

SHALE STREET PLAYGROUND MASTER PLAN

JANUARY, 2017

Prepared for:

City of Worcester

 **Department Public Works & Parks
Parks, Recreation and Cemetery Division
50 Skyline Drive
Worcester, MA 01604**

Prepared by:

 **BSC GROUP**

33 Waldo Street
Worcester, MA 01608
Proj. #61111.00

Table of Contents	Page Number
1.0 ACKNOWLEDGEMENTS	3
2.0 INTRODUCTION.....	5
3.0 BACKGROUND & HISTORY	6
4.0 EXISTING CONDITIONS	6
4.1 Neighborhood Context.....	6
4.2 Topography & Views	9
4.3 Soils	11
4.4 Vegetation & Wildlife	12
4.5 Site Utilities	12
4.6 Pedestrian Access & Circulation	12
4.7 Site Amenities & Recreational Uses.....	13
5.0 SITE OPPORTUNITIES AND GOALS.....	14
6.0 COMMUNITY PARTICIPATION.....	16
7.0 MASTER PLAN SPECIFIC SITE IMPROVEMENTS	17
7.1 Children’s Play Areas	18
7.2 Patio/Performance Space	19
7.3 Accessible Ramp System.....	19
7.4 Multi-use Court.....	20
7.5 Grass Field and Walking Loop.....	20
7.6 Meadow Walk.....	21
7.7 Maintenance/Emergency Vehicle Access.....	21
7.8 Miscellaneous Site Improvements	21
7.9 Parking.....	21
7.10 Entrances and Internal Circulation	22
8.0 PHASING AND IMPLEMENTATION	23
9.0 PRELIMINARY COST ESTIMATE.....	23

List of Appendices:

- A. Existing Conditions Exhibit
- B. Overall Master Plan Exhibit-Rendering
- C. Master Plan Layout Enlargements C-1, C-2, C-3
- D. Master Plan Grading Enlargements D-1, D-2, D-3
- E. Meeting Announcement Cards and Meeting Attendance Lists
- F. Environmental Justice Map and Letters of Support
- G. Cost Estimate Spreadsheet

List of Tables	Page Number
Table 6-1 Schedule of Public Meetings	16

List of Figures	Page Number
Figure 1-1 Friendly House is a Key Partner in this Park Improvement Project.....	4
Figure 2-1 Birdseye View of Shale St Playground and Friendly House Looking West	5
Figure 4-1 Neighborhood Context Images	6
Figure 4-2 Volunteers for an Earth Day Cleanup at Shale Street Playground	8
Figure 4-3 Community Context Land Use Plan (within one mile)	8
Figure 4-4 Community Context Land Use Analysis (1/4-mile radius)	9
Figure 4-5 Existing Topographic Map and Cross Sections Through the Project Area	10
Figure 4-6 Representative View to West from Adjacent Opening in Vegetation.....	10
Figure 4-7 Aerial Map of NRCS Soil Classification System for Shale St Playground Neighborhood.....	11
Figure 4-8 Ledge is Visible at the Surface Adjacent to the Friendly House Parking Lot.....	11
Figure 4-9 Photos of Existing Vegetation	12
Figure 4-10 On-Street Parking	13
Table 6-1 Schedule of Public Meetings	16
Figure 7-1 Examples – In-Hill Play Elements with Rubber Surface.....	18
Figure 7-2 Examples – In-Hill Seating.....	19
Figure 7-3 Examples - Accessible Ramp System.....	19
Figure 7-4 Example – Multiuse sport court.....	20
Figure 7-5 Example – Turf Field and Mound	20

1.0 ACKNOWLEDGEMENTS

We wish to thank the following City Leaders for their support and guidance throughout the preparation of this Master Plan:

Worcester City Council:

Joseph M. Petty, Mayor
Morris A. Bergman
Anthony Economou
Michael T. Gaffney
Konstantina B. Lukes
Candy F. Mero-Carlson
Sarai Rivera
Gary Rosen
Khrystian E. King
George J. Russell
Kathleen M. Toomey

Worcester Parks & Recreation Commission:

Meg Mulhern, Chairperson
Scott Cashman
Nicholas Chacharone
John Luring
George Sedares
Lawrence Sullivan
Matthew Wally

City Administration:

Edward M Augustus, Jr., City Manager
Paul J. Moosey, P.E., Commissioner, Department of Public Works and Parks
Robert C. Antonelli, Jr., CPRP, Assistant Commissioner, Department of Public Works and Parks

We are grateful for the support provided by Friendly House Incorporated who hosted the community meetings, and provided support in soliciting community involvement and neighborhood coordination. In addition, we would like to acknowledge The Friendly House Board of Directors, neighborhood residents, and representatives of various community organizations for their interest and input throughout the master planning process. Their support and participation was essential to the successful creation of a functional, appropriate, and attainable Master Plan that is exciting and fulfilling to the recreational needs of the community.

Figure 1-1 Friendly House is a key partner in this park improvement project



2.0 INTRODUCTION

The BSC Group, Inc. began working with the City of Worcester Department of Public Works and Parks (DPW & Parks) and Friendly House Inc. (FHI) in November of 2015, to prepare a comprehensive Master Plan for the rehabilitation of Shale St. Playground. Funding for this project may be provided through a combination of a tax levy, grants, capital budget and private donations. Partial funding for Shale Street Playground will also come from CSX. The recent expansion of the CSX transportation hub required the transfer of City owned property in the Grafton/Vernon Hill neighborhoods to CSX. Funds resulting from the transfer were allocated to various municipal projects in these neighborhoods, including the Shale St. Playground improvements. The Master Plan has conceived an overall plan for improvements and identifies specific projects that will be implemented in phases described in more detail later in this document.

The purpose of this master planning effort was to solicit community input regarding existing facilities within the park that need to be improved, as well as new elements and uses that should be integrated into the park. Beginning in November, 2015 and for the following six months, BSC Group worked with representatives from the Parks, Recreation & Cemetery Division, Friendly House, Inc., neighborhood residents, and other interested parties to solicit community input, develop design options and agree on a preferred master plan for the park. The preliminary conceptual plans were generated based upon initial community discussion of the needs and concerns of the neighborhood during a public forum. Following community and Parks, Recreation & Cemetery Division review of these options, the preliminary plans were then refined into a final preferred Master Plan.

The Master Plan, which was presented to the Parks Commission on January 12, 2017 represents the collaborative efforts of the community to re-invigorate this park by providing safe active and passive recreation areas, preserving and enhancing the site's natural features, and creating a positive neighborhood identity. The Master Plan addresses the critical concerns and needs of this diverse community in the most practical and efficient way possible, while understanding that the proposed improvements will be implemented in a phased manner. Descriptions of the community's goals, specific site improvements, and a proposed phasing plan are outlined in further detail in this report. This Master Plan serves as a guide book for improvements to Shale St. Playground. Improvements will follow recommendations in this report, but will be refined and adjusted as needed to meet actual site conditions, unforeseen conditions or issues and funding.

Figure 2-1 Aerial Birdseye View of Shale St Playground and Friendly House looking west



3.0 BACKGROUND & HISTORY

The Shale St. Playground site has a long and important history serving the needs of the community in a variety of ways. The playground is located next to Friendly House, Inc., a social service agency that describes itself as an organization “for the educational, social and family betterment of residents of the City of Worcester. Friendly House works with entire families...as an integrating force for the families and the Neighborhood(s) it serves. Friendly House provides a continuum of comprehensive coordinated neighborhood basic services to inner-city families.” Shale St. Playground was constructed in the early 70’s as part of the construction of the new Friendly House building at 36 Wall Street. The active recreation elements of Shale Street playground included a terraced children’s play area adjacent to the north entrance of Friendly House, an open grass field and basketball court were located on top of the hill with access either through the play area or from Shale St. For many years, Shale Street was the primary active recreational space serving the surrounding neighborhoods and Friendly House staff and visitors. More recently, due to limited funding for anything other than the essential social service programs, Friendly House was unable to provide the necessary maintenance to keep Shale St. Playground from decline. Today, the park is overgrown and completely abandoned. In order to rectify the maintenance issues, an understanding that oversight of Shale St. Playground would be a collaboration between Friendly House and the City because both entities have a vested interest in providing beauty and recreational opportunities for its residents.

4.0 EXISTING CONDITIONS

BSC Group began the master planning process by procuring an on-the-ground survey of the park property completed for the City by another firm. The on-the-ground survey helps designers to understand and evaluate the existing conditions and resources of the park. Specific park elements are described later in this section. (Refer to Existing Conditions Exhibit-A in the Appendix)

4.1 Neighborhood Context

Shale St. Playground is located in the Grafton Hill neighborhood of Worcester in a primarily residential area. Three parcels comprise the Master Plan study area; the ¾ acre parcel containing the Friendly House building and parking lot, a recently added 3500sf parcel on Wall St. also owned by Friendly House and the 1.7-acre Shale St. Playground owned by the City of Worcester. The total land area is approximately 2.5 acres and has frontage on Wall, and Thorne Streets. Shale, Oakham, Montreal, Bleeker and Division Streets are unimproved streets abutting the Master Plan study area. Of the unimproved abutting streets, only a portion of Oakham Street has been officially discontinued with half the right of way property reverting each abutter, one being Shale St. Playground. (Refer to Existing Conditions Exhibit – Appendix A)

Figure 4-1 Neighborhood Context Images



Wall Street



Thorne Street



Orient Street



Sultan Street

Montreal Street



Shale Street



Oakham Street



The predominant land use within a quarter mile of the park is multi-family residential. Immediate abutters to the park include multi-family residential buildings, Friendly House and a variety of commercial uses along Wall Street. Other parks located within a one-mile radius of Shale St. Playground include; Holmes Field, Vernon Hill Park, Harrington Field, several small neighborhood parks and the Ecotarium, a nonprofit science center. No other parks are within a quarter mile walk of this section of Wall St. making Shale St. Playground critical to the social fabric of this community. Studies have shown that people are not typically willing to walk a distance of more than a

quarter mile or ten minutes to access services or in this case a park. Having a park within walking distance is an essential component of this community, as many residents don't have their own vehicles and depend on public transportation to access services. (Refer to Figures 4-3 and 4-4)

Shale St. Playground is of a size and location that when renovated, will mainly serve the needs of residents and workers in the neighborhoods within a quarter mile walk of the park. As such, the park serves a diversified demographic, which primarily consists of young families with children, and senior citizens who have lived in the neighborhood for decades or who are staff or visitors of Friendly House. Consequently, the park master plan must consider the multi-generational and multi-cultural interests of the community.

