
Veterans Memorial Park

Master Plan Update

Draft: April 5, 2017

For Review by the Study Committee

Marple Township, Delaware County, PA



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And a special *thank you* to the Veterans of VFW Post 7390, American Legion Post 805, and all of the residents who participated in the public meetings.

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INTRODUCTION

The park master planning process is generally defined as a research, public input and analysis process that leads to a comprehensive vision, the master plan, which outlines the full development or redevelopment of the park. The Township of Marple has received grant funding from the Keystone Recreation, Park and Conservation Fund under the administration of the Commonwealth of Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation (DCNR) to produce this update to the Master Site Development Plan for Veterans Memorial Park.

When the park was initially developed in 1997, the main elements of the park were installed. The original park master plan outlined the goal at that time, “to provide multi-generational, active/passive recreation with emphasis on conservation/preservation and community social/recreational needs.” The elements installed, including the playing field, walking track, playground, comfort station, and a Veterans memorial, fulfilled the goal and served the community well for many years. The intention of this master plan update is to determine if the community needs have changed, then develop a plan of action to meet those needs.

A key component for a successful master plan is public input, which engages the community in the planning process. By utilizing various methods of public involvement, the Master Plan for Veterans Memorial Park seeks to fulfill the goals and objectives of the Township’s *Recreation Plan* while responding to the expressed needs and desires of the community.

This report will guide the reader through the entire master planning process. The report is arranged in sections which explain each step of the process in detail.

The primary goal is the Final Master Plan, a conceptual design for the park’s improvements and a set of recommendations for the park’s development. Future design and construction projects should be guided by the established recommendations and prioritizations.

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SECTION A BACKGROUND INFORMATION AND DATA

Brief Introduction to the Community

Marple Township is located in the north-central part of Delaware County, in southeastern Pennsylvania. Covering an area of 10.5 square miles, the Township is bounded by five Delaware County communities: Haverford Township, Springfield Township, Upper Providence Township, Newtown Township, and a small section of Radnor Township.



Originally settled in 1683 by a small group of Quakers, the area was primarily used for agriculture. After World War II, after improvements to the railway system, roads, and public transportation, the area became a stable suburban community.

Most development started around the intersection of the two major roads--West Chester Pike (PA 3) and Sproul Road (PA 320), in the northern half of the Township. This area still supports the highest concentration of the Township's population. More recently, Interstate 476 (locally referred to as the Blue Route) was constructed, which has intersections at both West Chester Pike on the western side of the Township, and with Route 1, the Media Bypass, at the southern edge of the Township.

The Township is served by bus transit services provided by the Southeastern Pennsylvania Transportation Authority (SEPTA), offering several routes along the major roadways. The Township is not served by SEPTA's Regional Rail system, as the closest train station is the Media station, located on Media Station Road, approximately 2 miles away from the Township's southern border.

Marple Township is one of 49 municipalities located within Delaware County. According to the 2010 United States Census, the Township population is 23,428 within its 10.5 square miles. The population is expected to rise by the next census, with a projected 2020 population of 24,187. Of the 8,623 households in the Township, 30% had children under the age of 18.

Marple Township Park System

Recreation facilities are available to the residents of the Township, not only at municipal parks, but also at school sites, private swim and tennis clubs, and private open space within developments. Marple Township currently owns and operates 12 parks, totaling 183.5 acres (See Table 1). Additionally, the Hildacy Farm Preserve adds another 65 acres of permanently preserved land that is open to the public.

The *Recreation Plan* contains a complete table of the parks inventoried and categorized by the standards outlined in the National Recreation and Parks Association (NRPA) guidelines. The total acreage of the park is listed along with the acreage available for active recreation, in order to emphasize the amount of land that is in natural resource areas. Much of the land in the natural resource areas are also limited to development due to steep slopes and water courses.

TABLE 1: MUNICIPAL PARKS

Park	Total Acreage	Available for Active Recreation	Amenities
Green Bank Farm Nature Preserve	32.94	32.94	natural area, trails, stable
Highland Ave. Park Neighborhood Park	5.33	5.33	basketball court, roller hockey, tennis backboard
Kent Park Neighborhood Park Natural Area	27.43	15.94	tot lot, picnic area, gazebo, paths, tennis
Malin Road Tot Lot Mini-park	1.49	1.49	tot lot, picnic area, open space
Marple Gardens Park Neighborhood Park	4.91	4.91	tot lot, picnic area, basketball courts, baseball fields
New Ardmore Ave Park Neighborhood Park Natural Area	14.98	4.71	tot lot, picnic area, basketball court, open space
Old Marple School Park Neighborhood Park Natural Area	9.55	7.74	tot lot, picnic area, walking trail, sledding hill
Paxon Hollow Golf Club (Special Use)			18-hole golf course
S. Marple Little League Neighborhood Park	34.48	8.74	baseball fields, basketball court, tennis court
Thomas Ball Fields Neighborhood Park	17.98	7.01	baseball fields, tot lot
Veterans Memorial Park Community Park Natural Area	25.03	7.21	playground, walking trails, gazebo, bocce court
Broomall Fields (Special Use)	9.34	4.88	Baseball fields (Maintained by Twp. by agreement)

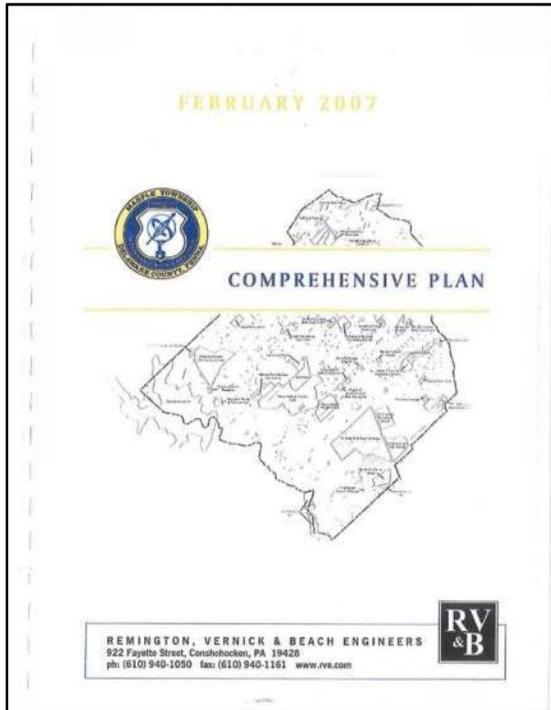
Other Recreational Opportunities

Public and Private schools in the area provide various recreational opportunities to the residents of the Township, mostly in the form of courts and fields available for use when not being used by the school. Area schools include Cardinal O’Hara High School, Delaware County Community College, Paxon Hollow Middle School, and Loomis, Russel, and Worrall Elementary Schools.

The Marple Newtown Leisure Services Joint Recreation Commission is a joint agency serving both Newtown and Marple Township, offering recreational programs that promote family participation, good health and fitness, youth development, and intergenerational experience.

Existing Community Planning

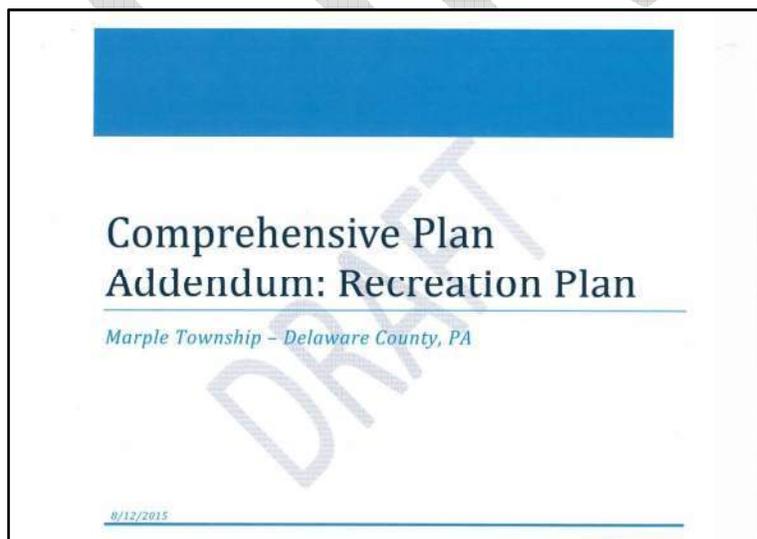
2007 Marple Township Comprehensive Plan and 2015 Comprehensive Plan Addendum



In 2015, Marple Township completed the *Comprehensive Plan Addendum*, which updated the previous Comprehensive Plan prepared in 2007.

The stated purpose of the Comprehensive Plan is “a policy tool intended to guide decision making and provide a vision for a community’s future, particularly in regard to land use and development.” To comply with the Pennsylvania Municipalities Planning Code, the comprehensive plan must be reviewed every ten years and have an open space and recreation component.

2015 Comprehensive Plan Addendum: Recreation Plan



This plan was also updated in 2015 as part of the *Comprehensive Plan Addendum*, and provides a complete overview the existing open space and recreation facilities in Marple Township, including an outline of each park’s size, service area and amenities.

The *Recreation Plan* has one stated goal and two objectives:

- *Goal: Ensure the adequacy of land and facilities for both passive and active recreational activities that appeal to all ages and abilities, including but not limited to parks, sports fields, natural areas with trails, and playgrounds.*
- *Objective: Provide park, open space and/or recreational opportunities within the Core Areas that will ensure adequacy of recreational opportunities to existing and future residents and employees and to adjoining neighborhoods.*
- *Objective: Plan for an on and off-road trail system that will connect users to community institutions, facilities, and destinations, as well as the planned Delaware County Greenway and its connection to regional recreational assets and destinations.*

The Key Findings and Objectives include five very important items:

- Marple Township's existing open space resources generally meet the recreational needs of the population, falling into the categories of neighborhood park or school park. However, a large portion of Township parkland is constrained, natural resource land that does not contribute to active recreation. In addition, many of the parks and facilities are in need of wholesale renovation and equipment upgrades.
- The NRPA guidelines indicate a need for additional active recreational lands and trails, especially as the Township population grows, ages, and becomes more ethnically diverse.
- There are several areas of the Township that appear to have insufficient access to local recreational opportunities. These areas include the southernmost portion of the Township, along the Haverford Township border to the north, and small areas along the Newtown Township border.
- Development and redevelopment within the Core Areas should serve as opportunities to enhance the existing open space network, provide better opportunities in the underserved areas of the Township, and provide pedestrian and natural resource links to adjoining neighborhoods and their recreational resources, including any planned regional trails.
- The Township should update its recreation fee-in-lieu ordinance to address both residential and nonresidential development and raise the fee to match the current conditions and needs of the municipal parkland.

Specific to Veterans Memorial Park, the *Recreation Plan* states:

“Marple Township’s parkland primarily falls into the Neighborhood and School categories (as defined by NRPA), providing a wide variety of facilities and playgrounds at the local level. While several Township parks meet the overall size guideline for a community park, the areas constrained by natural resources or inaccessible are taken into account. With this in mind, Veterans Park is the primary facility which could meet the combination of usable open space and accessibility necessary to serve several neighborhoods. Veterans Park is also the location of Township-wide events and celebrations, including the Easter Egg Hunt, Special Olympics, and Santa’s Arrival.”

1994 Master Site Development Plan for Veterans Memorial Park

The original *Master Site Development* Plan for the park was prepared in 1994, after the Township conducted a comprehensive assessment to determine the recreational and conservation needs of the community. The main goal of the park was to provide community open space for various multi-purpose recreational activities, combined with conservation and preservation of the natural areas. Based upon the assessment, the following facilities were proposed for the new park:

Parking Area: A parking area accommodating approximately 80 cars.

Comfort Station: A permanent building with restroom facilities, with sanitary sewer, water, and electric service.

Gazebo: A covered structure providing an area for gatherings, social event, and picnic activities. Supporting amenities include picnic tables, drinking fountain, benches, and trash receptacles.

Multi-purpose Playing Field: A large grassed open space for use during special community events or for non-programmed sports use (no backstop, fencing, or lighting).

Playground: Play structures with mulched wood surfacing.

Walking / Jogging Trail: An ADA compliant paved (bituminous) path around the perimeter of the multi-purpose playing field.

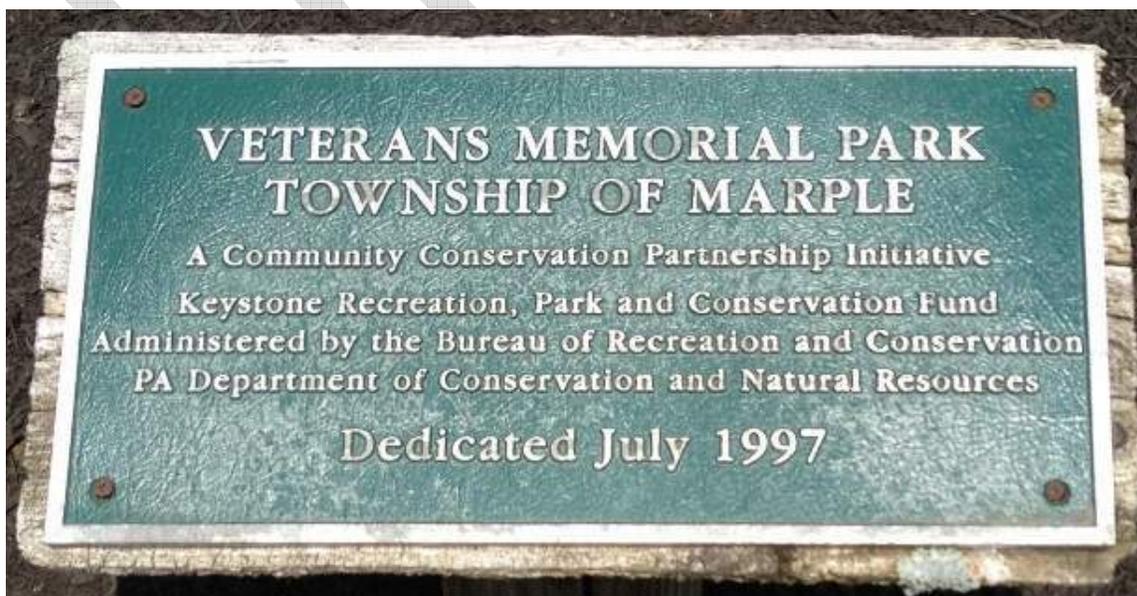
Nature Trail: A wood chip path in the natural area.

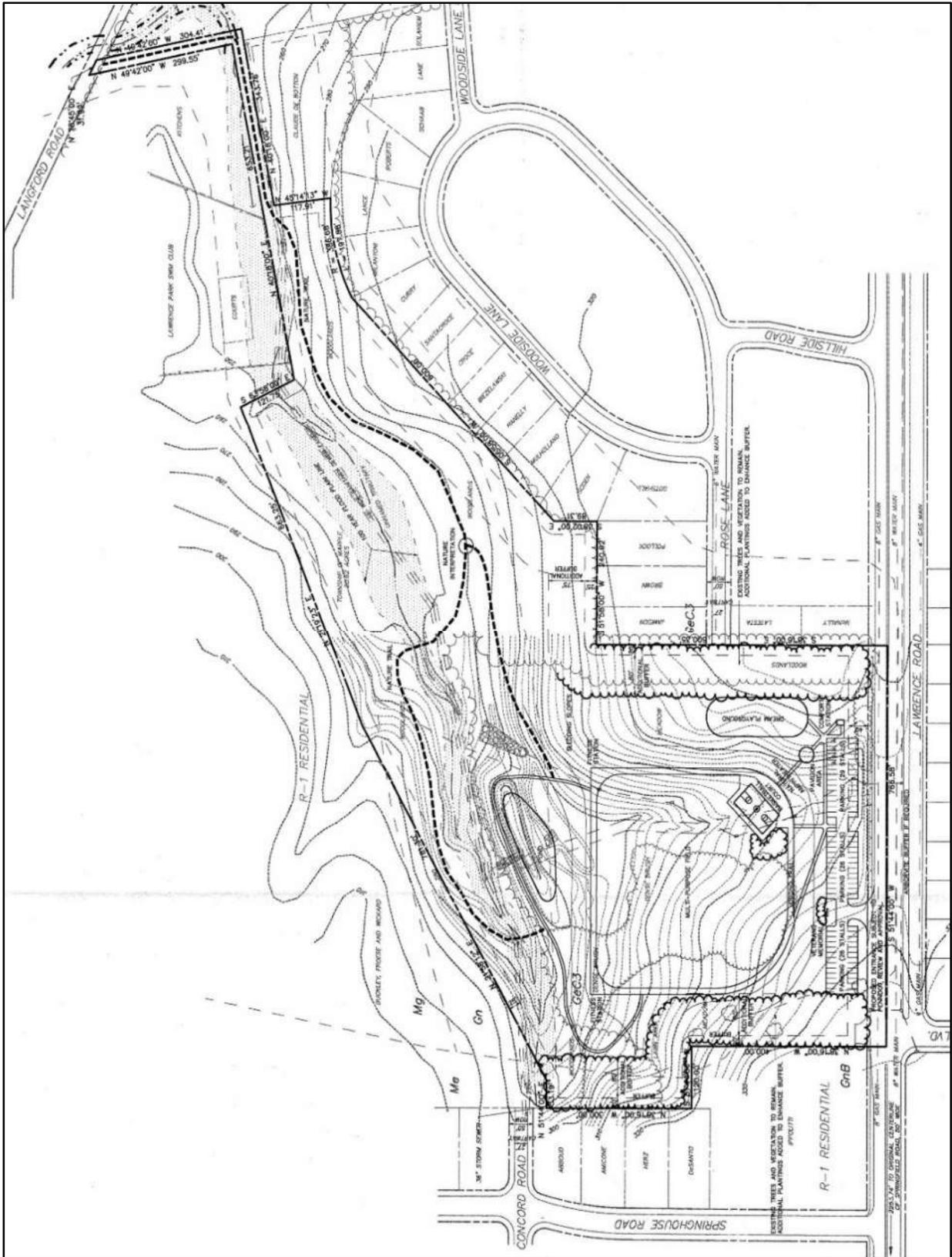
Basketball Court: One court near playing field.

Veterans Memorial: Memorial was not yet defined.

After completing a site analysis, including evaluating vehicular access, pedestrian access, available utilities, soil types and limitations, topography, and vegetation, four Preliminary Sketch Plans were developed for review and discussion. After this review, the Recreation Board and other Marple Township officials selected one sketch plan to be further refined into the Final Park Plan.

Subsequent to the initial construction in 1997, the Veterans Memorial was added, along with a large sledding hill, bocce courts, horseshoe pit, and other miscellaneous improvements. The parking lot was paved with bituminous paving, and stalls are striped. The basketball court and fitness stations were never installed.





