

# Franklin Township

*Park Master Plan*

*September 1, 2010*

**Prepared For:**

**Franklin Township**

Luzerne County, Pennsylvania

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### **Introduction**

Parks are the crown jewels of municipalities. If designed and managed effectively, they can serve as the central gathering places for the community much as “Main Street” did in years past. Parks are more than just ball fields and playgrounds that children use in the summer – they are year round hubs for creating healthy family bonds, reducing the isolation of the elderly, contributing to youth development, experiencing nature, and building a sense of community. To that end, parks need to be clean, safe and inviting.

As we experience the current economic crisis, parks are more important than ever. Public parks and recreation systems across the state are reporting increases in park visitation, camp reservations, league sports, and summer programs for children. Franklin Township’s establishment of its public park system could not have come at a better time. Planning for their management and operation will enable the Township to invest wisely, create partnerships, formulate policies, and develop an array of management methods that will make the best use of the limited budget and staff available. Parks are an investment not a cost. They bring a return to the community through increased property values, deterrence of crime and juvenile delinquency, and by offering a host of fun things to do close to home for people of all ages and abilities. Parks and recreation puts years in your life and life in your years!

### **Current Situation**

Franklin Township as small rural community with great scenery but no business or industry. Unlikely to change due to gas drilling and people holding onto their land. People are aging in place while the younger population is leaving (See appendix A for detailed demographics).

While there are a number larger regional parks in the immediate area, and also a number of athletic complexes, this is the only park within the boundary of Franklin Township, a community of approximately 1626 residents. The park parcel consists of approximately of 13 acres of which 1.57 acres is currently dedicated to the municipal building and maintenance facility, 5.47 acres to active recreation, and 6.09 acres woodlands.

Recreational programming within the Township is currently provided by sports groups and private entities such as Camp Orchard. Additional recreational facilities including a the recently developed skate park and indoor basketball courts are provided at Camp Orchard. Orange field (Bob Horlacher Memorial field) is located within the Township and is in poor condition. The field has many low and high spots, the dugouts are in disrepair and the infield is indiscernible. Although there are numerous safety concerns associated with this field it is currently utilized as a playfield.

Located off an existing dirt road the park sets back and is not readily visible. If not for the basketball court located along the sites perimeter , you would never suspect that this is a park. The active area is comprised of an existing baseball field with grass infield, dugouts, outfield fencing, scoreboard, and spectator

## *Current Scenario*

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seating areas. Also within the active area is a basketball/tennis court combination that is in disrepair. A small existing block building serves as a concession stand. Porta Johns are currently provided by the baseball association during the summer months for league play. Water and sewer services are currently only provided to the existing municipal building. Located within the middle of the site is a 250 foot telecommunications tower within a 70 ft x 70ft lease area. There is a 20 foot access easement located between the existing courts and the municipal storage area. The tower has been the source of much friction. Controversy, and resentment against the current administration.

Use of the park is a complex issue.

Currently the main user group is Bob Horlacher Baseball League which operates the concession stand, schedules use of the field, and maintains the field area during the baseball season. Currently the township does not have a use policy in place for the field and does not charge a fee to use the field. Other than a few teenagers who frequent the basketball court there are not many daily users. It was noted on several occasions by a number of residents that other than the baseball field the park does not offer anything more than what they see out of their windows or have in their backyards.

There are four sanctioned little league groups within the immediate region (see map Appendix C ). The Little league boundaries and the relationships to the School District boundaries have complicated the situation between the leagues and the use of individual fields. While both the Bob Horlacher League, and Back Mountain Baseball League have concluded that there are sufficient fields for the respective leagues, this issue must be reviewed on a larger scale to determine if there is adequate facilities within the

region. Based on the number of participants in both leagues and the number of available fields it is highly unlikely that the existing fields can adequately support the number of required practices and games.

Recreational opportunities and facilities are important to community as indicated in the community survey ( See Appendix H) and our key person interviews. Specifically a comfortable and inviting place with amenities to that allow for socialization with families and friends, picnicking and enjoyment of nature. Trails, natural and undeveloped areas, pavilions, playgrounds, as well as maintained landscaped areas were seen as high priorities. All things not found in the residents backyards.

### Vision Statement

Franklin Township Municipal Park will be a hub of community activity for the citizens. The park will provide opportunities for enjoying nature, fun, sports, and active healthy lifestyles. Places to play, socialize with family and friends and restore the spirit in today's stressful world will make our park a year round destinations for citizens of all ages, interests, and abilities.

### Mission Statement

Our mission is to enhance the quality of life in Franklin Township by establishing a well-maintained park with recreation facilities and inviting public spaces provided by professional and caring employees, contractors and volunteers.

The following recommendations were developed after careful consideration of the varied needs and desires of the community, site , township , and funding limitations. The two scenarios outlined are intended to be flexible enough to address short and long term needs in relation to the limitations listed above.

#### Final Master Plan Alternatives:

- A. Redevelop the park to include the existing baseball field.
- B. Redevelop the park and remove the baseball field and develop a community green.

Based on the condition of the existing field at the municipal park, and the significant improvements and investments made over time, we recommend Alternative A be considered. Currently both

baseball organizations claim to have adequate facilities to meet their current and future needs. If this claim is accurate and as the township cannot provide the human and financial resources to take care of the field, then Alternative B should be considered.

#### General recommendations:

1. **Develop regional approach:** Because Franklin Township is a small rural municipality, the Township operates with a limited staff. The trend statewide is towards small government working in partnership with community organizations and citizens groups.
2. **Park Partners:** Potential partners in Franklin Township Municipal Park could include Bob Horlacher Little League Baseball, Camp Orchard, Back Mountain Little League (should they become a field user), and a potential park friends organization if one were to be formed. Neighbors could also serve as a park watch. User groups such as basketball players, people who enjoy the playground or organizations that might hold community events here all have the potential to become supporters and advocates for the park.
3. **Field Assessment:** Work with park partners to conduct a field assessment to determine the future needs for youth baseball fields within the immediate area. The is determination will facilitate long term planning between Alternative A and B.
4. **Future land Acquisitions:** Investigate potential for land acquisition adjacent to the existing park to meet future parklands needs as determined by the Comprehensive planning process.
5. **Park Facility Policies :** Develop policies to address use of fields, concession stand, revenue sharing, reporting on participants (number of players, residency, concession stand revenues,

## *Recommendations*

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etc.).

6. **Mandatory Dedication Ordinance:** Strive to have an ordinance in place to fund additional recreation opportunities.
7. **Trails and Greenways:** Begin planning for trails and pathways connection long term within the township wide based upon input from community survey.
8. **Orange Field Future:** Redevelopment of the existing baseball field should be considered in long term planning efforts for addressing parkland in the community.





## Franklin Twp. Park

### MASTER PLAN FINAL DESIGN A

#### Legend

- 1 Municipal / Maintenance Area
- 2 Buffer / Fence
- 3 Existing Golf Tee
- 4 Hiking Trail (soft surface, 1.1 miles)
- 5 Wetland Boardwalk
- 6 Re-designed Basketball Court
- 7 Playground (youth play area and tot lot)
- 8 Pavilion
- 9 Concession Stand / Restroom
- 10 Existing Ballfield, dirt outfield
- 11 Practice Ballfield
- 12 ADA / Unloading
- 13 Storm Water Management Facility
- 14 Parking, 25 spaces
- 15 Gate
- 16 Paved Loop Trail (.65 miles)

Franklin Township  
Luzerne County, PA  
August 2010

Prepared for:  
Franklin Township

Prepared by:



# Recommendations



## Franklin Twp. Park MASTER PLAN FINAL DESIGN

**B**

### Legend

- 1 Municipal / Maintenance Area
- 2 Buffer/Tennis
- 3 Existing Cell Tower
- 4 Hiking Trail (soft surface, 3.5 miles)
- 5 Wetland Boardwalk
- 6 Realigned Basketball Court
- 7 Playground (youth play area and tot lot)
- 8 Pavilion
- 9 Paved Loop Trail (.65 miles)
- 10 Storm Water Management Facility
- 11 Parking (34 spaces)
- 12 Community Lawn

Franklin Township  
Lawrence County, PA  
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Prepared for:  
Franklin Township

Prepared by:





As recommended earlier in this report the existing baseball field should be kept in the overall design in the interim without making any major improvements that would require significant funding. The redevelopment of the park in either alternative designs represents a significant financial investment for a community of this size. As funding becomes available or needs in the community change it is important the township must remain flexible and adapt to the changes as they move forward in implementation.

Both alternative designs have been developed with consideration for phasing of individual facilities. Mass earthmoving will not be required for this project, as such each individual facility can be viewed as a separate phase.

**Initial Investments:** Based on the community needs outlined the following facilities should be redeveloped and/or added in early stages of the redevelopment effort.

Phase 1	tot lot and youth playground	\$212,918
Phase 2	pavilions (4)	\$121,250
Phase 3	walking trails	\$28,840
Phase 4	basketball court renovations	\$27,221
<b>Total costs :</b>		<b>\$390,229</b>

### Cost Summary

Costs for the proposed improvements were compiled based on the development phases previously outlined in this chapter. The anticipated costs for each phase of development are:

Costs are based on prevailing wages for year 2010 construction prices. A ten percent contingency and a ten percent professional design fee has been included in each estimate. An inflation factor has not been included in the phased costs.

**Alternative A - \$875,000**

**Alternative B - \$766,000**

A detailed opinion of probable development costs for each phase has been included in Appendix F.

## Creating Successful Parks

The operations and management plan reflects both a systematic approach and an estimate of what it will take to manage, maintain and program Franklin Township Municipal Park. It will enable elected and appointed officials, managers, planners, and funding bodies to plan and allocate resources effectively, negotiate partnerships, set park policy and work with community organizations and citizens in creating public and private partnerships in caring for the parks. In this way, decision-makers will be able to gauge not only the initial affordability of the park, but also create strategies for creatively managing the park through both public and private resources.

### Franklin Township Municipal Park can help to:

- protect the environment
- reduce crime
- lower health care costs
- boost employee productivity
- spur the economy & attract business

Maintenance is the single largest recurring expenditure in parks and recreation. Over the lifetime of a park, about 75 percent of its cost is in maintenance while only about 25 percent is in acquisition, development, design and construction (Lay, 1978).

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Lay, Francis. 1978. Management of Grounds or Site Operations Manual, **Manual of Site Management**, Environmental Design Press. p4.

This operations and maintenance plan sets forth a strategy for managing the parks once they are developed. The plan should serve as a working document to be used as a guide in maintaining the parks, allocating financial and human resources and then revised as information is developed as part of a workload cost tracking system. The following topics will be addressed in this chapter:

1. Recreation Opportunities of Franklin Township Municipal Park
2. Risk Management
3. Maintenance Management
4. Management Recommendations

### Franklin Township Municipal Park Management Plan

The management plan is based upon Option A of the master plan. This is the option with the baseball field included. Should the Township eventually move into Option B, the cost of ballfield maintenance would be eliminated. The overall cost of park maintenance would decrease.

## Recreation Opportunities of Franklin Township Municipal Park

The 13-acre Franklin Township Municipal Park is the only park in the Township. Since it adjoins the township building and public works facility, it creates a municipal campus. With both natural features and active recreation facilities in a beautiful setting along a rural road, this is a lovely center of community life. Although Franklin Township is a rural community with single-family residences, many on large properties, parks offer recreational

opportunities not available in private homes. Playgrounds offer the opportunity for caregivers to meet others and enjoy being with other citizens. The park trail offers a safe off-road place for people to use for fitness and wellness. This is especially good for the active aging population. The pavilion and picnic facilities could become a center for community gatherings and events. The park offers the following facilities for improvement or addition in the proposed master park master plan:

**Athletic Facilities:** The baseball field and the basketball court will be improved. Support facilities such as parking, seating areas, the new playground and landscaping will make the sports facilities enjoyable for the spectators.

Franklin Township Municipal Park can enable our citizens and community to:	
be happier	build family unity
be healthier	Increase self-esteem
feel great	eliminate loneliness and isolation
lose weight	live longer
reduce stress	meet new friends
enjoy a safe place to play	create a lifetime of memories

**Park Trail:** Walking is the chief form of exercise in the United States. The Center for Disease Control has called upon communities to develop safe and attractive pathways for people to

use throughout their lifetime for fitness and wellness. This will help people of all ages to engage in an enjoyable activity that will extend their lives and enable them to be healthier, happier and more productive citizens. The park could serve as a trail hub should the Township establish a community trail plan in the future.

**Picnic Facilities:** Picnic area with a pavilion.

**Natural Resource Enjoyment and Education:** The Municipal Park preserves important natural features, scenic amenities such as the stone wall, and scenery as public parkland.

**Family Play:** With improvements in the park for citizens to enjoy recreation at their own discretion, the Municipal Park will become places for families to enjoy time together. According to a survey by **Money** magazine (2006), traditional goals for health and money are taking a back seat to the desire to spend more time with the people we love. The top goals among those surveyed included:

- Spend more time with family and friends (30 %)
- Get healthier (19%)
- Manage money better (18%)
- Pursue enjoyable activities (17%)
- Improve career (12%)

The park master plan offers a venue for families and friends to enjoy time together. The playgrounds, separated for pre-schoolers and youth, are expected to be destinations for people of all ages from young children to grandparents for visits with their grandchildren. The playground design should be unique with a theme related Franklin Township: *something not seen anywhere else in Pennsylvania*. A design tied to the strong landscape and

# Operation and Management

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cultural heritage and values of the area will foster community stewardship and provide lifetime memories for park visitors based upon the sense of place the playground will provide.

**Self-Directed Activities:** With the hectic lives we all lead, having a place to go on our own is important. The park offers an important respite for people to enjoy at their own discretion.

**Fitness/Wellness** - Fitness extends lives, improves self-image, reduces health care costs, reduces isolation, and makes people happier. According to the U.S. Surgeon General, the top public health issue is the lack of activity among the American public. One of the most important things that communities can do to help in this cause is to provide attractive, accessible areas for people to walk. Walking is the number one fitness activity in the nation. Anecdotal information based on observation of many people walking in Franklin Township supports this fact. The Municipal Park features a half mile trail.

**Community Hub** – With a high quality design and on-going maintenance, the park can become a tangible symbol of community pride.

## Risk Management

Having safe facilities for visitors as well as protecting the public investment is essential to Franklin Township. Public perception that the parks are safe is important to their success. As part of establishing safe parks that limit the township's exposure to liability, effective risk management can help to protect both park visitors and the Township.

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

1. *Risk Identification and Assessment* – It is necessary to identify all of the sources of potential hazards in the park. The Township needs to have knowledge at all times of any risk related to the park. This includes park conditions, the employees or volunteers that might make the Township subject to liability as the result of how they complete their duties and any other liability of the township parks and recreation department.
2. *Risk Assessment* – The Township could work with its insurance carrier to evaluate the park and departmental operating practices to assess the probability of risk in the park. This would also include tracking of the township's incidents of injury reported for the park and expert opinions of township staff and the insurance carrier.
3. *Risk Management Plan* - The Risk Management Plan is important for both safe operations as well as in establishing credibility in case of litigation. Some insurance carriers provide assistance and even grants to undertake such planning projects. The plan should include the following documents all of which should be reviewed by the township solicitor:

Statement that the Township is committed to safety for citizens, township employees and township facilities

Program registration information

Accident forms  
Health forms if appropriate  
Participation forms and waivers  
Rental agreements and leases  
Program dates and documents  
Operations information and policies  
Reports for maintenance and procedures.  
Inspection program and reports

## **A Tool for Risk Management**

Routine scheduled maintenance provides the foundation for effective park security and risk management. A park that is well designed and maintained attracts visitors. The more use a park gets, the less vandalism occurs. When park visitors see that a facility is well cared for, the risk of vandalism and other undesirable social behaviors tends to diminish. Parks that are not well tended get fewer visitors and higher levels of vandalism. The best security is not people in uniforms but people in parks playing and enjoying being outside. The more, the merrier – the more, the safer!

## **Planned Maintenance Management**

Maintenance management is the process by which Franklin Township would plan, direct, and control the care of the park and recreation facilities. The township's parks should reflect an effective level of service; an inviting, clean and attractive appearance; and the reality of fiscal and human resource limitations of the Township. With limited township staff, the development and implementation of a formalized park maintenance management system will be a work in progress. This plan will provide a fine start and enable the Township to gain a foothold in workload cost tracking. By tracking how much time and

materials are spent on maintenance tasks, Franklin Township will be able to make effective decisions on staffing, fees and charges, budgeting, partnerships and planning future improvements.

## **Maintenance Goal and Guidelines**

The following goal and guidelines can be established as a framework for managing Franklin Township Park:

### **Park Maintenance Goal**

*The goal of park maintenance in Franklin Township is to conserve the natural resources and provide a clean, orderly and attractive appearance for the healthful, safe and enjoyable use by the community through implementation of an efficient and effective management program.*

### **Maintenance Guidelines**

The following guidelines can formalize the township's approach to park maintenance operations. While the small staff is dedicated to providing an excellent standard of care, they have many responsibilities that generally exceed the time available. The guidelines would apply to both township employees and contractors and for volunteers who assume responsibility for park maintenance tasks.

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

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

## Maintenance Standards

Maintenance standards set forth the level of care that park and recreation facilities receive.

### Importance of Assigning Maintenance Standards

Assigning maintenance standards will enable Franklin Township to maintain the public parks as clean, safe and attractive facilities with respect to needs and resources. Targeting the level of care will enable the Township to direct resources to the highest need that balances limited resources with an appropriate level of park use. The maintenance standards provide a common frame of reference for all involved including contractors, maintenance staff, administration, partners, sponsors, park visitors and the citizens. The common agreement will facilitate discussions and communications about the park. This will enable elected and appointed officials and parks and recreation management to set

policies on use, fees and charges, volunteer requirements, staffing levels, contractual service requirements, and other issues that may emerge. It will also enable the Township to communicate with the public about park maintenance requirements and the capacity of the Township to undertake additional citizen demands on the parks.

### National Recreation & Park Association Standards: An Approach

The National Recreation and Park Association advocates a system of maintenance modes for parks. Modes refer to the “way of maintenance” ranging from most intensive to least intensive. Most of the developed area of the parks will be maintained at a mix of Mode I through III levels due to high use and central programming done in the parks combined with the limited resources of the Township. Franklin Township can use the modes as guidelines to direct resources towards where the need is greatest and the benefit the most. The modes range as follows:

Mode I - State of the Art Maintenance

Mode II - High Level Maintenance

Mode III - Moderate Level Maintenance

Mode IV - Moderately Low Level Maintenance

Mode V - High Visitation Natural Areas

Mode VI - Minimum Level Maintenance

To protect Franklin Township’s investment in Municipal Park as well as to provide for the health safety and welfare of the public, the following standards are proposed:



**Inspections** - *Mode I* - Park inspection of the active areas should be done daily during peak season. Playground inspections should be based upon Consumer Product Safety Commission guidelines (CPSC). The equipment manufacturer generally provides inspection sheets for use by municipal employees. These should be used as the record keeping system for Franklin Township and properly filed to document maintenance performed.

**Litter** - *Mode I* – Litter is picked up daily during peak season, twice a week during non-peak. For special use facilities such as a picnic pavilion, the permittee should be responsible for litter pick-up while Franklin Township would remove it from the park. Consider establishing a policy as part of the formal permit with sports groups on the collection and removal of trash by sports teams after practice or training session. This would reduce township costs, provide a civic opportunity for community groups to care for their public facilities and enable the Township to direct their limited staff and financial resources toward tasks that cannot be accomplished by volunteers.

**Turf Care** - Turf care for the park would include: ball field and general park areas.

*Sports fields - Mode I* - Mowed every five working days typically with variation given to rainy and dry season. Aeration is done at least three times annually. Seeding, fertilization and weed control are practiced with a goal of not more than five percent weeds.

*Park areas - Mode II* - Mowed every five working days but only receives annual aeration. Weed control is done through pre-emergent products and seeding done when bare spots are present.

*Natural Areas – Mode VI* – Not mowed.

**Disease and Insect Control** - Modes would vary by facilities.

*Ball field - Mode I* - In Mode I, problems with disease and pests would be anticipated and prevented through a scheduled program of disease and pest control. If damage appears, corrective action would be taken.

*Natural Areas - Mode V working towards Mode I* - Disease and insect control is done only to insure public safety or when a serious problem discourages public use in initial stages of park development. Franklin Township could consider developing a natural resource management plan for the conservation area of the park. Mode I would be in terms of natural resource management.

*General Park Areas - Mode III* - When the health or survival of plant materials is threatened or there is an issue of comfort of park visitors control measures may be taken. Disease and insect control is done usually on a complaint basis.

**Tree and Shrub Care** – *Mode III*. When required for health or reasonable appearance. With most tree or shrub species this should not be more than once every two to three years.

**Forestry** – A forestry management program should be developed. The forestry program would provide a short, medium, and long-range management program for this important asset of the Municipal Park. This could be part of an overall park forestry program. The Township may be able to get assistance from the Conservation District or the Penn State Extension Service in developing a program. Wilkes

# Operation and Management

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

**Litter Control** - Mode I. Litter is picked up daily during peak season, weekly during non-peak, and

**Surfaces and Paths** - Mode II. When appearance has noticeably deteriorated, the surfaces should be cleaned, repaired, or replaced.

**Repairs** - Mode III. When safety, appearance or function is an issue, repairs are made.

**Restrooms** - Mode I. Should be done at least once per day. Special events or times of high use may warrant more than one service per day. The restroom would only be open in conjunction with a park facility permit.

## **Sustainable Park Design and Maintenance**

Environmental protection and the conservation of natural resources are a primary goal of the design and maintenance of Franklin Township's municipal park. Too often park design focuses on recreation to the detriment of a park's natural resources. The Township has important natural resources to protect in the park as well as the area for active recreation. The focus is on establishing and managing the park in a way that enables responsible public use in harmony with the environment. Manicured parks have been the "look" that the public has come to expect of parks. This is both costly and harmful to the environment. Since Franklin Township is looking ahead to revitalize Municipal Park, the Township has the

opportunity for defining the appearance of the park as a natural area. Since residents travel and compare local facilities with those they see in other communities, it is essential to educate the residents on the importance of managing the natural resources in the park which may mean that it is not mowed and trimmed to every last inch. Effective signage about nature helps to build support for this more environmentally sound approach. Park maintenance should set the bar for practices that promote the healthy natural elements of public lands such as water, wildlife and vegetation. Adopting maintenance practices that conserve natural resources require planning, training, expertise and public education. Public education on a nature-focused approach to park maintenance is vital as citizens tend to view natural areas as unkempt because of their expectation of a "manicured" park appearance.

## **Benefits of Sustainable Park Maintenance Practices**

Sustainable park maintenance practices save money. The protection of our resources is good both for people and the earth. Connection with nature helps citizens to reduce their stress and mental fatigue and contributes to their sense of well-being. Areas with natural features help citizens develop social ties that foster strong neighborhoods and sense of community.

## **Alternatives to Township Maintenance**

Franklin Township could consider a Maintenance and Operation Agreement with the Bob Horlacher Little League. A sample agreement is in the Appendix that is used in another municipality. In that arrangement, the community sports association provides for the daily routine maintenance of the ball fields for the length of the baseball season including two weeks prior for seasonal preparation. The association supplies all necessary tools,

equipment, materials and volunteers in support of the operation and maintenance functions. They cannot make any structural or significant changes without the permission of the municipality. The municipality empties and removes trash, provides emergency repair support during the season. The municipality provides all major rehabilitation work on the facilities as well as maintenance at all other times of the year. During their respective seasons the municipality and the sports association are responsible for the following responsibilities and costs:

Mowing at least once a week (except during a drought) to keep grass no longer than four inches high.

Trimming once a week around curbs, trees, buses, utility poles, sign posts, fencing. Playground equipment and the like.

Field Maintenance includes field dragging, raking and application of Diamond-tex.

Watering of newly installed trees during their first two growing seasons.

Leaf removal as scheduled.

Litter and debris removal on a daily basis.

Daily inspection of facilities.

In addition to the maintenance agreement the municipality also has the pavilion/park rental policy in place that the Township could use as a model.

### **Volunteers**

Volunteers are often considered the means to managing parks and recreation at the least cost. *Although volunteers are important, they are not free.* Volunteers require recruiting, training, supervision, coordination, support, and recognition. Someone has to be in charge of overseeing volunteers and volunteer

organizations. The municipal staff is small and does not appear to have the capacity for extensive volunteer coordination and oversight. Volunteerism efforts should be concentrated on major organizations or volunteers of such caliber that can work independently such as Eagle Scouts. It is also important to note that volunteers are not substitutes for park maintenance expertise and staff. The Municipal Park requires reliable, dependable, knowledgeable workers in the area of sports turf management, natural resource management, park security, and related services. The Township can institute a training program to send their workers to develop expertise in these areas over time. Although volunteers usually cannot perform to the level required due to their time limitations and demands in their own lives, a new trend in volunteerism is emerging. Demographic changes resulting in a larger retirement population of active healthy well-educated may yield a significant volunteer cadre. Policies need to guide volunteerism to mesh with the public good and the fact that the park belongs to the community not to individual groups. Effective policies need to be in place regarding park operations and use. It is important to get policies in place before “temporary” arrangements become “permanent”. This will go a long way in facility care, preventing user conflicts and assuring equitable use of public space.