Figure 4-2 *Volunteers for an Earth Day Cleanup at Shale Street Playground*
(photo credit-Friendly House)



Figure 4-3 *Community Context Land Use Plan (within one mile)*

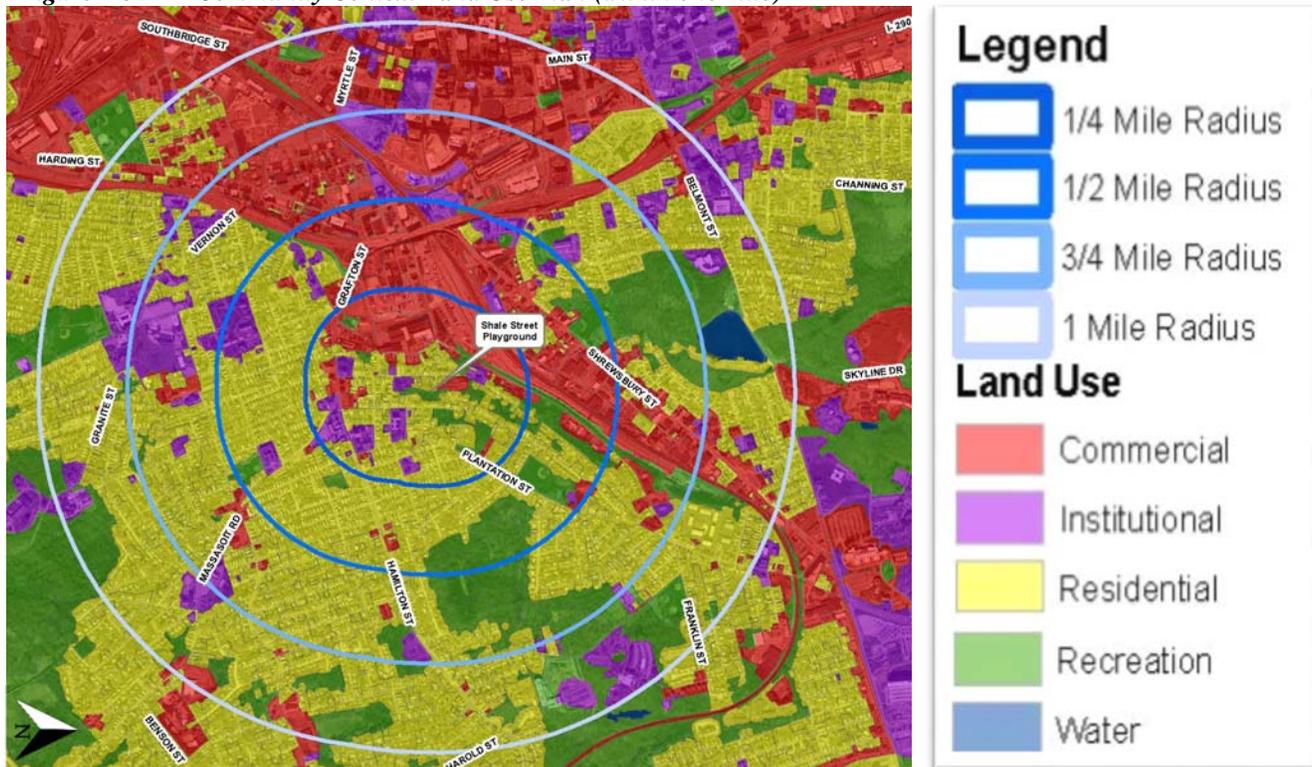
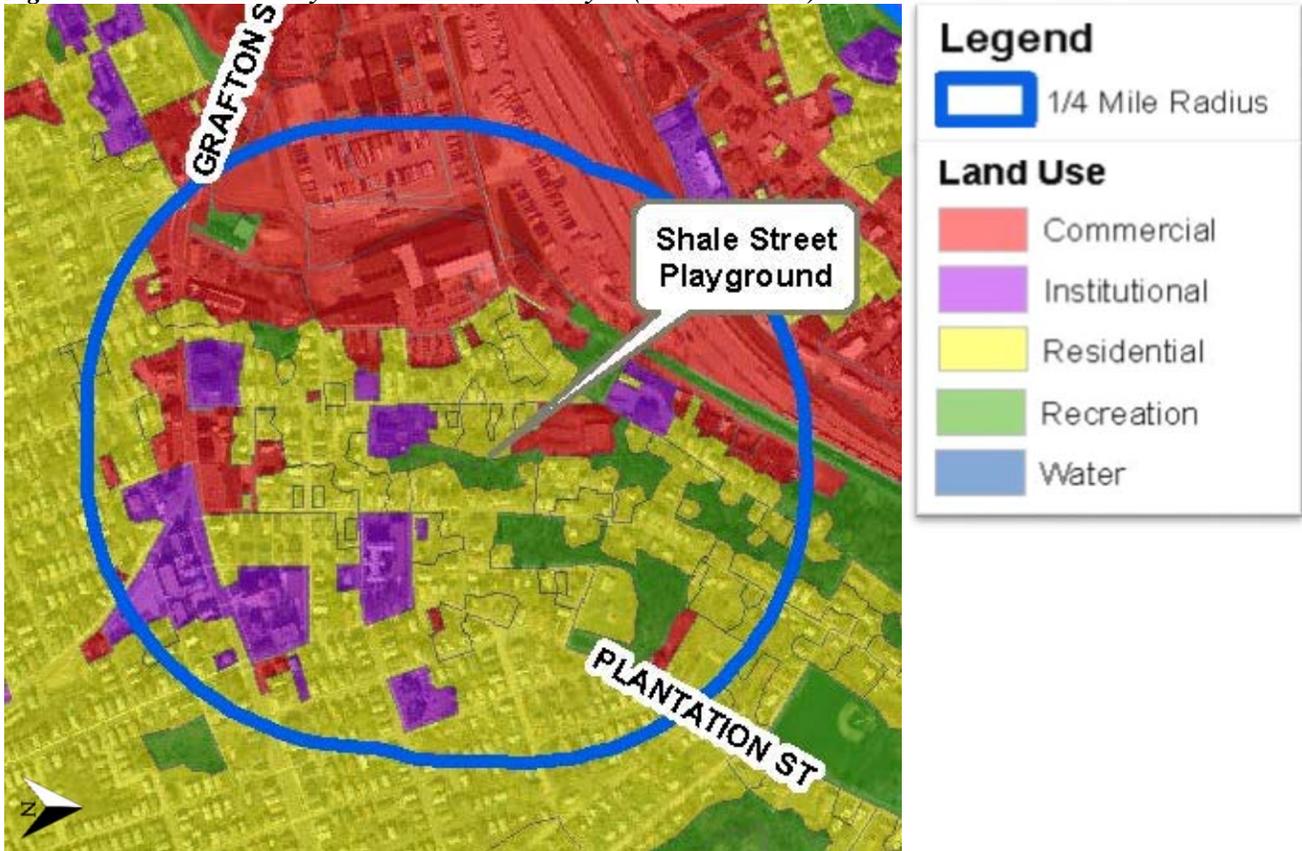


Figure 4-4 Community Context Land Use Analysis (1/4-mile radius)



4.2 Topography & Views

The land area comprising Shale Street Playground property steps down a steep hillside with the highest elevation at the end of Shale St. and the lowest elevation at the sidewalk on Wall St. Steep topography is the major challenge to the redevelopment of Shale St. Playground.

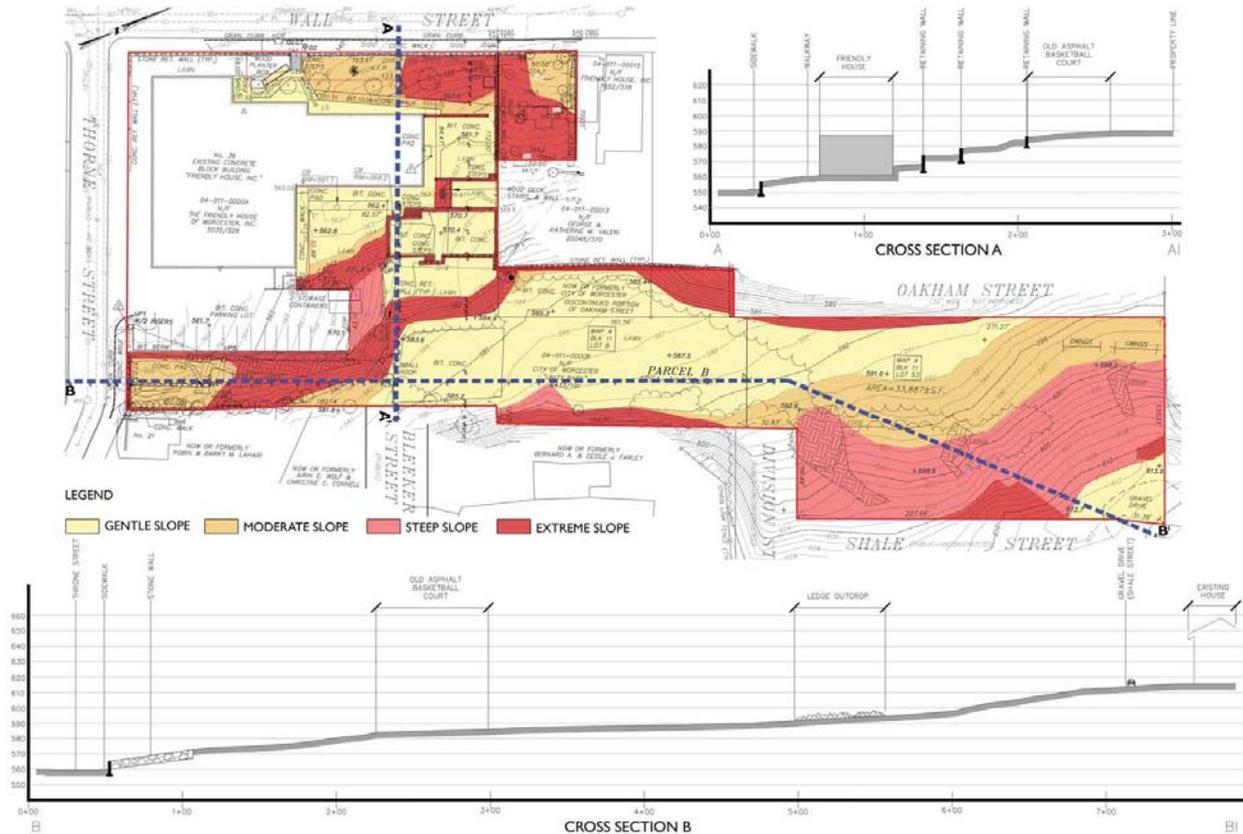
Shale St. Playground consists of two distinct areas:

1. A Lower terraced play area adjacent to Friendly House consisting of four levels separated by concrete retaining walls and linked by concrete stairways.
2. An Upper wooded area consisting of the old basketball court, previous open turf field and wooded hillside.

Shale St. Playground rises from the lowest elevation of approximately 543 feet on its western boundary on the Wall St. sidewalk, to the highest elevation of approximately 615 feet at the end of Shale St. This is a 72 foot change in elevation over a distance of approximately 500 feet, giving the park a dramatic visual impact from the lower abutting streets, and good views from the top of the park mainly during winter when the surrounding trees are leafless. The terraced play area consists of four, 4-5' high concrete or stone retaining walls with 4' high chain link fence on top of the walls. Each wall has stairs providing direct access to each level. At the top of the highest retaining wall, the topography levels out for 25' then rises steeply to the flat area that was formerly the paved basketball court but is now broken pavement covered by debris. The "basketball court" level area extends into a previous turf field that is overgrown with trees and underbrush. Steep slopes are located along the north, east and west sides of the previous turf field. Access into the park is challenging due to the steep topography on all sides of

the parkland. The extreme site topography is the major physical constraint to development of the site into an accessible parkland with useable open space.