Original Master Site Development Plan, 1994

SECTION B PUBLIC PARTICIPATION

The second major step in the planning process for Veterans Memorial Park is public participation, whereby the following public participation techniques were used.

1. Study Committee: A Study Committee comprised of Township staff and key community and neighborhood stakeholders met at regular intervals during the design process. Memoranda summarizing the discussions at these meetings are included in the Appendix of this report.

Study Committee Site Walk: September 12, 2015

Study Committee Meetings: November 12, 2015
February 11, 2016
March 10, 2016
April 14, 2016
September 8, 2016

Study Committee Site Walk: September 12, 2015

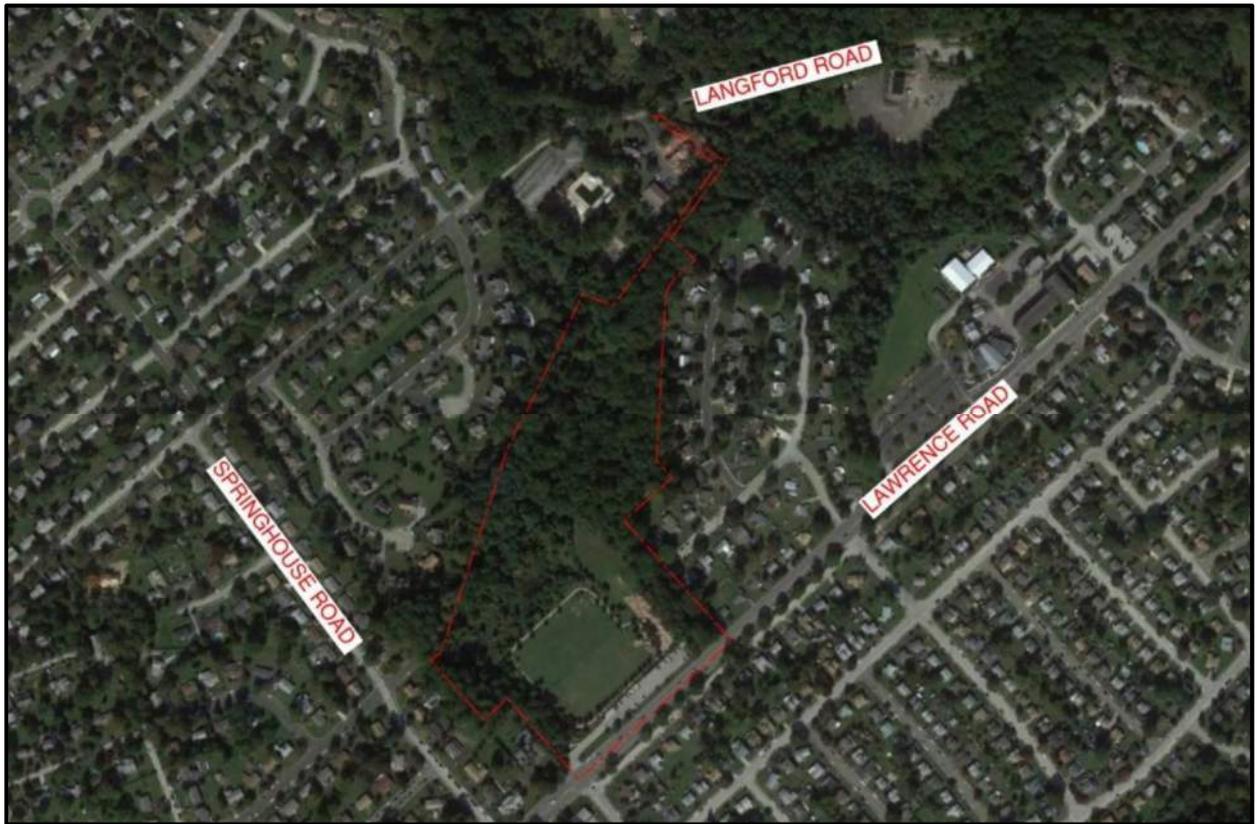
2. Public Meetings: Two public meetings were held at the Township Building. The meetings were advertised by posting the information on the Township's website.

First Public Meeting: February 9, 2017

Second Public Meeting: March 9, 2017

Third Public Meeting - Presentation to the Board of Commissioners: May 8, 2017.

3. Community Survey: The Township posted a link to the Veterans Memorial Park Survey on the Township website, and also included a copy of the survey in the Winter Marple Township News newsletter. Residents could either fill out the survey on-line or return a completed survey to the Township Building. Forty surveys were submitted. A copy of the survey, including a summary of the results, is included in the appendix.
4. Key Person Interviews: The Key Person Interviews give community representatives an opportunity to voice their concerns and respond to a standard set of questions. A total of 19 Key Person Interviews were completed. The list of questions, including a summary of the results, is included in the appendix.
5. Web Site: Information regarding the public meetings, including images of the Preliminary Master Plan options, were posted on the Township's website for the public to view.



Aerial Photo of Veterans Memorial Park

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SECTION C SITE INFORMATION AND ANALYSIS

This section outlines the specific site information gathered and evaluated in order to establish a basis for planning and the proposed use of the site.

General Description of the Site

Veterans Memorial Park is located in the central/eastern part of the Township. The main area of the park is along the southern border, fronting on Lawrence Road, and extending 766 linear feet east from the intersection of Warren Boulevard. The park is irregularly shaped and is bounded mostly by residential properties, except for the Lawrence Road frontage.

Area: Veterans Memorial Park has a total area of 25.03 acres.

Zoning: The park is zoned R1 (Residence District). The surrounding parcels are single-family homes, on approximately ¼ to 1 acre lots, also in the R1 Residence District.

Deed Restrictions and Easements: There are no deed restrictions. A 16' wide sanitary sewer easement parallels the stream, for the sewer line which runs from the end of Concord Road to the west to the Lawrence Park Swim Club property to the east. This easement is entirely in the wooded area, and will not be affected by proposed improvements to the park.



Veterans Memorial Park – Existing Conditions Plan

Site Access and Circulation:

Vehicular Access and Parking: The entrance to the main parking area is located on Lawrence Road, directly across from Warren Boulevard. The intersection provides access from all directions and is controlled by a traffic signal. The main entrance includes a 22-foot wide access drive to a parking area containing approximately 70 parking spaces. This is the only vehicle access and parking area for the park. There is unrestricted street parking on the adjacent residential streets.

Pedestrian Access: The park does not have perimeter fencing, so pedestrians can enter the park anywhere along its borders. There is not a sidewalk on the park (north) side of Lawrence Road, but there is a sidewalk on the residential side, and pedestrians can cross Lawrence Road at the traffic signal. Users arriving by car and parking in the parking area can enter the park through the main entrance gates at the center of the parking area, onto the open field, or at the end of the parking area to the comfort station and playground area.

Neighborhood roads that dead-end into the park offer places where residents of the adjacent neighborhoods can enter the park, such as the end of Concord Road and Rose Lane. There are no paved paths in the park at these locations, so the entrances are considered informal connections to the trail system.

ADA Compliance: The parking area has four ADA compliant parking stalls, which connect to the paved path system. In addition, at the intersection of the Main Entrance and Lawrence Road, ADA compliant curb cuts have been installed, and paved sidewalks lead to the parking area and the park facilities.

Paved Internal Paths: In addition to the paved sidewalk adjacent to the entrance drive, the interior of the park has a paved bituminous path that encircles the multi-use grass open field. Used as a walking and jogging path, the loop is approximately 1,500 feet (1/3 miles) long. A paved path also leads to the gazebo, the play area, and around the comfort station.

Natural Paths: Several natural paths have been formed in the natural areas, in varying widths and conditions.

Natural Features:

Topography and Vegetation: The two areas of the park, the developed area to the south and the natural area to the north, have very different characteristics and features.

The developed area, which is the approximately 9-acre area fronting Lawrence road, contains most of the park's amenities. The park is generally flat in this area, gently sloping toward the stream to the north. When the park was designed, 100-foot wide buffers were placed to the east and west of the developed area, and the area was left naturally wooded. The other areas, around the parking area, playground, gazebo, and walking track, were planted with landscape plantings.

The natural area has a very different character. The grades beyond the developed area slope greater than 20% toward the stream corridor. This area has not been disturbed, preserving the native hardwood forest.

Soils: There are three main soil types within the park boundary. The original soils in the upland areas were from the Glenelg soil series. The majority of the soils are Glenelg channery silt loam (GeC3) characterized by 8% to 15% slopes and severely eroded soil. In areas of development, where the site was graded for the field, playground and parking area, the character of this soil was most likely altered. Along the stream are three different types of soils: Glenville silt loam is on the western side of the park (GnB), characterized by 3% to 8% slopes and moderately eroded soil. Glenelg channery silt loam (GeD3) is on the east side of the stream, with 15% to 25% slopes and severely eroded soil. Wehadkee silt loam (We), on the west side of the stream, is deep, poorly drained soils typically found on flood plains.

Stream: The stream that passes through the park has never been named, and is referred to as an unnamed tributary to Langford Run. The stream intersects with Langford Run about 500 feet after leaving the park's eastern border. Langford Run is a tributary to Darby Creek.

Floodplains and Wetlands: The 100-year floodplain follows the stream, and varies in width from 40' to 140' wide, depending upon the terrain. No wetlands have been mapped within the park.

Riparian Buffers: The areas around the stream have been preserved in their native state, and have their natural riparian buffers.

Utilities:

Sanitary sewer: An 8-inch gravity sewer line with a 16-foot wide sanitary sewer easement parallels the stream. This runs from the end of Concord Road to the west to the Lawrence Park Swim Club property to the east. This sewer connects to an interceptor adjacent to the Darby Creek. The Comfort Station sanitary flows to the 8-inch sewer via a gravity lateral.

Water and Gas: Two gas lines, 8-inch and 4-inch mains, and an 8-inch water main are located in Lawrence Road. There is also a 6-inch water main which terminates at the end of Rose Lane. Water service is provided to the site from Lawrence Road.

Electric and Telephone: Both electric and telephone facilities are located above ground along Lawrence Road.

Storm Sewer: Storm sewer facilities are located along Lawrence Road and in the park's parking area. This underground system discharges downstream of the stormwater management basin located in the park. Overland flow from the park area enters the stormwater management basin, which ultimately discharges into the unnamed tributary midway through the park.

Site Inventory and Analysis

Veterans Memorial Park is a popular park offering both active and passive recreation opportunities. This section itemizes the park elements and details the park assets and challenges as identified by the public participation process. The analysis includes how these elements or areas may or may not be suitable for development.

War Memorials:

The park contains several memorials, which all together create an important visual presence, enabling residents to remember and respect the sacrifices of those who died, served, or were affected by war.

Veterans Memorial. Near the main entrance the park is the prominent Marple Township Veterans Memorial. On a backdrop of a natural stone wall, flanked by flagpoles, are seven plaques representing the five branches of the armed forces, the Army, Marine Corps, Navy, Air Force, and Coast Guard, along with plaques for the Merchant Marines and POW-MIA. The center plaque reads "This memorial is dedicated to all veterans of our country's military services, those men and women who gave of themselves, some giving their all, so that all of us can enjoy the freedom won and preserved by those veterans."

Cannon: Near the Veterans Memorial is a cannon, a 1943 Rock Island Arsenal Three-Inch Recoil Cannon, mounted on a Pullman Standard Carriage, dedicated "to those who served" in 1949 by the American Legion: Szymanski-Rywacki Post 546.

Memorial Trees. Many individual trees throughout the park have dedication plaques. Some are dedicated to groups, while others are dedicated to specific people.



Veterans Memorial Wall, 1995



Recoil Cannon



Memorial Trees

The local Veterans of Foreign Wars post, Broomall VFW Post 7390, plays an active role in the park. The VFW is a non-profit veterans' service organization composed of combat veterans. Their mission is to "honor the dead by helping the living" through Veterans service, community service, national security and a strong national defense. Members of Post 7390 install and maintain the memorial trees, plaques and flags.

The local American Legion Post, Marple Memorial Post 805, also has a special interest in the park. The American Legion is a patriotic veterans service organization "committed to mentoring youth and sponsorship of wholesome programs in our communities, advocating patriotism and honor, promoting strong national security, and continued devotion to our fellow servicemembers and veterans."



Open Lawn Area / Multi-Use Field:

The large natural grass lawn provides an area for both active and passive recreation activities. Occasional organized games, such as Central League Soccer, are played on the field. The goals are removed from the field after the games.

Some familiar with the construction of the main park area in 1997 have noted that the level playing field and track area was built with a clay fill. This most likely is the reason why the lawn does not drain quickly, and is often wet for several days after storms.



Lawn area

Walking Path:

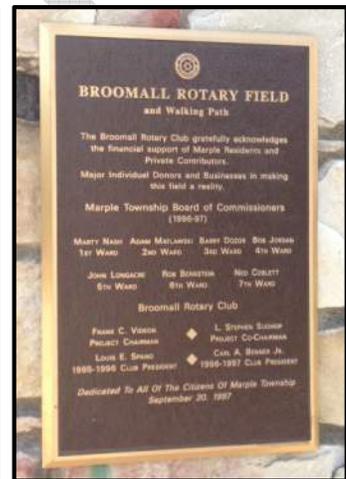
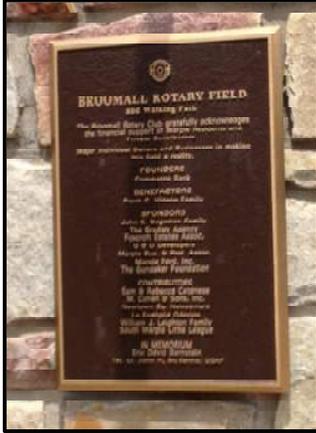
An eight-foot wide bituminous path encircles the lawn area. This popular path is used for walking and jogging, and is ADA compliant (less than 5% slopes). No bicycles are permitted on the track.



Walking Path

Main Entrance Plaza:

In the parking area, there is a small entrance plaza. The brick paver plaza is surrounded by stone walls. Two higher stone columns with an overhead sign welcome visitors to the park. Some of the brick pavers are memorial bricks.



Main Entrance Plaza

Playground:

The playground is located on the east side of the park, near the Comfort Station. The total area is approximately 12,000 square feet. There is a variety of play equipment, of different materials and skill levels. Composite structures and individual pieces are placed throughout the area. The original playground equipment was installed in 1997, and although it is in fair condition, it appears out-of-date compared with some of the modern styles used today.

The play surface is wood mulch, contained by timber edging. A stone path leads through the play area. A fence separates the play area from the walking path, but the entire play area is not fenced.

Around the playground area are picnic tables, shade structures, benches, and a drinking fountain.



Playground equipment

Gazebo:

A large gazebo is located in the southeastern portion of the site, near the parking lot and playground. The gazebo is not only a nice focal point in the park, but is also used as a stage for outdoor events.



Gazebo

Site Furniture:

A variety of site furniture is located throughout the park. As previously mentioned, the playground area has picnic tables, shade structures, benches, and a drinking fountain. Near the bocce courts, there are picnic tables and charcoal grills. Benches and trash receptacles are located around the walking path. Some of the benches are memorial benches, with small memorial plaques.



Site Furniture

Comfort Station:

A small comfort station is located at the end of the parking area, in the southeast corner of the park. The building is block with shingle roof, containing one men's room, one women's room, and a small storage area. The building is also used for informational postings.



Comfort Station

Bocce and Horseshoes:

Within the walking track, adjacent to the open lawn, are two horseshoe pits and one bocce court. The courts are surrounded by wood rail fencing. The bocce court is a level modified sand and gravel surface with player's benches at both ends and spectator benches outside of the fence. Plans are in progress to install a second bocce court next to the existing.



Horseshoes

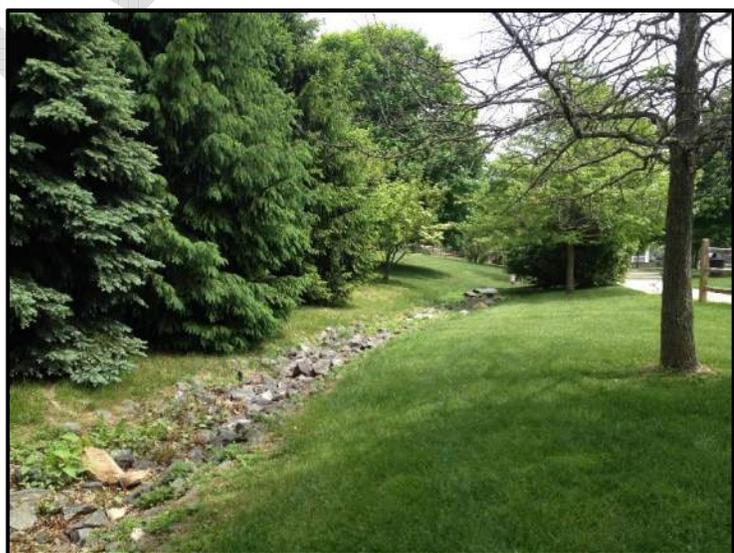


Bocce Court

Trees and Landscaping:

The main park area has a variety of trees and landscaping. In addition to the memorial trees that ring the walking trail, shade trees are located around the trail, playground, and court areas. The gazebo area has shade trees and ornamental trees, shrubs, and groundcover mixed with a few decorative boulders. Limited evergreen buffers separate the park area from the adjacent properties.

Some familiar with the construction of the main park area in 1997 have noted that the level playing field and track area was built with a clay fill, which is most likely is the reason why the lawn does not drain quickly, and many of the trees struggle to survive.



Trees and Landscaping

Natural Areas:

A majority of the site is undisturbed wooded area. This area contains the stream, floodplain, steep slopes, and mature woodlands. This is a beautiful asset to the park.

A key component of the original 1997 Master Plan was to support community conservation and preservation by protecting the natural areas of the park, containing mature woodlands, stream corridor, and steep slopes. Of the 25 acres of the park, over 17 acres are undisturbed, remaining in a natural state.



Natural Area

Throughout the years, invasive plant species have established in the woodlands. Weeds, usually non-native species, make the “invasive species” list because they spread easily by seed or roots, then grow fast often choking out the native species in the process.



Vines growing over trees and shrubs

Other factors also contribute to the death and decline of trees. Lightning and wind storms break and topple trees. Trees also will begin to decline when nearing the end of their natural life span.



Dead and damaged trees

Throughout the years, the stream banks have suffered from various levels of erosion. The continued eroding banks have caused areas that are very steep, creating potentially hazardous conditions for hikers.



Erosion of stream banks



Parking:

The parking area is in the front of the park, parallel with Lawrence Road. There are currently 71 parking stalls, including ADA compliant stalls with a ramp to the walking trail.