### **Funding Challenges**

The major challenge for this park is both capital development and the ongoing funding for operations and maintenance. Obtaining funding to build new facilities is relatively easier than getting support to pay for park maintenance and operations. Revenues source through parks and recreation include: program fees and charges, concession, sales, leases, sponsorships, partnerships, donations and grants.

## **Estimating Maintenance Budget Based on Standards**

In order to estimate a budget for maintaining Franklin Township Municipal Park, projections are based upon national standards, township experience and budget figures, and cost tracking for labor, materials, and equipment. Maintenance requirements will be projected. In any mathematical calculation, adjustments need to be made, as more specific information about work hours, task time, and equipment becomes known. The following information is presented as an estimate and departure point for formalizing a maintenance management plan for the municipal parks. This is based upon the maintenance standards presented above and preliminary information provided by Franklin Township. **Table 1** presents the cost estimates for labor and equipment by task and frequency for paid labor.

### **Cost Basis**

The maintenance wage rates ranges for 2010 are set at the current hourly wage rates for Public Works employees and an estimated 52 percent of the hourly rate for benefits. The average rate of \$16.60 with benefits is rounded to \$25.00 for estimating purposes.

Two agencies provide useful cost standards for the use of equipment for maintenance in the public sector: PennDOT and FEMA (The Federal Emergency Management Administration). PennDOT publishes equipment rates in its publication 408. FEMA provides a schedule of equipment rates that can be used as the basis for projecting the cost of equipment needed to maintain High Street Park. The rates on this Schedule of Equipment Rates are for applicant-owned (such as municipalities) equipment, which is in good mechanical condition, complete with all required

attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incidental to operation. This can serve as a useful basis for cost projections until the Township has determined its own specific equipment rates for park maintenance. For the purposes of estimating the cost of park maintenance, this plan assumes a rate of \$35 per hour for large equipment such as mowers and trucks and \$15 per hour for small equipment such as trimmers.

Table 1 presents the estimated labor and equipment cost for Franklin Township Municipal Park.

# Operation and Management

Table 1 Franklin Township Municipal Park Maintenance Task Budget: Labor and Equipment						
Maintenance Task	Units	Units/Hour	Total Hours/ Task	Frequency x Hours	Hourly* Rate	Total Cost \$
General Park Areas						
Grass cutting – High Visitation Areas						
Labor	3 acres	3/hr	3 /3 = 1	30 X 1 = 30	\$25	750
Equipment	“	“	“	“	\$35	1,050
Total mowing						1,800
Trimming						
Labor	3,000 LF est.	1,000/hr	3	15 X 3 = 45	\$25	1,125
Equipment				“	\$35	875
Total Trimming						2,000
Litter Control						
Pick-Up Labor	Focus Points	4 hrs	4	60 X 4 = 240	\$25	6,000
Transfers - Labor	5 barrels	1 / ¼ hr	1.25	60 X 1.25 = 75	\$25	1,875
Total Litter Control						7,875
General Park Inspection and On-site Repair						
Labor	Park	1 / 2 hr	2	60 x 2 = 120	\$25	3,000
Equipment					\$35	
Total Inspection						3,000
Bituminous Trail						
Annual Prep - Labor	15 mi	1/18 hr	15 X 18 = 2.7	1 X 2.7 = 2.7 X 2 workers = 5.4	\$25	135
Equipment	“	“		1 X 2.7 = 2.7	\$35	94
Routine - Labor	15 mi	1/ 5 hr	75 X 5 = 3.75	3 X 3.75 = 11	\$25	281
Equipment”		“			\$35	385
Total Trail - Bituminous						895

# Operation and Management

Table 1 (continued)						
Franklin Township Municipal Park Maintenance Task Budget: Labor and Equipment						
<b>Stone Dust Trail</b>						
Annual Prep- Labor	.30 mi	1 mi/36	.30x36= 10.8	1 x 10.8- 10.8x2 workers-21.6	\$25	540
Equipment					\$35	756
Routine- Labor		1 mi/20	.30x20= 6	4X6=24	\$25	600
Total Trail- Stone Dust						1896
<b>Playground &amp; Tot Lot – Inspections to be Provided by SGRPRC ( Value \$5,450)</b>						
Inspections	2 areas	1 / 3 hr	2 X 3 = 6	36 X 6 = 218	\$25	5,450
Routine - Labor		1 / 6 hr	2 X 6 = 12	4 X 12= 48	\$25	1,200
Total						6,650
<b>Game Court</b>						
Annual Prep - Labor	1	1/5 hrs.	5 X 1 = 5	1 X 5 = 5	\$25	125
Routine - Labor	1	1/1hr	1 x 1 = 1	1 X 6 = 6	\$25	150
Total Game Court						275
<b>Baseball Field</b>						
Repair, Regrade						
Labor	1	1/8 hrs.	8 X 1 = 8	1 x 8 = 8	\$25	200
Equipment	"	"	"	"	\$35	280
Total Repair, Regrade						480
<b>Mow Baseball Field</b>						
Labor	1	1 / 2 hrs	2 x 1 = 2	30 X 2 = 60	\$25	1,500
Equipment	"	"	"	"	\$35	2,100
Total Mowing						3,600
<b>Seed Baseball Field</b>						
Labor	1	1/3 hrs	1 x 3 = 3	1 x 3 = 3	\$25	75
Equipment	"	"	"	"	\$35	180
Total Seeding						255

Table 1 continued Franklin Township Municipal Park Maintenance Task Budget: Labor and Equipment						
Maintenance Task	Units	Units/Hour	Total Hours/ Task	Frequency x Hours	Hourly* Rate	Total Cost
<b>Fertilize Baseball Field</b>						
Labor	1	1/1 hrs	1 x 1 = 1	1 x 1 = 4	\$25	25
Equipment	"	"	"	"	\$35	35
Total Fertilizing						60
<b>Drag Baseball Field</b>						
Labor	1	1/ .75 hrs	1 x .75 = .75	48 x .75 = 36	\$25	900
Equipment	"	"	"	"	\$35	1,260
Total Dragging						2,160
<b>Removing Trash and Restoring Inviting Appearance</b>						
Labor	1	1/2 hrs	2 x 1 = 2	4 x 2 = 8	\$25	200
Equipment	"	"	"	"	\$35	280
Total Restoration						480
<b>Line and Rake Baseball Field</b>						
Labor	1	1/1.25 hrs	1 x 1.25 = 1.25		League Task	
Equipment	"	"	"	"		
Total Line and Rake						
<b>Total Baseball Field</b>						

Table 1 continued						
Franklin Township Municipal Park Maintenance Task Budget: Labor and Equipment						
Site Furnishings						
Bicycle Racks Annual Preparation	2	1/5 hr	2 X 5 = 10	1 X 10 = 10	\$25	250
Routine	2	1.25	2 X 1.25 = 2.5	10 X 2.5 = 12.5	\$25	3,12
Benches/Tables Annual Preparation	13	1 / 2 hr	13 X 2 = 26	1 X 26 = 26	\$25	650
Routine	13	1/. 25 hr	13 X .25 = 3.25	10 X 3.25 = 32.5	\$25	812
Park Signage Routine & Repair	System	4 hrs.	1 X 4 = 4	4 X 2 = 8	\$25	200
Total Site Furnishings						1,927
Water Fountain						
Turn on/winterize	1	1.5/unit	1 X 1.5 = 1.5	1 X 1.5 = 1.5	\$25	37
Check/repair	1	.5/unit	1 x .5 = .5	4 X .5 = 2	\$25	50
Total						87
Pavilions						
Annual Preparation	1	1/12 hrs	1 X 12 = 12	1 X 12 = 12	\$25	300
Routine	1	1/.5/unit	1 x .5 = .5	30 X .5 = 30	\$25	375
Total						675
Landscaping	Contract 10 percent of tree and shrub price					2,200
Restrooms						
Labor	2 (M & F)	1.5/unit	2 x 1.5 = 3	100 X 3 =300	\$25	7,500
Total						
Contract						2,200
Labor						29,917
Equipment						10,520
TOTAL						42,637



## Staffing and Organizational Implications

Since the park is already being maintained, the labor and equipment costs are not all new costs. Although there is no workload cost tracking of park maintenance at present, the Township has a good handle on major workload requirements. The two maintenance workers spend a full day mowing one day a week. With labor, benefits and equipment costs, this translates into about \$17,220 annually. In addition, the Bob Horlacher League mows the field with a tractor purchased by the Recreation Board. These estimated costs merely provide a formal projection for what it would take to maintain the park when it is improved. The required work hours total about 1,134 hours or about .57 FTE (full time equivalent position). It is important to consider that the tasks are cyclical with peak and non-peak seasonal requirements. Workload is high in the spring, high to moderate in the summer and fall, and less intense in the winter. However, it is important to note that parks are used year round. All maintenance is undertaken by the Roads Department. An expanded skill set that includes natural resource management and sports turf management will help the Township maintain the park at an efficient and effective level to meet the quality standards recommended in this master plan. Developing these skills through training, networking and possibly obtaining grants to assist in maintenance management system development would enable the Township to phase in this expertise as the parks and the phases of the parks are undertaken.

Outside contracting could be used for three areas of park maintenance: mowing, tree care/landscaping, and restroom cleaning.

## Cyclic Maintenance

In addition to daily, monthly, seasonal and annual repairs, the park requires cyclic maintenance repairs as shown in Table 2. Cyclic maintenance deals with the normal replacement of a capital item such as a roof. Cyclic repairs are a function of weather, use, and other circumstances such as natural events. The cyclic repairs are shown in the following table. Because the time frame is years away, projecting actual costs is not possible. The American Public Works Association recommends budgeting two to four percent of the development costs annually to establish as a capital reserve account for cyclic repairs. Advances in technology will also impact the future costs based upon changes in design and materials. It is important to note that cyclic maintenance is a function of effective ongoing maintenance. Deferred maintenance leads to costly rehabilitation of parks and recreation facilities.

Table 2	
Park Cyclic Repairs	
Item	Time frame
Pavilions	20 years
Re-paving	15 years
Playground	10 years
Furniture	15 Years

# Operation and Management

## Financing

Table 3 presents the projected budget for the Neighborhood Park. Table 5 shows the Municipal Park budget.

Table 3 Franklin Township Municipal Park Estimated Operating Budget*	
Personnel	\$29,917
Equipment	10,520
Insurance	Under township contract
Patrolling	Township staff & adopt a park
Park Material and Supplies	5,000
Landscape Maintenance Contract	2,200
Contingency	3,600
TOTAL	\$47,657
CIP Reserve Budget – 2% of development costs <i>annually</i> in fund dedicated to cyclic repairs and park improvements. \$765,786 price	\$15,315

**Table 4** presents the revenues for the park. The Township allocates about 1.4 percent of its operating budget to recreation. The national average is 3.14 percent. Parks and recreation systems that are viewed as positive public assets by the business community usually have at least five percent of the budget.

## Management Recommendations

Currently, Franklin Township operates with two full-time and one

Table 4  
Franklin Township Municipal Park  
Potential Revenue Sources

Item	Projection
1 Pavilions - rental at \$40 per day for 40 days.	1,600
Sponsorships –programs, events, tournaments	2,000
Adopt-a-Park or Park Friends 100 members @ \$25/yr.	2,500
TOTAL Projections	\$6,100

part-time employees. The Township's total operating budget is \$317,000. Volunteers, boards and commissions are important to the community. Camp Orchard Hill is an important provider in public recreation offering community recreation activities, events, and use of facilities. Some of the strategies used in the successful public parks include the following:

Parks must rank high on the political agenda to get funded.

1. The public is involved in the planning, design and operation of the park.<sup>2</sup>
2. The design conveys a strong vision and purpose for the park.
3. The parks are programmed with many and varied activities for visitors of all ages.
4. The parks and each of its facilities is clean. Clean, attractive appearance is crucial to a park's success and positive perception by the public and the business community.
5. A mix of public and private funding sources support park improvements and operation.
6. Municipal parks are an organizing element for initiatives such as economic development, neighborhood improvement, increasing livability of the municipality, tourism and so on.

7. Parks & recreation departments, boards, directors and staff must play a leadership role in insuring that parks are part of overall community and economic planning.
8. Parks & recreation departments, boards, directors and staff must play a leadership role in insuring that parks are part of overall community and economic planning.<sup>3</sup>

Franklin Township could consider the following strategy for enhancing the operation, management and financing of Municipal Park:

1. Undertake park phasing strategically to produce highly successful, highly visible improvements that a majority of the residents would be able to enjoy such as the walking path and beautification.
2. Create and establish a fees and charges program for township parks and recreation facilities.
3. Establish a five to seven year capital development program for the park. With each phase, establish a maintenance plan using this master plan as a guide.
4. Develop a formalized maintenance management system.
5. Develop and adopt a formalized statement regarding programs for the parks. Programs can help to generate revenues to offset operating costs. Work with Camp Orchard Hill to determine if the Camp could offer programs and activities in Municipal Park.
6. Promote the park so that citizens are aware of the park with

<sup>2</sup> Harnik, Peter. (2000) **Inside City Parks**. Washington, D.C.: Trust for Pubic Land. p xi.

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

the kinds of opportunities there. It would help to post photos of people of all ages, families and beautiful park scenery on the township WEB site. The responsibility for photography could be delegate to the Recreation Board.

7. Implement the policy of repairing vandalism within 24 hours.
8. Arrange an appointment with the Penn State Extension Service and/or the Conservation District for assistance in developing a natural resource management plan.
9. A fund for capital park improvements should be established. This should be about two percent of the capital improvement costs of park development as the modules are undertaken.
10. Adopt the use of the following Maintenance Impact Statement for projects or programs that could have a major impact on staffing, maintenance requirements, programming and department functions overall.
11. Begin to plan for the maintenance budget required to effectively and efficiently maintain the park and protect Franklin Township 's capital investment as well as provide for the health, safety and welfare of the park visitors. Use the maintenance estimate provided in the tables of this plan to guide the budget process. Consider using a guideline of five to ten percent of the cost of the capital improvement as the target for the maintenance budget. Since no specific cost information is yet available, the five to ten percent value could be a simplified way to move the Township ahead in the responsibility of park maintenance.
12. Incorporate a park maintenance training program into township operations. Ideally set forth a three to five year program. Join the Pennsylvania Recreation and Park Society to become informed about training programs. As a PRPS member, Franklin Township could take advantage of the RecTAP program. RecTAP is a \$1500 no match grant that would enable

the Township to secure consulting assistance to solve or address a particular issue, problem or opportunity. Join KAFMO, the Keystone Athletic Field Maintenance Organization. KAFMO offers training as well as networking. Have staff visit other park maintenance operations in the area.

13. Strive to get another review of the Little League district regarding participation in Horlacher or Back Mountain. This would enable players to play with friends in their own school district of Dallas Area School District. Players stop playing in the Horlacher league because they do not play with their friends.
14. Establish a policy for use of the concession stand. This would deal with the proceeds from sales, maintenance of the concession area and standards for its condition.
15. Establish a policy on requirements for maintenance of the ballfield when permitted. Specify roles and responsibilities of the township and the leagues with the permits.

## MIS

### Management Impact Statement

#### Purpose

To assess the impact of a proposed project in terms of capital and operating costs including cost, human resources required and effect on other parks and recreation facilities and services. To use this information to make an informed decision about moving ahead with the proposed project.

#### Method

##### **Determine:**

1. **Capital cost of the proposed project.**
2. **Operating costs for the proposed project.** Include:  
Number of staff hours required

Cost of the staff hours  
Cost of materials and supplies  
Miscellaneous costs

#### **3. Impact on other facilities and programs should the proposed project/service be implemented.**

Will the project/service require funds needed for other facilities/programs?

Will the project/service require staff time needed for other services/programs?

How will the project impact the quality of service that Franklin Township has set as a goal?

#### **4. Revenue Sources**

Grants  
Donations  
Township funds – additional appropriation  
Township funds – within current budget  
Non-tax funds to be generated from the project/program

#### **Decision-Making**

Based upon the above information, does Franklin Township have the resources to move ahead with this project?

## Appendix A

# *Planning the Park*

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In October of 2009, the Board of Supervisors of Franklin Township issued an RFP for the redevelopment of the Township Park. At the same time an effort was also being launched to update the townships Comprehensive Plan. The development of this master plan considered the goals and objectives of the Comprehensive Plan as well as the input received during the planning process.

## **Study Purpose**

The purpose of this study is to explore options for the redevelopment of the existing municipal park. The process of developing the master plan considered the condition and use of the existing facilities and park users, the park site characteristics, adjacent land uses, community recreation needs and goals, recreation and leisure trends, and the desires of the community and surrounding neighborhood. A public participation process was undertaken to gain input from the residents regarding appropriate park facilities. Public participation included working with a Project Study Committee, completing interviews with key persons in the community and holding public meetings. The process emphasized citizen input to develop a relevant master plan that targets the existing and future recreation and open space needs of the Township. In addition the master plan utilized relevant information regarding recreation and open space from the citizens survey recently completed as part of the comprehensive plan planning process.

## **Community Profile**

As outlined in the draft 2010 Comprehensive Plan demographic analysis, Franklin Township is an aging lower-middle to middle income community with education levels that are slightly above average. Franklin Township's population is expected to increase slightly. In terms of age, young and middle aged persons, presuma-

bly families with children under 18, represent the largest portion of the Township's population. However, younger age groups have been declining and are expected to continue declining in number while the population over age 55 has been, and is expected to continue increasing in the future.

The demographic data support the notion that Franklin Township is a bedroom community, providing residence for individuals that commute to work in surrounding communities. The data supports the development of leisure activities and opportunities geared towards families and youth.

The following demographic profile was summarized based on information outlined in the draft Comprehensive Plan and provided by Community Planning & Management LLC.

The Township experienced significant population growth in the 1970s (28.65%), followed by a decline (-4.01%) in the 1980s. Population growth picked up again in the 1990s, increasing by 13.22%, but has recently plateaued, growing by only 1.25% since 2000. This recent stagnation of the population is possibly due to the nation's current economic downturn.

With the exception of Dallas Township, the population of each of the neighboring municipalities remained essentially unchanged between 2000 and 2008. However, Dallas Township continued its steady growth trend, increasing by 7.97% during this time. Luzerne County has experienced a steady population decline since 1980.

Among neighboring municipalities, Franklin Township has the second smallest 2008 population figure (1,621) next to Northmoreland Township (1,483).

**Population Composition by Age**

	<b>2014 Projection</b>	<b>% of Total</b>
Under 5 years	74	4.72%
5-17 years	241	15.37%
18-24 years	108	6.89%
25-44 years	327	20.85%
45-54 years <sup>2</sup>	49	15.88%
55-59 years	161	10.27%
60-64 years	128	8.16%
65-74 years	182	11.61%
75-84 years	71	4.53%
85 years & over	27	1.72%

**Findings:**

The largest age groups in Franklin Township are those aged 25-44, 45-54, and 5-17 years of age. This suggests that the Township is largely made up families with children. However, this appears to be changing. The data suggest that Franklin Township is an aging community, experiencing significant gains in the population aged 55 years and over and significant declines in population below 44 years of age. This might be due to a process of aging in place, where residents remain in the Township and age out of the younger cohort groups while the young population is not replaced. It might also be a result of the younger population moving out of the Township.

The 5-17 year age segment (school-aged children) is among the largest in the Township, but has been in decline and is expected to steadily decline through 2014.

The number of young adults aged 18-24 (just entering college and the work force) declined by approximately 24% between 1990 and 2000, but is estimated to have increased from 2000

to 2009, and is expected to increase again from 2009 to 2014. By 2014, this age group will total 6.89% of the Township's population. Increases in the 18-24 year age group are likely the result of the younger cohort group aging into this cohort. It might also suggest that college students are moving back home after graduating.

After an increase between 1990 and 2000, the number of persons aged 25-44 years is estimated to have sharply declined between 2000 and 2009 and is expected to continue declining through 2014. This suggests that young workers and perhaps young families are moving out of the Township, perhaps due to a lack of economic opportunity. Aging into the upper cohort groups likely accounts for some this decline as well. Despite this trend, this age group is the largest in the Township and will account for 20.85% of the Township's population by 2014.

The combined age group representing the population age 55 and over is expected to continue its growth trend into 2014. By 2014, this group will represent 36% of the Township's population, and will likely represent an even larger portion of the population if the younger cohorts remain in the Township.

By 2014, the Township's median age is expected to be 46.5 years, up from 40.8 years as of the 2000 census. This is a dramatic increase in the median age and, if the projections are accurate, confirms the assertion that the Township's population is aging.

Population projections based on an annual average growth rate of 0.16% show a slight increase of population reaching 1,639 persons by 2015 and 1,652 by 2020. The regression model results in a population increase that is slightly higher, reaching 1,670 persons by 2015 and 1,724 persons by 2020. In either case, the projections indicate a moderate rate of population growth in the near future and it appears that Franklin Township

will remain a rural community well into the future. Nevertheless, the Township must monitor population change on a regular basis to

The majority (53%) of Franklin Township residents have a high school education or less than a high school education; 21% have a Bachelor's Degree or higher.

The educational level of Franklin Township residents is higher than Luzerne County and the Commonwealth.

Using a measure of \$25,000 to \$42,000 to define "lower-middle income" and \$42,000 to \$65,000 to define "middle income" one can conclude that Franklin Township is a lower-middle to middle income community with a high percentage of households' earnings falling within these ranges.

Income levels in Franklin Township exceed the County and the Commonwealth as evidenced by its higher median household income, median family income, and per capita income, and its lower percentage of families and individuals in poverty.

An increasing percentage of Franklin Township families and individuals are in poverty compared to 1990. The percentage of families in poverty has increased from 5.1% in 1990 to 5.6% in 2000, and the percentage of individuals in poverty has increased from 6.6% in 1990 to 7.1% in 2000. These percentages might be even higher at this time as result of the recent economic downturn.

### **Master Planning Process**

The planning process for the Master Site Plan was designed to create a vision for the park that harnessed the opportunities of the site while respecting the inherent limitations of the site and the Township. This process included four parts:

1. Initial Analyses
2. Community Involvement
3. Design Process
4. Final Master Plan



## Appendix B

# *Park Goals and Needs Assessment*

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## **Public Participation**

Public participation was a key component of the Franklin Township master planning process. Public input was gathered by working with the Project Study Committee, completing key person interviews, and conducting public meetings to gather specific park interests and concerns regarding the development of the park. Public meetings were also conducted to solicit public feedback regarding the plan alternatives, implementation plan, and the final design alternative design.

## **Project Study Committee**

A Park Project Study Committee was formed to help guide the master planning process and to work with the project design team. On March 29, 2010 the Franklin Township Master Site Plan Project Study Committee met with the design team to explore the goals for the park's development. The group explored the opportunities, facilities, concerns, and issues relating to the development of the site for natural enhancement and recreational use. Input obtained at that meeting is outlined below:

### a) "What Do You Like About the Existing Park?"

The baseball field is a good and needed amenity. It is used by Little League, primarily to serve 6-12 yr olds. Use is from April to July.

The field has adequate drainage and is a good field if maintained.

Field orientation is correct.

The wooded area provides a nice grove of trees.

It is a good place to walk a dog

### b) What Don't You Like About the Existing Park?

The park is not maintained well.

There is minimum budget allocated for park upkeep and maintenance

The park is isolated

The pile of anti-skid- material is unsightly and the kids like to play in it.

There are not sidewalks in community. There are no reasons to go to this park.

The existing basketball and tennis courts are seldom utilized.

### c) What Improvements Could Be Made To the Existing Park?

Playground

Walking trails

Paved bike trails

Exercise stations

Picnic areas

Pavilions

Grills

More programming opportunities

Use of the existing field to bring people together

### d) Who Are the Primary Users of the Park?

Baseball - Little League- Bob Horlacher

Families

### e) What Opportunities Exist for Expansion of the Park and What New Facilities Should be Developed?

Woods

Playground

Comfort facilities

Picnic Grove

Pavilion

Provide facilities on a smaller scale that are available at the state parks such as picnic areas, pavilions and playgrounds.

The state park facilities are always filled and rented out.

f) What are the Concerns for Park Expansion?

Maintenance

Liability

Funding

Safety

g) If You Came Back 10 Years From Now What is the One Thing You Would Like to See Happen in the Park?

