Bridge to Anselma Mill lands to the west, trail extensions to Anselma Mill and the railroad corridor, and the municipal campus.

These phased areas generally stand alone and the implementation order can be modified to align with funding and development opportunities.

Probable Construction Cost Opinions

All costs provided in this plan are estimated based on the findings of this master planning process and knowledge of similar park development. The proposed phases are based on logical sequence of construction and park function. As funding becomes available, or needs change in the community, the sequence of development may change. Not included in the cost opinions is an escalation cost between phases so that each phase can be compared and evaluated on an equal basis. As the park is developed, consideration should be given to escalation costs over the base costs provided herein. Design and engineering fees are presented as a percentage of construction costs and will vary, based on actual phase of construction, permits, and features.

The following opinions of probable construction costs have been completed using Pennsylvania Department of Conservation and Natural Resources (PA DCNR) format for use in future grant-funding applications. Costs are based on Pennsylvania prevailing wages for year 2014 construction. A fifteen-percent contingency is included in each cost opinion.

West Pikeland Township Park Probable Construction Cost Opinions	
Phase 1	\$1,829,849
Phase 2	\$1,008,613
Phase 3	\$1,028,905
Phase 4	\$990,787
Phase 5	\$969,833
Floating Phase	\$176,017
TOTAL	\$6,004,004

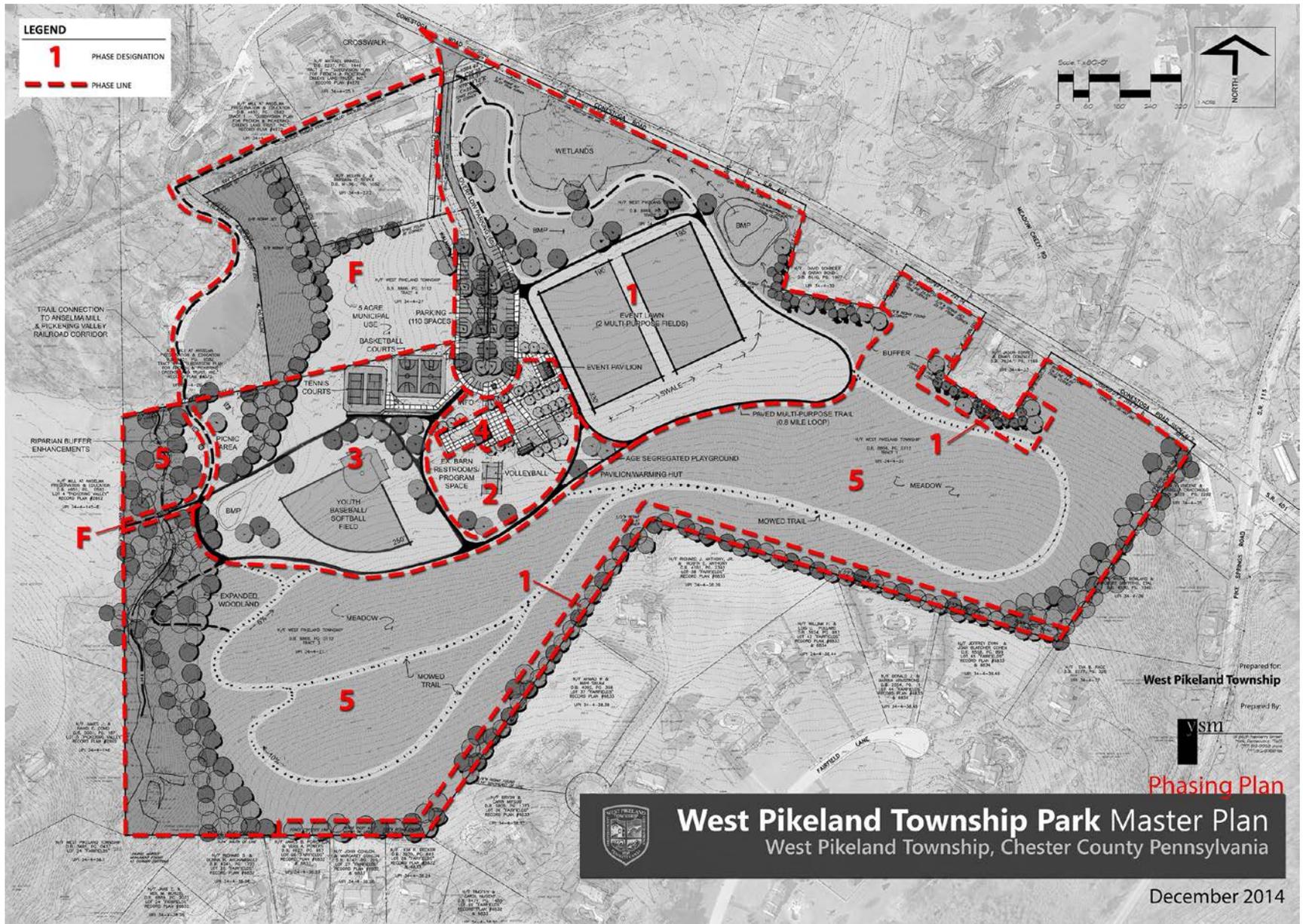
Construction Cost Opinion Assumptions and Exclusions