Parking Area

The parking area has one access aisle, with 90-degree parking stalls on both sides. It is a 'dead-end' lot, meaning that cars must find a way to turn around if they get to the end of the lot without finding a parking space.

During large events, the parking lot fills quickly and there is not a nearby area for overflow parking.



Parking Area turn-around

Park Access:

The only vehicle entrance and parking area is the paved lot at Lawrence Road. Both Rose Lane on the east and Concord Road on the west dead-end at the park boundary, but there are no formal paved roads or trails leading into the park. Dirt trails show that pedestrians do enter the park at these locations.



Parking Area Entrance off Lawrence Road



End of Concord Road



End of Rose Lane

Sledding Hill:

Extra fill was used to create a sledding hill next to the playground. This is a popular spot on the few occasions that it snows.



Sledding Hill

Pennsylvania Natural Diversity Inventory (PNDI)

The Pennsylvania Natural Diversity Inventory Environmental Review Tool (PNDI) is used to perform searches for potential impacts to threatened, endangered, special concern species, and special concern resources. Four agencies have jurisdiction over these resources:

- U. S. Fish and Wildlife Service
- Pennsylvania Game Commission
- Pennsylvania Fish and Boat Commission
- Pennsylvania Department of Conservation and Natural Resources

When future projects are in the design phase, a PNDI search will be submitted.

SECTION D

ACTIVITIES AND FACILITIES ANALYSIS

This goal of this section is to develop the proposed list of RECOMMENDATIONS for proposed uses and improvements in the park. The recommendations are based upon information gathered in the public participation process, the site analysis, and community needs as identified by the Study Committee.

Public Participation – Community Survey Summary

Purpose: Public participation engages the community in the planning process. The purpose of a community survey is to determine how residents currently use the park and to solicit opinions of how the park could be improved. By understanding the residents' comments and concerns, the Township will be better able to develop a Master Plan that meets the needs of the community.

Process: The Veterans Memorial Park Study Committee prepared a survey questionnaire. The key questions asked the responders to rate the existing features of the park, and what improvements they would like to see. The Township posted a link to the Veterans Memorial Park Survey on their website, and also included a copy of the survey in the Winter Marple Township News newsletter. Residents could either fill out the survey on-line or submit a completed survey form to the Municipal Building. Forty questionnaires were returned to the Township.

Response Summary: Veterans Memorial Park is a very popular park, with 65% of the respondents saying they visit the park at least once a week. The most often used element in the park is the walking path, cited by 82% of the respondents. The playground and the open field were also very popular elements, followed by the trees, landscaping, and open space.

Improving and updating the playground was the most cited comment regarding desired improvements to the park. Many people also suggested adding more lighting, more trees and landscaping, and more trails.

A complete breakdown of the survey results is included in the Appendix.

Public Participation – Key Person Interviews Summary

Purpose: The purpose of Key Person Interviews is to give the community an opportunity to voice their concerns and respond to a standard set of questions. The interviewees were community members representing a cross section of park users, who were not elected officials, Township staff, or already on the Study Committee.

Process: A standard set of questions was developed. Members of the Study Committee selected people for the Key Interviews, explained the project and goals, and provided the list of questions. Most interviewees chose to fill out the form themselves. Twenty Key Person Interviews were completed.

Response Summary: As with the survey, the walking track and playground are the most popular elements in the park. Improving and updating the playground was again the most cited comment regarding desired improvements to the park.

A complete breakdown of the key person interview results is included in the Appendix.

Public Participation – Study Committee Meetings

Purpose: The purpose of the Study Committee is to provide a structured decision-making resource for the planning process. The Veterans Memorial Park Study Committee is made of Township Staff, members of the Parks & Recreation Committee, and other Township residents interested in the future of the park. Commissioner Rob Fortebuono was the representative from the Board.

Meetings: The Study Committee met a total of six times, starting in November 2015. Memoranda summarizing the information discussed at the meetings are included in the Appendix.

Public Participation – Public Meetings

Purpose: The purpose of the Public Meetings is to gather information from residents about their attitudes and interests, as well as getting their reactions to the project's findings and recommendations.

Meetings: Two public meetings were held:

The first public meeting was held on February 19, 2017, at the Municipal Building. At this meeting, the project was introduced, the Master Planning process was reviewed, and the park's existing positive and negative aspects (assets and challenges) were evaluated. Residents offered their comments on the park and the conceptual plan options presented.

The second public meeting was held on March 9, 2017. Based upon the comments received at the last meeting, a preliminary master plan was developed and presented, along with a list of proposed recommendations. Residents again offered their comments on the plan and recommendations.

Summaries of the meetings are included in the Appendix.

Description and Prioritization of the Community Needs and Uses for the Site

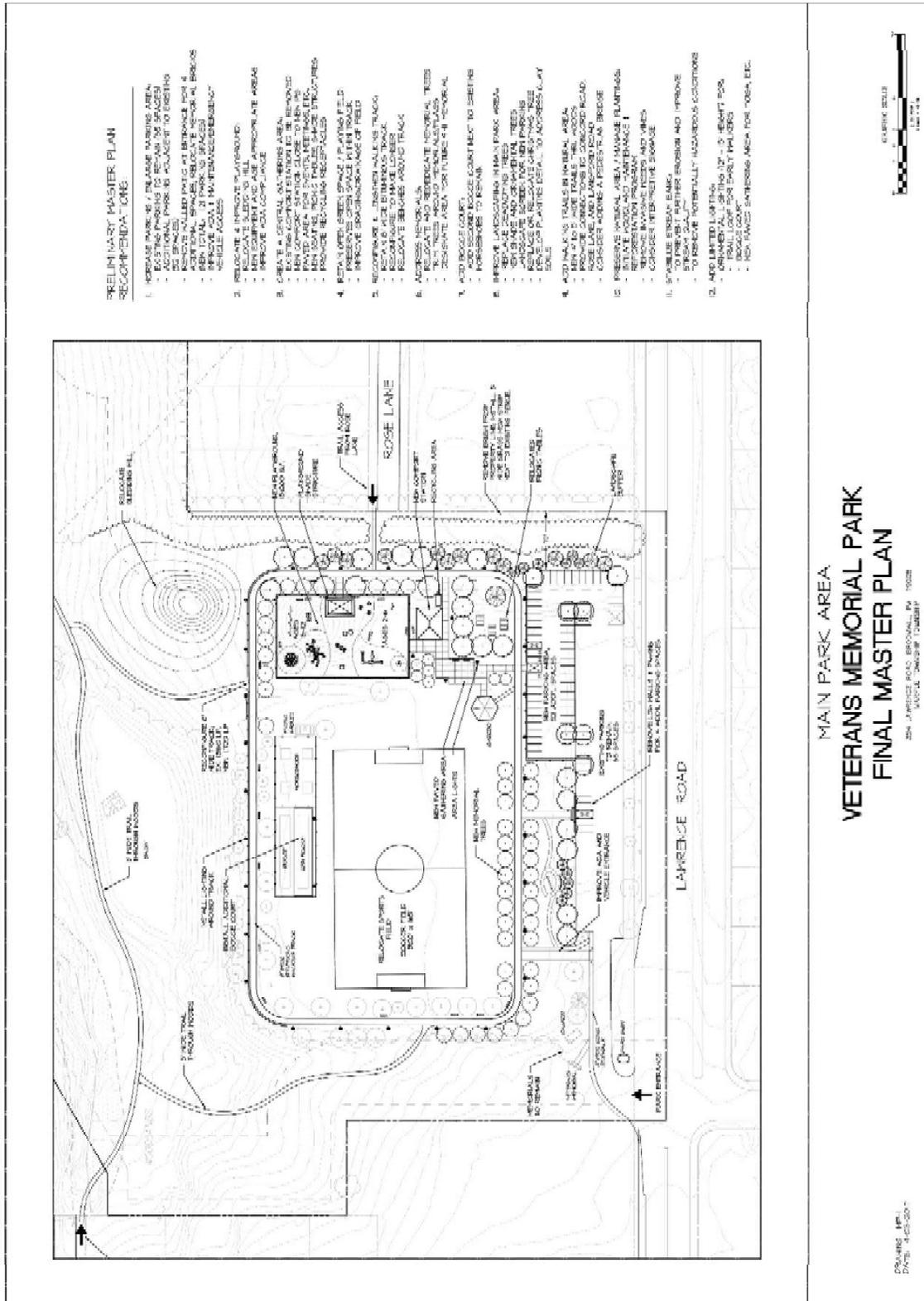
LIST OF RECOMMENDATIONS

Based on a thorough review and evaluation of the surveys, key person interviews, comments from the two public meetings, input from the Study Committee, and discussions with Township Staff, the following list of recommendations has been developed for improvements to Veterans Memorial Park:

- 1. Increase Parking / Enlarge the Parking Area**
- 2. Relocate and Improve the Playground**
- 3. Create a Central Gathering Area**
- 4. Retain Open Green Space / Playing Field**
- 5. Reconfigure and Lengthen the Walking Track**
- 6. Enhance Veterans Memorials**
- 7. Improve Landscaping in the Main Park Area**
- 8. Preserve the Natural Area / Manage Plantings**
- 9. Stabilize the Stream Bank**
- 10. Add Walking Trails in Natural Area**
- 11. Add Bocce Court / Keep Horseshoe Pits**
- 12. Add Limited Lighting**

FINAL MASTER PLAN

The recommendations are also documented in plan form, a to-scale graphic rendering of the final solution: (note to Study Committee: all plan graphics in this section will be replaced with the color renderings)



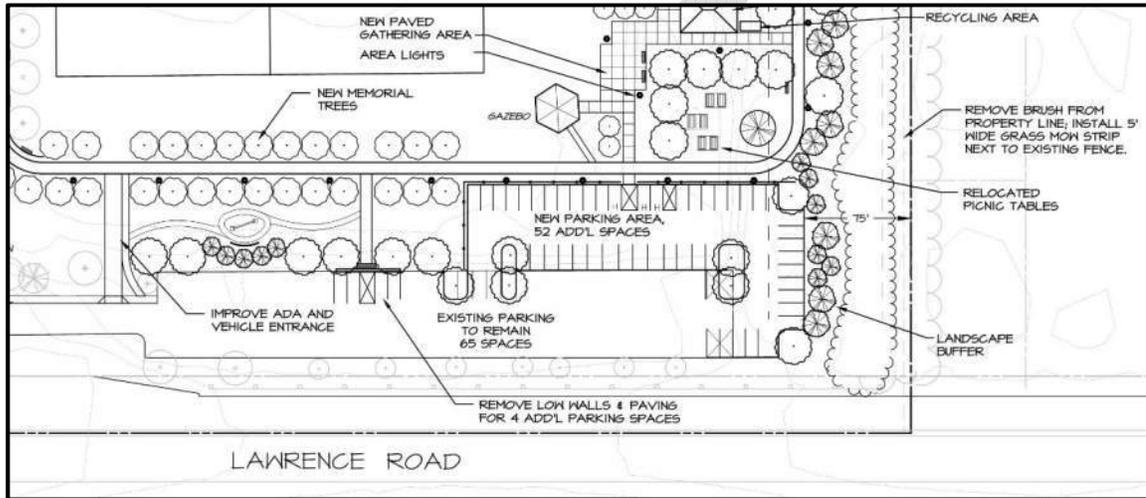
Each of the recommendations was given careful consideration:

1. Increase Parking / Enlarge the Parking Area:

The existing parking area, with 71 parking spaces, has one drive aisle and parking on both sides. It is a 'dead-end' lot, requiring cars to make a "K" turn if they reach the end without finding a spot.

- **Add a partial second bay of parking adjacent to the existing parking area.**

The majority of the existing parking area can remain. A second bay can be added immediately north of the existing bay, connected by drive aisles. This will increase the size of the parking area to approximately 121 stalls, or 50 additional stalls. The connecting drive aisles will allow for better vehicle circulation by eliminating the "K" turn at the east end.



- **Remove walled patio at Main Entrance for additional parking.**

A small entrance patio with brick pavers surrounded by low stone walls is in the parking area, and, if this area were removed, four additional parking spaces would be available. The area immediately in front of the entrance steps would remain clear. Also, the stone wall, columns, and arched sign on the edge of the parking lot can remain. A new gathering area inside the park is being proposed, to compensate for the seating area lost when the patio is removed. The engraved bricks in the patio can be saved and relocated to the new seating area.



Low walls to be removed

■ **Improve ADA Compliant Access**

Adjacent to the existing 4 ADA compliant parking stalls is a curved ramp for ADA compliant access to the walking track. As part of the proposed improvements, the walking trail must be shifted north to allow for the second bay of parking to be installed. Therefore, the ADA compliant access can be redesigned to provide access from the parking area to the walking path and field.

■ **Improve Vehicular Access**

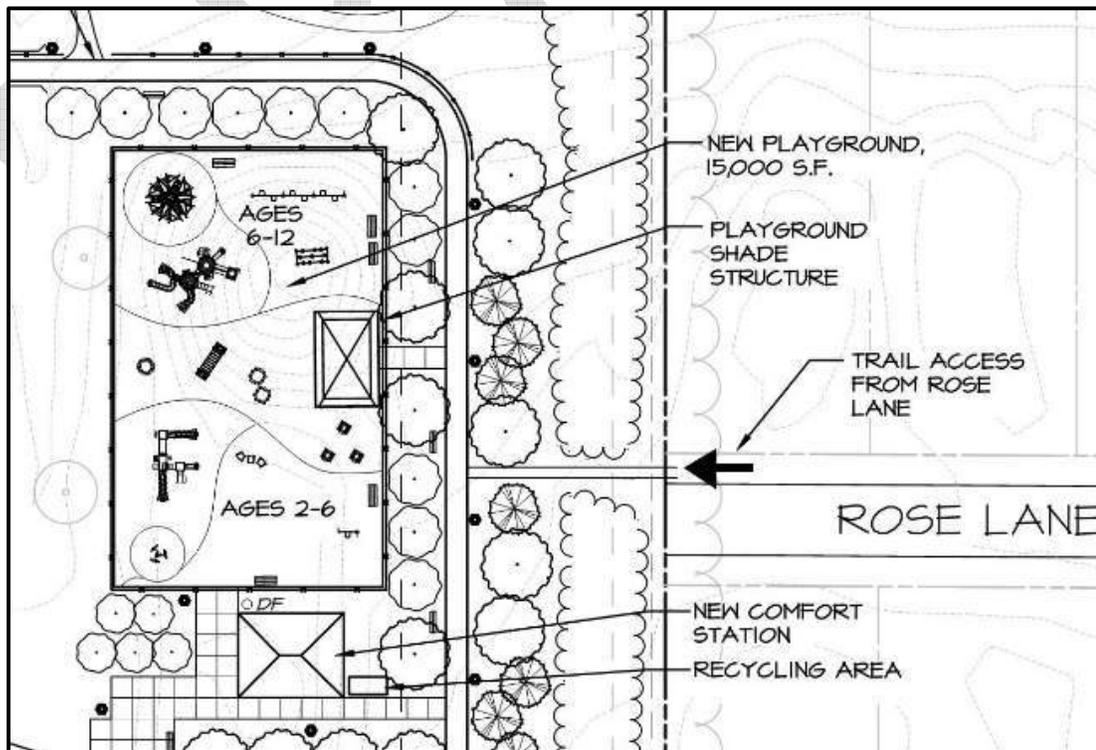
There are occasions where vehicles must enter the park. Park maintenance vehicles enter the park regularly to empty the trash and cut the lawn. Police and emergency vehicles enter the park when necessary. During events, trucks must have access to the lawn area. Recognizing this necessity, the vehicle entrance from the parking area should be improved using selection and design of paving material that can support the weight of vehicles without breaking or settling. The entrance should also be designed to not look like a roadway, to restrict unauthorized vehicle from entering.

2. Relocate and Improve the Playground:

The original playground was installed in 1997, with occasional replacement of equipment throughout the years. Both the public survey and the key person interviews cited improvements and upgrades to the playground as a high priority.

■ **Create a New Area for the Playground**

The new park design includes several key components that are interrelated. The parking lot expansion must use some of the current playground area. The creation of a new gathering area is proposed between the parking lot, gazebo, and playground (see Item #3). A new playground area is proposed north of the gathering space, including the space currently occupied by the sledding hill. The area devoted to the playground would slightly increase, from approximately 12,000 square feet to 15,000 square feet.



- **Install New Playground Equipment and Age Appropriate Play Areas**

In recent years, the play industry has developed more modern equipment that integrates play with skill development, learning, and social interaction. New equipment is also designed and manufactured to meet current safety standards. There are different methods to separate the two major age groups, 2-5 year olds and 5-12 year olds, since the heights of equipment and level of skill required of each group differs.



Example of modern playground equipment

- **Improve ADA Compliance**

New play equipment, notably large play structures, have components built in that offer ADA compliant access to the equipment. The entrances to the playground and surfacing in the play areas should also be ADA compliant. There are a variety of options which offer ADA compliant surfacing as well as meeting the current safety standards for impact attenuation in the use zone. At a minimum, there must be a compliant path from the entrance to the play area to the ADA compliant component on the play equipment, usually a transfer platform.

- **Relocate the Sledding Hill**

The community has mixed feelings about the sledding hill. The results of the community survey show that it is the third least used element of the park, following the bocce and horseshoes. This type of element takes up a lot of space, but can only be used a few days a year when the weather permits. If the desire to keep the sledding hill is strong, there is a sloping grass area north of the playground where the mound can be relocated, although it may not be as high as the existing hill.

3. Create a Central Gathering Area:

A major change in the layout of the park is the creation of a central gathering area, made possible by the relocation of the playground and comfort station.

- **New Comfort Station**

The existing comfort station is located in the southeast corner of the park, at the end of the parking lot. The proposed expansion of the parking lot requires the comfort station to be removed. A new comfort station can be placed in a more central location, easily accessible from the activities in the park. An area next to the comfort station can be used for recycling bins.

