Improving Parks Management and Maintenance for the Town of Shrewsbury

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1. Introduction

For over 150 years, Americans have been utilizing the assets of the national, state, city and town park. Parks in America originated with the rise of the modern industrial city. Citizens began to demand more open and green space to escape the dirty grind of factory life. Since the first plans for an urban park were laid in 1848, park growth in America has exploded. The United States currently has 58 national parks that occupy 83.6 million acres of land. There are also 1,836 state parks in the United States with a total area of 7,841,914 acres. There are thousands of city and town parks in America. For every one of these parks, there is a Parks and Recreation department responsible for the maintenance of that park. As cities and towns continue to grow, citizens are going to continue to demand more urban recreation, and Parks and Recreation departments will continue to provide the answer.

The state of Massachusetts has a population of 6,349,097 people and a total area of 7,840 square miles. Massachusetts Department of Conservation and Recreation manages and maintains 103 state parks and forests totaling about 285,000 acres[1]. Shrewsbury, Massachusetts is currently is home to 31,665 residents and like the rest of the state of Massachusetts they have demanded public parks and recreation facilities.

The Parks and Recreation Department in the town of Shrewsbury is responsible for the management and the maintenance of 16 public parks and 5 athletic fields. It manages these parks with a budget of about $550, 501 dollars per year. With this budget the Parks department employs a crew foreman and four full time staff members as well as seasonal help. The Shrewsbury crew is responsible for maintaining turf, trimming branches, and playground equipment upkeep as well as snow removal during the winter.

The Parks and Recreation Department for the Town of Shrewsbury is making strides in improving the way that they manage their parks. For the 2005-2006 fiscal year Shrewsbury has allocated almost 32,000 dollars for the purchase for a new ¾ ton dump truck for the Parks Department. The Parks Department also has started using a software program called RecTrak to try and help with the organization of their facilities. This software allows citizens of Shrewsbury to register park space, athletic fields, and sign up for tennis and swimming lessons all online. These are all positive steps that the parks department has taken. The parks and recreation department needs a better way to anticipate

[1] Department of State Parks and Recreation History

the maintenance needs of each of its parks and fields. The Parks and Recreation Department has taken some positive steps to improving the quality of its parks, however improvement is still needed.

This project is meant to assist the Parks and Recreation Department of the Town of Shrewsbury to find a better way to manage and maintain all the parks and fields under its jurisdiction. The ultimate goal is to have a way for the Parks Department to better anticipate the maintenance that needs to be done to each park through a comprehensive cataloguing system. The first step for this project will be to map all the parks and the fields as well as the key features within each park. Time is a major factor for the success of this project so knowing exactly how long it takes to get all of the work done in each park will be crucial. The next step will be to refer to the collected data to insure that time is being properly managed to keep all maintenance levels where they should be. This project will allow the Parks and Recreation Department of the Town of Shrewsbury to increase the service level of each of their parks.

2. Background

The idea for a park is not a new idea. The Romans had gardens within their cities such as Porticus Livia[2] that had been set aside for public use and enjoyment. However, it was only with the rise of Victorian society that the "modern" park began to appear across Europe. It was not until mid 1800's that the park idea made the jump across the Atlantic to America. The first parks to appear in America would be what are called "maintained" parks within an urban area. These would include a city or a town park or garden, where there is maintenance of the lands within that particular park. The other type of park that evolved in America is what as know as a "natural" park. This type of park would include those in the National Park system as well as state run parks. We will explore the history behind the development of both these types of parks as well as the problems that they faced and continue to face in the upcoming section.

2.1 History of Parks

The National Park System was formed to protect the natural wonders that are found within the boarders of the United States. The first cry for preservation of the nation's natural beauty came as settlers moved west and returned with tales and paintings of the fantastic scenery that fell before them. Citizens in the east did not want to see the lands in the west meet the same fate as the lands in the east did.

Niagara Falls was considered by many Americans in the early 1800's to be the most spectacular natural formation in America. Being that this was the nation's most spectacular natural spectacle, it began to attract a significant amount of visitors. Soon it became apparent that Niagara Falls could be used to turn a substantial profit to those who were willing. The falls saw construction of early hydroelectric power, and the thinning of the surrounding forests as acres upon acres of timber were logged and cleared out of the area. The best places to see the falls were soon claimed and overlooks were installed so that tourists could get the best look at the falls for a price. Stands soon followed as cheap souvenirs were peddled to the guests arriving to the falls in droves. It was the desecration of Americas first natural wonder that lead to the public cry for the protection of Americas new found treasures out west.

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[2] Chadwick, George F. The Park and the Town. P.19

The pictures that returned with explores of the west provided Americans with a fantastic picture of the amazing beauty existing out west. When painter Albert Bierstadt returned to the east with his paintings of Yosemite in California congress decided that it would not meet the same fate as Niagara Falls. So in 1864 the land was donated to the state of California so that it could remain unchanged for all of time. This was the first time that the national government had set aside land for the purpose of conservation.

Not long after Yosemite had been given to California an expedition returned from the lands know was Yellowstone. Included in this expedition there was a painter named Thomas Moran and a photographer named William Henry Jackson. They returned to congress with paintings and photographs of the wonders that they had encountered while within the boarders of Yellowstone. Congress looking to preserve this national environmental wonder as well decided to set aside Yellowstone for conservation as well. The problem with setting aside this massive piece of land is that there were no states that this land could be given to. Yellowstone was just a territory with boundaries that were murky at best. In 1872 it was decided that the federal government would claim ownership of Yellowstone thus making it the nation's first national park.

With Yellowstone paving the way, congress soon added many more plots of land to fall under the protection of the federal government. In 1890, Sequoia, Kings Canyon, and the lands not belonging to California around Yosemite all joined Yellowstone as American national parks; however in 1906 California gave the federal government all the land within Yosemite to join the state park with the national one. In 1899 Mount Rainer would be set aside as a national park and Crater Lake would become a protected national park in 1902. Congress assured the continued preservation of natural parks with the passing of the Antiquities Act of 1906. This piece of legislation gave the president the ability to set aside lands for protection based on prehistoric, historical, or scientific value. The Antiquities Act allocated the President to continue the establishment of new American National Parks.

With all of these new parks however came new problems. There was no central control over the powers in charge of all the parks. Each park was essentially a central entity with no connection to any of the other parks. Congress tried to solve this problem by giving control of the parks to the Department of the Interior, but this organization was still rather small at this time and found management of these vast tracks of land rather impossible. Congress ended up giving much of the control of the 13 parks to the army who had the

resources to manage all of land. This caused immense problems because it ended up that different parts of the same park were run by different organizations that were not answerable to each other. An example of this occurred in Yellowstone where the superintendent was an army officer and the engineer in charge of road construction happened to be from the Army Corps of Engineers and the two were not answerable to each other so there was much confusion between the two. Another problem was that all the hotels, concession stands and restaurants were operated independently and each vender was required to purchase permits through the department of the interior. It was due to this independently managed and operated style that the Department of the Interior took, that led to the poor level of service within the parks. This poor level of service led to many complaints about the parks and the way that they were run. It was these complaints that persuaded Congress to create the National Parks Service in 1916. Though not all problems disappeared with the creation of the National Park Service, the management certainly improved and people began to arrive in droves. The National Park Service had arrived and with it prosperity within the parks that nobody could have foreseen.

2.1.1 History of State Parks

The first of what may be considered a state park was set up by the government of the Massachusetts Bay Colony. Between the years of 1630 and 1640 Massachusetts set aside 90,000 acres of prime hunting and fishing grounds for the entire colony to use. It must be stated however that this was not a true park so much as a game preserve. The first true state park was Yosemite because as we said in the previous section, the federal government gave that land to the government of California to protect and preserve so that all would be able to enjoy it. As you know though, California returned the land to the federal government in 1906. The first park to be established by a state government for public use would be that of Niagara Falls in New York State.

Niagara Falls, or what was left after the area had been harvested for hydroelectric power and timber was officially made a New York State park in 1885. Later in that same year New York officially acquired another piece of land that was to become Adirondack State Park. Minnesota was the next state to develop its own state park in 1891, and California and New Jersey would soon join in developing state parks. State parks would soon make an enormous advance however with the help of the first Director of the National

Parks service, Stephen Mather. He held a conference on the subject of creating state parks and this conference was attended by over 200 people representing 28 states. It was at this conference that Mather laid down his plan to increase the number of state parks in the country as only 19 of the 28 states had any sort of state park and of those only California and New York had more then one. Most of the states seemed to accept this of a need for more state parks because by 1940, 45 states had parks and 40 of those 45 had specially designated park agencies. By 1958 however Mather's dream had been realized as Arizona and Colorado the last two states to create a state park did so.

2.1.1.1 History of Massachusetts State Parks

The state of Massachusetts has a rich and diverse landscape. The natural geography of Massachusetts ranges from the coastline of Cape Cod and Nantucket to the rivers, lakes and streams, to the mountains of western Mass. Tourism is the second largest industry in Massachusetts[3], so for a long time, the state has been trying to preserve that natural beauty within the commonwealth. Each year, Massachusetts spends 25.6 million dollars on their state parks and has a visitor total of over 10 million people[4]. The Commonwealth of Massachusetts has a state park system that generates a lot of revenue for the state, and the legislature has been allocating funds for the protections of its natural beauty for a long time.

The first established government of Massachusetts was that of the Massachusetts Bay Colony. It was this government that first established legislation to protect some of the wilderness within their state. As stated above, the Massachusetts Bay Colony passed several pieces of legislation to limit the growth of the towns around and near tidal estuaries, and to certain ponds, lakes and woodlands. The purpose of this legislation was to protect valuable fishing and hunting grounds so that all citizens would be able to use them[5]. The Massachusetts Bay Colony recognized at a very early time the importance of protecting and preserving valuable lands within the colony to benefit the general public.

From the time of the Massachusetts Bay Colony up until the 1890's Massachusetts saw very little damaging effects of its population upon its environment. By the 1890's however, the entire country was in the grips of the industrial revolution, and many natural

[3] Department of State Parks and Recreation History
[4] Megan Amundson, Environmental League of Massachusetts
[5] Department of State Parks and Recreation History

resources were being consumed at an extremely high rate. The forests of Massachusetts were among the casualties of this technological revolution. Timber was needed to build the massive mills that were going up in the eastern part of the state as well as fueling furnaces for the manufacturing of other goods. The massive amount of logging that was going to take place to satisfy the needs of the nation would forever alter the landscape of Massachusetts. Mount Greylock the highest point in Massachusetts had its eastern face logged so heavily, that massive erosion and landslides decimated the peak of this mountain[6]. It was the extreme decimation of the forest lands of Massachusetts that lead to the creation of the first public state park.

At the time that the forests were being picked clean by loggers, the state legislature was unable to set aside lands for a public trust. One concerned citizen, Charles W. Elliot saw the need for the acquisition and the protection of state lands through public ownership of that land. It was his initiative that prompted the state legislature to create the Trustees of Reservations, and the Metropolitan Parks District. It was at the recommendation of these two groups that in 1898 the Massachusetts legislature set aside 400 acres of land around Mount Greylock to become the first official Mass state park. Two years later Mount Greylock state park had grown to 800 acres proving that the public supported the idea of land preservation within the state. It was through the act of massive deforestation that the first state park in Massachusetts came to be. With the success of the Mount Greylock state park, the Massachusetts legislature began to explore more options to preserve the states forests. In 1908, the government enacted the Reforestation Act that would allow owners of deforested woodlands to deed their land to the government for replanting. However by 1928 Massachusetts had more land then they could manage and the program had to be abandoned. However there were significant improvements done to the deforested land around the state before the program was cancelled[7]. The purpose of these early conservations efforts by the state were aimed at the conservation and protection of forests and waterways, as well as the restoration of wildlife.

The next major step in the development of the state park system in Massachusetts came in the 1930's. It was the rapid economic growth of the 1920's that pushed the development and growth of towns and cities within Mass. that once again threatened the

[6] *Idem*
[7] Department of State Parks and Recreation History

forests and the waterways. However the crash of the stock market in 1929 and the subsequent depression left many in Massachusetts without work and without a paycheck, and effectively ended all new growth. In 1933, President Franklin D. Roosevelt created the Civilian Conservation Corp or CCC. This program put 10,000 men to work in over 51 camps across the state. Their job was to build roads and natural recreation facilities within the land acquired by the Reforestation Act. It was this program that created most of the state parks that the Massachusetts now owns and operates[8].

Through the years the state of Massachusetts has proven that the conservation of its state shores, forests and waterways is extremely important. Through various legislative acts and public donations, Massachusetts now has 103 state parks that total 285,000 acres of land. These parks range from state beaches to state forests and lakes. As the state expanded so has the amount of land that it protects. Massachusetts has stuck to the plan laid out by Charles W. Elliot and kept land protected and available for private use.

2.1.2 History of Town Parks

As of this moment there have been four distinct stages in the approach and of the development of city and town parks in America. The first main school of thought towards urban parks was that of the Pleasure Ground. The Pleasure Ground style of city park dominated urban park construction for the latter half of the 1800's. The second style of American park was to be created between 1900 and 1930, and was known as the Reform Park. Following the reform park was the Recreation Facility style and this was the major design from 1930 until 1965. The fourth method of park design to come about in America is known as the Open-Space system. It was accepted at the end of 1965, and is currently in use today[9].

The pleasure grounds were the first style of park to take root in urban cities across America. In early America, the city or urban township has stood for overcrowding, stress, disease, greed, and corruption. The country or rural areas on the other hand have stood for simplicity, health, tranquility, and peace[10]. The goal of the early urban parks was to bring that same feeling of peace and tranquility to the chaos that was the American industrial

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[8] *Idem*
[9] Cranz, Galen. The Politics of Park Design. pg.2
[10] *Ibid* pg.3

city. The goal was to be able to escape to the country if only for a little while. The design of the pleasure ground was supposed to be that of the countryside only placed into the middle of a city. These parks included grass meadows, ponds and streams as well as lush gardens and foliage[11]. It was widely believed by city planners that most if not all of the major problems within an urban center could be alleviated by the construction of one of these majestic parks[12].

The pleasure grounds were used in a variety of ways. The pleasure grounds were originally designed for passive use, to be used for strolling and for picnics. They were designed for sitting relaxation, and contemplation, all ideals that held with the American transcendentalist movement of that time. As more and more people began spending most of their day inside under artificial lighting however, these parks began to be used more for active recreation. Children who visited the parks were expected to run and play, while older boys were expected to partake in sporting events, and adults to ride horseback row in the lake or walk. The pleasure grounds were ideal for these activates because there were paths to walk or ride a bike on, wide open spaces to rid a horse, merry-go-rounds for the children, and fields for polo, baseball, lacrosse, tennis and sport shooting[13]. The pleasure ground was designed to provide relaxation to the industrial worker as well as physical conditioning lost due factory production[14].

The maintenance of the pleasure grounds was a difficult if not sometimes impossible task. The main maintenance problem for any park is in controlling the population that uses that park. The population of any given city expected their park to be maintained in a certain way, because that is where they spent most of their time away from work. The grass was supposed to be kept mowed at all times. The need for short grass to accommodate the various sporting fields as well as picnic spots was essential to a pleasure ground era park. The problem with maintaining all of this land was that mechanical mowing equipment was not available yet. All of the mowing had to be done through the use of animals. Sheep, deer and goats were let out to graze on the land so that the grass would stay short. This presented problems of how to control the animals, how to avoid a patron from getting injured by one of these animals as well as what to do with their droppings. Another major

[11] The History of Parks: American Parks
[12] Cranz, Galen. The Politics of Park Design. pg.5
[13] *Ibid* pg.7
[14] *Ibid* pg.8

problem with pleasure ground parks was the long tracts of trees that were routinely planted in them. These trees were used to produce a clean and fragrant aroma throughout the city, so as to help alleviate the unpleasant smell of the cities sewage system. The citizens of the city though did not understand the need for the pruning and periodic thinning of the tress, and when such an idea was proposed, citizens often fought to save the limbs. When they usually won, the limbs would remain intact, and the trees ended up crowing themselves out and exhausting all of the resources in that particular area. This subsequently caused the trees to either develop disease sand insect infestations which led to a trees death. Large amounts of time and money were wasted replanting large areas where trees needlessly died[15]. Routine maintenance of pleasure ground parks was a major problem.

The second great era in American urban parks would come to be known as the Reform Park. The main theme for the reform park would be that of organized activates, because park planners at this time felt that the masses were unable to propagate their own recreation. This was a stark contrast to the unstructured recreation of the pleasure grounds. The reform park still had the underlying goals of the pleasure ground. That is bringing a piece of the countryside into the city to provide non-crowded green space to the public[16].

The motivation behind the creation of the reform park was that of optimization of leisure time. Beginning in the early 1900's people found themselves with larger salaries, shorter work weeks, and an earlier age of retirement. This left a lot of time to be filled and the reform park sought to do this. It was the large amount of free time that prompted park designers to fill that time with scheduled and organized activities. Parks became used less for spontaneous recreation and more to fill large gaps of time in peoples weeks. Park Planners responded to the need for more scheduled programs by designing and building municipal baseball and football stadiums, beaches, golf courses, tennis courts, basketball courts and picnic areas. Advocates for the reform park were trying to fill the free time that people had within their weeks with wholesome activities to keep people from engaging in less then moral activities in their abundance of free time[17].

Children and young adults were the main users of the reform park, and with them cam the idea of playgrounds[18]. Playgrounds were not a new idea per say, but only a select

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[15] Cranz, Galen. The Politics of Park Design. pg.40
[16] *Ibid* pg.61
[17] Cranz, Galen. The Politics of Park Design. pg.62
[18] *Ibid* pg.61

few of the largest cities had incorporated them into their park design. Playgrounds really began to become popular after 1906 with the national institutionalizing of the Playground Association of America[19]. The Playground Association of America allowed for the purchasing of land specifically for playground use. It was through the development of the playground, that the neighborhood park would come into existence[20].

The neighborhood was created to provide more accessible recreation facilities to the inner city working class. City parks departments would meet this demand by purchasing small plots of land in neighborhoods and transforming them into parks. The playground was supposed to be a place for children to be able to play besides the street. It was also meant as a place for men to be able to gather with their peers instead of the saloon[21]. Another significant role of the neighborhood park would be that of intercity competition. Teams would gather from all over a city all having been organized at their local neighborhood park[22].

The reform park put much of its emphasis on the organization of children's as well as adults free time. This was done because it was widely believed among the governments that the lower classes if left to occupy themselves in their free time would turn to mischievous behaviors. To occupy people's free time playground equipment and significantly more athletic fields were developed to create a positive outlet for people's energy. This increased importance in competitive sports would lead to the next revolution in the urban park.

At the beginning of the 1930's park administrators decided that parks should be designed and used mainly for athletics as less as a device to facilitate a social reform of the lower classes[23]. This era in the history of urban parks would be know as The Recreation Facility for its emphasis on the improvement of athletic programming. The main characteristic of the recreation facility era was that of combating boredom and idleness[24]. Shorter work weeks, earlier retirement, longer lives, and a general increase in the standard of living within the United States had people less concerned with work and more concerned with how to spend their time off. By this time in urban park history, parks had become less

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[19] *Ibid* pg.62
[20] *Idem*
[21] The History of Parks: Reform Parks
[22] Cranz, Galen. The Politics of Park Design. pg.72
[23] Cranz, Galen. The Politics of Park Design. pg.102
[24] *Ibid* pg.105

of a luxury in a city and more of an expectation. Better lives increased the demand for more recreation options, and it was seen as the duty of the urban park to provide the answers.

The onset of the great depression would lead to a large increase in the use and demand for public recreation facilities. Many urban park centers opened up reading rooms, craft areas, as well as game rooms[25]. The purpose of these new park amenities was to keep the unemployed busy and the depression off of their minds. Park Departments both urban as well as rural would benefit from Roosevelt's New Deal. The creation of the Works Project Administration or WPA would employ thousands of people in new park construction, as well as maintenance and renovation of older parks[26]. With all the free time that the unemployed had on their hands during the Great Depression, it was the job of the parks to keep morale up, and during the WPA years, provide jobs for those in need

The Second World War would also provide a boost in the use of urban parks, but not always for recreation. Park programming and usage during this time would take on a more patriotic role then it ever had before. Classes were provided in CPR and first aid as well as training on what to do during a bombing raid. Red Cross volunteer stations were set up in parks across the country where men, women, and children could all offer their time to help the soldiers[27]. New activities were also set up such as Victory Gardening. Victory Gardening was when citizens were encouraged to grow their own food for their family, and were given plots of land in local parks to plant on. The belief was that if every family grew their own food, the government would be able to better able to provide for the soldiers over seas. In turn workshops were given at local parks on home gardening and local garden clubs and local garden newspapers were established[28]. World War II also gave athletics and increased importance. The physical condition of the nation's youth was one of the single biggest responsibilities of the urban park[29] commissioners. Sports were no longer just a good way to enjoy yourself, they were vital to the security of the country. However the programming varied little from pre-wartime activities, as baseball, football, skating, golf, gymnastics and swimming were still the main sources of sporting. The only differences was

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[25] *Ibid* pg.110
[26] *Idem*
[27] Cranz, Galen. The Politics of Park Design. pg.110
[28] *Ibid* pg.113
[29] *Ibid* pg.114

that now there was a strict regiment to the way that the games would be played to get the youth used to receiving and obeying order given to them by superiors[30].

During the years of the Recreation Facility the maintenance of urban parks would change drastically. The first and probably biggest factor that contributed to this change was the rapid expansion of park assets with little to no expansion of park department budgets. During the war years park budgets were routinely cut and funding was restricted only to those activities that were deemed vital to the safety of the nation[31]. This lack of funds for maintenance led to the technological advances in park maintenance. Once the war hit though gas began to be rationed and many urban parks became in favor of just paving over the fields with black top instead of maintaining them with their tractors[32]. This allowed for a one time maintenance cost minimal personal and funds had to be used in that are from there on out. Another time and money saving addition was that on concrete and cinderblock building and structures to replace wooden ones. This allowed time to be saved by not having to replace rotting wood structures[33]. A new maintenance need however arose during this period. The sign was a vital part of the Recreation Facility era. Budget cuts meant that there would be less personal supervision within the park, so signs were created and hung to make sure that citizens knew where to go and what not to while within the park[34]. One creation though during ere that continues to prove useful is the creation of the public trash cans. These cans allowed for the easy collection of garbage within the park[35]. Another importance maintenance development during the Recreation Facility era was that of standardized park equipment. Benches and fences that could be made cheaply and in bulk would soon come to dominate the urban park landscape. These benches and fences could be maintained and if need be replaces extremely cheaply, and spare parts could be stored to allow for a faster fix[36]. The Recreation Facility became an easily maintained urban park, with an emphasis on sporting events.

The creation of so many easy to maintain asphalt and concrete urban parks would lead to a crisis in many cities and lead to the fourth and final chapter in the history of the

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[30] *Idem*
[31] Cranz, Galen. The Politics of Park Design. pg.110
[32] The History of Parks: Recreation & Sports
[33] Cranz, Galen. The Politics of Park Design. pg.125
[34] *Ibid* pg.126
[35] *Idem*
[36] *Ibid* pg.125

urban park. This era was to be known as the Open Space System for its continued pursuit of preserving open and green park space. During the Recreation Facility years the emphasis on ease of maintenance had led to the destruction of trees and grass within a park. It also included the enclosure of such parks with a high chain link fence. This gave the parks more of a claustrophobic and less of an open feel. The Open Space System was close to a reversal back to the Pleasure Ground school of park design, although not on quite so grand a scale. During this period of park design, parks were wide open green spaces where "anything goes" in terms of what activities can take place there[37].

There were major problems with city parks in the ending years of the Recreation Facility era, and they manifested themselves in the early years of the Open Space System. The major problem was a migration of the middle class out of the city and into the suburb. The city was left with really only two classes of people, either the very rich, or the very poor. The wealthy were no longer interested in parks and the programs that were offered within them. With so little interest in the parks from the influential people within the city the funding for the parks began to dwindle. With little funds for maintenance and for staffing, the parks of the previous eras began to fall into disrepair. Soon parks were no longer seen as recreation facilities of sanctuaries, but as havens for crime that were to be avoided at all costs[38]. This was the setting in the beginning of the Open Space System.

The Open Space System and its "anything goes" attitude was a dramatic step taken by the Park Departments of the United States to try and revitalize the public's interest in parks. The trend of this era was that of ecology and "green spaces". A park could be any "green space," where trees and grass could be planted. These would come to include vacant lots, rooftops, as well as bike and walking paths[39]. Parks were in constant competition with housing developers and freeways for open space to transform into a park. So every available urban lot was quickly transformed into a playground through the planting of grass and trees as well as the construction and placement of prefabricated playground equipment[40]. The idea for this park was to get away from a built up concrete and asphalt park, constrained within a chain link fence. The idea was for the park to be wide open and full of possibilities.

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[37] *Ibid* pg.138
[38] Cranz, Galen. The Politics of Park Design. pg.137
[39] The History of Parks: Accessible Greenspace
[40] Cranz, Galen. The Politics of Park Design. pg.143

In an effort to be true to the "anything goes" idea, as well as to attract a new and diverse crowd to the parks, many activities that had been deemed unacceptable park behavior were now encouraged. Live bands and concerts as well as beer drinking and feasting were now the basis for celebrations held within parks[41]. New and modern sports were also introduced into the parks, while other older sports had been abandoned. In many cases horseback riding was replaced by the fresh and new extreme sport of motocross, however many of the traditional sporting activities were retained[42]. With the absence of middle class children participating in the activities offered by the parks however, poor inner-city children found themselves more involved in traditionally white middle class games such as tennis[43]. The Open Space System was trying to win back its visitor base with increased opportunity for poorer children and more modern sporting activities.

The Open Space System was one of unlimited possibilities. This park could be constructed almost anywhere and within a very limited space. It emphasized greenery as well as a feeling of openness. The Open Space System not only accepted but encouraged participation in activities that previously had not been acceptable within park boundaries. During this time many poor inner-city children were introduced to activities that had predominantly had been considered white. The Open Space System combated the disrepair and the ridicule of the parks through ingenuity and perseverance.

2.2 Parks Maintenance

The parks maintenance section of the background will be focusing on the most effective ways of maintaining urban parks. It will deal with ways of managing the work that needs to be done. This section will look into effective crew management also. In addition this section of the background will include different techniques from other parks around the state and the country as well as their effectiveness in different situations. This is a section of the background that looks to explore various maintenance options that may or may not work for this specific project.

2.2.1 Level of Service

The level of service is the amount of time dedicated to the maintenance task. There are six levels of service that we will be paying attention to. These levels were developed in

[41] *Ibid* pg.139
[42] *Ibid* pg.140
[43] Cranz, Galen. The Politics of Park Design. pg.140

part from the National Recreation and Park Association's *Park Maintenance Standards*, in which they are referred to as "modes." They provide a word picture of what one would expect to see when encountering each types of environment. Level 1 is "State-of-the-art maintenance applied to a high-quality diverse landscape. Level 1 is "associated with high-traffic urban areas, such as public squares, malls, government grounds, or college/university campuses." Just as example of what is expected for a first level maintenance job, when there is snow there are certain regulations for when the snow removal must start, how long the snow can be down before it is no longer considered level one, and recommendations for the spreading of gravel/salt to lower the risk of injuries.

Level 2 is still high-level; however it is not at the state-of-the-art expectations that level one is at. Level 2 is the primary level which is recommended for most areas. Just to compare what Level 2 and Level 1 are like the only regulations that are set forth for snow removal in Level 2 are that gavel/salt be spread to reduce injuries and removal of snow has a certain time it must be done by.

Level 3 is only a moderate level maintenance, this might be due areas that have low development of visitation or due to the lack of funding to complete maintenance to a Level 1 or 2 standards. The snow removal for Level 3 states that the snow is removed only according to the laws for the region that the area is in and that some sidewalks and pathways may not be cleared at all.

Level 4 is a maintenance level that is deemed moderately-low due to dealing with areas that are affected by the lack of funding. This would mean less manpower which makes it more difficult to achieve a higher maintenance level.

Level 5 is one step before the land is allowed to return to its original state. It is the minimum maintenance that can be done in that area. Most of the areas that are deemed to be Level 5 are suffering from extraordinary budget problems.

Level 6 is the point at which the land is allowed to return to its natural state. This means that there is basically no maintenance done whatsoever, everything is allowed to grow naturally and unaffected.[44]

[44] Operational Guidelines for Grounds Management pg.19

2.3 Parks Usage

There is a wide and diverse population that makes use of the amenities offered by today's parks. The activities and amenities offered by parks and recreation facilities are as diverse as the people who use them. The most common use of a modern park is for athletics. There are wide variety of sport fields and complexes that are available in a park. Baseball and softball fields are available as well as basketball courts and tennis courts. The growing popularity of soccer has also spurred the increased development of soccer fields. These amenities are most frequently used by town sports teams and by athletic clubs. One major draw of a park is its ability to provide for the athletic needs of the local community.

Another feature offered by a park is its picnic areas. The main purpose of a picnic area is to have a place to be able to eat outdoors. To facilitate this many park's picnic areas will provide grills and picnic tables. A park may also provide a pavilion so that users can escape the sun or the rain while they eat. However, the problem with a picnic area is that they tend to invite vandalism. If there is not a sufficient amount of play area available in or around the picnic area, users will become bored easily and may decide to vandalize the surrounding area to ease their boredom. To combat this many parks will space picnic areas in between their play fields to allow users of the picnic area to occupy themselves without damaging the property within the park. Picnic areas are used by almost all patrons to a park, especially families with small children, as it provides a good place to settle into.

Playgrounds are another popular feature of a playground. Playgrounds will typically include a slide, swing set, sand play area, as well as some type of jungle gym or other free standing play structure. Playgrounds are commonly used by smaller children and some accommodations will be provided for the parents of these children. Benches and picnic tables are common around playgrounds so that the children's parents can be comfortable as they watch over their child.

Water activities are also a well-liked feature of any park set on an acceptable body of water. These activities can include boating, swimming, and fishing. Many parks will offer boat ramps to allow for easy loading and unloading of boats if the body of water is large enough to accommodate boats. Parks will also encourage fishing from this boat ramps and may even build a pier to support fishing. By addressing the need for designated fishing spots, a park will be able to decrease the damage done to its shoreline by individuals fishing from the bank. This will reduce the amount of garbage that also gets deposited along the

shoreline. A designated swimming area and a beach are also common in parks with large bodies of water. These beaches allow families to gather to play in the water, but also limit the area in which people can swim. This is for safety reasons to make sure that individuals stay out of boating lanes. Facilities that enable people to use the body of water within a park are enjoyed by all ages. There are many ways that parks can be enjoyed by a wide range of ages and backgrounds.

2.4 History of the Town of Shrewsbury

The Town of Shrewsbury, which is named after Shrewsbury, England, is a town which is composed of uneven and hilly terrain along with a number of rather small streams that can be used as small water power sites. Numerous grants of land in 1664 are what started this suburban community which today holds over 31,000 residents. The first permanent settler was Gersham Wheelock in 1720, after which more and more continued to arrive mainly from Sudbury and Marlborough. Shrewsbury as a town was not settled until 1722 and not officially incorporated until 1727.

