



**ALBEMARLE PARK MASTER PLAN:
Meeting Recreational Needs with Sustainable Design**

**Independent Project
Landscape Institute of the Arnold Arboretum**

Judith H. Kokesh
May 2005

FORWARD AND ACKNOWLEDGEMENTS

This Master Plan is presented by Judith Kokesh (the Designer) to partly fulfill the requirements for a Certificate in Landscape Design from the Landscape Design Institute of the Arnold Arboretum of Harvard University. It is the result of a year-long independent study of Albemarle Park in Newton, Massachusetts. Of particular interest to the Designer is the challenge of how sustainable landscape practices can be applied in an urban, high-use, active recreation site.

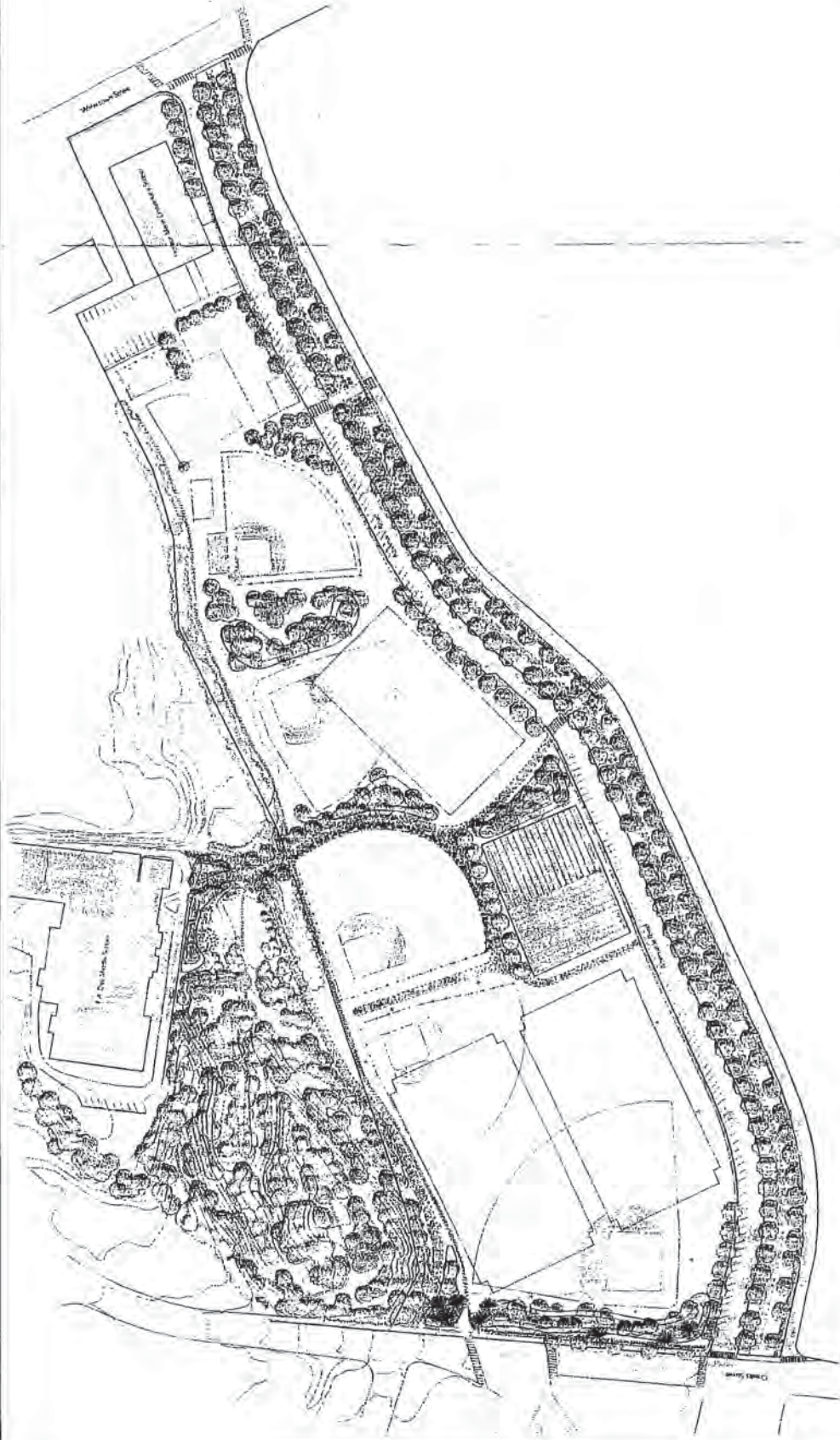
I am indebted to John Furlong, director of the Landscape Institute, for supporting my five-year academic journey, for leading my fellow students and me through the independent project process, and for his ability to "cut to the chase." I am grateful to my advisor and teacher, Jean Cavanaugh, for sharing her insight and for her gentle guidance.

Thank you to Lucia Droby and COGdesign for nurturing the vision of community-based landscape design and the opportunity to work on this project. Thank you to Margaret Albright and Curtis Betts of the Friends of Albemarle Park for submitting the proposal to COGdesign and to Carol Schein, Newton Parks and Recreation, for providing overhead photos and maps of the Albemarle Park site. Thank you to them and to stakeholder representatives for sharing their time and providing thoughtful input.

The faculty at the Institute for Landscape Design has challenged me and my fellow students have inspired and sustained me. Thank you to Harvard University for the opportunity to study under the TAP program while working full time.

Thank you to Tony Fiore at Service Point, Woburn, for solving every technical problem we threw at him.

And finally, thank you to my family for their support and forbearance.

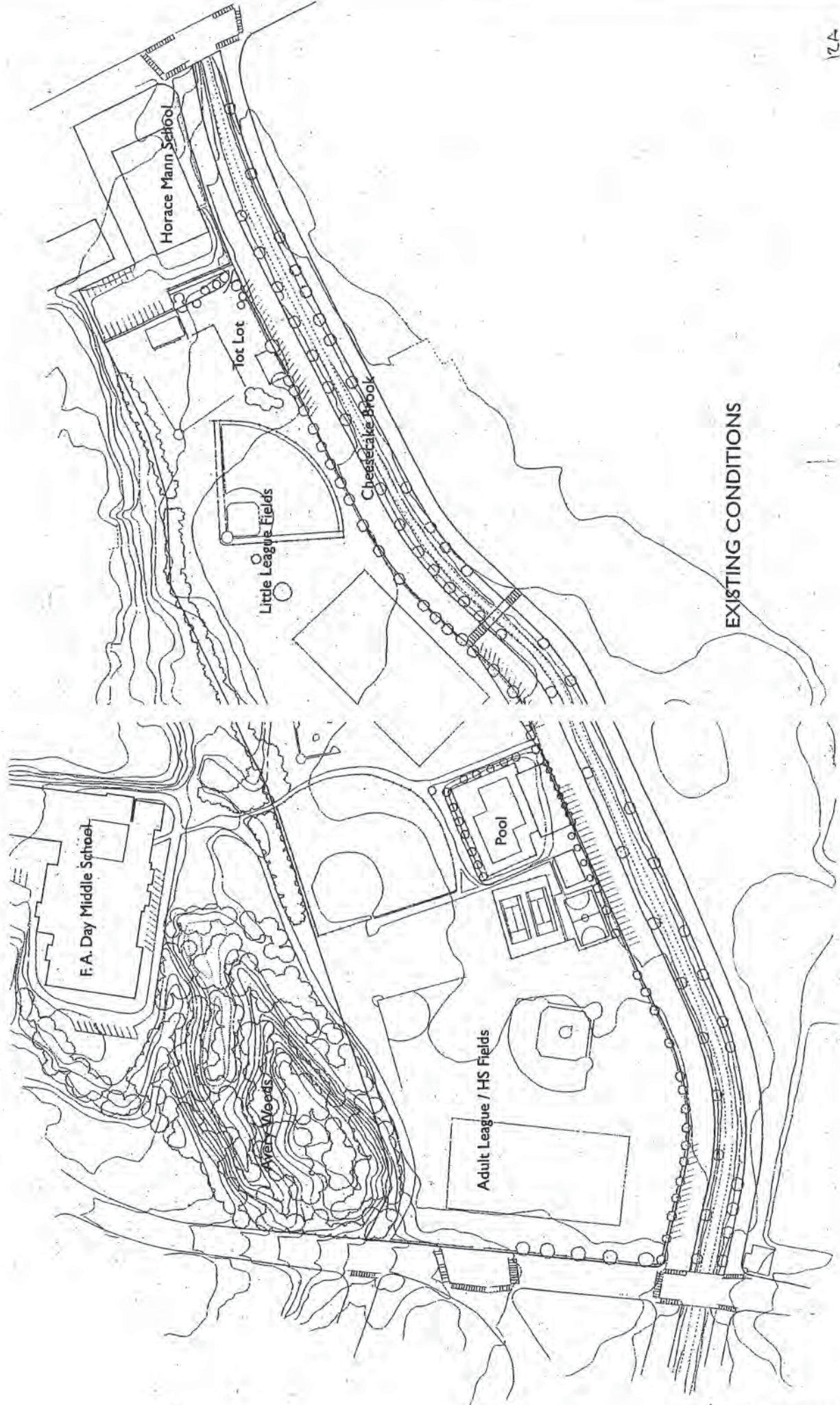


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Landscape Institute of the Arnold Arboretum

Judy Kokesh Landscape Design
177 Pemberton St. #1
Cambridge MA, 02140
May 2005





EXISTING CONDITIONS

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EXECUTIVE SUMMARY

This Master Plan was initiated by a proposal from the Friends of Albemarle Park to the Community Outreach Group for Landscape Design (COGdesign). The Friends sought a master plan design for the 25-acre Albemarle Park that would organize recreational fields, improve circulation, enhance the beauty of the park, and increase passive recreation opportunities for the neighbors.

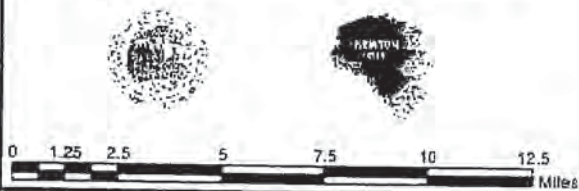
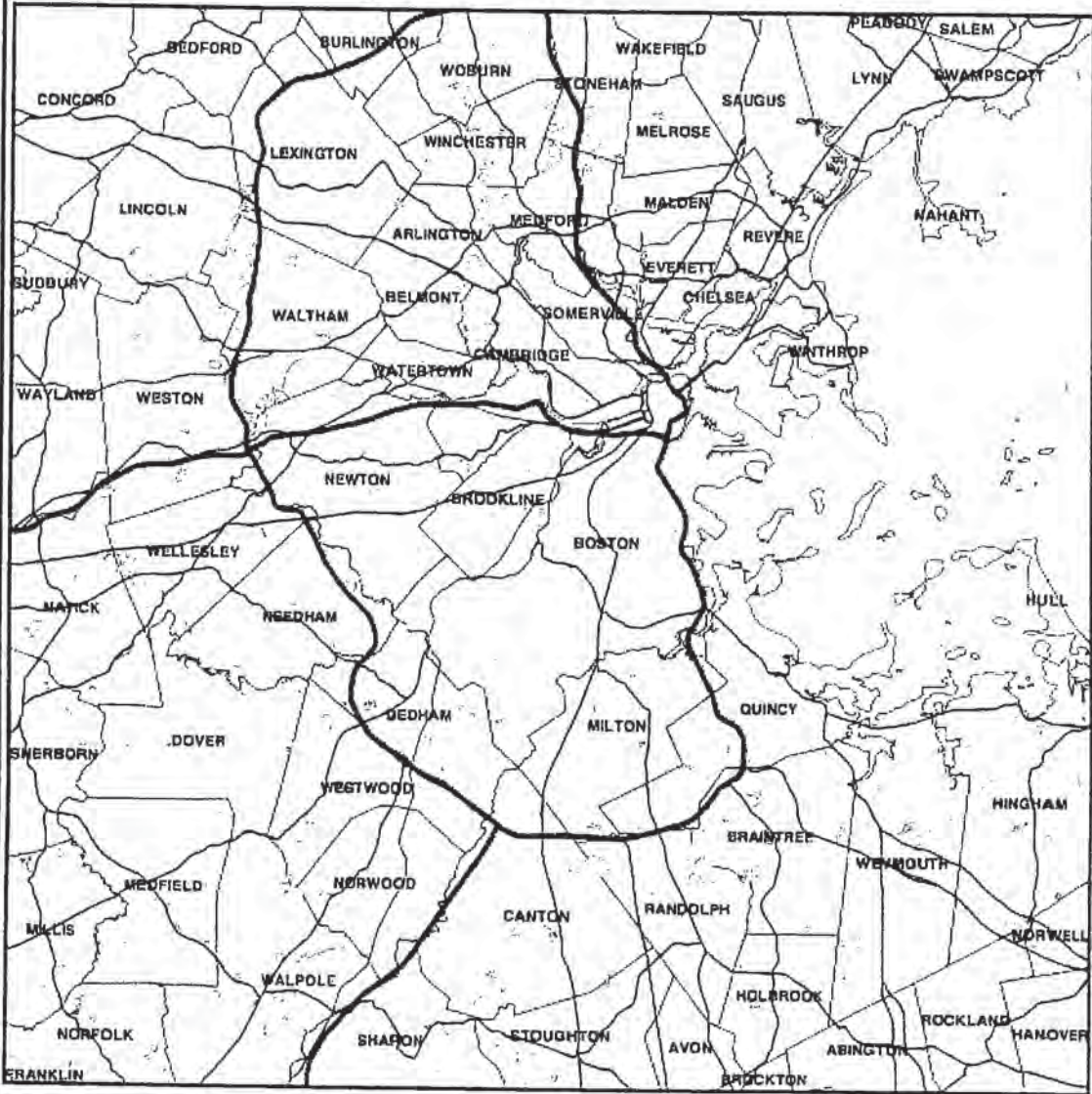
The major stakeholders and users of the site have been participants in the needs assessment process. They have been invited to provide input and the plan is informed by critical information gathered at community meetings and informal conversations.

The vision of the Designer is to create a sustainable, coherent design solution that fits the constraints of the site, meets the community needs, and takes full advantage of the natural amenities that adjoin the site. This was accomplished by:

- Re-configuring the playing fields to improve their function and maximize their use;
- Linking the neighborhood to the park with visible entrances and two new bridges;
- Improving the circulation within the park with permeable paths;
- Creating structure and new passive spaces within the park with berms and trees;
- Linking the Avery Woods and the Cheesecake Brook Corridor to the park site;
- Creating a linear greenway along the Cheesecake Brook Corridor; and
- Using native and well-adapted plant material.

The Designer hopes that this work will inspire the Newton community to consider the recommended improvements and will be the framework for future planning decisions about Albemarle Park.

Newton and the Boston Metropolitan Region



Legend

- State Highway
- US Highway
- Interstate Highway
- ~ Ponds/Rivers
- Major Rivers



MAP DATE: February 27, 2003

INTRODUCTION

The City of Newton is located six miles west of downtown Boston. It is bordered on the north by the communities of Waltham and Watertown, on the east by Boston and Brookline, by West Roxbury and Needham to the south, and Wellesley and Weston to the west.

The 25-acre Albemarle Park / Halloran Sports & Recreation Complex (Albemarle Park) is located in the northern section of Newtonville, one of the fourteen villages that make up the City of Newton. The park is bounded on the west by the one-way arm of Albemarle Road that lies east of Cheesecake Brook, and on the north by Crafts Street. To the east it is bordered by Avery Woods, the F. A. Day Middle School and by private homes. The Boys and Girls Club and the Horace Mann Elementary School, both of which face Watertown Street, abut the south edge of the park.

Currently, Albemarle Park includes:

- Ball fields^a including Roche Field and Murphy Field.
- Dual-use football / soccer fields.
- Tennis courts and a basketball court.
- Gath Pool and bathhouse.
- A small (1925 sq. ft.) recreation building.
- The "Playground at Albemarle," (the Tot Lot) at the south end of the park.
- "Community Commons," a sitting area adjacent to the Tot Lot for which construction began in early 2005.

The park is a key recreational resource for the community of Newtonville and is an important recreational site for all of Newton as well as surrounding communities. It is in one of the densest neighborhoods of Newton and is in great demand for active recreation including organized athletics for youth and adults as well as for physical education and sports programs at the two schools that abut the park. A natural wooded area and a brook adjoin the park. Although these might offer wonderful opportunities for passive recreation, currently they seem to be relatively unused.