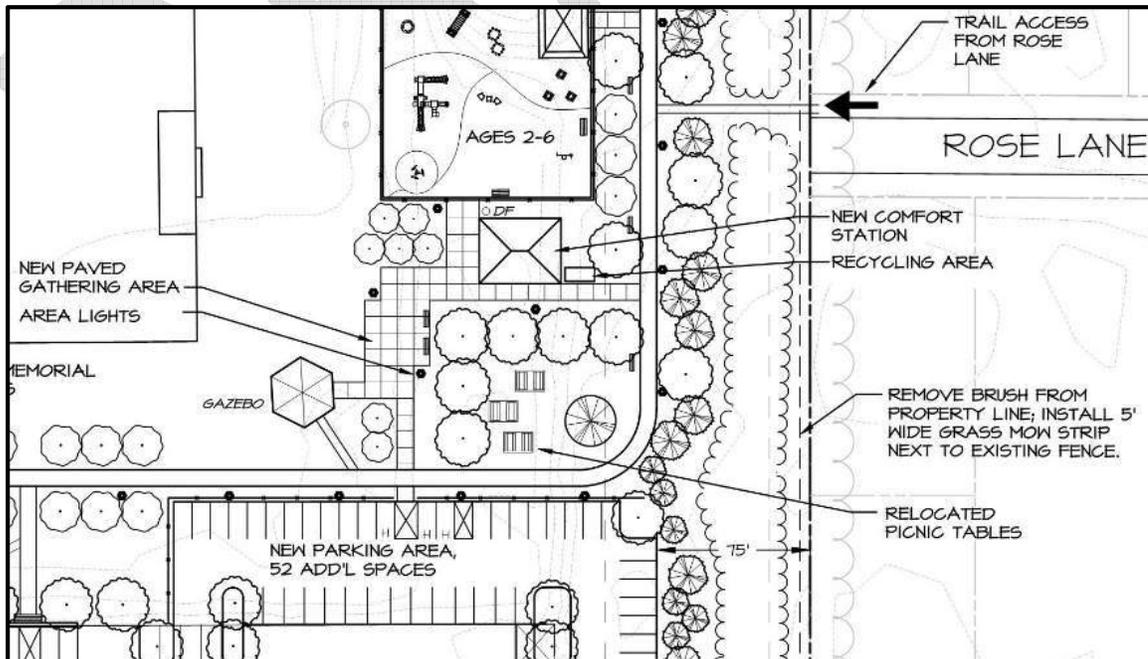
The new comfort station can be similar in size to the existing, containing two restrooms and a small storage area. Utilities will have to be extended to the new building, including electric, telephone, and water. Some residents suggested that safety lighting be included on the outside of the building. This would be very low level lighting, on all night, that would allow police to see activity around the building at night.



Example of a modern comfort station

■ **Paved Gathering Area**

The area between the existing gazebo (to remain), the new comfort station, the playground entrance, and the expanded parking area is a logical location for a new paved gathering space. This area can have benches, tables, a drinking fountain, and be enhanced by ornamental landscaping. The adjacent grass area can be used for picnic tables with and without shade structures, shade trees, and is an excellent location for the large evergreen used for the tree lighting event. This area would provide a space for various size social gatherings or events, and is also a great place for a community message board.



Possible layout of Central Gathering Area

ADA compliant access is required to every element in a park. Sidewalks must have less than a 5% longitudinal slope to be considered compliant. This includes all new sidewalks to the comfort station, playground and gazebo. A ramp will still be required for ADA access to the raised gazebo.

Vehicles must be able to reach the comfort station, therefore the sidewalks from the parking area to the comfort station must be both wide enough and strong enough to support vehicle loads. A location can also be designed to reinstall the engraved brick pavers that were removed from the parking lot patio.

4. Retain Open Green Space / Playing Field:

As communities continue to grow and be developed, the benefits of open green space become more valued.

■ Preserve Open Green Space within the Walking Path

Minor modifications are being made to the size and shape of the walking path, and consequently the green space within. The enlarged parking area, and the area reserved for a future veteran's memorial, requires the walking path to move 60 feet north into the green space. Additional green space is added on the east side, however, since the new walking path is proposed to loop around the outside of the new playground. The area of the new green space will be very close to existing, in excess of 3 acres.



Preserve Open Green Space

■ Improve Drainage of Field

The poor drainage in the lawn area should also be addressed. Stormwater ponding on the lawn areas not only makes the area unusable for days, but play in wet areas can damage or destroy the grass. A geotechnical investigation should be done to determine exactly why the stormwater is not infiltrating. Should results indicate the presence of heavy clay soil fill used to create the field, underdrains may need to be installed in the field. There is an underdrainage system that requires digging a trench only a few inches wide to install a vertical drain in sand—which allows the underdrain to be installed without disturbing the existing lawn.

5. Reconfigure and Lengthen the Walking Path:

■ Retain the 8' wide Walking Path

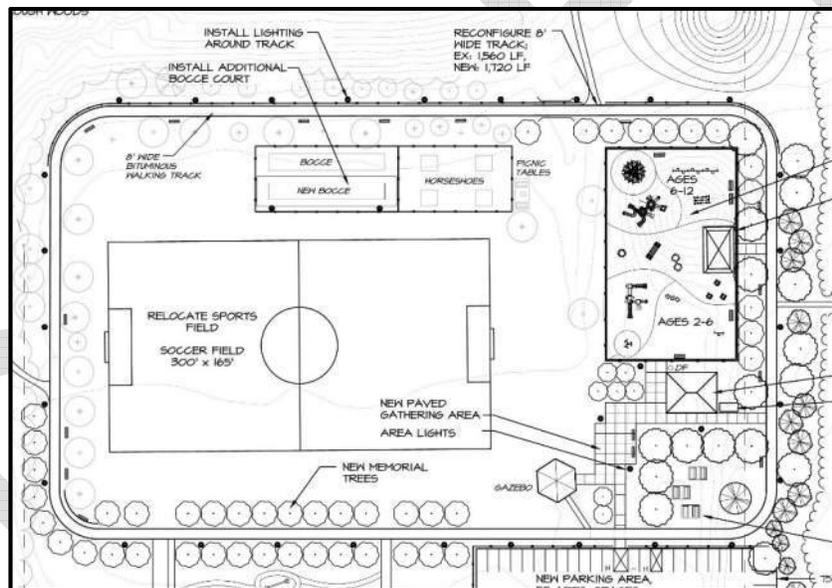
The walking path was cited as the most often used element in the park. Many users visit the park every day for exercise. Therefore, the bituminous walking path will remain and be improved. One suggestion, to help make the traffic on the path flow better, is to change the sign to read that the slower walkers keep right, to the outside of the path, with passing on the left.

■ Reconfigure to Make Walking Path Longer

If the topography of the site allows, the proposed walking path can be extended to encircle the open green space, new central gathering area, and the playground. The existing walking path is 1,550 feet long (0.29 miles). The new walking trail will be 1,700 feet long (0.32 miles). The new length is much closer to 1/3 mile, or 3 laps per mile. Like the existing walking path, the new walking path will be ADA compliant (less than 5% longitudinal slope), 8-feet wide, and accessible from the parking area.

■ Reinstall Benches around the Walking Path

About a year ago, the Township installed 14 new metal benches around the perimeter of the path. These are all in excellent condition, and any removed for the new improvements should be reinstalled in appropriate locations.



New walking path layout

6. Veterans Memorials:

■ Replant and Rededicate the Affected Memorial Trees

The proposed walking path improvements will impact the existing memorial trees. The memorial trees are on both sides of the existing path, therefore the locations of the memorial trees need to move when the path is relocated. Before construction work begins, the trees can be individually evaluated to determine if they are healthy enough for relocation. Most likely, it will be necessary to plant new trees. An area for additional memorial trees will also be provided.

Of the 70 memorial trees, about 45 would have to be relocated. The VFW would notify the groups/families associated with the trees, and perform a Rededication Ceremony.

The memorial trees currently have a plaque on a post mounted near the tree, along with one or two American Flags, which often get displaced. The Township will work with the VFW to develop a more permanent mounting for the plaques.

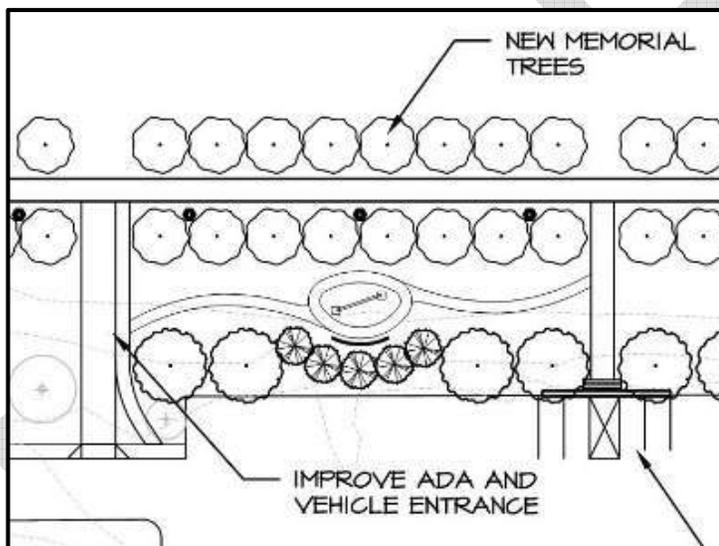
■ **Trim Trees around the Flags**

The branches of the large trees close to the Memorial Wall interfere with the flags. These trees will be evaluated and pruned as required.

■ **Designate an Area for Future 9/11 Memorial**

The VFW has expressed interest in installing a new memorial in the park, for the heroes and victims of 9/11. Over 3,000 people were killed in the multiple terror attacks on September 11, 2001.

The Master Plan will reserve space in the new park design for a future memorial. One location being considered is an open area between the existing parking area and the relocated walking path, about 7,000 square feet. The memorial has not yet been designed, but the VFW is developing ideas which include perhaps obtaining a relic of the 9/11 attacks, commemorating local victims, and local school/community participation.



Possible area for
Future 9/11 Memorial

7. Improve Landscaping in Main Park Area:

■ **Replace Dead and Dying Plant Material / New Landscape Plantings**

The main park area has been landscaped throughout the years with the memorial trees, shade trees, evergreens, and ornamental shrubs. The trees and landscaping ranked third on the list of what residents liked best about the park. Landscaping is only successful with a combination of good design and continued maintenance. A successful plan should include:

- Assessment of the existing trees and their condition, including an evaluation of their age, health, and species. Determining why trees are dying or not thriving is an important factor for future plant selection.
- Develop a long-term Master Planting Plan to replace the dead and dying plant material, and to install new landscape plantings in selected areas. Hardy trees and shrubs should be selected, based on the current site conditions and historical evidence. The plan should

be developed with input from the Marple Tree Commission, a sub-committee of the Marple Environmental Advisory Board, whose goals are “to continue to restore Marple’s community forest through education of our residents about the importance of trees.”

- Develop and implement a maintenance program to keep the existing landscaping healthy. Basic management items include:
 - Remove dead and dying trees immediately. This is mostly a general maintenance item. Removing the trees that have died or are in very poor health is not only a safety issue, but can help to prevent the spread of detrimental disease and insects.
 - Selective pruning to prolong the life of the trees. This is one step beyond the general maintenance of removing branches after they die. Selective pruning and shaping of older, mature trees can help to extend their life.
 - Remove invasive and unwanted species. Invasive species can have a negative effect on the trees and native shrubs that are desired in the park.
 - Use of organic composts in the root zones. Compost tea is an aerobic water solution that has extracted the microbe population and nutrients from the compost. It is a concentrated liquid used to increase the numbers of beneficial organisms applied to the soil. It is typically in a liquid form, but easily spreadable products may also be available.
 - Develop an Integrated Pest Management (IPM) program. Although many think of pests as insects, IPM covers a wide range of organisms (animals, plants, and micro-organisms) that negatively affect the landscape. Generally, IPM uses a variety of control strategies, usually ecologically based, to maintain pests at acceptable levels.
- Replant any trees removed, and add additional landscape plantings in accordance with the Master Landscape Plan. As discussed previously, the poor drainage in the lawn area is most likely a cause of the clay soils used as fill when the park was created. Clay soils, if too compacted, can be detrimental to tree growth. Before planting any new trees, the soil and drainage should be evaluated. Based on the test results, the soil may be able to be improved. If not, plants that tolerate heavy soil should be selected.
- Create mulch beds for existing shrubs. If new shrubs are installed, place in easily maintainable mulch beds. For existing and proposed shrub beds, shrubs should be planted in groupings according to their mature size. Plant spacing is important to avoid plant from crowding each other, and conversely so that there are no large spaces between the plants that allow weeds to establish. The beds should have adequate mulch to prevent weed growth and to keep the soil cool and moist for the plants. The edges must be well defined and have smooth curves, so a mower can easily mow around.



Mulch beds do, however, require maintenance. The installation of any more shrubs in the park must be weighed against the time and effort required for their maintenance. If possible, the creation of a neighborhood group and/or neighborhood gardening days, to remove weeds and replenish the mulch, would help to keep the landscaping looking its best.

- Implement a regular turf management program to keep grass areas healthy. This includes following a regular schedule of aeration, fertilization, and reseeded. Improvement to the drainage system is discussed in Item #4.

- ▣ **Landscape Screen next to New Parking and Playground**

When the park was originally developed, an 80-foot wide buffer was added to the required 20-foot wide setback where the parkland abuts residential properties. The proposed layout of the parking area and playground would decrease the extra buffer to 55 feet, so there would be a 75-foot wide setback/buffer between the residential property lines and any new improvement in the park. This area currently consists of aging hardwood trees, and does not offer much of a visual buffer, especially in the winter. A landscape screen, consisting of both evergreen and deciduous trees and shrubs, can be installed along the parking lot and playground, offering both a visual and sound buffer on the east side of the main park area. Any existing, healthy large trees that are not disturbed would remain.

The Township has been communicating with these residents, and they expressed concerns about the maintenance of the natural landscaping along the park's property line. The Township has agreed to clear a narrow area on the park's edge, about 5 feet wide, as a "mow strip", to help contain the natural area on the park property.



Example of evergreen buffer

8. Preserve the Natural Area / Manage Plantings:

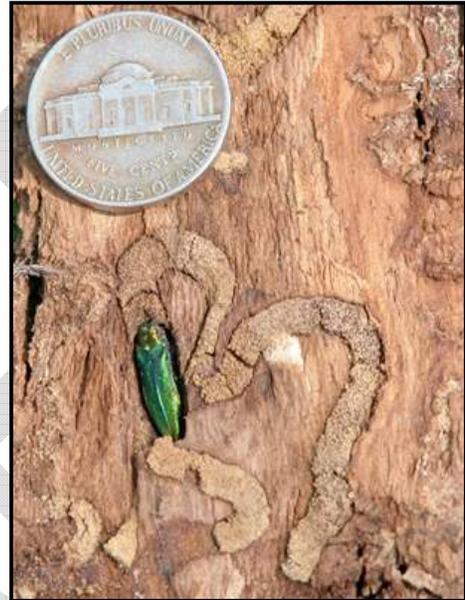
A key component of the original 1997 Master Plan was to support community conservation and preservation by protecting the natural areas of the park, containing mature woodlands, stream corridor, and steep slopes. Of the 25 acres of the park, over 17 acres remain undisturbed.

According to the Pinchot Institute's report on Pennsylvania's Forests, in the 15-year period from 1997 to 2012, more than 680,000 acres of forests have disappeared in the state. Two-thirds of this forest was lost to residential and industrial development of the land. Although the value of natural woodlands is subjective, proponents maintain that the trees, shrubs, plants, animals, and soils provide the community with numerous environmental, health, and economic benefits. The continued preservation of the natural areas in Veterans Memorial Park is a key component of the Master Plan.

- ▣ **Develop a Woodland Maintenance Program**

Like the Landscape Master Plan for the developed main park area, the Woodland Maintenance Program would direct the future care and maintenance of the natural area. A maintenance program may include:

- Evaluate dead and dying trees. In woodlands, fallen trees provide a habitat for animals and plants. The trees should be removed if they pose a safety hazard, such as being too close to a walking trail or have fallen across the stream where someone may try to walk across it. If a tree is found to have insects or disease, it should be removed immediately to prevent damage from spreading.
- Selective pruning of valuable specimen trees, is one necessary step beyond the general maintenance of removing branches after they die. Selective pruning and shaping of older, mature trees can help to extend their life.
- Remove invasive and unwanted species. Invasive species can have a negative effect on the trees and native shrubs that are desired in the park. Note that removal of invasive species can be a labor intensive and time consuming effort.
- Develop an Integrated Pest Management (IPM) program to protect against future outbreaks. Although many think of pests as insects, IPM covers a wide range of organisms (animals, plants, and micro-organisms) that negatively affect the landscape. Generally, IPM uses a variety of control strategies, usually ecologically based, to maintain pests at acceptable levels.



Emerald Ash Borer

▪ **Begin Reforestation**

Re-establishment of the natural forest is an ongoing process. A woodland study should be performed in order to determine the original woodland type and current plant species. Then a long-term plan can be prepared to direct all future plantings. The Marple Tree Commission is an excellent resource and should be consulted for this task. By carefully selecting native plant material that is suited to the woodlands conditions—soil, topography, and micro-climate—the plants are more likely to survive and thrive, and will require less long-term maintenance when established.

Plantings can be done in phases as resources become available.



Seedling plantings

■ **Install Interpretive Signage**

Interpretive signage is a great way to inform and educate park users about the benefits of the improvements in the park. This type of signage is most often used in the natural areas, and can be used in Veterans Memorial Park in the woodlands, to explain the preservation, maintenance, and reforestation being done, and along the stream, to describe the benefits of riparian buffers and streambank stabilization.



Examples of interpretive signage

9. Stabilize the Stream Banks:

Certain areas along the banks of the stream have moderate to severe erosion. Silt from erosion affects stream quality. Continued erosion has also caused steep drop-offs and undermining of the banks, causing potentially hazardous situations for park users.

■ **Evaluate Stream Quality and Bank Conditions**

Many factors contribute to the water quality of a stream or river. Both natural and manmade environmental characteristics, such as climate, topography, geology, vegetation, erosion, pollution and obstructions, shape the physical and chemical characteristics of the stream. Streambank stabilization is vital to preserve the natural environment and prevent channelization and erosion.

Specific positive effects that are a result from stream bank stabilization and riparian buffer planting include:

- The general increase in the volume of water flowing to our streams, due to continued development, causes a rush of water at high volume flow for a short period of time. The stabilization efforts help to reduce erosion along the banks and slow the water flow, which in turn prevents silting of the stream.
- Winter road salt, fertilizers and insecticides, dog waste, and contaminants from the roadways wash into the stream through the stormwater system or by overland flow. The chemicals and introduction of warm water runoff inevitably causes a change in the ecology of the stream. The riparian buffer plantings help to intercept the stormwater runoff, capturing, cooling, and filtering the runoff before it goes into the stream.
- The riparian buffer plantings and trees shade the banks, further keeping the water temperature down. High water temperatures reduce the amount of oxygen in the water available fish and other aquatic organisms.
- The plantings, boulders, and especially the root wads create a habitat for plants and wildlife.

■ **Stabilize the Stream Banks**

The extent and type of stabilization is determined based upon results of the study, and will vary depending upon the extent of the erosion, steepness of the slopes, and the force of the water flow during storm events. Stabilization can be done using plantings, natural and synthetic erosion control mats or blankets, or strategic stone and boulder placement.