Figure 4-5 Existing Topographic Map and cross sections through the project area



Due to the significant change in elevation relative to lands to the west and south, the higher portions of the site provide for some impressive views to the City of Worcester. Care should be taken to preserve these views, and selective tree clearing may help enhance some of these views.

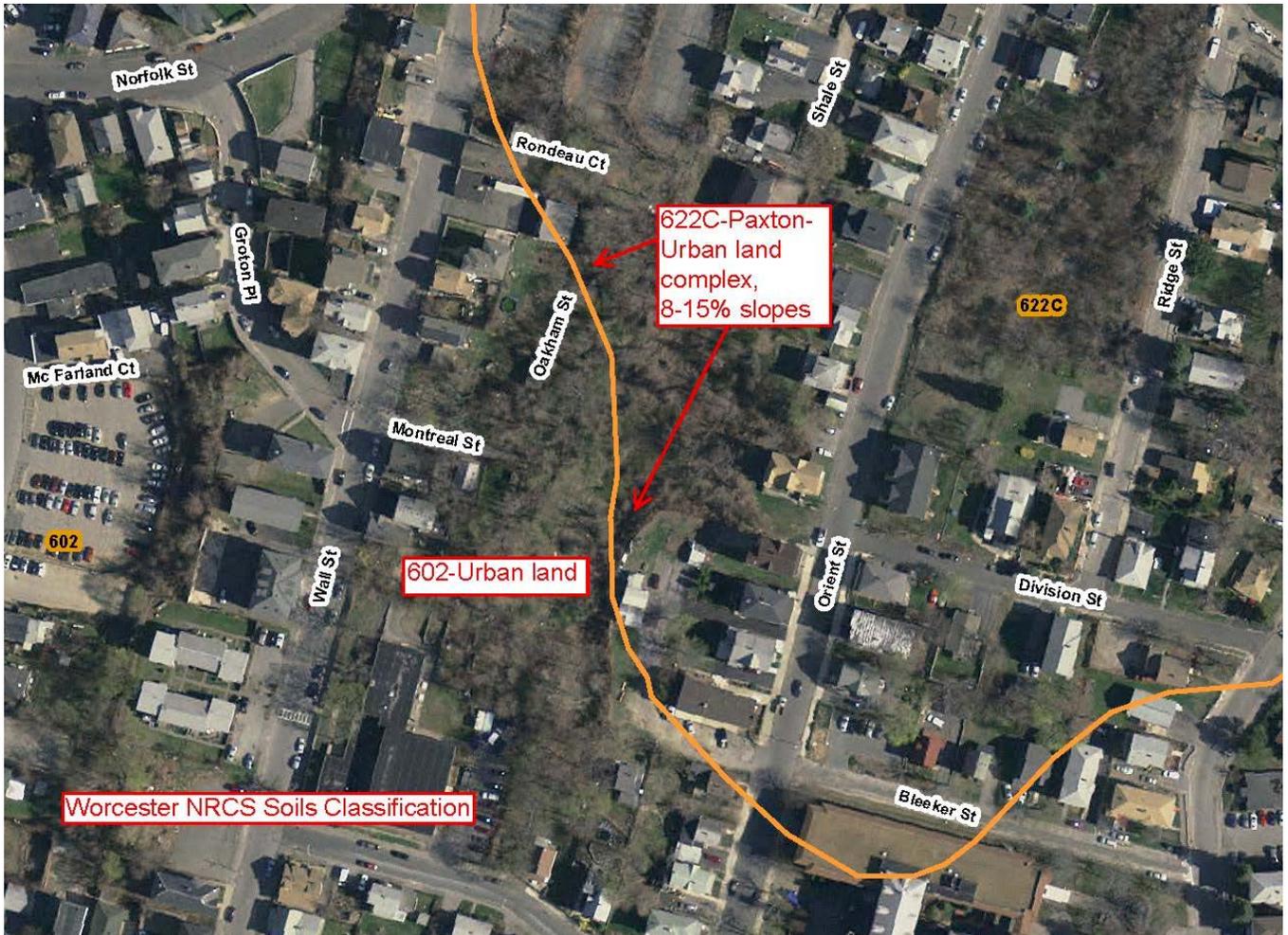
Figure 4-6 Representative view to west from adjacent opening in vegetation



4.3 Soils

According to the NRCS Soil classification system, soils on the lower part of the park property are described as *Urban Land* and the upper level is described as *Paxton –Urban land complex, 8-15% slopes*.

Figure 4-7 Aerial Map of NRCS Soil Classification System for Shale St Playground Neighborhood



Ledge is visible at the surface in many locations throughout Shale St. Playground. A geotechnical evaluation will be necessary during design development to understand the implications of subsurface conditions on the site design. In order to create an accessible route, it will likely be necessary to remove ledge so that a ramping system may be installed between the lower and upper areas of the site.



Figure 4-8 Ledge is visible at the surface adjacent to the Friendly House parking lot

4.4 Vegetation & Wildlife

In general, the vegetation at Shale St. Playground is comprised of wooded slopes dominated by invasive plant species including Norway Maple, Japanese Knotweed, Tree of Heaven Ailanthus, and Oriental Bittersweet. According to the U.S. National Arboretum *“An invasive plant has the ability to thrive and spread aggressively outside its natural range. A naturally aggressive plant may be especially invasive when it is introduced to a new habitat. An invasive species that colonizes a new area may gain an ecological edge since the insects, diseases, and foraging animals that naturally keep its growth in check in its native range are not present in its new habitat. These non-native species cause serious ecological disturbances. In the worst cases, invasive plants can choke out other plant life. This puts extreme pressure on native plants and animals, and threatened species may succumb to this pressure. Ultimately, invasive plants alter habitats and reduce biodiversity.”*

Figure 4-9 Photos of existing vegetation



Continued selective clearing beneath the trees on the hillside will help with park security by preserving views into and within the park. However, existing mature native trees should be retained for both aesthetic and slope stabilization purposes.

Due to the urban setting of the park, the observed wildlife appears limited to small species such as squirrels and chipmunks, birds, and insects.

4.5 Site Utilities

Existing site utilities include municipal water and sanitary sewer connections to Friendly House. Electrical service exists at Friendly House and the parking lot. Previously, electric service provided power to lights at the former basketball court. However, all of these lights are damaged and/or not functioning making it difficult to evaluate the extent of usable wiring. An electrical engineer will be required to evaluate the existing condition of electrical services during design development.

There is an existing system of drainage structures/pipes collecting storm-water from the terraced playground and the parking lot. The remainder of the site drains naturally along existing surfaces and down steep slopes. Erosion control measures will be of primary importance during construction of planned improvements.

4.6 Pedestrian Access & Circulation

Access to Shale St. playground is limited by topography and existing site issues such as the Friendly House parking lot that does not have a walkway leading from Thorne St. through the parking lot to the park areas. A stairway on

Wall St. is the main entrance to Friendly House and a paved walkway from the stairway connects to the terraced playground area to the back entrance to Friendly House. A second pedestrian access to Shale St. Playground exists through the Friendly House parking lot off Thorne Street, and access to the upper wooded area exists from an informal gravel area at the end of Shale St. The only accessible route is via a wood ramp connecting the Friendly House parking lot and their rear access walkway which also connects to the lowest level of the terraced play area. Due to the vertical difference of approximately 60' between the lowest terrace and the upper wooded area by Shale St. ADA access will be challenging and costly.

During community meetings, attendees expressed concerns regarding the playgrounds remote location above Wall St., undistinguishable park entrances from neighboring roads, dense vegetation that hides negative behavior and perceived safety issues.

On street parking is available along Wall and Thorne Streets and the Friendly House parking lot contains 14 parking spaces including one accessible parking space. Direct vehicular access to Shale St. Playground is limited due to steep topography and the poor condition of the connecting streets such as Montreal, Oakham, Bleeker and Division Streets. Shale St. is the only option for direct access to the upper field area however, it is a private gravel road and is in extremely poor condition. Several abutters living on Shale St. attended the community meetings and expressed their concern regarding the use of Shale St. for public vehicular access. However, it was understood that vehicle access from Shale St. to the upper section of the park will be necessary for maintenance and emergency vehicles.

Figure 4-10 On-Street Parking



Thorne Street



Wall Street

Shale St. Playground is primarily a neighborhood park and as such, the majority of park users will walk, ride their bike or be dropped off by care givers. Ample public on street parking exists along Thorne and Wall Streets for those that do visit the park by driving there. Provisions for accessible parking and an accessible route from the parking lot to the park is required by the Americans with Disabilities Act (ADA).

4.7 Site Amenities & Recreational Uses

Shale St. Playground has been neglected for so long that all the previous park elements have been removed or degraded to such a degree that they are no longer visible due to a build-up of leaf litter, vegetative growth and debris. The only intact elements of the park that remain are the concrete retaining walls. A section of the stone

retaining wall along Wall St. in front of the “new parcel” is failing and will have to be rebuilt to match the existing stone wall in front of Friendly House. The concrete walls forming the terraced play areas appear to be in good condition, however in order to know if they can remain in the renovated park, a thorough evaluation will be required by a structural engineer during design development. Several sections of the terraced walls were constructed of mortared field stone and these too, will require evaluation of their structural integrity.

5.0 SITE OPPORTUNITIES AND GOALS

To better understand issues and opportunities within and abutting Shale St. Playground and in order to set master plan goals, BSC conducted its own site evaluation of the park and surrounding context. In addition, BSC facilitated discussion during the public meetings in order to understand neighborhood concerns and site constraints.

Although consensus is often difficult to achieve in a public setting, where community members have different perceptions and priorities, all were able to agree on the issues that need addressing at Shale St. Playground. Major site issues and opportunities were summarized into the following categories:

- **Physical Features:** The integration of the lower play area with Friendly House must be reinforced while also acknowledging that it is a public park and is open to all. The connection between the lower play area and upper activity areas must be visually obvious and easily accessed. Steep topography and dense vegetation surrounding the upper activity area makes it difficult to have strong connections to the abutting neighborhoods, and it is a challenge to see into the park from surrounding roads. Negative activity within the site often goes unobserved except by the immediate abutters. Proposed improvements need to consider visibility and access through these sloped areas (visibility issues, disconnect of park amenities, etc.).
- **Accessibility:** Site topography limits placement of accessible routes, lack of defined accessible parking and accessible routes is to be addressed as a top priority. (walkway surfaces, curb ramps, van accessible parking)
- **Safety and Security:** These issues need to be taken into consideration for all park improvements and the management of vegetation on the site in order to preserve sight lines. (lighting, cameras, site access, abutters’ encroachment)
- **Level of Maintenance:** Proposed improvements need to be of design and materials to be easily maintained by Friendly House, volunteers and parks maintenance staff. (vandalism, trash, limited Parks Division resources, retaining wall/walkway repairs)
- **Unity or Site Identity:** Upper areas of the park need to be connected to lower and sloped areas through the use of consistent materials and signage. (no consistent signage or gateways into park)
- **Condition of Park elements:** All park amenities have been removed and need to be replaced. (court, pathways, play equipment and surfacing)
- **Diverse Demographic:** The park facilities should address the needs of the surrounding neighborhood’s mix of ages and cultures. (multi-generational and multi-cultural users)
- **Perception:** Negative activity has damaged the reputation of Shale St. Playground and created a perception that Shale St. Playground can be at times an unpleasant environment (history of homeless encampments, brush fires, drugs, and inappropriate activities overshadow the Park’s good qualities). Security cameras, increased police presence, neighborhood crime watch, and more positive activity by local residents, and adjacent businesses will combine to make Shale St. Playground a great park to visit and play. In addition,

vista clearing, removal of invasive plant species and pruning of tree crown will help improve sight lines into the park.

