ATTACHMENT A

RESOLUTION CONSIDERING THE BALDWIN PARK GARDEN PROPOSAL
Draft Resolution No. 82/2011-12

WHEREAS, the Baldwin Park Gardeners presented a Cistern – Shed Placement and Rain Catchment Proposal and sign request for consideration on January 17, 2012; and,

WHEREAS, Town staff, OWASA and the NC League of Municipalities reviewed the requests to determine their impact on Baldwin Park; and,

WHEREAS, Town staff is sensitive to the time constraints related to the upcoming growing season and will be readily available to review the plans with the gardeners, and

WHEREAS, Town staff has provided a report for consideration.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept the staff report and authorize the use of additional parkland, but subject to the following conditions:

1) That staff and the Baldwin Park Gardeners determine an appropriate, final location for the shed and cistern. The location must be outside any stream buffers, easements, or similar constraints located on the property; and,
2) That Town staff and OWASA will need to receive final plans that have been approved by a licensed engineer and the timeline for the installation. Once the plan is approved, OWASA may issue a letter of encroachment to the gardeners.
3) That once sufficient funds have been raised by the gardeners for signage, that staff will provide support for the purchase and installation of the signage.

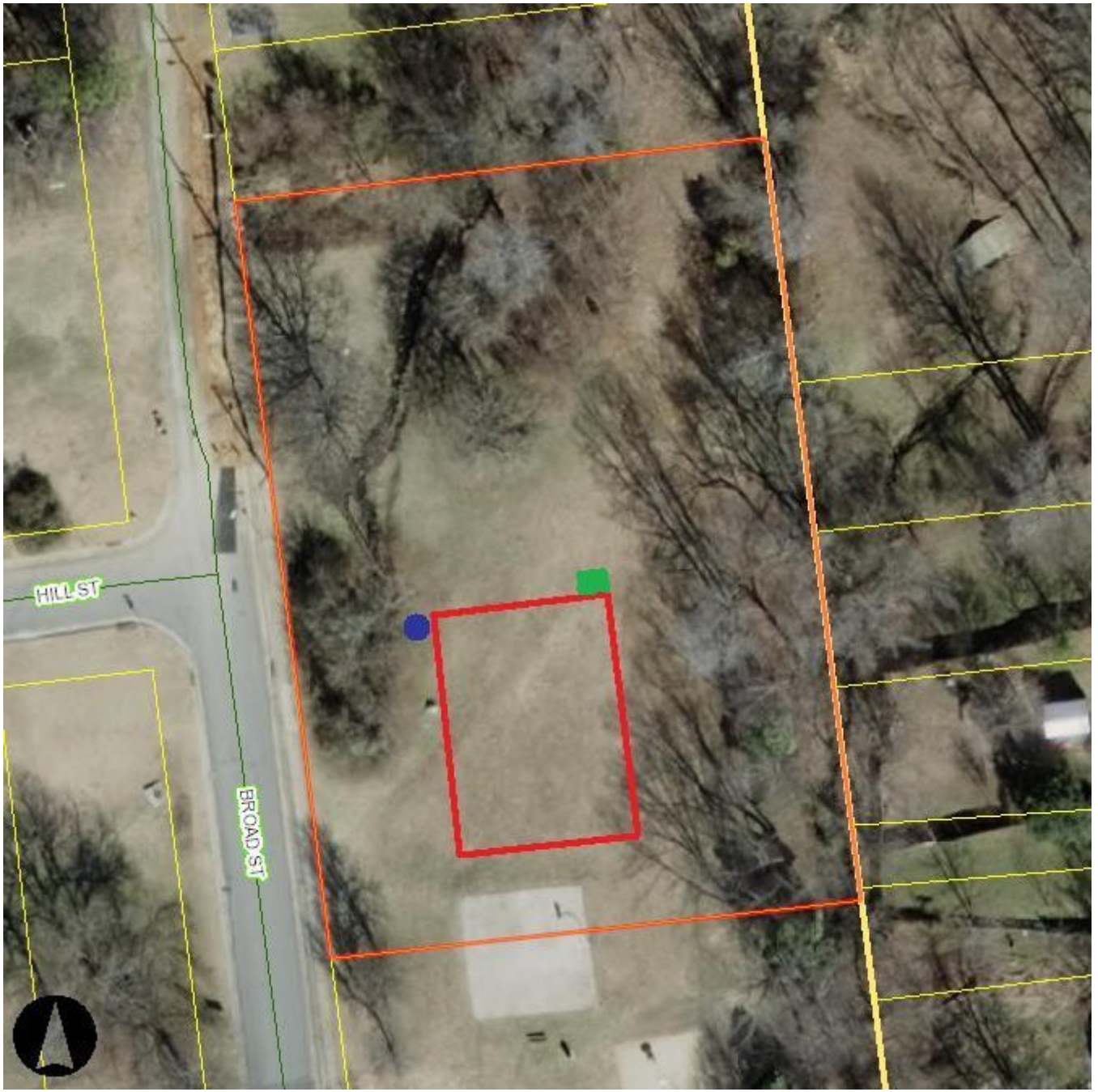
Baldwin Community Garden

- Placement of Cistern and Shed
- Expansion of Garden Perimeter
- Installation of rainwater catchment system
- Garden Signage Request


WARNING


HILL ST
BROAD ST


HILL ST
BROAD ST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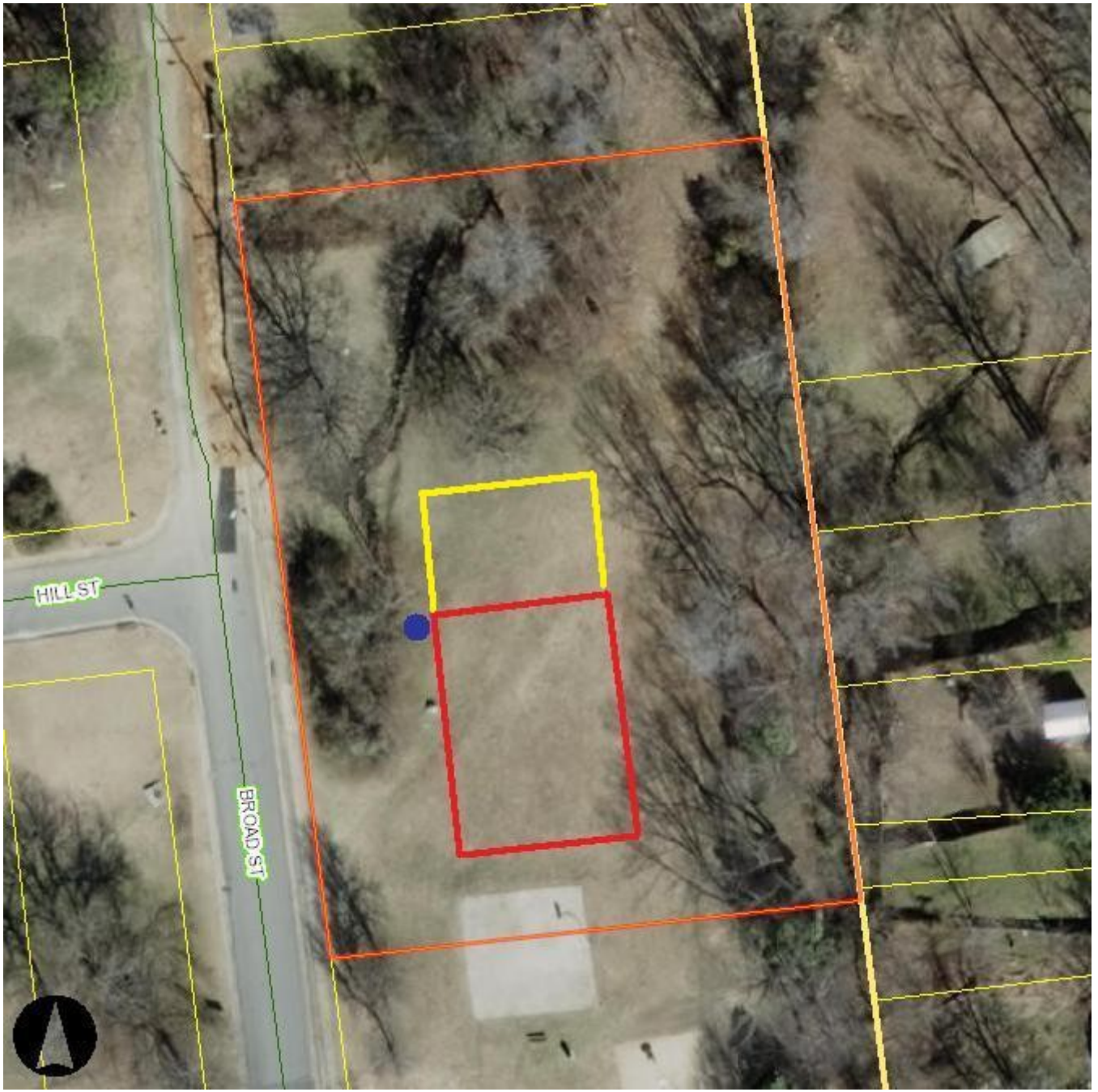
- Original contract allowed cistern outside of fence
- Will not waste valuable space inside garden
- Both are sealed/locked and pose no liability to other park patrons
- Space used by both are of little value to the park