The Construction Cost Opinions for West Pikeland Park exclude the following items:

- Architectural and structural engineering fees for renovations to the barn
- Improvements to Conestoga Road or Route 113
- Traffic engineering
- Off-site trail improvements with the exception of trails to Anselma Mill, west of the pond and along the former railroad corridor.
- Utility service connection fees
- Electric service distribution or upgrades
- Easements for utility access
- Utility relocation
- Excavation or removal of rock or unsuitable materials
- Remediation of soils and sinkholes
- Soil amendments
- Import of topsoil
- Construction management
 - Construction inspections fees
 - Dumping/hauling fees
 - Interpretive signage message and graphic design
 - Off-site improvements and off-site engineering

YSM is not a construction contractor and therefore probable constructions cost opinions are based solely upon our experience with construction. This requires YSM to make a number of assumptions as to actual conditions which will be encountered on the site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; contractors' techniques in determining prices and market conditions at the time, and other factors over which

YSM has no control. Assumptions were made based on our visits to the site and the review of available information. Stormwater management and erosion and sedimentation control costs are provided on a percent of construction cost and specific strategies for this work cannot be defined until the design and engineering phase.



Commonwealth of Pennsylvania
Department of Conservation and Natural Resources
Bureau of Recreation and Conservation
PROBABLE CONSTRUCTION COST OPINION

Grantee: West Pikeland Township
 Project Title: West Pikeland Township Park

Phase 1

Date Prepared 12/10/2014
 DCNR Project No.

Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Demolition/Site Preparation A. Misc. Site Preparation B. Building/structure demolition (Excluding barn) C. Pavement Removal	1 LS 1 LS 1,400 SY	\$2,000 \$16,000 \$6	\$26,400 \$2,000 \$16,000 \$8,400
2	Earthwork A. Strip/Stockpile/Replace Topsoil B. Grading Operations	14,000 CY 128,000 CY	\$4 \$3	\$465,000 \$49,000 \$416,000
3	Access Drive and 60 Parking spaces A. Excavation B. 8" 2A Coarse Aggregate C. 2.5" Binder Course D. 1.5" Wearing Course E. Handicap Pavement Striping and Signage	1,600 CY 4,750 SY 4,750 SY 4,750 SY 3 SP	\$4 \$10 \$8 \$7 \$450	\$126,500 \$6,400 \$47,500 \$38,000 \$33,250 \$1,350
4	6" Wide Aggregate Trail (1,400 LF) A. Excavation B. 2" Trail Mix Coarse Aggregate C. 6" 2A Coarse Aggregate	190 CY 950 SY 950 SY	\$4 \$2 \$9	\$11,115 \$665 \$1,900 \$8,550
5	8" Wide Bituminous Trail (2,200 L.F.) A. Excavation B. 6" 2A Coarse Aggregate C. 2" Binder Course D. 1" Wearing Course	700 CY 1,955 SY 1,955 SY 1,955 SY	\$4 \$9 \$7 \$6	\$45,810 \$2,800 \$17,595 \$13,685 \$11,730
6	Concrete Pavements (5,600 sf total) A. Standard Concrete B. Decorative Concrete (20% of total)	4,480 SF 1,120 SF	\$6 \$9	\$36,960 \$26,880 \$10,080
7	Signage A. Park Entrance Signage B. Information Kiosk	1 LS 1 EA	\$4,000 \$2,500	\$6,500 \$4,000 \$2,500
8	Site Amenities A. Benches B. Trash Receptacle C. Vehicular Gate/Bollards D. Wood Privacy Fence E. Pet Waste Disposal System F. Ship and Install Site Amenities (40% of costs)	4 EA 2 EA 1 set 2,000 LF 2 EA 1 LS	\$1,500 \$1,200 \$4,000 \$28 \$300 \$27,600	\$96,600 \$6,000 \$2,400 \$4,000 \$56,000 \$600 \$27,600
9	Landscaping A. Lawn Seeding B. Shade Trees C. Property Line Buffer Planting D. Meadow Seeding	36,000 SY 24 EA 2,700 LF 18,000 SY	1.20 450.00 10.00 3.15	\$137,700 \$43,200 \$10,800 \$27,000 \$56,700
10	Utilities A. Water Line Extension and Stub B. Electric Trenching, Conduit, Wire, and Appurts. C. Parking Area Light Fixture	1,200 LF 1,700 LF 8 EA	50.00 12.00 4,000.00	\$112,400 \$60,000 \$20,400 \$32,000
11	Stormwater Mgt and Erosion Control A. BMP's and Stormwater Management (8%) B. Erosion Control Measures (8%)	1 LS 1 LS	\$85,199 \$85,199	\$170,398 \$85,199 \$85,199
12	Bond Mobilization and Layout A. Bond Mobilization and Layout (12%)	1 LS	\$148,246	\$148,246
13	Contingency A. 15% Contingency	1 LS	\$207,544	\$207,544
14	Professional Fees A. Design and Engineering Fees (1.5%)	1 LS	\$238,676	\$238,676