Once the major site constraints and topics of concern were identified, the discussion was ultimately transitioned into the ways to resolve and work around these limitations, resulting in a series of Master Plan focus areas which include the following goals and objectives:

- Create a park identity through signage as well as adding unifying elements throughout the park, including signage, paving, benches, etc.
- Rearrange and Cluster activities in a way to appropriately locate active and passive recreational elements in the park to enhancing the functionality and capacity of each element without hindering the experience of other park users or abutting residences.
- Provide flexibility in the design in order to accommodate various types of people and inevitable changes in park use.
- Replace site amenities, play equipment and court.
- Develop an overall site security plan, incorporating both vehicular and pedestrian safety concerns.
- Design to retain a natural feel with little to no environmental impacts and minimal maintenance requirements.

In summary, the community and the Parks Division recognize the potential and value of rehabilitating Shale St. Playground and is confident that the implementation of the Master Plan and associated improvements will further create a desirable amenity within the City that can be used in many different and positive ways that enlighten, improve health and strengthen community ties.

6.0 COMMUNITY PARTICIPATION

In order to understand and assess the current condition of Shale St. Playground, demographic of park users, recreational needs of the community, and to discuss what the priorities of the Master Plan should be, the Parks Division and partner, Friendly House coordinated with BSC Group to conduct a series of two (2) public input meetings and one input meeting with the Friendly House staff and the Board of Directors, culminating in a presentation of a final Master Plan to the Worcester Parks and Recreation Commission.

Over a period of six months, the project team met with representatives from the Parks Dept., Friendly House, residential abutters, and other interested parties. At the first public meeting, BSC and the Assistant Commissioner of the Parks Division introduced the project goals, explained existing site conditions, opportunities/constraints to attendees as well as providing an outline of the Master Planning process moving forward (attendee lists are located in the Appendix-E for reference). After the initial introduction and presentation of existing conditions, we then solicited community input on issues and ideas for improvements and park enhancements. Based on the goals and preferred development program discussed during the community meeting and confirmed by City representatives, BSC generated two conceptual master plan alternatives indicating various options for combining the following preferred elements of a renovated Shale St. Playground:

- Renovation of the children’s play area to include separate age appropriate play zones for Ages 2-5, and Ages 5-12.
- Performance space behind Friendly House that doubles as a patio/picnic area
- Paved walking loop surrounding an open grass field
- Multi-use court that integrates with a paved walking loop
- Accessible route connecting the lower play areas, performance space, parking and upper activity areas
- Repair of the existing stone wall along Wall St.
- Removal of invasive vegetation in the upper hillside
- Create grass walking trails and meadows throughout the upper hillside
- Maintenance and emergency vehicle access from Shale St. to the upper activity areas.
- Refurbishment of lawn and vegetation areas
- Observable spaces and installation of cameras and lighting for improved safety

The conceptual Master Plan alternatives were presented to the community at a second public meeting where BSC and the Parks Division staff presented a summary of input received at the first meeting followed by a discussion with attendees about what they liked and disliked about the two alternative plans. At a third and final meeting, BSC along with the Parks Division presented a preferred Master Plan that combined the development program defined throughout the previous public input meetings.

Table 6-1 Schedule of Public Meetings

Date	Location	Meeting Objective
November 5, 2015	Friendly House, Inc.	Project Introduction
December 2, 2015	Friendly House, Inc.	Present Conceptual Master Plan Alternatives
January 12, 2016	Friendly House, Inc.	Present the Preferred Master Plan with Friendly House and Friendly House Board Of Directors
January 12, 2017	50 Skyline Drive	Present Draft Master Plan to Parks and Recreation Commission

1. Approximately 600 post cards announcing the date, time and place of the public meetings were distributed 2 ½ - 3 weeks prior to the first public meeting.
 - The post cards were bright green so that they stood out from ordinary mail and were more likely noticed and read by recipients. (Refer to Appendix)
 - The post cards noted that “The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and service, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advanced request.
2. Public meetings are posted as part of the City Council Agenda
3. Public meetings are posted on the City Clerks website
 - A poster sized post card announcing the date, time and place of the public meetings was placed at the main entrance to Friendly House 2 weeks prior to the public meetings.
 - The public meetings were held at Friendly House, 36 Wall St. Worcester which is located next to Shale St. Playground and within the neighborhood served by Friendly House and Shale St. Playground.
 - Shale St. Playground is located within an Environmental Justice neighborhood. Refer to Appendix F indicating the Environmental Justice designations within this neighborhood and attached letters from Friendly House and Worcester Polytechnic Institute Humanities Department.

This public input process was instrumental in determining the development program to be included in the redesign of the park and help set priorities for the phased construction of these improvements.

7.0 MASTER PLAN SPECIFIC SITE IMPROVEMENTS

(Refer to the Master Plan and Enlargements in the Appendix)

With the basic goals in mind and particular requests from the Parks Division, Friendly House and the community, a comprehensive Shale St. Playground Master Plan has been developed which includes site improvements ranging from specific recreational components to general park-wide enhancements. The Master Plan proposes to return the previous active and passive uses to the park, with specific upgrades to existing walls and introduction of new play elements, circulation system, seating and security features.

The various site improvements as identified, are intended to be a guide for future development and are subject to change as specific implementation plans are commenced. The Master Plan site improvements have been broken into the following site improvement areas;

- Children’s Play Areas
- Patio/Performance Space
- Accessible Ramp System
- Multi-use Court
- Grass Field & Walking Loop
- Meadow Walk
- Maintenance/Emergency Vehicle Access.
- Miscellaneous Site Improvements
- Lighting (where possible)

7.1 Children’s Play Areas

A top priority of the improvement program for Shale St. Playground is the renovation of the children’s playground. Friendly House and the community voiced the need for a new and expanded playground, with a greater variety of equipment for various age groups and abilities. Friendly House will use the Children’s Play Areas for program space and requested that Ages 2-5 play areas be located in close proximity and at the same level as the exit on the north side of the building. The playground will be located within the terraced areas nearest the building and feature separate age appropriate play zones for Ages 2-5 on the first (lowest) level with the Ages 5-12 play area located on the middle terrace. The playground design may incorporate an entry plaza at the end of the existing Friendly House front walkway which would create a welcoming gateway into the park as well as providing a comfortable space for care givers to sit and gather while their children play.

The highest level of the playground has a steep slope that may be covered in rubber resilient play surface to both retain the slope and provide play value. The rubber surface slope may incorporate hill slides, climbers and rock climbing hand holds to provide a challenging, adventurous and fun play experience. Specific playground design features will be determined as design plans for the playground are advanced during design development.

The size, theme and configuration of the play structures and elements will be determined during the design phase. This image is included to show an example of a hillside play scape.



Figure 7-1 Examples – In-Hill Play Elements with Rubber Surface

7.2 Patio/Performance Space

The community and Friendly House expressed a desire to have an outdoor space where performances could occur and a space for outdoor creative activities or picnicing. The Master Plan includes a large patio located next to the FH building that can double as a performance space. Two rows of amphitheater style seating may be installed into the hillside next to the patio. This patio area and seating may also function as an outdoor classroom for story time or informal lectures. The following images show examples of a performance area seating set into a hillside.



Figure 7-2 Examples – In-Hill Seating

7.3 Accessible Ramp System

ADA compliance is a major priority of this Master Plan. Each element of the park must be available for use by people of all abilities. The extreme existing topography makes creating accessible routes between the upper and lower areas of the site very challenging. In order to accommodate an accessible route, a system of switched-back ramps must be integrated within the site design. As required by ADA regulations, the ramps will be a maximum slope of 1 foot vertical in 12 feet horizontal (8% slope) and a minimum of 4 feet of clearance between handrails. Level landings are required to accommodate resting areas and safely change the direction of travel when a ramp makes a turn. The maximum distance between level landings is 30 feet. Handrails are required along both sides of the ramp for the entire length of the ramp. The accessible ramp will be located in a park and as such will need to be constructed of durable, vandal resistant materials such as concrete for the ramp and steel for the handrails. An access easement agreement between the City and Friendly House is required to achieve this improvement. During design development an access easement with Friendly House will be prepared by the City to formalize legal public access over private property.



Figure 7-3 Examples - Accessible Ramp System

7.4 Multi-use Court



Figure 7-4 Examples – Multiuse sport court.

The community strongly supports the inclusion of a multi-use sport court in the renovation plans for Shale St. Playground. The preferred location of the multi-use court is in the previous basketball court area on the upper terrace. This location is relatively flat and moves the active court area away from the children's play areas. The 50'x70' court area is equal to a half basketball court and may accommodate various court games such as basketball, four square and hopscotch. With the installation of a 10' x 12' solid board affixed to the chainlink fence, the multiuse court area may also be used for tennis practice, paddle ball, hand

ball, practicing soccer kicks and be a location where outdoor movies may be projected. The court will be enclosed by chain-link fence ranging in size from 6-10 feet in height.

7.5 Grass Field and Walking Loop

Shale Street Park contains a relatively flat, area that is featured within the Master Plan as the Grass Field area. The proposed turf area is approximately ¼ acre in size and is enclosed by an 8' wide paved walking loop. A small turf mound at the narrowest section of the turf area will provide added play value. The area provides the opportunity for playing a game of catch, passing around a soccer ball, rolling down the grass mound and free play. The perimeter paved walking looping, which is slightly under a tenth of a mile long connects the multiuse court and the meadow walk. The loop establishes an off-road alternative for walking, jogging and biking for the local community.



Figure 7-5 Example – Turf Field and Mound

7.6 Meadow Walk



The steeply sloping northern most area off Shale St. will be retained as a nature preserve. The existing invasive vegetation will be removed and all native trees will be protected and limbed up for increased visibility and to provide views to the west toward the city. New loam will be brought in and seeded with a native meadow seed blend that will be maintained as a meadow with mowed paths cut along the flattest sections of the hillside.

7.7 Maintenance/Emergency Vehicle Access

Under current conditions, the project site contains only one access point that fails to establish a safe vehicle route to more than half the site. Friendly House and the Parks Division have expressed a desire to integrate a second access point to address safety and maintenance concerns. Due to the poor condition and awkward alignment of Shale St., residents living on Shale St. strongly objected to allowing public vehicle access to the park via Shale St. The need to allow passage of emergency and maintenance vehicles was acceptable to residents. A small, paved parking area to be located at the end of Shale St. will have a sign posting that the parking is limited to use by City vehicles only. The Shale St. access will provide pedestrian access from Shale St to the neighborhood residents to the north of the park. The north entrance will limit vehicle access by installation of a standard 10' wide pipe gate to deter unauthorized vehicles from entering the park and bollards will identify the pedestrian access.