In the early years of the town the townspeople created an agricultural economy with apple orchards which lead to two stores, four taverns, and several small industries by 1750. However, due to the harsh conditions and rapid fall of prices for agricultural goods after the Revolutionary War life for the colonists of Shrewsbury rapidly became more difficult. These hardships brought on the need for debt collections and the foreclosures of mortgages and in 1786 Shay's Rebellion sought to shut down the courts to help prevent this from happening. Shay's Rebellion lead to Shrewsbury becoming the staging area for the rebellion and housing more than 400 insurgents prior to the march on the Worcester Court House. However, in 1786 a leather industry began in Shrewsbury and in order to support the industry town farmers developed large herds of cattle. The leather industry was followed by gunsmithing, a small watch making factory in 1809 started by Luther Goddard, and finally sawmills were created by lumbering. This was helping to bring the town of Shrewsbury back up from the rather big fall it took right after the Revolutionary War.

As these industries were killed off, mainly due to the lack of large waterpower sites and late arrival of the railroad, the role Shrewsbury held as a suburb of Worcester became more important than ever. Between the years of 1915 and 1940 the population more than

doubled in large part because of the streetcar suburb growth. Another big factor in the rapid population growth was Lake Quinsigamond. An increased number of lakeside cottages, other recreational areas on the lake, and various ethnic groups also played a big role as well.[45]

2.5 Shrewsbury and Its Parks

Currently there are 27 parks and other recreational facilities in the town of Shrewsbury covering approximately 310 acres of land. Many of the parks located in Shrewsbury and primarily used for recreational uses, for example there are many parks located in various neighborhoods as a place for parents and their kids to go. However, there are other parks such as Dean park, which is one of the largest parks in Shrewsbury, that are used for recreational use along with for various town sports teams and games. Some of the activities available in the town parks are: various sports, cross-country skiing, walking/jogging, playgrounds, play fields, fishing, a number of pavilions, and boating.

Figure 1: Fountains at Dean Park, the main park of Shrewsbury

The town also offers a number of programs and events that are held in the parks depending on time of year and space available. For example, there are a number of different lessons that are held by the Parks and Recreation department each year. In addition they hold some thing called the Passion Plunge[46]. This is a way of contributing to Special Olympics Massachusetts, each February a number of volunteers collect donations from family and other people and then enter the Atlantic Ocean. This is a great example showing the dedication and devotion that Shrewsbury and its Parks Department has.

[45] http://en.wikipedia.org/wiki/Shrewsbury,_Massachusetts
[46] http://www.shrewsbury-ma.gov/parkrec/eventsprjcts.asp

2.5.1 Parks of Shrewsbury: Maintenance

The maintenance of the Parks of Shrewsbury is going to be a major focus of our project. Currently the maintenance crew for the parks of Shrewsbury includes Dan Rowley the foreman, 4 fulltime employees, and some seasonal help. There are two real sections that one must consider when thinking about the maintenance of the parks of Shrewsbury. The first is the ordinary maintenance assessments and the second being the extra-ordinary maintenance assessments.

Ordinary maintenance assessments are things that are done on a regular basis and usually kept to some sort of schedule. For example, the mowing of all the lawns in each of the parks and other facilities in Shrewsbury are done in a specific order and or routine. This is the most practical and productive way of getting the grass mowed. Other ordinary maintenance includes leaf collection, snow maintenance, weed whacking, hedge trimming, and other various everyday type jobs.

Figure 2: Parks and Recreation Gazebo

The extraordinary maintenance assessments are jobs that will only need to be done maybe twice a year. Such maintenance needs would include something like a broken window of one of the buildings located in the parks. This is something that only needs to be done once, unlike that of mowing the lawns. Other jobs are such things like fixing any type of broken structure, pond maintenance, and tree problems. Although these jobs may not seem as important as that of the ordinary assessments such things as broken windows and other broken structures are a hazard to little children playing in he parks, so paying attention to these small jobs are just as important as the larger and more frequently done jobs.

2.5.2 Shrewsbury Parks Department

Figure 3: High School

The Parks and Recreation Department is responsible for the planning and coordination of the town's recreational activities and park facilities. In addition, the Parks Department is responsible for the maintenance and scheduling of the town fields and parks. It is staffed by one foreman, 4 maintenance staff members and some seasonal help. The Parks and Recreation Department offers programs to make you feel great, stay healthy, create memories, and provides safe places to play.

2.5.3 Parks

The town of Shrewsbury is home to 16 parks all of which the Parks department is responsible for. Many of the parks include such things as athletic fields, ponds, playgrounds, tennis courts, pavilions, open fields, basketball courts, picnic area and tables, and fishing available. From the large number of activities and facilities available included within the parks of Shrewsbury it is no surprise that keeping them clean and presentable is very important. Although there are 16 parks, Dean Park is the busiest and most frequently used park. However, all of the parks in Shrewsbury are visited frequently and provide a place for the town members to exercise, fish, and do many more entertaining and relaxing activities.

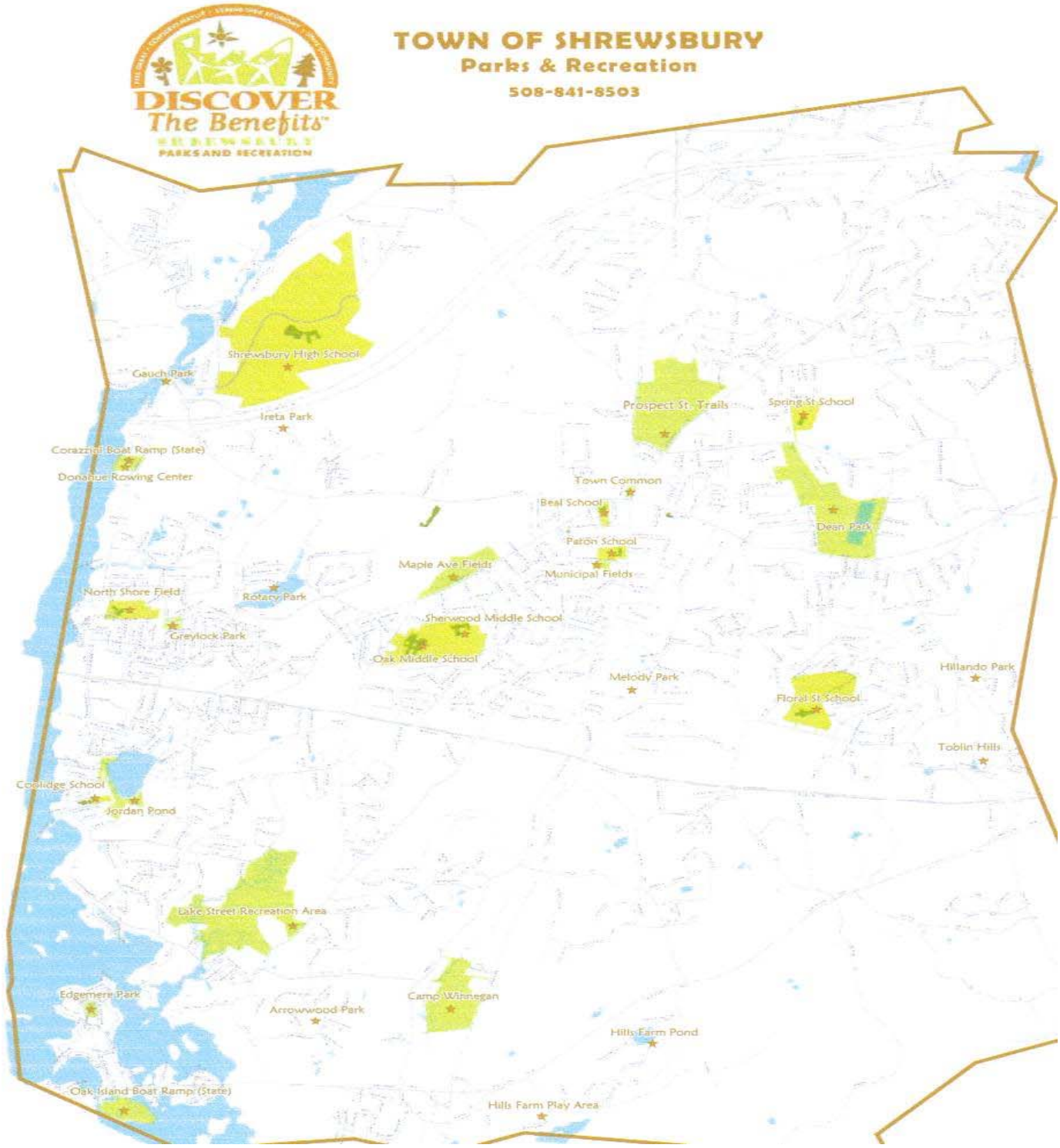


Figure 4: Map of Shrewsbury's Parks

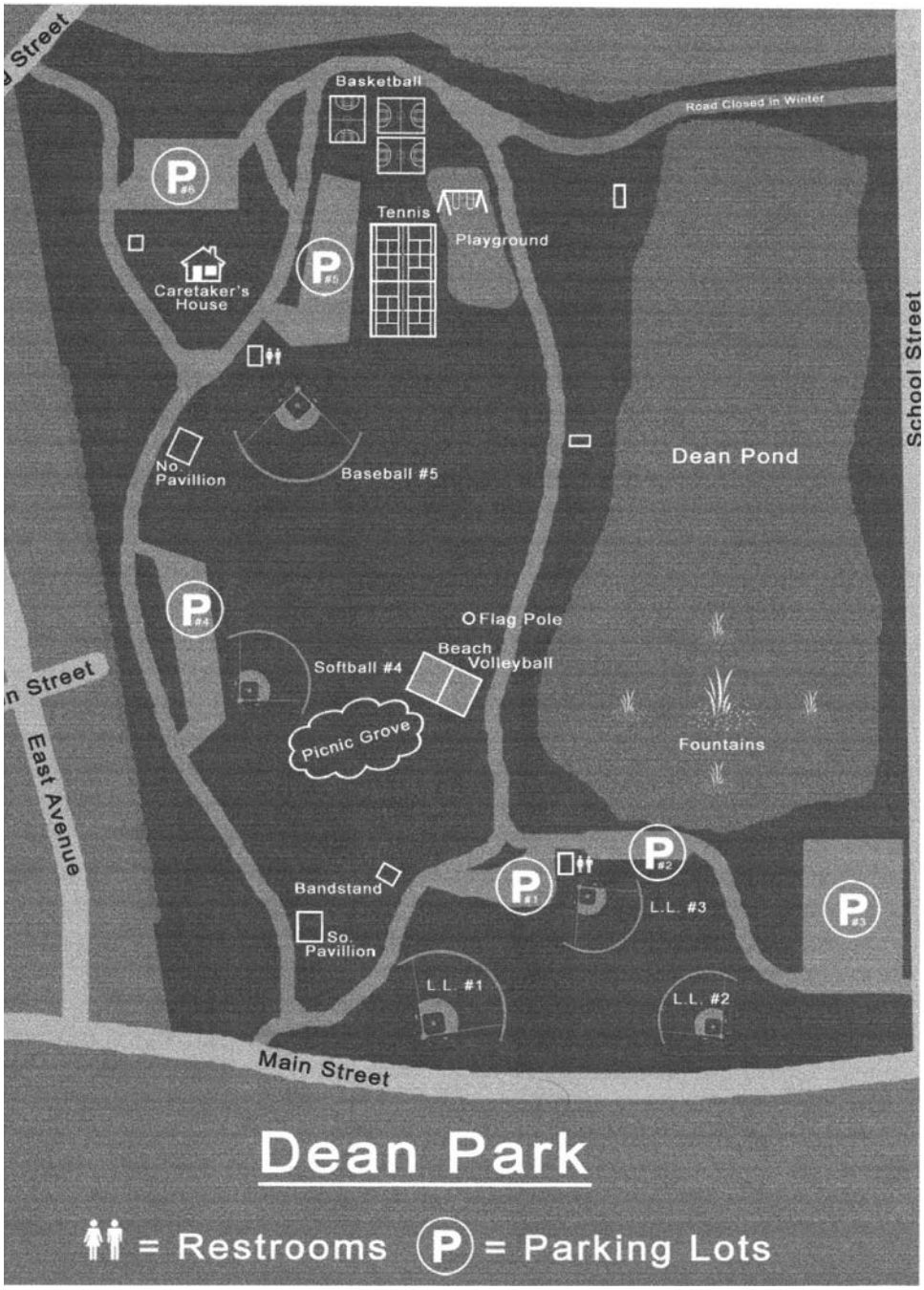


Figure 5: Map of Dean Park

3. Methodology

The mission of our project is to create a management and maintenance program for the Parks and Recreation Department for the Town of Shrewsbury, MA. Once we finished this project we hope that the changes and improvements that we have made will create a well managed environment in these parks and in turn be a more exciting and safe place for the members of the Town of Shrewsbury.

The project took place between October 25, 2005 and April 26, 2007, though weather may prove to be somewhat of an obstacle so we will have to plan accordingly. In our project we focused on the Town of Shrewsbury. Within the Town itself we were accountable for the 16 parks and 5 athletic fields that the Parks and Recreation Department for the town is responsible for the maintenance of.

As stated above we looked to compose a preliminary management schedule for the parks in Shrewsbury, MA. We first inventoried all of the assets contained within each of the parks and athletic fields, as well as the high school. We then recorded all of the permanent features of that asset including, length, width, and height, as well as building material. We then recorded the condition that each of the assets was currently in for later analysis. Our team then transformed the conditions into corresponding levels of service and compared them to the desired level of service for each park set by the Town. We then studied the imbalance in the level of service of some parks, either to high, or to low, and developed a plan to redirect resources to where they would be most useful.

The team plans to fulfill the goal of this project through completing the following objectives:

1. To collect information about each of the parks and athletic fields
2. Determining the Conditions for each park/athletic field
3. To assess current levels of service for park maintenance in Shrewsbury
4. To identify the imbalance in the levels of service of Shrewsbury's parks

3.1 Collecting Information about Each of the Parks and Athletic fields

To successfully develop a helpful and productive management and maintenance program we first collected the general information for each of the parks. To help ourselves with collecting the information we first created a list of the parks that we thought were the most important and received the highest volume of visitation. In addition we also went through and determined which of the parameters within each of the parks were worth collecting. Furthermore, while we were out walking through each of the parks we created maps showing all the features in each of the parks and athletic fields to help us later on with transferring all of the information into MapInfo. Lastly after we visited these parks and athletic fields and determined which parameters we wanted to collect data on, we then went back and collected information on each of the individual parameters in each of the parks and athletic fields.

3.1.1 Create a List of Priorities of the Parks

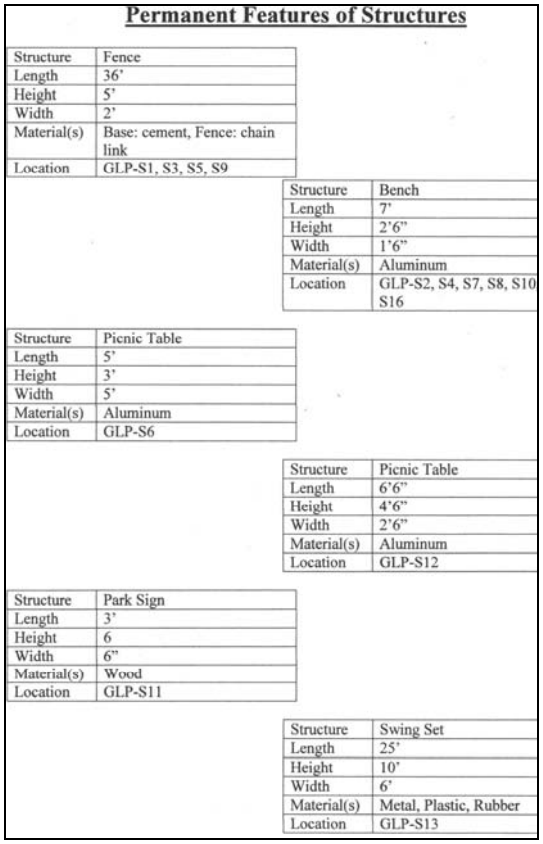
In order to ensure that we are helping the town of Shrewsbury as much as possible we went through and determined which of the parks and athletic fields we felt were priority. We went through and looked to see which of the parks were determined to be the most popular and attracting the most people. In addition we also we spoke with our sponsor to obtain which of the parks/athletic fields she felt were the most important to the project that we were participating in. The last big factor we contemplated when creating this list was the number of improvements that each park had. This played a rather large role in our decisions because our project is based on improving the parks and athletics fields and obviously the parks and athletic fields that need the most help would be at the top of our list.

3.1.2 Determine Which Parameters Are Worth Collecting

When we visited the various parks and athletic fields we found that there were a number of different parameters in each, so we had to determine which of these parameters were helpful to use and which were worth collecting. We decided the best way to determine which parameters were collectable we fist spoke with Angela and obtained her opinion on the subject. Once we had her opinion we as a team sat done and discussed what exactly we thought we should collect and what we should not. With the help of Angela's input we were able to achieve this feet rather quickly. Once we had determined exactly what we were

collecting we ventured to each of the parks and walked through and created maps of each of the parks and athletic fields including the locations and descriptions of each of the parameters that we collected information on. These maps would be a big help later on in our results and analysis section allowing us to transfer what we found to MapInfo and create different layers for various parameters.

3.1.3 Collect Information on Each of the Figures



Permanent Features of Structures

Structure	Fence
Length	36'
Height	5'
Width	2'
Material(s)	Base: cement, Fence: chain link
Location	GLP-S1, S3, S5, S9

Structure	Bench
Length	7'
Height	2'6"
Width	1'6"
Material(s)	Aluminum
Location	GLP-S2, S4, S7, S8, S10 S16

Structure	Picnic Table
Length	5'
Height	3'
Width	5'
Material(s)	Aluminum
Location	GLP-S6

Structure	Picnic Table
Length	6'6"
Height	4'6"
Width	2'6"
Material(s)	Aluminum
Location	GLP-S12

Structure	Park Sign
Length	3'
Height	6
Width	6"
Material(s)	Wood
Location	GLP-S11

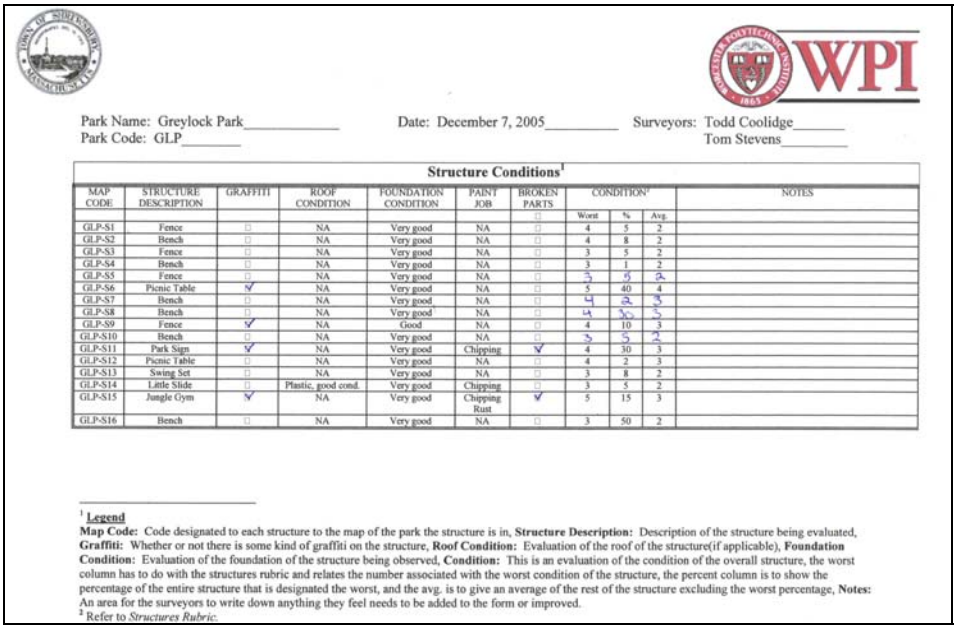
Structure	Swing Set
Length	25'
Height	10'
Width	6'
Material(s)	Metal, Plastic, Rubber
Location	GLP-S13

Figure 6: Permanent features form

While we were walking through the parks creating maps for later use we also collected all the information that we would need on each of the assets in these parks. We had created two forms earlier in the year that we had planned to use out in the field. The first form was created to collect the permanent information for that figure. This form consists of spaces to explain exactly what type of figure it was, measure the dimensions of the figure we were collecting information on, what it was made out of, and where it was located with respect to the map we had created for that park. Our permanent Conditions form may be seen in Figure 6 to the left.

3.2 Determining the Conditions for each park/athletic field

Just as we did with our permanent information form we did the same to assess the condition of the same figures. As stated above we created two forms the first being the permanent form and second form we used to collected the conditions of these figures. This form consisted of sections for a description of the figure being assessed, whether there was graffiti damage, the roof condition (if applicable), the condition of the foundation, assessment of the paint job on the asset, whether there were any broken parts, and finally the condition section of the form. In this section of the form there are 3 columns, the first assesses the very worst part of the figure, the second gives the percentage of the entire asset that was deemed to be the worst, and lastly an assessment on the average of the rest of the figure. In these sections are numbers which refer to the rubrics which we set up for various figures (See Appendix AB: Rubrics).



Park Name: Greylock Park_____ Date: December 7, 2005_____ Surveyors: Todd Coolidge_____
Park Code: GLP_____ Tom Stevens_____

Structure Conditions[1]

MAP CODE	STRUCTURE DESCRIPTION	GRAFFITI	ROOF CONDITION	FOUNDATION CONDITION	PAINT JOB	BROKEN PARTS	CONDITION[2]			NOTES
							Worst	%	Avg.	
GLP-S1	Fence		NA	Very good	NA		4	5	2	
GLP-S2	Bench		NA	Very good	NA		4	8	2	
GLP-S3	Fence		NA	Very good	NA		3	5	2	
GLP-S4	Bench		NA	Very good	NA		3	1	2	
GLP-S5	Fence		NA	Very good	NA		3	5	2	
GLP-S6	Picnic Table	✓	NA	Very good	NA		5	40	4	
GLP-S7	Bench		NA	Very good	NA		4	2	3	
GLP-S8	Bench		NA	Very good	NA		4	30	3	
GLP-S9	Fence	✓	NA	Good	NA		4	10	3	
GLP-S10	Bench		NA	Very good	NA		3	5	2	
GLP-S11	Park Sign	✓	NA	Very good	Chipping	✓	4	30	3	
GLP-S12	Picnic Table		NA	Very good	NA		4	2	3	
GLP-S13	Swing Set		NA	Very good	NA		3	8	2	
GLP-S14	Little Slide		Plastic, good cond.	Very good	Chipping		3	5	2	
GLP-S15	Jungle Gym	✓	NA	Very good	Chipping Rust	✓	5	15	3	
GLP-S16	Bench		NA	Very good	NA		3	50	2	

[1] **Legend**
Map Code: Code designated to each structure to the map of the park the structure is in, **Structure Description:** Description of the structure being evaluated, **Graffiti:** Whether or not there is some kind of graffiti on the structure, **Roof Condition:** Evaluation of the roof of the structure(if applicable), **Foundation Condition:** Evaluation of the foundation of the structure being observed, **Condition:** This is an evaluation of the condition of the overall structure, the worst column has to do with the structures rubric and relates the number associated with the worst condition of the structure, the percent column is to show the percentage of the entire structure that is designated the worst, and the avg. is to give an average of the rest of the structure excluding the worst percentage, **Notes:** An area for the surveyors to write down anything they feel needs to be added to the form or improved.
[2] Refer to *Structures Rubric*.

Figure 7: Conditions Form

In addition to the conditions form another big issue we dealt with while walking through each of the parks was determining the ordinary and extraordinary maintenance assessments. Ordinary maintenance assessments are such things as the time it takes to mow each of the lawns in the parks and athletic fields, the racking of leaves, and shoveling of snow. As far as the extraordinary assessments go, this includes such things as broken windows, broken or damaged features of the parks and athletic fields, bodies of water, etc. Although some of this was taken care of within the condition form, we also made notes of specific problems we saw that we would later to be able to analyze and hopefully develop a way to prevent it in the future.

3.3 Assessing current levels of service for parks maintenance in Shrewsbury

In order to efficiently assess the current levels of service one must know what the levels of service are. There are 6 different levels of service that we will be using, all of which are explained in detail in Operational Guidelines for Grounds Management APPA, National Recreational and Park Association, and Professional Grounds Maintenance Society[47].

Furthermore, in order to determine the currents levels of service for the Shrewsbury Parks it was necessary to take into account the conditions that were collected from each of the parks on the forms that were created. Our team implemented a weighted averaging system that would allow us to transform the average conditions of all assets within a park into the current level of service of that park. First we sorted all of the park assets into categories. These would include Laws, Athletic Fields, Playground Equipment, Structures, Fences, Parking Lots, Paths, and finally Benches. It was decided that Athletic fields were the most important asset within any park and should be weighted the highest. The weights are all unit-less and are solely used as a tool for comparison. The conditions of all athletic fields would be worth 1.5. Secondly, Lawns and Playground equipment were assessed and they would carry a weight of 1.25. Next with a weight of 1 were Structures, Fences, and Parking Lots. Finally, with weights of 0.5 were benches and paths. Our team felt that benches and paths were the most numerous and least important assets of a park and therefore would have the most negative effect on the level of service if not weighted low.

Once the specific weights of each asset had been determined the Level of Service could be calculated. This was done by first multiplying the current condition of the park object to its corresponding weight. For example a Slide with an over all condition of 2 would be multiplied by its weight, 1.25 and the result would be that the same slide would now have an average weighted condition of 2.5. On the same note a bench with a current condition of 4 was multiplies by its weight, 0.5 resulting in a weighted average condition of 2. The weighted average conditions for every park asset were then average resulting the current level of service for any specific park. This will be a rather useful tool for the Parks and Recreation Department to be able to look at all there parks/athletic fields color coordinated with its specific level of service on one map.

[47] Reference page 22 from the Background Section.

3.4 Identifying the Imbalance in Levels of Service for the Parks and Athletics Fields in the Town of Shrewsbury

The last factor that we as a team determined was to develop proposed maintenance needs to satisfy the desired level of service that our sponsor would like these parks and athletic fields to achieve. This entailed a detailed analysis of the information that we had collected in the previous sections. Our goal was to find a way to reallocate resources from some parks to other parks ensuring adequate levels of service for all parks and athletic fields.

The first step that was required was to determine the expected level of service for all of the parks and athletic fields within Shrewsbury. Our main resource for this area was our sponsor. In speaking with her we were able to develop a list of acceptable levels of service for each of the parks and or athletic fields. Obviously the ideal situation would be for every park to receive a level of service corresponding with a one, but realistically there is not enough time of money for that to be accomplished. An ideal situation for the town of Shrewsbury would be for the parks with the highest traffic volume, such as Dean, to receive maintenance corresponding with a level of service of one and the smaller neighborhood parks to receive maintenance corresponding with a level of service of three or four. The list of acceptable levels of service for each of the parks, created in cooperation with our sponsor can be seen in Section **Error! Reference source not found.**.

Once the theoretical levels of service had been established we needed to accurately assess the current overall levels of service for each of the parks and athletic fields. To get an accurate picture we used the information that was collected corresponding to Section

3.3 Assessing current levels of service for parks maintenance in Shrewsbury. With the weighted average condition of each park along with the theoretical level of service of each park we were able to develop an accurate picture of the way Shrewsbury distributes its resources among its parks and athletic fields.

With the list of disbursement of the Parks and Recreation resources we were able to develop a system where extra resources from some parks would be transferred to parks where additional resources would be beneficial. The transfer of resources from overly maintained parks will allow for the desired level of service to be reached for the under maintained parks, while the sacrifice in maintenance from the smaller parks will still allow for the desired level of service to be reached there as well. Our team feels that through the reallocation of resources Shrewsbury's Parks and Recreation department can satisfy a more desirable level of service for all its parks and athletic fields.

4. Results and Analysis

In calculating our results we visited and collected data on 16 parks and 5 athletic fields in the town of Shrewsbury. We found that the total number of acres in all of the parks and athletic fields that we had collected data on was right around 226 acres.

In our ventures out to the parks we found that in general the condition of the park was related to the type of neighborhood that it was located in. For example, in the upper class suburbs the parks were cleaner and it seemed more respected than that of the lower to middle class neighborhoods.

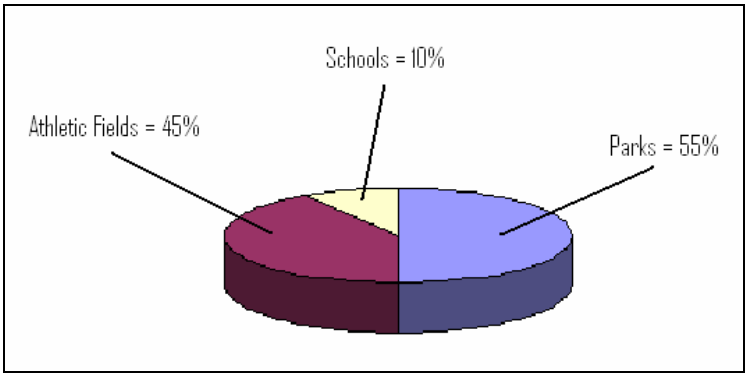


Figure 8: Break down of Parks, Athletic Fields, and Schools in Shrewsbury.

As far as condition goes we found conditions as good as a 1, deemed by our rubrics, all the way down to a 5 in some places. However, for the most part the majority of parks

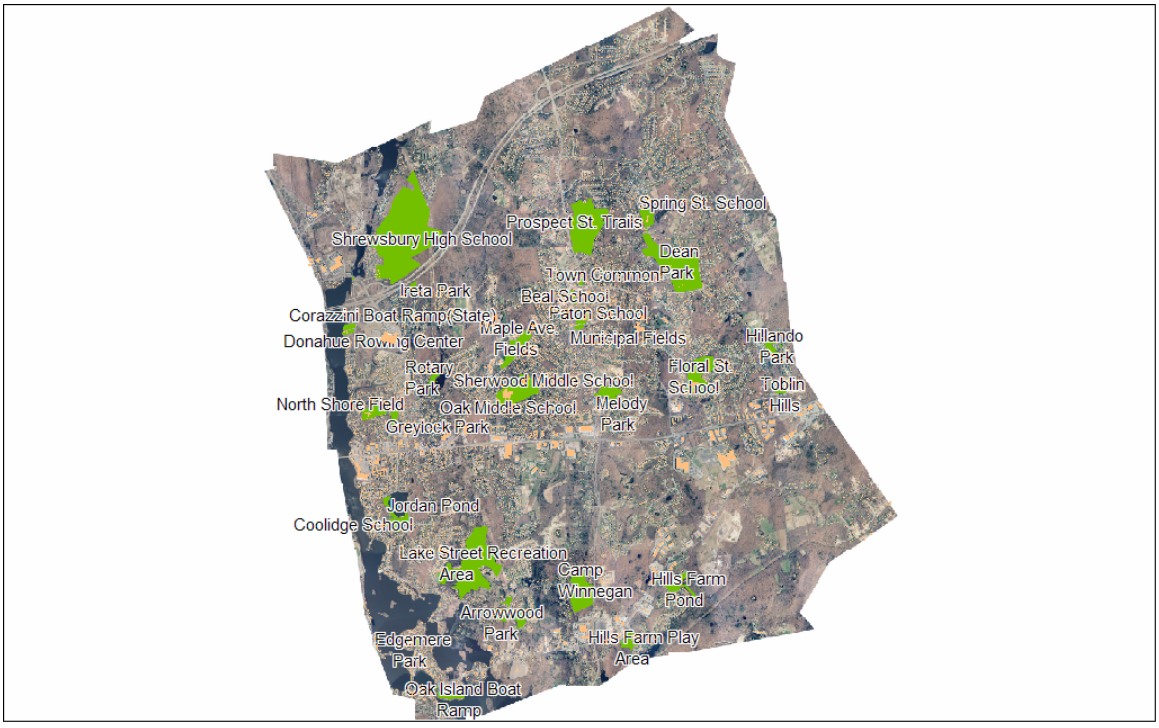


Figure 9: GIS of all the parks in Shrewsbury

and athletic fields averaged out to be right around a 3. This tells us that these facilities are not anywhere near perfect and every single one of them could use some sort of extra attention.