Big Playground, children using it

Park becomes the township (neighborhood) central location

Place that brings people together

Family Days/ carnivals

### **Key Person Interviews**

The consulting team conducted a series of key person interviews to obtain input regarding the existing park property and the concept of formalizing a plan for proposed expansion and upgrades of the park. Information was gathered regarding historical and current information about the property, existing park uses and facilities, and additional facilities people would like to see at the Franklin Township Park. Key person interviews were conducted with members of the community who have an interest and/or insight into the recreation needs of the area or particular interest regarding the Park as defined by the Park Study Committee.

The interviewees were informed about the master plan project and the purpose of the key person interviews. Most interviewees were generally familiar with the park site. Interviewees were questioned about ideas they had for park opportunities and facility needs within the community or their affiliated organization. Any concerns they might have had about the park development were also discussed and recorded.

Interviews were conducted and input was shared with the Park Study Committee and considered as the master plan was developed. Generally, interviewees were interested in enhancing and preserving the rural character of the park while providing both passive and active recreational opportunities. The following thoughts summarize the outcomes of the key person interviews:

Several residents in the area expressed concern over the encroachment of Municipal Road on their adjacent properties.

The installation of the cell tower is a difficult issue for many of the residents surrounding the park. They claim that it has significantly reduced the value of their properties and is an eyesore.

The perception from the adjacent neighbors is that the Township does not respect the land.

The residents have no major issues or concerns with the park itself. Upgrades to the park that meet the needs of the youth are encouraged. However concerns were expressed about the trespassing of park users to adjacent private properties.

Suggested improvements to the park include the following: picnic area, Municipal Road improvements and speed bump additions, trails, pavilions, restroom facilities, concession

# *Park Goals and Needs Assessment*

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stand improvements including running water and basketball court improvements.

Potential park improvements will help to keep kids in a safe area and out of trouble.

Bob Horlacher Little League – Although in need of rehabilitation, Franklin Twp. Municipal Field is currently one of the main fields used by the Bob Horlacher Little League.

A key representative from the league suggested the following improvements that would significantly increase the usability of the field and park:

- The addition of a Tee Ball or small practice field located in the open space beyond right field of the existing ball park.
- Improvements to the concession stand that include bathrooms and running water.
- A pavilion or picnic area
- Approximately 250 youths, ages 5 thru 16

Back Mountain Little League – The Back Mountain Little League is one of the neighboring leagues of the Bob Horlacher Little League. In previous years, these two leagues used to play interleague games but due to the size differences, interleague play has ceased between the two. The president of the Back Mountain League noted that they would not have a use for another ball field, such as the Franklin Twp. Municipal Field, as their Little League complex in Dallas, Pa is more than sufficient for their needs. Approximately 850 youths, ages 5 thru 16.

## **Park Goals**

Specific goals for expansion of Franklin Township Park were defined as outlined below. These goals were utilized in the preparation of the conceptual alternative designs for the park.

Increase programming opportunities for the park including the existing baseball field

Provide amenities for park users – restrooms, picnic pavilions, playground, concessions, and benches

Provide facilities and recreation opportunities that residents do not have in their own back yard.

Consider limited resources of the Township

Develop a master plan that completely integrates the existing park facilities, proposed new recreational uses, and existing municipal uses.

## Appendix C

## Data Collection/Base Mapping

Initial base-mapping information was compiled from the best available information. A majority of the base map was based on GIS data from Luzerne County GIS Datasets. This information was overlaid on orthographic aerial photography also provided by Lycoming County. Base mapping data was supplemented with information gathered by the design team from several site visits over the course of the master planning process. Subsequently, the base mapping was later updated to reflect boundary and topographic survey information for a portion of the site as shown on Minor Land Development Plans for AT&T site Number: PA1143 dated 3/17/09 as prepared by GPD Associates, 520 South Main Street, Suite 2531 Akron, Ohio 44311.

The development of the Master Site Plan was guided by the analysis of the site's natural and man-made resources, consideration of the surrounding land uses, and the assessment of recreation needs in the community.

Site visits were conducted throughout the planning process to evaluate the site characteristics, observe the site's relationship to the surrounding properties, and identify site opportunities and constraints. The findings of the inventory and assessment phase of the planning process is documented below.

## Site Analysis Conclusions

Prepare a wetlands delineation of the suspected area located in the easternmost portion of the site.

Define ADA parking areas.

Provide ADA routes to all facilities. Currently there are no accessible routes to the existing facilities.

New, permanent bathrooms or access to the existing bathrooms should be constructed or made available in some fashion to the general public at all times.

The addition of water fountains should be considered throughout the park.

Other than baseball/softball there is limited programming that occurs at the park.

Debris within the wooded areas should be removed.

Preserve the existing natural resources within the site boundary.

Provide boundary cues and/or markers for the existing municipal uses area.

Incorporate the existing easements for the cell tower access into the overall design.

Provide low aesthetically pleasing visual screening of the existing cell tower base.

Provide park entrance sign.

Minimize impacts and development costs by incorporating existing development patterns where appropriate.







# *Site Inventory*

Aerial—North to South









# *Site Inventory*

Aerial—West to East





# Site Inventory

## Existing Conditions Map

### Legend

- 1 Existing Building
- 2 Gravel Surface
- 3 Paved Surface
- 4 Existing Tennis / Basketball Courts
- 5 Ball Field - 200' Outfield
- 6 Cell Tower
- 7 Existing Woods
- 8 Lawn Area
- 9 Upland Wet Area





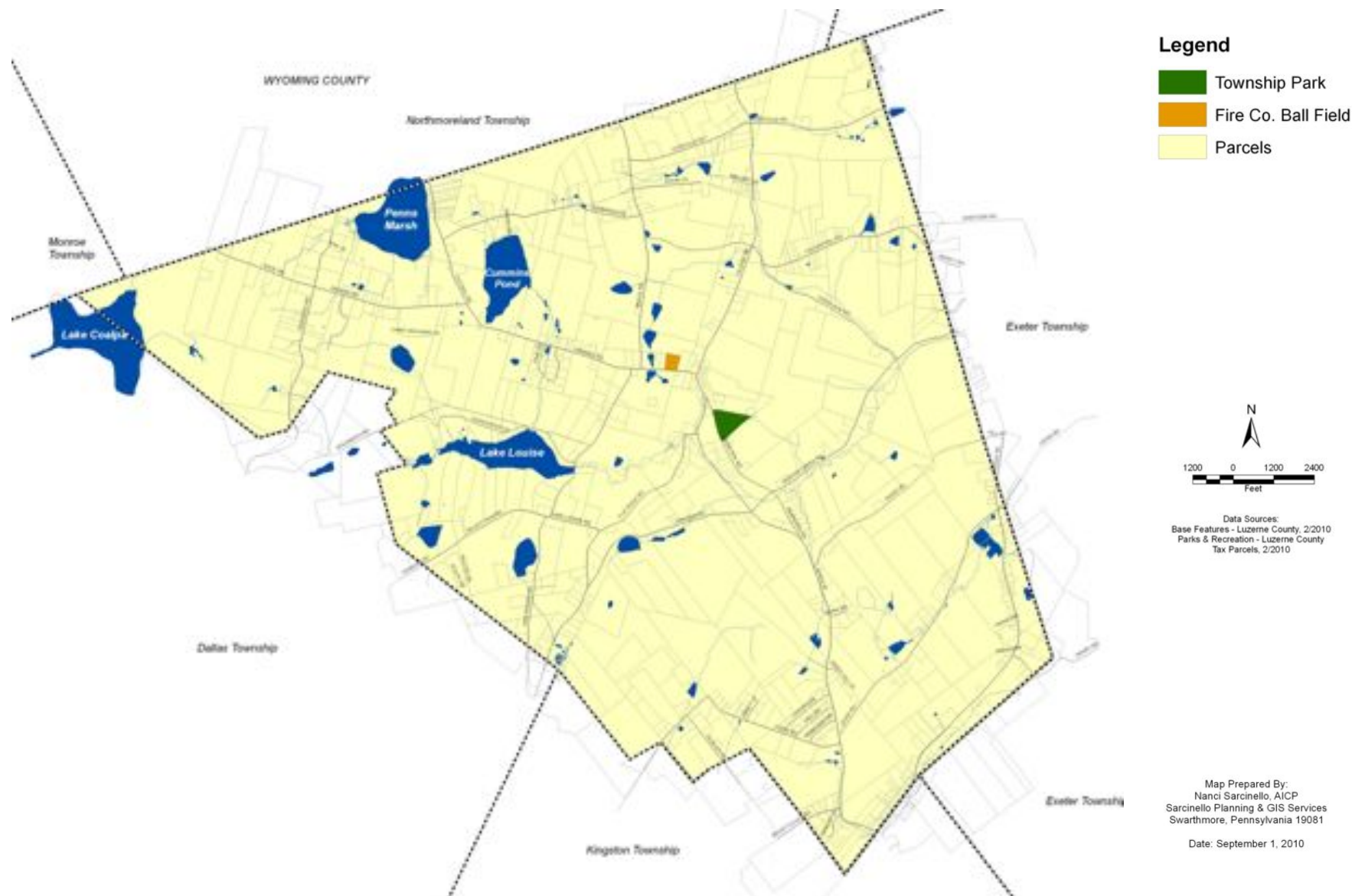
# *Site Inventory*

## Rural Context



# Site Inventory

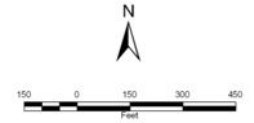
## Existing Parks and Open Spaces





# Site Inventory

## Park Aerial



Data Sources:  
Base Features - Luzerne County, 2/2010  
Aerial Photo - 2008

Map Prepared By:  
Nanci Sarcinello, AICP  
Sarcinello Planning & GIS Services  
Swarthmore, Pennsylvania 19081






Date: September 1, 2010



# Site Inventory

## Soil Types

### Legend

	Wellsboro Channery Silt Loam
	Wellsboro Channery Silt Loam
	Glenelg Silt Loam
	Chippewa Silt Loam
	Chippewa Very Stony Silt Loam





# Site Inventory

## Site Access/Circulation

### Legend

Vehicular Circulation 

Grass Trail 

Maintenance Road 

Gate 

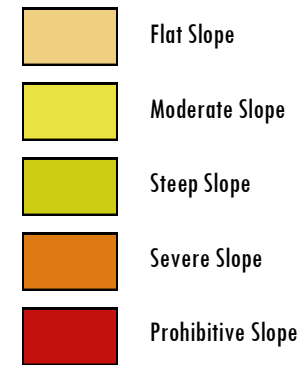




# Site Inventory

## Topography

### Legend





# Site Inventory

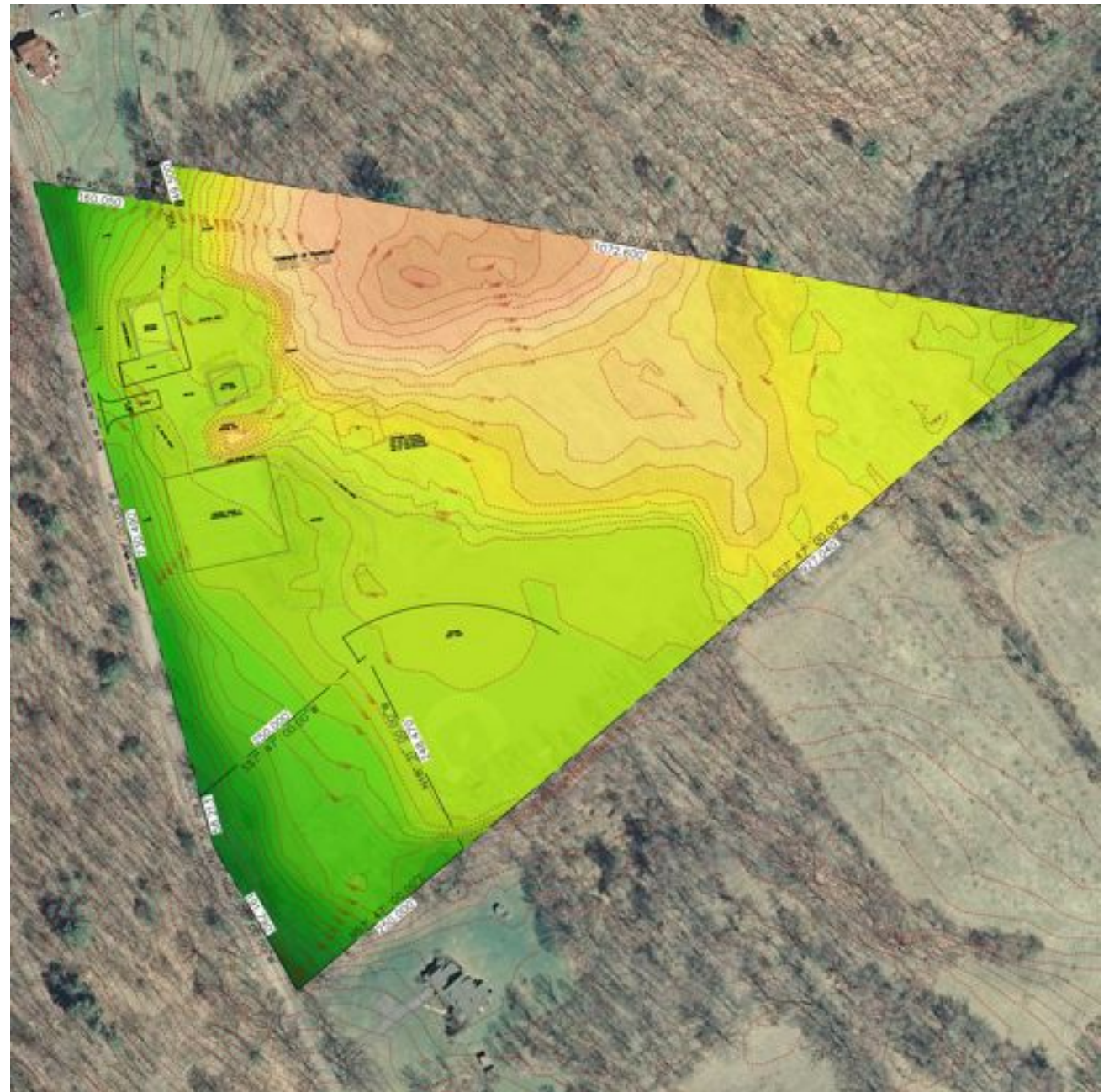
## Elevations

### Legend

1,190 Feet

1,158 Feet

1,128 Feet



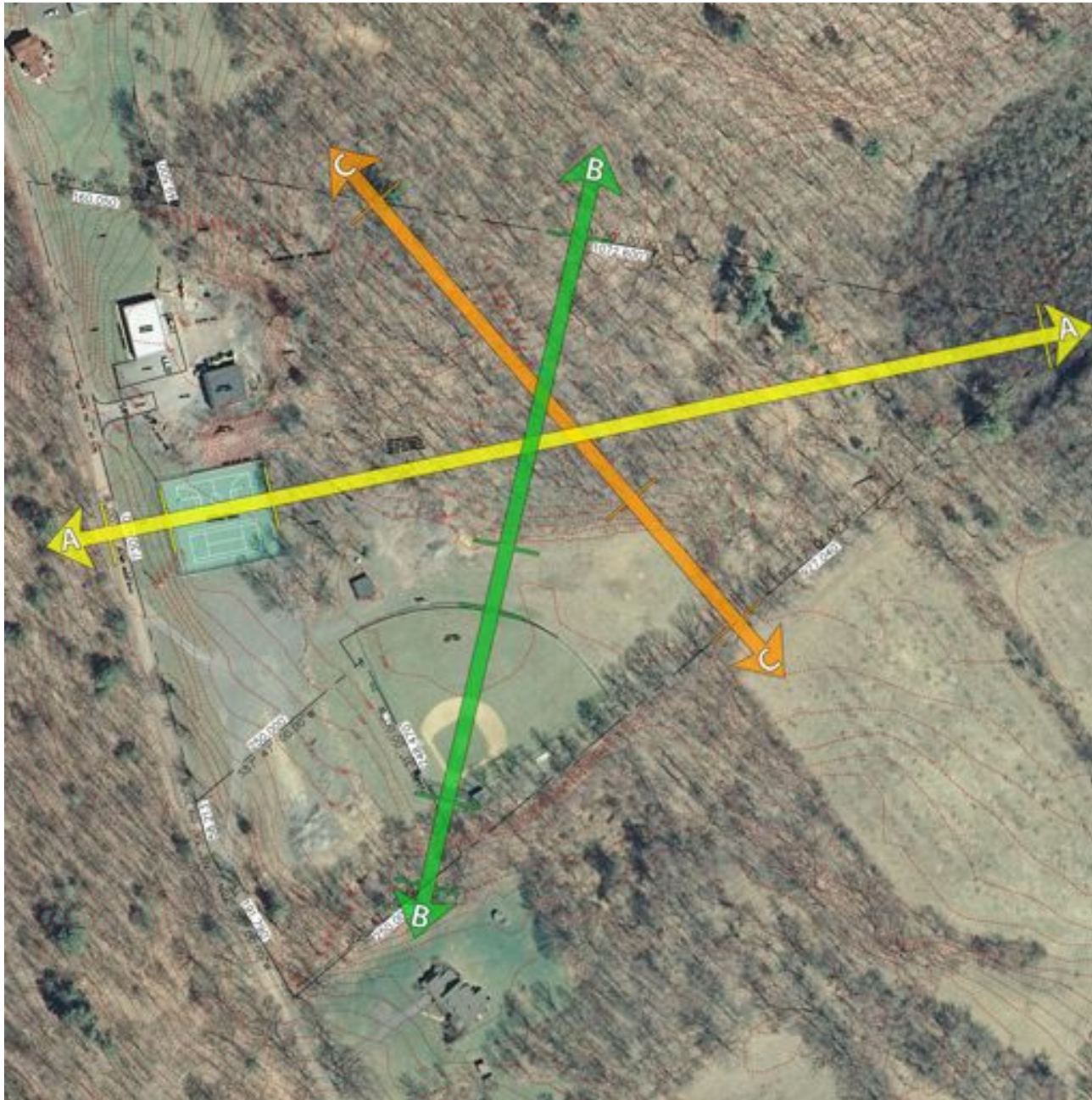


# Site Inventory

## Sectional Analysis

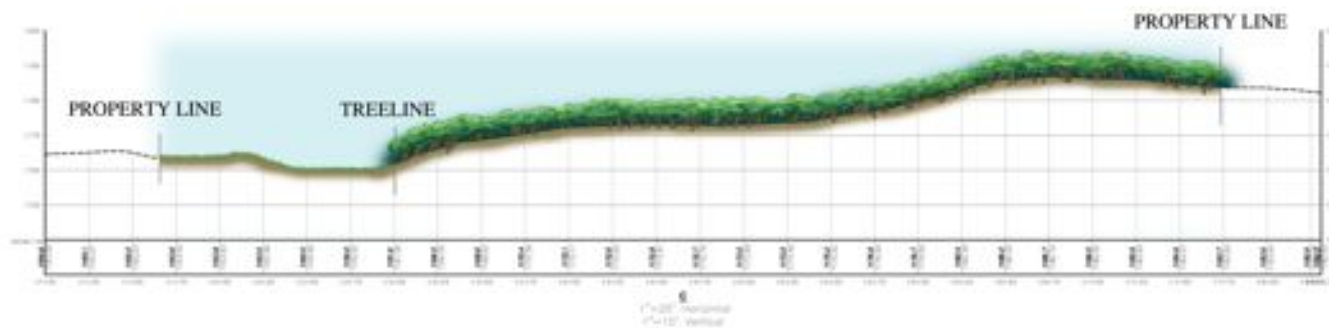
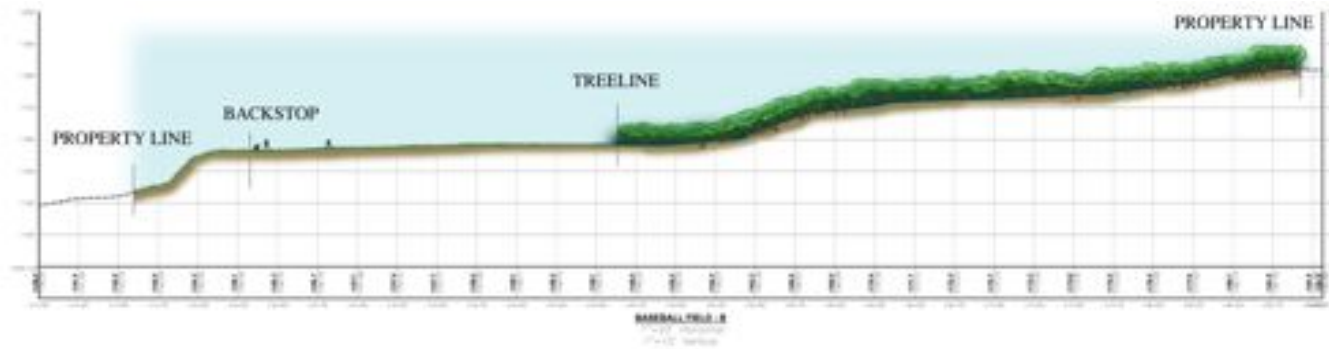
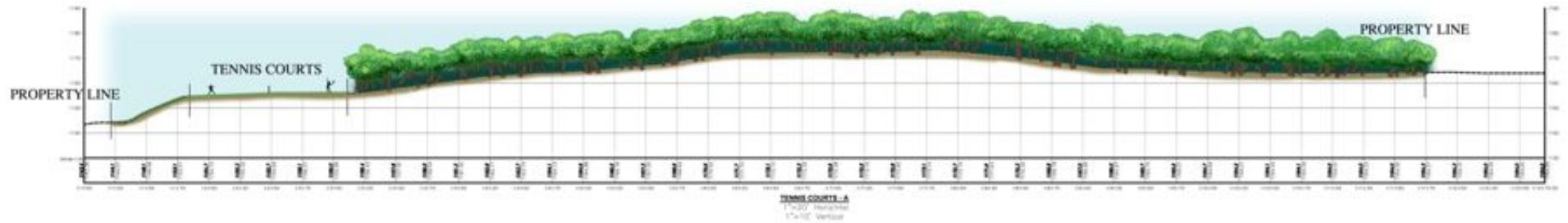
### Legend

- ↔ Section AA
- ↔ Section BB
- ↔ Section CC



# Site Inventory

## Section A-A



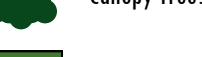


## Site Inventory

## Vegetation

### Legend



- 
- Canopy Trees
  - Young Hardwoods (Oak, Maple, Birch, Ash)
  - Lawn
  - Upland Wet Area



# Site Inventory

## Site Hydrology

### Legend

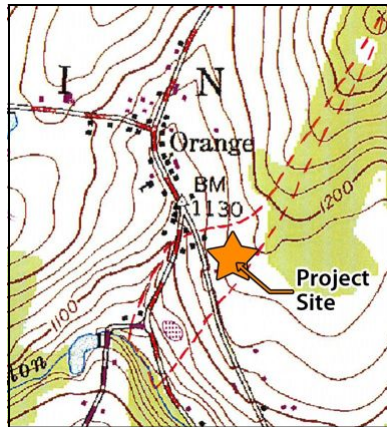
High Point (1,190 Feet)



Sheet Flow



Channelized Flow - drains to Sutton Creek



Stream Classification:  
Cold Water Fishes (CWF)





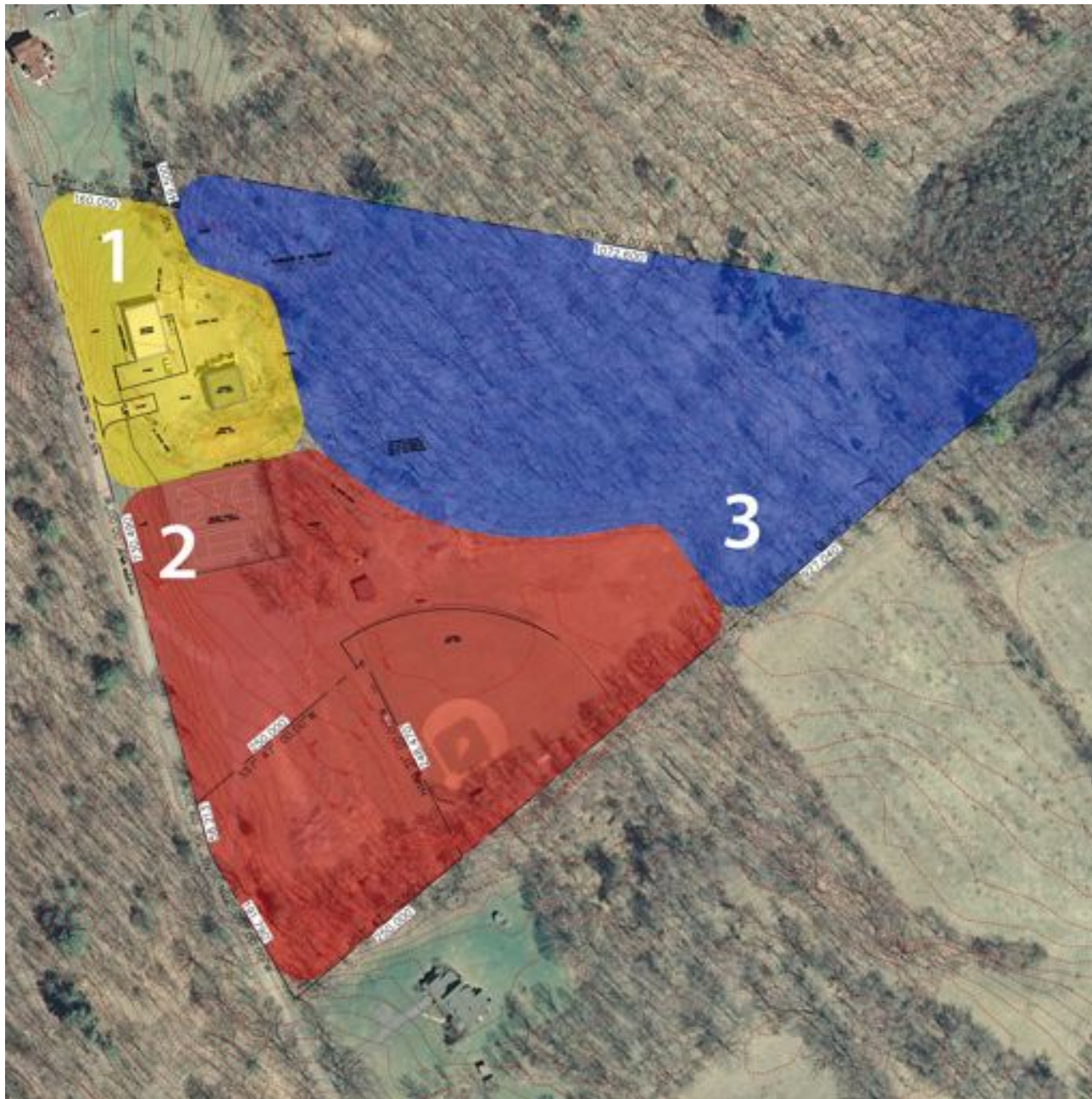
# Site Inventory

## Site Organization

### Legend

1	Municipal Use	(1.57 acres)
2	Active Recreation	(5.47 acres)
3	Existing Woodlands	(6.09 acres)

\* A 70' x 70' area is currently being leased for the onsite cell tower.