7.8 Miscellaneous Site Improvements

- Site Furniture: benches, bike racks, trash receptacles.
- Landscape: removal of invasive vegetation, vista pruning, retain and protect existing mature trees, planting areas between parking area and walkways.
- Hardscape: repair walls/steps, new retaining walls, patios, court, amphitheater in hill seating, accessible ramps, walkways and sidewalk repair.
- Fence: chain link fences and gates.
- Signage: Park sign, park rules and ADA signs.
- Safety: sports lighting, security cameras, emergency call boxes.
- Utilities: Drainage, Water (*not* drinking fountain), and Electrical service improvements.

7.9 Parking

Shale St. Playground is a neighborhood park and as such, the majority of visitors will walk, ride their bikes or be dropped off at the park. Those that do drive may use public on-street parking on a first come, first serve basis. Additional standard parking spaces are not proposed as part of this Master Plan design. One minor change will be to relocate the existing accessible parking space at Friendly House to better align with the accessible ramp leading to the building and park and designate one existing parking space as an accessible parking space reserved for Park users that have a disability. An access easement agreement between the City and Friendly House is required to achieve this improvement. During design development

an access easement with Friendly House will be prepared by the City to formalize legal public access over private property.

7.10 Entrances and Internal Circulation

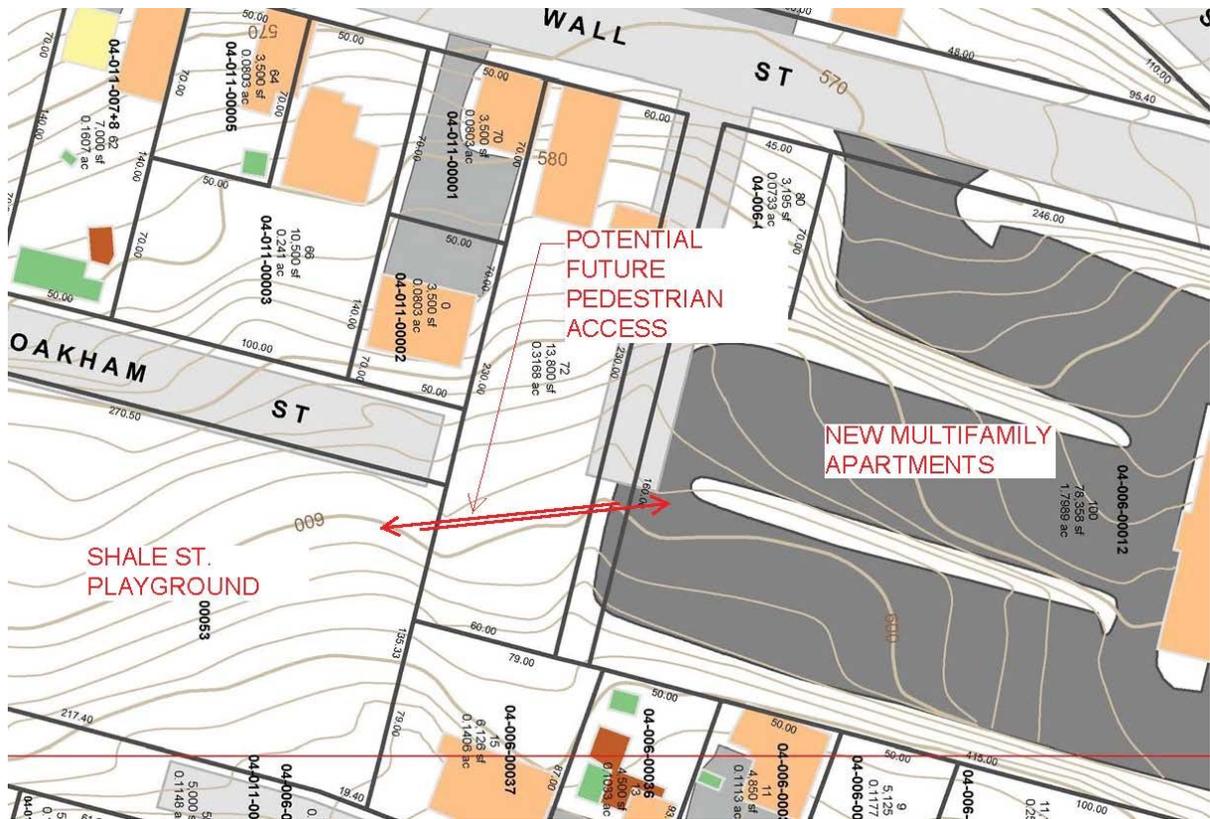
There are four pedestrian entrances shown to the park; (refer Appendix B - Overall Master Plan Exhibit-Rendering)

1. From Wall St., up the existing Friendly House stairway, visitors will enter the park through a gated fence opening at the end of the existing paved walkway in front of Friendly House.
2. From Thorne St. through the Friendly House parking lot to the accessible ramp and stairs.
3. From the end of Shale St. to an informal grass trail.
4. A potential northwest entrance:
A paved walkway from the northwest corner of the property would provide an accessible route from the new Apartments (at the old El Morocco) to upper Shale St. Playground. (explained below)

The internal circulation connects the various park elements with walkways, the patio/performance space, an accessible ramp system and stairways connecting the lower and upper play spaces. In hill play features will also provide connections between higher and lower play areas. Standard DPW&Parks entrance signs, including park rules will be placed at each entrance to the park.

Potential northwest entrance:

More recently, and after the public input phase was completed, a potential new pedestrian access was brought to the attention of Gordon Hargrove at FH. The old El Morocco site on Wall St. is currently being redeveloped into multifamily apartments. The Developer and Gordon Hargrove expressed their desire to have a direct access from the new residential development to Shale St Playground. Both agreed that the increased use by new residents would benefit residents while also helping to protect the renovated parkland through increased use and heightened visibility. The Developer agreed to provide the physical connection between the new housing and the playground however, a lot located at 72 Wall St exists between the new development and the playground. Gordon Hargrove met with the Owner of 72 Wall St. to discuss the possibility of establishing an access easement through the eastern end of his parcel. The owner of 72 Wall St. gave his verbal approval for an access easement. During design development, a formal easement agreement will be required and if approved, the design of the pedestrian access can be completed.



8.0 PHASING AND IMPLEMENTATION

From the beginning of the master planning process it was indicated and understood that all of the desired improvements may not be economically feasible in a single capital improvement project. The first phase to be implemented is based on available funding, addressing safety and regulatory requirements and construction logistics. The goal is to implement the most logical and immediately necessary improvements that would be acceptable to Friendly House, the Parks Division and the neighborhood, and meet the currently available budget. Beyond Phase 1 it is difficult to determine phases for the remaining project improvements as they will be developed as a function of available funding.

9.0 PRELIMINARY COST ESTIMATE

General order of magnitude costs were developed for the elements shown in the Master Plan.

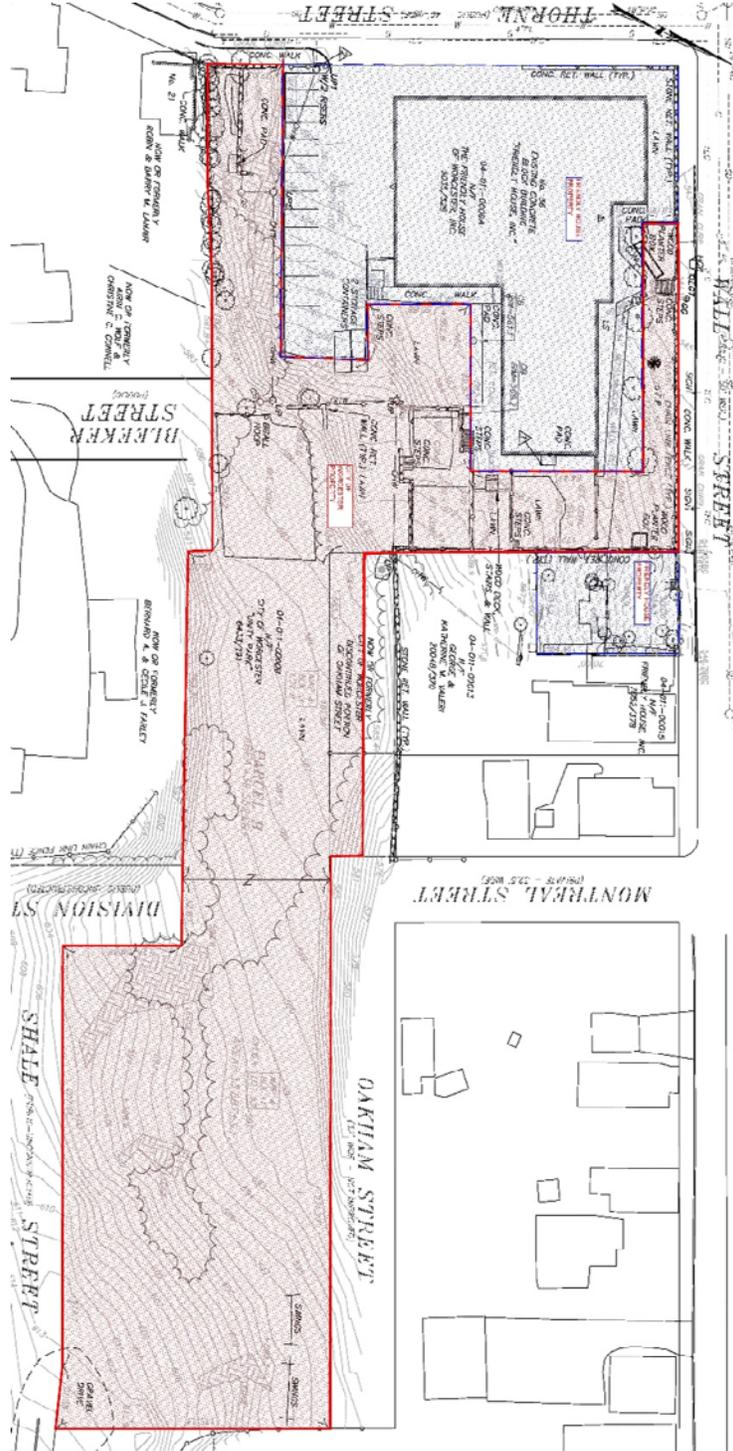
(Refer to Appendix G for cost estimate spreadsheet)

Note: Total estimated cost based on December, 2016 construction costs.

Soft costs are equal to approximately 20% of the total construction costs and typically include engineering, project management services, permitting, printing and advertising, construction contingencies, and other efforts associated with the implementation of a project.