4.1 Shrewsbury's Parks and Athletic Fields

One of the most important components that we had to think about first was exactly what we were going to be collecting. Sitting down as a team we were able to determine exactly what was going to be collected and how. We decided that our main focus would go to the structures, athletic fields, lawns, and paths for each of the parks. This allowed us to have a certain mission or plan in mind when we traveled out to each of the parks, instead of just wandering around aimlessly.

The first area in which substantial results were found was reached by manually going

Figure 10: Outline of Greylock Park

to each of the parks with our permanent parameters form and collecting various amounts information on each of the parks. With this form we were able to collect sizes, materials, locations, and a description of exactly what the parameter was we were collecting the information on. Once we had collected all this information it allowed us to transfer all the parameters that were found within the park in to MapInfo and GIS to create maps for each of the parks. We started with just basic outlines of the parks to distinguish exactly what area is determined to be that specific park. These maps, which can be found in Appendix , will

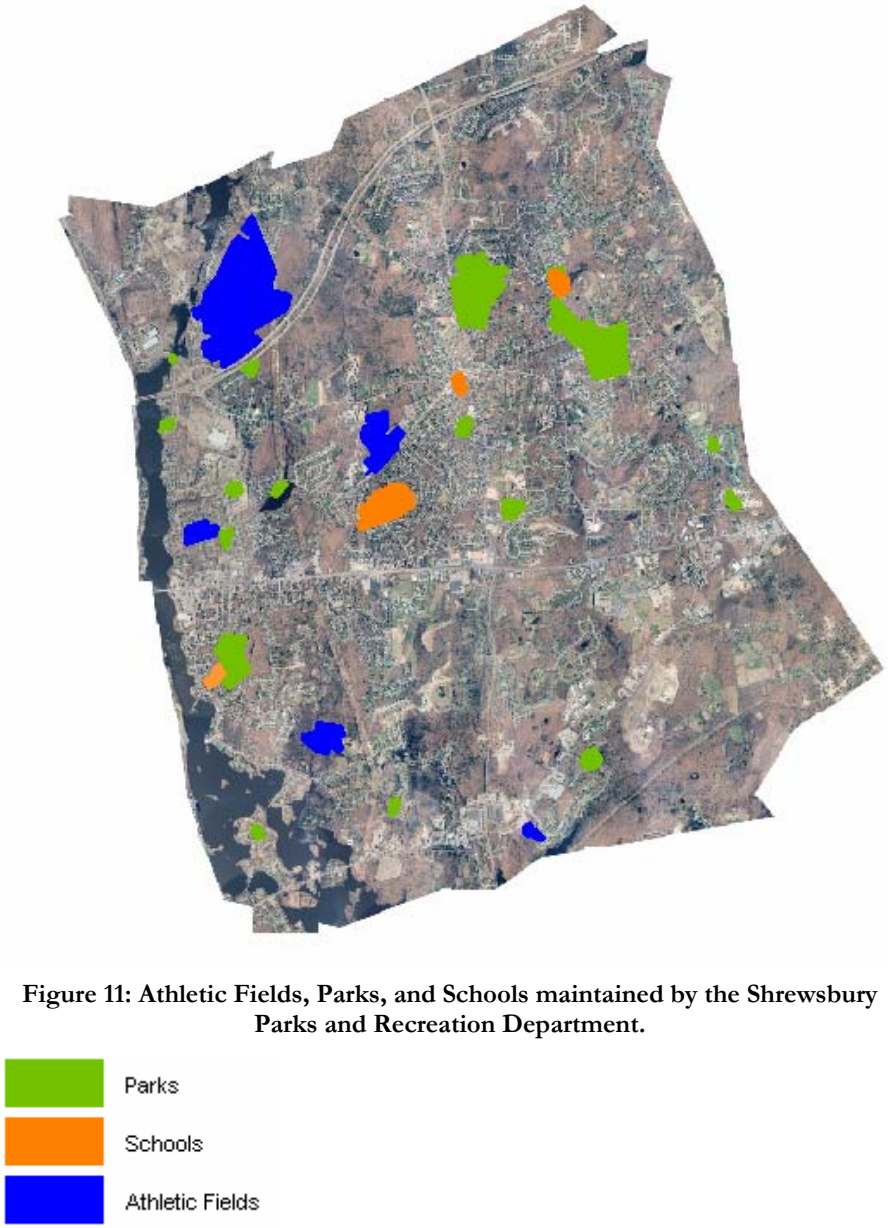


Figure 11: Athletic Fields, Parks, and Schools maintained by the Shrewsbury Parks and Recreation Department.

have different layers for the different aspects of the park, whether it is the athletic fields, structures, or the lawns. In addition to MapInfo we also created a database in Microsoft Access compiling all the permanent information that we had collected in our visits to the parks. (See Appendix)

Table 1: Arrowwood Park Permanent Features.

Structure Descripti	Category	Length	Height	Width	Materials	Location	Condition
Basketball Court	Atheltic Field	75	0	45	Black Top	Lower left corner, next to playground	2
Bench	Structure	3.5	3	1.5	Metal/Plastic	Infront of Blocks(left)	2
Bench	Structure	3.5	3	1.5	Metal/Plastic	Infront of Blocks(right)	2
Bench	Structure	3.5	3	1.5	Metal/Plastic	Infront of Basketball Court(left)	3
Bench	Structure	3.5	3	1.5	Metal/Plastic	Infront of Basketball Court(right)	2
Fence	Structure	200	10	.166	Metal/Chain Link	Around BasketbalL Court	1
Grass Playfield	Lawn	310	0	150	Grass	Infront of playground and Basketball court	1
Path	Path	100	0	4	Black Top	Along right side of basketball court	1
Blocks	Structure	4	2	4	Metal	Directly across from Hobble Bush Road	2
Slide	Structure	9	7	1.5	Metal/Plastic	Between blocks and basketball court	1
Jungle Gym	Structure	12	8	2	Metal	Between slide and swing set	2
Swing Set	Structure	24	9	6	Metal/Plastic	Between Arrowwood Drive and Basketball court	2

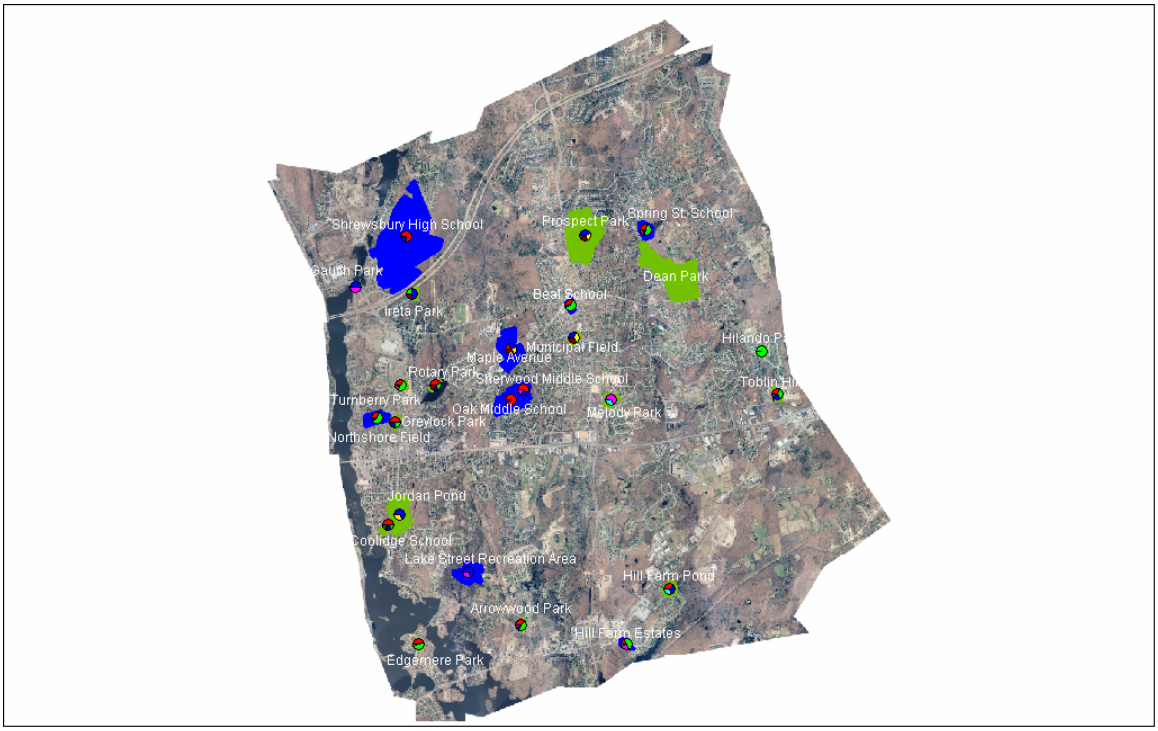


Figure 12: Number of various structures in the Shrewsbury Park/Athletic Fields

Table 2: Total number of various structures in the Parks/Athletic Fields of the Town of Shrewsbury

	Benches	Play Gr.	Fences	Paths	Signs	Buildings	Lawns	Other
Total	177	72	54	9	18	18	19	27

4.2 Conditions of Shrewsbury's Parks and Athletic Fields

The next major component that we had to think about was the actual condition that all of the park assets were in. Once again we sat down as a team and decided what conditions were important to this project and how we would collect them. We would collect condition information on all of the assets that we collected permanent information on in the above section. We decided that graffiti, and broken parts were important, and we should catalogue exactly what asset had either. We also decided that we would collect information on the conditions of an assets roof, foundation, and paint job. We then developed a numbered ranking system to help us in determining the overall condition of the asset that we were looking at. We did this with a one through five rating system, one being the best, five being the worst. We would record the absolute worst condition that could be found on the asset, then the percentage of the asset that was in the worst condition, and finally we would take the overall average of the assets condition, minus the percentage of it that was in the worst condition. This method allowed us to get a good overall picture of what state a park asset was in.

To accomplish our goal of collecting all of the condition information for each park, we once again relied heavily on manual inventorying of each of the parks. We created a form which included check boxes for graffiti and broken parts, as well as a place to record roof, paint, and foundation conditions, and an area to record the overall condition, and can be seen in section 3.2. This form allowed us to make the most of our time at the parks because we knew exactly what information needed to be collected while we were there. Once we had finished collecting all of the condition information in each of the parks, a complete database was compiled in Microsoft Access. This database has all of the information concerning the conditions of each park within in it. The creation of this database allows for easy comparison of the conditions for each asset within a park, as well as comparison of parks to each other.

Table 3: Gauch Park Conditions Form

Map Code	Date Collected	Structure Description	Graffiti	Roof Conditi	Foundation Condit	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
GP-L1	2/3/2006	Grass Area	☐	N/A	N/A	N/A	☐	4	60.00%	3	1.25	3.75
GP-PL1	2/3/2006	Parking Lot	☐	N/A	N/A	N/A	☐	4	60.00%	3	1	3
GP-S1	2/3/2006	Guard Rail	☐	N/A	Good	N/A	☑	4	10.00%	2	1.25	2.5
GP-S2	2/3/2006	Granite Sign	☐	N/A	N/A	N/A	☐	3	5.00%	1	1.25	1.25
GP-S3	2/3/2006	Sign	☐	N/A	Excellent	Poor	☐	5	40.00%	4	1.25	5

4.3 Current Levels of Service for the Shrewsbury Parks

The completion of the previous section allowed our team to accurately asses the level of service currently available at each of the Shrewsbury Parks. Our first step in the assessment of the levels of service was to find out the levels of service desired by the Parks and Recreation Department of Shrewsbury. We sat down with our sponsor, the head of the parks department, and were able to generate a list of acceptable levels of service for each of the parks, shown to the right in Table 3.

The next step in accurately predicting these levels of service was to compare the data for each park that was collected in the previous section, to the data received from our sponsor. In order to transform the data that was collected into useful information, we found the mean of the average conditions for each park related asset. This mean number gave us the current overall level of service for each of the Shrewsbury parks, which is displayed in Table 4 below.

Table 4: Shrewsbury Parks Experimental Levels of Service.

Park Name	Current Weighted Level of Service
Arrowwood	2
Beale School	2
Coolidge	2
Dean	2
Edgemere	2
Gauch	3
Graylock	2
High School	1
Hill Farm Estates	2
Hill Farm Pond	1
Hillando	3
Ireta	3
Jordan Pond	3
Lake Street Recreation Area	3
Maple Ave	3
Melody Lane	2
Municipal Drive	3
North Shore Field	2
Oak Middle School	2
Prospect	3
Rotary	3
Sherwood Middle School	2
Spring Street School	2
Toblin Hills	2
Turnberry	2

The mean level of service for each park was then compared against the Parks and Recreation departments desired level of service for each of their parks. This is visible in Table to the right. The generation of this comparison list allowed our team to easily determine what parks were receiving the appropriate amount of attention and what parks were being neglected. This data also allowed us to determine if any of the parks were being over maintained. This was a key

piece of information for us because we need a way to cut time from some areas and better utilize that time in another.

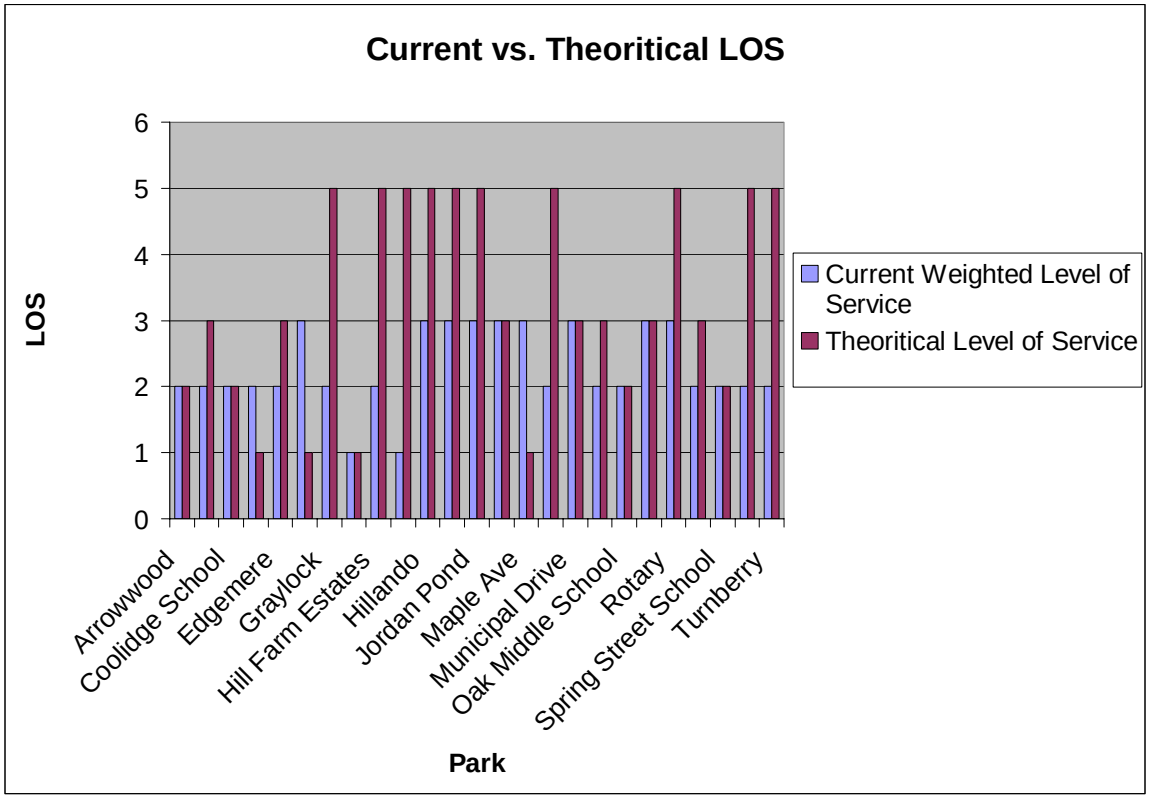


Figure 13: Graph of Theoretical vs. Actual LOS

After analysis of the information contained above in **Error! Reference source not found.** we were able to determine what parks were receiving the appropriate amount of attention, as well as what parks were receiving to much and to little. The parks that were receiving the appropriate amount of attention were: Arrowwood, Edgemere, Lake Street Recreation Area, Municipal Drive, North Shore Field, Oak Middle School, and Sherwood Middle School. However, we also feel that the High School, Prospect Park and Spring Street School are receiving the correct level of maintenance, even though their current level of service is slightly higher then the desired level of service. We feel that the difference is acceptable because perfection is near impossible to attain, however, it is something that can be strived for. The parks that are currently receiving too much attention are as follows: Beale School, Greylock, Hill Farm Estates, Hill Farm Pond, Hillando, Ireta, Jordan Pond, Melody Lane, Rotary Park, Toblin Hills, and Turnberry. The parks that are not currently

receiving enough attention are: Dean Park, Gauch Park and Maple Ave. The information obtained through our sponsor and through our extensive field work, allowed our team to achieve an accurate understanding of

the current level of service for each park, as well as where the level of service for each park should be.

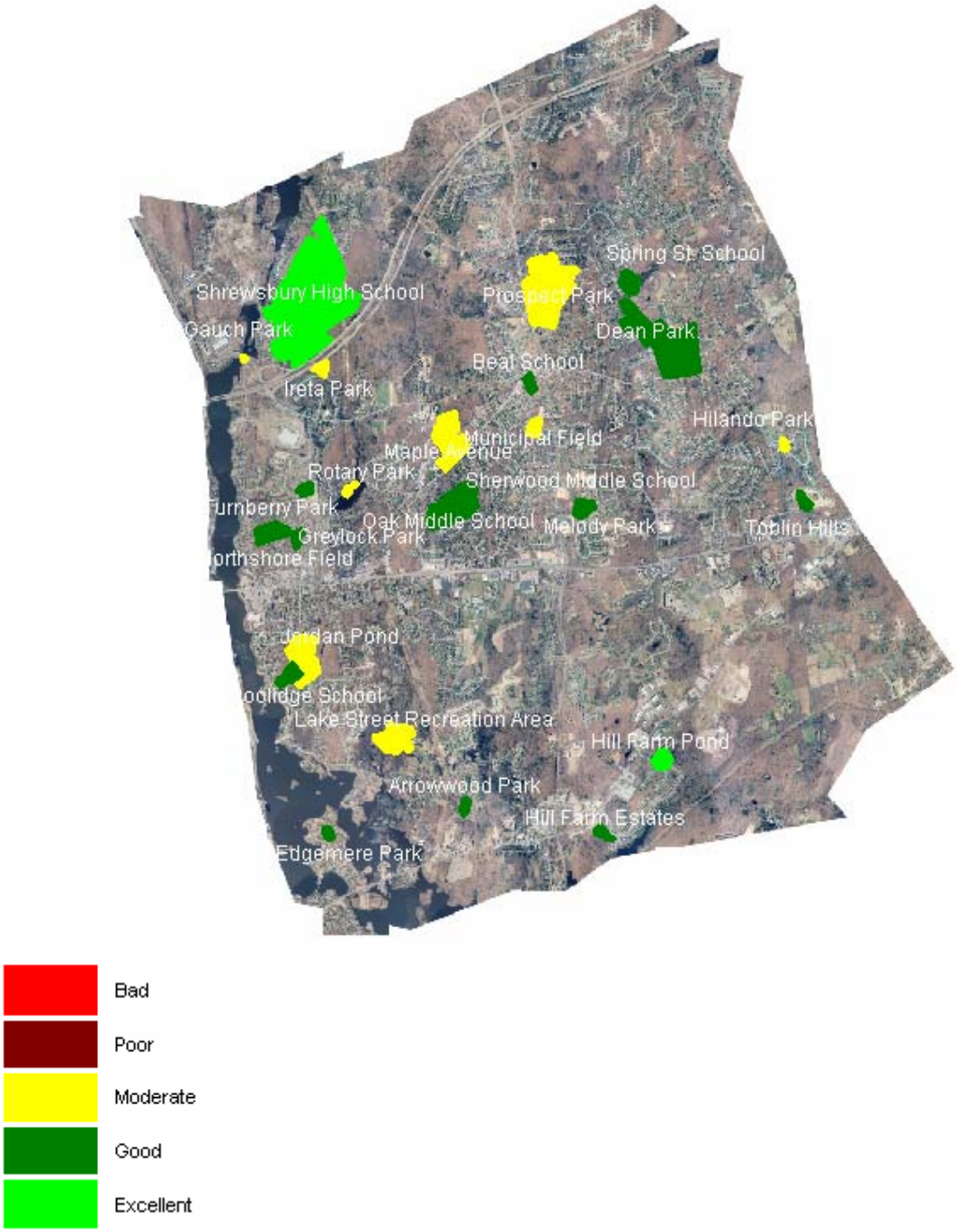


Figure 14: Average Levels of Service for Shrewsbury's Parks and Athletic Fields

4.4 Imbalance in Levels of Service for the Parks and Athletics Fields in Shrewsbury

In determining a maintenance program to satisfy a higher level of service for the Parks and Recreation department of Shrewsbury there are a number of things that we believe will be beneficial. One of the most important things that we presented to our sponsor was the condition form. We created this form to analyze and assess the conditions and level of service of the assets within the town parks. Also, we will be providing our sponsor with rubrics that we created in order to give numeric values to the conditions of the structures, lawns, athletic fields, and paths. Furthermore, by continuing to analyze Table 5, the current levels of service vs. the theoretical levels of service, our sponsor will be able to determine whether the parks and recreation department is spending unnecessary time at parks which do not require a high level of service.

Table 5: Shrewsbury Parks Desired Levels of Service

Park Name	Theoretical Level of Service
Arrowwood	2
Beale School	3
Coolidge School	2
Dean	1
Edgemere	3
Gauch	1
Greylock	5
High School	1
Hill Farm Estates	5
Hill Farm Pond	5
Hillando	5
Ireta	5
Jordan Pond	5
Lake Street Recreation Area	3
Maple Ave	1
Melody Lane	5
Municipal Drive	3
North Shore Field	3
Oak Middle School	2
Prospect	3
Rotary	5
Sherwood Middle School	3
Spring Street School	2
Toblin Hills	5
Turnberry	5

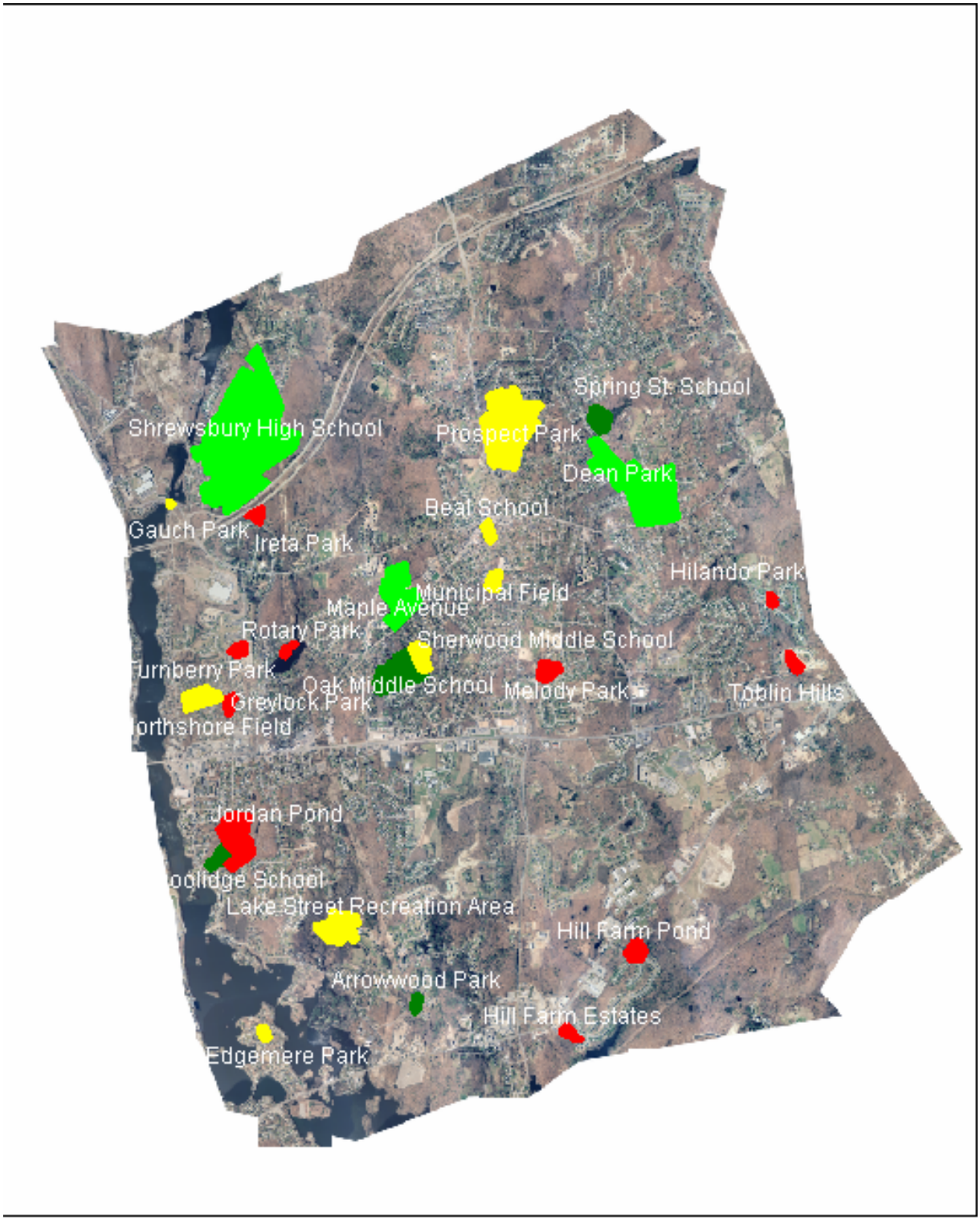


Figure 15:Theoretical Levels of Service for the Shrewsbury Parks/Athletic Fields

of service and which are not. In addition it will show which parks may be receiving too much attention, attention that could be used more effectively elsewhere.

From the data and information that we have collected, our team was able to divert time from the maintenance of some parks requiring a lower level of service to those parks that require a higher one. As stated above in Section 4.3, there were seven parks receiving the correct amount of attention, 11 parks receiving additional unnecessary attention and three parks that were not receiving the required amount of maintenance. Our program that we are proposing will take time effectively wasted on the 11 parks receiving additional attention and funnel that time, material and manpower towards the three parks that are not meeting their current levels of service.

Table 6: Comparison of the Experimental Levels of Service vs. the Theoretical Levels of Service

	Current Weighted Level of Service	Theoritical Level of Service	Difference in LOS
Arrowwood	2	2	0
Beale School	2	3	1
Coolidge School	2	2	0
Dean	2	1	-1
Edgemere	2	3	1
Gauch	3	1	-2
Graylock	2	5	3
High School	1	1	0
Hill Farm Estates	2	5	3
Hill Farm Pond	1	5	4
Hillando	3	5	2
Ireta	3	5	2
Jordan Pond	3	5	2
Lake Street Recreation Area	3	3	0
Maple Ave	3	1	-2
Melody Lane	2	5	3
Municipal Drive	3	3	0
North Shore Field	2	3	1
Oak Middle School	2	2	0
Prospect	3	3	0
Rotary	3	5	2
Sherwood Middle School	2	3	1
Spring Street School	2	2	0
Toblin Hills	2	5	3
Turnberry	2	5	3

Under this new management plan, time would be diverted from Hillando Park, Toblin Hills and Beale School to Dean park. The three aforementioned parks are relatively

close to Dean park, so a half day may be spent at one of the lesser parks and then the rest of the time would be spent maintaining and improving Dean park. Gauch Park is another park currently with a less then desirable level of service. Our plan would divert time and resources away from Greylock Park, Ireta Park, Jordan Pond and Rotary Park, allowing for an increased level of service at Gauch Park. The final park of concern that we found was Maple Avenue. Our maintenance plan would use the extra time from Toblin Hills, Hill Farm Estates, and Hill Farm Pond to increase the level of service at the Maple Avenue Park.

Our maintenance plan is not a day by day schedule meant to be followed exactly. Instead this is a rough plan to increase the overall level of service of Shrewsbury's Parks. It is unrealistic for our team to propose a strict day by day plan because we have no idea what the weather will be doing for the week. If the weather is not cooperative, then there will be very little maintenance that will get done. There is also no way for our team to predict freak failures of equipment. Our form system will however alert the parks department to situations that will require their attention in the near future, allowing them to avert potentially large problems. Our teams plan uses excess time from over maintained parks to increase the level of service at the under maintained ones. We feel that the successful implementation of our ideas will result in an overall higher level of service for the parks within Shrewsbury.