Garden Expansion

- The current allotted space is at full capacity
- No space to allow additional members from the neighborhood
- Expansion would allow us to accommodate 18 additional garden plots

- Current garden's land use – 3456 ft²
- Total with proposed expansion – 5616 ft²
- 5616 ft² = 0.12 acres = 5.9% of space in Baldwin Park(93,939ft²)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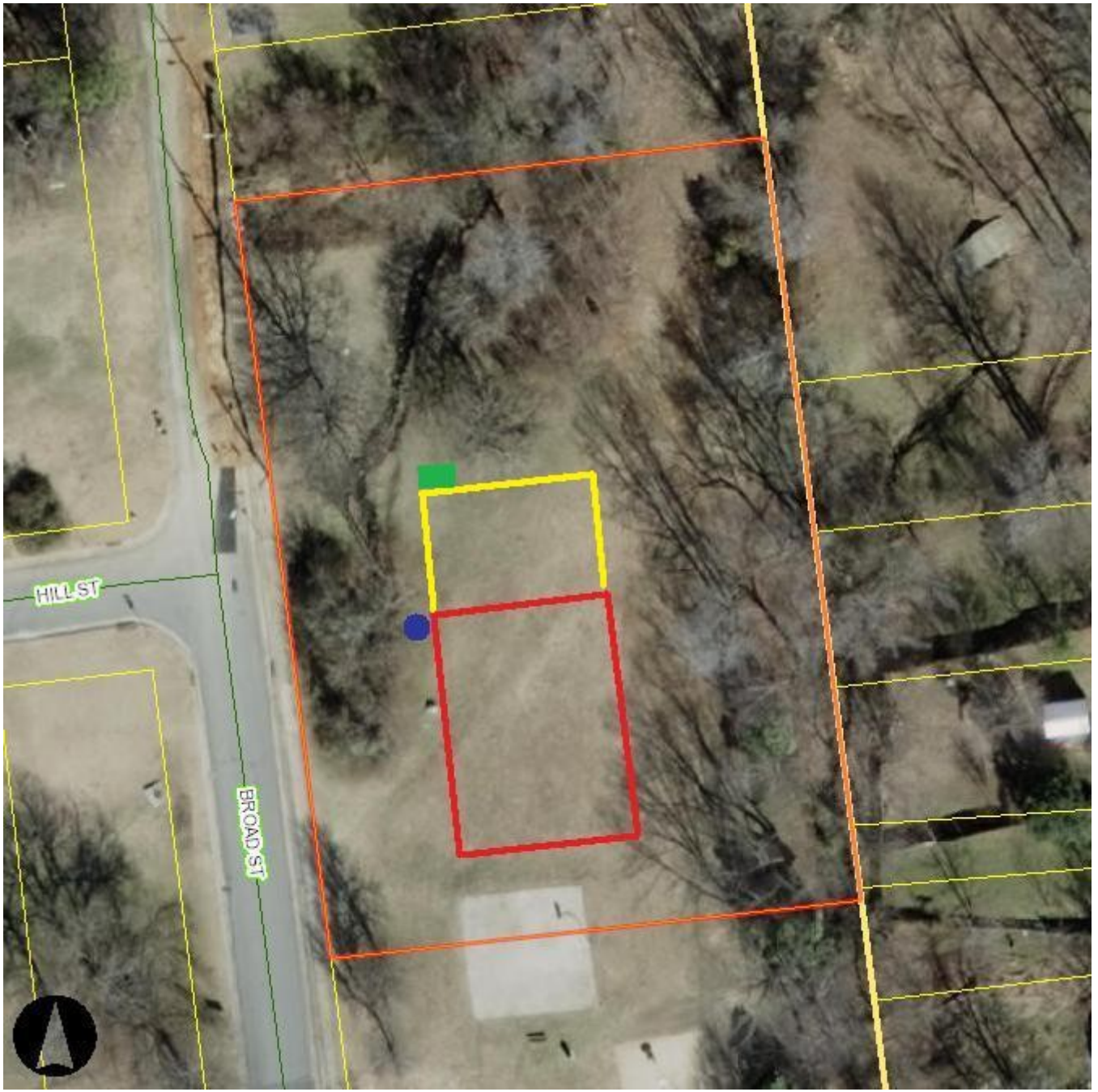
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Rainwater Catchment System