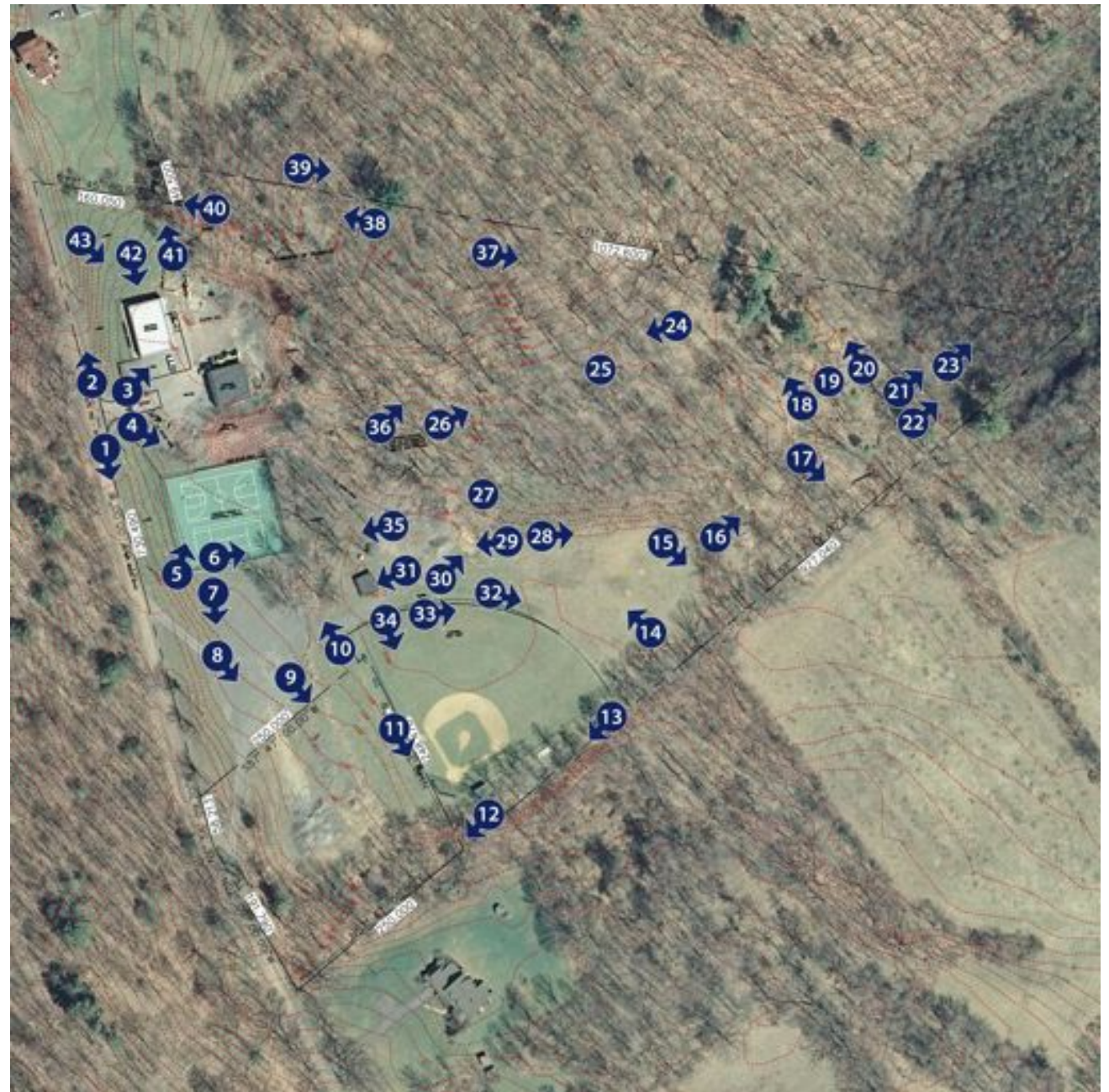


# Site Inventory

## Photo Inventory

### Legend

Photo Locations



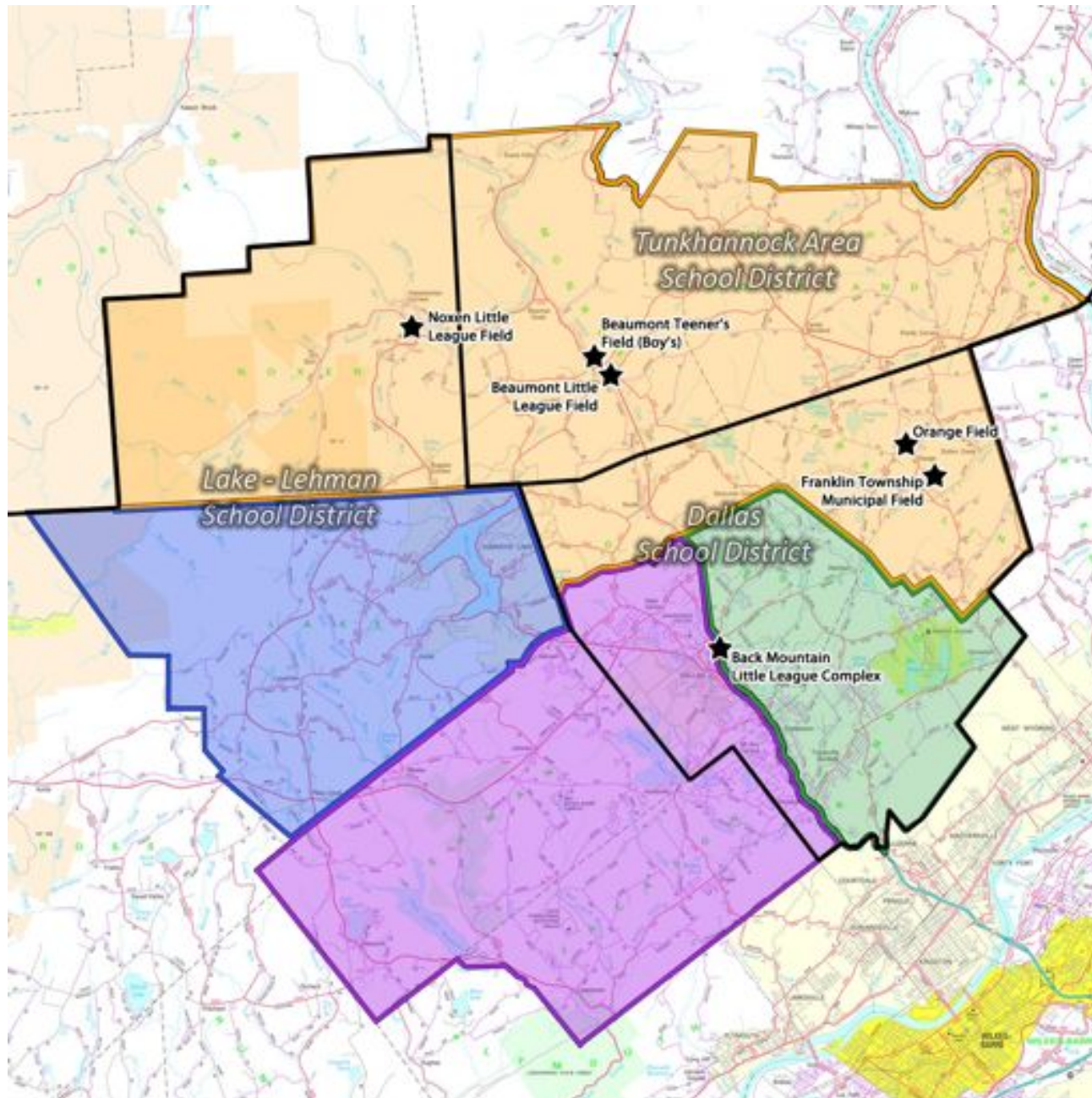


# Site Inventory

## Little League Baseball

### Legend

- Bob Horlacher Little League
- Back Mountain American Little League
- Back Mountain National Little League
- Harvey's Lake Little League



Cell Tower Easement / Lease Line



PNDI Project Environmental Review Receipt

Project Search ID: 20100413238620

### 1. PROJECT INFORMATION

Project Name: Franklin Township Park Project

Date of review: 4/13/2010 11:13:27 AM

Project Category: Recreation, Other

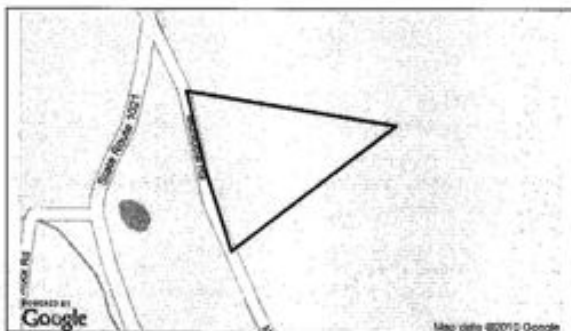
Project Area: 11.0 acres

County: Luzerne Township/Municipality: Franklin

Quadrangle Name: CENTER MORELAND ~ ZIP Code: 18612

Decimal Degrees: 41.384641 N, -75.890132 W

Degrees Minutes Seconds: 41° 23' 4.7" N, -75° 53' 24.5" W



### 2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

PNDI Project Environmental Review Receipt

Project Search ID: 20100413238620

### 3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for one year** (from the date of the review), and are based on the project information that was provided, including the exact project location, the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

#### PA Game Commission

**RESPONSE:** No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Department of Conservation and Natural Resources

**RESPONSE:** No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### PA Fish and Boat Commission

**RESPONSE:** No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

#### U.S. Fish and Wildlife Service

**RESPONSE:** No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

### 4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>



# Site Inventory

## PNDI Report

PNDI Project Environmental Review Receipt

Project Search ID: 20100413238620

### 5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page ([www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us)). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

### 6. AGENCY CONTACT INFORMATION

**PA Department of Conservation and Natural Resources**  
Bureau of Forestry, Ecological Services Section  
400 Market Street, PO Box 8552, Harrisburg, PA  
17105-8552  
Fax: (717) 772-0271

**U.S. Fish and Wildlife Service**  
Endangered Species Section  
315 South Allen Street, Suite 322, State College, PA  
16801-4851  
NO Faxes Please.

**PA Fish and Boat Commission**  
Division of Environmental Services  
450 Robinson Lane, Bellefonte, PA. 16823-7437  
NO Faxes Please

**PA Game Commission**  
Bureau of Wildlife Habitat Management  
Division of Environmental Planning and Habitat Protection  
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797  
Fax: (717) 787-6957

### 7. PROJECT CONTACT INFORMATION

Name: Mike Kenowell  
Company/Business Name: TNT  
Address: 200 St. Charles Way, Suite 200  
City, State, Zip: York, PA 17403  
Phone: (717) 741-6257 Fax: (717) 741-9100  
Email: mkenowell@tnt.com

### 8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

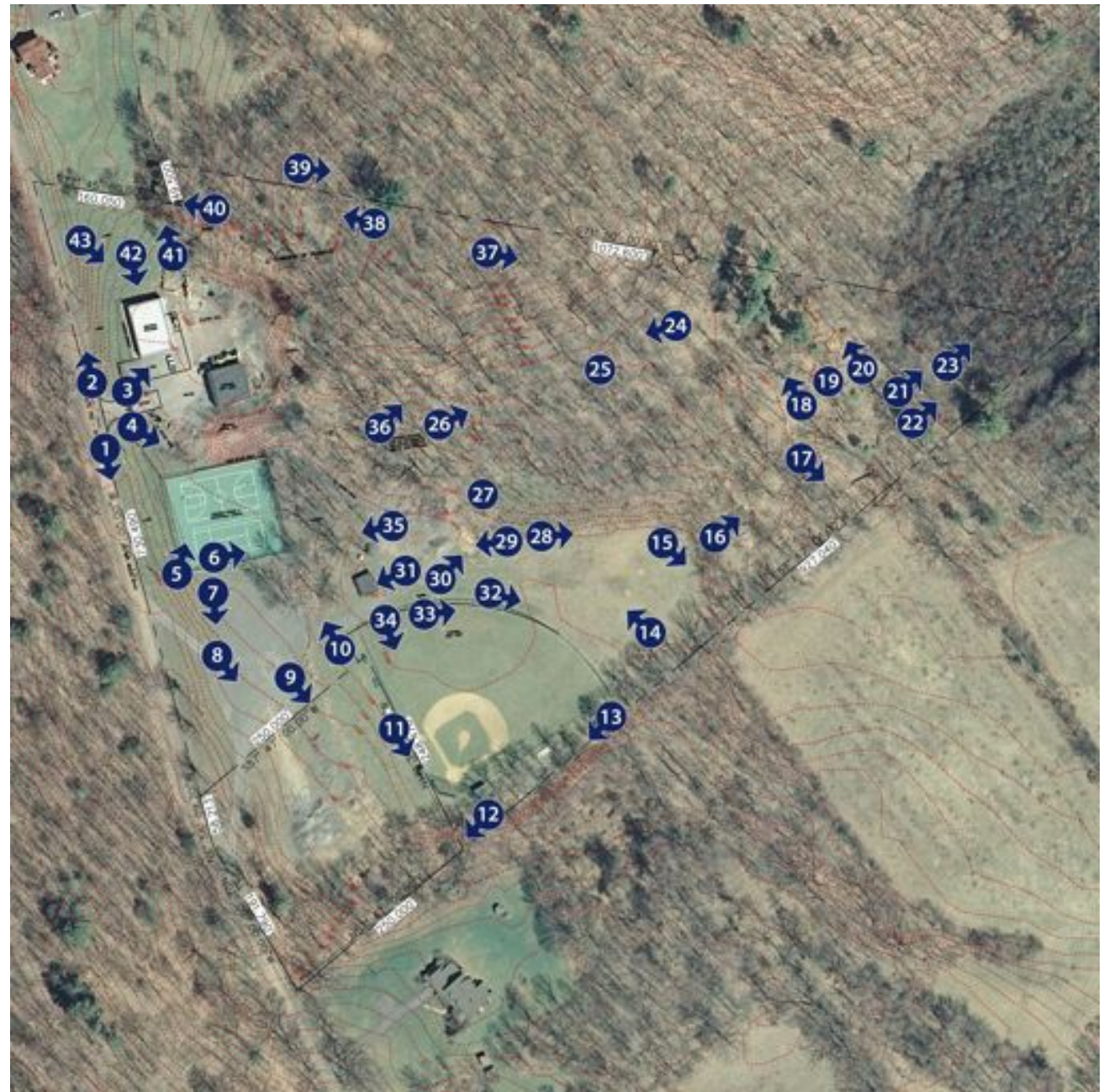
Paul J. Hall 4/13/10  
applicant/project proponent signature date

## Appendix D

# Photo Inventory

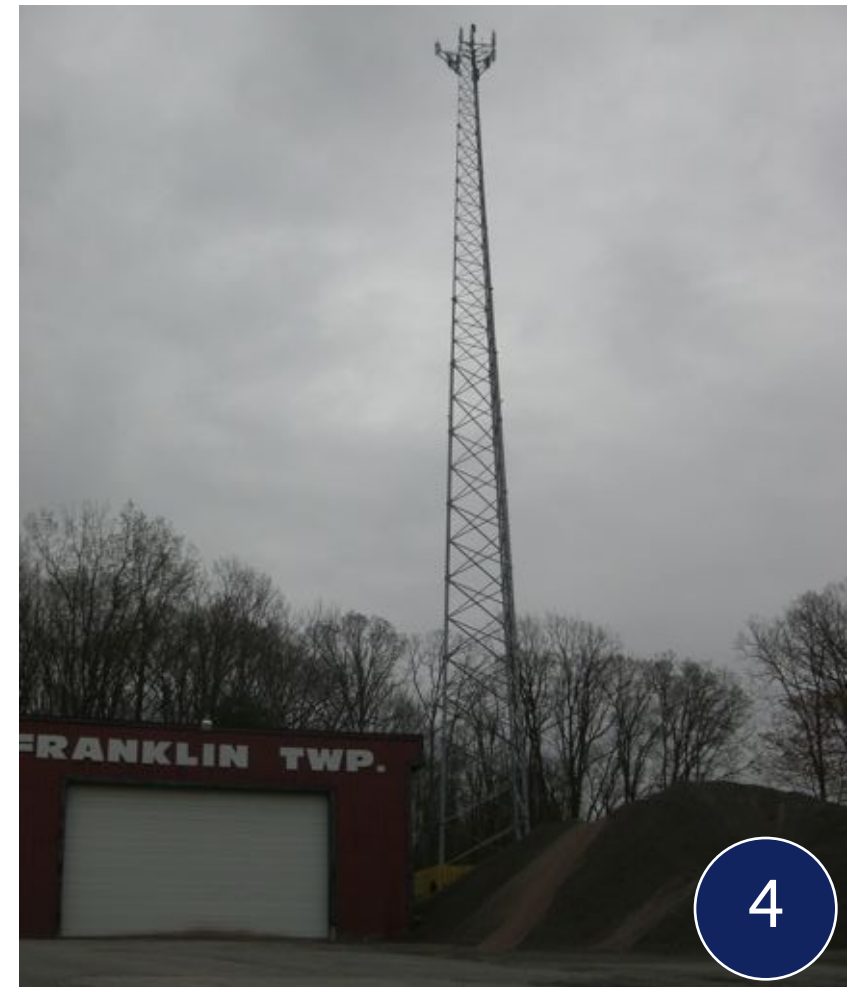
## Legend

Photo Locations





# Photo Inventory





## *Photo Inventory*

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## Photo Inventory









## Photo Inventory

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## *Photo Inventory*

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## Photo Inventory









## Photo Inventory

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View of cell tower and park location from a home of a local resident.



Orange Field - Bob Horlacher Little League Field located behind Franklin Twp. Fire Hall.



Orange Field - Right Field jog



Orange Field - Dugout

## Photo Inventory

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Orange Field



Orange Field - Outfield



Orange Field - Sign

## Appendix E



# *Alternate Designs*

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The master plan conceptual alternatives were developed with consideration of the goals established by the Project Study Committee, the analysis of the site, the surrounding land uses, and input received from the key person interviews. Each alternative creates a park that provides for expansion of both passive and active recreation opportunities available.

Three alternative designs were developed and reviewed with the study committee. Based on input for the committee on each alternative, the pre-final design plan was developed. An illustration of each design concept has been provided on the following pages followed by a summary of the committees comments.

## **Project Study Committee Review of Alternatives**

The conceptual alternatives were presented to the Project Study Committee for review and comment on April 26th, 2010. The presentation of the alternatives resulted in discussions of each of the design concepts as noted below:

In general alternative 1 was seen as the preferred option with slight modifications and additions from the other two alternatives.

Proposed parking area is sufficient.

Two medium sized pavilions to be used as rental pavilions. Consider one in close proximity to baseball field and another to be near the edge of the woods with temporary vehicular access via the paved walkway.

Add a practice field with the primary location to be considered adjacent to the existing baseball field and secondary location to be considered north of existing baseball field.

- Add wetland boardwalk along walking trail in place of wildlife blind.

## **Final Design Development**

Two pre final designs were develop. Alternative A developed in response to the project study committee comments. Alternative B was developed for consideration by the study committee and general public in response changing demographics, results of the citizens survey, and lack of financial resources to maintain the existing facility.

Both options were presented at a public meeting on June 17th, 2010 in conjunction with an update of the Townships Comprehensive planning process. Given the circumstances and relationships with the existing user groups it was determined that both options were viable. Other than a request for a sandbox to be included in the playground area, there was limited discussion on the plan. Both options will be shown as the final master plan.