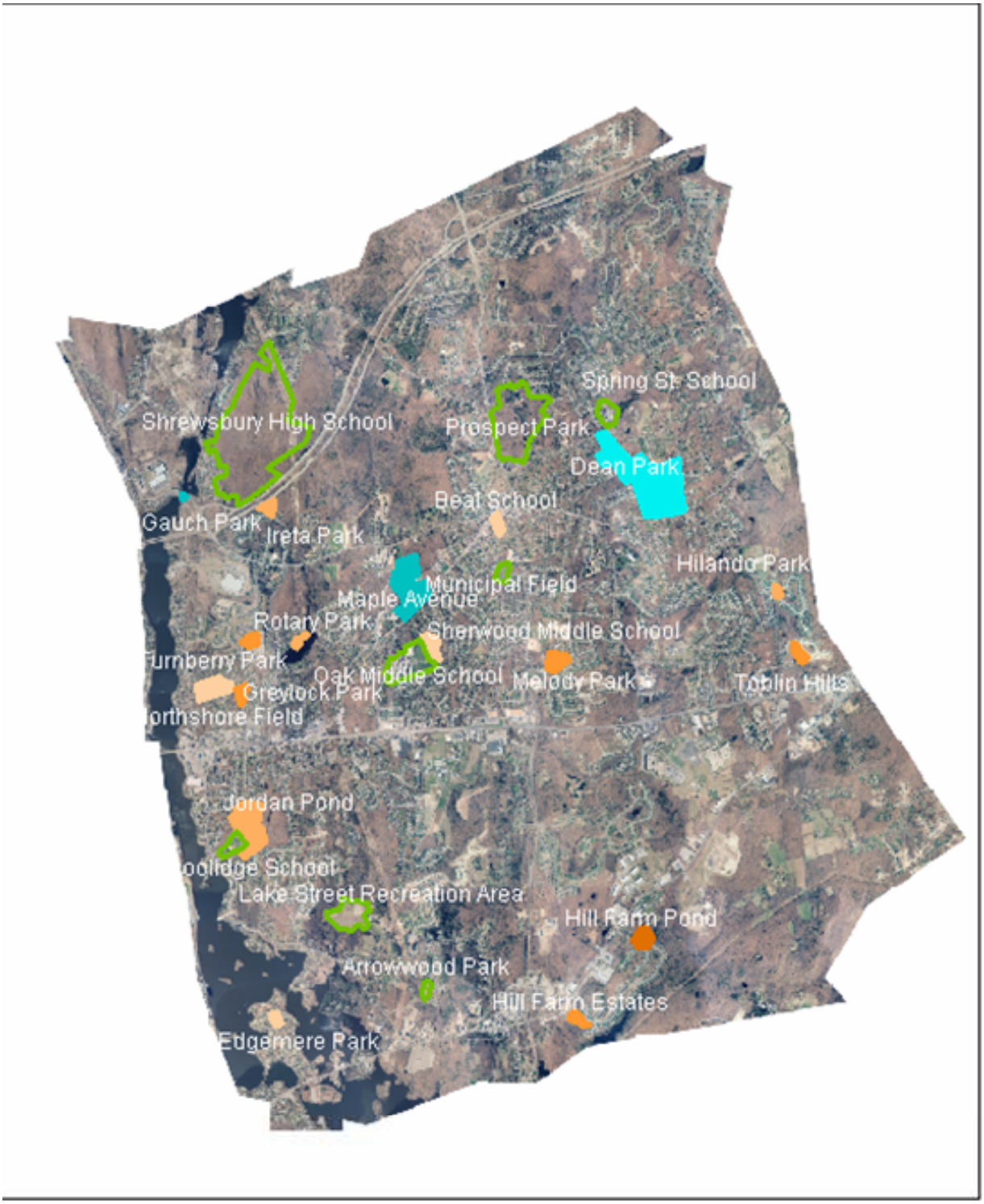


Figure 16: Difference between Theoretical and Actual LOS

5. Conclusions and Recommendations

When analyzing and interpreting the results that were found from the project it is quite clear that the Parks and Recreation Department of Shrewsbury has some work that needs to be done to better fulfill their desires for the parks and athletic fields. As is shown in Figure 16 above there are many parks that are not at the level of service which is desired by the Parks department. Some have too much attention being placed on them, while others not enough. Therefore, it is fairly easy to see that there is a need to transport some of the attention from the parks whose level of service is already above that of the desired level to others who are still below. Furthermore, from this data it is shown that the parks and athletic fields of Shrewsbury are in good condition. Figure 14 shows that there is no park or athletic field that falls below the moderate level of conditions, meaning that the current work force for the parks department is doing a pretty good job, however there is always room for improvement.

5.1 Short Term Recommendations

As a team we are making several recommendations that could be done in a short time span. The first of the recommendations is for the workers in the Parks and Recreation department to take a look at the information we have gathered on all the parks and determine which parks contain, structures, paths, lawns, or other features that are in really rough condition (i.e. a 4 or 5 condition). Once they have identified these specific structures, it would then be possible for them to travel to the parks and fix or replace the damaged structures. Another recommendation for the short term period is taking a look at the comparison of the current levels of service to those of the desired levels of service and determine which parks need more or less attention. By doing this it would allow the parks department to know exactly where they can afford to spend less time on one park and add more to another. For example, currently Toblin Hills, Hillando, Hill Farms Estates, and a few other parks are getting too much attention for the level of service that is desired, so it is a recommendation that focus be taken from these parks and place on Dean Park, Gauch Park, and Maple Avenue, which all could use a little more attention.

5.2 Mid Term Recommendations

As for the mid term recommendations that the team has come up with that the Parks and Recreation department perhaps in the future utilize the town people in helping to collect the conditions of the parks. Instead of employing extra people or taking away from the time that could be utilized with the employees that are currently there, it was a recommendation that the Parks and Recreation department have the people who use the park inform them of what is wrong in the park. This would basically be quite similar to an employee going around with the form and collecting the same information.

The implementation of these forms will also allow for the adaptation of the current schedule to better suit the needs of the parks and recreation department. A full inventory of the assets within the parks will allow for restructuring of the maintenance schedule. Our team, as part of the project evaluated the current levels of service compared to the towns desired level of service. The results that we found are portrayed above in Figure 14. This comparison allowed us to rearrange the expenditure of time, money and resources to achieve the desired level of for each of the parks. Our project team is recommending that the parks/athletic fields that are in the excellent category pretty much continue with their normal routines and amount of attention, however, as you get closer to the red this means that there is a problem with the maintenance routine at that park/athletic field and based upon Table 5 either give more or less attention to that area.

In order to be able to use these forms the rubrics provided in Appendix AA are necessary. In these rubrics exactly how to determine what is a level 1, 2, 3, 4, or 5 is clearly explained and laid out. By first reading and understanding these rubrics then walking through the parks and implementing the forms will be very helpful to the parks department.

It is also a recommendation of this team to determine the current levels of service for each year, as is described in the above section 4.4. With the forms provided how to determine the current levels of service is described above and we feel will greatly help the parks department in better managing their duties. By knowing the current levels of service at the beginning of each year it will again allow the Parks Director to asses exactly what is wrong and what needs the most attention throughout the year. This will be a valuable tool for not only improving the maintenance program of the Parks and Recreation Department of Shrewsbury, but it will also help the overall appearance of the parks/athletic fields.

5.3 Long Term Recommendations

Lastly the long term recommendations which are being proposed could be very useful to the Parks and Recreation department in the future. Although this team has paved the way for a complete creation of a new maintenance program for the town, there just simply was not enough time. It is our feeling that with the information provided from this project a follow up project would be able to take the time and deal with all the equipment and talk with the entire crew to determine where there could be improvements made to the current maintenance program. By just being able to focus on this aspect of the Parks Department it would be a much more tangible project to complete in the allowed time period. It could be the goal of another project team to create and introduce a completely drawn out and well defined schedule for the Parks and Recreations department to follow, in order to fully optimize their operations around the town of Shrewsbury.

6. Works Cited

Chadwick, George F. The Park and the Town. Frederick A. Praeger. New York, New York, 1966.

Cranz, Galen. The Politics of Park Design: A History of Urban Parks in America. The MIT Press. Cambridge, MA, 1982.

"Division of State Parks and Recreation History." <http://www.mass.gov/dcr/sphistory.htm> (16 November, 2005).

Megan Amundson, *The Environmental League of Massachusetts*, 22 April, 2005, <http://www.environmentalleague.org/Issues/Budget/Budget_06/amendments06.html> (16 November, 2005).

"Passion Plunge." <http://www.shrewsbury-ma.gov/parkrec/eventsprjcts.asp> (22 March, 2006).

"The History of Parks: American Parks." <http://www.cyberium.co.uk/parkhistory/american.html> (22 March 2006).

"The History of Parks: Reform Parks." <http://www.cyberium.co.uk/parkhistory/reformparks.html> (22 March 2006).

"Shrewsbury, Massachusetts." <http://en.wikipedia.org/wiki/Shrewsbury,_Massachusetts> (22 March, 2006).

Appendix A: Annotated Bibliography

Pack, Andrew "The economics of urban park planning: urban park planning through strategic land use can lead to increased value for the community" Parks and Recreation

This article seems like it would provide some good background ideas and information for what we are going to be dealing with involving the parks and athletic fields that we will be looking at.

Molnar, Donald J. Anatomy of a park: the essentials of recreation area planning and design / Donald J. Molnar with Albert J. Rutledge; illustrations by Donald J. Molnar New York : McGraw-Hill, c1986

From the title this book seems as though it would lend a helping hand in our attempts to help our sponsor come up with a more efficient schedule or plan for the usage of the parks and athletic fields in the Town of Shrewsbury.

The Official website of the Town of Shrewsbury http://ma.gov/portal/index.jsp?pageID=mg2localgovccpage&L=3&L0=Home&L1=State+Government&L2=Local+Government&sid=massgov2&selectCity=Shrewsbury&go_city2.x=7&go_city2.y=16 (2005)

This site is full of information such as the population, revenues, and other important facts that our group would be interested in. We will be able to compare the Town of Shrewsbury to other towns and see how there resources compare to each other.

Bowles, Samuel The parks and mountains of Colorado [electronic resource]: a summer vacation in the Switzerland of America Norman, Okla. : University of Oklahoma Press, 1994, [1991]

I do not feel that this book would be a helpful tool to what we are trying to do. Learning about the parks and mountains of Colorado would not really relate to the parks of a completely different climate such as the Town of Shrewsbury.

Olshansky, Robert, Leonard Heumann, and Zorica Nedovic-Budic. "Planning for public parks. (From the Review Editors)." *Journal of the American Planning*

Association 69.3 (Summer 2003): 318

This was a useful article because it gave me an insight into the planning of an urban park and some of the things that go wrong in the park and the way to plan to avoid those problems.

Cranz, Galen. The politics of park design : a history of urban parks in America. MIT Press. Cambridge, MA, 1982.

This book is going to be useful for our background because it will give us an introduction to the park system in America and some of the problems and the solutions to those problems of parks in America.

http://www.shrewsbury-ma.gov/. September 19, 2005.

This is going to be a useful site because it will give us a lot of information that we need about the Town of Shrewsbury, as well as a lot of information on the specific parks and athletic fields that we are going to be working on.

Garvin, Alexander, Gayle Berens. Urban Parks and Open Space. ULI, Urban Land Institute. Washington D.C. 1997

This is going to be a useful book because it discusses ways to create and manage batter urban parks.

Landscape and Urban Planning. Elsevier Science Publishers BV <http://www.sciencedirect.com/science/journal/01692046> (1995-Present)

This source looks to me as though it would be helpful in our project. It contains a numerous number of articles which focus on obviously landscape and urban planning. I feel that this should give us some good background information on what exactly other areas and people have done and how we can relate that to what we want to do.

Burchfield, Gary Grounds Maintenance: Mowing Matters PRIMEDIA Business http://web.lexis-nexis.com/universe/document?_m=50bdf42d16b8139aaa447dba459a49ce&_docnum=3&wchp=dGLbVlz-zSkVA&_md5=e904903a8bf7046249ad1b98b0a198fe Magazines & Media, Inc. 2005

Harmon, David and Putney, Allen D. The Full Value of Parks Rowman & Littlefield Publishers, Inc., 2003

This book comes off as a book based more upon the protection of parks and certain intangible values of certain "Protected Areas". Although there may be a few useful topics in this book we feel as though it is not an overall good source to rely on.

U.S. National Parks Service Parks For America U.S. National Parks Sevice, 1964

In this book there are chapters for each state, and in these chapters they address the assets of each park rather than the maintenance, budgets, or other information we are looking for. We see this as more of a guide for tourists who are looking to travel to different states and witness different parks. Overall we do not feel that this would help us in any way.

McLean, Daniel D. "A Statistical Report of America's State Parks." http://naspd.indstate.edu/research/rpaintro.html October 4, 2005.

This is going to be a useful site because it gives a lot of facts and statistics about America's state parks including budgets and total # of parks and a lot of very useful park related definitions.

http://www.ibo.nyc.ny.us/newsfax/Insidethebudget72.pdf "Inside the Budget" A Newsfax of the Independent Budget Office November 1, 2000

This is a good case study of the way that large cities like New York are managing their growing management needs for their parks and recreation facilities.

Operational Guidelines for Grounds Management APPA, National Recreational and Park Association, and Professional Grounds Maintenance Society.

This book should be an excellent resource for the type of work that we will be dealing with. It includes a section dedicated to the level of service and what each of the levels entails. Furthermore, it goes into the laws, different types of zones, and ground maintenance objectives.

Appendix B: Arrowwood Park

Table 2: Arrowwood Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
AWP-A1	2/8/2006	Basketball Court	☐	N/A	N/A	OK	☐	4	1.00%	2	1.5	3
AWP-L1	2/8/2006	Grass Playfield	☐	N/A	N/A	N/A	☐	3	5.00%	1	1.25	1.25
AWP-P1	2/8/2006	Path	☐	N/A	N/A	N/A	☐	3	2.00%	1	0.5	0.5
AWP-S1	2/8/2006	Fence	☐	N/A	Excellent	Excellent	☐	2	45.00%	1	1	1
AWP-S2	2/8/2006	Swing Set	☐	N/A	Excellent	N/A	☐	3	20.00%	2	1.25	2.5
AWP-S3	2/8/2006	Bench	☑	N/A	Excellent	Ok	☐	4	40.00%	3	0.5	1.5
AWP-S4	2/8/2006	Bench	☐	N/A	Excellent	Good	☐	4	15.00%	2	0.5	1
AWP-S5	2/8/2006	Jungle Gym	☐	N/A	Excellent	Good	☐	3	10.00%	2	1.25	2.5
AWP-S6	2/8/2006	Slide	☐	N/A	Excellent	Excellent	☐	3	5.00%	1	1.25	1.25
AWP-S7	2/8/2006	Playground Blocks	☐	N/A	N/A	OK	☐	4	5.00%	2	1.25	2.5
AWP-S8	2/8/2006	Bench	☐	N/A	Excellent	Good	☐	3	5.00%	2	0.5	1
AWP-S9	2/8/2006	Bench	☐	N/A	Excellent	Good	☐	3	5.00%	2	0.5	1
			☐				☐	0	0.00%	0	0	0

Table 3: Arrowwood Park Permanent Features

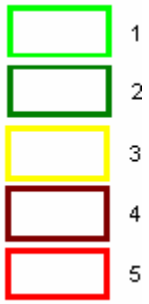
	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Materials
	AWP-A1	Basketball Court	75	0	45	Black Top
	AWP-L1	Grass Playfield	310	0	150	Grass
	AWP-P1	Path	100	0	4	Black Top
	AWP-S1	Fence	200	10	0.166	Metal / Chain Link
	AWP-S2	Swing Set	24	9	6	Metal / Plastic
▶	AWP-S3	Bench	3.5	3	1.5	Metal / Plastic
	AWP-S4	Bench	3.5	3	1.5	Metal / Plastic
	AWP-S5	Jungle Gym	12	8	2	Metal
	AWP-S6	Slide	9	7	1.5	Metal / Plastic
	AWP-S7	Blocks	4	2	4	Metal
	AWP-S8	Bench	3.5	3	1.5	Metal / Plastic
	AWP-S9	Bench	3.5	3	1.5	Metal / Plastic

Figure 18: Outline of Arrowwood Park

Figure 17: Arrowwood Park Structures

Figure 20: Arrowwood Park Athletic Fields

Figure 19: Conditions for Arrowwood Park.



Appendix C: Beal School

Table 4: Beal School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
BS-A1	5/27/2006	Softball Field	☐	N/A	N/A	None	☐	5	10	2	1.5	3
BS-P1	5/27/2006	Path	☐	N/A	N/A	N/A	☐	1	100	1	0.5	0.5
BS-S1	5/27/2006	Fence	☐	N/A	Excellent	Rusting	☑	5	10	3	1	3
BS-S10	5/27/2006	Jungle Gym	☑	Excellent	Excellent	Minor Chipping	☐	3	5	1	1.25	1.25
BS-S11	5/27/2006	Pavilion	☑	Excellent	Excellent	N/A	☑	5	3	2	1.25	2.5
BS-S12	5/27/2006	Playhouse	☑	Excellent	N/A	Excellent	☐	2	15	1	1.25	1.25
BS-S13	5/27/2006	Shed	☐	OK	N/A	Needs Improvement	☑	4	15	3	1.25	3.75
BS-S14	5/27/2006	Sandbox	☐	N/A	N/A	N/A	☑	5	15	2	1.25	2.5
BS-S15	5/27/2006	Digger	☐	N/A	Excellent	Rusting, Chipping, Fading	☐	4	10	2	1.25	2.5
BS-S16	5/27/2006	Digger	☐	N/A	Excellent	Rusting, Chipping, Fading	☐	4	15	3	1.25	3.75
BS-S17	5/27/2006	Balance Rail	☐	N/A	Excellent	Some Chipping	☐	3	10	2	1.25	2.5
BS-S2	5/27/2006	Backstop	☐	N/A	Excellent	Rusting	☑	5	10	4	1	4
BS-S3	5/27/2006	Dugout	☐	N/A	Excellent	N/A	☑	4	8	1	1.25	1.25
BS-S4	5/27/2006	Dugout	☐	N/A	Excellent	N/A	☑	4	5	1	1.25	1.25
BS-S5	5/27/2006	Bench	☐	N/A	N/A	N/A	☐	2	3	1	0.5	0.5
BS-S6	5/27/2006	Bench	☑	N/A	N/A	N/A	☐	3	2	1	0.5	0.5
BS-S7	5/27/2006	Bench	☐	N/A	N/A	Excellent	☐	3	2	1	0.5	0.5
BS-S8	5/27/2006	Swing Set	☐	N/A	Excellent	Some Chipping	☐	2	10	1	1.25	1.25
BS-S9	5/27/2006	Bench	☐	N/A	Excellent	Good	☐	3	8	1	0.5	0.5
			☐				☐	0	0	0	0	0

Table 5: Permanent Features of Beal School

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
BS-A1	Softball Field	0	0	0	Grass / Dirt
BS-P1	Path	70.83	0	4	Brick
BS-S1	Fence	0	4.25	0.33	Metal / Chain link
BS-S10	Swing Set	43.25	8	8.42	Metal / Plastic / Rubber
BS-S11	Pavilion	16.083	12.16	16.083	Wood
BS-S12	Playhouse	8.42	6.75	6.42	Wood
BS-S13	Shed	8.42	8.16	8.25	Wood
BS-S14	Sandbox	16.33	0.75	8	Wood
BS-S15	Digger	4	2.83	1	Metal
BS-S16	Digger	4	2.83	1	Metal
BS-S17	Balance Rail	9.66	1.16	0.25	Metal
BS-S2	Backstop	44.33	16.5	0.25	Metal / Chain link
BS-S3	Dugout	25.5	4	0.25	Metal / Chain link
BS-S4	Dugout	25.5	4	0.25	Metal / Chain link
BS-S5	Bench	8	1.33	1.33	Wood / Metal
BS-S6	Bench	8	1.33	1.33	Wood / Metal
BS-S7	Bench	6	2.75	2	Plastic
BS-S8	Jungle Gym	35	13.58	29.66	Metal / Plastic
BS-S9	Bench	6	2.75	1.5	Metal
		0	0	0	

Figure 21: Beal School Outline

Figure 22: Beal School Structures

Figure 23: Beal School Athletic Fields

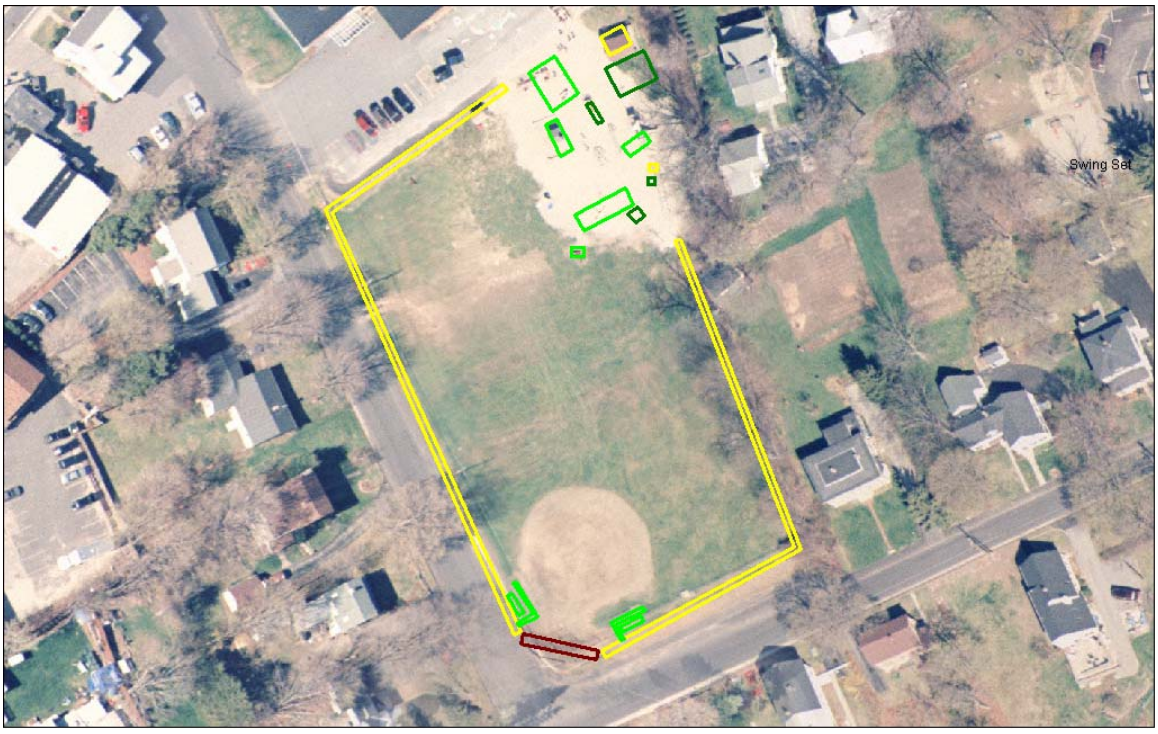


Figure 24: Conditions for Beal School

Appendix D: Coolidge School

Table 6: Coolidge School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
CS-30	5/24/2006	Bench	☐	NA	Excellent	NA	☑	5	3.00%	2	0.5	1
CS-34	5/24/2006	Bleachers	☐	NA	NA	NA	☑	5	3.00%	2	0.5	1
CS-A1	5/24/2006	Basketball Court	☐	NA	NA	Poor	☑	4	30.00%	3	1.5	4.5
CS-A2	5/24/2006	Softball Field	☐	NA	NA	Poor	☐	3	3.00%	1	1.5	1.5
CS-A3	5/24/2006	Baseball Field	☐	NA	NA	OK	☐	5	1.00%	1	1.5	1.5
CS-A4	5/24/2006	Baseball Field	☐	NA	NA	Poor	☐	3	5.00%	1	1.5	1.5
CS-S1	5/24/2006	Bench	☐	NA	Excellent	Very Good	☐	3	10.00%	1	0.5	0.5
CS-S10	5/24/2006	Building	☐	OK	Excellent	Poor	☑	5	15.00%	3	1	3
CS-S11	5/24/2006	Bleachers	☐	NA	NA	NA	☑	5	8.00%	3	0.5	1.5
CS-S12	5/24/2006	Picnic Table	☑	NA	NA	NA	☑	5	5.00%	4	0.5	2
CS-S13	5/24/2006	Picnic Table	☐	NA	NA	NA	☑	5	5.00%	4	0.5	2
CS-S14	5/24/2006	Bench	☐	NA	Excellent	NA	☑	5	2.00%	3	0.5	1.5
CS-S15	5/24/2006	Dugout	☐	NA	Excellent	NA	☑	4	10.00%	2	1	2
CS-S16	5/24/2006	Bench	☐	NA	Excellent	NA	☑	5	1.00%	3	0.5	1.5
CS-S17	5/24/2006	Bleachers	☐	NA	NA	NA	☑	5	10.00%	3	0.5	1.5
CS-S18	5/24/2006	Fence	☐	NA	Good	NA	☑	5	20.00%	3	1	3
CS-S19	5/24/2006	Swing Set	☑	NA	Excellent	Good	☑	5	15.00%	3	1.25	3.75
CS-S2	5/24/2006	Bench	☐	NA	Excellent	Very Good	☐	3	10.00%	1	0.5	0.5
CS-S20	5/24/2006	Sandbox	☐	NA	NA	Good	☐	3	15.00%	2	1.25	2.5
CS-S21	5/24/2006	Backstop	☐	NA	Excellent	NA	☑	4	10.00%	3	1	3
CS-S22	5/24/2006	Dugout	☐	NA	Excellent	NA	☑	5	15.00%	2	1	2
CS-S23	5/24/2006	Bench	☐	NA	Excellent	NA	☑	0	5.00%	2	0.5	1
CS-S24	5/24/2006	Dugout	☐	NA	Excellent	NA	☐	3	30.00%	2	1	2
CS-S25	5/24/2006	Bench	☐	NA	Excellent	NA	☐	5	35.00%	2	0.5	1
CS-S26	5/24/2006	Bleachers	☑	NA	NA	NA	☑	5	10.00%	3	0.5	1.5
CS-S27	5/24/2007	Bleachers	☐	NA	NA	NA	☑	5	1.00%	3	0.5	1.5
CS-S28	5/24/2006	Backstop	☐	NA	Excellent	NA	☐	4	10.00%	2	1	2
CS-S29	5/24/2006	Dugout	☐	NA	Excellent	NA	☑	5	5.00%	3	1	3
CS-S3	5/24/2006	Swing Set	☐	NA	Excellent	NA	☐	3	1.00%	1	1.25	1
CS-S31	5/24/2006	Dugout	☐	NA	NA	NA	☑	5	15.00%	3	1	3
CS-S32	5/24/2006	Bench	☐	NA	Excellent	NA	☐	3	40.00%	2	0.5	1
CS-S33	5/24/2006	Bleachers	☐	NA	NA	NA	☑	5	1.00%	3	0.5	1.5
CS-S35	5/24/2006	Fence	☐	NA	Good	NA	☑	5	5.00%	3	1	3
CS-S36	5/24/2006	Fence	☐	NA	Excellent	NA	☑	5	5.00%	3	1	3
CS-S37	5/24/2006	Bench	☐	NA	Excellent	Very Good	☐	3	10.00%	1	0.5	0.5
CS-S4	5/24/2006	Sign	☐	NA	Excellent	Very Good	☐	2	10.00%	1	1	1
CS-S5	5/24/2006	Bench	☐	NA	Excellent	Chipping	☐	3	10.00%	1	0.5	0.5
CS-S6	5/24/2006	Jungle Gym	☐	NA	Excellent	Very Good	☑	5	3.00%	1	1.25	1.25
CS-S7	5/24/2006	Fence	☐	NA	Excellent	NA	☑	5	10.00%	3	1	3
CS-S8	5/24/2006	Dugout	☐	NA	Excellent	NA	☑	4	15.00%	3	1	3
CS-S9	5/24/2006	Backstop	☐	NA	Excellent	NA	☑	4	5.00%	2	1	2
			☐				☐	0	0.00%	0	0	0

Table 7: Coolidge School Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
CS-A1	Basketball Court	120	12.5	10.5	Blacktop, Metal
CS-A2	Softball Field	0	0	12	Grass, Metal, Dirt
CS-A3	Baseball Field	0	12	0	Grass, Dirt, Metal
CS-A4	Baseball Field	0	12	0	Grass, Dirt, Metal
CS-S1	Bench	6	3	1.5	Metal
CS-S10	Building	20	8	12	Cement, Wood, Metal
CS-S11	Bleachers	15	2.75	5	Metal
CS-S12	Picnic Table	8	5	2.5	Wood
CS-S13	Picnic Table	8	5	2.5	Wood
CS-S14	Bench	30	2.75	1.5	Metal
CS-S15	Dugout	132.25	5.75	0.33	Metal
CS-S16	Bench	30	2.75	1.5	Metal
CS-S17	Bleachers	15	2.75	5	Metal
CS-S18	Fence	198	8.75	0.33	Metal
CS-S19	Swing Set	43.5	7.75	7.75	Metal, Plastic
CS-S2	Bench	6	3	1.5	Metal
CS-S20	Sandbox	12.33	0.75	12.33	Plastic
CS-S21	Backstop	41.33	18	0.33	Metal
CS-S22	Dugout	132.25	5.75	0.33	Metal
CS-S23	Bench	30	2.75	1.5	Metal
CS-S24	Dugout	132.25	5.75	0.33	Metal
CS-S25	Bench	30	2.75	1.5	Metal
CS-S26	Bleachers	15	2.75	5	Metal
CS-S27	Bleachers	15	2.75	5	Metal
CS-S28	Backstop	41.33	18	0.33	Metal
CS-S29	Dugout	132.25	5.75	0.33	Metal
CS-S3	Swing Set	54.5	8.5	9	Metal, Plastic
CS-S30	Bench	30	2.75	1.5	Metal
CS-S31	Dugout	132.25	5.75	0.33	Metal
CS-S32	Bench	30	2.75	1.5	Metal
CS-S33	Bleachers	15	2.75	5	Metal
CS-S34	Bleachers	15	2.75	5	Metal
CS-S35	Fence	789	6	0.25	Metal
CS-S36	Fence	58	6.25	0.25	Metal
CS-S37	Bench	6	3	1.5	Metal
CS-S4	Sign	3.66	7.33	0.16	Plastic
CS-S5	Bench	6	2	1	Metal
CS-S6	Jungle Gym	37.5	11.5	35.16	Metal, Plastic
CS-S7	Fence	165	6	0.16	Metal
CS-S8	Dugout	132.25	5.75	0.33	Metal
CS-S9	Backstop	41.33	18	0.33	Metal
		0	0	0	