The least expensive method of stabilization is riparian buffer plantings. Buffer plantings can vary in design and plant type, depending upon the desired final product. Generally, a mix of perennial plantings and woody trees and shrubs are used to promote a healthy plant cover above grade and a strong, fibrous root zone below grade, which work together to stabilize the soils next to the stream.



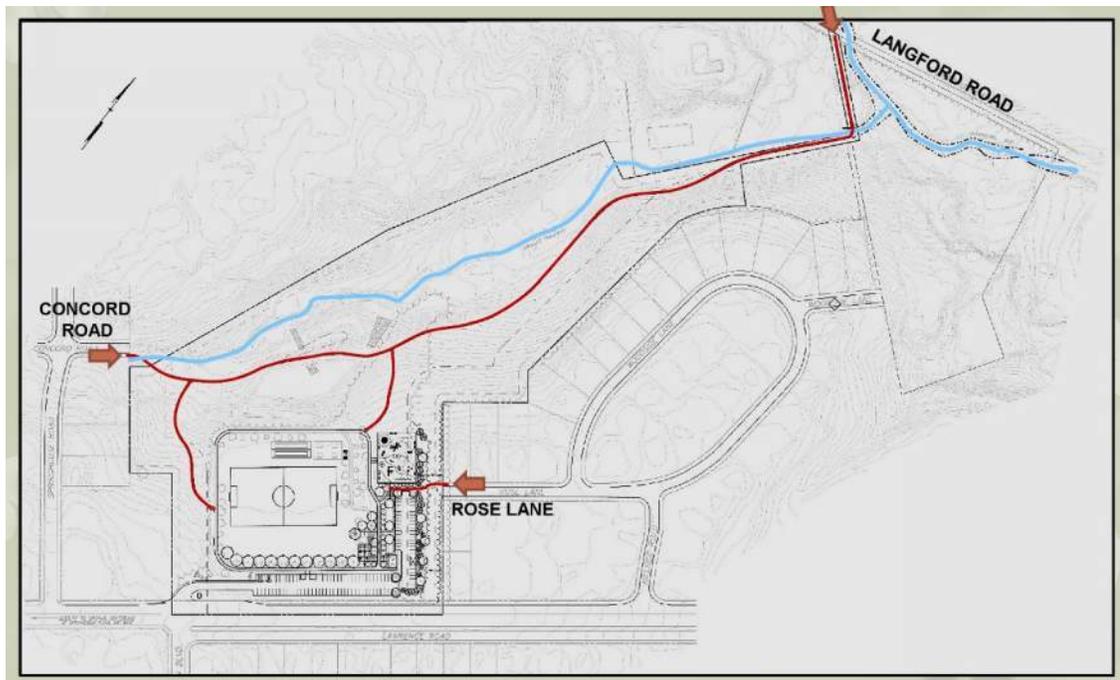
Examples of stream bank stabilization

10. Add Walking Trails in the Natural Area:

■ Install 4' to 5' Wide Trails

Walking trails in woods are usually very informal. Some hikers are satisfied using the dirt footpaths already made, while others prefer a wider, firmer surface.

- Trail Route: The walking trails must be located to not conflict with the previously stated goals of the preservation of the natural area. The steep slopes present the biggest design challenge, where creating a level area for a trail on a slope requires grading (earth moving), steps, and perhaps tree removal.



- Surface Material: Several types of materials can be used for trail surfaces. Each has positive and negative aspects, along with a wide range of construction costs. Mulch is the least expensive, and while it has minimal impact on the environment it tends to wash out quickly and require maintenance. Bituminous trails are most stable, but installation requires more construction equipment. Other options include loose stone, stabilized stone, and new porous paving or synthetic products that allow water infiltration.



- **Provide Connections to Adjacent Neighborhoods**

Currently, the only formal access to the park is the main entrance off of Lawrence Road. The proposed trail system would provide a way to access the natural area, and the main park area, from trail heads at Concord Road, Rose Lane, and Langford Road. The Concord Road and Rose Lane connections appear to be fairly straightforward and close to the main park area. The trail to Langford Road, on the other hand, will have more challenges. It may be possible for the Township to acquire additional open space or easement from adjacent future developments to facilitate the trail connection. The Langford Road access point will allow users a connection to New Ardmore Avenue Park, which also borders on Langford Road.

The half-mile long trail along the stream will encounter very steep slopes and mature trees. A detailed topographic survey would assist in determining the exact location of the trail.

- **Consider Adding a Pedestrian Bridge**

On the north side of the park, there is about 4 acres of natural woodland that is on the far side of the stream and cannot be easily accessed. Some more adventurous hikers cross the stream on rocks or on fallen trees spanning the banks. A pedestrian bridge would allow for a much safer stream crossing.



Example of a pedestrian bridge crossing

11. Add Bocce Court / Keep Horseshoe Pit:

Both the Bocce Court and Horseshoe Pit are used by a small but avid group of players.

- **Add a Bocce Court**

The Broomall Rotary Club is the main user of the Bocce Courts, and they have asked the Township if they could install another court next to the existing court. Plans for the new court are in progress.

- **Keep Horseshoe Pits**

A small group of users have requested that the horseshoe pits remain. The location of the horseshoe pits would not be affect any of the proposed improvements.

12. Limited Lighting:

Current Township ordinance states that parks are open only during daylight areas, unless a special permit is obtained. In the public survey, the key interviews, and at the public meetings, requests have been made to add lighting in specific areas.

■ **Install Lighting along Walking Path**

Pedestrian lighting can be installed around the perimeter of the paved walking path. Many walkers use the path in the early morning hours or after work, and lighting for a couple of hours before dawn and after dusk, especially in the winter months, would extend the amount of time available for exercise.

■ **Install Lighting at Bocce Courts**

A special request from the Bocce players asked that a couple of lights be installed at the Bocce Courts. In this situation, the lights would only be on when an evening game is being played.

■ **Install Lighting at the Central Gathering Area**

The intent of the new paved gathering area is to encourage social interaction between the neighbors. There will be occasions where small groups would like to use the space in the early morning or early evening. Like the bocce lights, these lights would only be on when a specific event is going on.

An important design consideration for lighting, especially considering the park is surrounded by residential properties, is how to light the area without creating glare. The light selected should be efficient, as low level as possible, and able to be shielded, if necessary.

The addition of lighting in the park, even for limited times, would require input from the township departments affected by longer park hours, most significantly the Police and Parks Department.



Example of low level park lighting

SECTION E

DESIGN CONSIDERATIONS

There are many aspects to a successful master plan. This section reviews some of the design considerations that were applicable to forming the recommendations for Veterans Memorial Park.

Site Limitations

Although the recommendations for Veterans Memorial Park focus generally on improvements to the existing uses, there are minor site limitations which were considered:

- **Space limitations:** The entire park acreage is 25 acres, but only the 7 acres along the Lawrence Road border (the 'main park area') has been developed. A key component of the park and this master plan is to continue to preserve the natural area. Therefore, all new elements of the park (except the items specifically related to the natural area) have been kept in the main park area.
- **Steep Slopes:** The natural area has very steep slopes, especially in the stream corridor. The addition of a nature trail will be a challenge.
- **Acknowledgement of Memorials:** Veterans Memorial Park, as the name implies, has a special focus on the memorials commemorating our fallen soldiers. The memorial wall, along with the flagpoles and cannon, are located near the main entrance to the park. The memorial trees are located throughout the main park area, mostly along the walking path. In acknowledgment of the memorials, and the solemn nature many associate with memorials, the park was developed as mostly a passive park. There are a few exceptions—the playground was placed on the opposite side of the park as the memorial wall, the walking track is active, but generally quiet, and occasional soccer games are scheduled for the field. The development of the proposed recommendations also recognized the generally passive nature of the park, so after consideration, could not consider suggestions for very active uses, such as basketball or roller hockey.
- **Proximity to adjacent houses:** The main active area of the park is directly adjacent to the side yards of several residential houses. The proximity to the neighbors' properties, specifically the potential for noise and undesirable behavior, had to be considered when proposing new layouts within the park. A Township Commissioner did speak directly to those neighbors, communicating to them what the proposed changes would be, and responding to their concerns.

Applicable Standards and Guidelines

The proposed improvements to the Park will reference:

- "2010 ADA Standards for Accessible Design", published by the Department of Justice, for access into and around the park, including sidewalks and curb ramps.
- The Handbook for Public Playground Safety, for selection and layout of new playground equipment and playground safety surfacing.
- The National Federation of State High School Association's Court and Field Guide, for layout and design of sports facilities.
- ASTM Standards for the fencing surrounding the playgrounds.
- "Pennsylvania Stormwater Best Management Practices Manual", published by the PA Department of Environmental Protection Bureau of Watershed Management, for sediment and erosion control and stormwater management items.
- Applicable Codes and Ordinances of Marple Township.

Sustainable Site Design

The DCNR recommends sustainable site design and green infrastructure is incorporated into the design. Their guidebook, entitled “Creating Sustainable Community Parks”, was a valuable resource for recommendations for incorporating sustainable principles into the park design.

- **Stormwater Management:** When the park was originally developed in 1997, a large stormwater management basin was installed downslope of the main park area, near the stream. In the subsequent years, the area has naturalized and now blends in with the surrounding woodland area, resulting in an established riparian buffer. The proposed improvements, most significantly the playground and parking area, will increase the impervious surface area in the park. During the design and engineering phase of those projects, the additional stormwater management requirements will be determined and compared to the capacity of the existing basin. Prior to new construction, the existing basin should be evaluated to confirm adequate capacity is provided; otherwise, minor modifications to the basin design may be required to accommodate the increase in runoff from the redeveloped areas.
- **Native Landscaping:** The use of native plant material has multiple benefits. Native plant material provides the food necessary to attract and retain the wildlife habitat. They are best adapted to the climate, soil, pests, and other conditions of a specific area. The recommendations herein propose using native plant material for both the reforestation in the natural areas and the ornamental landscaping in the main park area.
- **Creating Riparian Buffers:** The benefits of riparian buffers, vegetated areas around streams and other water bodies, are numerous. They help to mitigate floods, recharge groundwater, prevent erosion and sedimentation of the stream, trap pollutants, and improve aquatic and terrestrial species habitat. The proposed recommendations for the stabilization of the stream bank include installing riparian buffers.

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SECTION F DESIGN PROCESS

The development of the Final Master Plan followed a logical design process. The Study Committee met five times before the first public meeting to discuss the opportunities, challenges, and desired changes in the park. This resulted in the creation of four alternative Sketch Plan Options, which were presented and discussed at the third Study Committee Meeting. All four of the plans included common elements: increased parking, removal of the sledding hill, improved/enlarged playground area, and walking trails/neighborhood connections through the woods. The major differences between the Options are outlined below:

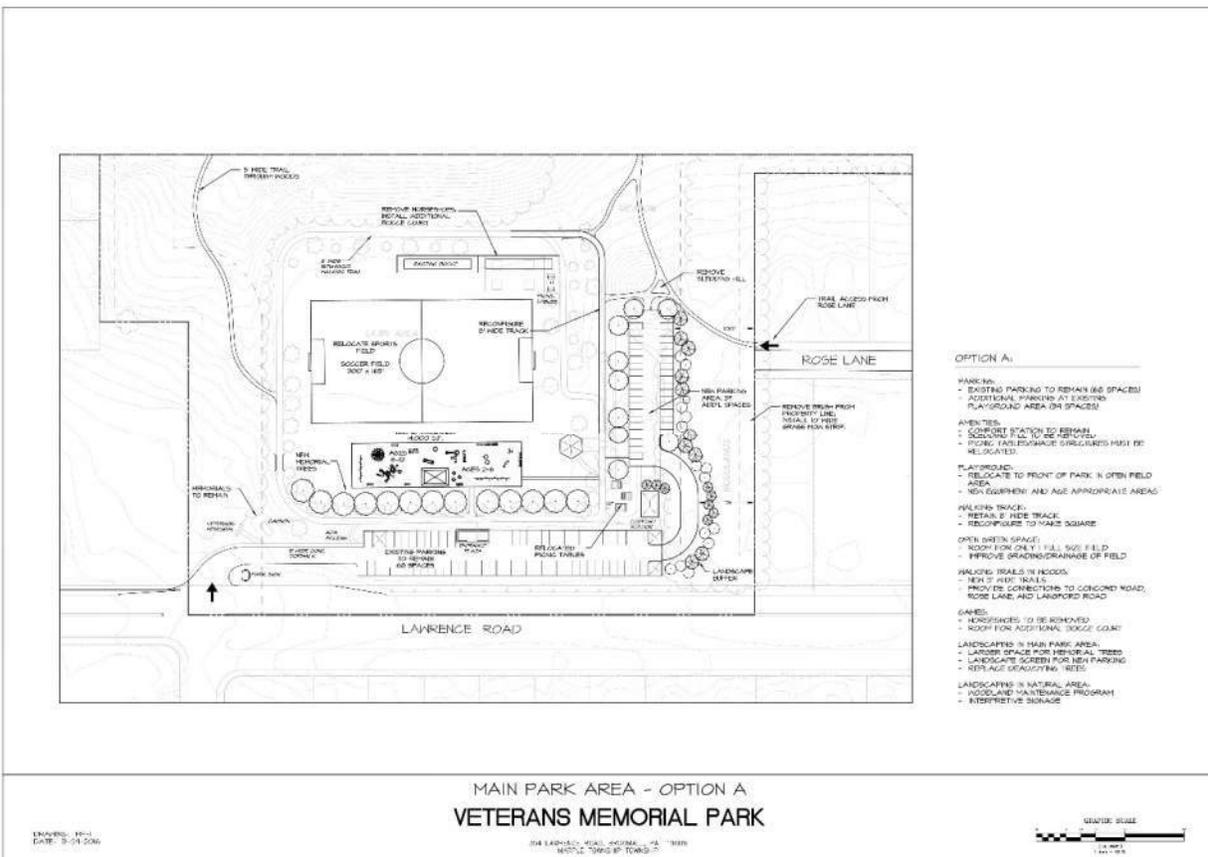
Option A showed the comfort station remaining, with a loop driveway going around the comfort station to additional parking. The playground was relocated to the open green space north of the parking area.

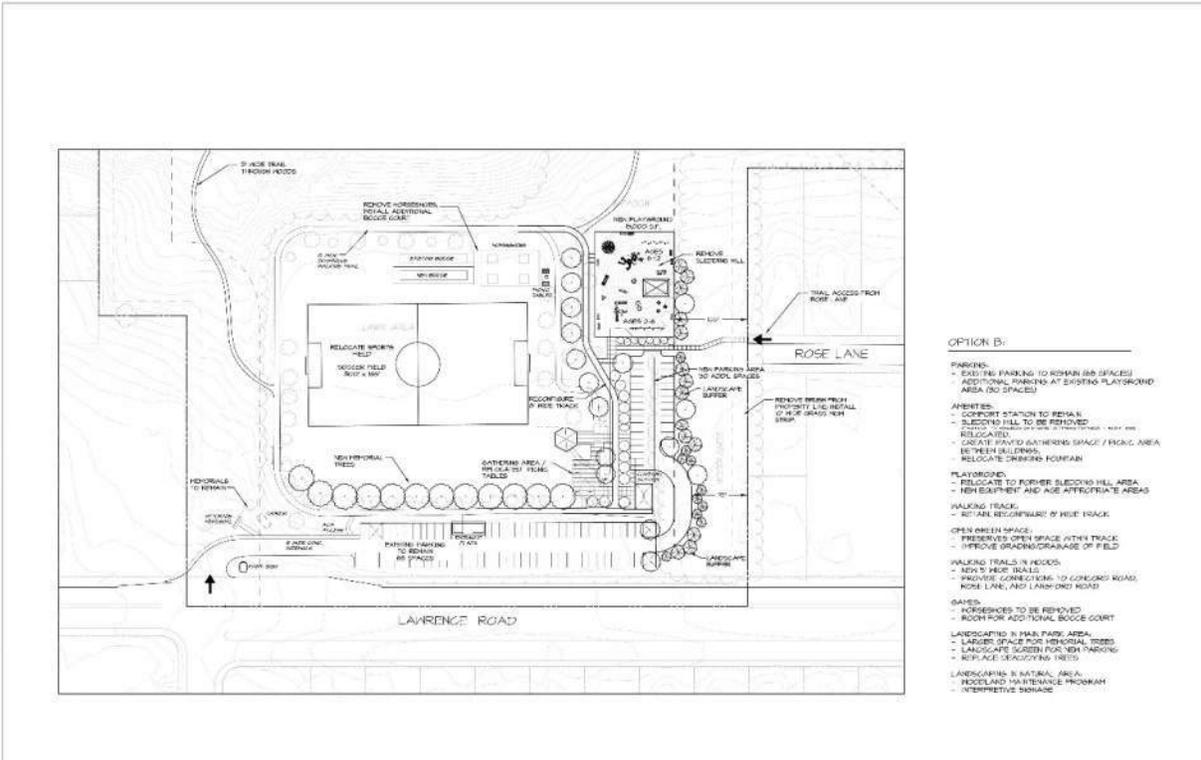
Option B also showed the comfort station remaining with additional parking on the east side of the park. The playground was relocated to the area of the sledding hill.

Option C showed the comfort station being relocated, in order to have a continuous “L” shaped parking area. The playground and the comfort station were relocated to the general area of the sledding hill.

Option D also showed the comfort station being relocated, but designing the additional parking to a double bay lot, eliminating the dead-end style lot. The playground and the comfort station were relocated to the general area of the sledding hill.

After discussion, the Study Committee thought that Options B and D, with minor refinements, should be developed further.