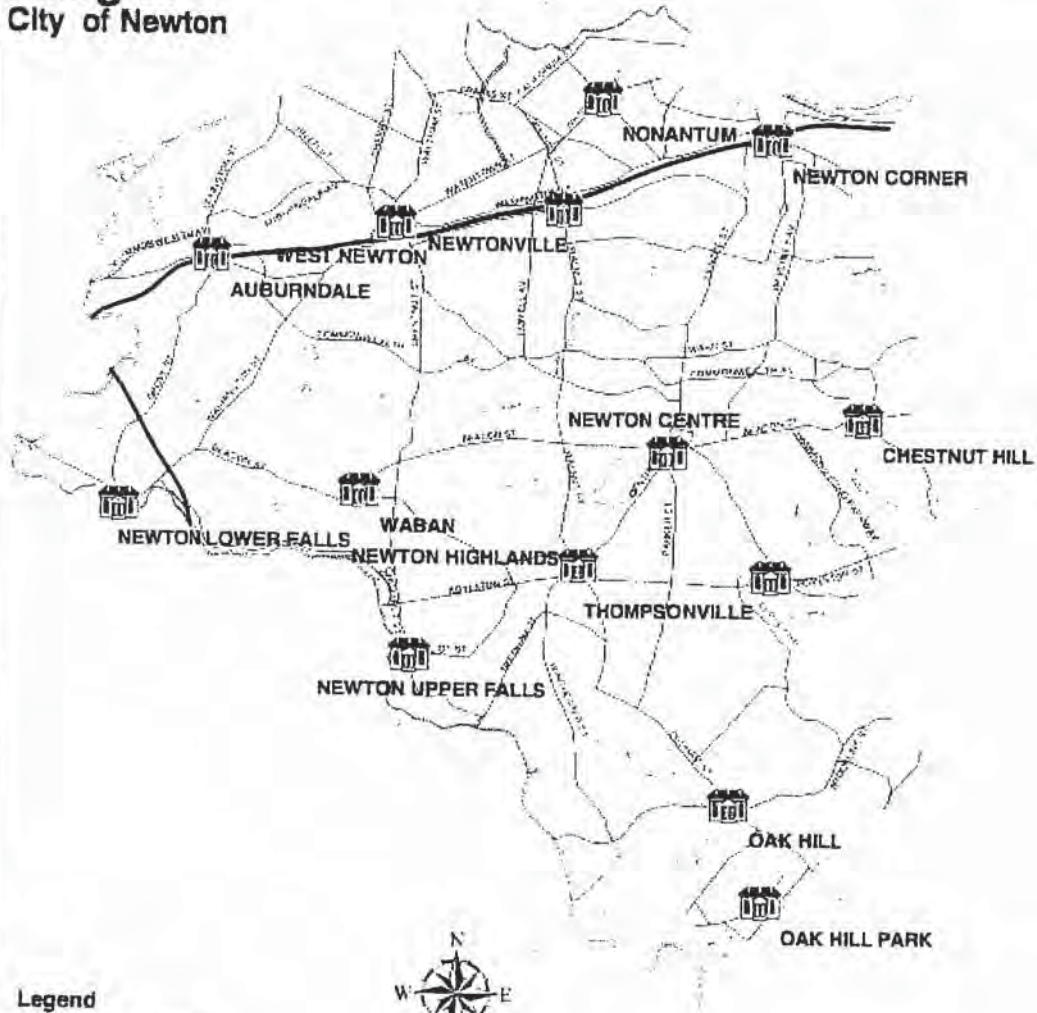
This Master Plan was developed in response to a proposal submitted in the summer of 2004 by the Friends of Albemarle Park (the Friends)^b to the Community Outreach Group for Landscape Design

^a Baseball and softball fields.

^b The Friends of Albemarle Park, currently chaired by Margaret Albright and Curtis Betts, is a group of residents organized to "support and improve Albemarle Park, Cheesecake Brook, and other open spaces in north Newtonville, for the enjoyment of everyone in the community."


Villages

City of Newton



Legend

- Interstate Highway
- Major Artery
- Streams
- Surface Water

 Villages

SOURCES:
 Open space information compiled by the Newton Planning Department. All other map features are from the Newton Geographic Information System (GIS). Contact the GIS Administrator for further details.

MAP DATE: February 27, 2003

(COGdesign).^c Cosponsors are the Newton Conservators and the City of Newton Parks and Recreation Department (Parks and Recreation).^d Over the next few years the City of Newton (City) hopes to obtain funding to begin developing master plans for each of its more than fifty parks. The Friends and the Cosponsors hope that a master plan will spark community interest and enthusiasm for improving Albemarle Park and frame future planning decisions about the park.

The Designer has worked within the constraints of the site to develop a solution that meets the needs identified in the site analysis while taking full advantage of the natural amenities that adjoin the site. The proposed Master Plan optimizes use of park space, increases the number and improves the function of playing fields, facilitates entry into and circulation within the park, and addresses the community need for spaces suitable for passive recreation. And it provides these advantages within the context of an appropriate, sustainable design for an urban environment.

^c COGdesign is a non-profit organization whose mission is to provide quality landscape design services to community-based groups. See www.COGdesign.org.

^d Parks and Recreation has been represented by Carol Schein.



1874

DESIGN INPUTS

PART I: HISTORICAL CONTEXT

History of the Community: Newton was settled as a district of Watertown in 1630, and in 1636 was annexed by Cambridge. In 1688, the City was incorporated as a separate municipality.¹ The early business of Newton was agricultural, but mills built after 1688 along the Charles River provided resources for manufacturing, which contributed to rapid community growth and development.

The opening of the Worcester Turnpike (Route 9, Boylston Street) in 1809 and the Boston to Worcester Railroad in 1834 provided means to transport products, which contributed to the growth of light industry. In the late 19th century, rail service from Boston established Newton as an accessible residential suburb, and many large homes were built there by affluent Bostonians.

Today, Newton is a desirable residential community of fourteen distinct villages with a population of about 85,000 people. Newton has a high rate of owner-occupied housing and the average income is significantly higher than the Massachusetts average.²

History of the Site: The earliest Newton Atlas map (1874)³ of the site that will become Albemarle Park shows the area as open marshland bisected by the Cheesecake Brook, which received its name from early settlers who picnicked on cheese and cake on its banks.⁴ G. F. Works owned much of the land on both sides of the Brook. Other owners of large parcels in the immediate area included Mrs. E. Maynard (who also owned a house across Crafts Street), Jr. R. Bigelow & Co., and W. W. Keith.

By 1895⁵ the land that would become the park had changed hands. Gilbert Maynard, son of Mrs. E. Maynard, and Charles Avery both owned large portions of the site. And, the Cheesecake Boulevard, a divided road, is named. (Later it was renamed Albemarle Road.) The area was beginning to look residential; neighborhood streets were laid out and parcels of land were subdivided into smaller lots.

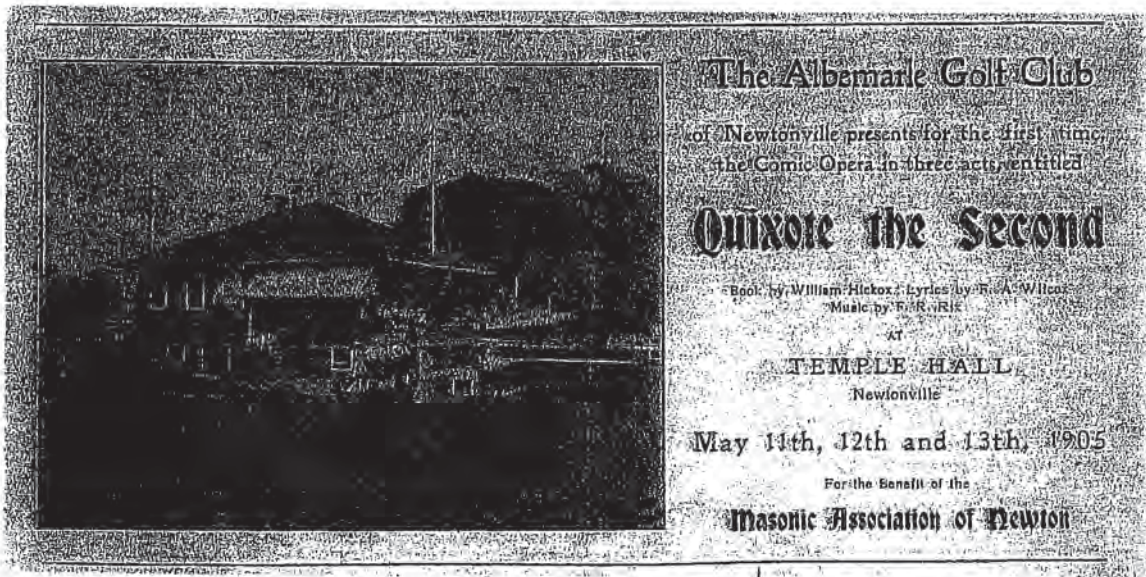
By 1917⁶ the area surrounding the current park site was well developed. The Fessen den School appears on the map, as does the Horace Mann School, located across Watertown Street. Mary



PART OF
WARDS 2 & 3
 CITY OF NEWTON
 Scale 200 feet to the inch.
 1895

Schofield and Charles Avery owned much of the land; the Schofield and Avery families continue to own large parcels of the property until it was purchased thirty years later by the City of Newton.

The Development of the Park: Golf was the first organized athletic activity on the site. The Albemarle Golf Club, established at the turn of the century, spanned both sides of the Cheesecake Brook Boulevard. Nine holes of the golf course existed on the park site from at least 1905 until the mid-1940s, when the City purchased the land from the Golf Club.



The Golf Club also was a site for arts events.

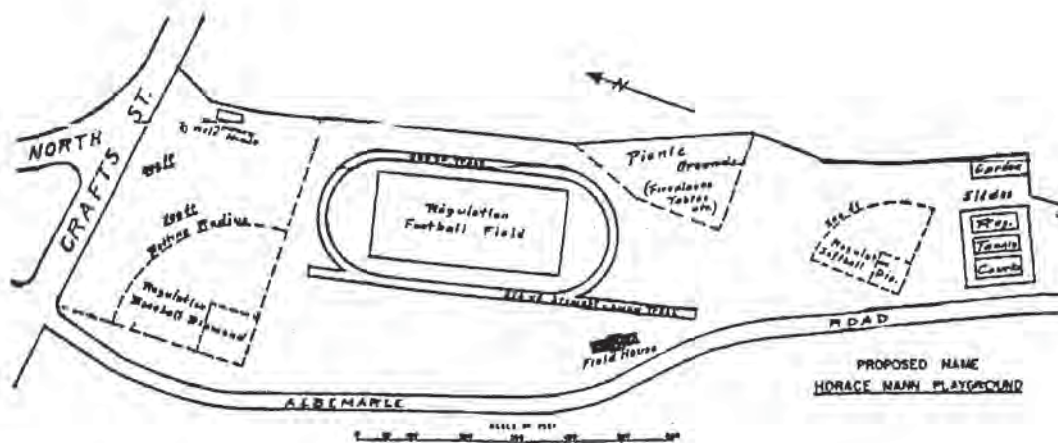
In 1912 the Newton Playground Commission was established and the Board of Alderman appropriated five thousand dollars for the purpose of supervision of playground activities.⁷ At that time, the 14-acre Cabot Park, located at Cabot Street and Eastside Parkway, was the only public recreation space in Newtonville. In 1930 the Playground Commission urged that the City acquire additional land for organized recreation in Newtonville north of Watertown and Washington Streets.⁸

In 1937 the *Newton Graphic* reported that the Board of Aldermen discussed acquiring about 17 acres of the Schofield estate, then used by the Albemarle Golf Club, to develop a playground.⁹ The intent was to provide play space for the community and the children at the two public schools near the property, the Horace Mann School (located at that time across Watertown Street) and the F. A. Day School, located in the neighborhood, but not at the current site. The *Graphic* reported in early 1938 that the Board appropriated \$30,972 for the purchase of the property.¹⁰ According to the newspaper, residents had been agitating for the playground for several years and feared that if the City did not acquire the property, it would be subdivided for housing.

However, no further progress was made and part of the land continued to be used for golf prior to World War II. The Newtonville Improvement Association held public meetings in conjunction with officials of the two schools, but the acquisition process became stalled.

In 1940 the Playground Commission became the Recreation Department, with a full-time Recreation Commissioner and six elected members. The new department was in charge of the care, maintenance, and laying out of school yards and grounds, with approval of the School Committee.¹¹ Subsequent Annual Reports of the Playground Commission mention a baseball field and other work on the site during the period 1943-1945, but it was 1947 before the entire Albemarle site was considered.

A plan for the site was developed by William R. Mattson, a member of the Executive Committee of the Newtonville Improvement Association, and published in the *Graphic* in late 1947.¹² The plan includes a regulation baseball diamond, football field with cinder track, softball field, tennis courts, and playground facilities for smaller children. An existing grove of trees on the site was designated as a picnic area. *It is interesting to note that from the beginning, this site has always been dedicated to organized sports and that access and use by the children at the nearby schools always has been a priority.*

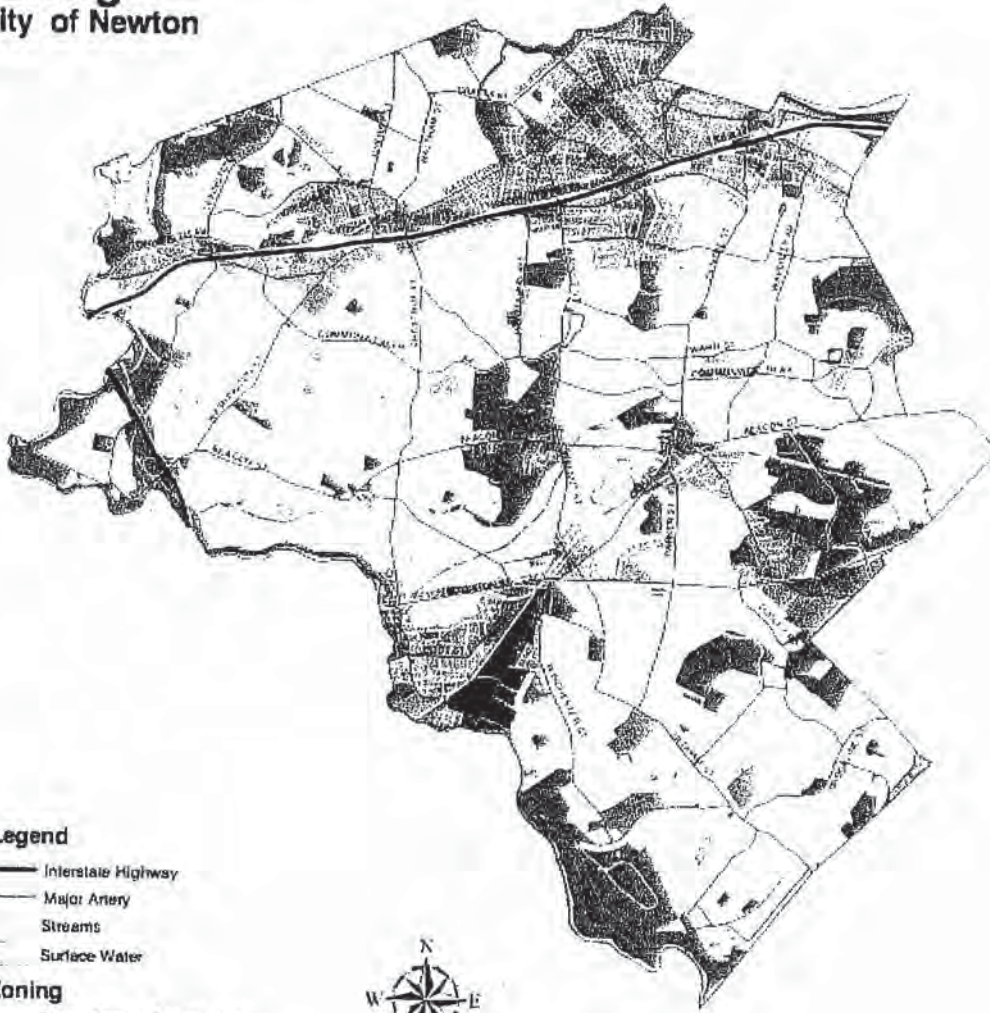


Concept Plan for Albemarle Park in the October 2, 1947 issue of the Newton Graphic.