### Legend

- Municipal/Maintenance Area
- Re-aligned Basketball Court
- Existing Cell Tower
- Hiking Trail (soft surface)
- Playground (youth play area and tot lot)
- Pavilion
- Concession Stand/Restrooms
- Existing Ballfield: 200' outfield
- Canopied Picnic Table
- Paved Walking Path
- Parking: 55 spaces





# Alternate Designs

## Alternative 2



### Legend

- Municipal / Maintenance Area
- Existing Cell Tower
- Hiking Trail (soft surface)
- Playground
- Concession Stand/Restrooms
- Wildlife Viewing Blind
- Pavilion
- Existing Ballfield: 200' outfield
- Practice Ballfield
- Paved Walking Path
- Parking: 75 spaces
- Stormwater Management Area



# Alternate Designs

## Alternative 3

### Legend

Municipal / Maintenance Area

Existing Cell Tower

Hiking Trail (soft surface)

Playground (youth play area and tot lot)

Concession Stand/Restrooms

Pavilion

Ballfield:

350' Center field

325' Right field

300' Left field

8 Paved Walking Path

9 Parking: 85 spaces





# Alternate Designs



## Franklin Twp. Park MASTER PLAN PRE FINAL DESIGN A

### Legend

- 1 Municipal / Maintenance Area
- 2 Soccer Field
- 3 Existing Cell Tower
- 4 Hiking Trail (with section 1.1 miles)
- 5 Wetland Boardwalk
- 6 Re-aligned Basketball Court
- 7 Playground (with play area and tot lot)
- 8 Picnic Area
- 9 Convention Hall / Restaurant
- 10 Existing Softball and Softball
- 11 Practice Softball
- 12 ADA / 1.1 mile
- 13 Storm Water Management Facility
- 14 Parking: 10 spaces
- 15 Gate
- 16 Overal Loop Trail (2.1 miles)

Franklin Township  
Lawrence County, PA  
June 2000

Prepared for:  
Franklin Township

Prepared by:



Scale: 1" = 50'-0"





## Franklin Twp. Park

### MASTER PLAN PRE FINAL DESIGN

B

#### Legend

1. Main Ball / Maintenance Area
2. Soften Fence
3. Existing Cell Tower
4. Hiking Trail (soft surface, 0.5 miles)
5. Wetland Boardwalk
6. Re-designed Basketball Court
7. Playground (soft play area and tot lot)
8. Pavilion
9. Over Long Trail (0.5 miles)
10. Storm Water Management Facility
11. Parking: 34 spaces
12. Community Lake

Franklin Township  
Lucerne County, PA  
June 2010

Prepared for:  
Franklin Township

Prepared by:



Scale: 1" = 50'-0"





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## Appendix F

# Implementation and Phasing

## Franklin Twp. Municipal Park

### Budget Estimate - Option A

PLAN DATE: July 30, 2010

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.</b>	<b>Site Improvements</b>				
<b>A.1</b>	<b>General Requirements</b>				<b>\$20,000</b>
A.1.1	Bond, Mobilization	1.0	LS	\$10,000	\$10,000
A.1.2	Survey/Construction Layout	1.0	DAY	\$1,000	\$1,000
A.1.3	Field Office and Equipment	0.0	WEEK	\$750	\$0
A.1.4	Coordination/Superintendent	4.0	WEEK	\$1,500	\$6,000
A.1.5	Testing	1.0	LS	\$1,000	\$1,000
A.1.6	Submittals/Shop Drawings	3.0	MONTH	\$200	\$600
A.1.7	Project Sign	1.0	EA	\$800	\$800
A.1.8	Temporary Toilets	3.0	MONTH	\$200	\$600
<b>A.2</b>	<b>Site Preparation and Demolition</b>				<b>\$21,360</b>
A.2.1	Clearing and Grubbing	0.5	AC	\$2,700	\$1,350
A.2.2	Remove Individual Trees (>24" Caliper)	5.0	EA	\$500	\$2,500
A.2.3	Remove Individual Trees (6"-24" Caliper)	5.0	EA	\$250	\$1,250
A.2.4	Load and Haul Debris from Site	1.0	LS	\$8,500	\$8,500
A.2.5	Strip and Stockpile Topsoil (6" deep)	0.0	CY	\$1	\$0
A.2.6	Temporary Construction Fencing	0.0	LF	\$4	\$0
A.2.7	Demolition of Existing Courts	280.0	CY	\$37	\$10,360
<b>A.3</b>	<b>Erosion and Sedimentation / Stormwater Management</b>				<b>\$15,000</b>
A.3.1	Soil Stabilization and Controls	1.0	LS	\$15,000	\$15,000
<b>A.4</b>	<b>Earthwork</b>				<b>\$650</b>
A.4.1	Bulk Excavation and Fill				
A.4.1.1	Bulk Cut (Common Earth)	100.0	CY	\$3	\$250
A.4.1.2	Bulk Fill (Common Earth)	100.0	CY	\$4	\$400
	Balance:	0.0	CY		
A.4.2	Compaction for Paved/Building Areas	0.0	SY	\$0.8	\$0



ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.5</b>	<b>Site Concrete Construction</b>				<b>\$18,425</b>
A.5.2	Pavilions	335.0	SY	\$55	\$18,425
<b>A.6</b>	<b>Bituminous Pavement</b>				<b>\$17,730</b>
A.6.1	6' Wide Bituminous Walkways ( lin. ft.)				
A.6.3.1	Strip Existing Topsoil (6" deep)	178.0	CY	\$5	\$890
A.6.3.2	Bituminous Paving and Base	1070.0	SY	\$15	\$16,050
A.6.3	ADA Parking				
A.6.4.1	Strip Existing Topsoil (6" deep)	23.0	CY	\$5	\$115
A.6.4.2	Bituminous Paving and Base	45.0	SY	\$15	\$675
<b>A.7</b>	<b>Landscaping</b>				<b>\$19,710</b>
A.7.1	Spread Topsoil, Fine Grade, Fertilize	1050.0	CY	\$2.2	\$2,310
A.7.2	Seeding				
A.7.2.1	Lawn / General	56500.0	SF	\$0.10	\$5,650
A.7.3	Street/Parking Area Trees				
A.7.3.1	Parking Area	5.0	EA	\$275	\$1,375
A.7.3.2	Access Drive	5.0	EA	\$275	\$1,375
A.7.4	Screen Planting				
A.7.4.1	Adjacent Residents	10.0	EA	\$200	\$2,000
A.7.5	Ornamental Trees	5.0	EA	\$200	\$1,000
A.7.6	Perennials				
A.7.6.1	Parking Area	30.0	EA	\$15	\$450
A.7.6.2	Other Perennials	30.0	EA	\$15	\$450
A.7.7	Ornamental Shrubs				
A.7.7.1	Parking Area	30.0	EA	\$85	\$2,550
A.7.7.2	Other Ornamental Shrubs	30.0	EA	\$85	\$2,550
<b>A.8</b>	<b>Site Amenities</b>				<b>\$10,614</b>
A.8.1	Benches	5.0	EA	\$732	\$3,660
A.8.3	Trash Receptacle	5.0	EA	\$540	\$2,745
A.8.4	Water Fountain	1.0	EA	\$3,355	\$3,355
A.8.5	Bicycle Rack	2.0	EA	\$427	\$854

## Implementation and Phasing

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.9</b>	<b>Youth Playground</b>				<b>\$118,865</b>
A.9.1	Play Equipment (5-12 Year Old)	1.0	EA	\$67,100	\$67,100
A.9.2	Play Equipment Installation	1.0	LS	\$26,840	\$26,840
A.9.3	Excavation Fine Grade and Compaction	270.0	CY	\$4	\$1,080
A.9.4	Edging	210.0	LF	\$13	\$2,680
A.9.5	Underdrain	130.0	LF	\$31	\$3,965
A.9.6	Safety Surface (Mulch)	270.0	CY	\$33	\$8,894
A.9.7	Stone Base and Filter Fabric	800.0	SY	\$10	\$8,296
<b>A.10</b>	<b>Tot Lot</b>				<b>\$94,053</b>
A.10.1	Play Equipment (2-5 Year Old)	1.0	EA	\$54,900	\$54,900
A.10.2	Play Equipment Installation	1.0	LS	\$21,960	\$21,960
A.10.3	Excavation Fine Grade and Compaction	175.0	CY	\$4	\$705
A.10.4	Edging	130.0	LF	\$13	\$1,665
A.10.5	Underdrain	110.0	LF	\$31	\$3,355
A.10.6	Safety Surface (Mulch)	175.0	CY	\$33	\$5,765
A.10.7	Stone Base and Filter Fabric	550.0	SY	\$10	\$5,704
<b>A.11</b>	<b>Miscellaneous Site Improvements</b>				<b>\$72,650</b>
A.11.1	Site Identification Sign	1.0	EA	\$250	\$250
A.11.2	Parking Lot - Double Swing Security Gates	2.0	EA	\$2,500	\$5,000
A.11.3	Parking Lot Stone Base	800.0	CY	\$50.00	\$40,000
A.11.4	Concrete Wheel Stops	30.0	EA	\$250	\$7,500
A.11.5	6' Wide Stone Dust Walking Trail	4750.0	SF	\$2.50	\$11,900
A.11.6	6' High Chainlink Fence	400.0	LF	\$20.00	\$8,000
<b>Subtotal Site Improvements (A):</b>					<b>\$409,657</b>
<b>B.</b>	<b>Structures</b>				
<b>B.1</b>	<b>Structures</b>				<b>\$184,250</b>
B.1.1	Concession/Restroom Facility	1200.0	SF	\$100	\$120,000
B.1.2	Boardwalk	50.0	LF	\$85	\$4,250
B.1.3	Small Pavilion	3.0	EA	\$20,000	\$60,000
<b>Subtotal Structure Improvements (B):</b>					<b>\$184,250</b>

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>C. Water Service Improvements</b>					
<b>C.1</b>	<b>Connection to Existing Well</b>				<b>\$15,600</b>
C.1.1	2" Tee	2	EA	\$500	\$1,000
C.1.2	2" Valves	3	EA	\$1,200	\$3,600
C.1.3	2" PVC	500	LF	\$20	\$10,000
C.1.4	Testing and disinfecting	1	LS	\$1,000	\$1,000
<b>Subtotal Water Service Improvements (C):</b>					<b>\$15,600</b>
<b>D. Recreation Facility Improvements</b>					
<b>D.1</b>	<b>Training Infield</b>				<b>\$36,025</b>
D.1.1	Overexcavate for Infield Mix	325.0	CY	\$2	\$715
D.1.2	Infield Mix	200.0	CY	\$36	\$7,200
D.1.3	Spread Topsoil, Fine Grade, Fertilize	1800.0	CY	\$2	\$3,600
D.1.4	Pitching Circle Clay	50.0	SF	\$4	\$200
D.1.5	Batters Box Clay	125.0	SF	\$4	\$500
D.1.6	Seeding (Outfield)	300.0	SY	\$1	\$150
D.1.7	Foul Line Fence (6' High Chainlink)	150.0	LF	\$18	\$2,700
D.1.8	Outfield Fence (6' High Chainlink)	300.0	LF	\$18	\$5,400
D.1.9	Infield Fence (10' High Chainlink)	40.0	LF	\$30	\$1,200
D.1.10	Radial Non-Hooded Chainlink Backstop	1.0	EA	\$12,000	\$12,000
D.1.11	Bases, Plate, Pitching Rubber	1.0	SET	\$500	\$500
D.1.12	Player's Benches	1.0	EA	\$500	\$500
<b>D.2</b>	<b>Basketball Court</b>				<b>\$27,221</b>
D.2.1	Fine Grading and Compaction	125.0	CY	\$4	\$531
D.2.2	Stone Base	700.0	SY	\$11	\$7,700
D.2.3	Binder Coarse	700.0	SY	\$5	\$3,500
D.2.4	Wearing Coarse	700.0	SY	\$4	\$2,800
D.2.5	Color Coat	700.0	SY	\$6	\$3,850
D.2.6	Vinyl Coat Fence	235.0	LF	\$24	\$5,640
D.2.7	Posts/Goals and Nets	2.0	EA	\$1,600	\$3,200
<b>Subtotal Athletic Field Improvements (D):</b>					<b>\$62,246</b>



## Implementation and Phasing

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
SUBTOTAL (A-D):					\$671,753
10% DESIGN CONTINGENCY:					\$67,175
TOTAL PROBABLE COST (BASE BID):					\$738,928
1	Professional Design Fees			10%	\$73,893
2	Construction Contingency Fund			5%	\$40,841
3	Miscellaneous Costs			3%	\$21,337
	<b>Includes but is not limited to:</b>				
	Site Surveying, Test Borings, Sink Hole Investigation,				
	Builders Risk Insurance, Building Permit,				
	Labor and Industry Fee, Document Printing,				
	Construction Testing, Storm Water Permit				
4	Total Soft Costs			18%	\$135,870
TOTAL PROJECT ESTIMATE					\$874,799

**Note:** Probable cost for site work does not include the following:

1. Rerouting gas, CATV, or phone lines. Additional improvements as may be required by municipal or other reviewing agencies having jurisdiction
2. Utility service and or connection fees.
3. Interpretive signage design.
4. Removal of unsuitable materials, sink hole remediation, or on lot disposal system designs.
5. Irrigation of athletic fields, and water reels
6. Project financing costs
7. Water Meter Pit and Tap cost are not included.

JMT, Inc. is not a construction contractor and therefore probable construction cost opinions are based solely upon our experience with construction. This requires JMT to make a number of assumptions as to actual conditions which will be encountered on the site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; contractors' techniques in determining prices and market conditions at the time, and other factors over which JMT has no control. Given these assumptions which must be made, JMT states that the above probable construction cost opinion is a fair and reasonable estimate for construction costs.

## Franklin Twp. Municipal Park

### Budget Estimate - Option B

PLAN DATE: July 30, 2010

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.</b>	<b>Site Improvements</b>				
<b>A.1</b>	<b>General Requirements</b>				<b>\$20,000</b>
A.1.1	Bond, Mobilization	1.0	LS	\$10,000	\$10,000
A.1.2	Survey/Construction Layout	1.0	DAY	\$1,000	\$1,000
A.1.3	Field Office and Equipment	0.0	WEEK	\$750	\$0
A.1.4	Coordination/Superintendent	4.0	WEEK	\$1,500	\$6,000
A.1.5	Testing	1.0	LS	\$1,000	\$1,000
A.1.6	Submittals/Shop Drawings	3.0	MONTH	\$200	\$600
A.1.7	Project Sign	1.0	EA	\$800	\$800
A.1.8	Temporary Toilets	3.0	MONTH	\$200	\$600
<b>A.2</b>	<b>Site Preparation and Demolition</b>				<b>\$31,960</b>
A.2.1	Clearing and Grubbing	0.5	AC	\$2,700	\$1,350
A.2.2	Remove Individual Trees (>24" Caliper)	5.0	EA	\$500	\$2,500
A.2.3	Remove Individual Trees (6"-24" Caliper)	5.0	EA	\$250	\$1,250
A.2.4	Load and Haul Debris from Site	1.0	LS	\$6,500	\$6,500
A.2.5	Strip and Stockpile Topsoil (6" deep)	0.0	CY	\$1	\$0
A.2.6	Temporary Construction Fencing	0.0	LF	\$4	\$0
A.2.7	Demolition of Existing Courts	280.0	CY	\$37	\$10,360
A.2.8	Demolition of Existing Field	1.0	LS	\$10,000	\$10,000
<b>A.3</b>	<b>Erosion and Sedimentation / Stormwater Management</b>				<b>\$15,000</b>
A.3.1	Soil Stabilization and Controls	1.0	LS	\$15,000	\$15,000
<b>A.4</b>	<b>Earthwork</b>				<b>\$1,300</b>
A.4.1	Bulk Excavation and Fill				
A.4.1.1	Bulk Cut (Common Earth)	200.0	CY	\$3	\$500
A.4.1.2	Bulk Fill (Common Earth)	200.0	CY	\$4	\$800
	Balance	0.0	CY		
A.4.2	Compaction for Paved/Building Areas	0.0	SY	\$0.6	\$0

## Implementation and Phasing

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.5</b>	<b>Site Concrete Construction</b>				<b>\$41,250</b>
A.5.2	Pavilions	750.0	SY	\$55	\$41,250
<b>A.6</b>	<b>Bituminous Pavement</b>				<b>\$17,730</b>
A.6.3	8' Wide Bituminous Walkways (in. ft.)				
A.6.3.1	Strip Existing Topsoil (6" deep)	178.0	CY	\$5	\$890
A.6.3.2	Bituminous Paving and Base	1070.0	SY	\$15	\$16,050
A.6.4	ADA Parking				
A.6.4.1	Strip Existing Topsoil (6" deep)	23.0	CY	\$5	\$115
A.6.4.2	Bituminous Paving and Base	45.0	SY	\$15	\$675
<b>A.7</b>	<b>Landscaping</b>				<b>\$32,150</b>
A.7.1	Spread Topsoil, Fine Grade, Fertilize	2000.0	CY	\$2.2	\$4,400
A.7.2	Seeding				
A.7.2.1	Lawn / General	100000.0	SF	\$0.10	\$10,000
A.7.3	Street/Parking Area Trees				
A.7.3.1	Parking Area	5.0	EA	\$275	\$1,375
A.7.3.2	Access Drive	5.0	EA	\$275	\$1,375
A.7.4	Screen Planting				
A.7.4.1	Adjacent Residents	10.0	EA	\$200	\$2,000
A.7.5	Ornamental Trees	5.0	EA	\$200	\$1,000
A.7.6	Perennials				
A.7.6.1	Parking Area	60.0	EA	\$15	\$900
A.7.6.2	Other Perennials	60.0	EA	\$15	\$900
A.7.7	Ornamental Shrubs				
A.7.7.1	Parking Area	60.0	EA	\$85	\$5,100
A.7.7.2	Other Ornamental Shrubs	60.0	EA	\$85	\$5,100
<b>A.8</b>	<b>Site Amenities</b>				<b>\$18,014</b>
A.8.1	Benches	5.0	EA	\$732	\$3,660
A.8.2	Picnic Benches	8.0	EA	\$675	\$5,400
A.8.3	Trash Receptacle	5.0	EA	\$549	\$2,745
A.8.4	Water Fountain	1.0	EA	\$3,355	\$3,355
A.8.5	Bicycle Rack	2.0	EA	\$427	\$854



ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>A.9</b>	<b>Youth Playground</b>				<b>\$118,865</b>
A.9.1	Play Equipment (5-12 Year Old)	1.0	EA	\$67,100	\$67,100
A.9.2	Play Equipment Installation	1.0	LS	\$26,840	\$26,840
A.9.3	Excavation Fine Grade and Compaction	270.0	CY	\$4	\$1,080
A.9.4	Edging	210.0	LF	\$13	\$2,680
A.9.5	Underdrain	130.0	LF	\$31	\$3,965
A.9.6	Safety Surface (Mulch)	270.0	CY	\$33	\$8,894
A.9.7	Stone Base and Filter Fabric	800.0	SY	\$10	\$8,295
<b>A.10</b>	<b>Tot Lot</b>				<b>\$94,053</b>
A.10.1	Play Equipment (2-5 Year Old)	1.0	EA	\$54,900	\$54,900
A.10.2	Play Equipment Installation	1.0	LS	\$21,960	\$21,960
A.10.3	Excavation Fine Grade and Compaction	175.0	CY	\$4	\$705
A.10.4	Edging	130.0	LF	\$13	\$1,665
A.10.5	Underdrain	110.0	LF	\$31	\$3,355
A.10.6	Safety Surface (Mulch)	175.0	CY	\$33	\$5,765
A.10.7	Stone Base and Filter Fabric	550.0	SY	\$10	\$5,704
<b>A.11</b>	<b>Miscellaneous Site Improvements</b>				<b>\$72,650</b>
A.11.1	Site Identification Sign	1.0	EA	\$250	\$250
A.11.2	Parking Lot - Double Swing Security Gates	2.0	EA	\$2,500	\$5,000
A.11.3	Parking Lot Stone Base	800.0	CY	\$50.00	\$40,000
A.11.4	Concrete Wheel Stops	30.0	EA	\$250	\$7,500
A.11.5	6' Wide Stone Dust Walking Trail	4750.0	SF	\$2.50	\$11,900
A.11.6	6' High Chainlink Fence	400.0	LF	\$20.00	\$8,000
<b>Subtotal Site Improvements (A):</b>					<b>\$460,972</b>
<b>B.</b>	<b>Structures</b>				
<b>B.1</b>	<b>Structures</b>				<b>\$84,250</b>
B.1.2	Wetland Boardwalk	50.0	LF	\$85	\$4,250
B.1.3	Small Pavilion	4.0	EA	\$20,000	\$80,000
<b>Subtotal Structure Improvements (B):</b>					<b>\$84,250</b>

## Implementation and Phasing

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>C. Water Service Improvements</b>					
<b>C.1</b>	<b>Connection to Existing Well</b>				<b>\$15,600</b>
C.1.1	2" Tee	2	EA	\$500	\$1,000
C.1.2	2" Valves	3	EA	\$1,200	\$3,600
C.1.3	2" PVC	500	LF	\$20	\$10,000
C.1.4	Testing and disinfecting	1	LS	\$1,000	\$1,000
<b>Subtotal Water Service Improvements (C):</b>					<b>\$15,600</b>
<b>D. Recreation Facility Improvements</b>					
<b>D.1</b>	<b>Basketball Court</b>				<b>\$27,221</b>
D.1.1	Fine Grading and Compaction	125.0	CY	\$4	\$531
D.1.2	Stone Base	700.0	SY	\$11	\$7,700
D.1.3	Binder Coarse	700.0	SY	\$5	\$3,500
D.1.4	Wearing Coarse	700.0	SY	\$4	\$2,800
D.1.5	Color Coat	700.0	SY	\$6	\$3,850
D.1.6	Vinyl Coat Fence	235.0	LF	\$24	\$5,640
D.1.7	Posts/Goals and Nets	2.0	EA	\$1,600	\$3,200
<b>Subtotal Athletic Field Improvements (D):</b>					<b>\$27,221</b>
<b>SUBTOTAL (A-D):</b>					<b>\$588,043</b>
<b>10% DESIGN CONTINGENCY:</b>					<b>\$58,804</b>

## Implementation and Phasing

ITEM	DESCRIPTION	EST. QTY.	UNITS	UNIT PRICE	TOTAL COST
<b>TOTAL PROBABLE COST (BASE BID):</b>					<b>\$646,847</b>
1	Professional Design Fees			10%	\$64,685
2	Construction Contingency Fund			5%	\$35,577
3	Miscellaneous Costs			3%	\$18,678
	<b>Includes but is not limited to:</b>				
	Site Surveying, Test Borings, Sink Hole Investigation,				
	Builders Risk Insurance, Building Permit,				
	Labor and Industry Fee, Document Printing,				
	Construction Testing, Storm Water Permit				
4	<b>Total Soft Costs</b>			18%	<b>\$118,939</b>
<b>TOTAL PROJECT ESTIMATE</b>					<b>\$765,786</b>

**Note:** Probable cost for site work does not include the following:

1. Rerouting gas, CATV, or phone lines. Additional improvements as may be required by municipal or other reviewing agencies having jurisdiction.
2. Utility service and/or connection fees.
3. Interpretive signage design.
4. Removal of unsuitable materials, sink hole remediation, or on lot disposal system designs.
5. Irrigation of athletic fields, and water reels.
6. Project financing costs.
7. Water Meter Pit and Tap cost are not included.

JMT, Inc. is not a construction contractor and therefore probable construction cost opinions are based solely upon our experience with construction. This requires JMT to make a number of assumptions as to actual conditions which will be encountered on the site, the specific decisions of other design professionals engaged, the means and methods of construction the contractor will employ, contractors' techniques in determining prices and market conditions at the time, and other factors over which JMT has no control. Given these assumptions which must be made, JMT states that the above probable construction cost opinion is a fair and reasonable estimate for construction costs.



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## Appendix G

## Bureau of Recreation and Conservation Green Principles for Park Development and Sustainability

### Principle #1: Maintain and Enhance Trees and Natural Landscaping

Natural landscapes provide vital undisturbed habitat for plant and animal species, some of which may be threatened or endangered. Projects of all types can preserve and enhance these habitats by incorporating natural landscaping which is the use of an aesthetic variety of primarily native plantings well adapted to the local climate and soil. Natural landscapes can provide a cost effective alternative to conventional turf lawns. Preserving existing natural vegetation including valuable natural areas such as wetlands, grasslands, and woodlands is a fundamental purpose of natural landscaping.<sup>2</sup>

Designing with a variety of native trees, shrubs, grasses and wildflowers can help eliminate large areas of unnecessary turf lawn. Minimizing the amount of turf lawn while maximizing the natural landscape increases water infiltration rates, reduces the maintenance requirement of expensive lawn equipment, reduces noise and emission pollution, minimizes the use of pesticides and fertilizers, and requires little to no watering. While not maintenance free, a well-established natural landscape requires less money for ongoing maintenance than conventional landscapes.

The following are some concepts to think about when designing natural landscapes:

#### Why Plant Native Vegetation?

Pennsylvania's native plants are those that were growing naturally in Pennsylvania prior to Europeans arriving. Pennsylvania has over 3,081 species of native trees, shrubs, flowers, and other forms of plants. Landscaping with native plants has several appealing factors. Native plants are:<sup>3</sup>

- Adapted to Pennsylvania's soils and climate thus reducing the need for supplementary watering and other horticultural amendments.
- Native plants are an integral part of the larger biological community involving beneficial and pollinating insects, wildlife and ultimately, all of us.
- Offer food and shelter for many species all year long and are the foundation for a healthy, diverse habitat.
- Require less care and watering when established.
- Thrive with less fertilizer. (Most native plants will not need fertilizer once they are established. When fertilizers are used, they should be of the organic or "slow-release" varieties, should be used no more than once or twice a year, and should be used in as small a quantity as possible.)<sup>4</sup>
- Provide carefree beauty that enhance any garden or landscape and create a special sense of place.
- Native plants growing in their home environment are naturally more resistant to diseases, pests, or physiological disorders.
- When planted along waterways, native plants protect ponds and streams by filtering pollutants and preventing erosion.

#### Grass Maintenance:

Cool season turf grass, a staple of traditional parks, should be limited to human-use areas such as ball fields and picnic groves. Native cool season grasses, such as Canada and Virginia wildrye, should be used in place of non-native cool season grasses like Kentucky bluegrass and tall fescue. Warm season grasses can be used to establish a meadow to provide wildlife habitat or used as attractive landscaping. Native warm season grasses include big bluestem, little bluestem, and switchgrass.<sup>5</sup>

Maintenance over a 20-year span for a non-native turf grass landscape can cost almost seven times more than the cumulative costs of maintenance for a native prairie or wetland.

~U.S. EPA, 2007



Even if you keep some area in lawn, much can be done to lessen environmental impacts.<sup>3</sup>

- Reduce or eliminate the need for pesticides by practicing [Integrated Pest Management](#).
- Use a mulching mower so that clippings can remain on the lawn and provide nutrients as they decompose.
- Where the lawn is small, use a non-powered reel mower. (Modern models of the reel mower are much easier to use than the older models.)
- Keep gas-powered mowers in efficient operating condition (well-tuned, sharp blades) and raise the cutting height to 3-3.5" during the hot summer months to keep the grass roots shaded and cooler, reducing weed growth, browning, and need for watering.
- If you don't use a mulching mower, compost excess grass clippings in your yard and later use it as a soil amendment around trees and shrubs.
- Learn to tolerate some weeds or a greater variety of plants in the lawn.
- Don't over-fertilize. A slow-release organic fertilizer applied once, in the fall, is usually sufficient.