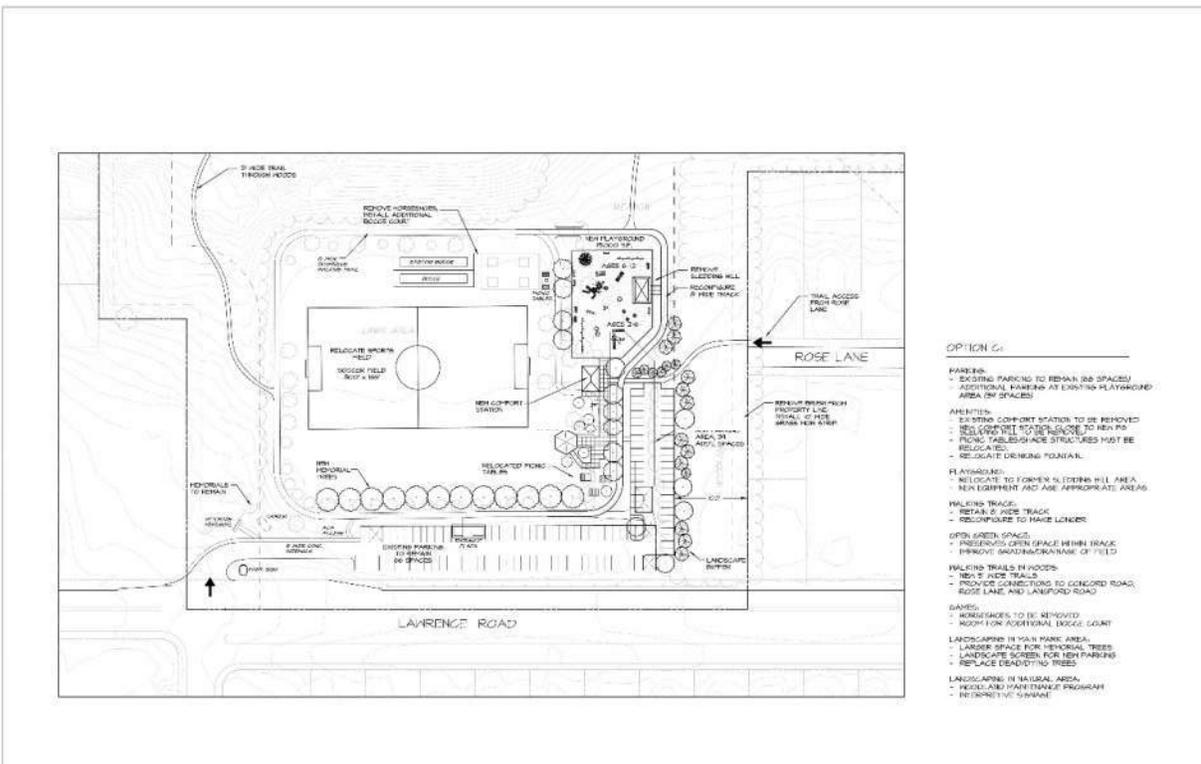




MAIN PARK AREA - OPTION B
VETERANS MEMORIAL PARK

DESIGNED BY:
 DAN B. SCHWABE

224 LANFORD ROAD, BROOKVILLE, PA 15005
 PROJECT NUMBER: 100919-2

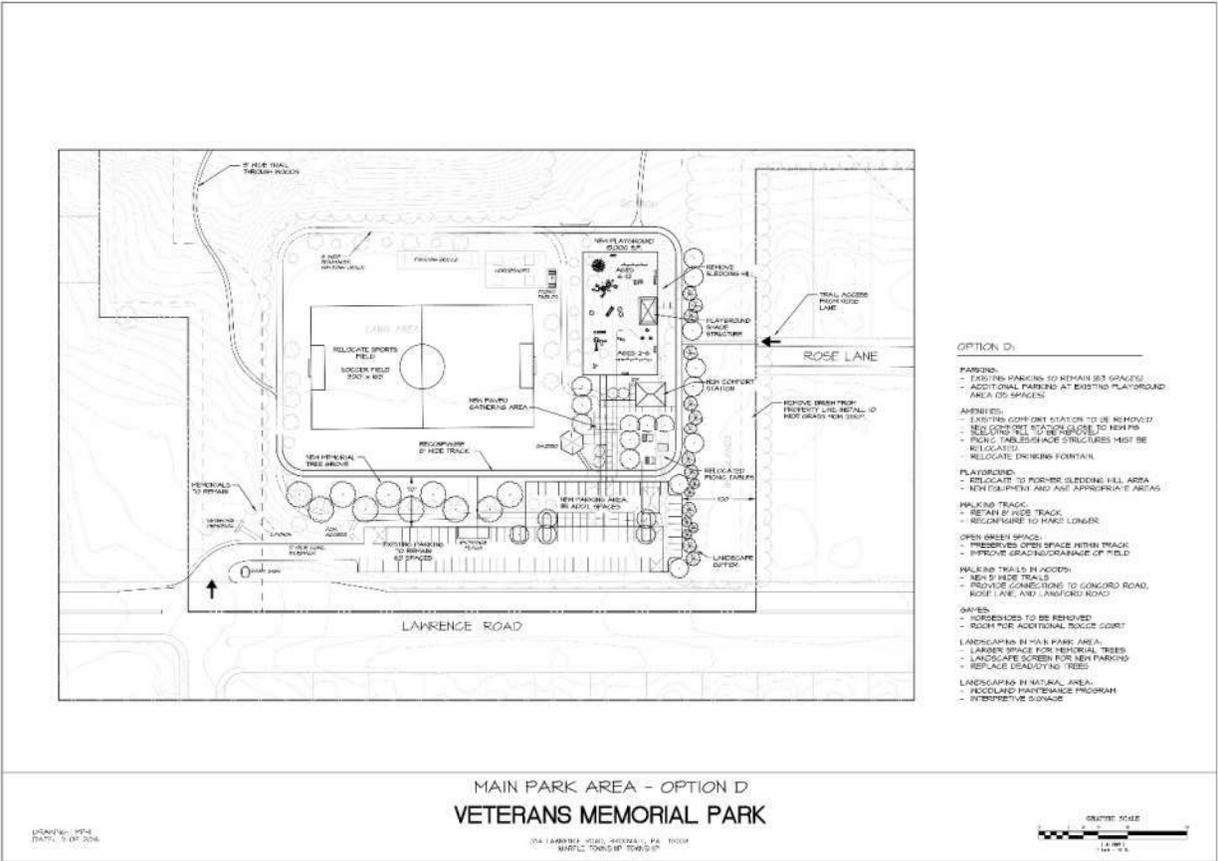


MAIN PARK AREA - OPTION C
VETERANS MEMORIAL PARK

DESIGNED BY:
 DAN B. SCHWABE

224 LANFORD ROAD, BROOKVILLE, PA 15005
 PROJECT NUMBER: 100919-2



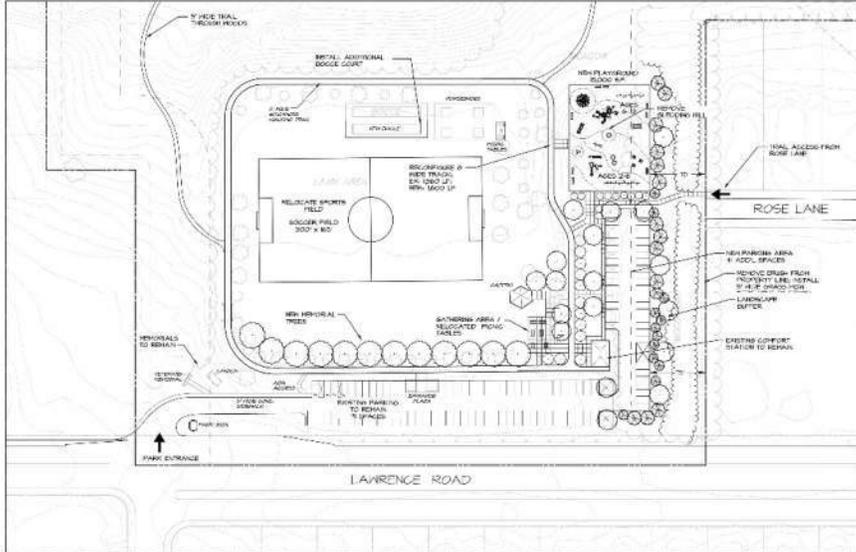


At the following Study Committee meeting, the two Preliminary Master Plan options were presented and discussed. The major difference between the two was that **Option 1** showed the comfort station in its current location with an “L” shaped parking lot, while **Option 2** showed the comfort station relocated, with a double-bay of parking.

Although the relocation of the comfort station has a higher price tag, the elimination of the dead-end style parking was a very desirable element of Option 2. The idea of adding a second entrance to the parking area was raised, but not considered feasible for several reasons. The existing entrance to the parking lot is located directly across from Warren Boulevard, providing entering and existing in all directions. This signaled intersection accommodates normal traffic volumes in the park, and the drive allows for exiting vehicles to queue within the parking area with limited restriction. In addition, since Lawrence Road is a State Route, PennDOT would require a road widening for a deceleration lane, and traffic movements would be limited to westbound traffic turning right into and out of the site.

Options 1 and 2 are shown on the following page.

With minor changes, these were the two plans presented at the first public meeting for review and comment.

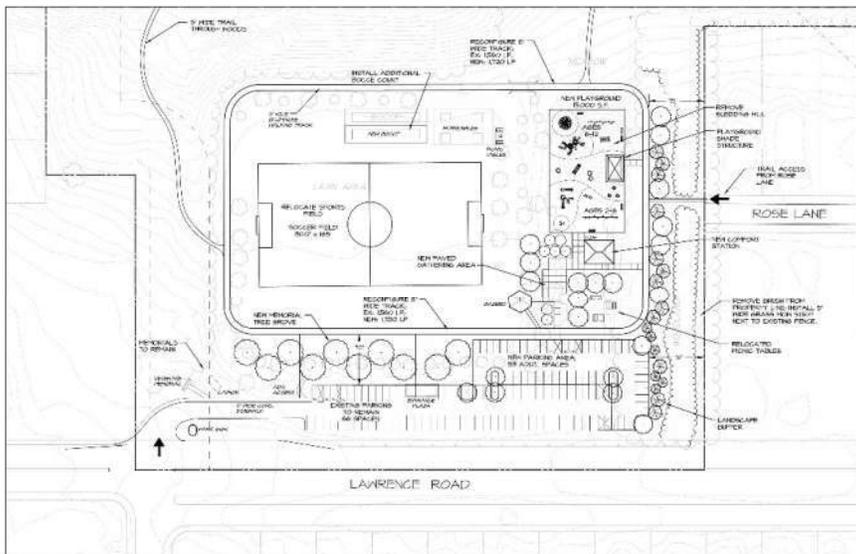


- PRELIMINARY MASTER PLAN
OPTION 1:**
- PARKING:**
 - EXISTING PARKING TO REMAIN (11 SPACES)
 - ADDITIONAL PARKING ADJACENT TO EXISTING PLAYGROUND AREA (6 SPACES)
 - AMENITIES:**
 - CORNPOST STATION TO REMAIN
 - BLEEDING HILL TO BE REMOVED
 - PUBLIC TABLE/SHADE STRUCTURES MUST BE RELOCATED
 - CREATE PAVED GATHERING SPACE / PICNIC AREA BETWEEN BUILDING
 - RELOCATE DRINKING FOUNTAIN
 - PLAYGROUND:**
 - RELOCATE TO FORMER BLEEDING HILL AREA
 - NEW EQUIPMENT AND AGE APPROPRIATE AREAS
 - WALKING TRACK:**
 - RECONFIGURE 5' WIDE TRACK
 - OPEN GREEN SPACE:**
 - PRESERVE OPEN SPACE WITHIN TRACK
 - IMPROVE GRADING/DRAINAGE OF FIELD
 - WALKING TRAILS & WOODS:**
 - IMPROVE CONNECTIONS TO CONCORD ROAD, ROSE LANE AND LANFORD ROAD
 - LANDSCAPE BUFFER
 - GAMES:**
 - ADD SECOND SOCCER COURT NEXT TO EXISTING
 - HOME/SHEDS CAN REMAIN OR BE REMOVED
 - LANDSCAPING IN MAIN PARK AREA:**
 - LEAVE SPACE FOR MEMORIAL TREES
 - REPLACE DEAD/AGING TREES
 - LANDSCAPE BUFFER ALONG NEW PARKING AREA
 - LANDSCAPING IN NATURAL AREA:**
 - ACCIDENTAL MAINTENANCE PROGRAM
 - REMOVE INVASIVE SPECIES (Japanese Tree)
 - INTERPRETIVE SIGNAGE
 - STREAM CORRIDOR IMPROVEMENTS:**
 - STABILIZE STREAM BANKS TO PREVENT EROSION
 - REMOVE POTENTIALLY HAZARDOUS CONDITIONS
 - LIGHTING:**
 - CONSIDER LIMITED LIGHTING
 - TRAIL LIGHT FOR EARLY WALKERS
 - SOCCER COURT
 - NEW PAVED GATHERING AREA FOR YOGA, ETC.

**MAIN PARK AREA - OPTION 1
VETERANS MEMORIAL PARK
PRELIMINARY MASTER PLAN**

DRAWING: HP-4
DATE: 2/25/2017

351 LAWRENCE ROAD, BROWNSVILLE, TX 77808
WATKINS TOWNSHIP, TOWNSHIP



- PRELIMINARY MASTER PLAN
OPTION 2:**
- PARKING:**
 - EXISTING PARKING TO REMAIN (11 SPACES)
 - ADDITIONAL PARKING ADJACENT TO EXISTING CORNPOST
 - AMENITIES:**
 - EXISTING CORNPOST STATION TO BE REMOVED
 - NEW CORNPOST STATION CLOSE TO NEW FC
 - BLEEDING HILL TO BE REMOVED
 - PUBLIC TABLE/SHADE STRUCTURES MUST BE RELOCATED
 - RELOCATE DRINKING FOUNTAIN
 - PLAYGROUND:**
 - RELOCATE TO FORMER BLEEDING HILL AREA
 - NEW EQUIPMENT AND AGE APPROPRIATE AREAS
 - WALKING TRACK:**
 - RETAIN 5' WIDE TRACK
 - RECONFIGURE TO MAKE LONGER
 - OPEN GREEN SPACE:**
 - PRESERVE OPEN SPACE WITHIN TRACK
 - IMPROVE GRADING/DRAINAGE OF FIELD
 - WALKING TRAILS & WOODS:**
 - IMPROVE CONNECTIONS TO CONCORD ROAD, ROSE LANE, AND LANFORD ROAD
 - LANDSCAPE BUFFER
 - GAMES:**
 - ADD SECOND SOCCER COURT NEXT TO EXISTING
 - HOME/SHEDS CAN REMAIN OR BE REMOVED
 - LANDSCAPING IN MAIN PARK AREA:**
 - LEAVE SPACE FOR MEMORIAL TREES
 - LANDSCAPE BUFFER FOR NEW PARKING
 - REPLACE DEAD/AGING TREES
 - LANDSCAPING IN NATURAL AREA:**
 - ACCIDENTAL MAINTENANCE PROGRAM
 - INTERPRETIVE SIGNAGE
 - LIGHTING:**
 - CONSIDER LIM TO LIGHTING
 - TRAIL LIGHT FOR EARLY WALKERS
 - SOCCER COURT
 - NEW PAVED GATHERING AREA FOR YOGA, ETC.

**MAIN PARK AREA - OPTION 2
VETERANS MEMORIAL PARK
PRELIMINARY MASTER PLAN**

DRAWING: HP-2
DATE: 2/25/2017

351 LAWRENCE ROAD, BROWNSVILLE, TX 77808
WATKINS TOWNSHIP, TOWNSHIP



SECTION G DESIGN COST ESTIMATES

This section provides very general Overall Magnitude of Probable Construction Costs for each of the recommendations. These estimated costs are based on Conceptual Plans and will be used for budgeting purposes. Construction costs can vary widely based upon the economy, the construction climate, and the type of work. This estimate also assumes that all design and construction will be done by consultants and contractors, and that each of the recommendations will be designed and constructed as separate projects. Additional savings can be gained for work that is packaged together, and for work done by Township forces. As each item gets implemented and detailed plans are developed, the construction costs can be refined.

A Master Plan is a guide for long range improvements to the Park. Improvements may be done in phases as funds become available. Each of the items was given a priority rating based upon many factors, including:

- Improve the health, safety, and welfare of the public.
- Deter/Correct negative impacts to the environment.
- Provide needed amenities.
- Eliminate maintenance problems / Simplify maintenance.

Also note that many of the items are interrelated—for example, the parking lot cannot be installed unless the comfort station and playground is relocated, which is why many items appear to be in Priority Level A. The priority levels may be adjusted over time as the needs of the community change and due to other unforeseen conditions that may affect the park. The Township also actively seeks grant money from various organizations, which may modify the schedule of improvements.

This section shows only total costs for each of the items. A detailed breakdown of the each of the estimates is included in the Appendix.

Veterans Memorial Park Opinion of Probable Construction Costs

Priority A Items:

1. INCREASE PARKING / ENLARGE THE PARKING AREA:
 - a. ADD A PARTIAL SECOND BAY OF PARKING \$415,000.00
 - c. IMPROVE ADA COMPLIANT ACCESS \$37,000.00

2. RELOCATE AND IMPROVE THE PLAYGROUND:
 - a. CREATE A NEW AREA FOR THE PLAYGROUND \$578,000.00
 - b. INSTALL NEW PLAYGROUND EQUIPMENT
 - c. IMPROVE ADA COMPLIANCE
 - d. RELOCATE THE SLEDDING HILL \$124,000.00

3. CREATE A CENTRAL GATHERING AREA:
 - a. NEW COMFORT STATION \$230,000.00
 - b. PAVED GATHERING AREA \$122,000.00

4. RETAIN OPEN GREEN SPACE / PLAYING FIELD:		
a. PRESERVE OPEN GREEN SPACE WITHIN WALKING PATH		\$0.00
5. RECONFIGURE AND LENGTHEN THE WALKING PATH:		
a. RETAIN THE 8' WIDE WALKING PATH		\$170,000.00
b. RECONFIGURE TO MAKE PATH LONGER		
c. REINSTALL BENCHES AROUND PATH		
6. VETERANS MEMORIALS:		
a. REPLANT AND REDEDICATE THE AFFECTED MEMORIAL TREES		\$82,000.00
b. TRIM TREES AROUND FLAGS		\$2,000.00
c. DESIGNATE AREA FOR 9/11 MEMORIAL		\$0.00
7. IMPROVE LANDSCAPING IN THE MAIN PARK AREA:		
b. LANDSCAPE SCREEN NEXT TO NEW PARKING AND PLAYGROUND		\$50,000.00
	SUB TOTAL – PRIORITY LEVEL A:	\$1,810,000.00

Priority B Items:

7. IMPROVE LANDSCAPING IN THE MAIN PARK AREA:		
a. REPLACE DEAD AND DYING PLANT MATERIAL & NEW LANDSCAPE PLANTINGS		\$70,000.00
10. ADD WALKING TRAILS IN THE NATURAL AREA:		
a. INSTALL 4' TO 5' WIDE WALKING TRAILS		\$180,000.00
b. PROVIDE CONNECTIONS TO ADJACENT NEIGHBORHOODS		\$39,000.00
11. ADD BOCCE COURT / KEEP HORSESHOE PITS:		\$0.00
12. LIMITED LIGHTING:		
a. INSTALL LIGHTING ALONG WALKING PATH		\$435,000.00
b. INSTALL LIGHTING AT BOCCE COURTS		
c. INSTALL LIGHTING AT THE CENTRAL GATHERING AREA		
	SUB TOTAL – PRIORITY LEVEL B:	\$724,000.00

Priority C Items:

1. INCREASE PARKING / ENLARGE THE PARKING AREA:	
b. REMOVE WALLED PATIO AT MAIN ENTRANCE FOR ADD'L PARKING	\$48,000.00
4. RETAIN OPEN GREEN SPACE / PLAYING FIELD:	
b. IMPROVE DRAINAGE OF FIELD	\$148,000.00
8. PRESERVE THE NATURAL AREA / MANAGE PLANTINGS:	
a. REPLACE DEAD AND DYING PLANT MATERIAL	\$52,000.00
b. BEGIN REFORESTATION	\$50,000.00
c. INSTALL INTERPRETIVE SIGNAGE	\$28,000.00
9. STABLIZE THE STREAM BANKS:	
a. EVALUATE STREAM QUALITY AND BANK CONDITIONS	\$415,000.00
b. STABILIZE THE STREAM BANKS	
10. ADD WALKING TRAILS IN THE NATURAL AREA:	
c. PEDESTRIAN BRIDGE	\$152,000.00
SUB TOTAL – PRIORITY LEVEL C:	\$893,000.00
SUB TOTAL – PRIORITY LEVEL A:	\$1,810,000.00
SUB TOTAL – PRIORITY LEVEL B:	\$724,000.00
SUB TOTAL – PRIORITY LEVEL C:	\$893,000.00
	<hr/>
GRAND TOTAL – ALL IMPROVEMENTS:	\$3,427,000.00

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SECTION H
APPENDIX

1. Community Survey - Summary
2. Key Person Interviews - Summary
3. Meeting Memoranda – Study Committee Meetings and Public Meetings
4. Detailed Construction Cost Estimates

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VETERANS MEMORIAL PARK MASTER PLAN
COMMUNITY SURVEY SUMMARY

Purpose:

The purpose of a community survey is to determine how residents currently use the park and to solicit opinions of how the park could be improved. By understanding the residents' comments and concerns, the Township will be better able to develop a Master Plan that meets the needs of the community.