Rainwater Catchment System

Garden Signage Request

In an effort to help recognize the generous contributions of local businesses and the hard work of community volunteers, Carrboro Parks Project and Baldwin Community Garden are requesting the Town of Carrboro's assistance in purchasing a sign for the Baldwin Park Community Garden.

The Baldwin Community Garden will provide specific wording for the sign and get approval from town staff. In general, the items we would like listed on the sign would be the garden's name, a list of donors, and contact information. The estimated cost for 3' x 3' aluminum sign with rounded corners from Signs Now is approximately $200. This estimate is on the high end and we will likely want to tailor back on the size if a smaller one will accommodate the gardens name and list of donors. Baldwin Community Garden has appreciated the contributions from the following local businesses:

Carrboro Parks Project
Strowd Roses
Fitch Lumber
Pittsboro Southern States
Town of Carrboro
Twig
Empowerment
Open Eye Café
Bagels on the Hill
Weaver Street Market

Baldwin Community Garden

Proposal to Install Rainwater Collection System for the Baldwin Park Community Garden

This proposal is in response to the community meeting held on the evening of September 14, 2011. The Baldwin Park Community Garden Steering Committee (BPCGSC) has discussed with Town staff its desire to move forward with the plan for the Baldwin Park Community Garden by installing a rainwater catchment system to supply water to the garden plots. The rainwater collection system has been a part of the plan for the structure of the community garden and is referenced in Attachment B of Resolution No. 37/2010-11 in which the Town authorized the creation of the BPCG. The BPCGSC proposes to collect rainwater from the roof of the shelter at BP and pipe it to a 1100 gallon cistern outside the garden's existing perimeter fence. We believe this plan will provide the greatest convenience to the gardeners and least impact to other visitors to the park and those using the shelter in particular.

Purpose and Need for Cistern

While rainfall is typically abundant in central North Carolina, there are unpredictable periods of dry weather during which supplemental irrigation is necessary to keep vegetable crops healthy. A connection to the public water supply, while reliable, would be both prohibitively expensive for the Garden and out-of-line with the Town's priorities regarding acceptable uses of our precious and limited public water supply when other options are available. However, rainwater collection from the nearby roof of the park's picnic shelter has been identified as an alternative water supply for the garden and will provide a very public example of the Town's stewardship of our natural resources. It will reduce storm runoff from the shelter's impervious roof and use the discharge to enhance the cultivation of crops grown by the garden's participants.