Enhancing and protecting meadows that contain native grasses and wildflowers is a great way to attract wildlife and save on lawn maintenance equipment costs. Common meadow wildflowers include black-eyed Susan, sunflower, aster, and goldenrod. Warm season grasses are prime habitat for grassland and ground-nesting birds; birds such as bobolink, Eastern meadowlark, and grasshopper sparrow require at least 25 acres of grassland for survival. However, other birds, such as goldfinch, field sparrow, Eastern bluebird, Eastern phoebe, and Eastern kingbird, do occupy smaller grasslands.<sup>4</sup>

## Protect Existing Features

Mature trees enhance air quality and reduce pollution, enhance water quality and reduce erosion, and can reduce energy costs when properly planted around a building. When appropriate, design the site to protect existing trees. During excavation of the project site be sure the trees' root zones are protected. Therefore it is recommended that any excavation occur outside the perimeter of the tree canopy.<sup>5</sup>

Topsoil is the most fertile portion of soil and the most valuable. "It requires 500 years under natural conditions to produce an inch of topsoil."<sup>6</sup> The natural fertility of topsoil promotes healthier grass and reduces the amount of fertilizer required to establish landscape plantings. Therefore one of the most important steps during construction and planting projects is to retain as much existing topsoil as possible. The best option is to stockpile and reuse the topsoil instead of removing it from the site. Using the existing topsoil not only saves money, but also minimizes disturbance that could encourage the growth of invasive plants.

Local and regional greenways are excellent and appropriate locations for natural landscaping. Many greenways contain rivers, streams, or other waterways.<sup>7</sup> In these locations a variety of native trees, shrubs, grasses and wildflowers planted in buffers adjacent to the stream provide wildlife habitat, bank stabilization, filter pollutant and sediment runoff, and create a healthy stream ecosystem for fish and stream invertebrates. To provide the maximum benefits a buffer should be 100 feet or more on each side of the stream, although smaller buffers are better than nothing and will still provide some benefits.

Floodplains provide many important services and should be protected from development. Floodplains reduce flood velocities and flood peaks, reduce erosion potential and impacts, provide a broad area for streams to spread out and for temporary storage of floodwater, reduce sediment loads, filter nutrients, process organic and chemical wastes, and moderate water temperature. Maintaining native vegetation in floodplains helps absorb and slow flood waters reducing the impact a flood may have on downstream communities.<sup>8</sup>

Undisturbed soil and vegetation provide important stormwater functions including water infiltration; nutrient, sediment and pollutant adsorption; sediment and pollutant biofiltration; water storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces it with minimal topsoil and seed.<sup>9</sup>

## Plant Trees

Maintaining and planting trees have many benefits. Trees reduce CO<sub>2</sub> levels and increase oxygen, play an important role in stormwater management by reducing erosion and sediment runoff, improve water quality, help cool our planet by providing the service of carbon sequestration which happens when trees store carbon in their roots and trunks keeping it from entering the atmosphere, save energy when properly planted around a building, increase property values, and studies have shown that trees can significantly reduce stress levels and accelerate healing time.

Pennsylvania, through the Department of Conservation and Natural Resources (DCNR) the Bureau of Recreation and Conservation and the Bureau of Forestry has developed a public private partnership, through regional collaboration, to address the loss of tree cover in Pennsylvania. This program called TreeVitalize has established goals to plant 1 million shade trees, restore forests along streams and water protection areas, build capacity for long term urban forest management, establish strong urban forestry partnerships in all 14 metro areas in Pennsylvania, and train 10,000 citizens to plant and care for trees, over a 5 year period. To learn more about TreeVitalize and to find out how you can get involved visit <http://www.treevitalize.net/>

## Compost

Leaves, grass clippings and other yard debris clog landfills, taking up 20-40% of landfill space. This so-called waste is actually a valuable natural resource that once decomposed offers a nutrient rich organic matter that can be a source of mulch or can be added to soil as a natural fertilizer. Compost can also help soil retain some of its moisture content. Compost can be made on-site, or can be brought in from a municipal composting facility.<sup>1</sup> To learn more about composting visit <http://www.howtocompost.org>

## Invasive Plant Removal

An invasive non-native plant is one that is not natural to the ecosystem under consideration, and when introduced cause or are likely to cause harm to the economy, to the environment, or to human health. Invasive plants can be trees, shrubs, vines, grasses, or flowers, and they can reproduce rapidly by roots, seeds, shoots, or all three.

Why are invasive plants so detrimental?

- Natural predators and diseases can't compete when non-native plants are introduced. Most invasive plants are introduced from other continents, leaving behind in their native homeland natural controls like pests, diseases and predators, which serve to keep these species in check. Due to this absence of natural controls, invasive plants reproduce rapidly and can form stands that exclude nearly all other plants. In the process, they damage natural areas, altering ecosystem processes and displacing desirable native plant species.
- Plants like kudzu, purple loosestrife, and garlic mustard are displacing native plants and degrading habitat for native insects, birds, and animals.
- Invasive plants endanger some rare and threatened native species of plants and animals, which are especially vulnerable because they occur in such small populations.
- Invasive non-native plants often do not provide as much food and other habitat value as native plants do.
- Invasive plants, even when grown in a cultivated yard, can spread, escape, and cause landscape maintenance weeding problems for years to come.
- Some invasive plants release toxic chemicals that kill other plants.

Land managers who are faced with the daunting task of managing or controlling invasive species on natural lands rely on resources like the "Invasive Exotic Plant (IEP) Management Tutorial for Natural Lands Managers" in order to implement effective management, control and education programs <http://www.dcnr.state.pa.us/forest/invasivetutorial/index.htm>. This tutorial provides a "one-stop-shop" for natural resource managers who are interested in organizing on-the-ground efforts to prevent, manage and control IEPs.<sup>2</sup>

## References:

1. DCNR. Creating Sustainable Community Parks. A Guide to Improving Quality of Life by Protecting Natural Resources. <http://www.dcnr.state.pa.us/tcrnpublications/>
2. U.S. Environmental Protection Agency. A Source Book on Natural Landscaping for Public Officials. <http://www.epa.gov/tcrnatsbook/chapter1.html#PUBOSE>
3. U.S. Environmental Protection Agency. Mid-Atlantic Region Green Landscaping. <http://www.epa.gov/tcrnatsbook/what.htm>
4. National Wildlife Federation. Native Plants. American Beauties- Why Use Native Plants? [http://www.nativeplants.com/index.cfm?section=home\\_why/index.htm](http://www.nativeplants.com/index.cfm?section=home_why/index.htm)
5. Santa Monica Green Building Program. Inventory, Mark and Protect Topsoil, Trees and Vegetation to be Retained. <http://greenbuildings.santa-monica.org/localstruction/topsoil/free.html>
6. Franklin Soil and Water Conservation District Natural Resource Conservation Service and the U.S. Department of Agriculture, Natural Resource Conservation Service. Importance of Topsoil. [http://www.druhy.net/conservation/images/pdf\\_docs/topsoil.pdf](http://www.druhy.net/conservation/images/pdf_docs/topsoil.pdf)
7. Natural Lands Trust. Meadows in Southeastern Pennsylvania. [http://www.natlands.org/pubs/docs/document\\_28200714105.pdf](http://www.natlands.org/pubs/docs/document_28200714105.pdf)
8. Ohio Department of Natural Resources. Division of Water Fact Sheet. Natural Benefits of Floodplains. <http://www.dnr.state.oh.us/Portals/7/pubshdofwtshtf50.pdf>
9. Department of Conservation and Natural Resources (DCNR) Invasive Exotic Plant Tutorial for Natural Lands Managers. <http://www.dcnr.state.pa.us/forest/invasive/tutorial/index.htm>
10. Maryland Department of Natural Resources- Forestry. The Benefits of Urban Trees. Urban and Community Forestry: Improving Our Quality of Life. <http://www.dnr.state.md.us/Forest/Publications/urban.html>
11. Building Soil. Guidelines and Resources for Implementing Soil Quality and Depth BMP T5.13 2009 Edition. [http://www.soilforstmon.com/pdf/Soil\\_BMP\\_Manual.pdf](http://www.soilforstmon.com/pdf/Soil_BMP_Manual.pdf)

## Additional Resources:

- Arbor Day Foundation. The Value of Trees to a Community. <http://www.arborday.org/trees/benefits.cfm>
- Earned Seed Company. [http://www.earnedseed.com/seed\\_mixes.aspx](http://www.earnedseed.com/seed_mixes.aspx)
- National Wildlife Federation. Create a Certified Wildlife Habitat. <http://www.nwf.org/backyard/>
- The University of Tennessee. A Landowner's Guide to Native Warm-Season Grasses in the Mid-South. <http://www.utextension.ufl.edu/publications/pdf/FS1745.pdf>
- U.S. Environmental Protection Agency. GreenScapes Alliance. <http://www.epa.gov/greenscapes/>
- Pennsylvania's Composting Home Page. Department of Environmental Protection. <http://www.depweb.state.pa.us/landcons/compview.asp?pa=133&sr=402422>



Pennsylvania Department of Conservation and Natural Resources: Landscaping with Native Plants in Pennsylvania: <http://www.dcnr.state.pa.us/forest/wildlife/native.aspx>

Conserve Pennsylvania: Plant Natives: <http://www.conservepa.org/plantnatives.html>

The Natural Lawn & Garden: Growing Healthy Soils.

[http://www.seattle.gov/Utilities/Environment/public/Report/RebateDocuments/webcontent/growingthe\\_20091261701557.pdf](http://www.seattle.gov/Utilities/Environment/public/Report/RebateDocuments/webcontent/growingthe_20091261701557.pdf)

## Bureau of Recreation and Conservation Green Principles for Park Development and Sustainability

### Principle #2: Connect People to Nature

When designing a site for public use (whether a park, trail, greenway, playground, or community pool) there is a concept called "human well-being" that is addressed in the National "Sustainable Sites Initiative Standards and Guidelines Report" and should be considered during development of the site plan. Listed below are several ideas taken directly from the Report. The Department of Conservation and Natural Resources (DCNR) Conserve program also provides for the connection of human well-being to outdoor recreation, conservation, and stewardship. Learn more about iConservePA at <http://iConservePA.org>.

1. **Provide opportunities for interaction with nature.** Provide a diverse landscape to support a broad range of users and activities, including spaces for physical activity, nature/discovery trails, access paths to streams, way-finding features, and "cues to care", which are design devices (such as mowed edges or low fences) that communicate that a naturalistic landscape welcomes users.
2. **Design spaces that address children's needs.** Provide pedestrian-only areas so children and youth can play without concern for traffic. Provide parks and open spaces that serve several residential areas, which give children a sense of place and belonging. Provide interesting landscape places (designed and naturalistic) that enable exploratory play. For example boulders for climbing, streams for discovery, open meadows with trails, sensory gardens (where children can touch, smell, and even taste plants), and large trees and other natural features for hide-and-seek and unstructured games.
3. **Provide opportunities for passive experiences with nature.** Maintain all possible trees on-site. Optimize water views or provide fountains. Place and configure plantings that achieve other ecosystem services (such as rain gardens for infiltration and stormwater management) to provide visual amenities. Establish nature trails, and wildlife viewing areas.
4. **Educate site users.** Create demonstration gardens that allow visitors to observe biodiversity and learn how they can establish the same type of garden at their home. Protect wetlands and other natural areas and provide interpretive materials to education about the benefits provided by these features. Facilitate wildlife viewing and learning, by establishing bird boxes and observation areas with educational exhibits about the types of wildlife visitors might see. Provide interpretive materials or stations that inform about local ecosystems and their functions. Incorporate signs that explain how "no mow zones" are beneficial for humans and wildlife.
5. **Provide spaces for social interaction.** Create small theme gardens (such as color, texture, smell, butterfly, etc.). Create "community greens" that can serve as outdoor meeting rooms, break or study spaces, and spaces for organizational events and celebrations. Ensure that user spaces are safe and secure using Crime Prevention through Environmental Design (CPTED) principles (see [www.cpted-website.com](http://www.cpted-website.com) for more information).
6. **Support on-site food production in healthy environments.** Establish a Community Supported Agriculture (CSA) area for local residents to enjoy growing their own vegetables on a designated plot of land.
7. **Consider local cultures/communities and their special needs.** Identify local groups of potential users and provide amenities that address the needs or support the culture of local people.
8. **Plant Trees.** Trees are beneficial additions to any site. Planting trees should be considered during the planning and developing of all recreational sites. Trees have direct human benefits

such as creating effective sound barriers that can muffle urban noise almost as effectively as stone walls; producing oxygen, absorbing and locking away carbon dioxide, and cleaning the air by intercepting airborne particles, reducing heat, and absorbing such pollutants as carbon monoxide, sulfur dioxide, and nitrogen dioxide. Trees shade and cool reducing the need for air conditioning in the summer and break the force of winter winds, lowering heating costs in the winter. Trees fight soil erosion and reduce water runoff and sediment deposition after storms.

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## Bureau of Recreation and Conservation Green Principles for Park Development and Sustainability

### Principle #3: Manage Stormwater Naturally

Stormwater runoff occurs when excess water from rainfall and snow events flows across paved streets, parking lots, rooftops and construction sites. This runoff can be a significant source of pollution and sedimentation ending up in our lakes, rivers, streams and other water bodies.

The following are stormwater impacts of conventional development (including parks and recreation areas):

- Increased flooding
- Increased runoff volume
- Decreased evapotranspiration and groundwater recharge
- Increased frequency of runoff events
- Erosion and stream channel changes
- Decreased stream baseflow
- Impacted aquatic life
- Pollutant and temperature impacts to streams

Goals of natural stormwater management:

- Capture and detain stormwater runoff as close to the source as possible.
- Reduce the volume of stormwater entering the combined sewer system.
- Filter stormwater to remove pollutants before the runoff enters groundwater, streams, or wetlands.
- Use and promote methods that provide multiple environmental benefits, and
- Use techniques that are less costly than traditional piped solutions.

**Consider the following on your site to prevent stormwater from becoming an issue.**

#### Create and Enhance Riparian Buffers

Riparian buffers and riparian forest buffers are areas of vegetation alongside streams and other bodies of water that mitigate floods, recharge groundwater, prevent erosion and sedimentation of the stream, trap pollutants within plant roots, improve aquatic and terrestrial species habitat, and provide optimum food for stream communities. In these locations native vegetation (ideally a variety of native trees, shrubs, grasses and wildflowers) provides wildlife habitat, bank stabilization, and water quality benefits. Although smaller buffers will still provide some benefits, to provide the maximum benefits a buffer should be a minimum of 100 feet on each side of a perennial or intermittent stream, river, lake, pond, and reservoir. For those bodies of water designated as Exceptional Value or High Quality waters the minimum width should extend to 150 feet.<sup>1</sup> Below is a list of tips for managing buffers.<sup>2</sup>

- Provide some public access to the water, but keep vegetation clearance to a minimum.
- Avoid work in streams, wetlands or waterways whenever possible.
- Don't alter a stream bank or shoreline unless you're returning it to a natural state (banks should normally be sloping and covered with vegetation).
- Soil disturbance should not take place within the buffer by grading, stripping of topsoil, plowing, cultivating, or other practices.
- Motorized vehicles should not be stored or operated within the riparian forest buffer.
- Remove/manage invasive exotic species to keep them from spreading.
- Improve riparian buffers by planting native trees, shrubs and ground covers that are tolerant of wet or seasonally flooded sites.
- Avoid or minimize the use of pesticides and fertilizers near water-bodies.

## Protect Wetlands and Critical Recharge Areas

Wetland functions include water quality improvement, floodwater storage, fish and wildlife habitat, aesthetics, and biological productivity. Wetlands within and downstream of urban areas are particularly valuable, countering the greatly increased rate and volume of surface-water runoff from pavement and buildings. They also recharge groundwater and trap sediment, fertilizers, and pollutants. Construction and other forms of disturbance should be avoided in and near wetlands. A vegetated buffer should be maintained around wetlands whenever possible. Man-made wetlands cannot duplicate all the functions of a natural wetland, so it is critical that natural wetlands be protected whenever possible.<sup>1</sup>

Critical recharge areas are typically large contiguous areas of land that allow precipitation and other surface waters to infiltrate through the soil to recharge the groundwater. Without constant recharge, periods of drought could leave streams and wells dry, thus affecting available drinking water and wildlife habitat. Practicing green and sustainable initiatives (such as those outlined in this series of fact sheets) when developing in or near a wetland or critical recharge area can ensure that these features are preserved and remain fully functional.<sup>1</sup>

## Design Natural Stormwater Management Systems

Natural stormwater management can be more cost-effective than traditional gray infrastructure of pipes and treatment facilities. There are many best management practices (BMPs) for natural stormwater management that minimize the impact of impermeable surfaces such as roads, rooftops, and parking lots. These BMPs can include designing narrower roads, permeable surfacing for roads, parking lots, trails, walkways, etc.; rain gardens and vegetative swales; and rainwater catchment systems for rooftops. The remaining runoff can be directed to native grass swales or rain gardens. Even just planting more native trees near impermeable surfaces can reduce the need for large, expensive stormwater management systems.<sup>1</sup>

## Alternative Pavements

A technique for green parking utilizes alternative pavements that can range from medium to relatively high effectiveness in meeting stormwater quality goals. Alternative pavements are permeable or semi-permeable surfaces that can replace asphalt and concrete and can be used for driveways, parking lots and walkways. The different types of alternative pavements include gravel, cobbles, wood mulch, brick, grass pavers, turf blocks, natural stone, pervious concrete, and porous asphalt.<sup>2</sup>

### Common Stormwater BMPs:

- Rain/recharge gardens/bioretention
- Vegetated filter strips
- Vegetated swales
- Porous pavement with infiltration beds
- French drain/dry wells
- Vegetated roads
- Caltrans/can barrels/capture reuse
- Constructed wetlands
- Riparian corridor restoration
- Re-vegetation/reforestation

### Non-structural Stormwater BMPs:

- Protect sensitive/special value features
- Protect/enhance riparian areas
- Protect natural flow pathways
- Cluster uses at each site, build on the smallest area possible
- Minimize total disturbed area
- Minimize soil compaction
- Revegetate and reforest disturbed areas, using native species

## Stormwater Wetlands

Stormwater wetlands (a.k.a. constructed wetlands) are structural practices similar to wet ponds that incorporate wetland plants in a shallow pool. As stormwater runoff flows through the wetland, pollutant removal is achieved by settling and biological uptake within the practice. Stormwater wetlands are fundamentally different from natural wetland systems. They are designed specifically for the purpose of treating stormwater runoff, and typically have less biodiversity than natural wetlands both in terms of plant and animal life.<sup>2</sup>

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### Additional Resources:

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## Bureau of Recreation and Conservation Green Principles for Park Development and Sustainability

### Principle #4: Conserve Energy

*The best way to save energy is not to spend it.*

Renewable energy and energy efficiency mean less air pollution (including mercury, nitrogen oxides and carbon dioxide), less water consumption and less waste. It means less dependence on foreign oil and more self-sufficiency. It means less ground level ozone, less acid rain and less particulate matter in the air. Ultimately, this means improved health. There are many opportunities to include renewable energy technology and energy efficiency techniques in site design. Please consider these different alternative energy sources and energy efficiency techniques to power your facilities as you move forward with your project planning and site design.

#### Accomplishing Energy Efficiency:

The following are some techniques that can be incorporated in your site design to help save energy and money, and benefit the environment at the same time:

- Include in your site planning a mandatory maintenance schedule for your building to:
  - Clean filters
  - Replace belts
  - Commission the building (give your building a "tune-up")
  - Achieve a certain % of energy consumption
- HVAC rehab
  - Use state-of-the art, high efficiency, heating, ventilation and air conditioning (HVAC) and plumbing equipment, chillers, boilers, and water heaters, etc. Use variable speed drives on fan and pump motors. Use heat recovery ventilators and geothermal heat pump technology for up to 40% energy savings.
  - Programmable system to turn on during the day and off at night
  - Fan cyclersensor to replace or attach to heat pump
- Waterless urinals
- Censored faucets
- On-demand controls in shower houses (faucets, toilets, lighting, fans)
- Instantaneous water heaters
- Sky lights
- Light level meter or dimming system
- Reduce outdoor night-time light pollution by avoiding over-illumination of the site and use low cut-off exterior lighting fixtures which direct light downward
- Use energy efficient T-8 and T-5 bulbs, high efficiency electronic ballasts, and lighting controls. Consider using indirect ambient lighting with workstation based direct task lighting to improve light quality, reduce glare and improve overall energy performance in general office areas. Incorporate sensors and controls and design circuits so that lighting along perimeter zones and offices can be switched off independently from other interior lights when daylighting is sufficient in perimeter areas.
- Use Energy Star certified energy efficient appliances, office equipment, lighting and HVAC systems.

#### Solar:

Solar technologies use the sun's energy to provide heat, light, hot water, electricity, and even cooling, for many different types of facilities. Solar power is probably the cleanest, most viable form of renewable energy available and it can be used in several forms to help power your facility. Many gardens use solar lights or solar garden water features.<sup>2</sup> A variety of technologies have been developed to harness solar

energy. In Pennsylvania, these technologies include: Photovoltaic systems (produces electricity), solar hot water heating, and passive solar heating and daylighting.<sup>6</sup>

## Wind

Wind is a clean, inexhaustible, indigenous energy resource that can generate electricity. Wind energy is one of the fastest-growing forms of electricity generation in the world.<sup>1,5</sup> Pennsylvania has good wind resources in portions of the state. Municipalities and non-profit organizations can use small wind turbines for on-site energy generation.<sup>7</sup>

## Geothermal Heat Pump

The 10 feet of earth directly beneath the surface maintains a nearly constant temperature between 50° and 60°F (10°-16°C). Like a cave, this ground temperature is warmer than the air above it in the winter and cooler than the air in the summer. Pennsylvania has low to moderate temperature resources that can be tapped for direct heat or for geothermal heat pumps. Geothermal heat pumps take advantage of this resource to heat and cool buildings.<sup>8</sup>

## Biomass and Biofuels

Biomass and biofuels provide an excellent opportunity to heat and power buildings. Heating options may include the installation of a wood chip heating system, wood pellet furnace or boiler systems, corn furnace, or simply using a biodiesel blended heating oil commonly referred to as a bio-heat product. Biofuels can be used to power small-scale workshop machinery and electricity generators as well as vehicles.<sup>9</sup>

## Fuel Cells

Fuel Cells are an option that local governments can consider when exploring alternative energy choices and distributed energy technologies. A fuel cell is a device that converts the chemical energy of a fuel into electricity with heat and water as the major by-products. There are several types of fuel cells and different fuels used for electricity generation.<sup>10</sup>

## Using Plants to Reduce Heating and Cooling Needs

Plants can significantly reduce a building's energy needs; it's cooler in the shade of trees during the summer and warmer behind vegetation that block winter winds. The general rule is to plant deciduous trees (those that lose their leaves in winter) on the south and west sides of a building where the sun's rays are most direct and intense. These trees will provide shade during summer but permit the winter sun to provide warmth. Where there isn't room for trees, shrubs and vines can provide similar benefits. Extensive use of trees to shade buildings, streets, driveways and other large paved surfaces can even cool entire communities. To reduce winter heating costs, plant evergreen trees and shrubs as windbreaks. Most cold winds come from the north or west (though this can vary locally), so on those sides of the building plant a dense row of evergreens that maintain branches low to the ground. Where new construction is planned consider "greenroofing" where roofs are specially designed to accommodate plants. Such roofs provide insulating value that further reduces heating and cooling needs and can be very long-lasting when properly maintained.<sup>4, 11</sup>

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## Bureau of Recreation and Conservation Green Principles for Park Development and Sustainability

### Principle #5: Integrate Green Design and Construction

The ideal "green" project preserves and restores habitat that is vital for sustaining life. The site and all structures on the site become net producers and exporters of resources, materials, energy and water rather than being net consumers. In other words, a green building is one whose construction and lifetime of operation assure the healthiest possible environment while representing the most efficient and least disruptive use of land, water, energy and resources. The optimum design solution is one that effectively emulates all of the natural systems and conditions of the pre-developed site – after development is complete.

Green infrastructure means restoring floodplains to their naturally functioning system instead of building taller levees. It means planting trees, preserving open space and installing features like rain gardens, grass swales and green roofs, rather than enlarging sewers or building costly new treatment plants. It means retrofitting buildings and homes with water-efficient plumbing and rainwater capture systems instead of constructing an expensive water supply dam.

#### Green Design can Save Money

While many green materials and technologies do cost more, it has been demonstrated that many green strategies and technologies actually cost the same and some even cost less than traditional "not-so-green" technologies. Often the key to a cost effective green building and site design lies within the interrelationships and associated cost and performance trade-offs that exist between different building systems. For example, the use of high performance windows and window frames increases the initial building costs, however the resulting reduction in the size and cost of the building's heating and cooling system more than offsets the added cost of the better glazing system. The result is a building that has a comparable or perhaps even a lower first cost, a higher comfort level, lower energy use, and lower energy bills and operating cost for the life of the building.