Figure 25: Coolidge School Outline

Figure 26: Coolidge School Athletic Fields

Figure 27: Coolidge School Structures

Figure 28: Conditions for Coolidge School

Appendix E: Dean Park

Table 8: Dean Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
DP-A1	5/25/2006	Baseball Field	☐	NA	NA	OK	☐	5	8.00%	1	1.5	1.5
DP-A10	5/25/2006	Vollyball Court	☐	NA	NA	NA	☑	5	30.00%	3	1.5	4.5
DP-A2	5/25/2006	Softball Field	☐	NA	NA	None	☐	5	3.00%	1	1.5	1.5
DP-A3	5/25/2006	Baseball Field	☐	NA	NA	NA	☐	5	10.00%	1	1.5	1.5
DP-A4	5/25/2006	Basketball Court	☐	NA	Excellent	Good	☐	4	3.00%	2	1.5	3
DP-A5	5/25/2006	Basketball Court	☐	NA	NA	Good	☐	5	2.00%	2	1.5	3
DP-A6	5/25/2006	Tennis Court	☐	NA	Excellent	Excellent	☐	3	10.00%	1	1.5	1.5
DP-A7	5/25/2006	Tennis Court	☐	NA	Excellent	Excellent	☑	3	10.00%	1	1.5	1.5
DP-A8	5/25/2006	Baseball Field	☐	NA	NA	OK	☐	5	3.00%	1	1.5	1.5
DP-A9	5/25/2006	Softball Field	☐	NA	NA	NA	☐	4	10.00%	1	1.5	1.5
DP-hS42	5/25/2006	Fence	☐	NA	Excellent	Poor	☑	5	8.00%	4	1	4
DP-L1	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	15.00%	2	1.25	2.5
DP-L2	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	5.00%	2	1.25	2.5
DP-L3	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	10.00%	2	1.25	2.5
DP-L4	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	20.00%	3	1.25	3.75
DP-L5	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	10.00%	3	1.25	3.75
DP-L6	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	5.00%	1	1.25	1.25
DP-L7	5/25/2006	Lawn	☐	NA	NA	NA	☐	5	5.00%	2	1.25	2.5
DP-P1	5/25/2006	Path	☐	NA	Excellent	NA	☐	2	20.00%	1	0.5	0.5
DP-P2	5/25/2006	Path	☐	NA	NA	NA	☐	3	5.00%	1	0.5	0.5
DP-PL1	5/25/2006	Parking Lot	☐	NA	NA	Very Good	☐	3	5.00%	1	1	1
DP-PL2	5/25/2006	Parking Lot	☐	NA	NA	OK	☑	4	10.00%	2	1	2
DP-PL3	5/25/2006	Parking Lot	☐	NA	NA	Poor	☐	5	3.00%	4	1	4
DP-PL4	5/25/2006	Parking Lot	☐	NA	NA	Good	☑	5	3.00%	2	1	2
DP-PL5	5/25/2006	Parking Lot	☐	NA	NA	Very Poor	☑	5	15.00%	3	1	3
DP-PL6	5/25/2006	Parking Lot	☐	NA	NA	Poor	☐	5	5.00%	2	1	2
DP-S1	5/25/2006	Fence	☐	NA	Excellent	OK	☐	3	10.00%	1	1	1
DP-S10	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	2.00%	3	0.5	1.5
DP-S100	5/25/2006	Double Slide	☑	NA	Excellent	OK	☐	4	2.00%	2	1.25	2.5
DP-S101	5/25/2006	Swing Set	☑	NA	Excellent	OK	☐	3	3.00%	1	1.25	1.25
DP-S102	5/25/2006	Small Swing Set	☑	NA	Excellent	Ok	☐	4	10.00%	2	1.25	2.5
DP-S103	5/25/2006	Seesaw	☐	NA	Good	Ok	☐	3	5.00%	1	1.25	1.25
DP-S104	5/25/2006	Playbox	☐	Excellent	Excellent	Very Good	☐	3	10.00%	1	1.25	1.25
DP-S105	5/25/2006	Bench	☐	NA	Excellent	Very Good	☐	2	20.00%	1	0.5	0.5
DP-S106	5/25/2006	Bench	☐	NA	Excellent	NA	☐	3	15.00%	2	0.5	1
DP-S107	5/25/2006	Bench	☐	NA	Excellent	Very Good	☐	2	35.00%	1	0.5	0.5
DP-S108	5/25/2006	Sandbox	☐	NA	NA	NA	☐	3	40.00%	2	1.25	2.5
DP-S109	5/25/2006	Sandbox	☐	NA	NA	NA	☐	3	40.00%	2	1.25	2.5
DP-S11	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	5.00%	3	0.5	1.5
DP-S110	5/25/2006	Jungle Gym	☑	NA	Excellent	Very Good	☐	3	15.00%	1	1.25	1.25
DP-S111	5/25/2006	Bench	☐	NA	Excellent	NA	☐	3	2.00%	1	0.5	0.5
DP-S112	5/25/2006	Peddler	☐	NA	Excellent	Good	☐	2	20.00%	1	1.25	1.25
DP-S113	5/25/2006	Cargo Net	☐	NA	Excellent	Very Good	☐	3	10.00%	1	1.25	1.25
DP-S114	5/25/2006	Bench	☐	NA	Excellent	NA	☐	3	5.00%	2	0.5	1
DP-S115	5/25/2006	Jungle Gym	☑	NA	Excellent	Good	☑	4	8.00%	2	1.25	2.5
DP-S116	5/25/2006	Swing Set	☑	NA	Excellent	OK	☐	4	5.00%	2	1.25	2.5
DP-S117	5/25/2006	Bench	☐	NA	Excellent	Very Good	☐	2	20.00%	1	0.5	0.5
DP-S118	5/25/2006	Bench	☐	NA	Excellent	Very Good	☐	2	20.00%	1	0.5	0.5
DP-S12	5/25/2006	Backstop	☐	NA	Excellent	NA	☐	2	25.00%	1	1	1
DP-S13	5/25/2006	Dugout	☑	NA	Excellent	NA	☑	5	2.00%	2	1	2
DP-S14	5/25/2006	Dugout	☐	NA	Excellent	NA	☐	2	10.00%	1	1	1
DP-S15	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	50.00%	2	0.5	1
DP-S16	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	35.00%	2	0.5	1
DP-S17	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	4	2.00%	3	0.5	1.5
DP-S18	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	30.00%	2	0.5	1
DP-S19	5/25/2006	Bathroom	☑	Good	Excellent	OK	☐	4	10.00%	2	1	2
DP-S2	5/25/2006	Backstop	☐	NA	Excellent	NA	☑	5	2.00%	2	1	2
DP-S20	5/25/2006	Snack Bar	☐	Good	Excellent	OK	☑	5	5.00%	3	1	3
DP-S21	5/25/2006	Backstop	☐	NA	Excellent	NA	☑	5	1.00%	2	1	1
DP-S22	5/25/2006	Dugout	☐	NA	Excellent	NA	☐	2	10.00%	1	1	1
DP-S23	5/25/2006	Dugout	☐	NA	Excellent	NA	☐	2	30.00%	1	1	1
DP-S24	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	3	50.00%	2	0.5	1
DP-S25	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	40.00%	2	0.5	1
DP-S26	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	4	1.00%	3	0.5	1.5
DP-S27	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	30.00%	2	0.5	1
DP-S28	5/25/2006	Bleachers	☑	NA	NA	NA	☑	5	1.00%	3	0.5	1.5
DP-S29	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	1.00%	3	0.5	1.5
DP-S3	5/25/2006	Dugout	☐	NA	Excellent	NA	☐	2	10.00%	1	1	1
DP-S30	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	5.00%	3	0.5	1.5
DP-S31	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	5.00%	3	0.5	1.5
DP-S32	5/25/2006	Shed	☑	Good	Excellent	Good	☑	5	5.00%	3	1	3
DP-S34	5/25/2006	Bench	☑	NA	Good	NA	☐	3	15.00%	1	0.5	0.5
DP-S35	5/25/2006	Sign	☐	NA	OK	NA	☐	4	2.00%	2	1	2
DP-S36	5/25/2006	Sign	☐	NA	Excellent	Good	☐	2	20.00%	1	1	1
DP-S37	5/25/2006	Dugout	☐	NA	Excellent	NA	☑	5	1.00%	2	1	1
DP-S38	5/25/2006	Bench	☐	NA	Excellent	OK	☐	4	20.00%	3	0.5	1.5
DP-S39	5/25/2006	Shed	☑	Good	Excellent	Poor	☑	5	20.00%	4	1	4
DP-S4	5/25/2006	Bleachers	☑	NA	NA	NA	☐	3	10.00%	2	0.5	1
DP-S40	5/25/2006	Bench	☐	NA	NA	Poor	☑	5	20.00%	4	0.5	2
DP-S41	5/25/2006	Wall	☑	NA	Excellent	NA	☑	5	10.00%	3	1	3

DP-S43	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	3	20.00%	2	0.5	1
DP-S44	5/25/2006	Sign	☐	NA	NA	NA	☐	2	5.00%	1	1	1
DP-S45	5/25/2006	Fence	☐	NA	Excellent	OK	☑	4	10.00%	2	1	2
DP-S46	5/25/2006	Fence	☑	NA	Excellent	NA	☑	5	5.00%	4	1	4
DP-S47	5/25/2006	Bench	☑	NA	Excellent	NA	☐	4	5.00%	3	0.5	1.5
DP-S48	5/25/2006	Bench	☐	NA	Excellent	NA	☐	3	25.00%	2	0.5	1
DP-S49	5/25/2006	Picnic Table	☑	NA	Excellent	NA	☐	4	15.00%	3	0.5	1.5
DP-S5	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	1.00%	2	0.5	1
DP-S50	5/25/2006	Bench	☐	NA	Excellent	NA	☐	3	60.00%	2	0.5	1
DP-S51	5/25/2006	Backstop	☐	NA	Excellent	NA	☑	4	10.00%	2	1	2
DP-S52	5/25/2006	Dugout	☐	NA	Excellent	NA	☑	3	5.00%	2	1	2
DP-S53	5/25/2006	Dugout	☐	NA	Excellent	NA	☑	5	10.00%	2	1	2
DP-S54	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	30.00%	2	0.5	1
DP-S55	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	40.00%	2	0.5	1
DP-S56	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	2.00%	3	0.5	1.5
DP-S57	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	5.00%	2	0.5	1
DP-S58	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	30.00%	2	0.5	1
DP-S59	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	35.00%	2	0.5	1
DP-S6	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	3	40.00%	2	0.5	1
DP-S60	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	20.00%	3	0.5	1.5
DP-S61	5/25/2006	Bleachers	☐	NA	NA	NA	☐	4	20.00%	3	0.5	1.5
DP-S62	5/25/2006	Shed	☐	Good	NA	Good	☑	5	2.00%	2	1	2
DP-S63	5/25/2006	Bathroom	☑	Good	Excellent	Poor	☑	5	8.00%	2	1	2
DP-S64	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	25.00%	2	0.5	1
DP-S65	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	25.00%	2	0.5	1
DP-S66	5/25/2006	Backstop	☐	NA	Excellent	NA	☐	2	25.00%	1	1	1
DP-S67	5/25/2006	Dugout	☐	NA	Excellent	NA	☑	5	3.00%	3	1	3
DP-S68	5/25/2006	Dugout	☑	NA	Excellent	NA	☑	5	5.00%	3	1	3
DP-S69	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	40.00%	2	0.5	1
DP-S7	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	30.00%	2	0.5	1
DP-S70	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	20.00%	2	0.5	1
DP-S71	5/25/2006	Bleachers	☐	NA	NA	NA	☐	3	30.00%	2	0.5	1
DP-S72	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	3	15.00%	2	0.5	1
DP-S73	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	12.00%	2	0.5	1
DP-S74	5/25/2006	Bleachers	☑	NA	NA	NA	☐	4	1.00%	3	0.5	1.5
DP-S75	5/25/2006	Bench	☐	NA	Excellent	Very Good	☐	2	10.00%	1	0.5	0.5
DP-S76	5/25/2006	Pavilion	☑	Good	Excellent	OK	☑	5	15.00%	3	1	3
DP-S77	5/25/2006	Picnic Table	☐	NA	NA	Poor	☐	4	5.00%	3	0.5	1.5
DP-S78	5/25/2006	Picnic Table	☑	NA	NA	Poor	☑	5	2.00%	3	0.5	1.5
DP-S79	5/25/2006	Picnic Table	☑	NA	NA	Poor	☐	4	8.00%	3	0.5	1.5
DP-S8	5/25/2006	Bench	☐	NA	Excellent	Poor	☐	4	5.00%	3	0.5	1.5
DP-S80	5/25/2006	Picnic Table	☐	NA	NA	OK	☐	4	3.00%	3	0.5	1.5
DP-S81	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	3	75.00%	2	0.5	1
DP-S82	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	5	2.00%	3	0.5	1.5
DP-S83	5/25/2006	Picnic Table	☑	NA	NA	Good	☐	3	45.00%	2	0.5	1
DP-S84	5/25/2006	Picnic Table	☐	NA	NA	OK	☐	4	2.00%	3	0.5	1.5
DP-S85	5/25/2006	Picnic Table	☑	NA	NA	Poor	☑	5	2.00%	3	0.5	1.5
DP-S86	5/25/2006	Picnic Table	☐	NA	NA	OK	☐	3	40.00%	2	0.5	1
DP-S87	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	4	8.00%	3	0.5	1.5
DP-S88	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	4	5.00%	3	0.5	1.5
DP-S89	5/25/2006	Picnic Table	☑	NA	NA	Poor	☑	5	10.00%	3	0.5	1.5
DP-S9	5/25/2006	Bench	☐	NA	Excellent	OK	☐	3	25.00%	2	0.5	1
DP-S90	5/25/2006	Picnic Table	☑	NA	NA	OK	☐	3	55.00%	2	0.5	1
DP-S91	5/25/2006	Sign	☐	NA	Excellent	OK	☐	4	10.00%	3	1	3
DP-S94	5/25/2006	Bench	☑	NA	Good	NA	☐	5	10.00%	4	0.5	2
DP-S95	5/25/2006	Wall	☑	NA	Excellent	NA	☑	5	5.00%	3	1	3
DP-S96	5/25/2006	Sign	☐	NA	Excellent	NA	☑	5	20.00%	3	1	3
DP-S97	5/25/2006	Sign	☐	NA	Excellent	OK	☑	5	3.00%	3	1	3
DP-S98	5/25/2006	Bench	☑	NA	Excellent	NA	☐	3	5.00%	2	0.5	1
DP-S99	5/25/2006	House	☐	Excellent	Excellent	Excellent	☐	3	30.00%	2	1.25	2.5
			☐				☐	0	0.00%	0	0	0

Table 9: Dean Park Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
DP-A1	Baseball Field	0	4.5	0	Grass Dirt
DP-A10	Vollyball Court	60	8.66	2	Plastic Metal
DP-A2	Softball Field	0	0	0	Grass, Dirt
DP-A3	Baseball Field		4		Grass, Metal, Dirt
DP-A4	Basketball Court	100	12.5	48	Tar, Matal, Fiberglass
DP-A5	Basketball Court	111	12.5	87	Tar, Matal, Fiberglass
DP-A6	Tennis Court	111	3.5	108	Tar, Matal, Net
DP-A7	Tennis Court	111	3.5	108	Tar, Metal, Net
DP-A8	Baseball Field	325	14	0	Grass, Dirt
DP-A9	Softball Field	0	0	0	Grass, Dirt
DP-L1	Lawn	0	0	0	Grass
DP-L2	Lawn	0	0	0	Grass
DP-L3	Lawn	0	0	0	Grass
DP-L4	Lawn	0	0	0	Grass
DP-L5	Lawn	0	0	0	Grass
DP-L6	Lawn	0	0	0	Grass
DP-P1	Path	129.5	21	9	Wood
DP-P2	Path	71.33	0	5.33	Brick
DP-PL1	Parking Lot	0	0.5	0	Granite, Tar
DP-PL2	Parking Lot	0	0.5	0	Tar

DP-PL1	Parking Lot	0	0.5	0	Granite, Tar
DP-PL2	Parking Lot	0	0.5	0	Tar
DP-PL3	Parking Lot	0	0.5	0	Tar
DP-PL4	Parking Lot		2.5	0	Tar, Wood
DP-PL5	Parking Lot	0	0	0	Tar Wood
DP-PL6	Parking Lot	0	2.16	0	Tar
DP-S1	Fence	151	4.25	0.25	Metal, Chain link
DP-S10	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S100	Double Slide	15.5	5.5	4	Metal, Plastic
DP-S101	Swings	11	9	1	Metal, Rubber
DP-S102	Small Swings	9.66	7.16	1	Metal, Rubber
DP-S103	Seesaw	11.5	0	1.66	Plastic, Metal
DP-S104	Playblockes	14.5	6	4	Metal, Plastic
DP-S105	Bench	6	2.33	1.5	Metal
DP-S106	Bench	8	2.75	1.75	Metal
DP-S107	Bench	6	2.33	1.5	Metal
DP-S108	Sandbox	24	0.66	12	Plastic, Sand
DP-S109	Sandbox	20	0.66	12	Plastic, Sand
DP-S11	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S110	Jungle Gym	29.5	12.5	28.66	Metal, Plastic
DP-S111	Bench	8	2.75	1.75	Metal
DP-S112	Peddler	4.16	6.16	1.25	Metal, Plastic
DP-S113	Cargo Net	4.66	6.75	4.66	Metal, Rubber
DP-S114	Bench	8	2.75	1.75	Metal
DP-S115	Jungle Gym	34	11	24	Metal, Plastic
DP-S116	Swing Set	38	9.75	8	Metal, Rubber
DP-S117	Bench	6	2.33	1.5	Metal
DP-S118	Bench	6	2.33	1.5	Metal
DP-S12	Backstop	83.5	20	0.33	Meta, Chain Link
DP-S13	Dugout	105	6.75	0.25	Metal, Chain link
DP-S14	Dugout	105	6.75	0.25	Metal, Chain link
DP-S15	Bench	10	1.5	1.25	Metal
DP-S16	Bench	10	1.5	1.25	Metal
DP-S19	Bathroom	28.58	10.75	16.66	Metal, Concrete
DP-S2	Backstop	246.66	20	0.33	Metal, Chain link
DP-S20	Snackbar	29	8.83	14.66	Concrete, Wood, Metal
DP-S21	Backstop	52	20	0.33	Metal, Chain link
DP-S22	Dugout	105	6.75	0.25	Metal, Chain link
DP-S23	Dugout	105	6.75	0.25	Metal, Chain link
DP-S24	Bench	10	1.5	1.25	Metal
DP-S25	Bench	10	1.5	1.25	Metal
DP-S26	Bench	10	1.5	1.25	Metal
DP-S27	Bench	10	1.5	1.25	Metal
DP-S28	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S29	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S3	Dugout	67.33	6.25	0.25	Metal, Chain Link
DP-S30	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S31	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S32	Shed	40.16	12.5	16.83	Wood, Stone, Metal. Cement
DP-S34	Bench	5.83	2.83	2	Metal
DP-S35	Sign	1	9	0.25	Matal
DP-S36	Sign	4	6.25	0.58	Wood
DP-S37	Dugout	67.33	6.25	0.25	Metal, Chain Link
DP-S38	Bench	6	1.5	0.83	Wood, Metal
DP-S39	Shed	43	12.25	19.5	Concrete, Wood, Metal
DP-S4	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S40	Bench	3.75	2	1.5	Wood
DP-S41	Wall	33.5	2.5	2.5	Stone
DP-S42	Fence	396	8.33	0.25	Metal, Chain link
DP-S43	Picnic Table	8	2.5	5.33	Metal
DP-S44	Sign	3	2.5	1	Granite, Metal
DP-S45	Fence	390	4	0.25	Metal, Chain link
DP-S46	Fence	768	9.83	0.25	Metal, Chain link

DP-S47	Bench	6	2.86	2	Metal
DP-S48	Bench	6	2.86	2	Metal
DP-S49	Picnic Table	7.5	2.5	7.5	Metal, Wood
DP-S5	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S50	Bench	6	2.86	2	Metal
DP-S51	Backstop	159.25	20	0.33	Metal, Chain link
DP-S52	Dugout	148.5	6.5	0.25	Metal, Chain link
DP-S53	Dugout	148.5	6.5	0.25	Metal, Chain link
DP-S54	Bench	10	1.5	1.25	Metal
DP-S55	Bench	10	1.5	1.25	Metal
DP-S56	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S57	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S6	Bench	10	1.5	1.25	Metal
DP-S60	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S61	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S62	Shed	13.75	11.5	12.16	Wood
DP-S63	Bathroom	34	8.6	14	Metal, Concrete
DP-S64	Bench	6	1.5	0.83	Wood, Metal
DP-S65	Bench	6	1.5	0.83	Wood, Metal
DP-S66	Backstop	70	20	0.33	Metal, Chain link
DP-S67	Dugout	148.5	6.5	0.25	Metal, Chain link
DP-S68	Dugout	148.5	6.5	0.25	Metal, Chain link
DP-S69	Bench	10	1.5	1.25	Metal
DP-S7	Bench	10	1.5	1.25	Metal
DP-S70	Bench	10	1.5	1.25	Metal
DP-S71	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S72	Bench	10	1.5	1.25	Metal
DP-S73	Bench	10	1.5	1.25	Metal
DP-S74	Bleachers	15	2.33	2.75	Metal, Concrete
DP-S75	Bench	6.12	2.66	2	Plastic, Metal
DP-S76	Pavilion	49	17	32	Wood, Concrete
DP-S77	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S78	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S79	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S8	Bench	10	1.5	1.25	Metal
DP-S80	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S81	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S82	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S84	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S85	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S86	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S87	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S88	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S89	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S9	Bench	10	1.5	1.25	Metal
DP-S90	Picnic Table	8	2.5	5.25	Wood, Metal
DP-S91	Sign	2.16	6	0.5	Wood
DP-S94	Bench	3.5	11.5	0.92	Wood, Metal
DP-S95	Entrance Wall	17	3.5	7.25	Stone
DP-S96	Sign	2.75	7.5	0.5	Metal, Wood
DP-S97	Sign	8	6.5	0.58	Wood
DP-S98	Bench	8	2.75	1.75	Metal
DP-S99	House	4	6	4	Plastic, Metal

Figure 29: Outline of Dean Park

Figure 30: Dean Park Structures

Figure 31: Dean Park Athletic Fields

Figure 32: Dean Park Conditions

Appendix F: Edgemere Park

Table 10: Edgemere Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
EP-A1	1/31/2006	Basketball Court	☑	N/A	Excellent	Chipping	☑	4	10.00%	3	1.5	4.5
EP-S1	1/31/2006	Jungle Gym	☑	N/A	Excellent	Chipping	☑	4	5.00%	3	1.25	3.75
EP-S10	1/31/2006	Bench	☐	N/A	Excellent	Lots of Chipping	☑	4	5.00%	3	0.5	1.5
EP-S11	1/31/2006	Backstop	☐	N/A	OK	Chipping	☑	4	5.00%	3	1	3
EP-S12	1/31/2006	Building	☐	OK	Good/OK	Chipping	☑	4	5.00%	3	1.25	3.75
EP-S13	1/31/2006	Sign	☐	N/A	Good	Chipping	☑	4	2.00%	3	1	3
EP-S14	1/31/2006	Bench	☑	N/A	N/A	Scratched	☐	4	5.00%	3	0.5	1.5
EP-S15	1/31/2006	Bench	☑	N/A	N/A	Scratched	☐	4	15.00%	3	0.5	1.5
EP-S2	1/31/2006	Swing Set	☐	N/A	Excellent	Chipping	☐	2	80.00%	1	1.25	1.25
EP-S3	1/31/2006	See Saw	☐	N/A	Excellent	Chipping	☐	3	30.00%	2	1.25	2.5
EP-S4	1/31/2006	Slide	☑	N/A	Excellent	N/A	☐	2	85.00%	1	1.25	1.25
EP-S5	1/31/2006	T-Rex Ride	☐	N/A	Excellent	Chipping	☐	2	80.00%	1	1.25	1.25
EP-S6	1/31/2006	Swing Set	☐	N/A	Excellent	Chipping	☐	3	5.00%	2	1.25	2.5
EP-S7	1/31/2006	Bench	☐	N/A	Excellent	Excellent	☐	2	2.00%	1	0.5	0.5
EP-S8	1/31/2006	Bench	☐	N/A	Excellent	Excellent	☐	2	1.00%	1	0.5	0.5
EP-S9	1/31/2006	Bench	☐	N/A	Excellent	Lots of Chipping	☑	4	5.00%	3	0.5	1.5
			☐				☐	0	0.00%	0	0	0

Table 11: Edgemere Park Permanent Features

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
EP-10	Bench	5	2	2.5	Wood / Metal
EP-11	Backstop	312	30	13	Metal
EP-12	Building	70	8.5	11	Wood / Metal / Cement
EP-13	Park Sign	4	6	0.5	Wood / Metal
EP-A1	Basketball Court	62	12.5	37	Blacktop / Plastic / Metal / Cement
EP-S1	Jungle Gym	30	10	24.5	Plastic / Metal
EP-S14	Bench	7	1.5	0.75	Metal
EP-S15	Bench	7	1.5	0.75	Metal
EP-S2	Swing Set	24	10	9	Metal / Plastic
EP-S3	See Saw	9	2	2.5	Metal
EP-S4	Slide	19	13	3	Metal
EP-S5	T-Rex Ride	5	3.5	1	Metal
EP-S6	Swing Set	25	15	8	Metal / Plastic
EP-S7	Bench	5	2	1.5	Metal
EP-S8	Bench	5	2	1.5	Metal
EP-S9	Bench	5	2	2.5	Wood / Metal

Figure 33: Edgemere Park Outline

Figure 34: Edgemere Park Structures

Figure 35: Edgemere Park Athletic Fields

Figure 36: Conditions for Edgemere Park

Appendix G: Gauch Park

Table 12: Gauch Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
GP-L1	2/3/2006	Grass Area	☐	N/A	N/A	N/A	☐	4	60.00%	3	1.25	3.75
GP-PL1	2/3/2006	Parking Lot	☐	N/A	N/A	N/A	☐	4	60.00%	3	1	3
GP-S1	2/3/2006	Guard Rail	☐	N/A	Good	N/A	☑	4	10.00%	2	1.25	2.5
GP-S2	2/3/2006	Granite Sign	☐	N/A	N/A	N/A	☐	3	5.00%	1	1.25	1.25
GP-S3	2/3/2006	Sign	☐	N/A	Excellent	Poor	☐	5	40.00%	4	1.25	5

Table 13: Gauch Park Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	GP-S3	Sign	2.5	4	0.5	Wood / Metal
▶	GP-S1	Guard Rail	50	1.5	0.5	Wood / Metal Wire
	GP-S2	Granite Sign	1	4.5	1	Stone
	GP-G1	Grass Area	0	0	0	Grass
	GP-PL1	Parking Lot	100	0	25	Black Top

Figure 37: Gauch Park Outline

Figure 38: Gauch Park Structures

Figure 39 Conditions of Gauch Park.

Appendix H: Greylock Park

Table 14: Greylock Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
GLP-S1	12/7/2005	Fence	☐	N/A	Very Good	N/A	☐	4	5.00%	2	1	2
GLP-S10	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	3	5.00%	2	0.5	1
GLP-S11	12/7/2005	Park Sign	☑	N/A	Very Good	Chipping	☑	4	30.00%	3	1.25	3.75
GLP-S12	12/7/2005	Picnic Table	☐	N/A	Very Good	N/A	☐	4	2.00%	3	0.5	1.5
GLP-S13	12/7/2005	Swing Set	☐	N/A	Very Good	N/A	☐	4	8.00%	2	1.25	2.5
GLP-S14	12/7/2005	Little Slide	☐	Good	Very Good	Chipping	☐	3	5.00%	2	1.25	2.5
GLP-S15	12/7/2005	Jungle Gym	☑	N/A	Very Good	Chipping / Rusting	☑	5	15.00%	3	1.25	3.75
GLP-S16	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	3	50.00%	2	0.5	1
GLP-S2	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	4	8.00%	2	0.5	1
GLP-S3	12/7/2005	Fence	☐	N/A	Very Good	N/A	☐	3	5.00%	2	1	2
GLP-S4	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	3	1.00%	2	0.5	1
GLP-S5	12/7/2005	Fence	☐	N/A	Very Good	N/A	☐	3	5.00%	2	1	2
GLP-S6	12/7/2005	Picnic Table	☑	N/A	Very Good	N/A	☐	5	40.00%	4	0.5	2
GLP-S7	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	4	2.00%	3	0.5	1.5
GLP-S8	12/7/2005	Bench	☐	N/A	Very Good	N/A	☐	4	30.00%	3	0.5	1.5
GLP-S9	12/7/2005	Fence	☑	N/A	Good	N/A	☐	4	10.00%	3	1	1.5

Table 15: Permanent Features of Greylock Park.

Map	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
GLP-S1	Fence	36	5	2	Cement / Metal / Chain Link
GLP-S10	Bench	7	2.5	1.5	Metal
GLP-S11	Park Sign	3	6	0.5	Wood
GLP-S12	Picnic Table	6.5	4.5	2.5	Metal
GLP-S13	Swing Set	25	10	6	Metal / Plastic / Rubber
GLP-S14	Slide	12	2	6	Metal / Plastic
GLP-S15	Jungle Gym	21	19	15	Metal / Plastic
GLP-S16	Bench	7	2.5	1.5	Metal
GLP-S2	Bench	7	2.5	1.5	Metal
GLP-S3	Fence	36	5	2	Cement / Metal /Chain Link
GLP-S4	Bench	7	2.5	1.5	Metal
GLP-S5	Fence	36	5	2	Cement / Metal / Chain Link
GLP-S6	Picnic Table	5	3	5	Metal
GLP-S7	Bench	7	2.5	1.5	Metal
GLP-S8	Bench	7	2.5	1.5	Metal
GLP-S9	Fence	36	5	2	Cement / Metal / Chain Link
		0	0	0	

Figure 40: Greylock Park Outline

Figure 41: Greylock Park Structures

Figure 42: Conditions of Greylock Park.