The playground was to be named the Horace Mann Playground to honor the memory of a former Newton resident and great educator. However, there is no indication that the name was adopted, perhaps because there was already a small Horace Mann playground (1.43 acres) on Watertown

Zoning

City of Newton



Legend

- Interstate Highway
- Major Artery
- Streams
- Surface Water

Zoning

- Single-Family Residential
- Multi-Family Residential
- Business
- Manufacturing
- Mixed Use
- Public Use



SOURCES:

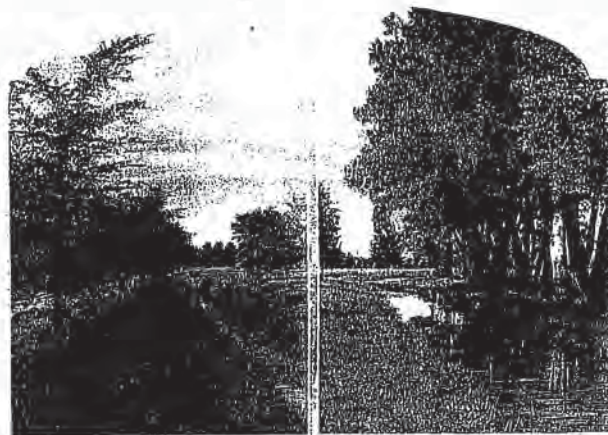
Open space information compiled by the Newton Planning Department. All other map features are from the Newton Geographic Information System (GIS). Contact the GIS Administrator for further details.

MAP DATE: February 27, 2003

and Walker Streets.¹³ Later, in the City's Annual Reports, the site was referred to as "Albemarle Park." Gath Memorial Pool opened in June 1966.¹⁴

The Cheesecake Brook: The Cheesecake Brook bisects Albemarle Road and flows into the Charles just a few blocks to the north. Its banks were used for picnicking until the brook was culverted in the 1940s by developers in an effort to control flooding and maximize development of the available land surrounding it. In fact, flooding was an early issue and in 1890, the City appropriated funds to lay sewer pipe to decrease the amount of water feeding into the brook from city drains.¹⁵ In 1889 King describes the brook, "The Cheesecake Brook, curbed and confined within neatly built stone walls, may properly be called the classic stream of the village."¹⁶ In 1913 the Newtonville Improvement Association included a bucolic photograph of the brook in a brochure designed to sell homes in the area.¹⁷

*A 1913 photo of
Cheesecake Brook.*

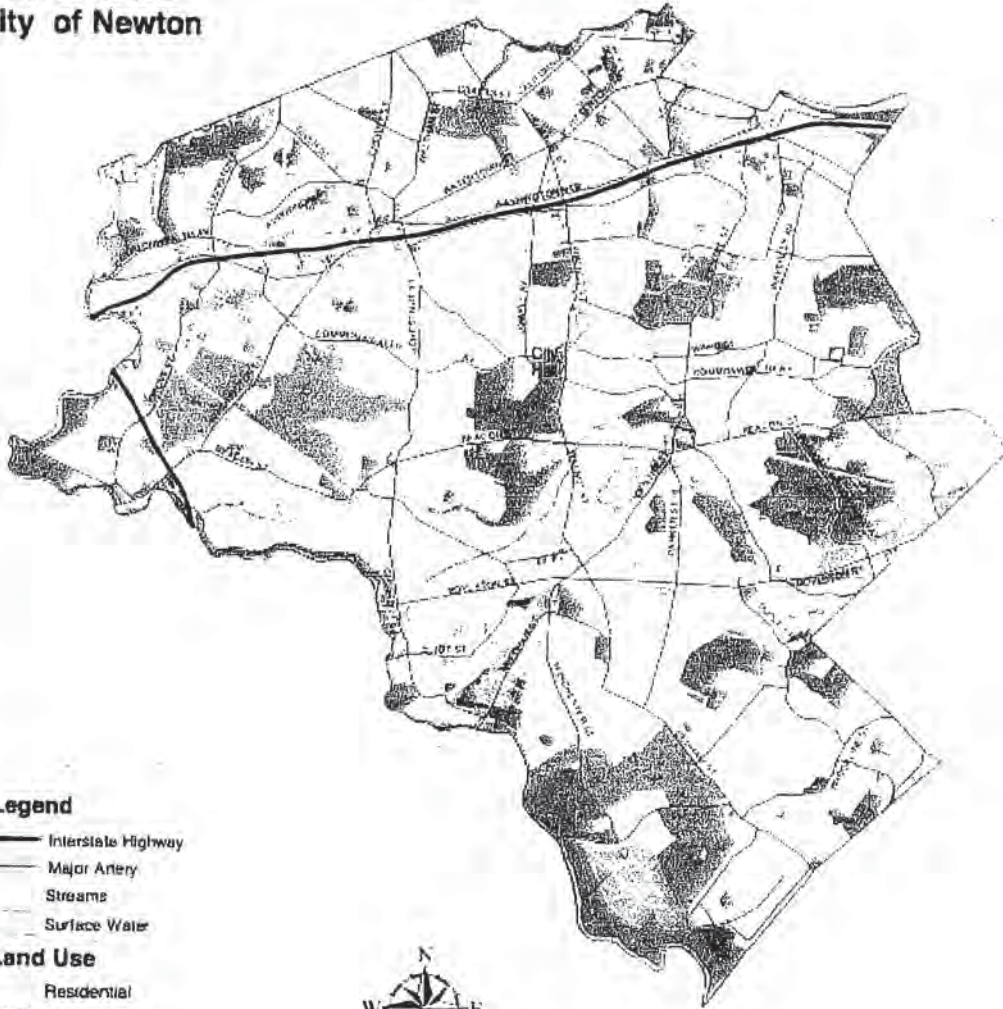


Cheesecake Brook, viewed at Albemarle Road

Avery Woods: In 1959 the City of Newton acquired Avery Woods, a parcel of wooded land that borders the park, from the estate of Gladys Avery Lebert and May Urquart Avery. The acquisition agreement stipulated that the use of the property be limited to general recreation and park purposes. The area was to be preserved as a woodland park and "reasonably maintained in accordance with sound forestry practice." The 2.5 acres was to be named the Avery Memorial Park in memory of Mr. and Mrs. Charles Avery.¹⁸

Land Use

City of Newton



Legend

- Interstate Highway
- Major Artery
- Streams
- Surface Water

Land Use

- Residential
- Commercial
- Industrial
- Private Golf Courses
- Recreation, Conservation
- Institutional
- Other



SOURCES:

Open space information compiled by the Newton Planning Department. All other map features are from the Newton Geographic Information System (GIS). Contact the GIS Administrator for further details.



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In 1968 the City reached an agreement with the heirs of the Avery estate to build the F. A. Day Middle School on part of the parcel deeded in 1959.¹⁹ Today, the Day Middle School is one of four middle schools in Newton and serves 900 students in grades six through eight.

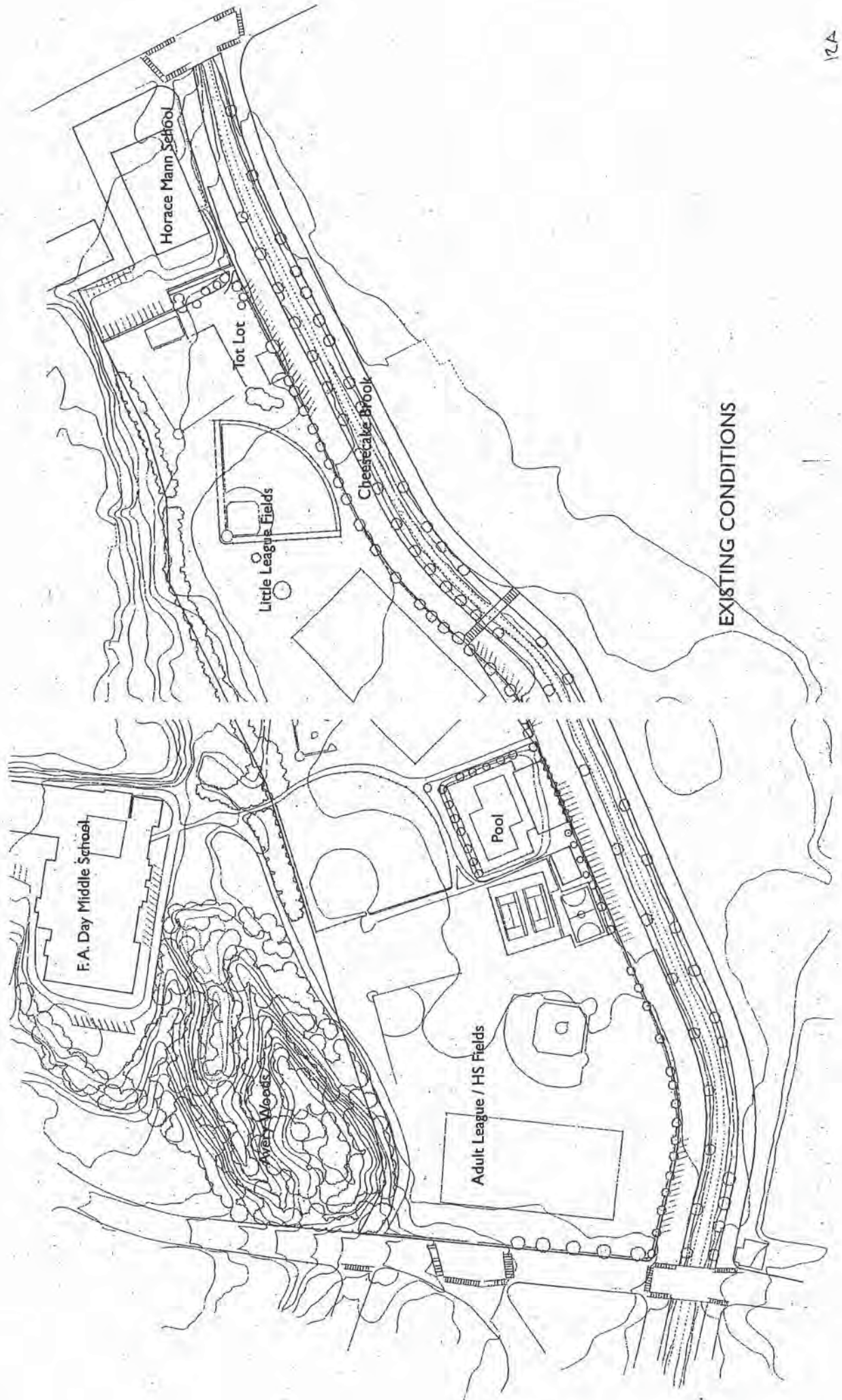
The stone marker at the Crafts Street entrance to Avery Woods.



Albemarle Park Today: Albemarle Park still is the only large park in the section of Newton north of the Massachusetts Turnpike and therefore is an important green space for the community. The park is located in a neighborhood that is mainly zoned for two-family homes and where single family lot sizes are small. The surrounding area also includes rental housing units and a Newton Housing subsidized community that is home for recent immigrants, the elderly, and the disabled. An assisted living facility is less than one mile away.

Open space, both private and public, currently makes up twenty percent of the land use in the City of Newton.²¹ But while the major portion of the City's population lives in the north part of the City, most of the available open land is in the south.

The park serves many of the active recreation needs of this part of the City. Families from the surrounding neighborhood use the Tot Lot and open fields for casual recreation. Students from the F. A. Day Middle School and the Horace Mann Elementary School use its facilities during the school day for physical education and after school for team sports. The Newton North Little League maintains three ball fields; adult softball and baseball leagues are tightly scheduled on the north fields. Use by youth soccer and football teams dominates in the spring and fall. The site also



EXISTING CONDITIONS

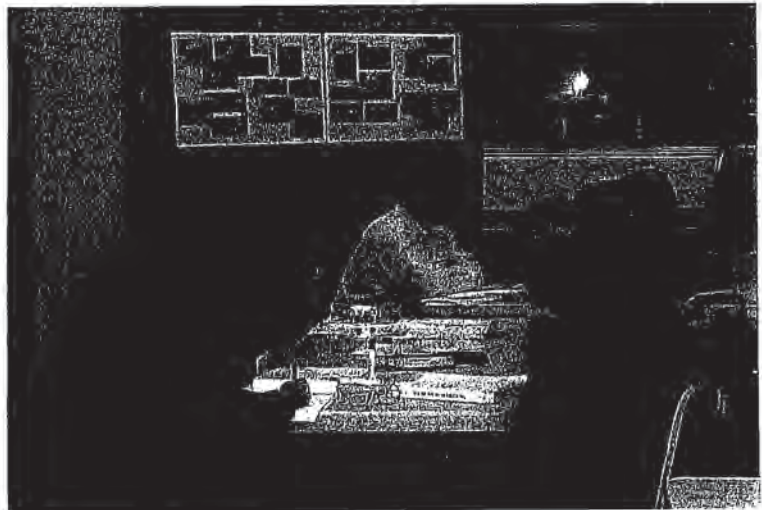
hosts a summer day camp program for children. Gath Pool is one of only two public swimming facilities in the City of Newton and the only outdoor pool.

Conclusions: Albemarle Park has always been a community park—intended to serve the active and passive recreational needs of the immediate neighborhood and adjacent schools as well as the community of Newtonville. And the Cheesecake Brook and Avery Woods have been perceived as important amenities to the site.

PART II: NEEDS ASSESSMENT

A needs assessment was conducted to gather information about current park use and future needs. Input to the needs assessment came from several sources: The Friends, Cosponsors and other stakeholders, Parks and Recreation, and the recent City of Newton Open Space Plan Update 2003-2007. The Friends have provided input and have served as a link to a larger group of community stakeholders and users including a wide variety of youth and adult sports leagues, senior adult walkers, day camps, and after school care groups. A list is included in the Appendices. The Friends organized the community meetings, arranged meeting space, and provided introductions to other interested parties.

Participants at the November meeting discuss their vision for the park.



Public Meetings: The Designer participated in three public meetings with the Friends and other stakeholders. The first meeting, on November 10, 2004, was held at the Girls and Boys Club to identify current use, challenges and opportunities, and anticipated needs. Information about current use gathered from this meeting as well as from other sources is tabulated and included in the Appendices. Two student reporters from *the Daytime*, the Day Middle School newspaper,

attended the November meeting and wrote an article for the paper that included the results of a survey of the students at the school. A copy of the article is included in the Appendices.

Following the first meeting, the Designer met with additional community members and park users to discuss their current use and future use of and visions for the site.

- Tom Cahill, Parks and Recreation Supervisor at Albemarle, who supervises the Gath Pool and schedules field use at the park.
- David Tynes and Amanda Hickey, Physical Education teachers at the Horace Mann Elementary School and the F.A. Day Middle School respectively, whose classes use the site on a daily basis.
- Gina Healey, Interim Principal of the F. A. Day Middle School.
- Peter Kastner, Newton resident and member of the Newton Conservators.
- Susan Abele, curator at The Newton Historical Society, who provided copies of historical maps and other materials.

The second meeting with the Friends and stakeholders was held on March 15, 2005, at the Fessenden School to discuss the Designer's site inventory, site analysis, and proposed design for the park. Participants in the November meeting as well as others who had conversations with the Designer were invited. Two student reporters from *the Daytime* also attended and conducted a follow-up interview with the Designer. Groups that attended one or both of the meetings are identified in the stakeholder list in the Appendices.

A third meeting is planned for June 2005 at which time the final design will be presented.

Open Space Plan: The Master Plan design responds to several needs identified in the City of Newton Open Space Plan Update, 2003-2007:²²

- The need for increased playing field space for organized sports for girls and young women.
- The desire for a walking path along the Cheesecake Brook and the creation of linear greenways.
- The City's interest in biodiversity and desire to create wildlife habitat.

PART III: SITE INVENTORY AND EXISTING CONDITIONS

A plan view of the existing site with a scale of 60' = 1" was developed from large format aerial photographs and topographical maps provided by Parks and Recreation. Site Inventory drawings were developed to further describe the existing conditions at the site. These drawings include: a User Inventory; Topography, Hydrology and Microclimate; Vegetation; Neighborhood; and Circulation.

PART IV: SITE ANALYSIS

A Site Inventory was conducted to identify challenges and opportunities at the site.

Challenges from Circulation:

- There is no rational design for placement of ball fields, soccer and football fields, tot lot, swimming pool, and tennis courts. The site is a patchwork quilt of spaces with no logical grouping or connection.
- There is no clear or safe pedestrian path through the park.
- Entrances to the park and transitions from the neighborhood are not clearly defined.
- Access to the park from the west side of the Cheesecake Brook Corridor is limited by one footbridge. The current bridge is unsightly and the access slope is so steep that it is difficult for neighbors with strollers or for the handicapped to negotiate.

Challenges to Recreational Resources:

- Under the current configuration, the softball and baseball fields at the north end of the site cannot be used simultaneously.
- The existing pool is more than forty years old and likely will be replaced in the near future. The community expressed a desire to enclose the pool, perhaps using a retractable roof that could be opened in the summer, in order to allow year-round use.
- PE teachers and neighborhood users expressed a desire for a walking or running path around the periphery of the park.
- Active recreation dominates the park use; there are few passive opportunities.