By blending the right mix of green technologies that cost less with green technologies that cost the same or slightly more, it is possible to have a very green building project that costs the same as a conventional one.

#### Leadership in Energy & Environmental Design (LEED) Green Building Rating System™

A voluntary, consensus-based standard to support and certify successful green building design, construction and operations. LEED is transforming the marketplace by providing a nationally recognized certification system to promote integrated, whole-building design practices in the building industry.

For a project to become LEED certified it is required that the project follows energy efficiency, environmentally conscious methods, as defined by the LEED Green Building Rating System, Version 3, 2009, in the following areas:

1. Sustainable Sites
2. Water Efficiency
3. Energy & Atmospheric
4. Materials & Resources
5. Indoor Environmental Quality
6. Innovation in Design
7. Regional Priority

## A Few Techniques to Consider<sup>3</sup>

- Optimize building orientation, massing, shape, design, and interior colors and finishes. By maximizing the use of controlled natural day lighting artificial lighting energy use will be significantly reduced. Provide shades or daylight controls where needed.
- Use high performance low-e glazing. Consider insulated double glazing, triple glazing or double pane glazing with a suspended low-e film. Selective coatings offer optimal light transmittance while providing minimal solar gain and minimal heat transmission. Window frames, sashes and curtain wall systems should also be designed for optimum energy performance including the use of multiple thermal breaks to help reduce energy use.
- Avoid the use of HCFC and Halon based refrigeration, cooling and fire suppression systems. Optimize the use of natural ventilation and where practical use evaporative cooling, waste heat and/or solar regenerated desiccant dehumidification or absorption cooling. Identify and use sources of waste energy.
- Identify ways to use high-recycled content materials in the building structure and finishes. Consider everything from blended concrete using fly ash, slag, recycled concrete aggregate, or other admixtures to recycled content materials such as structural steel, ceiling and floor tiles, carpeting, carpet padding, sheathing, and gypsum wallboard. Consider remanufactured office furniture and office partition systems, chairs and furniture with recycled content or parts.
- Explore the use of bio-based materials and finishes such as various types of agriboard (sheathing and/or insulation board made from agricultural waste and byproducts, including straw, wheat, barley, soy, sunflower shells, peanut shells, and other materials). Some structural insulated panels are now made from bio-based materials. Use lumber and wood products from certified forests where the forest is managed and lumber is harvested using sustainable practices. Use resource efficient engineered wood products in lieu of full dimension lumber which comes from older growth forests.
- Evaluate all products and systems used for their ability to be recycled when they reach the end of their useful life. Preference should be given to products and systems that facilitate easy, non-energy intensive separation and recycling with minimal contamination by foreign debris.
- Recognize that transportation becomes part of a product or building materials embodied energy. Where practical, specify and use locally harvested, mined and manufactured materials and products to support the regional economy and to reduce transportation, energy use and emissions.
- Develop a strict waste-management practice to divert construction wastes from reaching the landfill.
- Use materials and resources found on the site in the site design and construction.

## Vegetative Green Roofs

A green roof, or rooftop garden, is a vegetative layer grown on a rooftop. Green roofs have a layer of living plants on top of the structure and the waterproofing elements.

Why are vegetative green roofs such a good idea?<sup>4</sup>

- They reduce roof stormwater runoff. In some cases this can help reduce the size of stormwater pipes, and the amount of stormwater that needs to be treated by municipal water treatment. They also filter pollutants from rainfall.
- Green roofs also protect the roof membrane from sunlight, which breaks down the roofing material. Having even a couple inches of soil helps to greatly extend the life of the roof, and a longer lifespan means less material ends up in landfills from reproofing buildings after the membranes have failed.
- They reduce energy use. Green roofs absorb heat and act as insulators for buildings, reducing energy needed to provide cooling and heating.
- A green roof is also a source of oxygen and provides a habitat for some birds and insects.

- They reduce air pollution and greenhouse gas emissions by lowering air conditioning demand, green roofs can decrease the production of associated air pollution and greenhouse gas emissions. Vegetation can also remove air pollutants and greenhouse gas emissions through dry deposition and carbon sequestration and storage.

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## Appendix H

## Survey Results

11. How important are the following in your choice to be in Franklin Township?					
	Not Important	Somewhat Important	Important	Very * Important	Response Count
A. Affordable housing costs	16.4% (20)	26.2% (32)	32.8% (40)	24.6% (30)	122
B. Born or raised here	54.8% (63)	12.2% (14)	15.7% (18)	17.4% (20)	115
C. Close to work	26.1% (30)	31.3% (36)	27.8% (32)	14.8% (17)	115
D. Close to friends or relatives	22.9% (27)	28.0% (33)	29.7% (35)	19.5% (23)	118
E. Environmental quality	0.8% (1)	5.0% (6)	31.9% (38)	62.2% (74)	119
F. Living in private community	34.2% (39)	15.8% (18)	26.3% (30)	23.7% (27)	114
G. Low crime rate	0.8% (1)	4.7% (6)	25.2% (32)	69.3% (88)	127
H. Low taxes	2.5% (3)	10.7% (13)	35.2% (43)	51.6% (63)	122
I. Open space	3.2% (4)	2.4% (3)	25.6% (32)	68.8% (88)	125
J. Proximity to job opportunities	26.5% (30)	31.9% (36)	30.1% (34)	11.5% (13)	113
K. Proximity to Lehigh Valley/Philadelphia	59.7% (71)	28.6% (34)	10.9% (13)	0.8% (1)	119
L. Proximity to Scranton/Wilkes-Barre	25.8% (31)	36.7% (44)	30.0% (36)	7.5% (9)	120
M. Quality of schools	21.0% (25)	8.4% (10)	29.4% (35)	41.2% (49)	119
N. Recreational opportunities	18.6% (22)	28.0% (33)	33.1% (39)	20.3% (24)	118
O. Rural lifestyle	4.0% (5)	5.6% (7)	30.6% (38)	59.7% (74)	124
Other (please specify)					9
answered question					130
skipped question					1



12. Please rate Franklin Township AND THE LARGER COMMUNITY for each of the following:					
	Excellent	Good	Fair	Poor	Response Count
A. Availability of places to shop	7.9% (10)	48.4% (61)	27.0% (34)	16.7% (21)	126
B. Cost of living	5.6% (7)	62.9% (78)	27.4% (34)	4.0% (5)	124
C. Cultural opportunities	2.5% (3)	41.7% (50)	38.3% (46)	17.5% (21)	120
D. Environmental quality (water, air, etc.)	38.6% (49)	53.5% (68)	7.9% (10)	0.0% (0)	127
E. Job opportunities	1.7% (2)	16.9% (20)	45.8% (54)	35.6% (42)	118
F. Natural areas (wetlands, forest, etc.)	30.6% (38)	54.8% (68)	12.9% (16)	1.6% (2)	124
G. Overall quality of life	31.3% (40)	60.9% (78)	6.3% (8)	1.6% (2)	128
H. Place to raise children	38.2% (47)	56.1% (69)	2.4% (3)	3.3% (4)	123
I. Recreational opportunities	12.8% (16)	54.8% (68)	24.2% (30)	8.1% (10)	124
J. Rural character and working landscape	33.9% (42)	50.0% (62)	14.5% (18)	1.6% (2)	124
K. Scenic beauty	45.8% (60)	49.6% (65)	4.6% (6)	0.0% (0)	131
L. Social activities	2.4% (3)	35.5% (44)	47.6% (59)	14.5% (18)	124
answered question					131
skipped question					0

## Survey Results

21. Would you or household members use the Franklin Township Park for the following?						
	Won't Use	Not Likely	Maybe	Likely	Very* Likely	Response Count
A. Socialize with family and friends	20.3% (26)	25.0% (32)	32.0% (41)	18.0% (23)	4.7% (6)	128
B. Exercise and get fit	19.2% (24)	24.8% (31)	29.6% (37)	18.4% (23)	8.0% (10)	125
C. Play organized sports	23.0% (28)	30.3% (37)	19.7% (24)	14.8% (18)	12.3% (15)	122
D. Play pick-up sports	25.4% (31)	34.4% (42)	18.9% (23)	13.1% (16)	8.2% (10)	122
E. Enjoy nature	17.2% (22)	14.8% (19)	23.4% (30)	26.6% (34)	18.0% (23)	128
F. Picnic	19.8% (25)	21.4% (27)	29.4% (37)	15.9% (20)	13.5% (17)	126
G. Play on playground	22.1% (27)	25.4% (31)	18.9% (23)	15.6% (19)	18.0% (22)	122
				Other (please specify)		16
				answered question		130
				skipped question		1

22. How important are the following facilities and activities to you and household members?					
	Not Important	Somewhat Important	Important	Very Important	Response Count
A. Trails and pathways	26.2% (33)	21.4% (27)	34.9% (44)	17.5% (22)	126
B. Playground	36.9% (45)	20.5% (25)	26.2% (32)	16.4% (20)	122
C. Picnic areas	32.2% (39)	34.7% (42)	21.5% (26)	11.6% (14)	121
D. Baseball / softball field	36.1% (44)	25.4% (31)	24.6% (30)	13.9% (17)	122
E. Field for soccer, lacrosse, etc	39.2% (47)	29.2% (35)	20.0% (24)	11.7% (14)	120
F. Basketball courts	40.0% (48)	28.3% (34)	20.8% (25)	10.8% (13)	120
G. Tennis courts	40.5% (49)	30.6% (37)	23.1% (28)	5.8% (7)	121
H. Landscaping and beautification	8.1% (10)	21.0% (26)	46.0% (57)	25.0% (31)	124
I. Natural undeveloped areas	7.9% (10)	12.7% (16)	33.3% (42)	46.0% (58)	126
J. Organized programs for children	26.2% (32)	27.9% (34)	32.0% (39)	13.9% (17)	122
K. Organized programs for adults	34.7% (42)	36.4% (44)	22.3% (27)	6.6% (8)	121
L. Community events: movies, concerts, fairs	36.6% (45)	26.8% (33)	25.2% (31)	11.4% (14)	123
M. Bicycle routes	31.1% (38)	20.5% (25)	29.5% (36)	18.9% (23)	122
N. Pool	53.7% (65)	22.3% (27)	13.2% (16)	10.7% (13)	121
O. Skateboard / skating areas	63.6% (75)	19.5% (23)	11.0% (13)	5.9% (7)	118
			Other (please specify)		8
			answered question		128
			skipped question		3



## Survey Results

23. To what extent would you favor spending your Township tax money for each of the following services and facilities?				
	Decrease	Continue As Is	Add or Increase	Response Count
A. Acquire land/conservation easements for open space	8.5% (10)	56.4% (66)	35.0% (41)	117
B. Building and zoning permit services	11.1% (13)	82.9% (97)	6.0% (7)	117
C. Emergency medical service	3.2% (4)	52.0% (65)	44.8% (56)	125
D. Fire protection	2.4% (3)	52.4% (66)	45.2% (57)	126
E. Improve water quality of lakes and streams	2.5% (3)	52.5% (63)	45.0% (54)	120
F. Police protection	2.4% (3)	48.0% (59)	49.6% (61)	123
G. Recreation facilities	9.9% (12)	52.9% (64)	37.2% (45)	121
H. Recycling	1.6% (2)	45.6% (57)	52.8% (66)	125
I. Township road improvements	1.7% (2)	45.4% (54)	52.9% (63)	119
			answered question	128
			skipped question	3

## Appendix I





What I want the most...



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## Appendix J



YORK TOWNSHIP RECREATION DEPARTMENT

ATHLETIC FACILITY ALLOCATION POLICY

PURPOSE

The York Township Recreation Board and the Recreation Department currently supervises six parks that have facilities available for use by athletic organizations for organized sport play. Athletic organizations requesting use of York Township athletic facilities must participate in the Athletic Facility Allocation Program. Facility allocation meetings will be held on the last Thursday in January for the Spring/Summer sports season and on the last Thursday in June for the Fall/Winter sports season. The meetings are held for athletic organizations requesting use of York Township athletic facilities for the purpose of practices, games, camps and league tournaments.

This Athletic Facility Allocation Policy does not address requests for Special Events, such as fairs, carnivals, yard sales, non-league athletic tournaments or camps, petting zoos and other activities deemed as Special Events by the Recreation Director. It also does not include the reservation of any Concession Stand, Pavilion/Building or the approval of Vendors. Please refer to the Special Event Policy, the Concession Stand Policy, the Pavilion/Building Policy and/or the Vendor Policy for further information.

AVAILABLE FACILITIES AND SEASONS FOR ALLOCATION

Facilities currently closed for 2010—Soccer Field #2 at York Township Park

The number of facilities available may be less due to closings for repairs, etc. The sports to be played on the multi-purpose fields will be determined by the Recreation Director prior to each sport season. The seasons are:

Seasons	Meeting	Submission Deadline
Spring/Summer—March 1-August 31	TBA	TBA
Fall/Winter—September 1-February 28	TBA	TBA

The start of the Spring/Summer season may be pushed back on any facility due to its condition. All baseball/softball/soccer fields are closed after the second week of November until the start of the Spring/Summer season to allow the fields to rest. The basketball, tennis and sand volleyball courts are open year-round.

York Township Park—open 6 a.m.-10 p.m.

- 4 Soccer Fields
- McWilliams Field
- 2 Baseball/Softball Fields
- 2 Basketball Courts
- 2 Sand Volleyball Courts

Shryock Field—open 6 a.m.-10 p.m.

- 1 Baseball/Softball/Soccer Field

Snyder Park—closed between dusk and dawn

- 1 Baseball/Softball/Soccer Field
- 1 Basketball Court

Fitz Park—closed between dusk and dawn

- 1 Baseball/Softball/Soccer Field
- 1 Basketball Court
- 2 Tennis Courts

Heritage Hills Park—closed between dusk and dawn

- 1 Baseball/Softball Field/Soccer Field
- 1 Basketball Court

Tyler Run Park—closed between dusk and dawn

- 1 Soccer Field

## **PROCEDURES**

1. The following is required to be completed and returned to the Recreation Office at the York Township Administration Building by the Submission Deadline of the appropriate season by any athletic organization interested in participating in the Athletic Facility Allocation program.
  - Documentation of most recently completed comparable season (last spring/summer for this spring/summer, etc.) showing the names, complete addresses (street, city and zip), total number of participants, program age range, and registration fees charged. **Participants residing in York Township must be highlighted, along with noting the percentage of participants who are York Township residents. This is the organization's responsibility.**
  - Complete a Athletic Facility Request Form for each facility requested, indicating times and dates of activities and dimensions of facilities needed.
2. The Recreation Director will allocate facilities prior to each season. **Athletic Facilities will be allocated based on the following criteria:**
  - Township-sponsored activities and approved Special Events will receive first priority in scheduling.
  - Those athletic organizations with a participation rate of at least 60% York Township residents will be considered next. This does not mean that the full need of that organization will be met as other organizations may also meet this criteria. All organizations should have alternate plans for facilities and not depend completely on York Township to fulfill all requests.
  - Requests from athletic organizations with a participation rate of less than 60% York Township residents will be allocated fields based on remaining availability.
  - A representative of the athletic organization must attend the appropriate Facility Allocation meeting to receive notice of allocated facilities.
3. **At the Athletic Facility Allocation Meeting:**
  - The athletic organizations will receive notice of the facilities that they have been allocated for that season.
  - Sign a form indicating that the organization's representative has received copy of the policy and use regulations and the organization agrees to follow them.
  - Sign a hold harmless/waiver agreement.
  - If organizations wish to negotiate between themselves for changes in the athletic facility allocations, they may do so. However, no organization can force another organization to swap dates if it does not desire to do so.
  - Any changes agreed upon by all parties involved must inform the Recreation Director at this meeting so changes can be made on the master schedule.
  - Organizations should discuss cooperative preparation of and maintenance for the facilities as all organizations will be required to do this.
4. **Prior to Start of Reservation Dates:**
  - For any athletic organization or other entity reserving York Township athletic facilities more than three (3) times during a calendar year, a certificate of insurance evidencing general liability coverage for the protection of persons and property with single limits of not less than \$1,000,000 dollars must be provided to the Township prior to the beginning of the organization's reservation period. The certificate of insurance must name York Township as additional insured. The Township reserves the right to require other groups to have general liability insurance regardless of the number of times that group will be using the facilities. Groups may petition the York Township Recreation Board for exoneration of the insurance requirement if there are extenuating circumstances.
    - Provide a practice and game schedule as soon as they are finalized.
    - The Recreation Department will prepare a final facility schedule, along with an invoice if necessary, and mail to each organization.

## **FEES FOR FACILITY RESERVATIONS**

The Recreation Department will establish annually a Schedule of Fees for the use of the park facilities by athletic organizations. The fee categories are defined below.

- **Category I**—Activities sponsored by York Township receive first priority use and shall be exempt from any fees.
- **Category II**—No fee shall be charged for an athletic organization requesting use of a facility if that organization meets the following requirements:
  - o at least sixty percent (60%) of participants must be either York Township residents or persons employed in York Township. OR
  - o the group requesting use is an entity based in York Township (church, business, etc.).
- **Category III**—Activities sponsored by other organizations that do not meet the criteria addressed in the previous two categories shall be charged a user fee according to the current York Township Recreation Department Schedule of Fees.

## USE REGULATIONS

- Any facility may be closed by the York Township Recreation Department, the York Township Recreation Board, the York Township Board of Commissioners, and/or the York Area Regional Police Department due to severe weather or emergency situations. The York Township Recreation Department reserves the right to close any facility due to damage, rotation, or other issues as they occur.
- A facility must not be played on under conditions that would cause damage to the playing surface or jeopardize the safety of the user. If a facility has not been closed, then each organization must use the utmost discretion when determining whether conditions are appropriate for use. Any damage caused to the facility will be the financial responsibility of that organization and could cause that facility to be closed for an indefinite period of time for repair/retest.
- If a facility is closed for any reason, it will be the responsibility of the Field Commissioner to contact those in his/her organization affected by the closing.
- It is the responsibility of each organization to care for the facility according to the standards provided by the York Township Recreation Department. Attendance by an organization representative will be required at any workshop conducted to instruct users on proper facility maintenance. A separate maintenance agreement may be necessary, as determined by the Recreation Director. A letter will be sent as a notice to those groups who are not maintaining the facilities properly. Continued disregard for standards will result in a monetary fine and/or removal from facility for the remainder of the season.
- Organizations will be allowed to use specified York Township equipment in the preparation of facilities. An organization representative will have to sign a waiver for the organization to use the equipment and/or obtain a key. It will be the organizations' responsibility to work together regarding cooperative preparation of and maintenance for the shared facilities.
- If an organization needs to reschedule a game, it must notify the Recreation Department as soon as possible.
- If an organization decides to cancel any reservation, it must notify the Recreation Department as soon as possible.
- Organizations must leave a half-hour between games. This is to help alleviate traffic issues, especially in our smaller parks.
- Organizations agree to notify their participants that they must adhere to posted parking regulations. Park only in designated spaces or in safe off-street parking. Do not block personal drives and do not park on the grass in any park.
- Organizations using any facility will report dangerous conditions to the Recreation Department as soon as possible.
- Organizations should be courteous regarding neighbor's properties when retrieving any out-of-bound balls. If any damage occurs, it is the financial responsibility of the organization.
- No organization may display or put any type of sign, placard, flyer or advertisement within or on any facility in a township park without the prior written consent of the Township.

## YORK TOWNSHIP ORDINANCE REGARDING PARK AND RECREATION AREAS

Any organization or individual that does not abide by Chapter 166: PARKS AND RECREATION AREAS, ARTICLE I Rules and Regulations (Adopted 12-31-1992 as Ch. 16, Part 1, of the 1992 Code of Ordinances of York Township governing Parks and Recreation Areas can have permission for use of a facility revoked at any time, be removed from the area by staff or area police, or be fined. A copy of the ordinance is attached.

Adopted by Recreation Commission February 2006

Last revised on 6/19/07

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## YORK TOWNSHIP ORDINANCE

### Chapter 165: PARKS AND RECREATION AREAS

[HISTORY: Adopted by the Board of Commissioners of the Township of York, Art. I, 12-31-1992 as Ch. 16, Part 1, of the 1992 Code of Ordinances. Amendments noted where applicable.]

#### ARTICLE I Rules and Regulations [Adopted 12-31-1992 as Ch. 16, Part 1, of the 1992 Code of Ordinances]

##### § 165-1. Rules and regulations.

All recreation areas in the township which are owned by the township shall be subject to rules and regulations of the township as follows:

- A. Parks will be closed as posted and there shall be no trespassing on park property during said hours.
- B. There shall be no littering.
- C. Negligent or deliberate destruction or removal of natural or physical property is forbidden.
- D. Outdoor recreation activity shall be restricted to locations appropriate to said activity.
- E. Open fires or hot coals shall not be permitted except in fireplaces or grills. Fires shall not be left unattended and shall be thoroughly extinguished before they are abandoned.
- F. Solicitation of any kind is forbidden.
- G. No one shall use or be under the influence of alcoholic beverages or drugs in any park area.
- H. Use of explosives, fireworks, guns, rifles, airguns, bows, slingshots or any similar items is prohibited.
- I. Injuring or killing wild animals is prohibited.
- J. There shall be no boisterous, immoral or indecent conduct in any park area.
- K. No events shall be scheduled without completion of an application form and approval of the Recreation Director of York Township.
- L. Parks may be closed by the Township Manager or the President of the Board of Commissioners if hazardous conditions endanger life or property. In said event, there shall be no trespassing on park property during said times.
- M. Dogs shall be kept on a leash or otherwise tied and any waste there from shall be removed from park property.
- N. Motor vehicles shall be driven and parked only in designated areas.

##### § 165-2. Violations and penalties.

Any person, firm or corporation who or which shall violate any of the provisions of this article or any appropriate order of township personnel pursuant to the rules and regulations ordained hereby shall, upon conviction thereof, be sentenced to pay a fine of not more than \$600 and, in default of payment thereof, to imprisonment for not more than 30 days.

Last revised on 6/19/07

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**DOYLESTOWN TOWNSHIP  
2010 FEE SCHEDULE**



**DOYLESTOWN TOWNSHIP  
2010 FEE SCHEDULE**

Resolution #663	Adopted - February 7, 1989
Resolution #583	Revised - September 5, 1989
Resolution #473	Revised - November 4, 1991
Resolution #448	Revised - March 17, 1992
Resolution #284	Revised - January 18, 1994
Resolution #663	Revised - April 25, 1995
Resolution #698	Revised - January 2, 1996
Resolution #707	Revised - February 6, 1996
Resolution #784	Revised - April 15, 1997
Resolution #832	Revised - January 20, 1998
Resolution #899	Revised - February 16, 1999
Resolution #905	Revised - April 6, 1999
Resolution #929	Revised - July 6, 1999
Resolution #1026	Revised - January 2, 2001
Resolution #1028	Revised - January 16, 2001
Resolution #1061	Revised - August 7, 2001
Resolution #1077	Revised - January 7, 2002
Resolution #1090	Revised - February 19, 2002
Resolution #1143	Revised - January 6, 2003
Resolution #1206	Revised - January 5, 2004
Resolution #1249	Revised - January 3, 2005
Resolution #1278	Revised - September 20, 2005
Resolution #1295	Revised - January 3, 2006
Resolution #1312	Revised - May 2, 2006
Resolution #1341	Revised - January 2, 2007
Resolution #1389	Revised - January 7, 2008
Resolution #1442	Revised - January 5, 2009
Resolution #1450	Revised - March 3, 2009
Resolution #1500	Revised - January 4, 2010

## **SUBDIVISION AND LAND DEVELOPMENT FEES**

The applicant or owner submitting plans for a subdivision or land development shall pay the following application filing fees made payable to Doylestown Township at the time of application and plan submission:

### **Preliminary Plan - Major Subdivision or Land Development**

- A. Residential Subdivision - \$1,000.00 plus \$30.00 per lot
- B. Residential Land Development - \$1,500.00 plus \$60.00 per unit
- C. Commercial/Industrial Subdivision - \$2,000.00 plus \$30.00 per lot
- D. Commercial/Industrial Land Development - \$2,000.00 plus \$30.00 per 1000 sq. ft. of building area

### **2. Final Plan - Major Subdivision or Land Development**

- A. Residential subdivision - \$750.00 plus \$20.00 per lot
- B. Residential land development - \$1,000.00 plus \$20.00 per unit
- C. Commercial/Industrial subdivision - \$1,000.00 plus \$20.00 per lot
- D. Commercial/Industrial land development - \$1,000.00 plus \$20.00 per 1000 sq. ft. of building area

### **3. Final Plan - Minor Subdivision - \$750.00**

### **4. Revised Plans - Subject to one-half of the above noted rates.**

### **5. Sketch Plans - \$750.00 - Escrow for review by Professional Staff**

**ESCROW FUNDS - (PLAN REVIEW):** In addition to application filing fees, the applicant shall be required to furnish an escrow fund to pay the professional fees and other costs incurred in reviewing the plans or processing the application. Applicant further agrees that the Township charges six percent (6%) of the amount of any engineering, legal or other service bills rendered to the Township in connection with the project as a cost of administering said funds and processing the application. The amount of the escrow fund will be an amount equal to twice the amount of the filing fees. Upon completion of the review, whether the application is approved or rejected, any monies not expended in the review shall be refunded to the applicant. Fees in excess of the escrow fund will be charged to the applicant.