	Total			\$1,829,849

Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION					
Granlee: West Pikeland Township Project Title: West Pikeland Township Park		Date Prepared: 12/10/2014 DCNR Project No.		Phase 2	
Item No.	Work Item	No. of Units	Unit Cost	Total Cost	
1	Demolition/Site Preparation				
	A. Misc. Site Preparation	1 LS	\$1,000	\$1,000	
2	Earthwork			\$7,000	
	A. Strip/Stockpile/Replace Topsoil	2,000 CY	\$4	\$7,000	
3	Parking Area (50 Spaces)			\$32,500	
	A. Excavation	400 CY	\$4	\$1,600	
	B. 8" 2A Coarse Aggregate	1,200 SY	\$10	\$12,000	
	C. 2.5" Binder Course	1,200 SY	\$8	\$9,600	
	D. 1.5" Wearing Course	1,200 SY	\$7	\$8,400	
	E. Handicap Pavement Striping and Signage	2 SP	\$450	\$900	
4	Tot Lot (Ages 2-5)			\$89,830	
	A. Play Equipment	1 LS	\$32,000	\$32,000	
	B. Play Equipment Shipping & Installation	1 LS	\$12,800	\$12,800	
	C. Excavation Fine Grade and Compaction	90 CY	\$4	\$360	
	D. Concrete Curb Edging	210 LF	\$25	\$5,250	
	E. Underdrain	60 LF	\$12	\$720	
	F. Safety Surface Safety Surface (PIP Rubber)	2,400 SF	\$15	\$36,000	
	G. Stone Base and Filter Fabric	270 SY	\$10	\$2,700	
5	Youth Playground (Ages 5-12)			\$125,300	
	A. Play Equipment	1 LS	\$50,000	\$50,000	
	B. Play Equipment Shipping & Installation	1 LS	\$20,000	\$20,000	
	C. Excavation Fine Grade and Compaction	75 CY	\$4	\$300	
	D. Concrete Curb Edging	220 LF	\$25	\$5,500	
	E. Underdrain	100 LF	\$12	\$1,200	
	F. Safety Surface Safety Surface (PIP Rubber)	3,000 SF	\$15	\$45,000	
	G. Stone Base and Filter Fabric	330 SY	\$10	\$3,300	
6	Concrete Pavements (6,400 sf total)			\$42,240	
	A. Standard Concrete	5,120 SF	\$6	\$30,720	
	B. Decorative Concrete (20% of total)	1,280 SF	\$9	\$11,520	
7	Signage			\$2,500	
	A. Information Kiosk	1 EA	\$2,500	\$2,500	
8	Site Amenities			\$74,650	
	A. Picnic Tables	14 EA	\$1,200	\$16,800	
	B. Benches	6 EA	\$1,500	\$9,000	
	C. Trash Receptacle	2 EA	\$1,200	\$2,400	
	D. Bicycle Rack	1 EA	\$850	\$850	
	E. Grills	1 EA	\$400	\$400	
	F. Flag	1 EA	\$3,000	\$3,000	
	G. Pet Waste Disposal System	1 EA	\$300	\$300	
	H. Ship and Install Site Amenities (40% of costs)	1 LS	\$13,100	\$13,100	
	I. Lawn Volleyball Court	1 EA	\$1,800	\$1,800	
	J. Retaining Seat Wall at Playground	150 LF	\$180	\$27,000	
9	Pavilions			\$145,000	
	A. Event Pavilion	1 LS	\$80,000	\$80,000	
	B. Pavilion/Warming Hut	1 LS	\$65,000	\$65,000	