Challenges related to Vegetation:

- The vegetation on the site exists mostly at the edges.

Challenges from Topography and Microclimate:

- Winter winds from the north and noise from traffic on Crafts Street interfere with park use.
- The topography of the site is flat with little structure or interest.

Opportunities:

- Reconfiguring athletic fields to optimize use and create passive spaces between them.
- Incorporating Avery Woods and the Cheesecake Brook into the design as passive recreation spaces.
- Extending the woodland edge to create habitat at the junction of Avery Woods and the F. A. Day Middle School grounds.
- Using sustainable design principles to respond to heavy use and the maintenance needs of the park.
- Selecting tough, urban trees and native plant communities to maximize sustainability of plant material.

PART V: DESIGN GOALS

The following Design Goals represent the synthesis of the input from the Friends and stakeholders, priorities identified in the 2003-2007 Newton Open Space Plan, and challenges and opportunities identified in the Site Analysis.

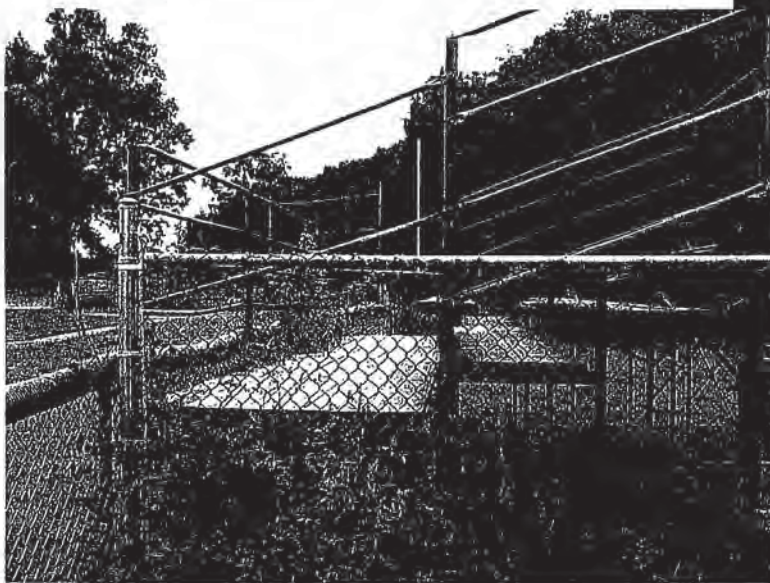
- Maximize the Number of Athletic Fields.
- Optimize Placement of Recreational Spaces.
- Create Passive Recreation Spaces.
- Improve Circulation.
- Define Entries.
- Employ Principles of Sustainable Design.

EXISTING CONDITIONS



A north entry to the park off Crafts Street. The road is used by pedestrians and maintenance vehicles. Avery Woods is to the east.

View along Crafts Street of the chain link fence that surrounds the park.



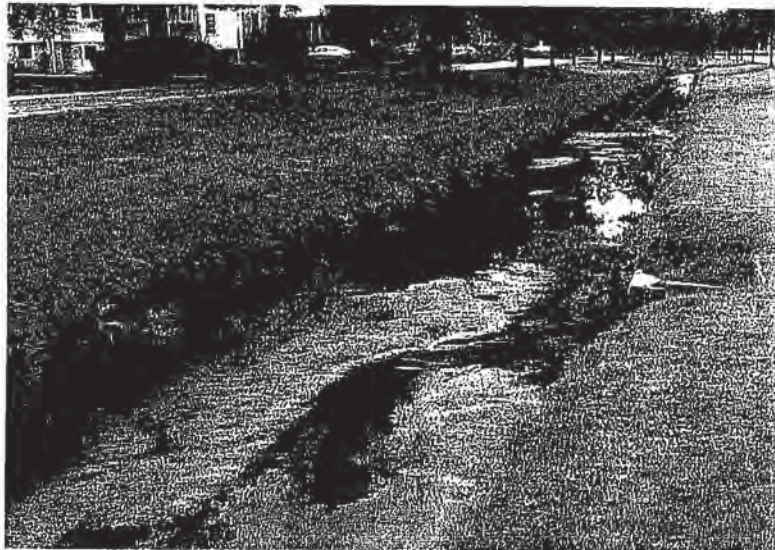
The bleachers and chain link fence that border Murphy Field, one of the Little League ball fields.

EXISTING CONDITIONS



The foot bridge over Cheesecake Brook. This is the only footbridge connecting the two lanes of Albemarle Road

Cheesecake Brook looking to the north.



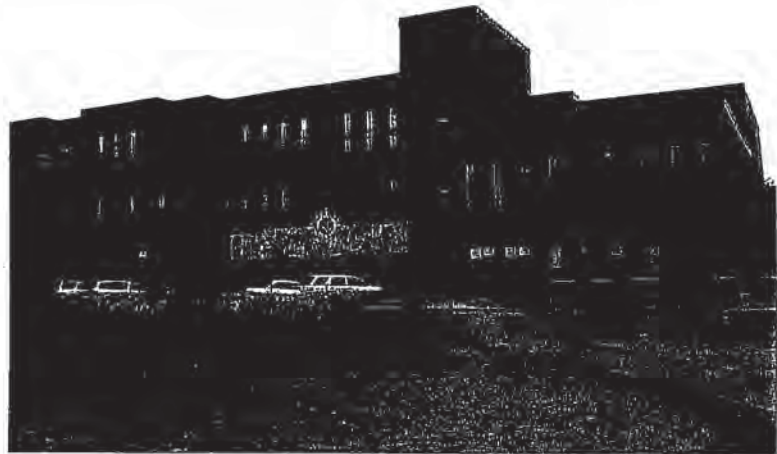
View east across the brook toward the tennis courts and recreation building. Gath Pool is to the south. Faculty and staff at the Day Middle School park here during the school day.

EXISTING CONDITIONS



F.A. Day Middle School students walk along the path through the park to the school. The school bus drops them in front of Gath Pool along Albemarle Road.

The entrance to F.A. Day Middle School abuts the park.



The Horace Mann Elementary School borders the park on the south.

EXISTING CONDITIONS



Plums along Albemarle Road are in poor condition



Maples border the park along the Crafts Street fence.



The natural woodland edge along the east side of the park in the fall.

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

EXISTING CONDITIONS



View across the park towards the Fessenden School property. Alternating Lindens and Norway Maples dot the east edge of the park.

View to the North across the park. The flat topography is evident.



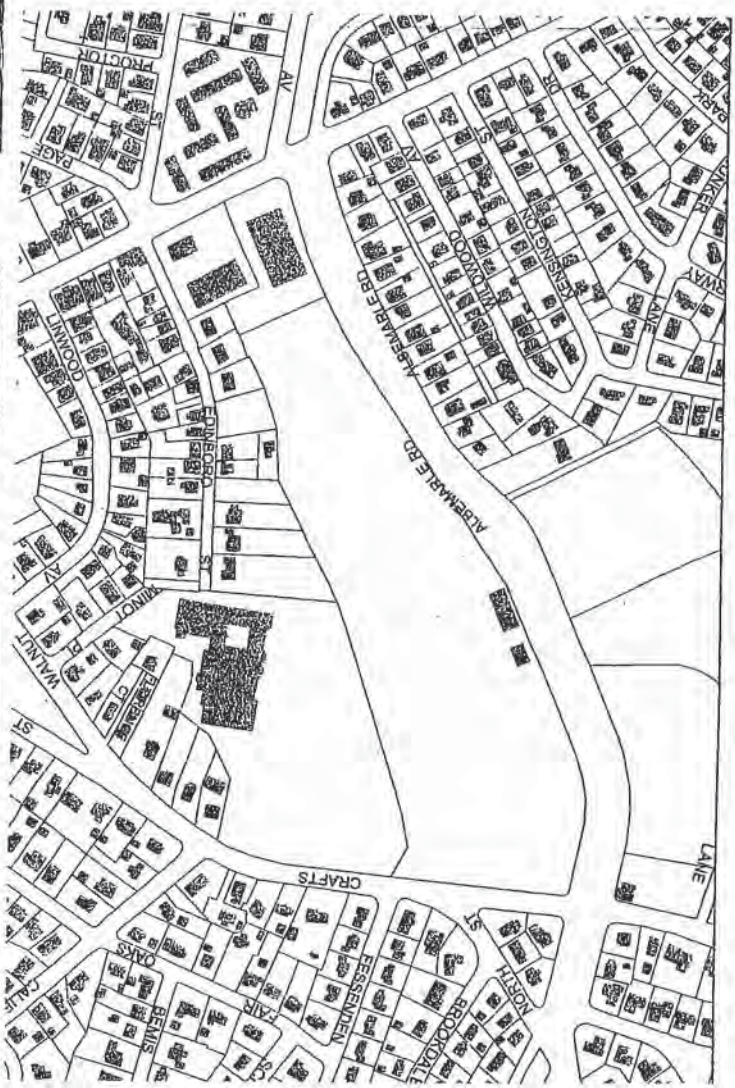
View of the fields at the North end of the park from the highest point in Avery Woods.

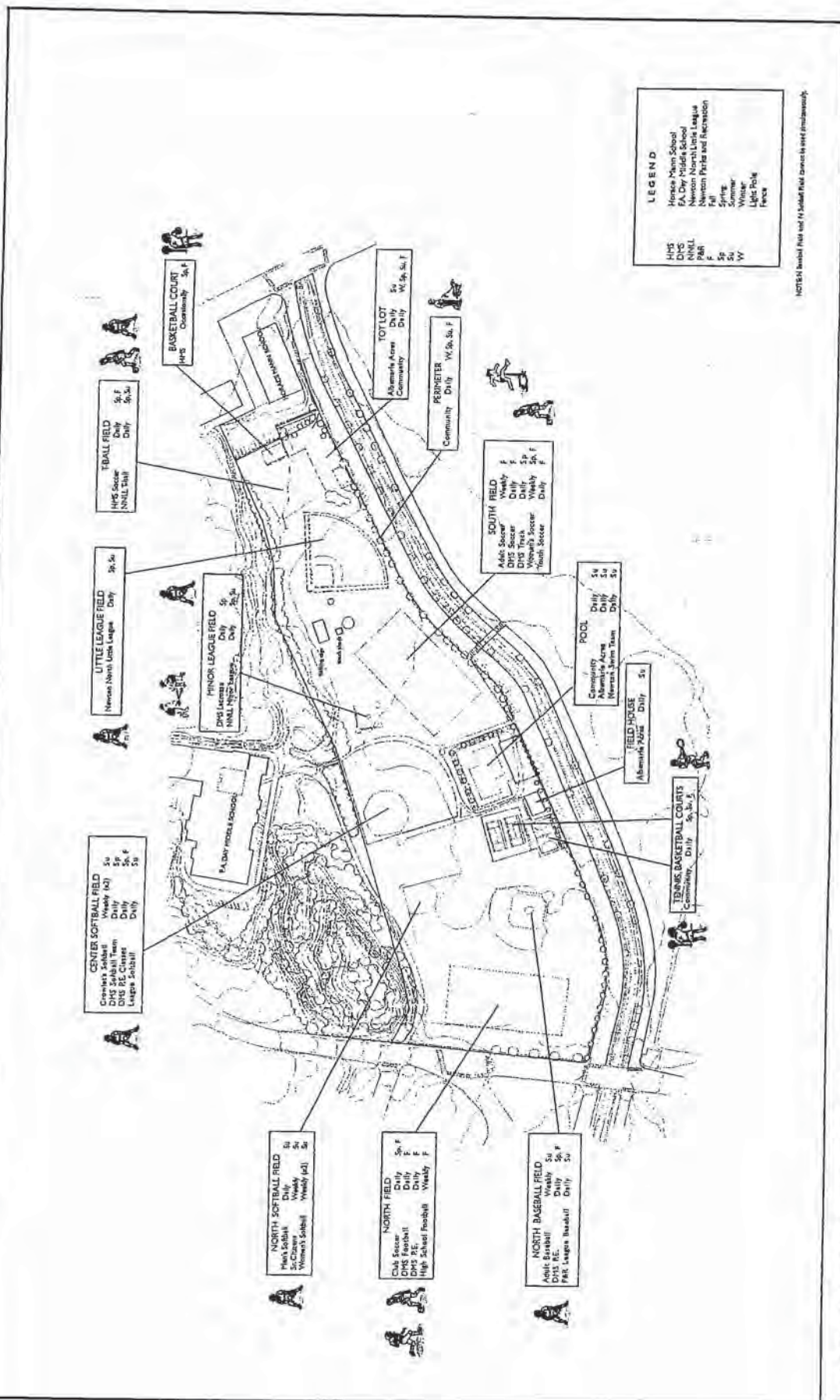


Judy Kokesh Landscape Design
177 Pemberton St. #1
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May 2005
Assessor's Map provided by the City of Newton

**ALBEMARLE PARK MASTER PLAN
SITE INVENTORY: Neighborhood Density and Character**

Landscape Institute of the Arnold Arboretum





ALBEMARLE PARK MASTER PLAN
SITE INVENTORY: User Analysis
 Landscape Institute of the Arnold Arboretum

Judy Kokesh Landscape Design
 177 Pemberton St. #1
 Cambridge MA, 02140
 May 2005



**ALBEMARLE PARK MASTER PLAN
SITE ANALYSIS**

Landscape Institute of the Arnold Arboretum

Judy Kokesh Landscape Design
177 Pemberton St. #1
Cambridge MA, 02140
May 2005



THE DESIGN

The Master Plan design for the Albemarle Park site represents the Designer's response to the Goals.

PART I: DESIGN ELEMENTS AND APPROACHES

This is a project about spatial organization, connections and transitions. The Master Plan design connects the park to the neighborhood, to the Day Middle School, to the Avery Woods and to the Cheesecake Brook Corridor. Berms and trees are the two major design elements that have been used to organize space, create new areas, define entries, and create structure in the park. New entrances to the park are visible and easily accessible by the neighborhood. Large rocks are used in the design and also unify the space.

Design Elements

Trees: The Master Plan design creates a high tree canopy in new passive spaces and along the Cheesecake Brook Corridor. The canopy unifies the space, and provides shade, structure, and vertical scale to the otherwise flat site. The trees inside the park are closely planted in groves to reference the natural form of Avery Woods and to encourage high branching. Close planting creates a lightly shaded growing environment where competition for sunlight encourages a vertical growth habit.²⁴ These canopy trees have been chosen for their tendency to form tall, high-branching, straight trunks, although some "limbing up" may be necessary at planting and during the early growth years. This practice will preserve sight lines throughout the park both for safety and for aesthetic reasons.

New trees along the Cheesecake Brook Corridor are planted approximately thirty feet on center to fill in where the existing trees are sparse and to create a green alee. The intent is that this section of the corridor will be part of the larger linear greenway to the Charles River that is planned by the City of Newton.

Berms: The berms define spaces and create topographical interest and visual character in an otherwise flat space. The berms are low enough (four feet) that they do not interfere with site lines or compromise the safety of the people occupying the park.

But berms are used also for horticultural reasons. Berms can be created with soils specifically selected to provide the best environment for the selected trees and shrubs. The bermed areas will not need mowing and trees will be protected from powered string trimmers.

Boulders: Large boulders are used in several places at the site. These elements reference the creek bed, unify the design, and can be used for casual outdoor seating. Sited between the path to the Day Middle School and the chain link fence that bounds the softball field, boulders are a strong design element that references a dry streambed. The use of rocks along this potentially awkward strip preserves the sight lines to the ball field, and eliminates the need for mowing. Boulders are used to create an outdoor classroom space in front of the Day Middle School. Large boulders and natural grasses along the two new bridges reference the natural banks of a stream.

The Application of Principles of Sustainable Design

"Sustainable design" is a term that is widely used in a variety of contexts. It is important, therefore, to define what we mean in the context of the Albemarle Park design. And, it is equally important to answer the question, "Are sustainable design principles appropriate for a heavily-used, urban, recreational park?"

In the current context, sustainable planting schemes are defined as those that are appropriate to site conditions and are successional—that is, they have the capacity to maintain structure and integrity over successive generations with minimum of maintenance and resource inputs.²⁵ It must be noted that there already exists a highly successful "sustainable landscape" abutting the park—the four-acre Avery Woods. Given the proximity of the woods to the park, then it seems appropriate to extend the woods by creating ecological woodland patches²⁶ in other areas.

