

A Master Plan for Improvements to
Grant Square
Worcester, Massachusetts



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City of Worcester Department of Public Works and Parks



Acknowledgments

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Introduction

Grant Square is a 1.6-acre park located in the Green Hill neighborhood of Worcester, near Lincoln Street, I-290, and Belmont Street. The park is bordered on three sides by streets: Northampton Street to the south, Windsor Street to the east, and Mt. Vernon Street on the north side. Residential lots are adjacent to the western boundary of the park. Green Hill Park is situated to the north and east of this neighborhood.

According to the 1904-1905 Report of Park Commissioners, the park property was acquired in two sections – a smaller portion in 1892, and a larger tract (from private owners) in 1904. The smallest site was originally intended for use as a school house, but after the larger piece was acquired, the two were combined into a single tract for park use. This report also states that the origin of the park’s current name could not be determined, although a name change from “St. Charles Park” occurred sometime after 1863.

Funds were appropriated in 2013 to develop a master plan for renovation of the park, and EarthDesign Landscape Architecture LLC of Worcester was hired for this task the same year.

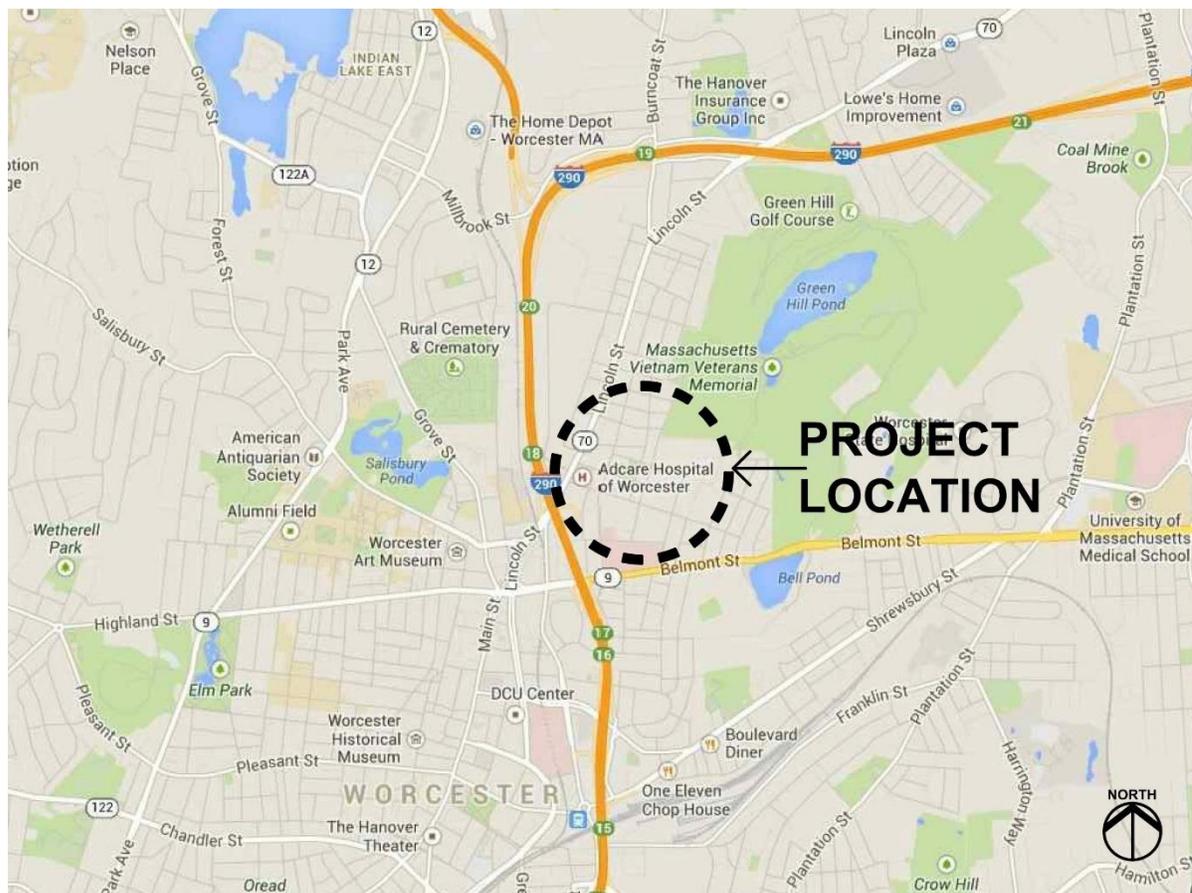


Figure 1: Locus Map

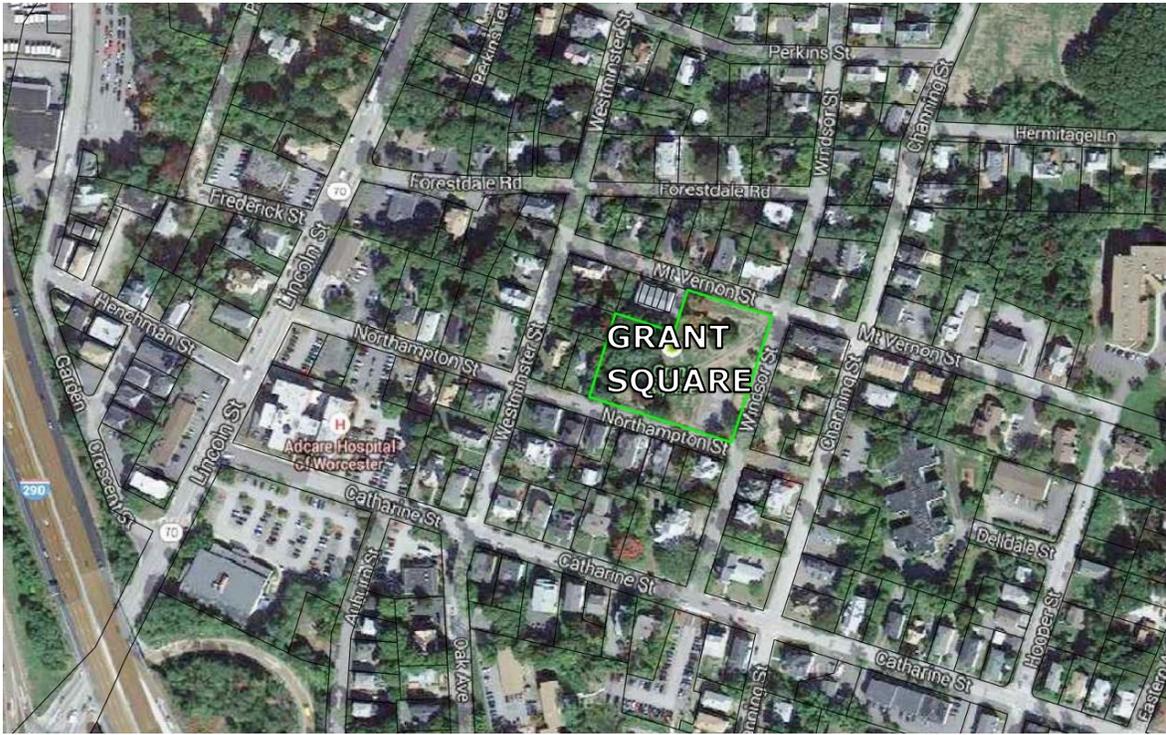


Figure 2: Neighborhood Satellite Image