Appendix J: Shrewsbury High School

Table 16: Shrewsbury High School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
HS-A1	5/24/2006	Basketball Court	☐	NA	NA	Very Good	☐	3	5.00%	1	1	1
HS-A10	5/24/2006	Softball Field	☐	NA	NA	Very Good	☐	5	5.00%	2	1.5	3
HS-A11	5/24/2006	Shotput	☐	NA	NA	OK	☐	4	35.00%	2	1.5	3
HS-A12	5/24/2006	Baseball Field	☐	NA	NA	Very Good	☐	5	5.00%	1	1.5	1.5
HS-A2	5/24/2006	Tennis Court	☐	NA	NA	Very Good	☐	3	5.00%	1	1.5	1.5
HS-A3	5/24/2006	Tennis Court	☐	NA	NA	Very Good	☐	3	5.00%	1	1.5	1.5
HS-A4	5/24/2006	Lacrosse Field	☐	NA	NA	Very Good	☐	5	15.00%	1	1.25	1.25
HS-A5	5/24/2006	Football Field	☐	NA	NA	No Paint	☐	5	8.00%	2	1.5	3
HS-A6	5/24/2006	Track	☐	NA	NA	Ecxellent	☑	2	10.00%	1	1.5	1.5
HS-A7	5/24/2006	Baseball Field	☐	NA	NA	Poor	☐	5	35.00%	1	1.5	1.5
HS-A8	5/24/2006	Hammer Throw	☐	NA	NA	Good	☐	5	2.00%	1	1.5	1.5
HS-A9	5/24/2006	Softball Field	☐	NA	NA	Poor	☐	4	20.00%	2	1.5	3
HS-L1	5/24/2006	Lawn	☐	NA	NA	NA	☐	5	40.00%	3	1.25	3.75
HS-S1	5/24/2006	Fence	☐	N/A	Excellent	NA	☐	2	2.00%	1	1	1
HS-S10	5/24/2006	Bench	☐	NA	NA	NA	☐	3	8.00%	1	0.5	0.5
HS-S11	5/24/2006	Backstop	☐	NA	NA	NA	☐	2	15.00%	1	1	1
HS-S12	5/24/2006	Fence	☐	NA	Excellent	NA	☐	2	15.00%	1	1	1
HS-S14	5/24/2006	Shed	☐	Very Good	Excellent	Chipping	☑	3	30.00%	1	1	1
HS-S15	5/24/2006	Bleachers	☑	NA	NA	NA	☑	5	10.00%	3	0.5	1.5
HS-S16	5/24/2006	Bleachers	☑	NA	NA	NA	☑	3	5.00%	3	0.5	1.5
HS-S17	5/24/2006	Bench	☐	NA	Excellent	Chipping	☐	4	2.00%	2	0.5	1
HS-S18	5/24/2006	Bench	☐	NA	Excellent	Chipping	☐	4	5.00%	2	0.5	1
HS-S19	5/24/2006	Bench	☐	NA	Excellent	Scuffed	☐	3	25.00%	1	0.5	0.5
HS-S2	5/24/2006	Bench	☐	NA	Excellent	NA	☐	3	5.00%	1	1	1
HS-S20	5/24/2006	Bench	☐	NA	Excellent	Scuffed	☐	3	20.00%	1	0.5	0.5
HS-S21	5/24/2006	Fence	☐	NA	Excellent	NA	☐	2	15.00%	1	1	1
HS-S22	5/24/2006	Backstop	☐	NA	Excellent	NA	☐	2	10.00%	1	1.5	1.5
HS-S23	5/24/2006	Bench	☐	NA	Good	NA	☐	3	3.00%	1	0.5	0.5
HS-S24	5/24/2006	Bench	☐	NA	Excellent	NA	☐	2	15.00%	1	0.5	0.5
HS-S25	5/24/2006	Backstop	☐	NA	Excellent	NA	☐	3	15.00%	1	1.5	1.5
HS-S26	5/24/2006	Bleachers	☐	NA	NA	Rust	☑	5	2.00%	3	0.5	1.5
HS-S27	5/24/2006	Bench	☐	NA	Excellent	Chipped/ Scuffed	☐	4	3.00%	2	0.5	1
HS-S28	5/24/2006	Bench	☐	NA	Excellent	Chipped/Rust	☐	3	20.00%	1	0.5	0.5
HS-S29	5/24/2006	Bench	☐	NA	Excellent	Scuffed	☐	3	15.00%	1	0.5	0.5
HS-S3	5/24/2006	Bench	☐	NA	Excellent	NA	☐	3	3.00%	1	0.5	0.5
HS-S30	5/24/2006	Dugout	☐	NA	Excellent	NA	☐	4	1.00%	1	1	1
HS-S31	5/24/2006	Bleachers	☐	NA	NA	NA	☐	3	5.00%	1	0.5	0.5
HS-S33	5/24/2006	Bench	☑	NA	Excellent	NA	☐	4	1.00%	1	0.5	0.5
HS-S34	5/24/2006	Bench	☐	NA	Excellent	NA	☐	3	15.00%	1	0.5	0.5
HS-S35	5/24/2006	Fence	☐	NA	Excellent	NA	☐	2	10.00%	1	1	1
HS-S36	5/24/2006	Bleachers	☐	NA	NA	NA	☐	4	5.00%	3	0.5	0.5
HS-S37	5/24/2006	Bleachers	☑	NA	NA	NA	☑	4	15.00%	3	0.5	1.5
HS-S39	5/24/2006	Dugout	☐	NA	Excellent	NA	☐	3	20.00%	1	1	1
HS-S4	5/24/2006	Fence	☐	NA	Excellent	NA	☐	2	20.00%	1	1	1
HS-S41	5/24/2006	Bench	☐	NA	Excellent	NA	☑	5	3.00%	1	0.5	0.5
HS-S42	5/24/2006	Dugout	☐	NA	Excellent	NA	☐	3	30.00%	2	1	2
HS-S43	5/24/2006	Bleachers	☑	NA	NA	NA	☑	5	3.00%	3	0.5	1.5
HS-S44	5/24/2006	Bleachers	☑	NA	NA	NA	☑	5	2.00%	2	0.5	1
HS-S45	5/24/2006	Bleachers	☑	NA	NA	NA	☐	4	2.00%	2	0.5	1
HS-S48	5/24/2006	Bleachers	☑	NA	NA	NA	☐	4	1.00%	1	0.5	0.5
HS-S5	5/24/2006	Bleachers	☑	NA	NA	NA	☐	4	1.00%	1	0.5	0.5
HS-S7	5/24/2006	Bench	☑	NA	Excellent	Some Chipping	☐	3	15.00%	1	0.5	0.5
HS-S8	5/24/2006	Bench	☐	NA	Excellent	NA	☐	3	20.00%	2	0.5	1
HS-S9	5/24/2006	Bench	☐	NA	NA	NA	☐	4	10.00%	3	0.5	1.5
			☐				☐	0	0.00%	0	0	0

Table 17: Shrewsbury High School Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
HS-A11	Shotput	84	0.33	87.5	Gravel, Metal, Cement
HS-A12	Baseball Field	0	16	0	Metal, Grass, Plastic
HS-A2	Tennis Court	156	3.5	108	Blacktop, String, Metal
HS-A3	Tennis Court	156	3.5	108	Blacktop, String, Metal
HS-A4	Lacrosse Field	315	168	6	Grass, String, Metal
HS-A5	Football Field	360	192	25	Grass, Metal
HS-A6	Track	1320		31	Rubber
HS-A8	Hammer Throw	138	150	0	Blacktop, Cement, Grass
HS-S1	Fence	420	10	0.25	Metal
HS-S10	Bench	21	2.75	1.5	Metal
HS-S11	Backstop	115	17	0.25	Metal
HS-S12	Fence	1128	6	0.25	Metal
HS-S14	Shed	8.25	7.5	8.75	Metal, Wood, Shingles
HS-S15	Bleachers	15	4	9	Metal
HS-S16	Bleachers	15	4	9	Metal
HS-S17	Bench	6.66	2.5	1.5	Metal
HS-S18	Bench	6.66	2.5	1.5	Metal
HS-S19	Bench	6.66	2.5	1.5	Metal
HS-S2	Bench	15	2.75	1.5	Metal
HS-S20	Bench	6.66	2.5	1.5	Metal
HS-S21	Fence	88.25	11.5	0.25	Metal
HS-S22	Backstop	49.5	16	0.33	Metal
HS-S23	Bench	15	2.75	1.5	Metal
HS-S24	Bench	15	2.75	1.5	Metal
HS-S25	Backstop	48	16	0.33	Metal
HS-S26	Bleachers	15	4	9	Metal
HS-S27	Bench	13	2.5	1.5	Metal
HS-S28	Bench	13	2.5	1.5	Metal
HS-S29	Bench	13	2.5	1.5	Metal
HS-S3	Bench	15	2.75	1.5	Metal
HS-S30	Dugout	71.5	5.75	0.25	Metal
HS-S31	Bleachers	15	2.75	1.5	Metal, Chainlink
HS-S32	Dugout	71.5	5.75	0.25	Metal
HS-S33	Bench	15	2.75	1.5	Metal
HS-S34	Bench	15	2.75	1.5	Metal
HS-S35	Fence	621	16	0.33	Metal
HS-S36	Bleachers	15	4	9	Metal
HS-S37	Bleachers	15	4	9	Metal
HS-S38	Backstop	153	28	0.33	Metal
HS-S39	Dugout	73	6	0.25	Metal
HS-S4	Bleachers	100	10	0.25	Metal
HS-S40	Bench	15	2.75	1.5	Metal
HS-S41	Bench	15	2.75	1.5	Matal
HS-S42	Dugout	73	6	0.25	Metal
HS-S43	Bleachers	15	4	9	Metal
HS-S44	Bleachers	15	2.75	1.5	Metal, Chainlink
HS-S45	Bleachers	15	2.75	1.5	Metal, Chainlink
HS-S46	Bleachers	15	2.75	1.5	Metal, Chainlink
HS-S5	Fence	1500	4	0.25	Metal
HS-S6	Bleachers	15	8	9.5	Metal, Chainlink
HS-S7	Bench	13	2.5	1.5	Metal
HS-S8	Bench	21	2.75	1.5	Metal
HS-S9	Bench	15	1	1.5	Metal
HS-SA1	Basketball Court	120	12.5	90	Blacktop, Metal, String

Appendix K: Hill Farm Estates

Table 18: Hill Farm Estates Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
HFE-10	5/18/2006	Bench	☐	N/A	Excellent	Slight Chipping	☐	3	5	1	0.5	0.5
HFE-A1	5/18/2006	Basketball Court	☐	N/A	N/A	Good	☐	2	15	1	1.5	1.5
HFE-A2	5/18/2006	Baseball Field	☐	N/A	N/A	N/A	☐	4	15	3	1.5	4.5
HFE-L1	5/18/2006	Lawn	☐	N/A	N/A	N/A	☐	4	30	3	1.25	3.75
HFE-L2	5/18/2006	Lawn	☐	N/A	N/A	N/A	☐	5	3	3	1.25	3.75
HFE-L3	5/18/2006	Lawn	☐	N/A	N/A	N/A	☐	5	15	2	1.25	2.5
HFE-P1	5/18/2006	Path	☐	N/A	N/A	N/A	☑	5	5	2	0.5	1
HFE-S1	5/18/2006	Sign	☑	N/A	Excellent	N/A	☑	5	10	3	1.25	3.75
HFE-S11	5/18/2006	Sign	☐	N/A	Good	Slight Rusting	☐	3	15	2	1.25	2.5
HFE-S12	5/18/2006	Backstop	☐	N/A	Excellent	N/A	☐	2	10	1	1	1
HFE-S2	5/18/2006	Swing Set	☐	N/A	Excellent	Slight Rust	☐	4	5	2	1.25	2.5
HFE-S3	5/18/2006	Jungle Gym	☐	N/A	Excellent	Slight Rust / Chipping	☐	4	10	2	1.25	2.5
HFE-S4	5/18/2006	Bench	☐	N/A	Excellent	Slight Chipping	☐	3	5	1	0.5	0.5
HFE-S5	5/18/2006	Blocks	☐	N/A	Excellent	Faded	☑	5	10	3	1.25	3.75
HFE-S6	5/18/2006	Balance Rail	☑	N/A	Excellent	Rusting	☐	4	25	3	1.25	3.75
HFE-S7	5/18/2006	Slide	☐	N/A	Excellent	Chipping	☐	3	5	1	1.25	1.25
HFE-S8	5/18/2006	Cargo Net	☐	N/A	OK	Slight Chipping	☐	4	30	2	1.25	2.5
HFE-S9	5/18/2006	Spinner	☐	N/A	OK	Good	☐	4	5	2	1.25	2.5

Table 19: Hill Farm Estates Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
HFE-A1	Basketball Court	83.66	12.5	56.5	Tar, Metal, Fiberglass, Net
HFE-P1	Path	416.5		0.5	Tar
HFE-S1	Sign	2	4.5	0.16	Plastic, Metal
HFE-S11	Sign	1	5	0.16	Metal
HFE-S12	Backstop	2.25	0.83	0.25	Metal, Chainlink
HFE-S2	Swing Set	10.75	7.16	3.66	Metal, Rubber, Plastic
HFE-S3	Jungle Gym	14	7.33	2.16	Metal
HFE-S4	Bench	6	3	2	Cement, Metal, Plastic
HFE-S5	Blockes	4	2.25	4	Plastic
HFE-S6	Balance Beam	9.66	1.16	0.25	Metal
HFE-S7	Slide	14.75	8.25	2.16	Metal, Plastic
HFE-S8	Cargo Net	8	7.83	0.42	Metal
HFE-S9	Spinner	1.66	0.33	1.66	Metal, Plastic

Figure 43: Hill Farm Estates Outline

Figure 44: Hill Farm Estates Structures

Figure 45: Hill Farm Estates Athletic Fields

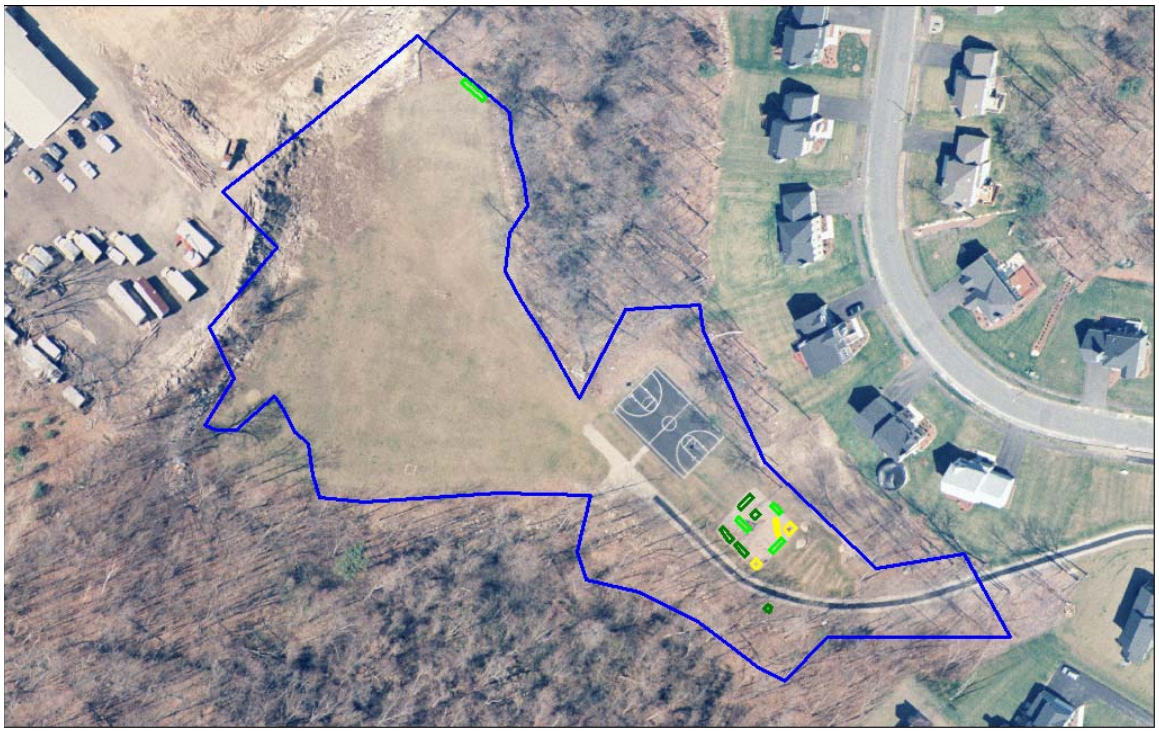


Figure 46: Conditions of Hill Farm Estates

Appendix L: Hill Farm Pond

Table 20: Hill Farm Pond Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
HFP-P1	2/21/2006	Path	☐	N/A	N/A	N/A	☐	3	40.00%	2	0.5	1
HFP-P2	2/21/2006	Path	☐	N/A	N/A	N/A	☐	3	10.00%	1	0.5	0.5
HFP-S1	2/21/2006	Bench	☐	N/A	Excellent	Excellent	☐	2	5.00%	1	0.5	0.5
HFP-S2	2/21/2006	Bench	☐	N/A	N/A	N/A	☑	4	10.00%	1	0.5	0.5
HFP-S3	2/21/2006	Bridge	☑	N/A	OK	N/A	☐	4	20.00%	2	1.25	2.5
HFP-S4	2/21/2006	Gate	☐	N/A	Good	Excellent	☐	3	10.00%	1	1	1
HFP-S5	2/21/2006	Wall	☐	N/A	Excellent	N/A	☐	3	35.00%	2	1	2
HFP-S6	2/21/2006	Retaining Wall	☐	N/A	Poor	N/A	☑	5	30.00%	3	1	3
HFP-S7	2/21/2006	Bench	☐	N/A	Excellent	N/A	☐	2	5.00%	1	0.5	0.5
HFP-S8	2/21/2006	Bench	☐	N/A	N/A	N/A	☐	3	15.00%	1	0.5	0.5

Table 21: Hill Farm Pond Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	HFP-P1	Path	0	0	4	Dark Bark Mulch
	HFP-P2	Path	40	0	2	Stone
	HFP-S1	Bench	5	3	2	Metal / Plastic
	HFP-S2	Bench	3	1	1.5	Concrete / Glass / Rocks
	HFP-S3	Bridge	6	0	6	Wood / Concrete
	HFP-S4	Gate	8	3	0.166	Metal
	HFP-S5	Wall	65	1	1.5	Stone / Concrete
	HFP-S6	Retaining Wall	90	2	1	Stone
	HFP-S7	Bench	2.5	1	1	Wood / Concrete
	HFP-S8	Bench	3	1	1.5	Stone

Figure 47: Hill Farm Pond Outline

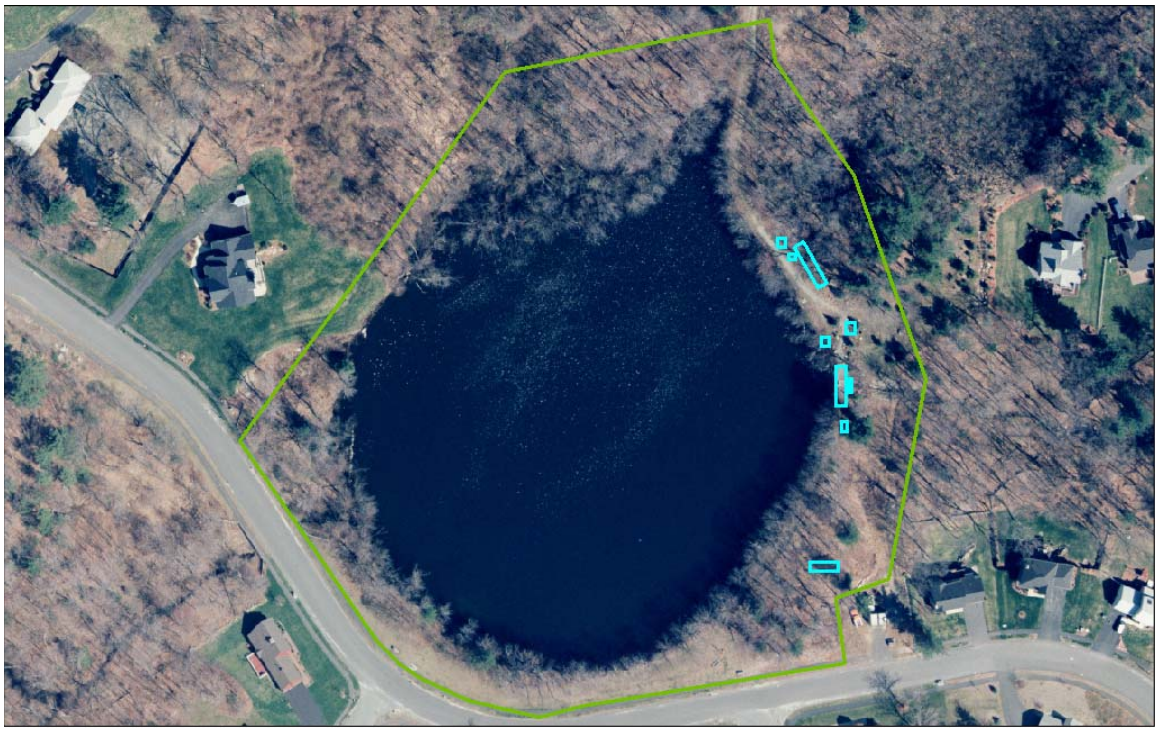


Figure 48: Hill Farm Pond Structures

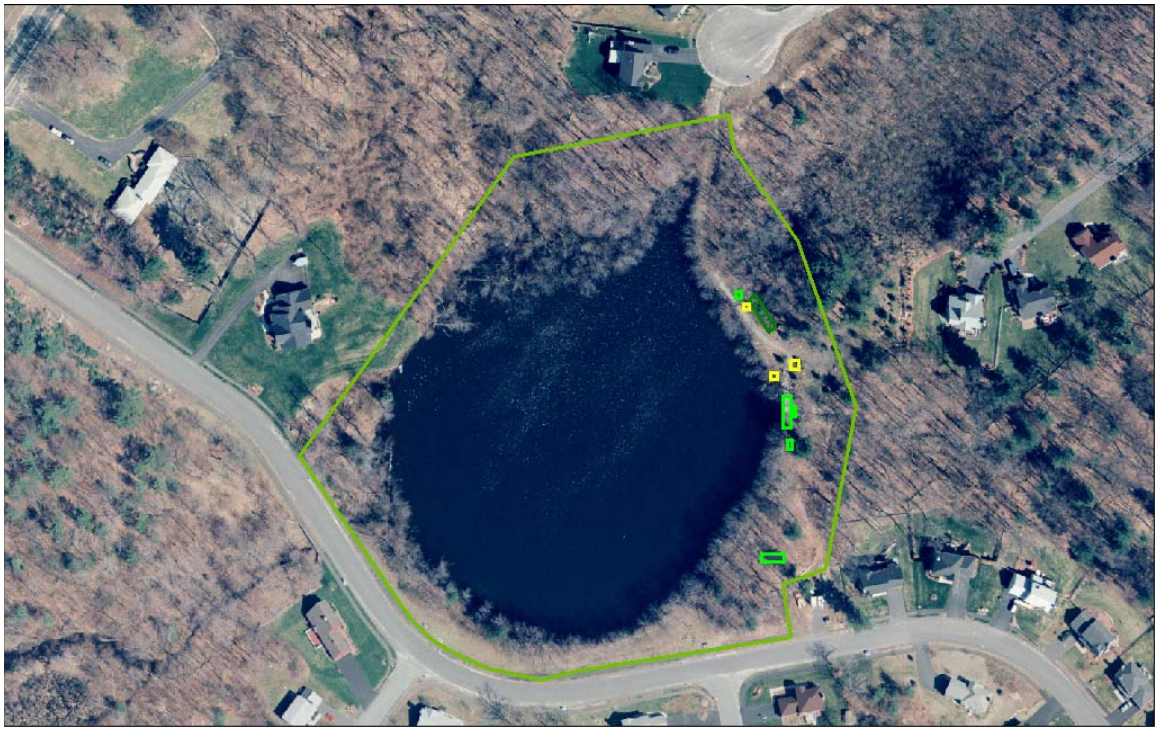


Figure 49: Conditions of Hill Farm Pond

Appendix M: Hillando Park

Table 22: Hillando Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
HP-S1	1/31/2006	Swing Set	☐	N/A	Good	Needs Touch Up	☐	3	18.00%	2	1.25	2.5
HP-S2	1/31/2006	Slide	☐	N/A	Good	N/A	☑	4	8.00%	3	1.25	3.75
HP-S3	1/31/2006	Jungle Gym	☐	N/A	Good	N/A	☑	4	10.00%	3	1.25	3.75
HP-S4	1/31/2006	Backstop	☐	N/A	Good	N/A	☑	5	5.00%	3	1	3

Table 23: Hillando Park Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	HP-S1	Swing Set	0	0	0	Metal / Rubber
	HP-S2	Slide	19	13	3	Metal
	HPS3	Jungle Gym	7.5	6.75	7	Metal / Plastic
	HP-S4	Backstop	19	12	0	Metal

Figure 50: Hillando Park Outline

Figure 51: Hillando Parks Structures

Figure 52: Hillando Park Athletic Field

Figure 53: Conditions of Hillando Park

Appendix N: Ireta Park

Table 24: Ireta Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
I-A1	2/9/2006	Basketball Court	☑	N/A	Good	Needs Repainting	☑	4	45.00%	3	1.5	4.5
I-S1	2/9/2006	Swing Set	☐	N/A	Excellent	Chipping	☐	3	45.00%	2	1.25	2.5
I-S2	2/9/2006	Slide	☐	N/A	Excellent	N/A	☑	5	10.00%	4	1.25	5
I-S3	2/9/2006	Metal Fence	☐	N/A	Excellent	Good	☐	2	25.00%	1	1	1
I-S4	2/9/2006	Metal Fence	☐	N/A	Excellent	Good	☐	2	25.00%	1	1	1
I-S5	2/9/2006	Metal Fence	☐	N/A	Good	Rusting / Chipping	☐	3	25.00%	2	1	2
I-S6	2/9/2006	Wood Fence	☐	N/A	Excellent	N/A	☑	5	2.00%	3	1	3

Table 25: Ireta Park Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	I-A1	Basketball Court	75	62	12.5	Asphalt / Metal / Fiberglass
	I-S1	Swing Set	33	13	10.25	Metal / Plastic
	I-S2	Slide	3.5	4	2.5	Plastic
	I-S3	Metal Fence	62	10	0.25	Metal
	I-S4	Metal Fence	62	10	0.25	Metal
	I-S5	Metal Fence	117	4.25	0.25	Metal
	I-S6	Wood Fence	355	3	0.33	Wood / Wire

Figure 54: Ireta Park Outline

Figure 55: Ireta Park Structures

Figure 56: Ireta Park Athletic Fields

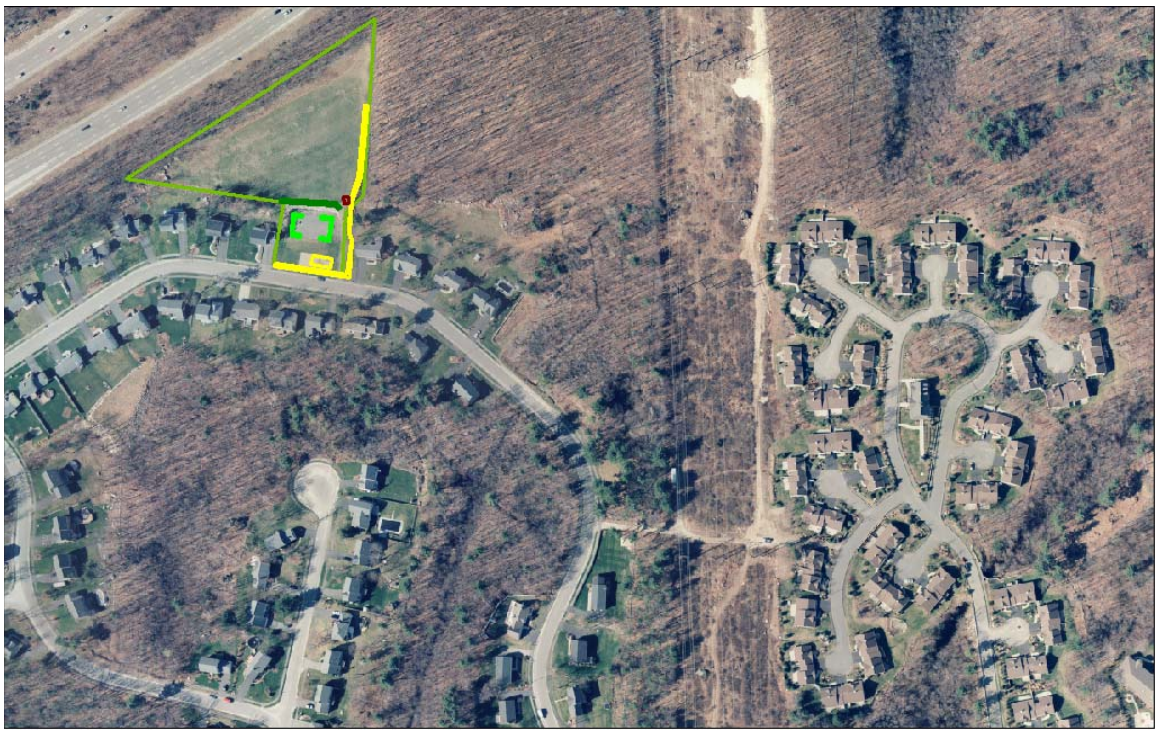


Figure 57: Conditions of Ireta Park

Appendix O: Jordan Pond

Table 26: Jordan Pond Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
JP-A1	5/18/2006	Tennis Court	☑	NA	Excellent	Good	☐	4	2.00%	1	1.5	1.5
JP-S1	5/18/2006	Bathroom	☑	OK	Good	Bad	☑	5	60.00%	4	1	4
JP-S2	5/18/2006	Gate	☐	NA	Excellent	NA	☑	5	15.00%	3	1	3
JP-S3	5/18/2006	Fence	☐	NA	Excellent	Rust	☑	5	15.00%	3	1	3

Table 27: Jordan Pond Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
JP-A1	Tennis Court	120.5	0	108.16	Tar, Metal, Nets
JP-S1	Bathroom	24	8.83	7.5	Concrete, Metal
JP-S2	Front Gate	104.5	4	0.33	Metal
JP-S3	Fence	457.16	9.5	0.25	Metal, Chain link

Figure 59: Jordan Park Outline

Figure 58: Jordan Pond Structures

Figure 60: Jordan Pond Athletic Fields

Figure 61: Conditions of Jordan Pond

Appendix P: Lake Street Recreation Area

Table 28: Lake Street Recreation Area Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
LSRA-A1	5/22/2006	Soccer Field	☐	N/A	N/A	OK	☐	5	20	3	1.5	4.5
LSRA-A2	5/22/2006	Lacrosse Field	☐	N/A	N/A	Poor	☐	5	15	3	1.5	4.5
LSRA-A3	5/22/2006	Soccer Field	☐	N/A	N/A	OK	☑	5	8	3	1.5	4.5
LSRA-A4	5/22/2006	Soccer Field	☐	N/A	N/A	OK	☑	5	15	2	1.5	3
LSRA-L1	5/22/2006	Lawn	☐	N/A	N/A	N/A	☐	5	5	3	1.25	3.75
LSRA-P1	5/22/2006	Parking Lot	☐	N/A	N/A	N/A	☐	5	5	3	1	3
LSRA-S1	5/22/2006	Sign	☑	N/A	OK	N/A	☑	5	5	3	1	3
LSRA-S2	5/22/2006	Gate	☐	N/A	Excellent	N/A	☑	5	35	3	1	3
LSRA-S3	5/22/2006	Sign	☑	N/A	Excellent	N/A	☐	5	3	2	1	2
LSRA-S4	5/22/2006	Gate	☐	N/A	Excellent	N/A	☐	4	5	1	1	1

Table 29: Permanent Features of Lake Street Recreation Area.