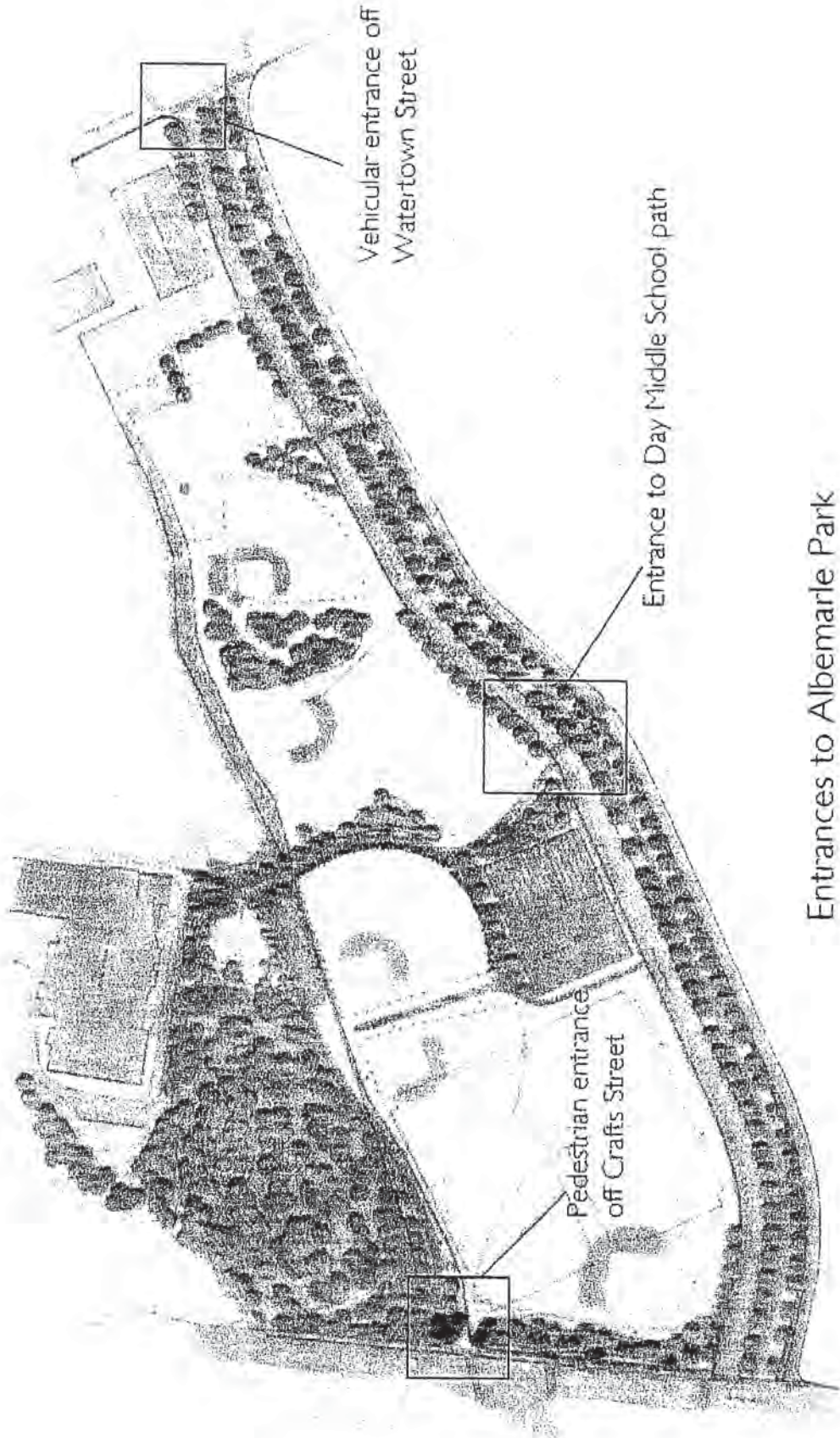
The Designer has used the following sustainable design strategies:

Hardscape: These practices will control runoff and improve drainage in the park.

- No additional paving is added and the net square feet of impermeable paving is decreased.
- Permeable asphalt²⁷ is recommended for the paved pedestrian paths in the interior of the park.
- Stone dust is used for the new walking / running path around the perimeter of the park.

Plant Material: These practices will minimize the resources necessary for maintenance and increase the likelihood that the plants will do well.

- The use of native species and other well-adapted plant material minimizes plant maintenance and use of resources. Trees and shrubs are selected for their ability to thrive with only rainwater irrigation once they become established. Selected plants are appropriate to the historic Oak-Hickory ecology of the area.²⁸
- Berms create planting areas where specified compaction-resistant soils²⁹ are used to improve drainage around trees. Appropriate soils can be specifically employed for each planted environment.
- The use of groundcover plants provides natural mulch, and reduces mowing and mowing-related damage to trees.
- Proper tree planting methods will be used to increase the life of urban trees.³⁰
- Native woodland shrubs and trees groves are planted in patches to increase habitat in wooded edges.



Vehicular entrance off
Watertown Street

Entrance to Day Middle School path

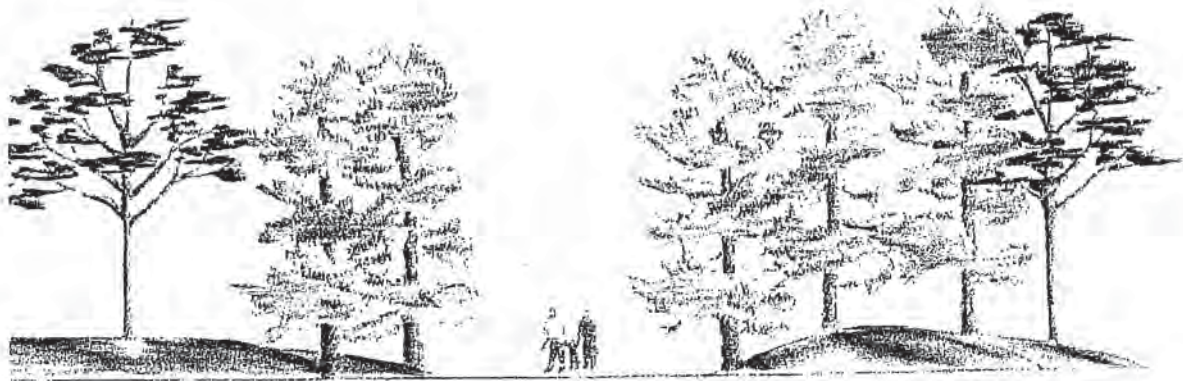
Pedestrian entrance
off Crafts Street

Entrances to Albemarle Park



PART II: CIRCULATION

The Entrances to the Park: The Master Plan identifies three entrances to the park: The pedestrian entrance off Crafts Street, which is directly across from the existing crosswalk, is clearly defined by tall White Pines planted on the Crafts Street berm. Pedestrians enter through a wide break in the gently sloping berms. The new configuration of the ball fields at this end of the park allows pedestrians to then safely cross the park to the west edge. Pedestrian traffic is separated from the emergency access road located just to the east of the new entry. The chain link fence on Crafts Street is replaced by a lower, more decorative black steel fence. (See descriptions of fencing in the section on Site Furniture.)

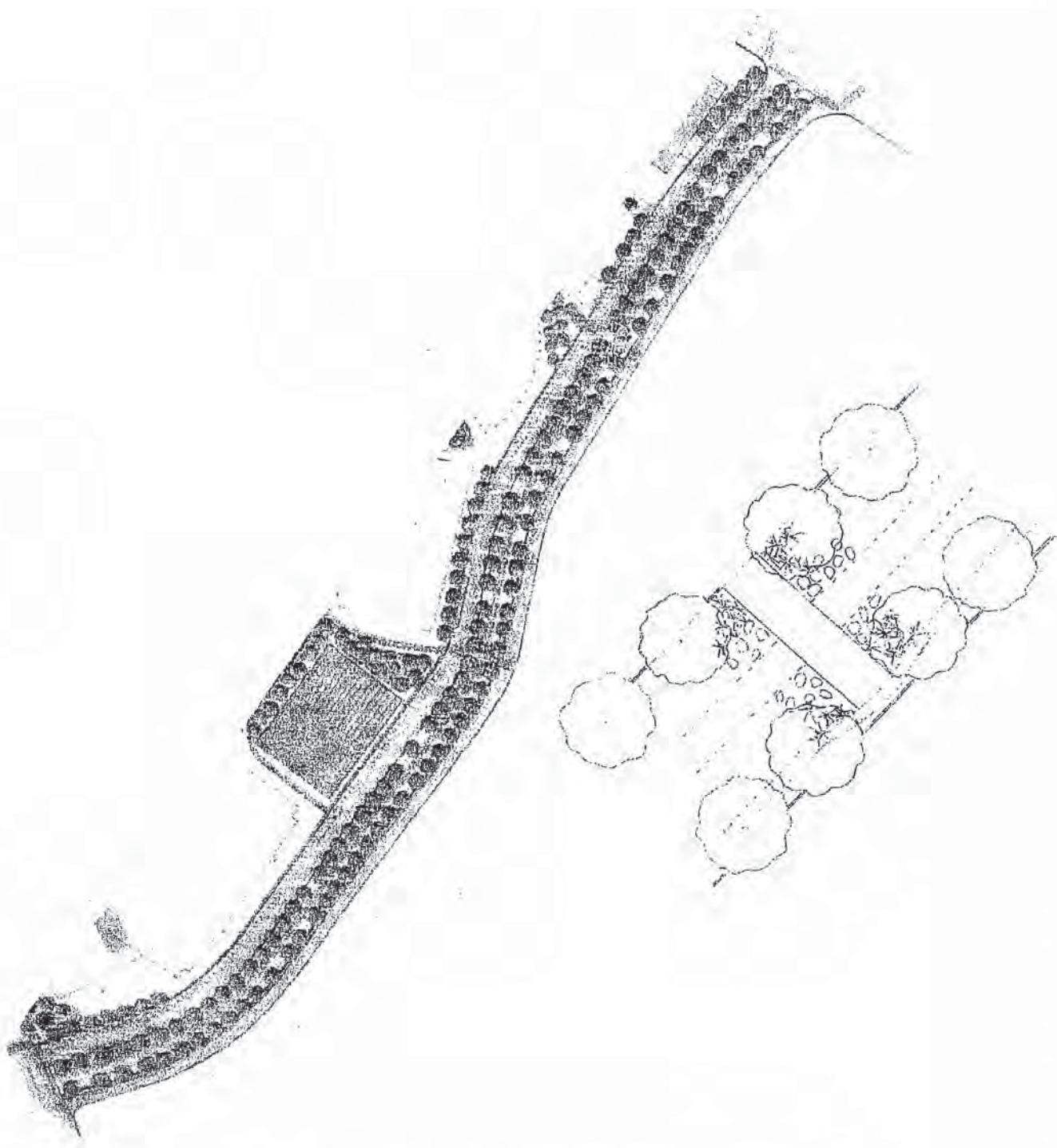


The pedestrian entry to the park from Crafts Street.

The vehicular entrance to the park is off Watertown Street along the northbound lane of Albemarle Road. Vehicles entering the park will drive under an allee of tall trees planted along both sides of the Cheesecake Brook Corridor and the east side of the Horace Mann School. New trees will be closely planted among the widely spaced existing trees along the Cheesecake Brook to create a tall, green canopy. The tree selections are discussed in the Plant Section.

The entrance at the path to Day Middle School is clearly defined by a berm planted with a grove of tall Ginkgo trees. A school bus waiting area just to the south of the entry creates a safe place for children from the Day Middle School to be dropped off and picked up.

The Paths: No new paved areas have been added to the interior of the park. The existing path to the Day Middle School has been moved slightly to the south to accommodate a new footprint for the pool and other buildings and to create a pleasant walk to the school. It is recommended that the path surface be permeable asphalt, to improve drainage. A stone dust walking or running

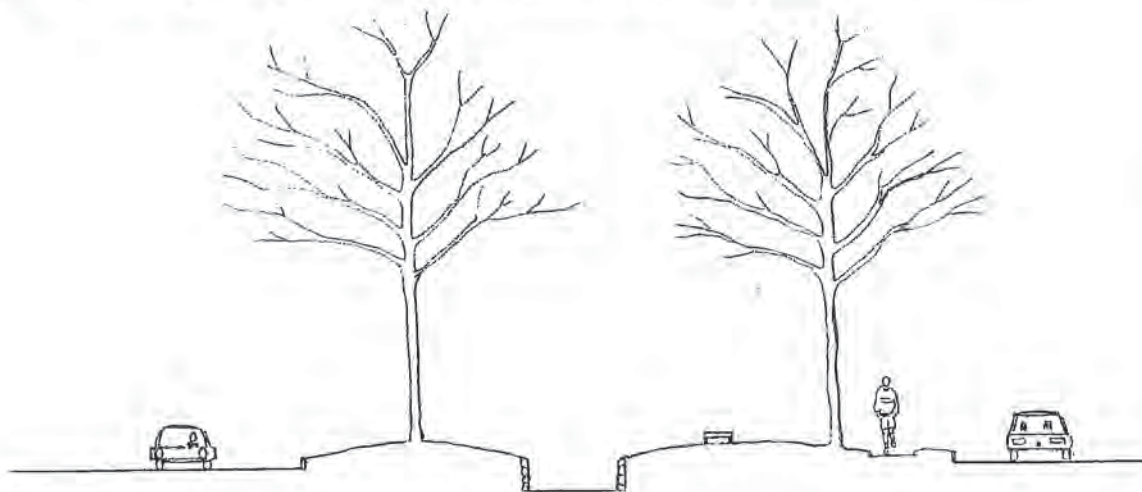


The Cheesecake Brook Corridor and Bridge Detail



path around the periphery of the park hugs the east edge, continues behind the Crafts Street berm, and crosses Albemarle Road to the west side of the Cheesecake Brook Corridor. A second stone dust path loops through Avery Woods and connects with the main running path near the Day Middle School.

The Cheesecake Brook Corridor: An allee of tall trees transforms the Cheesecake Brook and Albemarle Road (the Cheesecake Brook Corridor) into a linear green ribbon that defines the west edge of the park. The intent is that this corridor will be part of the larger linear greenway to the Charles River that is planned by the City of Newton. The stone dust path along the west edge incorporates the Corridor into the park. The southbound lane of Albemarle Road is narrowed by six feet and the parkway is widened to accommodate the new path.

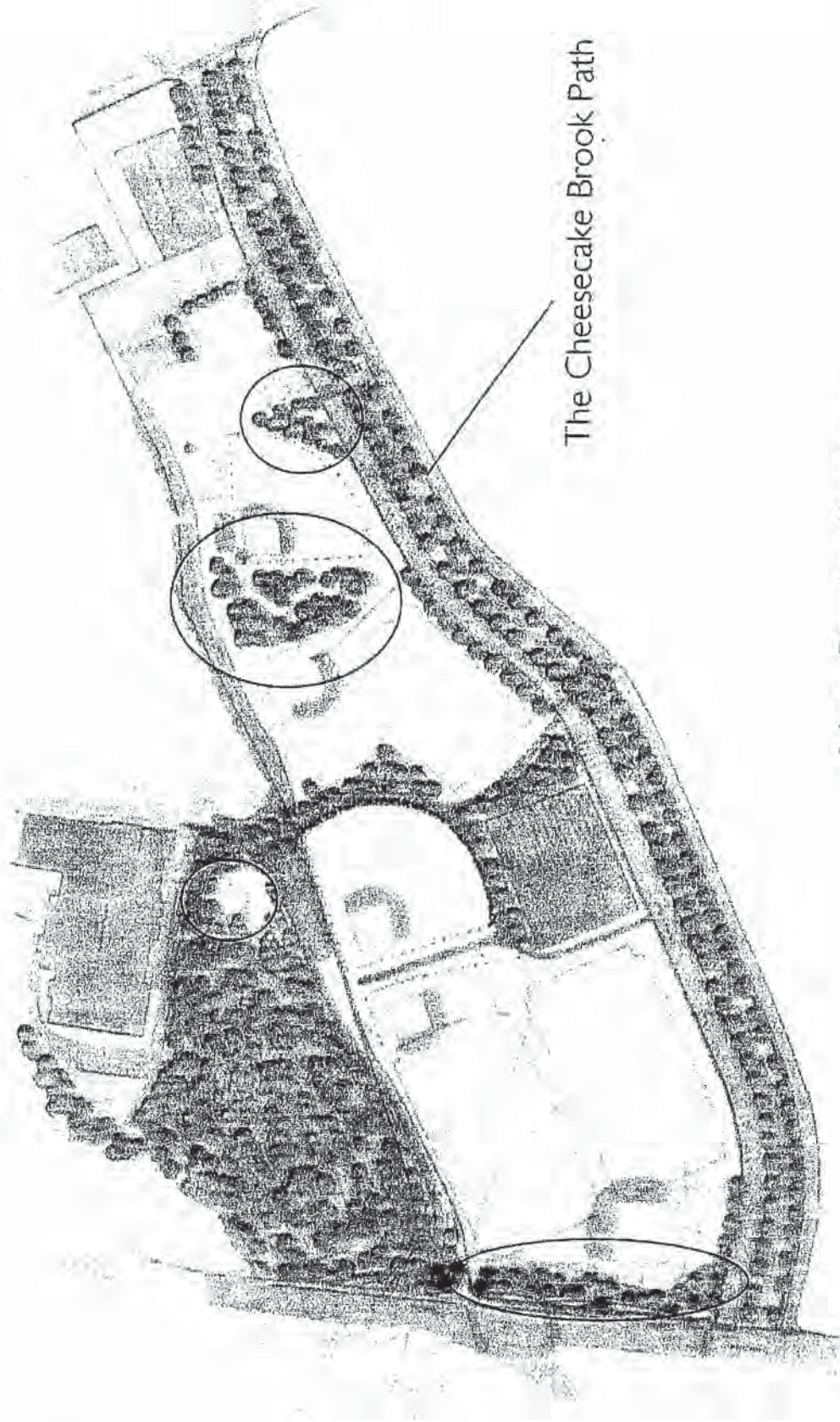


The path along the Cheesecake Brook Corridor.