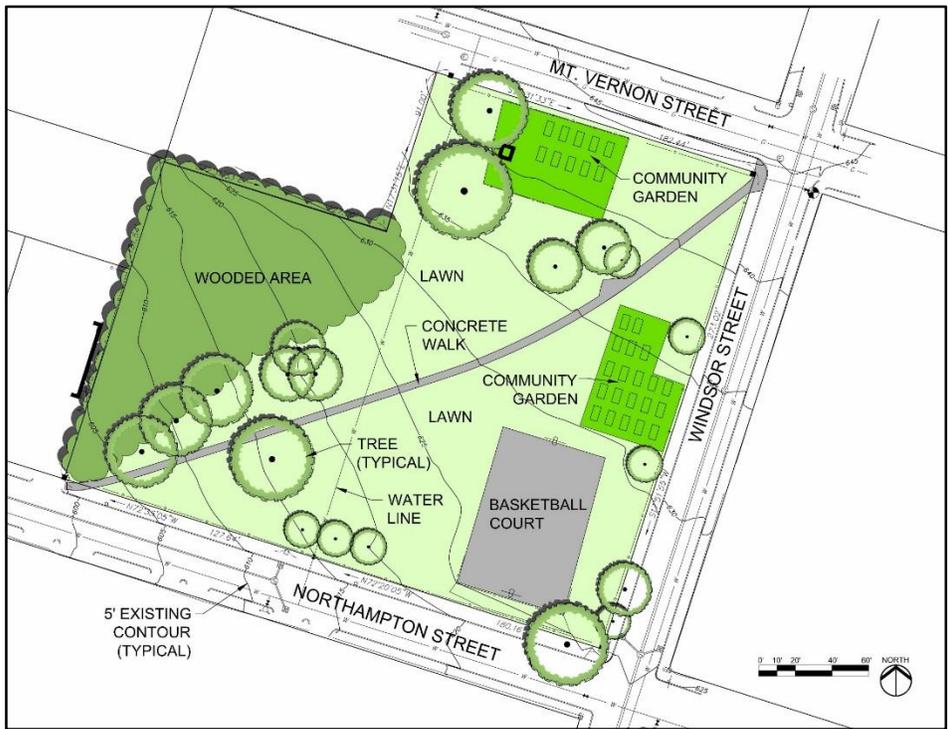


Figure 3: Existing Conditions Map

Existing Site Conditions

Constructed Features:

The park currently includes an asphalt basketball court, a concrete walkway that runs diagonally from the southwest to northeast corners of the site, and two community garden areas. The court is situated near the southeast corner of the park. Its surface measures approximately 59' by 88', and has some cracking as well as a surface failure at one corner due to erosion beneath the pavement. The community gardens are managed by the Regional Environmental Council of Central Massachusetts. The garden area next to Mt. Vernon Street has 10 raised beds in addition to a small shed, and is used by the YouthGROW program. The other garden area, near Windsor Street, contains 20 beds for use by neighborhood residents. Each of the beds is wooden and measures 4' by 8'. The park also has chain-link fencing along all street frontages, with breaks at corners for pedestrian access.



Existing basketball court



Southeast site entrance near basketball court



Portion of one community garden area



Walkway through park

Vegetation:

Most of the property consists of open lawn areas with scattered trees, including Sugar Maple, Norway Maple, Black Cherry, Sweetgum, and Ash. Their trunk sizes range from 8” to 36” caliper. The majority of the trees in the open areas appear to be in good condition; those in poor health include two large Sugar Maples and two smaller Black Cherry trees.