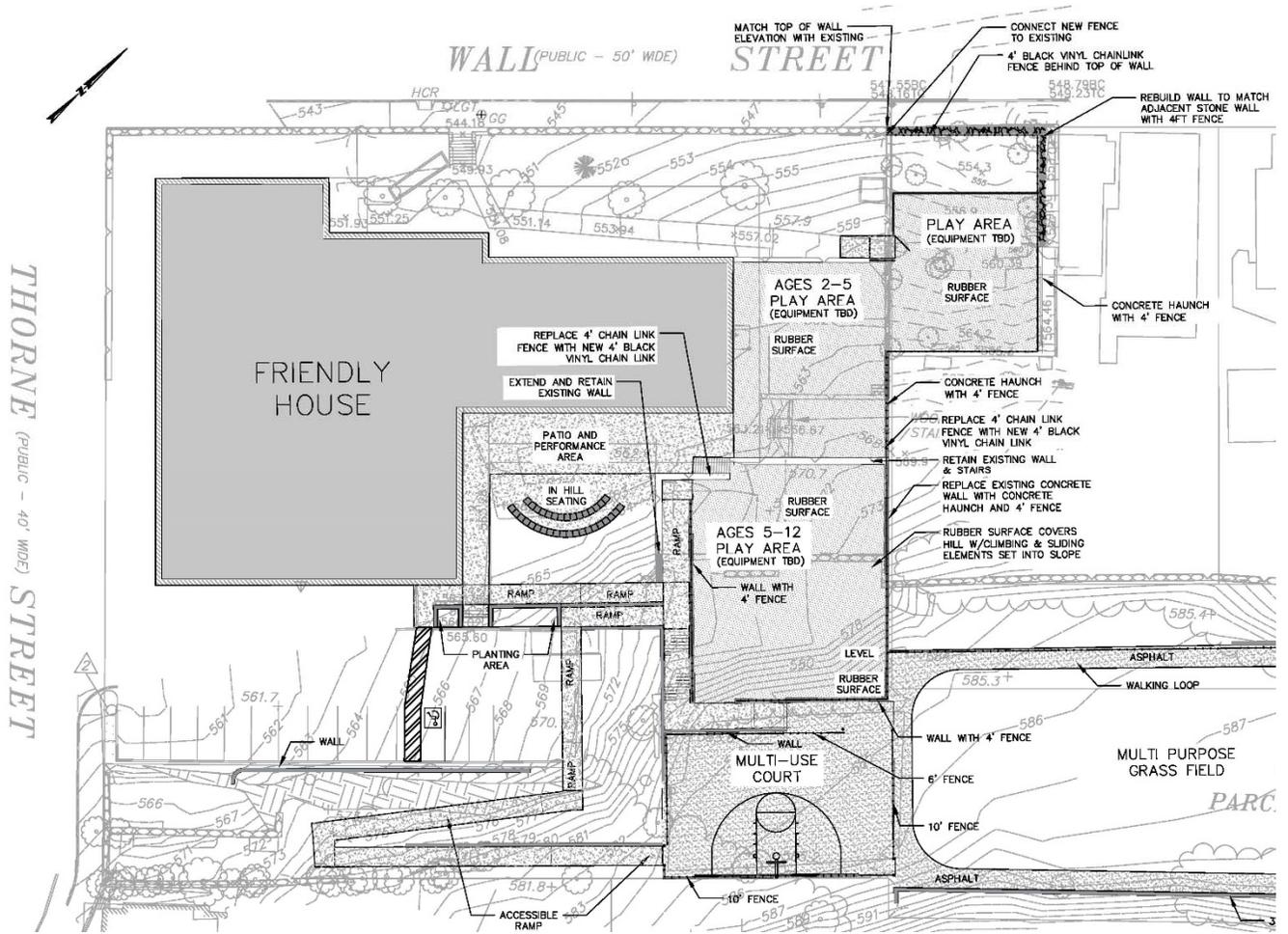
Appendix

Appendix A: Existing Conditions Exhibit

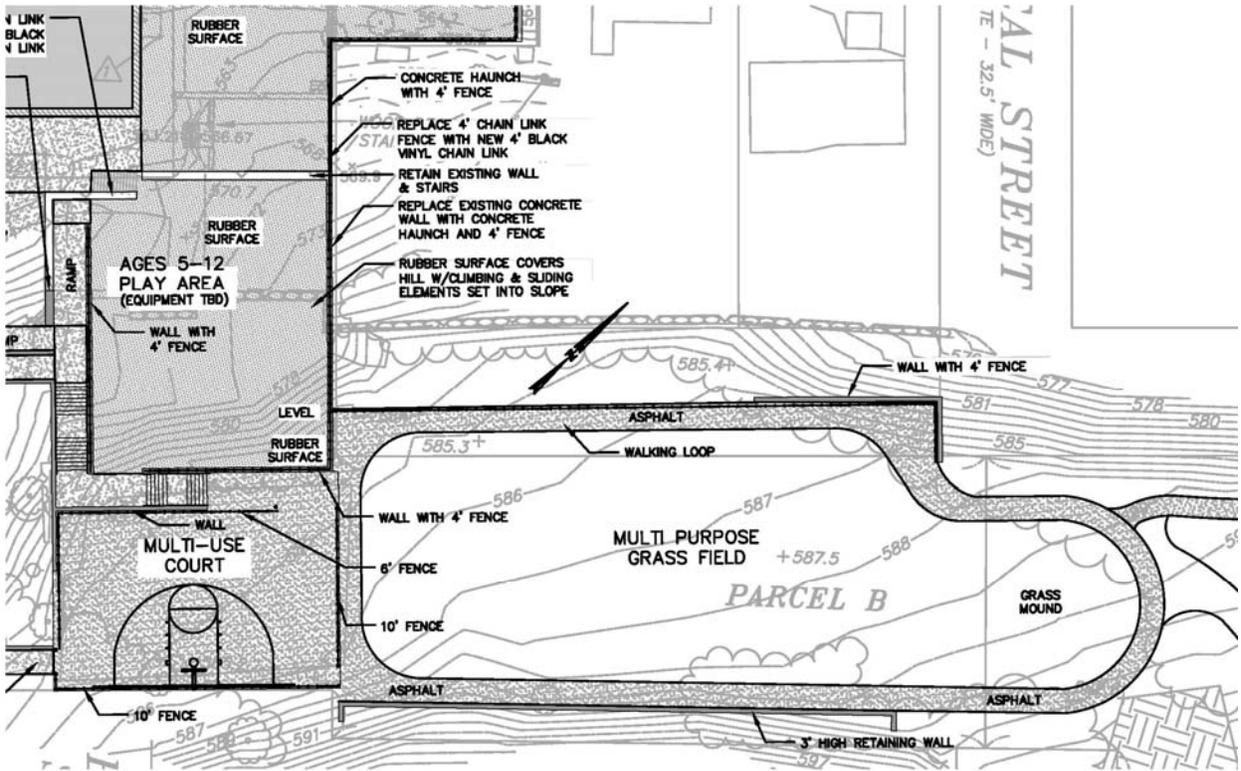


Appendix B: Overall Master Plan Exhibit – Rendering
 (Refer to the following Layout and Grading Enlargements for more detail)