The roof coverage of the picnic shelter at Baldwin Park is roughly 25 feet by 28 feet and the roof runoff is expected to yield 445 gallons per inch of rainfall. One inch per week is a typical crop application rate during critical growing periods, though, tomatoes, for example can require nearly 1.5 inches per week according to the NC Cooperative Extension Service. For the 22 raised bed gardens at BPCG this would be equivalent to 420 gallons per week (630 gal/wk for 1.5 inches). A 1100 gallon cistern, when full, would provide more than two weeks of irrigation water.

Proposed Design and Catchment Layout

Figure 1 below shows how the BPCGSC envisions the layout of the rainwater collection system. The rainwater cistern would be located at the northwest corner of the garden because that corner is at the lowest elevation and allows the entire cistern to be positioned below the grade at the shelter (See Figure 2). Locating the cistern next to the garden will minimize the rainwater collection system's impact to recreational users of the shelter area. However, it will necessitate the use of a buried pipe from the shelter area through the intervening portion of the park and into the garden area. A 3 or 4 inch diameter PVC pipe will be sufficient to convey runoff from the roof to the cistern even during the hardest rainstorms. We propose to bury the pipe on the route indicated in Figure 1. The cistern will be located on a flat base constructed of a wood border and filled with gravel or soil fill.

5”gutters will be installed on both sides of the shelter's roof to maximize the rainwater volume collected. The installation of gutters on the shelter will halt the minor erosion occurring at the drip line of the shelter roof and will facilitate safe walking around the shelter area after rains. The runoff from the gutters will flow into downspouts that will run down the shelter's supporting posts at both the north and northwest corners. A transition from standard downspout to PVC pipe will be made at or somewhat above grade to eliminate leaking at the interface

The cistern will have an overflow that will be directed over some riprap placed behind the garden and directed into the adjacent stream.

Installation Plan

The first step in the installation process will be to build the cistern's base support. This will consist of primarily unskilled labor which will be completed by the garden's volunteer members. Tasks for this step include post hole digging for the 4 x 4's at each corner and possibly at the mid-points. The 4x 4's will hold the wood frame in place and resist outward movement of the fill material. The wood frame can also be built and filled with volunteer labor – though the BPCGSC will have the assistance of a skilled carpenter for guidance. The cistern will be placed on the base support and the necessary plumbing fixtures attached all with garden volunteer labor. The overflow will then be connected and the riprap installed. The next step will be to place the pipe that will convey the roof runoff into the cistern. The pipe trench will be excavated using volunteer labor. Volunteers will use hand shovels to excavate the pipe trench. The grass will be carefully peeled back during excavation so that it can be replaced upon backfilling the trench after the pipe has been placed. If laying the pipe will take more than one day, the pipe will be placed and the trench backfilled the same day to avoid leaving any open trench overnight. These practices will minimize any aesthetic and functional disturbance to the park. After the pipe has been laid the last step will be to install gutters and downspouts on the picnic shelter. This will be done by skilled labor by Leo Gaev Metalworks Inc. which will take care of the liability issues. The Town of Carrboro will add Leo Gaev Metalworks Inc. to their list of approved vendors. No unskilled volunteer labor will be on the roof.

BPCG Estimated Budget for Rainwater Collection/Irrigation System

PVC Pipe	$250
Valves and PVC Fittings	$50
5” gutters (60 ft) and downspouts	$150
Gutter Guards	$50
Gravel/soil fill for tank base	$30
Wood to frame tank foundation	$50
Total	$580


Figure 1
HILL ST
BROAD ST

OWASA Sewer Line
Proposed Garden Waterline
OWASA Manhole
Proposed Garden Cistern Location


HILL ST
BROAD ST
Gardeners Proposed Expansion
Staff Proposed Expansion