The western section of the property includes a densely wooded area, primarily comprising Norway Maple, Sycamore Maple, and Black Locust trees, some of which are over 20” caliper. Most of these appear to be in good health.



Edge of wooded area on west side of site



Scattered trees at north end of park (near one of the community garden areas)

Soils:

The soils on this site are classified as Paxton Fine Sandy Loam, typically found on drumlins and drumlin-like hillsides. This soil type is well-drained, contains some stones near the surface, and has a seasonally high perched water table at 1.5 to 2.5 feet depth. The substratum, consisting of glacial till, is very firm, and typically begins at a depth of about 27 inches.

The type of soil is good for growth of vegetation, but the relatively shallow seasonal water table and the firm substratum can present some challenges for site development.

Topography:

The park property is relatively steep, with the majority of slopes ranging from 7 to 15 percent. The elevation difference between low and high points, at the southwest and northeast corners, respectively, is 45 feet. (The existing walkway connects these two spots.) The steepest part of site is in the wooded section, at its northwest corner, where slopes are approximately 1:4 to 1 (horizontal-to-vertical ratio).



View toward high point of site



View facing south across park, toward lowest section

Hydrology:

There are no wetlands or drainage swales on this property. All surface storm water appears to drain across the site in the form of sheet flow, running generally toward the southwest.