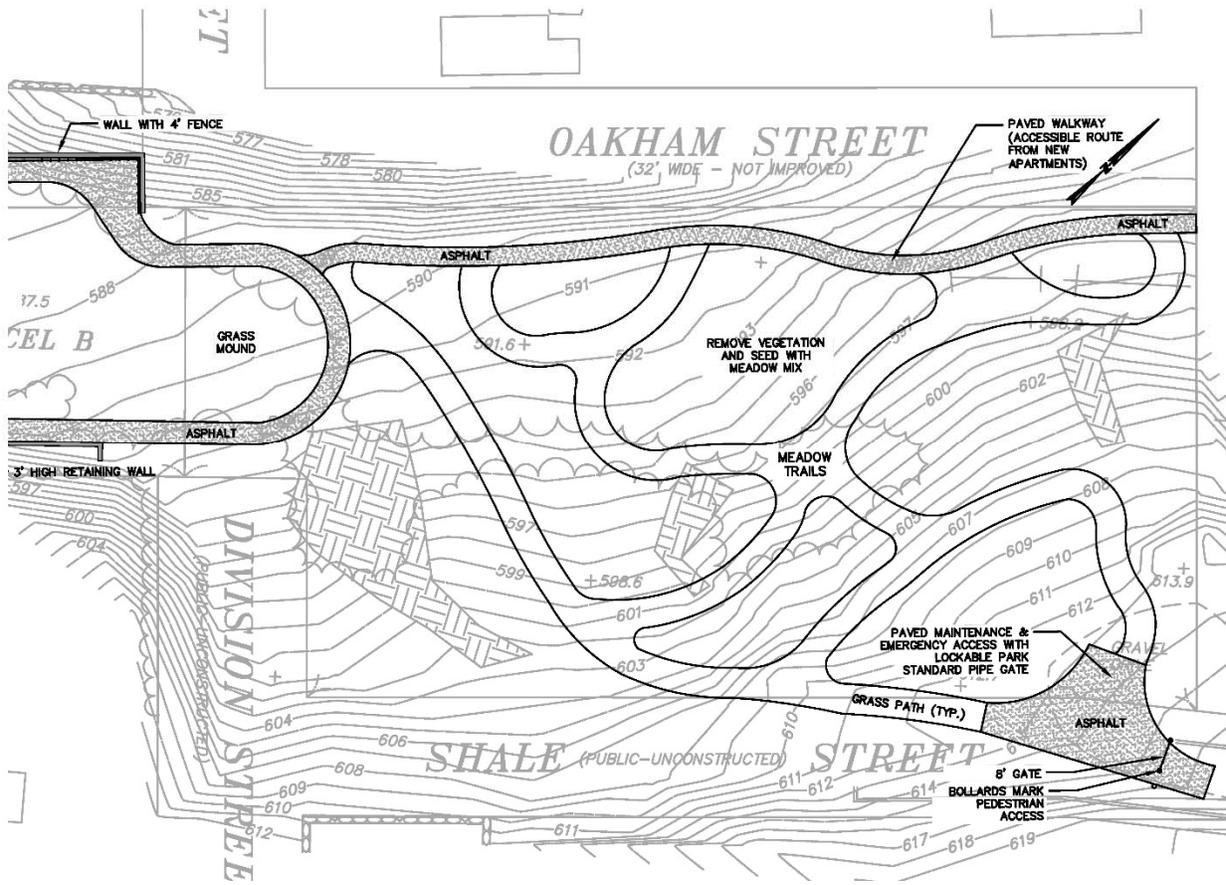




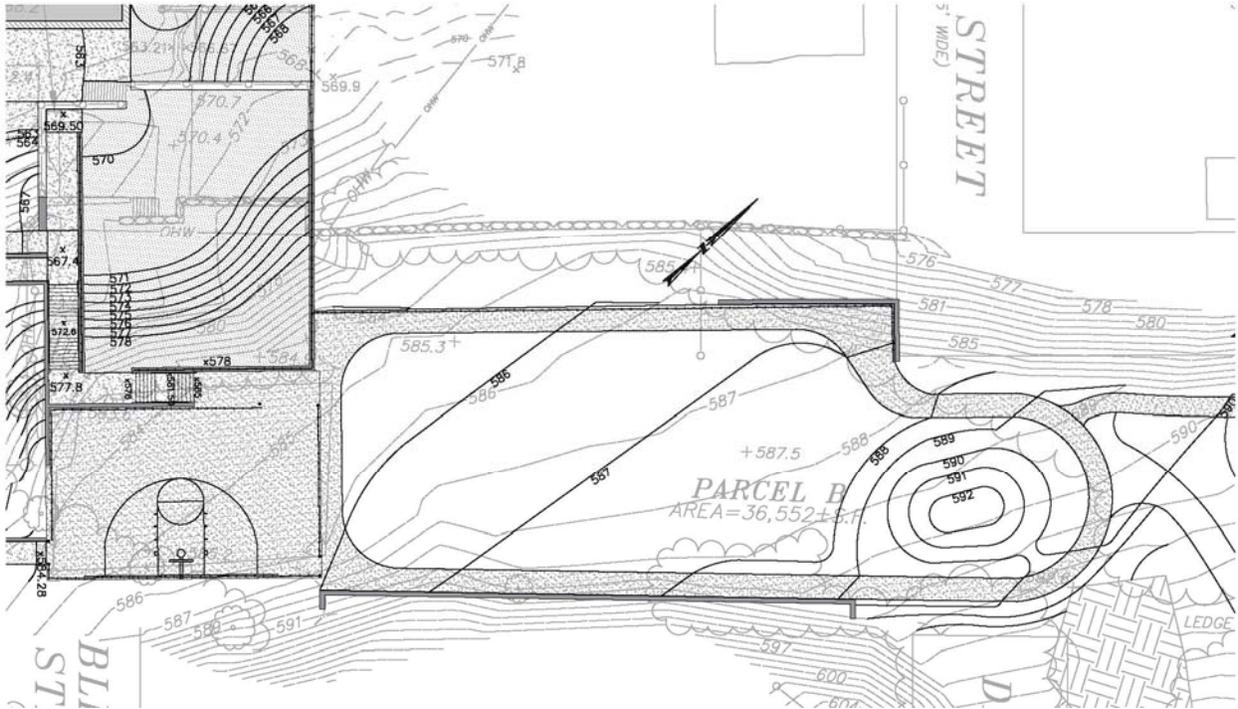
LAYOUT ENLARGEMENT "C-1"



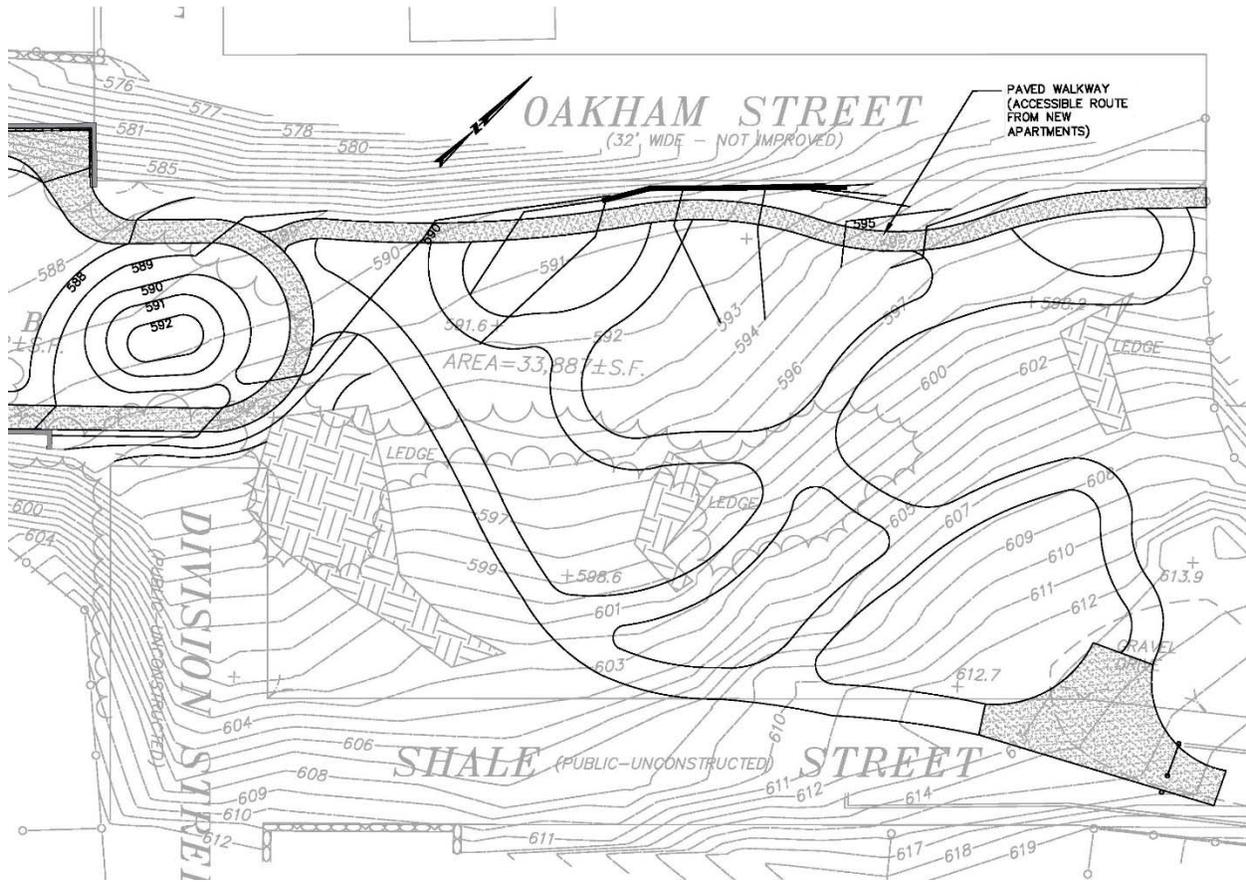
LAYOUT ENLARGEMENT "C-2"



LAYOUT ENLARGEMENT "C-3"



GRADING ENLARGEMENT "D-2"



GRADING ENLARGEMENT "D-3"

Appendix E, E-1 & E-2

Community Meeting #1 Announcement and Sign In Sheet from Community Meeting #1:

City of Worcester
 DPW and Parks - Parks, Recreation and Cemetery Division
 Date: November 5, 2015 Time: 6:30PM
 Place: Friendly House
 36 Wall Street, Worcester, MA 01604

A Master Plan for Shale Street Playground - Public Hearing # 1

Topic to include:
 The presentation of existing conditions, existing uses and history of Shale Street Playground. This presentation will be followed by an open public discussion, question and comment period to allow the Department to better understand and ascertain the needs, wants and desires of the neighbors, citizens and organizations that currently use each facility. The information and public comments will be synthesized to develop a Master Plan, to guide all future community/neighborhood endorsed improvements.

INVITATION

All are invited and Encouraged to Attend. The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request. Please contact the Parks Division at parks@worcestermass.gov, or Phone (508) 799-1190 or The City ADA Coordinator at disabilities@worcestermass.gov.

Phone: (508) 799-1190
 Fax: (508) 799-1293
 E-Mail: parks@worcestermass.gov

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.

DPW & Parks - Parks, Recreation and Cemetery Division
Shale Street Playground Public Hearing Number One
 Friendly House, 36 Wall Street, Worcester, MA 01604
 Robert C. Antonelli Jr., Assistant Commissioner
 November 5, 2015 @ 6:30 PM

	Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1	Fadi Altif			
2	Edgardo Gonzalez			
3	Michael Ritacco			
4	Lynne Ritacco			
5	NASER S. NASRAH			
6	JAMILLE NASRAH			
7	Jack Stewart			
8	Bill Baller			
9				

Community Meeting #2 Announcement and Sign In Sheet from the 2nd Community Meeting:

City of Worcester
 DPW and Parks - Parks, Recreation and Cemetery Division
 Date: December 2, 2015 Time: 6:30PM
 Place: Friendly House
 36 Wall Street, Worcester, MA 01604

A Master Plan for Shale Street Playground - Public Hearing # 2

Topic to include:
 The continued discussion of the existing conditions, existing uses, history and site constraints of this facility. Followed by the presentation of ideas, and preliminary plans (based on the first public hearing comments) developed to meet the needs, wants and desires of the neighbors, citizens and organizations that currently use this facility. All presented information and subsequent public comments will be synthesized to develop a Master Plan, to guide all future community/neighborhood endorsed improvements.

INVITATION

All are invited and Encouraged to Attend. The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request. Please contact the Parks Division at parks@worcestermass.gov, or Phone (508) 799-1190 or The City ADA Coordinator at disabilities@worcestermass.gov.

Phone: (508) 799-1190
 Fax: (508) 799-1293
 E-Mail: parks@worcestermass.gov

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.

DPW & Parks - Parks, Recreation and Cemetery Division
Shale Street Playground Public Hearing Number Two
 Friendly House, 36 Wall Street, Worcester, MA 01604
 Robert C. Antonelli Jr., Assistant Commissioner
 December 2, 2015 @ 6:30 PM

	Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1	Michael Ritacco			
2	Edgardo Gonzalez			
3	Lynne Ritacco			
4	John Stewart			
5	Bill Baller			
6	Chris Demetry			
7	Fadi Altif			
8	GARDEN P. HANBROU			
9	LIZ THOMPSON			
10				
11				



THE CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
PARKS, RECREATION, & CEMETERY DIVISION
50 Skyline Drive Worcester, MA 01605

Robert C. Antonelli, Jr. CPRP, Assistant Commissioner Phone: (508) 799-1190 Fax: (508) 799-1293

PARKS AND RECREATION COMMISSION MEETING

Thursday January 12, 2017 – 6:30 P.M.
Parks, Recreation & Cemetery Administrative Office
Meeting Room A
50 Skyline Drive Worcester, MA 01605

AGENDA

1. Call to Order
2. Acceptance of Minutes for the December 15, 2016
3. Committee Reports
 - Golf Course Subcommittee – None
 - Policy Subcommittee – None
 - Naming & Land Use Subcommittee – None
4. Commissioners Report (See Report Topics Below)
5. Old Business
6. New Business – Elections
7. Date of Next Meeting:
 - February 2, 2017 (Sports League & Events Meeting)
 - March 2, 2017
 - March 30, 2017
 - April 27, 2017
 - May 25, 2017
 - June 15, 2017
 - June 29, 2017
8. Meeting Adjourned

ASSISTANT COMMISSIONER'S REPORT:

1. Referral to Policy Subcommittee: NA
2. Referral to Naming/ Land Usage Subcommittee: NA
3. Referral to Golf Course Subcommittee: NA
4. General:
 - Green Hill Park WWI Memorial Grove Proposal & Plan Initiative
 - Shale Street Playground Master Plan Initiative
 - Grant Applications –
 - TD Green Streets Grant - Awarded
 - National Fish & Wild Life – Five Star & Urban Waters Restoration Program Grant
 - Land & Water Conservation Fund Grant – Betty Price Awarded
 - PARC & LAND Grant Program – Playgrounds Awarded
 - Mass Housing & Economic Development Massworks Infrastructure Grant Program \$100,000.00
 - Economic Development Initiatives – NA
 - Cultural Events-
 - NA
 - Park Vandalism & Graffiti – NA

CITY OF WORCESTER

DEPARTMENT OF PUBLIC WORKS AND PARKS

Parks, Recreation and Cemetery Division 50 Skyline Drive Worcester, MA 01605-2898

Paul J. Moosey, P.E.
Commissioner



Robert C. Antonelli, Jr., CPRP
Assistant Commissioner

(508) 799-1190
(508) 799-1293 FAX

Edward M. Augustus, Jr., City Manager

PARKS AND RECREATION COMMISSION MEETING Sign-in Sheet

Thursday, January 12, 2017

6:30 p.m.