10	Landscaping A. Lawn Seeding B. Evergreen Trees C. Shade Trees D. Flowering Trees	9,000 SY 3 EA 15 EA 18 EA	1.20 250.00 450.00 300.00	\$23,700 \$10,800 \$750 \$6,750 \$5,400
11	Utilities A. Parking Area Light Fixture B. Event Pavilion Lighting C. Warming Hut Pavilion Lighting D. Walkway Bollard Lighting	6 EA 1 LS 1 LS 6 EA	4,000.00 6,000.00 2,500.00 1,800.00	\$43,300 \$24,000 \$6,000 \$2,500 \$10,800
12	Stormwater Mgt and Erosion Control A. Stormwater management (8%) B. Erosion Control Measures (8%)	1 LS 1 LS	\$46,962 \$46,962	\$93,923 \$46,962 \$46,962
13	Bond Mobilization and Layout A. Bond Mobilization and Layout (12%)	1 LS	\$81,713	\$81,713
14	Contingency A. 15% Contingency	1 LS	\$114,398	\$114,398 \$114,398
15	Professional Fees A. Design and Engineering Fees (15%)	1 LS	\$131,558	\$131,558 \$131,558
	Total			\$1,008,613

Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION					
Grantee: West Pikeland Township Project Title: West Pikeland Township Park		Date Prepared: 12/10/2014 DCNR Project No.		Phase 3	
Item No.	Work Item	No. of Units	Unit Cost	Total Cost	
1	Demolition/Site Preparation				
	A. Misc. Site Preparation	1 LS	\$1,000	\$1,000	
2	Earthwork			\$155,625	
	A. Strip/Stockpile/Replace Topsoil	5,000 CY	\$4	\$17,500	
	B. Grading Operations	42,500 CY	\$3	\$138,125	
3	8' Wide Bituminous Trail (3,000 L.F.)			\$63,000	
	A. Excavation	900 CY	\$4	\$3,600	
	B. 6" 2A Coarse Aggregate	2,700 SY	\$9	\$24,300	
	C. 2" Binder Course	2,700 SY	\$7	\$18,900	
	D. 1" Wearing Course	2,700 SY	\$6	\$16,200	
4	Basketball Courts (2)			\$79,465	
	A. Fine Grading and Compaction	575 CY	\$4	\$2,300	
	B. 8" 2A Coarse Aggregate	1,715 SY	\$10	\$17,150	
	C. 2.5" Binder Course	1,715 SY	\$8	\$13,720	
	D. 1.5" Wearing Course	1,715 SY	\$7	\$12,005	
	E. Color Coat	1,715 SY	\$6	\$10,290	
	F. Line Striping	2 CT	\$1,500	\$3,000	
	G. Chain Link Fence	240 LF	\$50	\$12,000	
	H. Posts/Goals and Nets	4 EA	\$2,250	\$9,000	
5	Tennis Courts (2)			\$83,630	
	A. Fine Grading and Compaction	490 CY	\$4	\$1,960	
	B. 8" 2A Coarse Aggregate	1,470 SY	\$10	\$14,700	
	C. 2.5" Binder Course	1,470 SY	\$8	\$11,760	
	D. 1.5" Wearing Course	1,470 SY	\$7	\$10,290	
	E. Color Coat	1,470 SY	\$6	\$8,820	
	F. Line Striping	2 CT	\$1,500	\$3,000	
	G. 10 Foot High Chain Link (Vinyl Coated)	456 LF	\$50	\$22,800	
	H. Gates	2 EA	\$400	\$800	
	I. Post and Nets	2 SET	\$1,750	\$3,500	
	J. Practice Wall	1 LS	\$6,000	\$6,000	
6	Youth Baseball/Softball Field			\$34,200	
	A. Excavation Fine Grade and Compaction	1,500 CY	\$3	\$4,500	
	B. Infield Mix	200 TON	\$27	\$5,400	
	C. Backstop	1 LS	\$12,000	\$12,000	
	D. Players Benches	2 EA	\$1,200	\$2,400	
	E. Bases	1 SET	\$900	\$900	
	F. Sideline Fencing	180 LF	\$50	\$9,000	
7	Concrete Pavements (2,400 sf total)			\$15,840	
	A. Standard Concrete	1,920 SF	\$6	\$11,520	
	B. Decorative Concrete (20% of total)	480 SF	\$9	\$4,320	
8	Signage			\$2,000	
	A. Park Signage (Directional)	1 LS	\$2,000	\$2,000	

Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION				
Grantee: West Pikeland Township Project Title: West Pikeland Township Park		Date Prepared: 12/10/2014 DCNR Project No.		
Phase 4				
Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Earthwork A. Strip/Stockpile/Replace Topsoil	350 CY	\$4	\$1,225
2	Concrete Pavements (5,400 sf total) A. Standard Concrete B. Decorative Concrete (20% of total)	4,320 SF 1,080 SF	\$6 \$9	\$35,640 \$9,720
3	Signage A. Park Signage (Interpretive)	1 LS	\$2,500	\$2,500
4	Site Amenities A. Benches B. Game Tables & Chairs C. Trash Receptacle D. Ship and Install Site Amenities (40% of costs)	4 EA 5 EA 1 EA 1 LS	\$1,500 \$2,500 \$1,200 \$7,880	\$27,580 \$6,000 \$12,500 \$1,200 \$7,880
5	Pavilions and Structures A. Barn Rehabilitation Allowance B. Retaining/Seat Wall Allowance	1,600 SF 100 LF	\$300 \$240	\$504,000 \$480,000 \$24,000
6	Landscaping A. Lawn Seeding B. Shade Trees C. Flowering Trees	1,000 SY 6 EA 6 EA	1.20 450.00 300.00	\$5,700 \$1,200 \$2,700 \$1,800
7	Stormwater Mgt and Erosion Control A. Stormwater management (8%) B. Erosion Control Measures (8%)	1 LS 1 LS	\$46,132 \$46,132	\$92,263 \$46,132 \$46,132
8	Bond Mobilization and Layout A. Bond Mobilization and Layout (12%)	1 LS	\$80,269	\$80,269
9	Contingency A. 15% Contingency	1 LS	\$112,377	\$112,377
10	Professional Fees A. Design and Engineering Fees (15%)	1 LS	\$129,233	\$129,233
	Total			\$990,787