Process:

The Veterans Memorial Park Study Committee prepared a survey questionnaire. The key questions asked the responders to rate the existing features of the park, and what improvements they would like to see. The Township posted a link to the Veterans Memorial Park Survey on their website, and also included a copy of the survey in the Winter Marple Township News newsletter. Residents could either fill out the survey on-line or drop off a completed survey to the Municipal Building. Forty questionnaires were returned to the Township.

Response Summary:

Question 1: On which street do you live?

The respondents were from all parts of Marple Township, representing a range of neighborhoods and travel distances.

Question 2: Does your household have children?

16 households (40%) do not have children

24 households (60%) have children. Of those, 23 have children 18 or under.

Question 3: How often do members of your family visit Veterans Memorial Park?

Daily: 11 households (27.5%)

Weekly: 15 households (37.5%)

Monthly: 7 households (17.5%)

Sporadically: 3 households (7.5%)

Rarely: 3 households (7.5%)

Never: 1 households (2.5%)

If daily or weekly, please indicate why?

Most respondents (65%) said walking or running on the track.

Question 4: What do you like best about Veterans Memorial Park?

The responses received were assigned points based on the order of priority given. (5 points for first priority, 4 for second, etc.) The responses could then be ranked as follows:

- | | |
|----------------------------|---------------------|
| 1. Walking Path 107 | |
| 2. Playground 40 | 10. People 6 |
| 3. Trees or Landscaping 27 | 11. Bathrooms 6 |
| 4. Open Space 25 | 12. Sledding Hill 6 |
| 5. Natural areas 20 | 13. Safety 4 |
| 6. Proximity 20 | 14. Gazebo 3 |
| 7. Well Maintained 18 | 15. Horseshoes 2 |

- 8. Quiet/peaceful 12
- 9. Playing Field 9
- 16. Benches 2
- 17. Parking 2

Question 5: Please rank the following features of Veterans Memorial Park in order of how often your family uses them.

The on-line survey differed slightly from the paper survey, and instead of ranking the park elements by number, respondents were asked to select “used often”, “used sometimes”, and “never used”. Therefore, the few paper surveys received were interpolated to correspond to those three rankings. Note that for the on-line survey, gazebo and benches were put together as one category, and the natural area was not listed.

The results area as follows, in order of most often used:

	Often Used	Sometimes Used	Never Used
1. Walking Path	82%	15%	3%
2. Comfort Station	53%	32%	15%
3. Grass Field	45%	25%	30%
4. Playground	43%	22%	35%
5. Gazebo and Benches	38%	42%	20%
6. Picnic Area	20%	37%	43%
7. Sledding Hill	20%	15%	65%
8. Horseshoes	10%	7%	83%
9. Bocce Court	5%	5%	90%

Question 6: What improvements would you like to see in Veterans Park, in order of priority?

Like #4, the responses received were assigned points based on the order of priority given. (5 points for first priority, 4 for second, etc.) The responses could then be ranked as follows:

- 1. Improve / Update the playground.
- 2. Add more lighting or security lighting.
- 3. More trees, landscaping, or flowers
- 4. More trails, improved trails
- 5. More parking, new entrance
- 6. Nature trail through woods
- 7. Remove sledding hill
- 8. Athletic fields
- 9. Dog park or dog area
- 10. Better maintenance
- 11. Basketball Court
- 12. Butterfly Garden
- 13. Less Trees
- 14. Water Mister
- 15. Bat Box
- 16. Interpretive nature signage

Conclusions:

The walking path is by far the most popular element in the park. The playground is also popular, being used even though improvements are desired. These survey results will be used to develop and prioritize the recommendations for improvements to the park.

VETERANS MEMORIAL PARK MASTER PLAN
KEY PERSON INTERVIEW SUMMARY

Purpose:

The purpose of Key Person Interviews is to give the community an opportunity to voice their concerns and respond to a standard set of questions. The interviews were community members who are not elected officials, Township staff, or already on the Study Committee.

Process:

A set of questions was developed (see below). Members of the Study Committee selected people for the Key Interviews, explained the project and goals, and provided the list of questions. Most interviewees chose to fill out the form themselves. Twenty Key Person Interviews were completed.

Response Summary:

Question 1: How long have you lived in this area?

There was a wide range of results, from 2 years to 39 years.

Question 2: What current park amenities do you use the most?

The chart below indicates all of the responses given, including multiple responses.

Walking Track	(17)	Gazebo	(5)
Lawn/open space	(4)	Restroom Building	(7)
Soccer Field	(5)	Bocce Courts	
Playground	(16)	Horseshoe Pit	
Memorials	(2)	Benches and Picnic Tables	(6)
Trees and Landscaping	(2)	Parking Area	(9)
Natural Wooded area	(1)	Stream	
Sledding Hill	(1)		

Question 3: How do you feel the existing amenities could be improved?

The responses were grouped into similar categories:

- Improve, upgrade playground (13)
- Enlarge open space by cutting down trees in the woods (1)
- More parking (3)
- Add lights (3)
- Light the gazebo (1)
- Add basketball court or roller hockey rink (1)
- Wider walking track (1)
- Longer walking track (2)
- Repave walking track (1)
- More grills, picnic tables (1)
- Keep the sledding hill (1)
- More landscaping (1)
- Fine as is (2)
- Update the restroom building (1)
- Safer enclosure/security fence-gate (1)
- Better drinking fountains (1)
- Add trails to stream and woods (1)

Question 4: Are there any amenities that you do not use, or feel that are not necessary or appropriate in the park?

Horseshoe Pit	(6)
Bocce Courts	(5)
Stream	(1)
Gazebo	(1)
Lawn/Open Space	(1)
Sledding Hill	(1)

Question 5: A few of the amenities to be added to the park, as suggested in the Community Survey, include:

- *Extending the Walking Track*
- *Nature Trails through woods*
- *Replace Memorial Trees*
- *Remove the sledding Hill*
- *Improvements to the playground*
- *Enlarge the parking area*
- *Add a Bocce Court*
- *Add lighting*

How do you feel about adding these amenities to the park?

All of the responses are included below, in no particular order:

- Improvements to the playground is essential. Extend walking track is wonderful. Lighting would be nice.
- Lighting should be a must. All improvements to playground is great. I do not agree with the sledding hill being removed and I do not feel the other amenities should be added or extended, not necessary.
- Lighting would be great.
- Sounds great
- Would love extending the walking track, it can get very crowded at night. Playground [remove some of the older playground equipment and replace with more tables and benches]. Nature trail would be a plus instead of going to Ridley Creek. Yes, enlarge the parking area. Additional lights. I think the sledding hill is nice for our kids to use since it is in the community and that is the place for kids to gather and have fun when it snows.
- I would love to see a nature trail through the woods.
- I like them
- All great ideas, but I would keep the hill or move it to another section of the park. Kids love that hill.
- I love extending the walking trail and the nature trail! I would not care if the sledding hill was taken out.
- Remove sledding hill-liability to Township. Lighting.
- Remove the sledding hill. Add lighting.
- Add lighting. Nature trails through the woods. They are all good suggestions except for replacing the memorial trees.
- I appreciate the memorial trees trail. Extending the walking trail or forking it into the wooded areas would be a welcome addition.
- I haven't used the walking trails so I'm unfamiliar. Agree with other [suggestions].
- Sounds good.
- Extra lighting, especially on walking track is a must! Nature trails would be great and the improvements to the playground are vital.
- They all sound good, except don't remove the sledding hill.
- Extending the walking track would be fab. Playground upgrades/improvements would be well received. Nature trails would add more appeal to the park and

another welcome enhancement. Lighting—love the idea. Parking would be fantastic although I wouldn't want it to take away park space.

- I don't see the need.
- No reason to remove the hill. Other ideas would be okay.

Question 6: Are there any other amenities you feel could improve recreation opportunities?

All of the responses are included below, in no particular order:

- Adding a basketball court for the older children, plus adults would use this as well.
- Maybe a few basketball courts instead of horseshoe pits. Extending the walking trail is not necessary especially if a nature trail is added. The kids enjoy the sledding hill and the park is known for the fun hill. Is the park closed at dusk? If so lighting should not be an issue. Playground improvements are definitely needed. There is plenty of parking now.
- Add a basketball court or a roller hockey rink.
- Roller hockey rink in some of that open space.
- Maybe a few water features at the playground.
- Fine as is.
- Making it more handicap friendly (special swings, all accessible)
- More police presence, some undesirables hang around kids area.
- Trails and tracks seem like great ideas.

Question 7: Do you attend the events that are held in Veterans Memorial Park? Would you like to see more events in the Park?

Twelve of the interviewees (60%) said they attend the events.

Eleven (55%) said they would like to see more events.

Conclusions:

As with the survey, the walking track and playground are the most popular elements in the park. Again, upgrading the playground appears to be the most popular suggestion.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Steering Committee Meeting #1

DATE: November 12, 2015

LOCATION: Municipal Building

ATTENDEES: See attached attendance list (9 members, plus J. Mastronardo and D. Mancini)

The following is a summary of the items discussed at the first Study Committee Meeting held at 7:30 pm at the Marple Township Municipal Building. This meeting was part of the regular Parks and Recreation meeting held monthly.

1. Introductions.
2. Survey status: The survey has been posted on line, and will be sent in about 2 or 3 weeks by mail. Completed surveys will be emailed back to the Township Manager, who will forward to Pennoni.
3. Diana reviewed the Master Plan process.
 - a. Base Plan preparation for conceptual design purposes.
 - b. Creation of the study committee.
 - c. Public participation: survey, meetings, and/or key person interviews
3. Diana presented the progress on the Existing Conditions Plan.
 - a. Plan shows property lines, topo, existing site features, etc.
 - b. There is an 80' wide 'additional' buffer shown--Joe will investigate the conditions for that buffer.
 - c. Joe reviewed the future work.
4. Mr. Hamady said that the DCNR expressed the desire for the plan to include connections with the surrounding neighborhoods. They want users to walk to park, not drive.
5. Circulation: Encourage various means of getting to park. Include safe trails, bike racks, etc.
6. There is an article in the Newsletter about Indian Rocks.
7. Schedule: Next meeting will be the 2nd Thursday in February.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Study Committee Meeting #2

DATE: February 11, 2016

LOCATION: Municipal Building

ATTENDEES: Rob Fortebuono, Mark Snell, Marikate Williams, Cathy Forlano, Maureen Williams, and Diana Mancini. Four guest speakers: Jerry Marron, Michael S., Rich Paul, and Doug Humes.

The following is a summary of the items discussed at the second Study Committee Meeting held at 7:00 pm at the Marple Township Municipal Building. This meeting was held after the regular Parks and Recreation meeting held monthly.

1. Four special guests came to the meeting to discuss the status of bicycle and pedestrian walking trails in the area, and how new trails in the park could connect to the overall system.
 - a. Generally, there is a lack of bike lanes and bike parking in the Township.
 - b. Currently, the only way to get to the park is to drive. Trail connections to adjacent neighborhoods and surrounding streets would be a great improvement.
 - c. Marple Associates is developing the parcel to the east of the park. If appropriate, trail connections can be discussed with them. Perhaps trail system can be integrated.
2. Diana reviewed the progress of the Master Planning process to date.
3. The survey results were reviewed.
 - a. The rate of return was low. As of February 3, about 50 survey responses were returned. This is about a 0.5% return of all of the households in the Township. Typically, a survey return rate is between 2% and 4%. Results are still coming in, and will be evaluated.
 - b. Marikate compiled the results into a spreadsheet. There did not appear to be any surprises regarding uses, usage, etc. There was not a lot of criticism or suggestions for big changes. Trends as follows:
 - The walking path was the ranked first both in the park element liked best, and the element most used.
 - For what residents liked best, in order: walking path, playground, trees, open space.
 - For what elements are used most, in order: walking path, comfort station, grass field, playground.
 - For what improvements to see in the park, in order: Update the playground, lighting, more trees and landscaping, more trails, more parking.
 - c. Based upon the survey results and comments provided, the following items were discussed:
 - Lighting? The Parks and Recreations must decide if lighting is desired. Safety, policing, and maintenance should be considered. Maybe limit lighting of park to be able to extend time for walking from 5 am to 6 pm all year long.

- Remove one horseshoe pit if room is required for another purpose. Allow room for one additional bocce court in the future.
 - The field does not drain well. It is very flat. Include improvements to the field such as regrading or underdrainage.
 - Consider locations for maintenance vehicles to safely enter the park, especially to trail system.
5. At the next meeting, Diana will revise this sketch plan and prepare other sketch plans so Committee can evaluate all ideas and layouts.
 6. Schedule: Next meeting will be the 2nd Thursday in March.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Study Committee Meeting #3

DATE: March 10, 2016

LOCATION: Municipal Building

ATTENDEES: Rob Fortebuono, Mark Snell, Dominic Durante, Marikate Williams, Cathy Forlano, Mike Hill, Jim Elliot (Tree Commissioner), and Diana Mancini.

The following is a summary of the items discussed at the third Study Committee Meeting held at 7:00 pm at the Marple Township Municipal Building. This meeting was held before the regular Parks and Recreation meeting, held monthly.

1. Diana gave a very brief summary of the Master Planning process to date.
2. Diana presented four alternative sketch plans, which incorporated the suggestions and ideas generated from the discussion at last month's meeting. All of the plans include common elements: increased parking, removal of the sledding hill, improved/enlarged playground area, and walking trails/neighborhood connections through the woods. Two options showed the comfort station remaining in its current location, two options showed the building being relocated.

After discussion, two options were chosen for refinement: Option B and Option D.

3. The 100' wide buffer surrounding the park was provided when the park was developed in 1996. On that side of the park, using some of that space for parking, playground, or track area would improve the layout of the new park elements. A buffer of 75' wide can still be provided. Commissioner Rob Fortebuono said he will speak to the three residents on the east side of the park.
4. The relocation of the Comfort Station was discussed. For the next meeting, Diana will research the approximate cost of installing a new comfort station.
5. Schedule: Next meeting will be the 2nd Thursday in April.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Study Committee Meeting #4

DATE: April 14, 2016

LOCATION: Municipal Building

ATTENDEES: Rob Fortebuono, Mike Hill, and others.

The following is a summary of the items discussed at the fourth Study Committee Meeting held at 7:00 pm at the Marple Township Municipal Building. This meeting was held before the regular Parks and Recreation meeting, held monthly.

Diana was not able to attend the meeting, but sent in advance prints of the two current Conceptual Site Plans, revised per comments and discussion from the last meeting. Copies of the plans are attached.

The plans are entitled Option 1 and Option 2.

- Option 1 has the comfort station in its current location.
- Option 2 shows the comfort station relocated closer to the playground.
- Both plans show a second bocce court placed next to the existing court, optional horseshoe pit, length of the walking tracks, and revised parking totals.

Michael Hill, the Vice Chairman, led the meeting. The following is a summary of his meeting notes:

1. Mike handed out copies of the two plans for Veterans Memorial Park. All agreed that both plans were good to show at the public meeting for comment.
2. Prior to the meeting, Diana provided rough construction estimates for relocation of the comfort station:
 - For a simple pre-fab unit, which is set on the site then a contractor brings utilities to it, the cost can range from \$45,000 to \$55,000, including preparing the pad and utility connections.
 - For a masonry structure the costs can range from \$100,000 to \$160,000, including utility connections.At the meeting, Rob Fortebuono stated that it would be possible to relocate the bathroom if needed.
3. Rick had questions and comments about the trees in the parking lot, location of the comfort station, etc. Mike told him the plans were not for public comments until the public meeting.
4. The group decided that May would be best to have the public meeting. Mike or Mark will send out an email with possible dates.
(Post meeting note: Anthony Hamaday, the Township Manager, found out he has some additional paperwork to complete before the public meeting can be held. The public meeting will be scheduled for a later date.)
5. Schedule: Next meeting date to be determined.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Study Committee Meeting #5

DATE: September 8, 2016

LOCATION: Municipal Building

ATTENDEES: Mark Snell, Mike Hill, Erin Taylor, and Diana Mancini

The following is a summary of the items discussed at the fifth Study Committee Meeting held at 7:00 pm at the Marple Township Municipal Building. This meeting was held before the regular Parks and Recreation meeting, held monthly.

1. At the suggestion of the DCNR, additional people were added to the Study Committee. There are now nine members of the Study Committee:

Mark Snell	
Michael Hill	Rich Ehnou
Marikate Stahl	Dominic Duranti
Maureen Williams	Matt Bilker
Cathy Forlano	Patti Schlater

2. For the new members of the Committee, Diana gave a summary of the master planning process to date, including the purpose of a Study Committee and public participation, the citizen survey and results, and how we arrived at the conceptual plan options.
3. Erin asked about lighting in the park. Apparently, many more people are using the park in the evening for various events. Previous discussions on lighting noted that walkers use the path both in early morning hours and in the evening, and that the bocce courts and the gazebo are used in the evening.