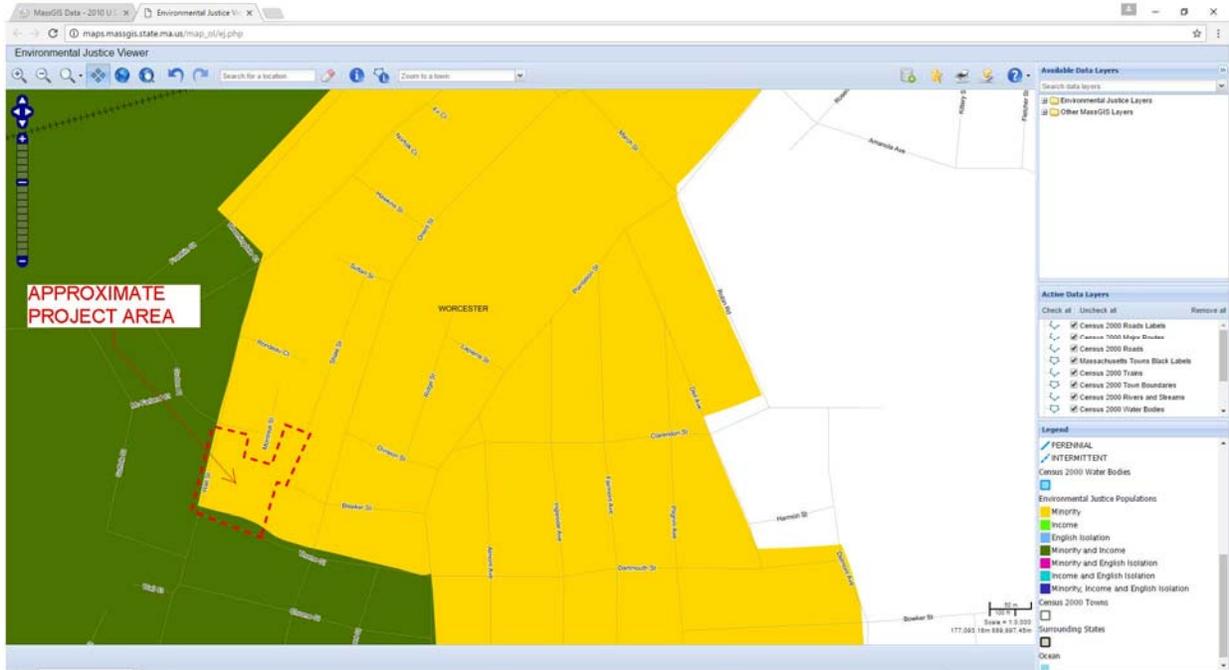
(PRINT ONLY)

<u>Name</u>	<u>Address/Organization</u>	<u>Item of Interest</u>	<u>Email</u>
1. Steven Van Dessel	WPI	WWI memorial	
2. LAURENCE FLEET	GHPC	WWI	
3. GORDON P. HARGROBE	FRIENDLY HOUSE	Shalest	
4. KEN LUNDQUIST	GHPC	WWI Mem.	
5. BRIAN Mc CARTHY	GHPC		
6.			
7.			
8.			
9.			

"Serving Our Community"

"Pride In Our Parks"

Appendix F - Environmental Justice Map and Letters of Support



Shale St. Playground is in the Minority Status Area (yellow) and adjacent to the Minority and Income Status Area (dark green) to the east.

LETTERS OF SUPPORT: (attached)

William Baller, WPI Humanities Department and Member of the Friendly House Board of Directors
Gordon Hargrove, Executive Director, Friendly House Incorporated

DESIGNERS OPINION OF COST

Project: Worcester Parks
Location: Shale St. Playground -Master Plan
Subject:

Calc.: CLB
Checked: LDF
Date: 12/23/2016
Revised: January 9, 2017

Item No.	Item Description	Quantity	UOM	Unit Cost	Subtotal
1	PREPARATION AND DEMOLITION				
	Misc. Demo	1	LS	\$ 1,200.00	\$ 1,200.00
	Construction fence	1,500	LF	\$ 14.00	\$ 21,000.00
	Construction Gate	1	EA	\$ 400.00	\$ 400.00
	Erosion control	587	LF	\$ 16.00	\$ 9,392.00
	Fence removed	371	LF	\$ 13.00	\$ 4,823.00
	Concrete Walls removed	348	LF	\$ 175.00	\$ 60,900.00
	Concrete Stairs removed	21	LF	\$ 48.00	\$ 1,008.00
	Concrete Walkways removed	387	SY	\$ 32.00	\$ 12,380.44
	Wood Ramp removed	23	LF	\$ 26.00	\$ 598.00
	Wood Deck and Ramp removed	5	SY	\$ 19.00	\$ 90.78
	Swing Sets removed	2	EA	\$ 260.00	\$ 520.00
	Basketball standard removed	1	EA	\$ 260.00	\$ 260.00
	Relocating Storage Units	2	EA	\$ 200.00	\$ 400.00
	Brush clearing	7,000	SY	\$ 4.80	\$ 33,600.00
	Invasive removal/ loam & seed	4,655	SY	\$ 22.00	\$ 102,412.44
	Tree removal over 12"	2	EA	\$ 4,750.00	\$ 9,500.00
	Tree removal under 12"	20	EA	\$ 1,950.00	\$ 39,000.00
	Ledge removal	55	CY	\$ 340.00	\$ 18,700.00
	Tree pruning - for vistas	1	LS	\$ 25,000.00	\$ 25,000.00
	Tree protection (snow fence or batons)	25	LF	\$ 4.50	\$ 112.50
2	DRAINAGE				
	Grading & Earthwork	4,885	SY	\$ 17.50	\$ 85,489.44
	8" Pipe Solid/ Perf. Sub drain	315	LF	\$ 62.00	\$ 19,530.00
	Nyloplast area drain (Play surface)	3	EA	\$ 445.00	\$ 1,335.00
	Iron area drain (Patio surface)	1	EA	\$ 630.00	\$ 630.00
3	GENERAL IMPROVEMENTS				
	Ordinary borrow/ rehandled	1,628	CY	\$ 24.00	\$ 39,080.89
	Gravel borrow	438	CY	\$ 40.00	\$ 17,502.96
	Gravel borrow for structures	9	CY	\$ 48.00	\$ 432.00
	Gravel rehandled	64	CY	\$ 22.00	\$ 1,418.59
	Asphalt Roadway/ parking	130	SY	\$ 65.00	\$ 8,450.00
	Asphalt walkways	800	SY	\$ 45.00	\$ 36,000.00
	Parking area pavement markings	150	LF	\$ 7.00	\$ 1,050.00
	Accessible parking Sign	1	EA	\$ 350.00	\$ 350.00
	Concrete ramp and landings	300	SY	\$ 325.00	\$ 97,500.00
	Conc. Curb ramp w/ detectable panel	1	SY	\$ 220.00	\$ 220.00
	Imported/spread/raked loam-6" depth	275	CY	\$ 48.00	\$ 13,200.00

Lawn for field and walking path	2,472	SY	\$ 14.00	\$ 34,611.11
Concrete patio	275	SF	\$ 15.00	\$ 4,125.00
10' Vehicle pipe gate	1	EA	\$ 3,780.00	\$ 3,780.00
Vinyl chain link gate	1	EA	\$ 1,150.00	\$ 1,150.00
4' vinyl chain link fence	437	LF	\$ 65.00	\$ 28,405.00
4' vinyl chain link fence on wall	227	LF	\$ 85.00	\$ 19,295.00
6' vinyl chain link fence	55	LF	\$ 95.00	\$ 5,225.00
10' vinyl court side fence	148	LF	\$ 265.00	\$ 39,220.00
Pipe Rail at Stairs and Ramps	850	LF	\$ 355.00	\$ 301,750.00
Bike rack & pad	2	EA	\$ 1,250.00	\$ 2,500.00
Removable bollard	1	EA	\$ 150.00	\$ 150.00
Litter receptacle	4	EA	\$ 900.00	\$ 3,600.00
Picnic table	2	EA	\$ 2,700.00	\$ 5,400.00

PIP Rubber Play surface	1,010	SY	\$ 185.00	\$ 186,850.00
Play Structure 2 age (2-5)	1	EA	\$ 55,000.00	\$ 55,000.00
Play structure 3 age (5-12)	1	EA	\$ 75,000.00	\$ 75,000.00
Court surface pavement marking	150	LF	\$ 7.00	\$ 1,050.00
Asphalt Court Surface	384	SY	\$ 75.00	\$ 28,833.33
Basketball Standard	1	EA	\$ 2,500.00	\$ 2,500.00
Concrete haunch	226.0	LF	\$ 36.00	\$ 8,136.00
Curved Concrete 18" ht. seating Wall	20.0	CY	\$ 695.00	\$ 13,900.00
MSE Block Retaining Wall	3,511.0	FF	\$ 85.00	\$ 298,435.00
Rebuild Mortared Stone wall/ Match	23.1	CY	\$ 765.00	\$ 17,680.00
Concrete Stair Tread Modular Block	280	LF	\$ 165.00	\$ 46,200.00
Park rules/access sign & post	3	EA	\$ 400.00	\$ 1,200.00
Park sign & support	3	EA	\$ 1,200.00	\$ 3,600.00

4 UTILITY IMPROVEMENTS				
Pedestrian lighting w/bases	12	EA	\$ 6,000.00	\$ 72,000.00
Sports lighting	2	EA	\$ 30,000.00	\$ 60,000.00
Security camera system & conduits	1	LS	\$ 100,000.00	\$ 100,000.00
Electrical service improvements	1	LS	\$ 50,000.00	\$ 50,000.00
Communication Conduits	550.0	LF	\$ 21.00	\$ 11,550.00

			Project Total without mark ups	\$2,144,631.50
Site work Mobilization	x	2%	\$ 42,893	\$2,187,524.13
Site work Demobilization	X	1%	\$ 21,446	\$2,208,970.45
with General Conditions	X	5%	\$ 107,232	\$2,316,202.02
with Overhead	X	10%	\$ 214,463	\$2,530,665.17
with Profit	X	5%	\$ 107,232	\$2,637,896.75
Total with Bond	X	3%	\$ 64,339	\$2,702,235.69
Construction Admin	276	HR	130	\$ 35,880.00
Design & soft costs (20% construction before markups)				\$ 261,523.00
				\$2,999,638.69
			Say	\$ 3,000,000.00

Master Plan Approved by
**Worcester Parks and
Recreation Commission**

January 12, 2017

Master Plan Approved by
**Worcester
City Council**

October 10, 2017