Commonwealth of Pennsylvania
Department of Conservation and Natural Resources
Bureau of Recreation and Conservation
PROBABLE CONSTRUCTION COST OPINION

Grantee: West Pikeland Township
 Project Title: West Pikeland Township Park

Phase 5

Date Prepared: 12/10/2014
 DCNR Project No. _____

Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Earthwork			\$6,750
	A. Strip/Stockpile/Replace Topsoil	1,000 CY	\$4	\$3,500
	B. Grading Operations	1,000 CY	\$3	\$3,250
2	Signage			\$2,000
	A. Park Signage (Directional)	1 LS	\$2,000	\$2,000
3	Landscaping			\$555,700
	A. Lawn Seeding	9,000 SY	1.20	\$10,800
	B. Evergreen Trees	24 EA	250.00	\$6,000
	C. Shade Trees	24 EA	450.00	\$10,800
	D. Flowering Trees	12 EA	300.00	\$3,600
	E. Riparian Corridor Enhancements	800 LF	65.00	\$52,000
	F. Meadow Seeding	150,000 SY	3.15	\$472,500
4	Stormwater Mgt and Erosion Control			\$90,312
	A. Stormwater management (8%)	1 LS	\$45,156	\$45,156
	B. Erosion Control Measures (8%)	1 LS	\$45,156	\$45,156
5	Bond Mobilization and Layout			\$78,571
	A. Bond Mobilization and Layout (12%)	1 LS	\$78,571	\$78,571
6	Contingency			\$110,000
	A. 15% Contingency	1 LS	\$110,000	\$110,000
7	Professional Fees			\$126,500
	A. Design and Engineering Fees (15%)	1 LS	\$126,500	\$126,500
	Total			\$969,833

Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION					
Grantee: West Pikeland Township Project Title: West Pikeland Township Park		Date Prepared: 12/10/2014 DCNR Project No.		Floating Phase	
Item No.	Work Item	No. of Units	Unit Cost	Total Cost	
1	Demolition/Site Preparation A. Misc. Site Preparation	1 LS	\$1,000	\$1,000	
2	Earthwork A. Strip/Stockpile/Replace Topsoil B. Grading Operations	500 CY 1,000 CY	\$4 \$3	\$5,000 \$3,250	
3	Bridges A. Pedestrian/Light Vehicular Bridge	1 EA	\$40,000	\$40,000.00	
4	6' Wide Aggregate Trail (2,000 LF) A. Excavation B. 2" Trail Mix Coarse Aggregate C. 6" 2A Coarse Aggregate	500 CY 1,333 SY 1,333 SY	\$4 \$2 \$9	\$1,750 \$2,666 \$11,997	\$16,413
5	Signage A. Park Signage (Directional)	1 LS	\$4,000	\$4,000	
6	Site Amenities A. Benches B. Bicycle Rack C. Pet Waste Disposal System D. Trail Signage E. Vehicular Gate/Bollards F. Ship and Install Site Amenities (40% of costs)	2 EA 1 EA 2 EA 1 LS 2 set 1 LS	\$1,500 \$850 \$300 \$1,500 \$4,000 \$5,580	\$3,000 \$850 \$600 \$1,500 \$8,000 \$5,580	\$19,530
7	Landscaping A. Lawn Seeding B. Evergreen Trees C. Shade Trees D. Flowering Trees	5,000 SY 6 EA 12 EA 12 EA	1.20 250.00 450.00 300.00	\$6,000 \$1,500 \$5,400 \$3,600	\$16,391
8	Stormwater Mgt and Erosion Control A. Stormwater management (8%) B. Erosion Control Measures (8%)	1 LS 1 LS	\$8,195 \$8,195	\$8,195 \$8,195	
9	Bond Mobilization and Layout A. Bond Mobilization and Layout (12%)	1 LS	\$14,260	\$14,260	
10	Contingency A. 15% Contingency	1 LS	\$19,964	\$19,964	
11	Professional Fees A. Design and Engineering Fees (15%)	1 LS	\$22,959	\$22,959	
	Total				\$176,017