Utilities:

A water line runs across the park property, from Mt. Vernon Street to Northampton Street. Utilities on adjacent streets include combined sanitary sewer & storm water (Windsor and Northampton Streets), sanitary sewer (Mt. Vernon Street), gas (Mt. Vernon Street), water (all streets), and underground electric (all streets).

Development over the cross-site water line will have some limitations: soil should not be cut over this pipe (but fill is allowable), and no structures with foundations (including retaining walls) should be built across the line.

Neighborhood and Off-Site Considerations:

This section of the Green Hill neighborhood consists mostly of multi-family homes, in addition to a few single-family residences. The multi-family structures include apartment buildings, townhouses, two-family homes, and three-deckers.

Community Participation

Two public meetings were held with neighborhood residents. They are summarized below.

Public Meeting #1: Tuesday, October 29, 2013

Location: 50 Skyline Drive, Worcester

Number of people in attendance (according to sign-in sheet): 14

The existing conditions map for the playground was presented, and residents and other attendees were asked to express their desires, questions, and concerns regarding the park. Attendees made the following requests:

- Find out the history of this park, and the reason for its name
- Flatten part of park for use as a rectangular athletic field
- Add a children's playground
- Need more street lights
- Add pedestrian lighting for walkways
- Add sports lighting for basketball court
- Fence entire basketball court
- Consider shifting basketball court 90 degrees if needed to fit other facilities in the park
- Add stationary trash containers
- Add a paved surface near the basketball court for neighborhood gatherings
- Provide electrical outlet at this gathering space for music
- Clean out underbrush from wooded area
- Add a walking path through the wooded area
- Add picnic tables (in a group) and benches
- Make community gardens part of the park, but not so they dominate the site
- Consider involving neighborhood youth with the construction, so they respect the park
- Provide access for disabled individuals
- Add permanent fencing around community gardens
- Add a greenhouse to the community garden space
- Provide a water spigot/hose connection for the community gardens
- Possibly add fruit trees in conjunction with community gardens

After this meeting, the Regional Environmental Council (REC) sent an updated list of desires for the community gardens to City staff. The following requests were made:

- Locate the gardens in area(s) with sufficient sunlight and water supply. If the gardens are to be consolidated in one part of the site, the preferred location is along Mt. Vernon Street (current location of youth gardens).
- More permanent and secure fencing around their perimeter of the garden spaces

- A separately fenced area for the YouthGROW program, and another for neighborhood residents.
- Permanent signage for gardens
- A pavilion near the gardens to provide meeting space for program youth and others
- Space for a larger storage facility; preferably at least 10' x 10'

Note: When questioned about the greenhouse that they had requested at the first public meeting, the REC staff stated that this was no longer a priority.

Public Meeting #2: Thursday, December 5, 2013

Location: 50 Skyline Drive, Worcester

Number of people in attendance (according to sign-in sheet): 11

The concept plan was presented at this meeting. The majority of the requests from the first meeting were included in the plan; however, one item that was deemed to be infeasible is a grass athletic field, due to lack of space and the steeply sloping topography of the park.

Attendees made the following comments:

- There was concern about the community gardens taking over the park.
- Some wanted to know the status of the vacant lot across Windsor Street (possible site for community gardens?).
- Consider including recycling containers (only if managed by neighborhood or community organization)
- Include permanent trash receptacles
- Include pathway lighting – consider LED lighting
- Include park hours signs at entrances
- Add at least one bike rack
- Add a swinging bench (commercial type)

To address several of the comments and concerns, City staff stated that the community gardens will be limited to the area of the plan where they are shown (along Mt. Vernon Street), and won't be expanding beyond that area on this park site. They also said that the vacant lot across Windsor Street is outside of the Department of Public Works & Parks' jurisdiction, but the lot is in the tax title process. Regarding recycling, staff stated that this would not be feasible unless another group (perhaps REC) manages these.

Near the end of the meeting, many of those in attendance expressed that they were pleased with the plan, and looked forward to its implementation.

(After the meeting, the remaining five bulleted items on the list above were added to the plan, at least in the form of labels/notes indicating that these will be installed.)