Mark noted that right now the park was only open from dawn to dusk. The Township must decide if the park hours can be extended. The police would have to be part of the discussion. Police vehicle access into the park would also have to be provided. Mike noted that lighting would deter bad behavior (to a degree). The neighbors adjacent to the park would have to have input into the decision as well.

4. Erin noted that small groups come to use the park, like the Mom's exercise program. The paved areas should be large enough to accommodate groups like this.
5. Mark was approached by an avid bocce player, who requested that along with a second court, lights be placed around the courts (not over) for evening use.
6. Mike reported on the new vehicle access that was added, made of concrete pavers (with a chain across). The main use of this was for the carnival. Diana will add this to the park plans.
7. Mark asked that we emphasize to the public that new trees will be planted to replace any trees that are removed. Green space groups will be interested in this aspect of the master plan.

8. The proposed plans should show how vehicles can safely enter the park. Both park maintenance vehicles and emergency vehicles.
9. Mark asked if it would be possible to include some type of security station or call box in the park. It could be as simple as a blue post with a phone to call 911.
10. The next step is to schedule the public meeting.

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Public Meeting #1

DATE: February 9, 2017

LOCATION: Municipal Building

ATTENDEES: Rob Fortebuono (Commissioner), John Longacre (Commissioner), Mark Snell, Dominic Duranti, Cathy Forlano, Diana Mancini, Joseph Mastronardo, John Batty, Liz Ball, Rich Ray

The first public meeting was held at the Marple Township Building at 7:00 p.m. on February 9, 2017. An agenda (attached) was provided.

1. Mark Snell made introductions and gave a brief welcome.
2. Diana gave a PowerPoint presentation which included:
 - Brief outline of the Master Planning Process
 - Review of what the Steering Committee has done so far
 - Review of Veterans Memorial Park's assets and challenges.
 - Summary of the responses provided on the Citizen Survey.
 - Preliminary Master Plan ideas (Plan Options 1 and 2)
3. Following the presentation, the floor was opened for comments and discussion:
 - Can there be an area for different types of recycling?
 - Currently, when the performers use the gazebo the setting sun is in their eyes. Is there anything that can be done to help, besides moving the gazebo?
 - Can the entrance to the park from the parking lot (stone walls and pavers) be removed to provide more parking spaces?
 - Can you consider a soft track instead of the bituminous track? Hard surfaces are hard on senior's joints. Discussion followed weighing benefits of the soft track to the drawback of it not being able to be plowed after a snowfall.
 - The trees have a short lifespan because the whole park was put on a fill site, with many layers of compacted clayey soils. Discussion followed citing the need for some type of underdrainage in the lawn area (already a recommendation) and perhaps a special tree planting detail that extends the tree pit down below the level of compacted soils.
 - Can the trees that are removed to make room for improvements be sold? Profits could be used to fund replanting.
 - Generally, many of the trees in the area where the new parking area is being proposed are not in good shape. They are old and covered in vines. Noted that it was a good time to replant the landscape screen.
 - Can a second entrance be placed out to Lawrence Road, so it would not be a dead-end lot? Obvious obstacles included the change in grade (the lot is much lower than the road) and the lack of a traffic signal. (Diana will talk to the Township Engineer about original design plans.)
4. Diana reviewed the next steps in the process:
 - Refine the master plan based on input from tonight's meeting.
 - Meet again to review the plan. (Public Meeting #2 tentatively scheduled for March 9)
 - Prepare the Final Master Plan Report

MEETING MEMORANDUM

PROJECT: Veterans Park Master Plan Update

SUBJECT: Public Meeting #2

DATE: March 9, 2017

LOCATION: Municipal Building

ATTENDEES: Mark Snell, Dominic Duranti, Cathy Forlano, Diana Mancini, Joseph Mastronardo, Charles Protesto, John Batty, Carolyn Gorhoum, Stella McGlone, Kathleen Skahill, William Monohan, Jerry Sweeley, Rudy Schaffhauser, and Members of VFW Post 7390 and American Legion Post 805.

The second public meeting was held at the Marple Township Building at 7:00 p.m. on February 9, 2017. An agenda (attached) was provided.

1. Mark Snell made introductions and gave a brief welcome.
2. Diana gave a PowerPoint presentation which included:
 - Brief outline of the Master Planning Process
 - Review of what the Steering Committee has done so far
 - Review of the proposed List of Recommendations
 - Revised Preliminary Master Plan
3. Following the presentation, the floor was opened for comments and discussion:
 - VFW said tree markers are set for each tree. If trees are relocated or replanted, the markers must be moved and the tree rededicated in a Rededication Ceremony. Keep the row of trees on the inside of the walking path (so trees on both sides of path).
 - Can we add emergency call boxes, maybe four throughout the park, for safety?
 - Can all or part of the track be a soft track?
 - Is there a location for a new memorial, most likely a 9-11 Memorial?
 - Keep the horseshoe pits—they are used.
 - Can the trees near the flagpoles be trimmed? The branches hit the flags.
 - Keep the benches around the track.
 - Keep the sledding hill.
4. Diana reviewed the next steps in the process:
 - Refine the Master Plan based on input from tonight's meeting.
 - Prepare the Final Master Plan Report
 - Presentation to the Township Commissioners.

Veterans Memorial Park Opinion of Probable Construction Costs

1. INCREASE PARKING / ENLARGE THE PARKING AREA:

a.	ADD A PARTIAL SECOND BAY OF PARKING	Priority Level: A
	Contractor Mobilization	\$25,000.00
	Removals, excavation and grading	\$43,000.00
	Bituminous paving	\$150,000.00
	Wheel stops, paint striping, signage, etc.	\$15,000.00
	Stormwater management	\$20,000.00
	Fence	\$10,000.00
	Parking Lot Trees	\$6,000.00
	Restoration	\$6,000.00
	Contingency	\$50,000.00
	Design and Engineering: Survey, Design, Construction Docs	\$60,000.00
	Construction Administration, Construction Observation	<u>\$30,000.00</u>
	TOTAL:	\$415,000.00
b.	REMOVE WALLED PATIO AT MAIN ENTRANCE FOR ADD'L PARKING	Priority Level: C
	Contractor Mobilization	\$3,000.00
	Removals, excavation and grading	\$18,000.00
	Bituminous paving	\$9,000.00
	Wheel stops, paint striping, signage	\$2,000.00
	Contingency	\$6,000.00
	Design and Engineering: Survey, Design, Construction Docs	\$7,000.00
	Construction Administration, Construction Observation	<u>\$3,000.00</u>
	TOTAL:	\$48,000.00
c.	IMPROVE ADA COMPLIANT ACCESS	Priority Level: A
	Contractor Mobilization	\$2,200.00
	Removals, excavation and grading	\$3,800.00
	Pervious paving	\$18,000.00
	Signage	\$1,000.00
	Contingency	\$4,500.00
	Design and Engineering: Survey, Design, Construction Docs	\$5,000.00
	Construction Administration, Construction Observation	<u>\$2,500.00</u>
	TOTAL:	\$37,000.00

2. RELOCATE AND IMPROVE THE PLAYGROUND:

a.	CREATE A NEW AREA FOR THE PLAYGROUND	Priority Level: A
b.	INSTALL NEW PLAYGROUND EQUIPMENT	
c.	IMPROVE ADA COMPLIANCE	
	Contractor Mobilization	\$35,000.00
	Removals, excavation and grading	\$90,000.00
	Underdrainage	\$40,000.00
	Playground surfacing	\$25,000.00

Playground equipment	\$150,000.00
Fence	\$28,000.00
Benches and trash receptacles	\$8,000.00
Signage	\$2,000.00
Restoration	\$5,000.00
Contingency	\$70,000.00
Design and Engineering: Survey, Design, Construction Docs	\$85,000.00
Construction Administration, Construction Observation	<u>\$40,000.00</u>
TOTAL:	\$578,000.00

d. RELOCATE THE SLEDDING HILL	Priority Level: A
Contractor Mobilization	\$8,000.00
Excavation and grading	\$75,000.00
Lawn restoration	\$8,000.00
Signage	\$1,000.00
Contingency	\$17,000.00
Design and Engineering: Survey, Design, Construction Docs	\$10,000.00
Construction Administration, Construction Observation	<u>\$5,000.00</u>
TOTAL:	\$124,000.00

3. CREATE A CENTRAL GATHERING AREA:

a. NEW COMFORT STATION	Priority Level: A
<i>With two ADA compliant bathrooms, storage room, lighting, etc.</i>	
Contractor Mobilization	\$14,000.00
Removals, excavation and grading	\$22,000.00
New building	\$80,000.00
Utilities	\$40,000.00
Contingency	\$24,000.00
Design and Engineering: Survey, Design, Construction Docs	\$33,000.00
Construction Administration, Construction Observation	<u>\$17,000.00</u>
TOTAL:	\$230,000.00

b. PAVED GATHERING AREA	Priority Level: A
Contractor Mobilization	\$7,000.00
Removals, excavation and grading	\$4,000.00
Concrete sidewalk	\$50,000.00
Ramp with handrails to gazebo	\$5,000.00
Site furniture, recycling center	\$7,000.00
Community bulletin board	\$2,000.00
Signage	\$2,000.00
Drinking fountain	\$3,000.00
Landscaping (in Item #7)	\$0.00
Restoration	\$1,000.00
Contingency	\$14,000.00
Design and Engineering: Survey, Design, Construction Docs	\$18,000.00

Construction Administration, Construction Observation \$9,000.00

TOTAL: \$122,000.00

4. RETAIN OPEN GREEN SPACE / PLAYING FIELD:

- a. PRESERVE OPEN GREEN SPACE WITHIN WALKING PATH Priority Level: A
There is no cost associated with this recommendation.

TOTAL: \$0.00

- b. IMPROVE DRAINAGE OF FIELD Priority Level: C
Geo-composite collection system in sand trench

Contractor Mobilization \$9,000.00
Prefabricated composite vertical collection system \$80,000.00
Restoration \$8,000.00
Contingency \$18,000.00
Design and Engineering: Survey, Design, Construction Docs \$22,000.00
Construction Administration, Construction Observation \$11,000.00

TOTAL: \$148,000.00

5. RECONFIGURE AND LENGTHEN THE WALKING PATH:

- a. RETAIN THE 8' WIDE WALKING PATH Priority Level: A
b. RECONFIGURE TO MAKE PATH LONGER
c. REINSTALL BENCHES AROUND PATH

Contractor Mobilization \$10,000.00
Removals, excavation and grading \$16,000.00
New walking path \$60,000.00
Overlay existing path to remain \$15,000.00
Reinstall existing benches \$7,000.00
Restoration \$6,000.00
Contingency \$20,000.00
Design and Engineering: Survey, Design, Construction Docs \$24,000.00
Construction Administration, Construction Observation \$12,000.00

TOTAL: \$170,000.00

6. VETERANS MEMORIALS:

- a. REPLANT AND REDEDICATE THE AFFECTED MEMORIAL TREES Priority Level: A
Contractor Mobilization \$5,000.00
Removals \$13,000.00
New memorial trees \$27,000.00
Tree markers in concrete foundation \$9,000.00
Contingency \$10,000.00
Design and Engineering: Survey, Design, Construction Docs \$12,000.00
Construction Administration, Construction Observation \$6,000.00

TOTAL: \$82,000.00

b. TRIM TREES AROUND FLAGS

Priority Level: A

Contractor Mobilization	\$200.00
Trim trees	\$2,000.00
Design and Engineering: Survey, Design, Construction Docs	\$0.00
Construction Administration, Construction Observation	<u>\$0.00</u>

TOTAL: \$2,200.00

c. DESIGNATE AREA FOR 9/11 MEMORIAL

There is no cost associated with this recommendation.

TOTAL: \$0.00

7. IMPROVE LANDSCAPING IN THE MAIN PARK AREA:

a. REPLACE DEAD AND DYING PLANT MATERIAL

Priority Level: A

NEW LANDSCAPE PLANTINGS

Priority Level: B

Contractor Mobilization	\$4,000.00
Remove dead and dying trees	\$4,000.00
Selective pruning	\$2,000.00
Shade trees, ornamental trees, shrubs, relocate holiday tree	\$33,000.00
Memorial trees (in Item #6)	\$0.00
Mulched beds	\$2,000.00
Integrated Pest Management	\$2,000.00
Contingency	\$8,000.00
Design and Engineering: Survey, Design, Construction Docs	\$10,000.00
Construction Administration, Construction Observation	<u>\$5,000.00</u>

TOTAL: \$70,000.00

b. LANDSCAPE SCREEN NEXT TO NEW PARKING AND PLAYGROUND

Priority Level: A

Contractor Mobilization	\$3,000.00
Removals, excavation and grading	\$6,000.00
Selective pruning	\$5,000.00
Mow strip (clearing and seeding)	\$2,500.00
Shade trees, evergreen trees and shrubs	\$17,000.00
Contingency	\$6,000.00
Design and Engineering: Survey, Design, Construction Docs	\$7,000.00
Construction Administration, Construction Observation	<u>\$3,500.00</u>

TOTAL: \$50,000.00

8. PRESERVE THE NATURAL AREA / MANAGE PLANTINGS:

- a. REPLACE DEAD AND DYING PLANT MATERIAL Priority Level: C

This estimate is for first year; maintenance is ongoing.

Contractor Mobilization	\$3,000.00
Tree study / evaluation	\$5,000.00
Remove dead and dying trees	\$8,000.00
Selective pruning	\$8,000.00
Remove invasive species	\$10,000.00
Integrated Pest Management	\$2,000.00
Contingency	\$6,000.00
Design and Engineering: Survey, Design, Construction Docs	\$7,000.00
Construction Administration, Construction Observation	<u>\$3,000.00</u>

TOTAL: \$52,000.00

- b. BEGIN REFORESTATION Priority Level: C

This estimate is for first year; planting is ongoing.

Contractor Mobilization	\$3,000.00
Woodlands Master Plan	\$5,000.00
New woodland trees	\$16,000.00
Wildflower understory	\$10,000.00
Contingency	\$6,000.00
Design and Engineering: Survey, Design, Construction Docs	\$7,000.00
Construction Administration, Construction Observation	<u>\$3,000.00</u>

TOTAL: \$50,000.00

- c. INSTALL INTERPRETIVE SIGNAGE Priority Level: C

Six signs, color fiberglass panel in aluminum frame.

Contractor Mobilization	\$1,500.00
Interpretive sign fabrication	\$9,000.00
Install in concrete foundations	\$6,000.00
Contingency	\$3,000.00
Design and Engineering: Survey, Design, Sign Consultant, CDs	\$6,500.00
Construction Administration, Construction Observation	<u>\$2,000.00</u>

TOTAL: \$28,000.00

9. STABILIZE THE STREAM BANKS:

- a. EVALUATE STREAM QUALITY AND BANK CONDITIONS Priority Level: C

- b. STABILIZE THE STREAM BANKS

This estimate assumes approximately 1,000 l.f. bank restoration

Contractor Mobilization	\$25,000.00
Stream Environmental and Hydraulic Study	\$10,000.00
Stream Bank Stabilization	\$200,000.00

Includes grading, toe boulders, mats, etc.	
Riparian buffer plantings	\$40,000.00
Contingency	\$50,000.00
Design and Engineering: Survey, Design, Construction Docs	\$60,000.00
Construction Administration, Construction Observation	<u>\$30,000.00</u>
TOTAL:	\$415,000.00

10. ADD WALKING TRAILS IN THE NATURAL AREA:

a. INSTALL 4' TO 5' WIDE WALKING TRAILS	Priority Level: B
<i>This item can easily be phased.</i>	
Contractor Mobilization	\$10,000.00
Excavation and grading	\$20,000.00
New trails, assume stone	\$80,000.00
Signage	\$5,000.00
Restoration	\$6,000.00
Contingency	\$20,000.00
Design and Engineering: Survey, Design, Construction Docs	\$26,000.00
Construction Administration, Construction Observation	<u>\$13,000.00</u>
TOTAL:	\$180,000.00
b. PROVIDE CONNECTIONS TO ADJACENT NEIGHBORHOODS	Priority Level: B
<i>Three entrances: Rose Lane, Concord Road, & Langford Road.</i>	
Contractor Mobilization	\$3,000.00
Excavation and grading	\$4,000.00
Paving: bituminous or concrete	\$10,000.00
Signage	\$3,000.00
Removable bollards	\$5,000.00
Contingency	\$5,000.00
Design and Engineering: Survey, Design, Construction Docs	\$6,000.00
Construction Administration, Construction Observation	<u>\$3,000.00</u>
TOTAL:	\$39,000.00
c. PEDESTRIAN BRIDGE	Priority Level: C
<i>Assume a prefabricated bridge, approximately 40 feet long</i>	
Contractor Mobilization	\$9,000.00
Removals, excavation and grading	\$10,000.00
Concrete foundations	\$40,000.00
Pedestrian bridge	\$30,000.00
Limited paving	\$3,000.00
Signage	\$1,000.00
Restoration	\$2,000.00
Contingency	\$17,000.00
Design and Engineering: Survey, Design, Permitting, Construction Docs	\$30,000.00
Construction Administration, Construction Observation	<u>\$10,000.00</u>
TOTAL:	\$152,000.00

11. ADD BOCCE COURT / KEEP HORSESHOE PITS:

The bocce court will be paid for and constructed by other.
There is no cost associated with this recommendation.

TOTAL: \$0.00

12. LIMITED LIGHTING:

- a. INSTALL LIGHTING ALONG WALKING PATH
 - b. INSTALL LIGHTING AT BOCCE COURTS
 - c. INSTALL LIGHTING AT THE CENTRAL GATHERING AREA
- Priority Level: B

This estimate assumes all lights will be installed at one time.

Contractor Mobilization	\$25,000.00
Ornamental pedestrian scale lights around path (28)	\$168,000.00
Lights at bocce courts (2)	\$12,000.00
Lights in gathering area (5)	\$30,000.00
Concrete foundations / install	\$70,000.00
Contingency	\$50,000.00
Design and Engineering: Design, Construction Docs	\$60,000.00
Construction Administration, Construction Observation	\$20,000.00

TOTAL: \$435,000.00

SUB TOTAL – PRIORITY LEVEL A: \$1,845,000.00

SUB TOTAL – PRIORITY LEVEL B: \$689,000.00

SUB TOTAL – PRIORITY LEVEL C: \$893,000.00

GRAND TOTAL – ALL IMPROVEMENTS: \$3,427,000.00