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	LSRA-A1	Soccer Field	0	8.16		Metal / Net / Grass
	LSRA-A2	Lacrosse Field	0	6	0	Metal / Net / Grass
	LSRA-A3	Soccer Field	0	6.83	0	Metal / Net / Grass
	LSRA-A4	Soccer Field	0	8.16	0	Metal / Net / Grass
	LSRA-S1	Sign	4.16	6	0.5	Wood
	LSRA-S2	Gate	11	6.25	0.16	Metal
	LSRA-S3	Sign	5.33	0.92	1	Wood / Metal
	LSRA-S4	Gate	17	0.58	3.83	Metal

Figure 62: Lake Street Recreation Area Outline

Figure 63: Lake Street Recreation Area Structures

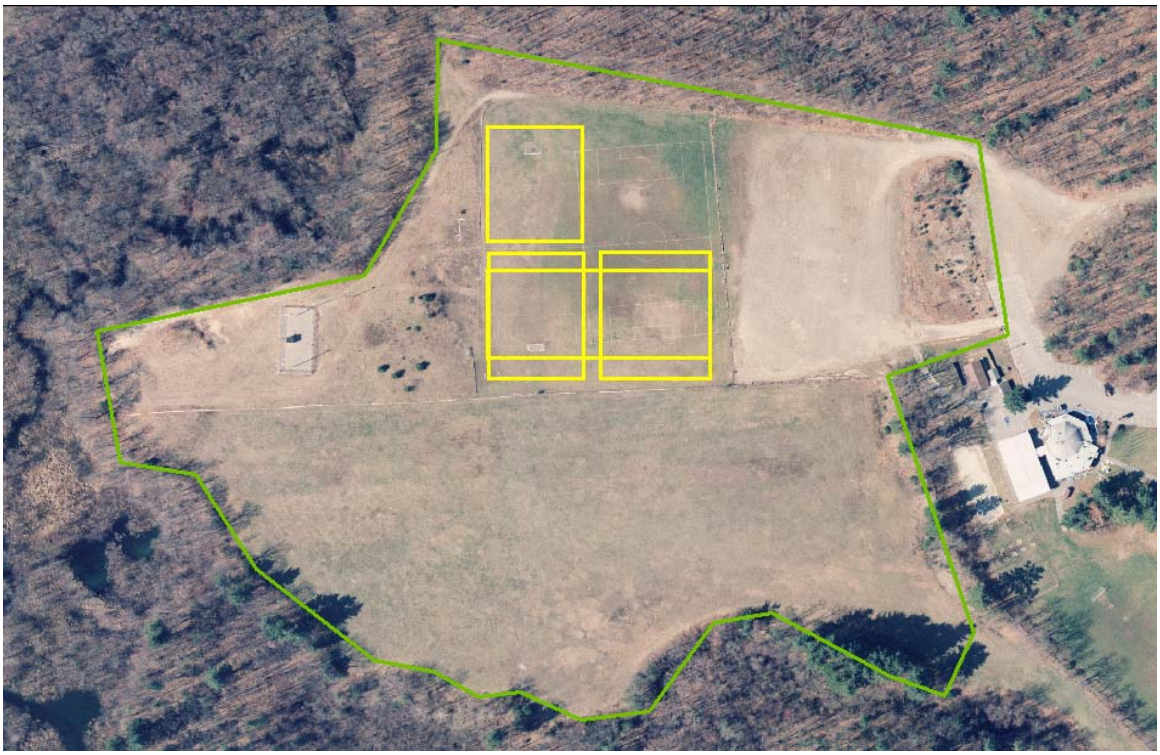


Figure 64: Lake Street Recreation Area Athletic Fields

Figure 65: Conditions of Lake Street Recreational Area

Appendix Q: Maple Avenue

Table 30: Maple Avenue Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
MA-S1	2/2/2006	Outer Fence	☐	N/A	Excellent	N/A	☐	3	35.00%	2	1	2
MA-S10	2/2/2006	Sign	☐	N/A	Excellent	N/A	☐	3	10.00%	2	1	2
MA-S11	2/2/2006	Building	☑	Excellent	Excellent	Chipping	☑	5	20.00%	4	1	4
MA-S12	2/2/2006	Building	☑	Good	Good	Chipping	☑	5	5.00%	3	1	3
MA-S2	2/2/2006	Backstop	☑	N/A	Excellent	N/A	☑	3	80.00%	2	1	2
MA-S3	2/2/2006	Bench	☑	N/A	Excellent	Chipping / Rust	☐	4	5.00%	3	0.5	1.5
MA-S4	2/2/2006	Bench	☐	N/A	Excellent	Chipping / Rust	☐	4	5.00%	3	0.5	1.5
MA-S5	2/2/2006	Rock Wall	☑	N/A	Excellent	N/A	☑	4	15.00%	3	1	3
MA-S6	2/2/2006	Granite Sign	☑	N/A	Good	N/A	☐	3	10.00%	2	1	2
MA-S7	2/2/2006	Entrance Gate	☑	N/A	Good	N/A	☑	5	10.00%	4	1	4
MA-S8	2/2/2006	Sign	☐	N/A	Excellent	N/A	☐	5	10.00%	4	1	4
MA-S9	2/2/2006	Sign	☐	N/A	Good	N/A	☑	3	5.00%	2	1	2

Table 31: Maple Avenue Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	MA-S1	Wood Fence		2.67	0.75	Wood / Steel
	MA-S10	Sign	1.5	9.4	0.16	Metal
	MA-S11	Building	17.25	9.25	9.75	Wood / Metal / Plastic / Cement
	MA-S12	Building	28	14	22	Stone / Wood / Metal/ Plastic
	MA-S2	Backstop	232	16.83	10	Metal / Wood
	MA-S3	Bench	22.25	1.58	1.25	Metal / Rubber
	MA-S4	Bench	22.25	1.58	1.25	Metal / Rubber
	MA-S5	Rock Wall		2.75	3	Rock
	MA-S6	Granite Sign	1.66	4.16	0.75	Granite
	MA-S7	Entrance Gate	25.25	4.66	0.75	Metal
	MA-S8	Sign	1.5	9.4	0.16	Metal
	MA-S9	Sign	1.5	6.6	0.5	Metal / Wood

Figure 66: Maple Avenue Outline

Figure 67: Maple Avenue Structures

Figure 68: Maple Avenue Athletic Fields

Figure 69: Conditions of Maple Avenue

Appendix R: Melody Lane

Table 32: Melody Lane Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Pain Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
MLP-L1	2/2/2006	Grass Area	☐	N/A	N/A	N/A	☐	4	20.00%	2	1.25	2.5
MLP-L2	2/2/2006	Grass Playfield	☐	N/A	N/A	N/A	☐	5	10.00%	2	1.25	2.5
MLP-P1	2/2/2006	Entrance Road	☐	N/A	N/A	N/A	☐	3	10.00%	2	1	2

Table 33: Melody Lane Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	MLP-L1	Grass Area	90	0	80	Grass
	MLP-L2	Grass Playfield	320	170	0	Grass
	MLP-P1	Entrance Road	150	0	11	Black Top

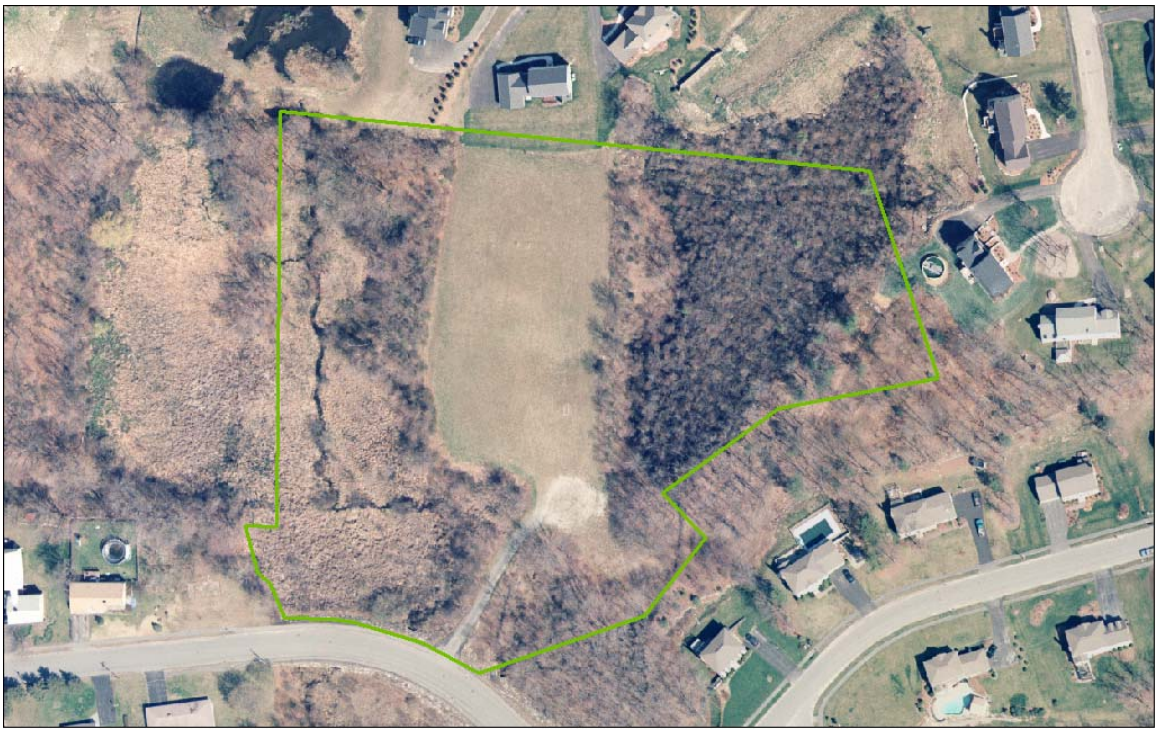


Figure 70: Out line of Melody Lane.

Appendix S: Municipal Drive

Table 34: Municipal Drive Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
MD-S1	1/11/2006	Fence	☐	N/A	Excellent	N/A	☑	5	5.00%	3	1	3
MD-S2	1/11/2006	Building	☐	Good	Excellent	Chipping	☑	5	15.00%	4	1	4
MD-S3	1/11/2006	Sign	☐	N/A	Excellent	N/A	☑	3	15.00%	2	1	2

Table 35: Municipal Drive Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	MD-S1	Fence	0	52	0.25	Metal
	MD-S2	Building	14.5	13.5	11	Wood / Metal / Plastic
	MD-S3	Sign	4	6.92	0.5	Wood / Metal

Figure 71: Municipal Drive Outline

Figure 72: Municipal Drive Structures

Figure 73: Conditions of Muncipal Drive.

Appendix T: North Shore Field

Table 36: North Shore Field Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
NSF-A1	5/24/2006	Basketball Court	☑	N/A	Good	Chipping	☐	3	15.00%	2	1.5	3
NSF-A2	5/24/2006	Baseball Field	☐	N/A	Terrible (stone)	N/A	☐	4	30.00%	3	1.5	4.5
NSF-S1	5/24/2006	Bench	☐	N/A	Good	N/A	☐	4	15.00%	3	0.5	1.5
NSF-S10	5/24/2006	Slide	☐	N/A	N/A	Rusty / Chipping	☐	4	2.00%	2	1.25	2.5
NSF-S11	5/24/2006	Sand Box	☐	Excellent	Excellent	Some scuffs	☐	3	10.00%	1	1.25	1.25
NSF-S12	5/24/2006	Bench	☐	N/A	Excellent	Rusting	☐	4	25.00%	2	0.5	1
NSF-S13	5/24/2006	Shed	☐	OK	N/A	N/A	☑	5	10.00%	2	1	2
NSF-S14	5/24/2006	Backstop	☐	N/A	OK	N/A	☑	5	5.00%	3	1	3
NSF-S15	5/24/2006	Bleachers	☑	N/A	N/A	N/A	☐	4	35.00%	3	0.5	1.5
NSF-S16	5/24/2006	Dugout	☑	N/A	OK	Poor	☑	5	30.00%	3	1	3
NSF-S17	5/24/2006	Dugout	☐	N/A	Poor	Rusted	☑	5	15.00%	4	1	4
NSF-S18	5/24/2006	Picnic Table	☑	N/A	N/A	N/A	☑	5	60.00%	4	0.5	2
NSF-S19	5/24/2006	Spring Plane	☑	N/A	Excellent	Scuffs / Chipping	☐	3	10.00%	2	1.25	2.5
NSF-S2	5/24/2006	Bench	☑	N/A	Good	N/A	☐	4	10.00%	3	0.5	1.5
NSF-S20	5/24/2006	Fence	☐	N/A	N/A	N/A	☑	5	25.00%	3	1	3
NSF-S3	5/24/2006	Catapiller	☐	N/A	N/A	N/A	☑	5	1.00%	2	1.25	2.5
NSF-S4	5/24/2006	Picnic Table	☐	N/A	N/A	Excellent	☐	1	100.00%	1	0.5	0.5
NSF-S5	5/24/2006	Play House	☐	Good	N/A	N/A	☑	4	15.00%	2	1.25	2.5
NSF-S7	5/24/2006	Jungle Gym	☐	N/A	Excellent	Excellent	☐	2	10.00%	1	1.25	1.25
NSF-S8	5/24/2006	Swing	☐	N/A	Excellent	N/A	☐	3	15.00%	2	1.25	2.5
NSF-S9	5/24/2006	Spring Motorcycle	☐	N/A	Poor	Chipping	☐	4	8.00%	3	1.25	3.75

Table 37: North Shore Field Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	NSF-A1	Basketball Court	104.5	12.5	71	Ashphalt / Metal / Plastic
	NSF-A2	Baseball Field	0	0	0	Stone / Grass
	NSF-S1	Bench	5.92	2.83	1.75	Metal
	NSF-S10	Slide	12.5	7.5	2.5	Metal / Plastic
	NSF-S11	Sandbox	12	11	12	Metal / Plastic
	NSF-S12	Bench	6	2.5	1.5	Metal
	NSF-S13	Shed	12.25	8.25	8.5	Plastic / Metal / Wood / Plexyglass
	NSF-S14	Backstop	40	20	0.33	Metal
	NSF-S15	Bleachers	15	4	9	Metal
	NSF-S16	Dugout	20	6	15.33	Metal
	NSF-S18	Picnic Table	8	2.5	4	Wood
	NSF-S19	Spring Plane	2.83	1.33	2.25	Metal
	NSF-S2	Bench	5.92	2.83	1.75	Metal
	NSF-S20	Fence	613	4	0.17	Metal / Plastic
	NSF-S3	Catepillar	8	3.5	3.5	Plastic
	NSF-S4	Picnic Table	5	2	4	Metal
	NSF-S5	Play House	4.66	5	4	Plastic
	NSF-S7	Jungle Gym	15	6.83	12	Plastic / Metal
	NSF-S8	Swings	29	7.5	8	Metal / Plastic
	NSF-S9	Spring Motorcycle	2.5	2.33	1.33	Metal

Figure 74: North Shore Field Outline

Figure 75: North Shore Field Structures

Figure 76: North Shore Field Athletic Fields

Figure 77: Conditions of North Shore Field.

Appendix U: Oak Middle School

Table 38: Oak Middle School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
OMS-A1	5/23/2006	Soccer/Football Field	☐	NA	NA	Poor	☐	5	5.00%	3	1.5	4.5
OMS-A2	5/23/2006	Track	☐	NA	NA	NA	☐	1	10.00%	1	1.5	1.5
OMS-A3	5/23/2006	Baseball Field	☐	NA	NA	NA	☐	5	2.00%	2	1.5	3
OMS-A4	5/23/2006	Tennis Court	☑	NA	Good	Very Good	☐	5	15.00%	3	1.5	4.5
OMS-A5	5/23/2006	Baseball Field	☑	NA	NA	None	☐	5	80.00%	4	1.5	6
OMS-A6	5/23/2006	Lacrosse Field	☐	NA	NA	NA	☐	3	45.00%	2	1.5	3
OMS-A7	5/23/2006	Basketball Court	☐	NA	Excellent	Poor	☐	4	5.00%	2	1.5	3
OMS-S1	5/23/2007	Fence	☐	NA	Excellent	Excellent	☐	1	100.00%	1	1	1
OMS-S10	5/23/2006	Bench	☐	NA	NA	NA	☐	3	10.00%	1	0.5	0.5
OMS-S11	5/23/2006	Bench	☑	NA	NA	Poor	☐	5	70.00%	4	0.5	2
OMS-S12	5/23/2006	Fence	☐	NA	Very Good	Rust	☑	5	15.00%	4	1	4
OMS-S13	5/23/2006	Bench	☐	NA	NA	NA	☐	3	15.00%	2	0.5	1
OMS-S14	5/23/2006	Bench	☐	NA	NA	NA	☐	3	15.00%	2	0.5	1
OMS-S15	5/23/2006	Bench	☐	NA	NA	NA	☐	3	15.00%	2	0.5	1
OMS-S16	5/23/2006	Bleachers	☑	NA	NA	NA	☐	4	2.00%	1	0.5	0.5
OMS-S17	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	30.00%	1	0.5	0.5
OMS-S18	5/23/2006	Bleachers	☑	NA	NA	NA	☐	3	30.00%	1	0.5	0.5
OMS-S19	5/23/2006	Shotput	☐	NA	Excellent	Poor	☑	5	15.00%	3	1.5	4.5
OMS-S2	5/23/2006	Backstop	☐	NA	Excellent	Very Good	☐	3	10.00%	1	1	1
OMS-S20	5/23/2006	Backstop	☐	NA	Poor	Rust	☑	5	60.00%	4	1	4
OMS-S3	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	15.00%	1	0.5	0.5
OMS-S4	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	3.00%	1	0.5	0.5
OMS-S5	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	8.00%	1	0.5	0.5
OMS-S6	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	30.00%	1	0.5	0.5
OMS-S7	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	8.00%	1	0.5	0.5
OMS-S8	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	10.00%	1	0.5	0.5
OMS-S9	5/23/2006	Bleachers	☐	NA	NA	NA	☐	3	3.00%	1	0.5	0.5

Table 39: Oak Middle School Permanent

Map Code	Structure Description	Length (feet)	Height(feet)	Width(feet)	Material(s)
OMS-A1	Football/Soccer Field	0	0	0	Grass
OMS-A2	Track	0	0	23	Tar, Rubber
OMS-A4	Tennis Court	0	3.16	0	Blacktop, Concrete, Metal, Net
OMS-A7	Basketball Court	45.5	12.5	43	Tar, Metal, Fiberglass
OMS-S1	Fence	0	2.58	0.166	Metal, Chain link
OMS-S11	Bench	8	1.33	1	Wood
OMS-S12	Fence	0	4.66	0.25	Metal, Chain link
OMS-S13	Bench	8	1.33	1	Wood
OMS-S14	Bench	8	1.33	1	Wood
OMS-S15	Bench	8	1.33	1	Wood
OMS-S16	Bleachers	21	2.5	7	Metal
OMS-S17	Bleachers	21	2.5	7	Metal
OMS-S18	Bleachers	21	2.5	7	Metal
OMS-S19	Shotput	49.66	10.6	0.25	Metal, Tar, Chain link
OMS-S2	Backstop	134	23	0.25	Metal, Chain link
OMS-S20	Backstop	34.5	17.75	0.25	Metal, Chain link
OMS-S21	Bench	6	2.16	1.5	Wood, Metal
OMS-S22	Bench	6	2.16	1.5	Wood, Metal
OMS-S23	Bench	6	2.16	1.5	Wood, Metal
OMS-S24	Bench	6	2.16	1.5	Wood, Metal
OMS-S25	Picnic Table	5.92	2.5	5	Wood
OMS-S26	Picnic Table	5.92	2.5	5	Wood
OMS-S3	Bleachers	21	2.5	7	Metal
OMS-S4	Bleachers	21	2.5	7	Metal
OMS-S5	Bleachers	21	2.5	7	Metal
OMS-S6	Bleachers	21	2.5	7	Metal
OMS-S7	Bleachers	21	2.5	7	Metal
OMS-S8	Bleachers	21	2.5	7	Metal
OMS-S9	Bleachers	21	2.5	7	Metal

Figure 78: Outline of Oak Middle School

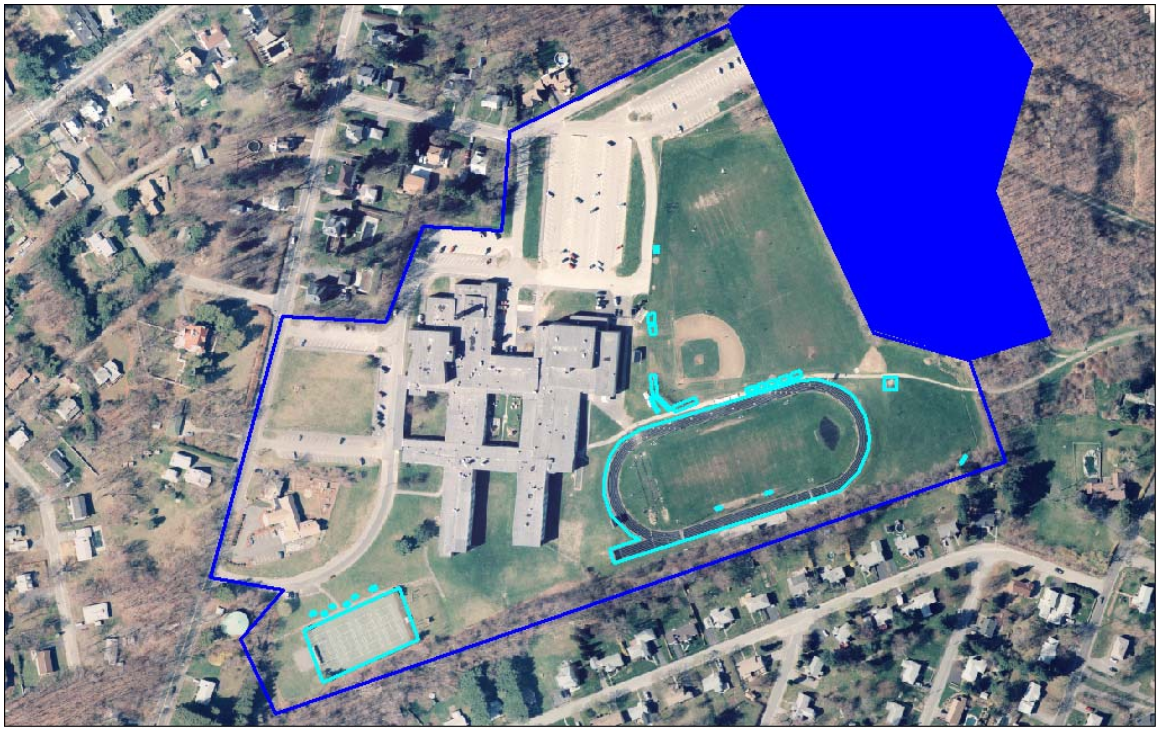


Figure 79: Outline of Oak Middle School

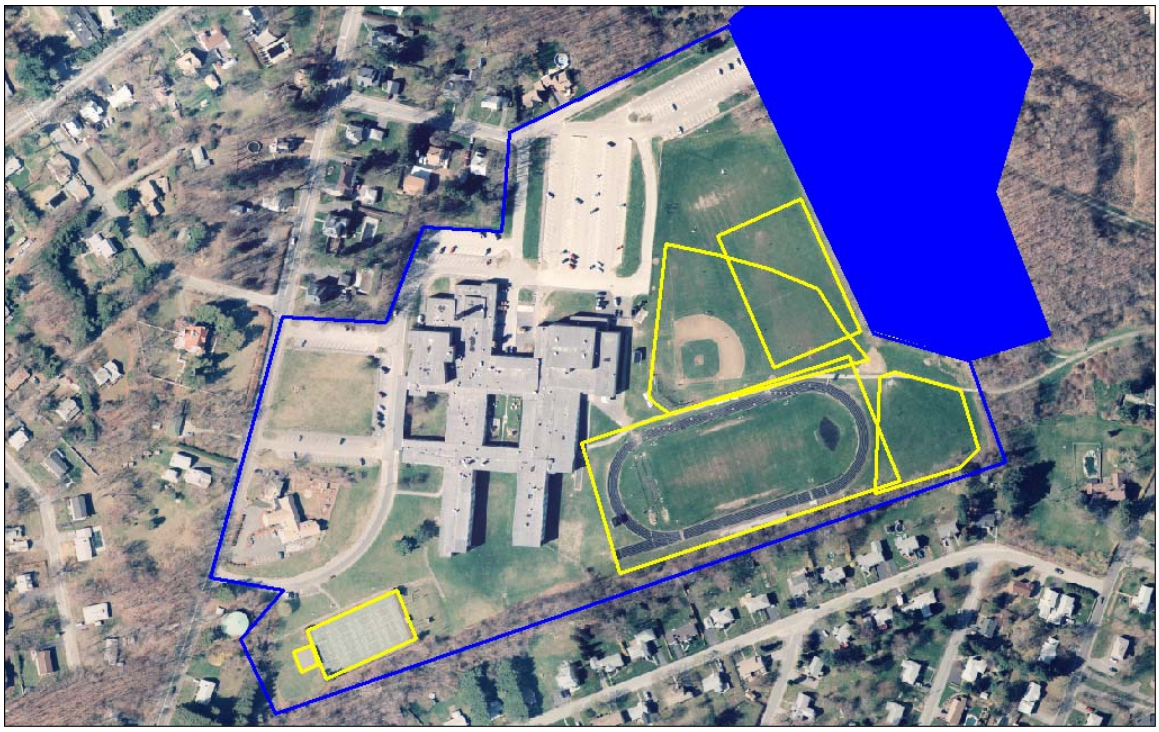


Figure 80: Athletic Fields of Oak Middle School

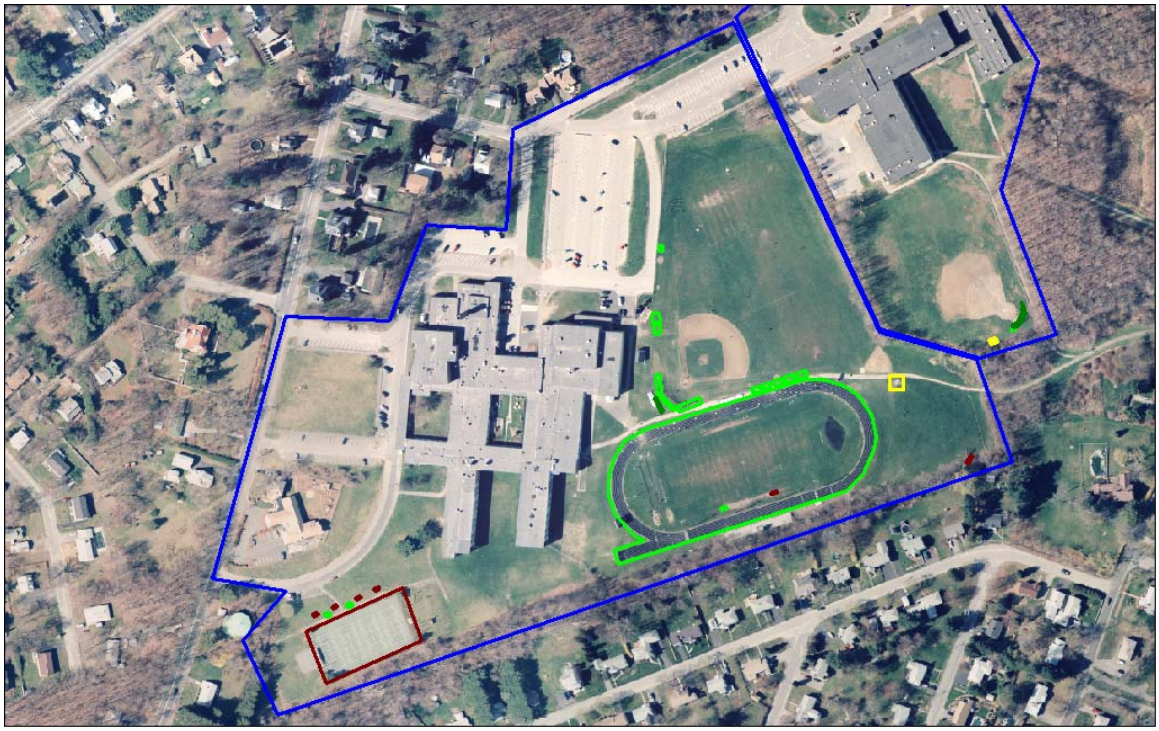


Figure 81: Conditions of Oak Middle School.

Appendix V: Prospect Park

Table 40: Prospect Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
PP-S1	5/22/2006	Wall	☐	N/A	Excellent	N/A	☑	5	8	3	1	3
PP-S10	5/22/2006	Bench	☐	N/A	Excellent	N/A	☐	5	20	3	0.5	1.5
PP-S2	5/22/2006	Sign	☐	N/A	Excellent	Chipping	☐	3	15	1	1	1
PP-S3	5/22/2006	Gate	☐	N/A	Excellent	Rust / Chipping	☐	5	20	4	1	4
PP-S4	5/22/2006	Sign	☐	N/A	Excellent	N/A	☐	2	5	1	1	1
PP-S5	5/22/2006	Gate	☐	N/A	Excellent	Rust	☑	5	50	4	1	4
PP-S6	5/22/2006	Pavilion	☑	Terrible / Gone	Excellent	Terrible	☑	5	80	4	1	4
PP-S7	5/22/2006	Building	☑	Missing	OK	N/A	☑	5	100	5	1	5
PP-S8	5/22/2006	Stonewall	☐	N/A	Good	N/A	☑	5	20	3	1	3
PP-S9	5/22/2006	Pool	☑	N/A	Poor	Terrible	☑	5	75	4	1	4

Table 41: Permanent Features of Prospect Park.

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	PP-S1	Wall	235.6	11.25	4.75	Cement
	PP-S10	Bench	4	1.5	1.5	Stone
	PP-S2	Entrance Sign	5	4	5.42	Wood
	PP-S3	Gate	20.5	3.5	0.5	Metal
	PP-S4	Covered Sign	6	9.16	6.75	Wood / Plastic / Metal / Shingles
	PP-S5	Gate	22.75	5	0.66	Metal / Cement
	PP-S6	Pavilion	27	14	18	Cement, Wood
	PP-S7	Building	19	7	19	Cement / Wood
	PP-S8	Wall	0	6.92	2.25	Stone
	PP-S9	Pool	50	3.5	26	Cement / Stone

Figure 82: Outline of Prospect Park

Figure 83: Prospect Park structures.

Figure 84: Conditions of Prospect Park

Appendix W: Rotary Park

Table 42: Rotary Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
RP-L1	5/18/2006	Lawn	☐	NA	NA	NA	☐	4	10.00%	2	1.25	2.5
RP-S1	5/18/2006	Guard Rail	☐	NA	Excellent	NA	☑	4	10.00%	3	1	3
RP-S2	5/18/2006	Sign	☑	NA	Excellent	Good	☑	5	3.00%	2	1	2
RP-S3	5/18/2006	Sign	☐	NA	Excellent	Poor	☑	5	10.00%	3	1	1
RP-S4	5/18/2006	Bench	☑	NA	Excellent	Rust	☑	5	30.00%	4	0.5	2
RP-S5	5/18/2006	Bench	☑	NA	Excellent	Rust	☑	5	45.00%	4	0.5	2
RP-S6	5/18/2006	Bench	☑	NA	Excellent	Rust	☑	5	20.00%	4	0.5	2
RP-S7	5/18/2006	Bench	☑	NA	Excellent	NA	☑	5	5.00%	3	0.5	1.5
RP-S8	5/18/2006	Swing Set	☐	NA	Good	Rust	☐	5	20.00%	4	1.25	5
RP-S9	5/18/2006	Monkey Bars	☐	NA	Good	Rust	☑	5	20.00%	4	1.25	5

Table 43: Rotary Park Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
RP-L1	Lawn	0	0	0	Grass
RP-S1	Guard Rail	41.33	3.16	0.92	Wood
RP-S2	Sign	3	6.25	0.5	Wood, Metal
RP-S3	Sign	4	6.16	0.58	Wood
RP-S4	Bench	8	2.75	2	Metal
RP-S5	Bench	8	2.5	2	Metal
RP-S6	Bench	8	2.5	2	Metal
RP-S7	Bench	5.83	2.75	2	Metal
RP-S8	Swing Set	27.16	8.6	0.66	Metal, Plastic, Rubber, Cement
RP-S9	Monkey Bars	15.33	7	8	Metal

Figure 85: Rotary Park Outline

Figure 86: Rotary Park Structures

Figure 87: Conditions of Rotary Park

Appendix X: Sherwood Middle School

Table 44: Sherwood Middle School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Avera
SMS-A1	5/23/2006	Softball Field	☐	N/A	N/A	N/A	☐	5	10	3	1.5	4.5
SMS-L1	5/23/2006	Lawn	☐	N/A	N/A	N/A	☐	5	15	1	1.25	1.25
SMS-S1	5/23/2006	Backstop	☐	N/A	Excellent	Rusting	☑	4	40	2	1	2
SMS-S2	5/23/2006	Fence	☐	N/A	Excellent	Some Rust	☑	5	10	3	1	3
SMS-S3	5/23/2006	Bench	☐	N/A	N/A	N/A	☐	3	10	2	0.5	1
SMS-S4	5/23/2006	Bench	☐	N/A	N/A	N/A	☐	3	1	1	0.5	0.5
SMS-S5	5/23/2006	Bleachers	☑	N/A	N/A	N/A	☐	5	3	3	0.5	1.5

Table 45: Permanent Features of Sherwood Middle School.