**STORMWATER DETENTION BASIN FUND:** All applicants submitting plans for a subdivision or land development on which a detention basin that is offered for dedication to the Township is proposed or required shall contribute to the Township's Detention Basin Maintenance Fund. The Township shall have the option to accept the detention basin or to refuse to accept its dedication. If the Township accepts the detention basin, a contribution to the Basin Fund shall be made which shall be equal to \$5,000.00 for every acre or portion thereof in the detention basin. The minimum contribution for any basin, regardless of size, shall \$10,000.00. The contribution shall be in addition to that required under Section 803.

**ZONING FEES**

*Zoning Determinations (By Letter)*

Commercial/Industrial.....	\$50.00
Residential.....	\$50.00

**ZONING HEARING BOARD FEES**

**RESIDENTIAL**

- A: In submitting an application for a residential appeal, special exception, variance, curative amendment, or other requested relief, a filing fee of \$700.00 and an escrow deposit of \$500.00 is required.
- B: In the event that the costs associated with processing the application to the Zoning Hearing Board shall exceed the escrow amount, the applicant shall be required to deposit an additional sum in escrow to cover the additional costs.

**COMMERCIAL**

- A: In submitting an application for a commercial, institutional or industrial appeal, special exception, variance, curative amendment, or other requested relief, a filing fee of \$1750.00 and an escrow deposit of \$1000.00 is required.
- B: In the event that the cost associated with processing the application to the Zoning Hearing Board shall exceed the escrow amount, the applicant shall be required to deposit an additional sum in escrow to cover the additional costs.

	FEE	ESCROW
Continuance at Applicants Request.....	\$ 200.00	\$ 200.00
Conditional Use Fee .....	\$ 500.00	\$ 500.00
Challenge to Zoning Ordinance .....	\$5,000.00	\$1,000.00
Petition for Change of Zoning.....	\$2,500.00	\$2,000.00

Note: If escrow costs exceed the original amounts posted, the Township will invoice the applicant for the additional costs. Applicant is responsible for all costs associated with a conditional use, petition for change in zoning, and a challenge to the zoning ordinance.

**BUILDING CODE BOARD OF APPEALS**



# RESIDENTIAL

- A: In submitting an application for a residential appeal, a filing fee of \$700.00 and an escrow deposit of \$500.00 is required.
- B: In the event that the costs associated with processing the application to the Building Code Board of Appeals shall exceed the escrow amount, the applicant shall be required to deposit an additional sum in escrow to cover the additional costs.
- A: In submitting an application for a commercial, institutional or industrial appeal, a filing fee of \$1750, and an escrow deposit of \$1000 is required.
- B: In the event that the cost associated with processing the application to the Building Code Board of Appeals shall exceed the escrow amount, the applicant shall be required to deposit an additional sum in escrow to cover the additional costs.

# COMMERCIAL

Re-inspection of In-Law Suite..... \$ 50.00

## ZONING PERMIT FEES (includes inspection)

### GRADING PERMIT

A Grading Permit (for earth disturbance of 5000 square feet or more) shall be applied for with a building and/or driveway permit (when required) \$150.00 per lot.

SIGNS ..... \$100.00

Special Sale License (includes temporary signage) ..... \$ 50.00 thirty days  
A once-only renewal of Special Sale License.....\$100.00 thirty days

### FENCE INSTALLATION

\$50.00 Per Fence

### SHEDS, PATIOS

\$50.00 Plus .10 per sq. ft.

### ACCESSORY BUILDING UNDER 1000 SQ. FEET

Garages, Pool houses, and other construction not specifically mentioned.

\$150.00 Minimum up to \$1,000.00

\$10.00 Per thousand thereafter

## SCHEDULE OF BUILDING PERMIT FEES

PLAN REVIEW FEE FOR NON-RESIDENTIAL CONSTRUCTION OVER 10000 SQ. FEET - \$300.

#### NEW CONSTRUCTION

All new construction, residential or non-residential shall follow the latest Building Valuation Data permit fee calculation provided by the International Code Council at

[www.iccsafe.org/cs/testservices](http://www.iccsafe.org/cs/testservices)

Permit Fee = Building Gross Area x Sq. Foot construction cost x multiplier (0.125).  
(Building Gross Area = sum of each floor, basement and attic in square feet).

#### RESIDENTIAL ADDITIONS/DECKS/ACCESSORY STRUCTURES OVER 1000 SQ. FEET

\$175.00 Minimum up to \$1,000.00

\$10.00 Per thousand thereafter

#### NON-RESIDENTIAL ALTERATIONS

1.5% of Construction Cost

DEMOLITION PERMIT OR UNDERGROUND STORAGE TANK REMOVAL \$100.00

#### SWIMMING POOLS

\$200.00

#### PLUMBING PERMITS

Residential .....\$75.00  
Plus \$5.00 per fixture/trap

Commercial and Non-residential ..... \$100.00  
Plus \$5.00 per fixture/trap

Sewer Connection Fee..... \$75.00 per hook-up

Water Connection Fee..... \$75.00 per hook-up

#### ELECTRICAL PERMITS

RESIDENTIAL AND COMMERCIAL -- Filing of 3<sup>rd</sup> party review plans and recording of inspection - \$50.

#### New Wells

##### WELL PERMITS

Less than 1,000 gallons per day ..... \$75.00

Withdrawing 1,000 gallons per day, up to  
10,000 per day for a new well ..... \$100.00

Re-drilling a well to withdraw 1,000 gallons  
or more per day up to 10,000 gallons a day ..... \$75.00

**MECHANICAL, SPRINKLER, ALARM PERMITS**

Plan review and inspection fees for all projects based on cost of construction.

All projects \$100.00 for first \$1,000.00 of construction cost

Additional... Plus \$10.00 for each additional \$1,000.00 of construction cost

Minimum permit fee.....\$100.00

**NON-RESIDENTIAL CERTIFICATE OF COMPLIANCE PERMITS FOR EXISTING/CHANGE OF USE - \$200.**

**FIRE MARSHAL PERMITS**

An Operational and/or Construction permit is required for the classifications of use and/or storage as defined by the 2009 International Fire Code, Section 105, and as further determined by the Fire Code Official.

- 1.) **Operational permit.** An operational permit allows the applicant to conduct and operate a business for which a permit is required by Section 105.6.

	<b>Permit Fee</b>	<b>Renewal (Yearly)</b>
Special Event (Zoning Permit Application)	\$200.00	\$50.00
Fireworks Display (Zoning Permit Application)		\$150.00
Burn/Bonfire (Zoning Permit Application)		\$ 50.00

**RE-INSPECTION FEE**

Any re-inspection required as a result of incompleteness or improper work shall be charged to the permit holder. No certificates of occupancy shall be issued to any permit holder until such re-inspection fees are paid in full...\$100.00.

**PENALTY FEE**

In the event that construction is started without first obtaining the required zoning and/or building permits, the applicable fees will be increased by 100%.

**SCHEDULE OF FEES FOR HIGHWAY OCCUPANCY PERMITS**

## Permit Issuance Fees

This fee is applied to the administrative costs that are incurred in reviewing the application and plan (s) and issuing and processing the permit.

Schedule Item No.	Unit Fee
1. Issuance fee	
A. Utility.....	\$35.00
B. Driveways	
i. minimum use (e.g.) single family dwellings, apartments, with five or fewer units.....	\$15.00
ii. low volume (e.g.) office buildings, car washes.....	\$30.00
iii. medium volume (e.g.) motels, fast food restaurants, service stations, small shopping plazas.....	\$40.00
iv. high volume (e.g.) large shopping centers, multi-building apartment or office complexes.....	\$50.00
C. Other (e.g.) bank removal, sidewalk and curb.....	\$20.00
2. Supplement fee (each six-month time extension) (each submitted change).....	\$10.00
3. Emergency permit card (each card).....	\$ 5.00
4. Exception (see below)	

These fees are applied to the costs incurred in the preliminary review of the location covered by the permit, and/or spot inspection of the permitted work, and/or subsequent inspection after the permitted work has been completed to insure compliance with department specifications and permit provisions.

## GENERAL HIGHWAY OCCUPANCY PERMIT INSPECTION FEES

5. Driveways	
A. Each minimum use driveway.....	\$10.00
B. Each low-volume driveway.....	\$20.00
C. Each medium-volume driveway.....	\$35.00
D. Each high-volume driveway.....	\$50.00
6. Underground facilities	
(e.g., pipe lines, buried cable with pedestals, conduit manholes, dead wall, inlet and grate)	
This fee is calculated in the TOTAL linear fee of the facility or facilities being permitted within the right of way, regardless of whether the surface is opened.	
A. Physically connected facility or facilities or fraction thereof (each section).....	\$20.00
B. Additional Physically connected facilities, (each 100 feet or fraction thereof).....	\$ 5.00
7. Surface openings (e.g., service connections performed independently of underground facility installation, pipe line repairs) (each opening).....	\$15.00



8. Above ground facilities	
A. Up to 10 physically connected above ground (each continuous group).....	\$20.00
B. Additional above-ground physically connected facilities (each pole with appurtenances) .....	\$ 2.00
9. Crossings.....	
(e.g., overhead tipples, conveyors, or pedestrian walkways and "undergrade" subways and mines)	\$80.00
10. Seismograph - vibroseis method (e.g. prospecting for oil or gas)	
A. First mile .....	\$50.00
B. Each additional mile or fraction thereof .....	\$ 5.00
11. Other (e.g. bank removal, sidewalk, and curb) .....	\$20.00

#### EXCEPTIONS

Permit issuance fees and general permit inspection fees are not payable by any of the following:

- A. The Commonwealth
- B. Political subdivision of this Commonwealth
- C. Governmental authorities organized under the laws of the Commonwealth
- D. The Federal Government
- E. Charitable organizations that are in compliance with Act #337, approved August 9, 1963, P.L. 628 as amended (churches, hospitals, schools, charitable institutions, Veterans organizations, non-profit organizations)
- F. Utility facility owners for:
  - 1. The installation of street lights at the request of local authorities.
  - 2. The replacement or renewal of their facilities prior to township re-surfacing project after notice from the township.
  - 3. The removal of poles and attached appurtenances.
  - 4. Facilities removed at the request of local authorities.
  - 5. Reconstructing or maintaining their facilities which occupy the right-of-way under private status.

A full list of Pennsylvania Uniform Construction Code exemptions can be found at the PA Labor and Industry website on the Building Codes Home Page.

#### COMPLIANCE GUARANTEE DEPOSIT

In addition to the occupancy/use permit fees, a compliance guarantee deposit is required. This deposit will be refunded upon the issuance of a certificate of occupancy and/or certificate of completion.

If the premises and/or Swimming Pool is occupied or used prior to the issuance of any occupancy certificate and/or certificate of completion, the compliance guarantee deposit shall be automatically forfeited.

#### RESIDENTIAL COMPLIANCE ESCROW

- 1. New Construction

- a. Single family, twin, or two family dwellings, townhouses, row houses:  
\$1,000.00 per residential unit

- b. Apartments or multi-family: \$1,000.00 per residential unit

- c. Motels, hotels, dormitories: \$1,000.00 per unit

2. Alterations and additions

- b. \$500.00 per residential unit being altered

NON-RESIDENTIAL COMPLIANCE ESCROW

1. New Construction

- b. \$500.00 for each unit capable of separate occupancy

2. Alterations and additions

- b. \$500.00 for each unit being altered

SWIMMING POOL COMPLIANCE

1. Swimming Pool Installations

- a. \$500.00 per unit

MAXIMUM ESCROW FOR CONSTRUCTION UNITS AS NOTED

1 to 20 units - \$500.00 max. - 20 or more units - \$10,000 max.

DOYLESTOWN TOWNSHIP MUNICIPAL AUTHORITY  
WATER, SPRINKLER AND HYDRANT RATE SCHEDULE

**WATER RATES – QUARTERLY METER CHARGE**

METER SIZE	MINIMUM
5/8" x 3/4"	20.00
1"	27.00
1 1/2"	36.00
2"	60.00
3"	75.00
4"	130.00
6"	300.00
8"	450.00

**Water Use: \$4.50 per each 1000 gallons**

**METER SETUP FOR NEW CONSTRUCTION**

5/8" x 3/4" Serious Meter with meter horn, ball valve and backflow preventer....	\$ 475.00
5/8" x 3/4" Serious Meter same as above plus pressure regulator.....	\$ 595.00
3/4" x 3/4" Serious Meter with meter horn, ball valve and backflow preventer ..	\$ 575.00
1" x 1" Serious Meter with ball valve and check valve.....	\$ 650.00
1 1/2" x 1 1/2" Serious Meter with Flanges.....	\$ 720.00
2" x 2" Serious Meter with Flanges.....	\$1,275.00
3" x 3" Serious Meters with Flanges.....	\$2,275.00

**NOTE:** 1 1/2", 2", and 3" meters - DTMA only sells the meters. Contractor or owners must supply DTMA approved backflow protection devices and gate valves at contractor's costs.

**METER PIT**

5/8" x 3/4" Meter Pit .....	\$725.00
1" Meter Pit.....	\$875.00
1 1/2" Meter Pit .....	\$2,450.00
2" Meter Pit .....	\$2,650.00

**RESIDENTIAL WATER METER REPLACEMENTS**

Residential Water Meters -- 5/8 x 1/2 ..... \$ 75.00

**SPRINKLER LINE CHARGE – ANNUAL FEE**

4" Sprinkler Line	\$ 150.00 per year
6" " "	336.00 " "
8" " "	600.00 " "
10" " "	960.00 " "
12" " "	1,320.00 " "

#### HYDRANT CHARGE

Fire Hydrant - \$ 50.00 per year

#### TAP IN FEE SCHEDULE

A tap in fee shall be charged for each connection made to the Authority system. The Tap - in fee shall consist of a service connection charge and a capacity and storage charge as set forth below.

#### RESIDENTIAL

Tap In Fee for residential connections shall be charged in accordance with Act 57 - 2003 and the Authority's Resolution 3 - 2005. The Tap In Fee for residential connections shall consist of a capacity portion in the amount of \$1,465.00 and a distribution portion in the amount of \$ 361.00 for a total Tap In Fee of \$ 1,826.00.

#### NON-RESIDENTIAL

Tap-In Fee: A Tap In Fee for non-residential connections shall be charged in accordance with Act 57 - 2003 and the Authority's Resolution 3 - 2005. The Tap-In Fee for non-residential connections shall consist of a capacity portion and a distribution portion in the combined amount of \$ 8.19 per gallon per day, multiplied by the appropriate unit and unit flows found in Exhibit "B" on page 7.

#### CONSTRUCTION WATER SERVICE

Payable when connection permit is issued.

SERVICE	FLAT FEE
Dwelling Unit.....	\$150.00/unit
Commercial Unit.....	300.00/unit**
Industrial Unit .....	300.00/unit**

\*\*Special arrangements shall be made to meter construction water for commercial and industrial units in excess of 6,000 square feet.

METER CERTIFICATION (RESALES)..... \$35.00

#### DISTRIBUTION CHARGES

Internal System	Property owner shall be responsible for the project costs of installing the necessary internal water distribution system as specified by the Authority
-Residential	
-Commercial	
-Industrial	
-Other	

#### OFF SITE TRANSMISSION LINE

-Residential
-Commercial
-Industrial
-Other



Property owners shall be responsible for extending water transmission mains from existing Authority facilities to his property in accordance with the Townships Comprehensive Plan for water facilities or as specified by the Authority. Property owner or project sponsor will be eligible to recover a portion of these off-site transmission line costs through a recapture agreement to be developed with the Authority.

**Meter Turn-On Fee:** A fifty (\$50.00) dollar turn on fee will be charged a customer/owner to restore water service once it has been discontinued for any reason.

**Unauthorized Turn-On Fee:** A three hundred (\$300.00) dollar citation may be issued to the owner, if an unauthorized person turns a water service on which has been shut off by the Authority for unpaid bills.

# EXHIBIT B UNIT FLOWS FOR TAPPING FEE CALCULATIONS

	Unit Flow	
	(gpd/unit)	(unit)
<b>Commercial</b>		
Auto Service Station	500	Island
Banquet Facilities	200	1,000 SF
Area (add.)	40	1,000 SF
Barber Shop	100	chair
Beauty Shop/Hairdresser	100	chair
Bowling Alley	140	lane
Commercial Office	100	1,000 SF
Country Clubs	420	1,000 SF
Dentist Office	200	chair
Doctor Office	200	exam room
Funeral Home	200	viewing room
Health/Fitness Centers	600	1,000 SF
Laundry – self service	400	washer
Motel/Hotel		
Motel	50	room
Hotel	60	room
Residence/Executive Suites	200	unit
Movie Theaters (no food)	4	seat
Restaurant		
Regular	25	seat
24-hour	50	seat
Fast food	50	seat
Retail Store (1" 10,000 SF)	80	1,000SF
Retail Store (1" 10,000 SF)	60	1,000 SF
"Big Box" (>25,000SF)	40	1,000 SF
Shopping Center/Mall	100	1,000 SF
<b>Industrial</b>		
Industrial – Light	132	1,000 SF
Sanitary only	47	1,000 SF
Warehouse		
<b>Institutional</b>		
Assembly Halls	2	seat
Churches	4	seat
Institutions		
Avg. type	125	bed

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Hospital	250	bed
Nursing Home	125	bed
Day Care Schools	0	0
Toilets only	110	1,000 SF
w/cafeteria or showers	150	1,000 SF
School – Public/Private		
Day w/o cafeteria, gym or shower	180	1,000 SF
Day w/cafeteria	255	1,000 SF
Day w/cafeteria and gym showers	300	1,000 SF
Boarding	180	1,000 SF

#### SEPTAGE MANAGEMENT PLAN

Pumper/Hauler Designer and Installer Registration Fee....\$50.00

#### ITEMS AVAILABLE FOR PURCHASE AT THE TOWNSHIP BUILDING

Zoning Book.....	\$ 35.00
Zoning Map.....	\$ 5.00
Subdivision & Land Development Ordinance.....	\$ 35.00
Comprehensive Plan.....	\$ 35.00
Code of Ordinance.....	\$250.00
Yearly supplement.....	\$150.00
Township Official Map.....	\$ 5.00
Photocopies.....	8 1/2 x 11 = \$0.10 per side
Larger	= \$0.25 per side
Disk	= \$1.00 per disk
Fax	= \$0.50 per page
Certification	= \$2.00
VHS of a Cablecast Board of Supervisors' Meeting	\$ 2.50
USB Flash Drive of a Cablecast Board of Supervisors' Meeting	\$ -0-
Doylestown Township Municipal Authority, water and sanitary Sewer service, rules, regulations and specifications.....	\$30.00

#### Mural Prints

Unsigned.....	\$30.00
Framed.....	\$225.00

#### Bike & Hike Shirts

T-Shirts.....	\$ 7.50
Sweat Shirts.....	\$ 5.00
Water Bottles.....	\$ 4.00

#### Kid's Castle Pickets

Single Picket .....	\$ 50.00
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#### Deed Registration

.....	\$ 5.00
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**POLICE DEPARTMENT**

**PERMITS FOR ALARM USE - ALL TYPES**

Alarm users .....	\$ 10.00 (One time Fee)
Alarm Suppliers .....	\$ 25.00 (Annually)
Penalty Fee - False/Accidental Alarms with Police Responses (Fee is assessed for Twelve (12) month period).	
4 to 10 False Alarms .....	\$ 50.00 per alarm
11 to 15 False Alarms .....	\$100.00 per alarm
16 or more False Alarms .....	\$150.00 per alarm
Report of Fire Alarm .....	\$ 25.00

**ITEMS AVAILABLE FOR PURCHASE THROUGH THE POLICE DEPARTMENT**

Criminal History Info check .....	\$ 10.00
Accident Report .....	\$ 15.00
Police Reports .....	\$ 10.00
Copy of Photographs .....	\$ 10.00 each
Fingerprinting .....	\$ 10.00

**PARKS AND RECREATION DEPARTMENT**

**FACILITY USE FEE SCHEDULE - 2019** **DOYLESTOWN TOWNSHIP**

**General Use:**

- Central Park Lighted Facilities
  - General Use (first come, first served basis)
    - Tennis Courts (coin operated) .....
    - Basketball Courts (coin operated) .....
    - Bocce Court .....
  - Central Park Pavilion (per time block). Does not include indoor access.
    - \$ 2.00 per hour
    - \$ 2.00 per hour
    - Free

**Residents**      **Non-Residents**      **Corporate**

25 or less .....	\$ 36.00	\$ 48.00	1/2 day \$180.00
26 - 50 .....	\$ 54.00	\$ 72.00	Full day \$240.00
51 - 75 .....	\$ 78.00	\$ 96.00	
76 - 100 .....	\$102.00	\$120.00	
Over 99 .....	(Corporate Rate)	(Corporate Rate)	

- Security Deposit (required) .....
- Maintenance Fee (Full day pavilion rental and groups of 100+) .....
- Bridgepoint Park
  - Wheelright Building .....
  - Security Deposit (required) .....
- Main Meeting Room, Twp. Building .....





- Police Assistance (as required by the Police Dept.) ..... Calculated on 2010 pay rate  
\$ 2.00 Administrative Fee

#### Athletic Fields: Seasonal

Seasonal Use: (Spring / Summer / Fall)

- Central Park (games only as per approved schedule)
  - Two (2) days per week ..... \$360.00 field/season
  - Three (3) days per week ..... \$480.00 field/season
  - Security Deposit (required) ..... \$500.00/season
- Turk Park/Sauerman Park (games and/or practice as per approved schedule)
  - Two (2) days per week ..... \$360.00 field/season
  - Three (3) days per week ..... \$480.00 field/season
  - Five (5) days per week ..... \$600.00 field/season
  - Seven (7) days per week ..... \$720.00 field/season
  - Security Deposit (required) ..... \$500.00/season

#### Tournaments/Special Use (Athletic)\*

\*Special Event Application may be required --  
Does not apply to seasonal athletic usage

- Special Event Application Fee ..... \$ 25.00 (non refundable)
- Security Deposit (subject to increase based upon nature of events) ..... \$500.00 per event  
(minimum)
- Athletic Fields: Multi-day/weekend (2 consecutive days)
  - Two (2) Fields ..... \$360.00
  - Three (3) fields ..... \$540.00
  - Additional Fields ..... \$ 90.00 per field
- Athletic Fields/Courts – Daily Use (full day – more than 4 hours)
  - Soccer/Football/Baseball/Softball ..... \$108.00 per field
  - Basketball Courts (does not include lights) ..... \$ 42.00 per court
  - Tennis Courts (does not include lights) ..... \$ 42.00 per court
  - Bocce Court ..... \$ 30.00 per court
- Athletic Fields/Courts – Daily Use (half day – less than 4 hours)
  - Soccer/Football/Baseball/Softball ..... \$ 54.00 per field
  - Basketball Courts (does not include lights) ..... \$ 30.00 per court
  - Tennis Courts (does not include lights) ..... \$ 30.00 per court
  - Bocce Court ..... \$ 30.00 per court
- Central Park Pavilion ..... \$ 80.00/day  
(Required if requesting two or more athletic fields-Central Park)
- Sound Amplification Waiver (band, DJ, etc.) ..... \$ 25.00 per day
- Tent Authorization Waiver ..... \$ 15.00 per day/location  
(placement/location as directed by township)
- Electric ..... \$ 3.00 per hour  
(based upon approved time)
- Township Support Staff on Site (as required by the Township)
  - Weekdays (Monday - Friday, 7:30-3:30 pm) ..... 2010 pay rate (straight time)
  - Weekday Evening & Saturdays (4-hour minimum) ..... 2010 pay rate (time & 1/2)
  - Sundays/Holidays (4-hour minimum) ..... 2010 pay rate (double time)

- Police Assistance (as required by the Township ..... Calculated on 2010 pay rate  
\$ 2.00 Administrative Fee

DULY RESOLVED THIS      DAY OF JANUARY 2010

\_\_\_\_\_  
Barbara N. Lyons, Chairman

Attest: \_\_\_\_\_  
Secretary

\\frpqa01\Users\barbari\FFSE\SCHODULES\Fee Schedule 2010.doc

Report prepared by:



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