Two new bridges are sited across the Cheesecake Brook and the current bridge is removed. One of the bridges is sited to be across from the path to the Day Middle School. The second bridge, sited to the south, provides convenient access to the Tot Lot and Little League fields. Two bridges will provide adequate pedestrian access to the park for residents in the neighborhoods west of the Cheesecake Brook Corridor.

PART III: PASSIVE SPACES

New passive spaces are defined by groves of trees and berms. These spaces include the Crafts Street berm at the north boundary of the park, the Oak Grove berm between Roche and Murphy Fields, the small Redbud Grove near the Community Commons, and the outdoor classroom area in front of the Day Middle School. Stone benches are placed along the Cheesecake Brook Corridor

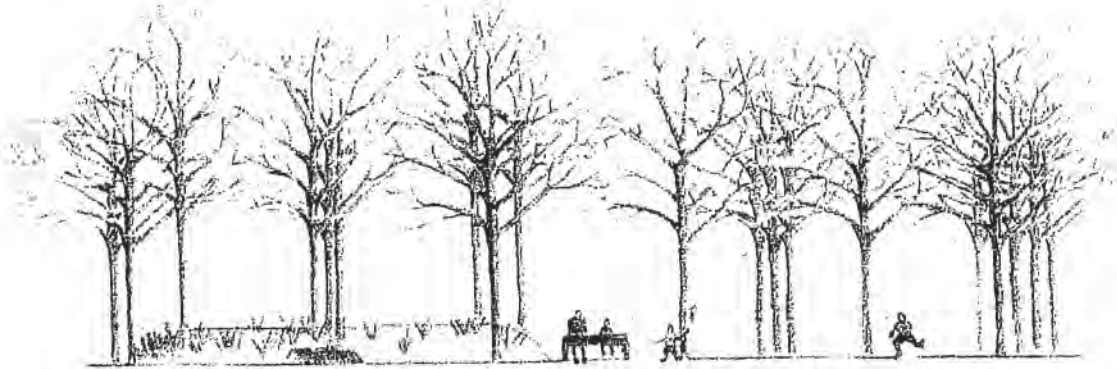


The Cheesecake Brook Path

New Passive Spaces



path, at the edge of the Day Middle School entry, and at the highest point on the path through Avery Woods to allow walkers to sit and enjoy the view.



The Oak Grove is a place for play and picnicking.

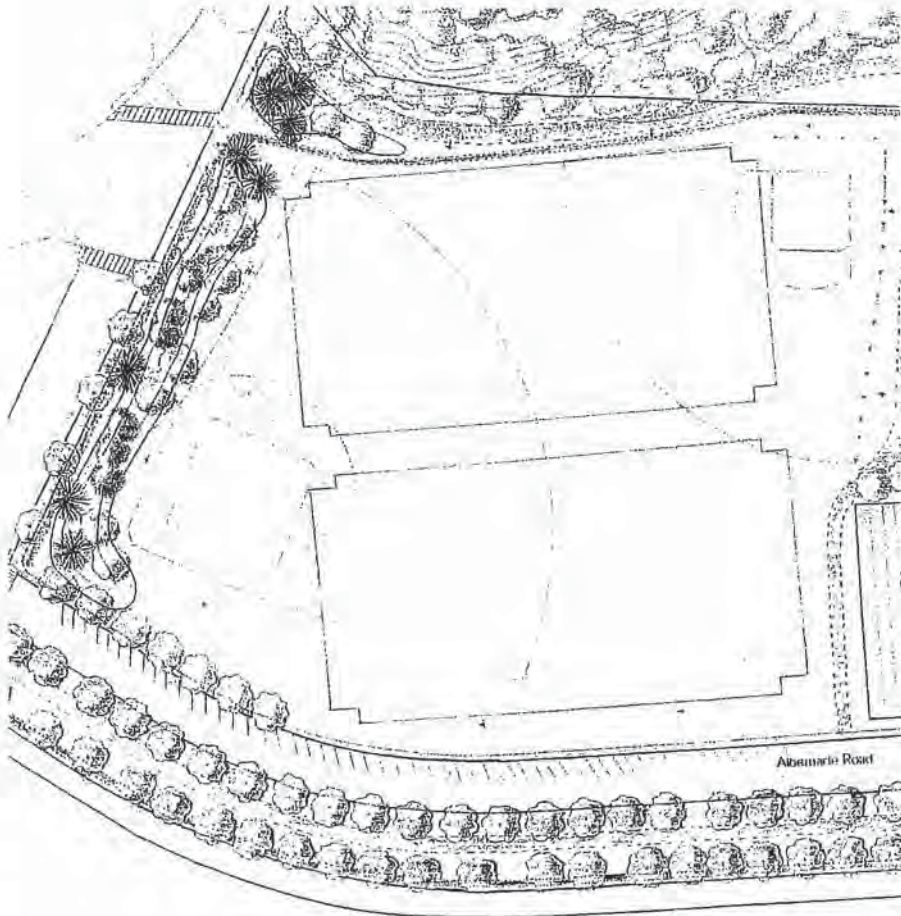
PART IV: RECREATIONAL RESOURCES

The Fields and Courts: Playing fields are reoriented to optimize their use and maximize the space available. The new configuration at the north end of the site allows for an additional football / soccer field. The details of the north and south areas of the park are more fully discussed below. The full-sized basketball court north of the recreation building is moved across the park closer to the Horace Mann School and replaces the current half-court there.

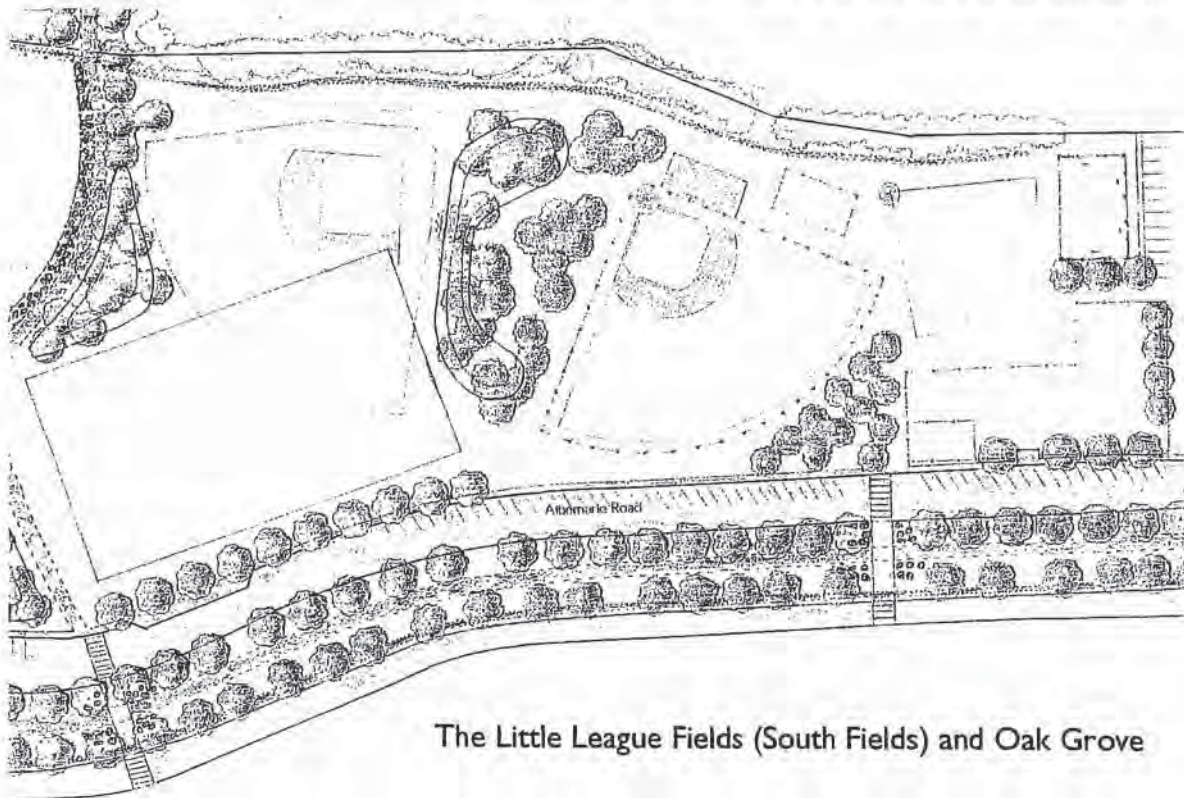
The two existing tennis courts are eliminated to allow for the additional field and because ample courts are available nearby. If the community prefers tennis courts to an additional field, then three courts can be installed just north of the new recreational building.

The Tot Lot: The Tot Lot remains at the south end of the park, which is largely devoted to children's activities. The entry to the Tot Lot is moved along the Albemarle Road sidewalk to avoid vehicles entering and exiting the Horace Mann School parking lot and recessed to allow convenient access for strollers. The existing fence is replaced by a more decorative steel fence like that recommended along Crafts Street.

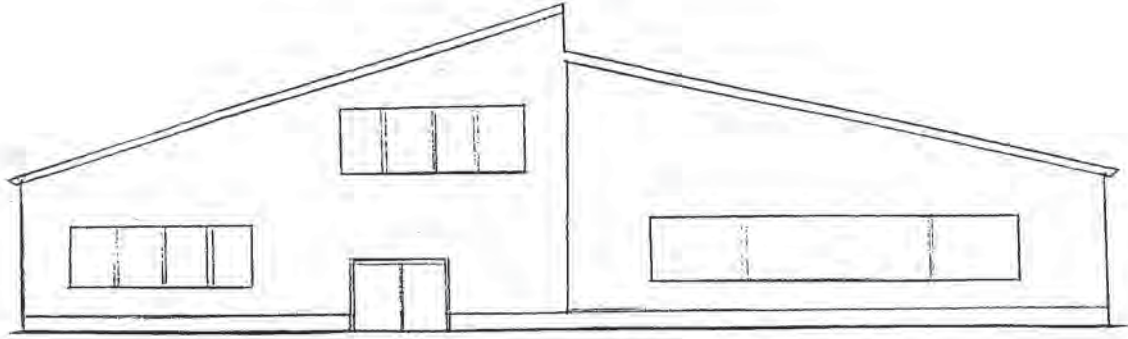
The Pool and Recreation Building: The footprint of the existing buildings and the pool is enlarged to accommodate a future recreation building and new swimming pool. This meets the community's desire for additional indoor space and to replace the current pool. The new footprint represents a net increase of more than 13,000 sq. ft. The pool is sited on the south side of the building and is partly shaded by the grove of Ginkgos.



The North Fields and the Crafts Street Berm



The Little League Fields (South Fields) and Oak Grove



Concept drawing for the new recreation and pool building.

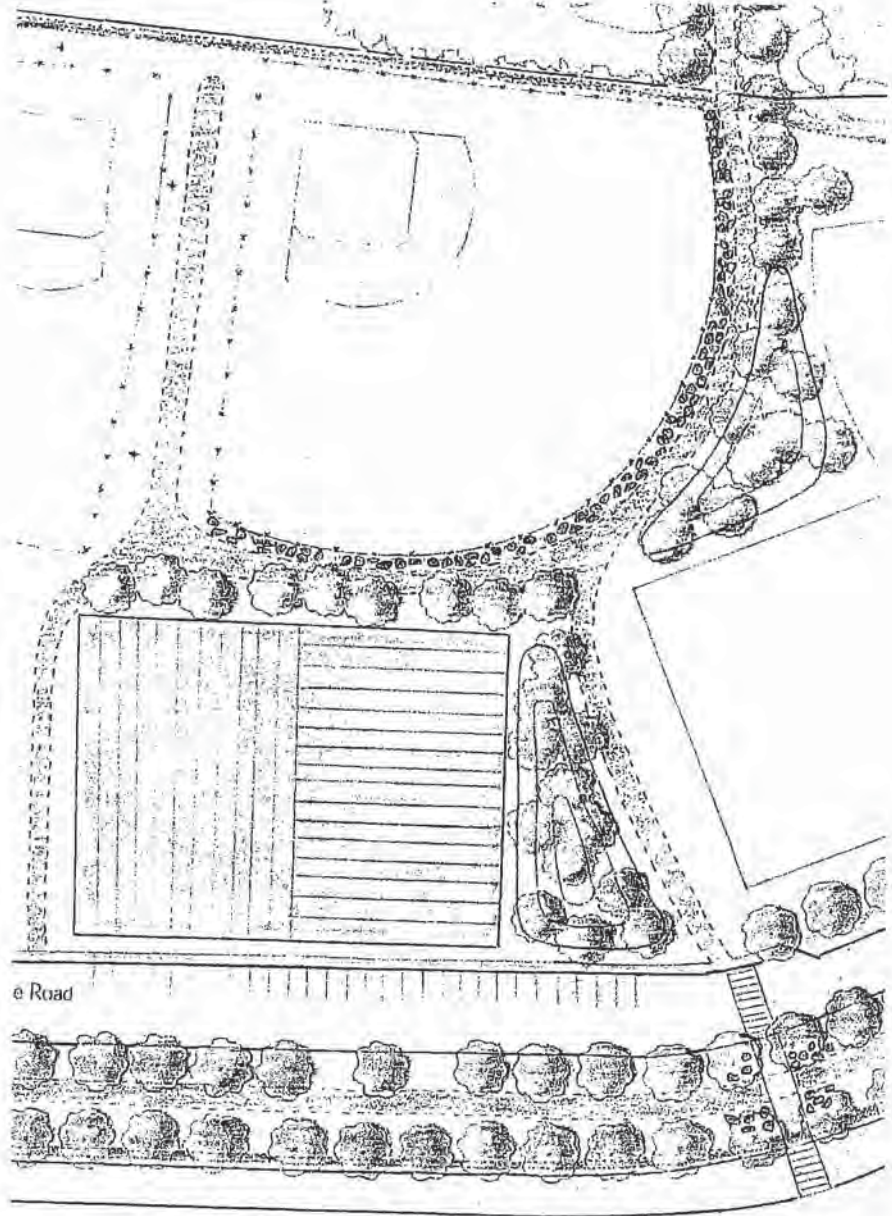
PART V: PARK AREAS

The Little League Fields (South Fields) and the Oak Grove: Roche Field (the northernmost Little League field) is re-oriented and with Murphy Field and the T-ball field creates a family and baseball complex that allows amenities to be shared and equipment to be managed effectively. A new 30' x 60' building adjacent to Murphy Field will house a snack shack, rest rooms and equipment storage.

The Oak Grove lies between Roche and Murphy fields and is the largest and the most clearly defined passive space in the park. Designed around the two existing large oaks, it is an extension of the east woodland edge of the park and references Avery Woods. Surrounded by a large four-foot berm, it serves as a picnic area for neighbors and for families whose children are playing ball on the adjacent fields. Spectators can sit on the berm to watch the activity on the fields.

The North Fields and the Crafts Street Berm: The new configuration of fields on the north end of the park allows maximum use of the existing fields and makes room for either an additional field for football / soccer or for three tennis courts. The design also permits simultaneous play on the two softball and one baseball field at that end. Light poles on the periphery of the fields allow any combination or all of the fields to be lit. The large open space created at this end of the park might also be used for community events such as summer concerts.