Goals and Objectives

Based upon input received from neighborhood residents and the City of Worcester's park development and maintenance standards, the following goals and objectives have been established for Grant Square:

- 1. Balance the needs of the neighborhood with those of outside groups**
 - Provide sufficient space for community gardens, but limit this area to one section of the park so that there is plenty of space for other facilities within the park.
- 2. Upgrade existing basketball court**
 - Increase size to NBA/collegiate dimensions, and provide ample paved out-of-bounds space around court
 - Add sports lighting
 - Install taller (minimum of 8') fencing around most of court's perimeter.
- 3. Increase the number and type of recreation opportunities**
 - Add facilities for adults and families including a playground, picnic area, benches, and neighborhood gathering space
- 4. Upgrade security and deter vandalism/dumping**
 - Provide adequate visibility from the adjacent streets to facilities within the site.
 - Install fencing or guardrail along the park perimeter to prevent access by unauthorized vehicles and dumping trash in woodland area from adjacent residential lots.
 - Add lighting to the walkways and basketball court.
- 5. Design for low maintenance**
 - Specify durable materials, furnishings, and equipment.
 - Site new trees and built features to facilitate lawn mowing.
- 6. Provide barrier-free access for all users.**
 - Provide accessible parking and walkways to/between facilities.
 - Design facilities in this park to comply with the Americans with Disabilities Act.

Proposed Master Plan

The proposed plan for Grant Square, as shown in Figure 4, includes an enlarged basketball court, playground, picnic area, community garden space, small shelter, walkways and paths, and open lawn area. Two accessible parking spaces are also included, in addition to four pedestrian entrances and three maintenance access points.

The existing basketball court is proposed to be removed, re-graded, and expanded in size. Surfacing will be asphalt. The court lines will be NBA/collegiate size (50' x 94'), and will have 8' of out-of-bounds space at the ends, 9' on one side with players' benches, and 5' on the court's east side. Also on this side is a paved pedestrian area with bleachers and seat walls, connecting with a corner park entrance. This space is sized to be used for neighborhood events. The court will also be lighted, three sides will be fenced, and retaining walls will replace steep hillsides on the north and south ends.

The playground, located in the center of the park, will be terraced. The upper section will contain the school-age area, and the lower space will be for preschool-age children. Each zone will include a swing set and composite play structure appropriate for the respective age groups. The slope between the two play areas will have slides and rocks set into the grade. All of these areas will have safety surfacing, and benches will be provided along the perimeter.

The picnic area will include two accessible tables and three standard ones, as well as fixed trash receptacles. A grove of trees will be planted for shade in this location. In addition, both a standard bench and swinging bench are proposed elsewhere in the park.

Community garden space will be located in the northern section of the park. It will consist of an upper and lower terrace of garden beds. Each terrace will be separated by retaining walls and fencing, with one area designated for YouthGROW and the other for neighborhood use. The upper terrace will include space for a storage shed (to be provided by the Regional Environmental Council). Existing garden beds will be moved to the new site as part of the park construction contract. Gated maintenance access will be provided, in addition to space for storage of compost and other materials.

Other proposed park elements include a small shelter near the community gardens (for use by all park users); paved, lighted walkways connecting the entrances and park facilities; a woodland path; and an open lawn area near the basketball court. A portion of the existing paved walkway southwest of the proposed playground will be retained.

All park facilities will be barrier-free for disabled users, and two accessible parking spaces will be located at the park – a parallel space on Mt. Vernon Street, and a perpendicular space off of Windsor Street. Pedestrian access points will be at the northeast park corner (near the parallel parking space); southeast corner (near basketball court), southwest corner; and next to the perpendicular parking space on Windsor Street. Gated

maintenance access points will be located adjacent to the basketball court area and at the perpendicular parking space, in addition to the vehicular access area at the community gardens.

A bike rack will be installed near the southeast park entrance, trash containers will be included at two of the pedestrian entrance points, and park hours signs will be posted at all entries.

All property boundaries will have black chain-link fencing, except for the Windsor Street frontage and a portion of the Mt. Vernon Street frontage – these areas will receive wooden guard rail. Fencing (instead of guardrail) is needed to contain stray basketballs along Northampton Street, to secure the community garden area along Mt. Vernon Street, and to prevent dumping and other access along non-street property lines.