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	SMS-A1	Softball Field	0	0	0	Dirt Grass
	SMS-L1	Lawn	0	0	0	Grass
	SMS-S1	Backstop	150	19.5	0.25	Metal / Chain link
	SMS-S2	Fence	0	6.16	0.25	Metal / Chain link
	SMS-S3	Bench	15	1.42	1.5	Metal
	SMS-S4	Bench	15	1.42	1.5	Metal
	SMS-S5	Bleachers	15	4	8.75	Metal

Figure 88: Sherwood Middle School Outline

Figure 89: Sherwood Middle School Structures

Figure 90: Sherwood Middle School Athletic Fields

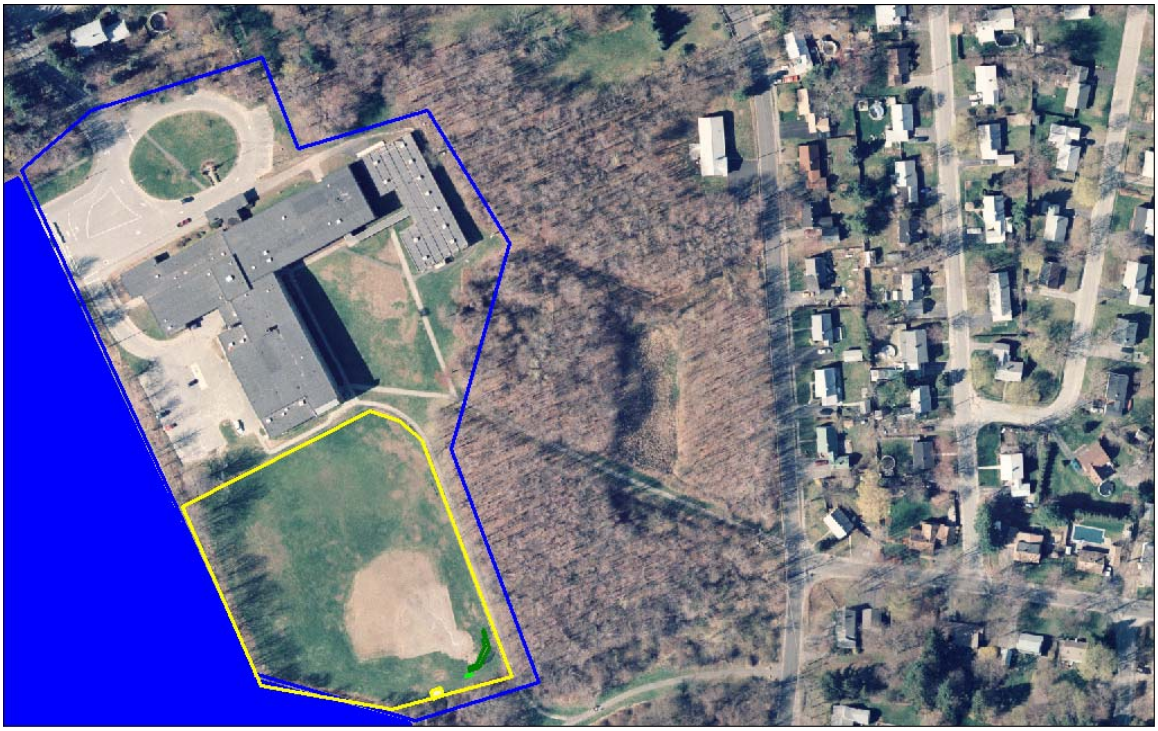


Figure 91: Conditions of Sherwood Middle School

Appendix Y: Spring Street School

Table 46: Spring Street School Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
SSS-A1	5/24/2006	Basketball Court	☑	NA	NA	Poor	☑	5	2.00%	3	1.5	4.5
SSS-L1	5/24/2006	Lawn	☐	NA	NA	NA	☐	5	50.00%	4	1.25	5
SSS-P1	5/24/2006	Path	☐	NA	NA	NA	☑	5	5.00%	2	0.5	1
SSS-S1	5/24/2006	Picnic Table	☐	NA	Excellent	NA	☑	4	50.00%	3	0.5	1.5
SSS-S10	5/24/2006	Fence	☐	NA	Excellent	NA	☑	4	15.00%	2	1	2
SSS-S11	5/24/2006	Bench	☐	NA	OK	NA	☐	4	20.00%	3	0.5	1.5
SSS-S2	5/24/2006	Picnic Table	☐	NA	Excellent	NA	☑	4	40.00%	3	0.5	1.5
SSS-S3	5/24/2006	Bench	☐	NA	Excellent	NA	☑	5	5.00%	4	0.5	2
SSS-S4	5/24/2006	Funnel Ball	☐	NA	Excellent	Chipping	☐	3	20.00%	1	1.25	1.25
SSS-S5	5/24/2006	Jungle Gym	☐	NA	Excellent	Scuffed/Chipping	☐	3	15.00%	1	1.25	1.25
SSS-S6	5/24/2006	Balance Beam	☐	NA	Excellent	Scuffed	☐	3	3.00%	2	1.25	2.5
SSS-S7	5/24/2006	Jungle Gym	☐	NA	Excellent	Chipping	☐	3	8.00%	1	1.25	1.25
SSS-S8	5/24/2006	Swing Set	☐	NA	Excellent	Scuffed	☐	3	10.00%	1	1.25	1.25
SSS-S9	5/24/2006	Slide	☑	NA	Excellent	Scuffed	☐	3	40.00%	2	1.25	2.5

Table 47: Spring Street School Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
SSS-A1	Basketball Court	96	12.5	404.5	Tar, Net, Metal
SSS-P1	Path	38.5	0	4.5	Brick
SSS-S1	Picnic Table	7.5	2.83	7.5	Wood
SSS-S10	Fence	360	8	0.25	Metal
SSS-S11	Bench	6	2.25	1.83	Wood, Cement
SSS-S2	Picnic Table	7.5	2.83	7.5	Wood
SSS-S3	Bench	6	2.25	1.83	Wood, Cement
SSS-S4	Funnel Ball	3.33	9	3.33	Metal, Plastic
SSS-S5	Jungle Gym	36.83	8	3	Metal, Plastic
SSS-S6	Balance Beam	8	1.5	1.33	Plastic, Metal
SSS-S7	Jungle Gym	27.25	8.66	1	Metal, Plastic
SSS-S8	Swing Set	30.5	8	8.83	Metal, Plastic
SSS-S9	Slide	24.5	10.16	24.16	Metal, Plastic

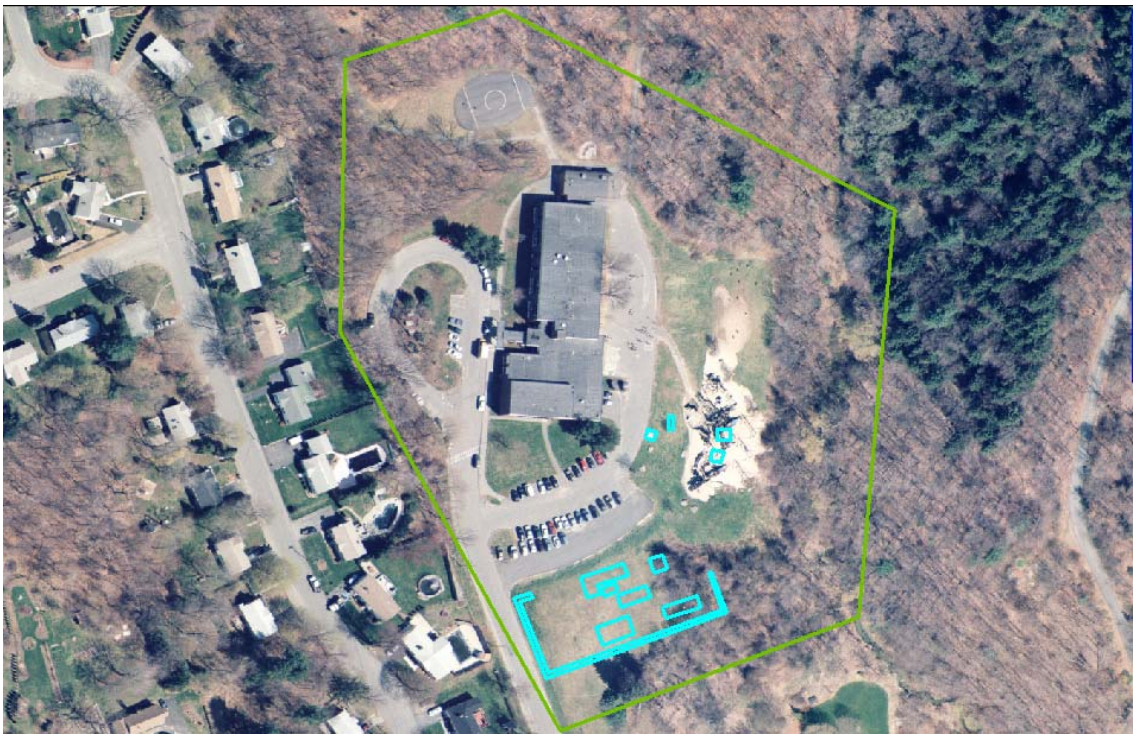


Figure 92: Spring Street School Structures

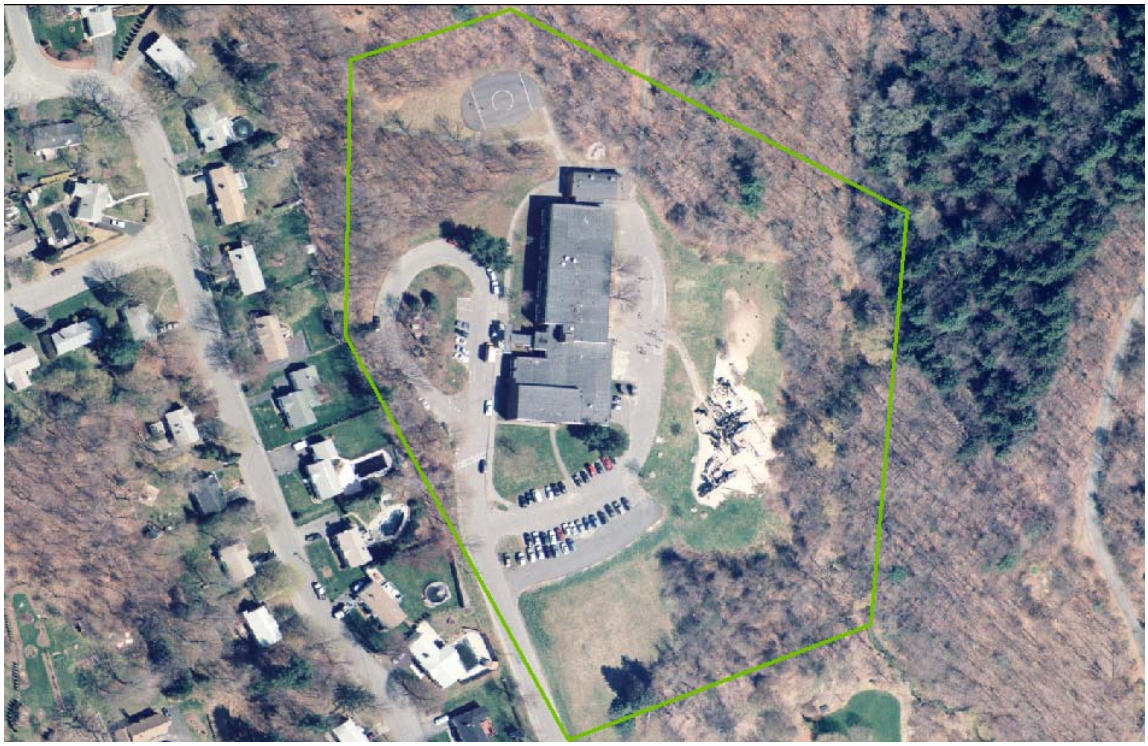


Figure 93: Spring Street School Outline

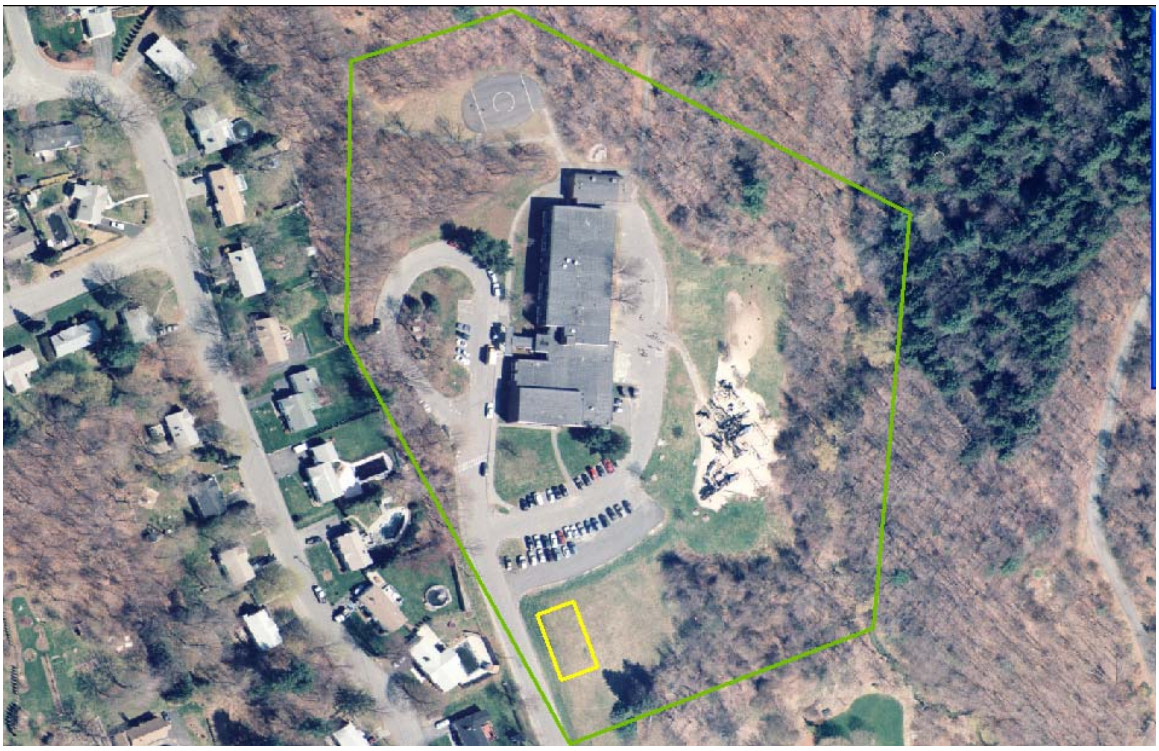


Figure 94: Spring Street School Athletic Fields

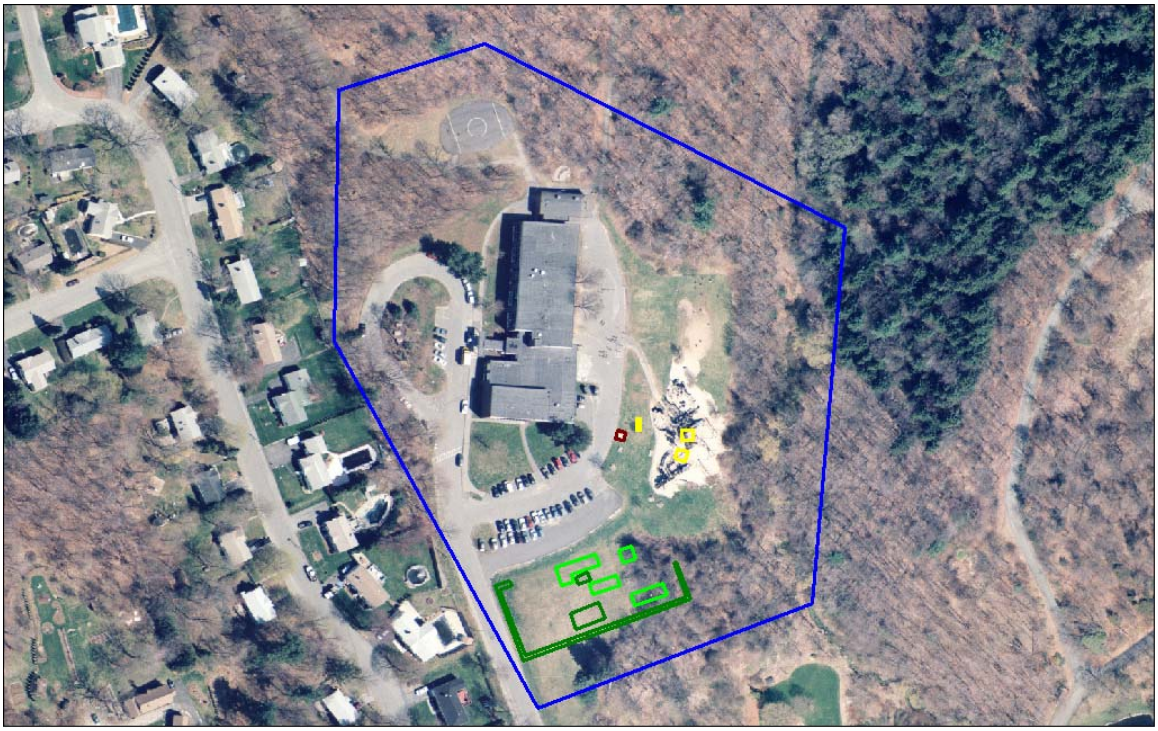


Figure 95: Conditions of Spring St. School

Appendix Z: Toblin Hills

Table 48: Toblin Hills Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Condition	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
THP-A1	2/10/2006	Basketball Court	☐	N/A	N/A	Excellent	☑	4	15.00%	1	1.5	1.5
THP-L1	2/6/2006	Grass Playfield	☐	N/A	N/A	N/A	☐	3	20.00%	2	1.25	2.5
THP-S1	2/10/2006	Bench	☐	N/A	Excellent	N/A	☐	4	1.00%	2	0.5	1
THP-S2	2/10/2006	Bench	☐	N/A	Excellent	N/A	☐	3	2.00%	1	0.5	0.5
THP-S3	2/10/2006	Fence	☐	N/A	OK	Excellent	☑	5	20.00%	2	1	2
THP-S4	2/10/2006	Bench	☐	N/A	Excellent	N/A	☐	3	5.00%	1	0.5	0.5
THP-S5	2/10/2006	Slide	☐	N/A	Excellent	Good	☐	4	10.00%	2	1.25	2.5
THP-S6	2/10/2006	Swing Set	☐	N/A	Excellent	OK	☐	4	10.00%	3	1.25	3.75
THP-S7	2/10/2006	Fence	☐	N/A	Excellent	Excellent	☐	3	5.00%	1	1	1
THP-S8	2/10/2006	Sand Pit	☐	N/A	N/A	N/A	☐	5	10.00%	1	1.25	1.25

Table 49: Toblin Hills Permanent Features

	Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
	THP-S6	Swing Set	18	10	6	Metal / Plastic
	THP-S5	Slide	12	11	2	Metal / Plastic
	THP-S4	Bench	5	3	2	Metal
	THP-S8	Sand Pit	47	0	30	Sand
	THP-S1	Bench	5	3	2	Metal
	THP-A1	Basketball Court	80	12	60	Blacktop / Metal / Fiberglass
	THP-S3	Fence	220	12	0	Metal / Plastic
	THP-S2	Bench	5	3	2	Metal
	THP-S7	Fence	410	4	0	Metal / Plastic
	THP-L1	Grass Playfield	0	0	0	Grass

Figure 97: Toblin Hills Park Outline

Figure 96: Toblin Hills Park Structures

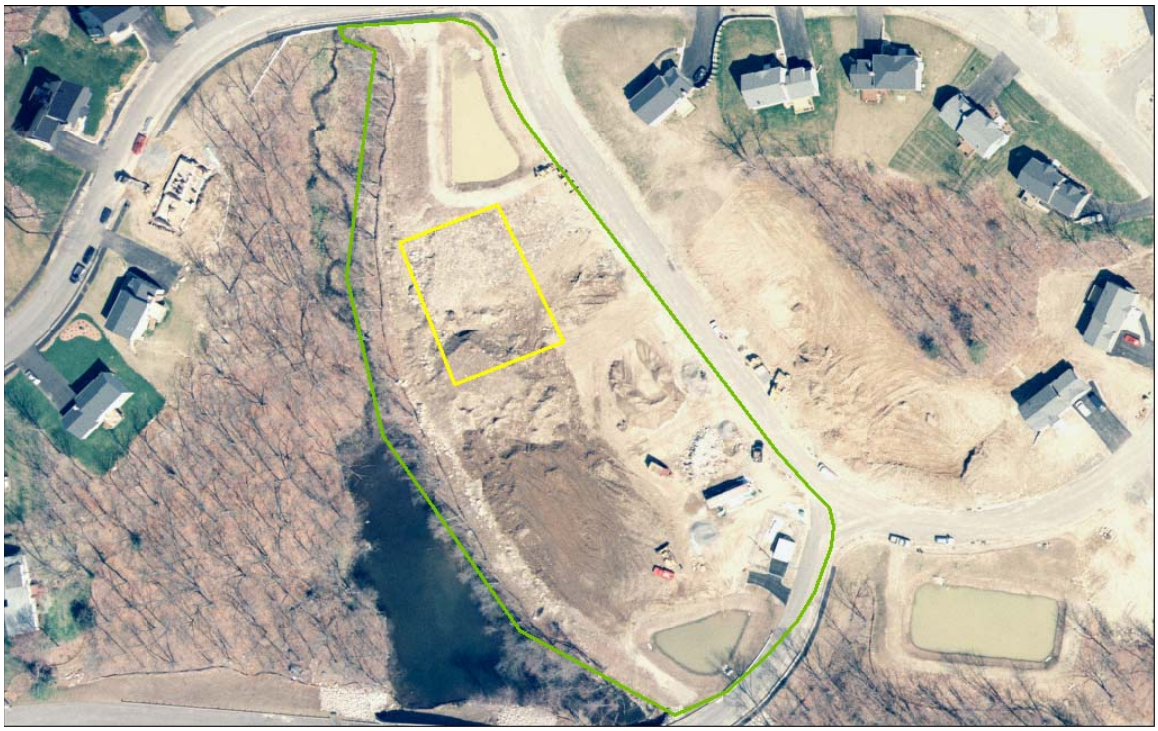


Figure 98: Toblin Hills Park Athletic Field

Figure 99: Conditions of Toblin Hills.

Appendix AA: Ternberry Park

Table 50: Ternberry Park Conditions

Map Code	Date Collected	Structure Description	Graffiti	Roof Conditions	Foundation Condition	Paint Job	Broken Parts	Worst Condition	% Worst Condition	Average Condition	Weight	Weighted Average
TBP-A1	5/18/2006	Basketball Court	☑	NA	Excellent	OK	☑	4	5.00%	2	1.5	3
TBP-L1	5/18/2006	Lawn	☐	NA	NA	NA	☐	5	15.00%	3	1.25	3.75
TBP-P1	5/18/2006	Path	☐	NA	NA	NA	☑	3	20.00%	2	0.5	1
TBP-S1	5/18/2006	Bench	☐	NA	Excellent	NA	☑	3	10.00%	2	0.5	1
TBP-S10	5/18/2006	Backstop	☐	NA	Excellent	Rust	☑	4	5.00%	2	1	2
TBP-S2	5/18/2006	Bench	☐	NA	Excellent	NA	☐	3	5.00%	2	0.5	1
TBP-S3	5/18/2006	Swing Set	☐	NA	Excellent	Rust	☐	3	15.00%	2	1.25	2.5
TBP-S4	5/18/2006	Jungle Gym	☐	NA	Excellent	Chipping	☐	3	40.00%	2	1.25	2.5
TBP-S5	5/18/2006	Bench	☐	NA	Excellent	NA	☐	3	30.00%	2	0.5	1
TBP-S6	5/18/2006	Bench	☐	NA	Excellent	NA	☑	4	15.00%	2	0.5	1
TBP-S7	5/18/2006	SeeSaw	☐	NA	Good	Chipping	☑	5	20.00%	3	1.25	3.75
TBP-S8	5/18/2006	Big Slide	☐	NA	Excellent	Rusting/Chipping	☑	5	10.00%	3	1.25	3.75
TBP-S9	5/18/2006	Little Slide	☐	NA	Excellent	Rusting/Chipping	☑	4	8.00%	1	1.25	1.25

Table 51: Ternberry Park Permanent

Map Code	Structure Description	Length (feet)	Height (feet)	Width (feet)	Material(s)
TBP-A1	Basketball Court	79.5	12.5	70	Blacktop, Metal, Fiberglass
TBP-L1	Football Field	0	0	0	Grass
TBP-P1	Path	78	0	5	Stone
TBP-S1	Bench	5.83	2.83	1.75	Metal
TBP-S10	Baseball Field	40.25	20	0	Metal, Grass
TBP-S2	Bench	5.83	2.83	1.75	Metal
TBP-S3	SwingSet	30	8.16	8.6	Metal, Rubber
TBP-S4	Jungle Gym	7.5	12	7.5	Metal
TBP-S5	Bench	5.83	2.83	1.75	Metal
TBP-S6	Bench	5.83	2.83	1.75	Metal
TBP-S7	SeeSaw	9.75	2	2	Metal
TBP-S8	Slide	16.33	4.5	5.25	Metal/Plastic
TBP-S9	Slide	12.33	7.5	4.16	Metal/Plastic

Figure 100: Ternberry Park Outline

Figure 101: Ternberry Park Structures

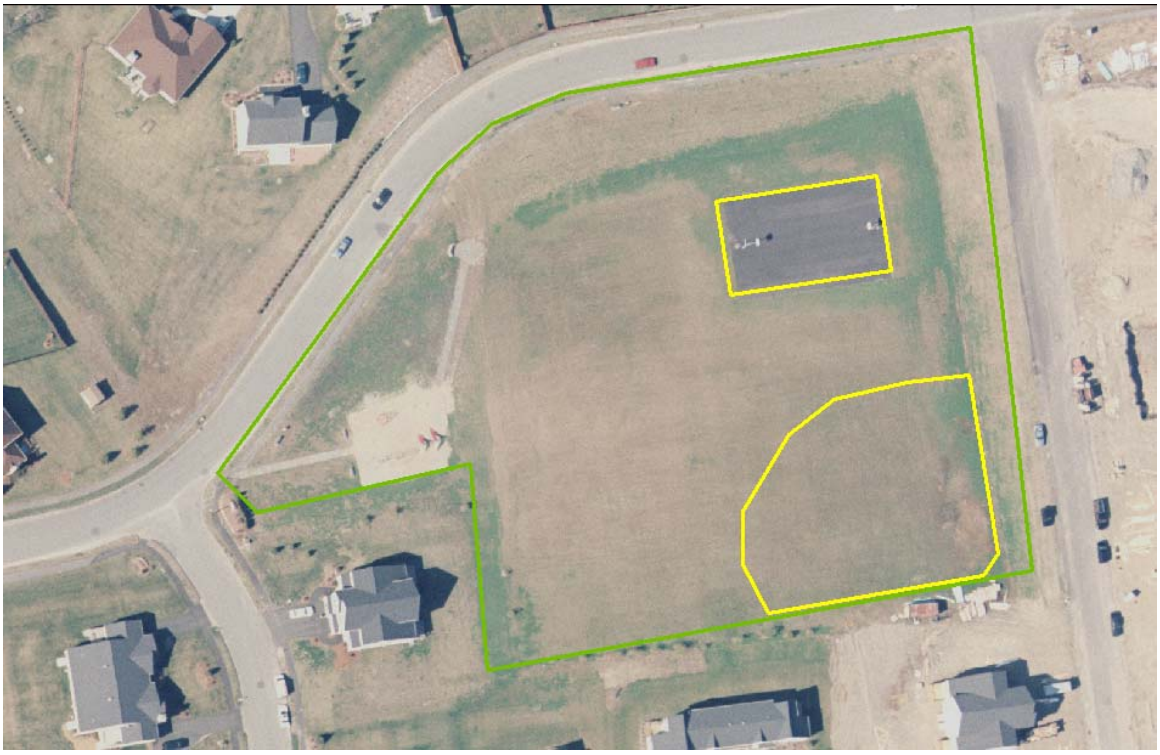


Figure 102: Ternberry Park Athletic Fields

Figure 103: Conditions for Ternberry Park.

Appendix AB: Rubrics

Structures Rubric:

1) No Graffiti, perfect paint coverage, no mold, no nearby trash, no missing/broken parts (i.e. benches, posts, windows, etc..).

2) Nor graffiti, some paint chipping, miniscule amounts of mold, nearly no trash near structure, no missing/broken parts of structure.

3) Some graffiti, good amount of paint chipping, mediocre amount of mold, some mold on structure, one missing/broken part of structure.

4) Excessive graffiti, poor paint job, good amount of paint peeling, excessive mold, quite a bit of trash near structure, 2 or more missing/broken parts.

5) Covered in graffiti, paint almost completely gone, covered in mold, trash all around the structure.

Lawns Rubric:

1) An area that is full bodied, a healthy color green, recently mowed correctly. This body of land shall have no water problems or dry patches.

2) An area of land that is full bodied, slightly less green than that of the area dubbed 1, marks in the land from the mowing job that was done. This body of land shall have no water problems and a minimum amount of burnt areas.

3) A slightly less full bodied area of land, that has a greater percentage of dry and burnt areas than that of the healthy green areas of 1 and 2. This body of land shall have no water problems.

4) An area of land that is flooded from water damage and is not capable of being used for any purpose, whether it is recreational or maintenance.

5) An area of land that is almost 100% dirt.

Paths Rubric:

1) A path that is some sort of solid material (i.e. stones, concrete, tar, etc…) which has no cracks or weeds coming up through the path. The path is also of acceptable width, not something very narrow and hard to walk on.

2) A path that is some sort of solid material (i.e. stones, concrete, tar, etc…) which has a minimal number of cracks and no weeds coming up through the path. The path is also of acceptable width, not something very narrow and hard to walk on.

3) A path that is some sort of solid material (i.e. stones, concrete, tar, etc…) which has a rather large number of cracks and some weeds coming up through the path. The path is also of acceptable width, not something very narrow and hard to walk on.

4) A path that is some sort of solid material (i.e. stones, concrete, tar, etc…) which has an excessive number of cracks, numerous amounts of weeds coming up through the path, and the path itself is distorted in some shape or form. The path is also of acceptable width, not something very narrow and hard to walk on.

5) A path that is made completely of dirt. There are many bumps, cracks, and things protruding through the ground, for example, roots, weeds, rocks, etc... It may also be much narrower than that of a desired path.

Athletic Fields Rubric:

1) The surface of the court is level. The surface has no cracks in it. There are no weeds growing up through the court surfaces. There is no graffiti painted on any part of the court. The fence around the court is whole and has no broken parts or missing pieces. The lines are painted with no chipping and no fading.

2) The surface of the court is level. The surface has a few minor cracks in it. There are 1 or 2 patches of weeds growing up through the court surfaces. There is one spot where there is graffiti. One part of the fence is slightly broken. The lines are painted clearly, but there is some fading.

3) The surface of the court is slightly unleveled. The surface has cracks in it. The surface has weeds growing up through it. There is graffiti on 1/3 of the court surface. The fence has broken posts and or chain link. The lines are painted but have slight chipping and some fading.

4) The surface of the court is significantly unleveled. The surface has multiple cracks in it. There are a lot of weeds growing up through the surface impairing play. There is graffiti on over half the court surface. The fence is missing sections and posts. The lines are not clear and have significant chipping and fading.

5) The surface has a lot of holes and is caved in, in some parts. The surface has significant cracking and makes playing difficult. There are weeds covering most of the surface and preventing play. There is graffiti covering over half the court. There are many missing sections of the fence. The lines are not there.

Park Name: _____ Date: _____ Surveyors: _____
Park Code: _____ _____

Structure Conditions

MAP CODE	STRUCTURE DESCRIPTION	GRAFFITI	ROOF CONDITION	FOUNDATION CONDITION	PAINT JOB	BROKEN PARTS	CONDITION[48]			NOTES
							Worst	%	Avg.	