The large berm along Crafts Street is planted with native evergreen and deciduous trees that reference the historical Oak-Hickory woods of the area. The white pine and red cedar will screen the view of Crafts Street and provide some noise abatement. The berm also can be used as a viewing area for activities at the north end of the park.



The Center of the Park and the Path to the Day Middle School

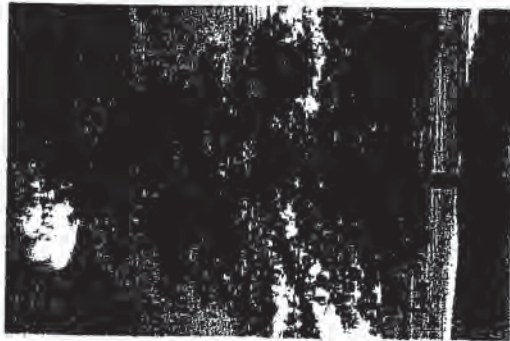
The F. A. Day Middle School: The design of the entrance to the F. A. Day Middle School is strongly influenced by the proximity of the school to Avery Woods. The Designer's intent is to create a space that references the beauty of the woods and that can be sustained with minimal maintenance.

Two berms along the path to the school are planted with groves of Ginkgo trees and provide a canopy of glossy green foliage in summer and architectural interest in winter. The gently curving path to the Day Middle School is a pleasant and safe walk to the school. The school is in sight at all times as students and staff walk along the path. The Ginkgos continue on either side of the path into the entry to the schoolyard. Lights are installed at 30 foot intervals along the path. Lights are discussed in the section on Site Furniture.

Some participants at the March community meeting expressed a preference for a "straighter" path through the park to the Day Middle School. It was felt that the straight path would be an organizing element of the park and that the school would be in students' view at all times. The Designer considered the two path alternatives. A study of the walk along the curved path to the Day Middle School revealed that the school is in sight at all times. And, a straight path from the east edge of the park to the sidewalk on Albemarle Road cuts off a significant piece of the adjacent playing field.. Because of the goal to optimize the amount of field space, the curved path is the alternative presented here. A sketch of the straight path option and the study are included in the Appendices.

A grove of Red Maples is planted on low berms along the front of the school on either side of the path that leads to the entry. The edge of Avery Woods is extended into the open area in front of the school with massed groups of shrubs appropriate to the woodland edge,³¹ which creates a more extensive and clearly defined edge. The native shrubs are selected specifically to provide fall or spring bloom and winter interest—important considerations in a school landscape. Some shrubs are fruiting, which also will support habitat for small animals.

Large boulders create a flexible outdoor classroom space that is shaded by the Red Maples and tucked into the woodland edge. The space is large enough for students to informally gather in small groups before or after school, or for teachers to use for formal instruction. In winter, the large snow-covered boulders will provide texture and beauty with the grey bark of the Red Maples.



Pin Oak



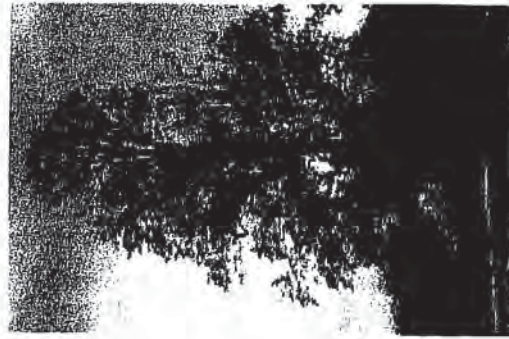
Red Maple



Swamp White Oak



Red Oak



Tulip Tree

The Trees along the Cheesecake Brook Corridor

Albemarle Park Master Plan
Judy Kokesh May 2005



PART VI: PLANTINGS AND PLANT SELECTION

THE CANOPY TREES

In order to attain uniformity in form and diversity in species, trees in the same genus or family (i.e. a variety of oaks or maples) are selected.⁴¹ A diversity of species decreases the vulnerability of the landscape to insects and diseases that might affect a single species. The trees also are carefully selected for their suitability in stressful urban conditions, such as drought and, in some cases, resistance to road salt.

The Cheesecake Brook Corridor: The planting plan along the Cheesecake Brook Corridor calls for new trees to be planted on thirty-foot centers among existing trees to create a closely-planted tall ale. Recommended species include Swamp White Oak, Red Oak, and Tulip Trees. Whenever possible, trees of the same species should be planted in a line of five or more to create uniformity. This is especially important with the Tulip Trees, as they bloom in early spring and will be a striking visual element grouped along the corridor.

The Oak Grove: The Oak Grove, planted with a diversity of species to provide interest, references the closely planted Oaks in Avery Woods. Trees include Red Oak, Scarlet Oak, and Swamp White Oak, and Red Maple.

The Crafts Street Berm: The trees on the berm along Crafts Street extend Avery Woods along the north end of the park. Selections include deciduous Pin Oaks and Red Maples, and evergreen White Pines and Red Cedars, all of which are native to the Oak-Hickory environment. The evergreen trees are included to screen north winter winds.



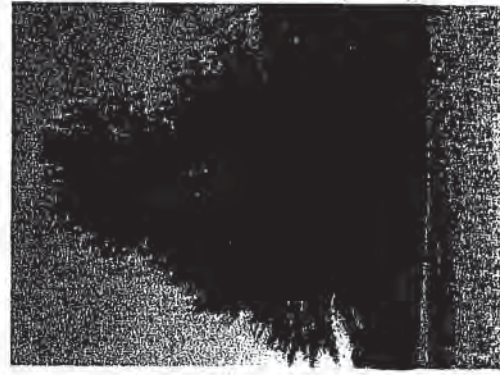
Red Maple



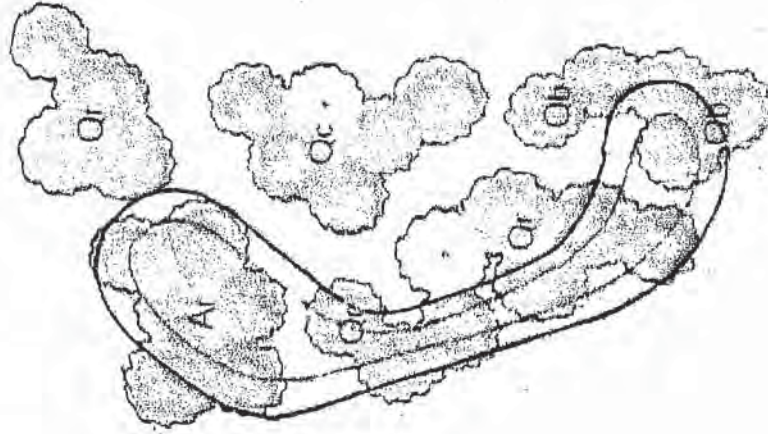
Swamp White Oak



Scarlet Oak



Red Oak



The Oak Grove
Trees

Albemarle Park Master Plan
Judy Kokesh May 2005

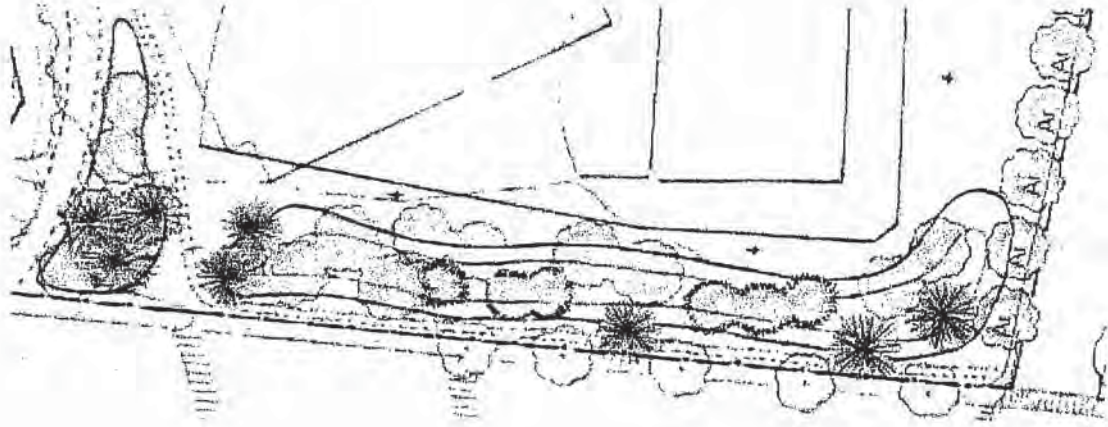




Red Maple



Pin Oak



The Crafts Street Berm Trees

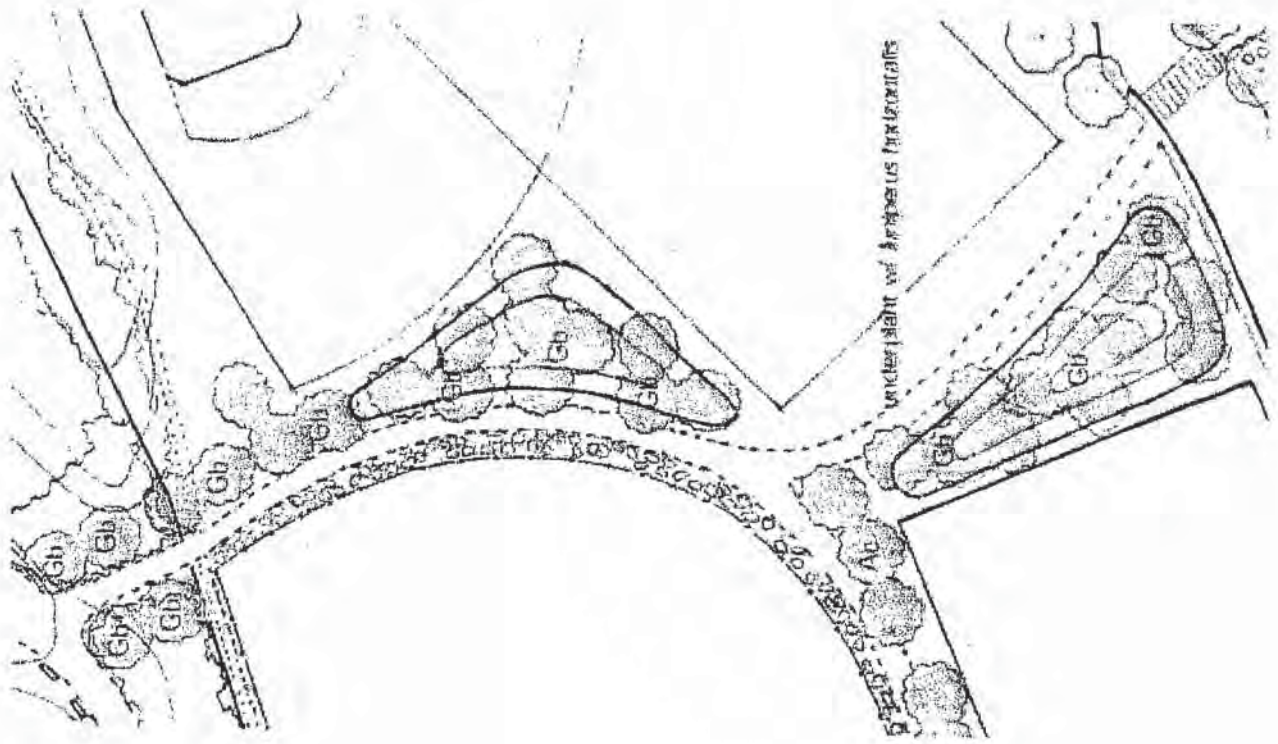


Eastern Arborvitae

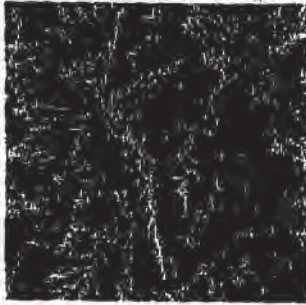


White Pine

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Judy Kokesh May 2005



Ginkgo



Creeping Juniper



Blue Oat Grass

Trees and Plants along the Day Middle School Path

Albemarle Park Master Plan
 Judy Kokesh May 2005



The Path to Day Middle School: Ginkgos were selected for the two berms along the path through the park that leads to the Day Middle School. They are closely planted on twenty-five foot centers to create high-branching groves. Their green, shiny leaves in the summer and striking yellow leaves in the fall, and are features that will define the path. In winter, the grey bark and architectural form of the ginkgos will play nicely against the large rocks that line the space between the chain link fence that encloses the ball field and the path. Ginkgos tolerate salt or ice melt that may be used to melt snow along the path in winter. The groves of Ginkgos are underplanted with low-growing Juniper and grasses.

The Day Middle School Courtyard: A grove of Red Maples, underplanted with Stephanandra is planted on low berms along the front of the school on either side of the path that leads to the entry. Stephanandra is a tough ground cover that will add texture and interest. Red Maples are selected because of their stunning red flowers in spring and crimson foliage in the fall. In winter, the grey bark provide contrast to the red brick building. Red Maples are plants common to the Oak-Hickory plant community and are expected to thrive on the site.

THE UNDERSTORY TREES

Three small native trees are selected to provide bloom in the spring and to define interior spaces in the park. A grove of Redbuds is sited near the Tot Lot and "Community Commons." Cornelian Cherry Dogwood is selected for the south edge. Serviceberry are planted along the back of the recreation building.

SHRUBS AND OTHER PLANTS

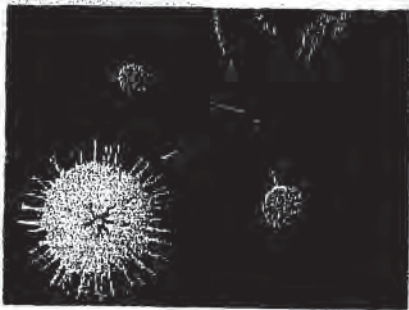
Shrubs are native to New England and are selected for their ability to withstand the environment at the site. The woodland shrubs that extend the edge of Avery Woods into the entry yard of the Day Middle School already have been discussed and are included in the planting plan of the Day Middle School detail. Blue Oat Grass and Creeping Juniper are used to underplant the Ginkgo grove. Species of Eulalia grass are used in the landscaping along the two footbridges.



Red Maple



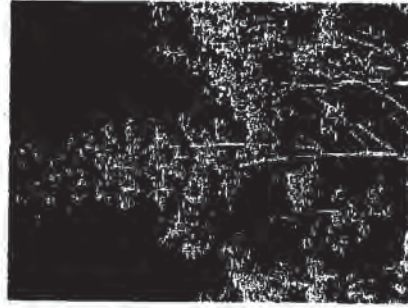
Sweet Pepperbush



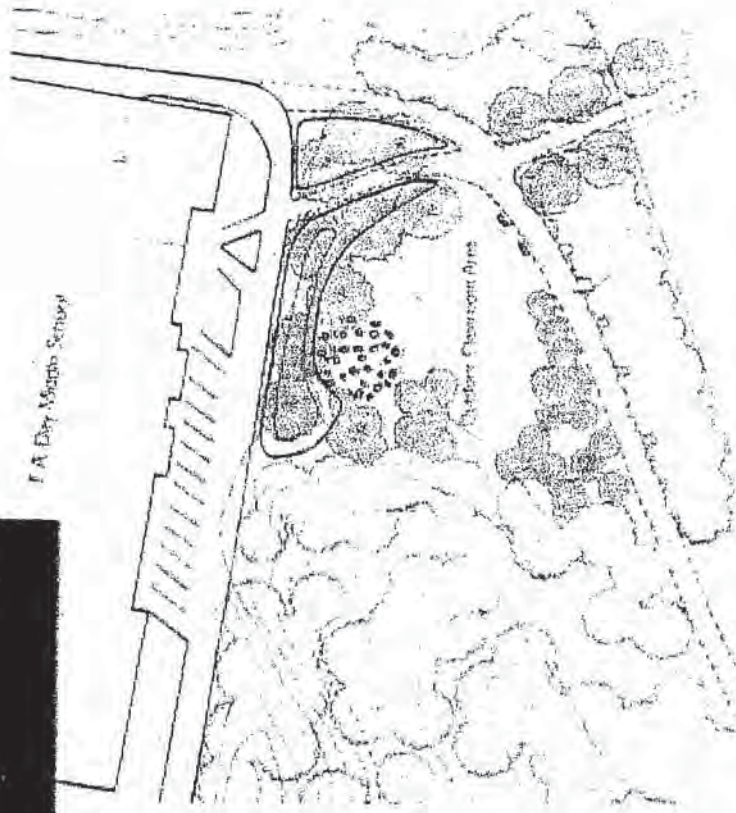
Buttonbush



Redosier Dogwood



Witchhazel



The Day Middle School Woodland Garden

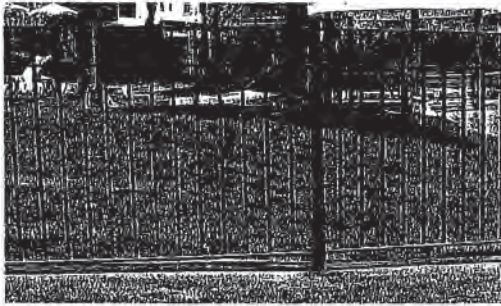
Albemarle Park Master Plan
Judy Kokesh May 2005