Due to the relatively steep slopes throughout the park property, a lot of grading, terracing of facilities, and retaining wall construction will be necessary. However, no retaining wall construction nor cutting of soil will occur directly over the existing cross-site water line.

Three trees that are in poor health are proposed to be removed. These include two large Sugar Maples at the site of the proposed community gardens, one Black Cherry close to this area, and another Cherry at the southeast park entrance. Nine new shade trees and several ornamental trees are proposed to be planted in the park with this project.

This plan accommodates all of the feasible requests made by attendees at the public meetings. It also successfully meets the goals and objectives set for this project: balancing the desired improvements of the neighborhood residents and those of the Regional Environmental Council; improving the basketball court; providing additional recreational opportunities; improving park security/deterrence of vandalism; designing for low maintenance; and making the park facilities accessible to all users.

This master plan serves as a general guide for improvements to Grant Square. Improvements will follow recommendations in this report, but they will be refined and adjusted as needed to meet actual site conditions and funding.



Figure 4: Master Plan

Estimated Construction Costs

The following costs have been estimated for the construction of Grant Square Improvements. Each of the first three categories includes grading, retaining walls, and landscaping associated with that particular facility or area.

Facility:	Cost Estimate:
Lighted Basketball Court:	\$290,000
Playground:	\$250,000
Community Gardens:	\$170,000
Other Improvements:	
• Removal of various existing items:	\$22,000
• Erosion controls & other temporary measures:	\$28,000
• Grading, retaining walls, & landscaping not associated with a specific facility:	\$60,000
• Property line fencing, guardrails, & gates:	\$82,000
• Accessible parking:	\$14,000
• Lighted walkways & woodland path	\$200,000
• Site amenities (benches, trash receptacles, picnic tables, and signage):	\$44,000
• Shelter:	\$40,000
Soft Costs*:	\$300,000
Total Estimated Cost (February, 2014):	\$1,500,000

*Soft costs equal approximately 20% of the total construction cost and typically include engineering and project management services, construction contingency, printing and advertising, and other efforts associated with implementation of a project.

Appendix A – Meeting Attendance Sheets

Meeting 1: 10/29/13

 DPW & Parks - Parks, Recreation and Cemetery Division Grant Square Park Public Hearing Number One Parks Division, Green Hill Park, Meeting Room A, 50 Skyline Drive, Worcester, MA 01605 Robert C. Antonelli, Jr., Assistant Commissioner October 29, 2013 @ 5:30 PM		Name (PLEASE PRINT)	Address	Phone No.	E-Mail Address
1		Eric I. Baskin			
2		Rory M. Davidson			
3		Winnice A. Ochoa			
4		Dan P. Pritz			
5		Marnie Callender			
6		Jonathan Carter			
7		Chen Rodriguez			
8		Philip Palumbo			
9		Moses Dixon			
10		Mary Keefe			
11		Danielle Brewster			
12		Delia Vega			
13		Steve Fisher			
14		Beverly Vega			
15					
16					
17					
18					
19					
20					

 DPW & Parks - Parks, Recreation and Cemetery Division Grant Square Park Public Hearing Number Two Parks Division, Green Hill Park, Meeting Room A, 50 Skyline Drive, Worcester, MA 01605 Robert C. Antonelli Jr., Assistant Commissioner December 5, 2013 @ 5:30 PM			
	Name (PLEASE PRINT)	Address	Phone No. / E-Mail Address
1	RESILIA SABBINO VIANINO		
2	COLE BYNS		
3	ROBERTA BROWN		
4	ROSE COVIT		
5	GRACE OULT		
6	WALTER CRUZ		
7	STACEY BRUNSON		
8	ROBERTA COVIT		
9	CHRISTINE H. O'NEILL		
10	DANIELLE S. FORD		
11	CHRISTOPHER COVIT		
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Master Plan Approved by
**Worcester Parks &
Recreation Commission**

February 27, 2014

Master Plan Approved by
Worcester City Council

March 25, 2014