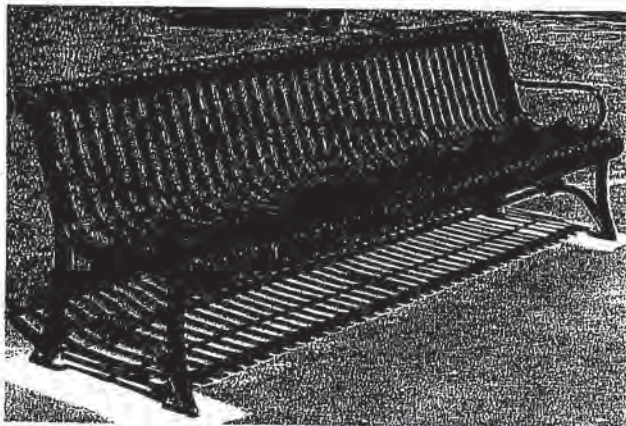
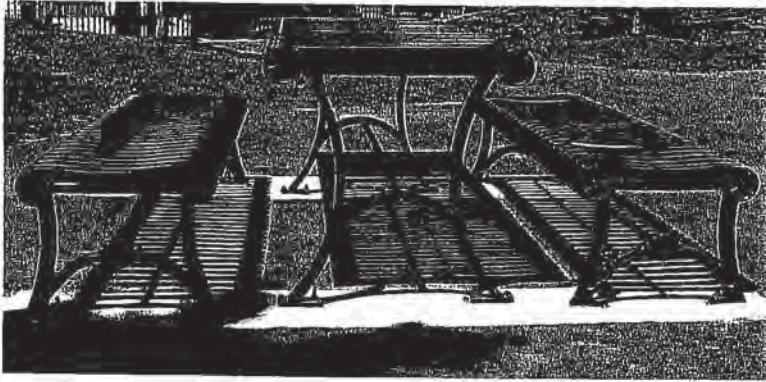
PART VII: SITE FURNITURE AND AMENITIES

Two new fences are installed: The first is around the Tot Lot and the second along Crafts Street. Both replace existing chain link. The fence along Crafts Street is the same design as the Tot Lot, except that the iron fencing is interrupted with stone bollards.

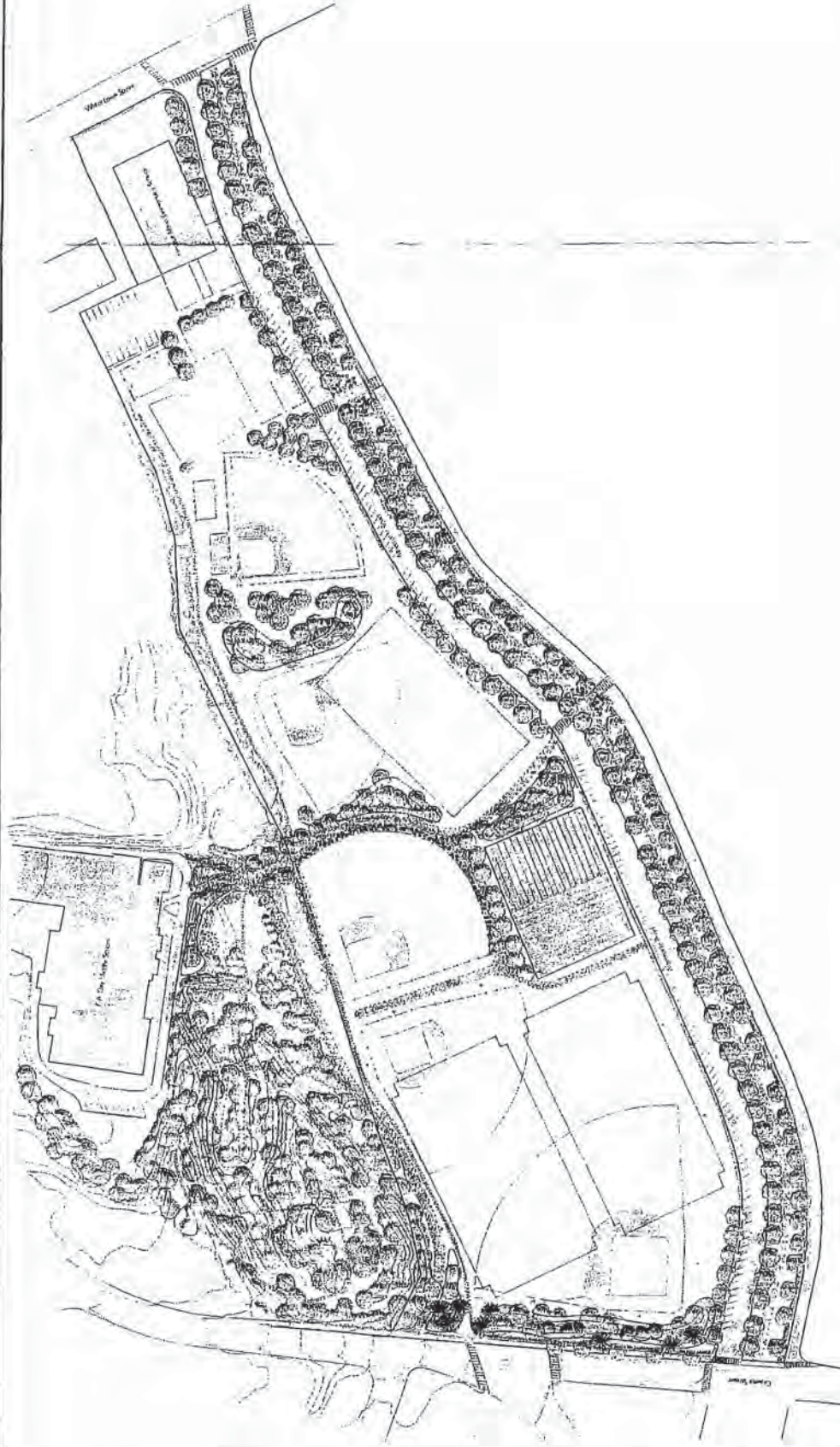
The light pole in the illustration is recommended for the path to the Day Middle School at approximately 30 foot intervals.



Black powder-coated steel picnic tables and benches in the Oak Grove will be functional and provide unity to the site. The designs illustrated are comfortable and the material is heavy and durable.



Stone benches are installed at the edge of the Day Middle School entry and at the highest point in Avery Woods

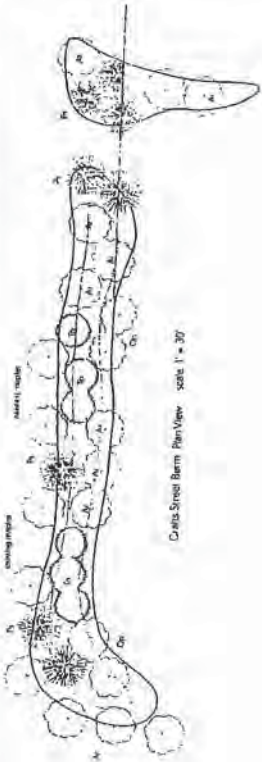


ALBEMARLE PARK MASTER PLAN
Meeting Recreational Needs with Sustainable Design

Landscape Institute of the Arnold Arboretum

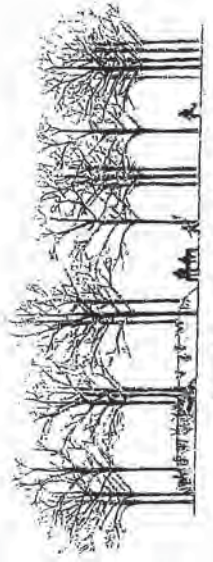
Judy Kokesh Landscape Design
177 Pemberton St. #1
Cambridge MA, 02140
May 2005





PLANT LIST

Ar	American Elm	Rd	Red Maple
Pi	Pinus strobus	Wh	White Pine
Ch	Chamaecyparis	Sw	Swamp White Oak
Qc	Quercus palustris	Pr	Prunella
Cr	Crataegus	Rd	Red Oak



ALBEMARLE PARK MASTER PLAN
CRAFTS STREET AND OAK GROVE BERMS
 Landscape Institute of the Arnold Arboretum

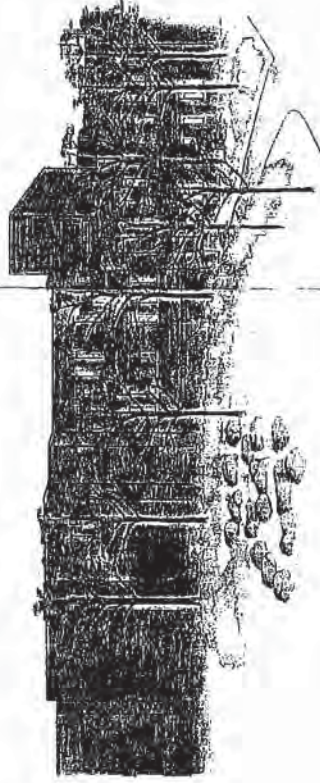
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 Cambridge MA, 02140
 May 2005



PLANT LIST

Az	Azalea	Rid	Ridge Maple
Ac	Amelanchier canadensis	Sp	Spiceberry
Ca	Cornus alternifolia	Sw	Sweet Pepperbush
Ch	Chaenactis	Ph	Phlox
Co	Cornus	Do	Dogwood
Cs	Cornus	Co	Cornus
Di	Daphne	Co	Cornus
Dr	Dracopis	Co	Cornus
Fr	Fraxinus	Co	Cornus
Ge	Geopelia	Co	Cornus
Gr	Gracillaria	Co	Cornus
Gu	Guaiacum	Co	Cornus
Ha	Hamelia	Co	Cornus
He	Hesperis	Co	Cornus
Hy	Hydrangea	Co	Cornus
Il	Illicium	Co	Cornus
Ip	Ipomoea	Co	Cornus
La	Lonicera	Co	Cornus
Li	Liriodendron	Co	Cornus
Lo	Loquat	Co	Cornus
Ma	Malus	Co	Cornus
Me	Meibomia	Co	Cornus
Mo	Morone	Co	Cornus
My	Myrica	Co	Cornus
Ny	Nyssa	Co	Cornus
Os	Osage	Co	Cornus
Pa	Passiflora	Co	Cornus
Pe	Peperomia	Co	Cornus
Ph	Phlox	Co	Cornus
Pl	Platanus	Co	Cornus
Pr	Prunella	Co	Cornus
Py	Pyracantha	Co	Cornus
Qu	Quercus	Co	Cornus
Ra	Rapanea	Co	Cornus
Re	Reynoldsia	Co	Cornus
Ri	Ribes	Co	Cornus
Ru	Rubus	Co	Cornus
Sa	Sambucus	Co	Cornus
Sc	Scilla	Co	Cornus
Se	Sebania	Co	Cornus
Sh	Shorea	Co	Cornus
Sl	Slippery Elm	Co	Cornus
So	Sorbus	Co	Cornus
Sp	Spiceberry	Co	Cornus
St	Staphylea	Co	Cornus
Sw	Sweet Pepperbush	Co	Cornus
Ta	Taxus	Co	Cornus
Te	Tea	Co	Cornus
Th	Thalictrum	Co	Cornus
Ti	Tilia	Co	Cornus
To	Toxicaria	Co	Cornus
Tr	Trillium	Co	Cornus
Ud	Ulmus	Co	Cornus
Ur	Urtica	Co	Cornus
Va	Vaccinium	Co	Cornus
Vi	Viburnum	Co	Cornus
Vl	Vallisneria	Co	Cornus
Vu	Viburnum	Co	Cornus
Wa	Washingtonia	Co	Cornus
Wc	Wickstroemia	Co	Cornus
Wd	Wedelia	Co	Cornus
Wf	Wormwood	Co	Cornus
Wg	Wrightia	Co	Cornus
Wl	Wisteria	Co	Cornus
Wo	Woods	Co	Cornus
Wy	Wyethia	Co	Cornus
Xa	Xanthoxylum	Co	Cornus
Xy	Xylocarpus	Co	Cornus
Yu	Yucca	Co	Cornus
Za	Zantedea	Co	Cornus
Zi	Zinnia	Co	Cornus
Zo	Zostera	Co	Cornus

F.A. Day Middle School Plan View



F.A. Day Middle School Elevation

**ALBEMARLE PARK MASTER PLAN
F.A. DAY MIDDLE SCHOOL**

Landscape Institute of the Arnold Arboretum

Judy Kokesh Landscape Design
177 Pemberton St. #1
Cambridge MA, 02140
May 2005



PARK MANAGEMENT CONSIDERATIONS

EXISTING PLANT MATERIAL

- It is recommended that the City conduct a horticultural assessment of the trees along Cheesecake Brook Corridor. Those that are healthy should be pruned and limbed up. Unhealthy trees or trees that have grown with an odd form should be removed. In-fill planting of the recommended trees can be done over time, with attention paid to planting species in rows of at least three trees, preferably five.
- A similar assessment of the trees and shrubs along the east edge of the park is recommended. The vegetation should be thinned and any plants that are not doing well or that are invasive should be removed. (The Chokecherry near the path entry to the Day Middle School is a native plant that provides habitat and berries for wildlife. It should be thinned, but not removed completely.)

NEW PLANT MATERIAL

- New canopy trees should be limbed up until they develop the desired high-branched form. The trees are specifically selected for their tendency, with attentive maintenance, to grow this way, even though their natural character is a low-branched and rounded form.²⁴
- Trees are planted on berms to overcome the problem of soil compaction. Specified compaction-resistant soils should be used to create the berms.
- Trees on the berms are underplanted with groundcover plants to provide a natural mulch and to minimize maintenance.
- The Crafts Street berm is planted with a mix of deciduous and evergreen trees to provide screening. Evergreen trees are 45% of the mix, exceeding the recommended 30%. At installation, one-third of the trees should have a 1 1/2-inch caliper minimum or 10 feet in height; one-third should have a 2-inch caliper minimum or 12 feet in height; and one-third should have a 2 1/2-inch caliper minimum or 14 feet in height.⁴²
- Native woodland shrubs selected for the edge of Avery Wood will naturalize and once established, will require minimal pruning—only to remove dead branches. If the shrubs colonize too vigorously, they may be cut back.

PAVING

- Porous asphalt is suggested for the asphalt paths within the park. It is expected that it will alleviate some drainage issues along the current paths.
- Stone dust is recommended for the two secondary running/ walking paths—the new path along the periphery that includes the Cheesecake Brook Corridor and the Avery Woods path.

ATHLETIC FIELDS

- The inclusion of an additional football / soccer field is expected to allow reduced use of both fields, which will help alleviate the maintenance problems associated with heavy use.
- Existing athletic fields should be reworked as the new design is implemented and the new fields are installed. This might include soil replacement, regrading, and the addition of drainage systems.

INSTALLATION SEQUENCE RECOMMENDATIONS

Any project of this magnitude requires installation over time. The following sequence for planning and installation is recommended:

1. The North Fields: The advantages of addressing this end of the park first is that a new, visible entrance to the park will be installed; an additional football / soccer field at this end will decrease the pressure on field use; and the baseball and softball fields will be available to be used simultaneously.
 - Remove tennis courts; move basketball court.
 - Re-configure and re-grade existing ball fields, and build new fields.
 - Install perimeter lighting.
 - Construct and plant the Crafts Street Berm.
 - Create new entry signage.
 - Install new fence along Crafts Street.
2. The South Fields:
 - Move Roche Field.
 - Build Oak Grove Berm and plant Oak Grove.
 - Install picnic benches.
 - Construct storage / snack shack building. (This is the responsibility of the Little League, but space has allocated for it in the Master Plan.)
3. The Day Middle School Path:
 - Construct the path from porous asphalt.
 - Construct and plant the berms.
 - Install lighting every 30'.
 - Install the curb cut along Albemarle Road for the bus waiting area.
4. Cheesecake Brook Corridor:
 - Narrow southbound lane of Albemarle Road to allow for running path.
 - Install 5' wide running path.
 - Construct two new bridges.
 - Install plants and boulders around the bridges.
 - Install stone benches.
5. Construct new Pool and Recreation Building.

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