

G.I.A.  
35-09182

LOWELL HERITAGE STATE PARK

475/131913

# A PROPOSAL FOR AN URBAN STATE PARK IN LOWELL, MASSACHUSETTS

Prepared by the  
Massachusetts Department of Natural Resources  
Office of Planning

August 1974

LOWELL: 039 - 1  
URBIS # 407266

The Honorable Francis W. Sargent  
Governor of Massachusetts  
State House  
Boston, MA 02133

Dear Governor Sargent:


We are pleased to submit this proposal entitled Lowell Heritage State Park, which recommends the creation of a state park in the City of Lowell by the Department of Natural Resources. The park would focus on the backbone of the City's cultural heritage--the canal system and the Merrimack and Concord Rivers.

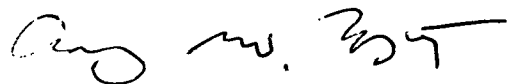
The Commonwealth has long been actively involved in urban recreation within the Boston metropolitan area. The creation of a Lowell Heritage State Park represents a major step in the expansion of the state's urban recreation role in other areas of the Commonwealth.

The Department has been assisted in this effort by many agencies and individuals in Lowell. Particular notice is made of the contribution of the Local Advisory Committee chaired by Lowell Mayor Armand LeMay, which ably assisted and guided us in this period.

This is an exciting proposal--one which if implemented will greatly benefit the city, the state, and the nation. We urge that it be given your immediate consideration, to enable the Department to initiate action during fiscal year 1975, as outlined in the proposed park development schedule.

Sincerely,

  
Arthur W. Brownell, Commissioner  
Department of Natural Resources

  
Charles H. W. Foster, Secretary  
Executive Office of Environmental Affairs

## Acknowledgements

This report was prepared by the Massachusetts Department of Natural Resources, Arthur W. Brownell, Commissioner.

The Department is very grateful for the assistance and guidance it received from the Local Advisory Committee in Lowell. A note of thanks is extended to all Committee members:

Chairman:	Armand LeMay	Mayor of Lowell
Members:	Dennis Coffey	Center Cities Program Director
	Joseph Kopycinski	Chairman, Lowell Historical Commission
	Michael Desmarais	Vice President, Middlesex Bank of Lowell
	Frank Keefe	Planning Director, City Development Authority
	Sister Lillian Lamoureux	Education Director, Sisters of Charity of Ottawa
	Edward Lemieux	President, Greater Lowell Chamber of Commerce
	Patrick Mogan	Executive Director, Human Services Corporation
	Kurt Schork	Assistant Director, Northern Middlesex Area Commission
	John Tavares	Model Cities Program Director

In addition to the above committee, three agencies in particular -- the Lowell City Development Authority, the Human Services Corporation, and the Northern Middlesex Area Commission -- deserve special recognition for their efforts in assisting the Department. By collecting and analyzing data, providing graphic materials, and especially because of their general attitude of cooperation, these agencies greatly facilitated the task undertaken by the Department.

In its preparation of this report the Department enlisted the aid of a special-purpose Task Force, consisting of individuals both within and outside of the Department. The overall contribution of the Task Force was considerable; the following members are to be commended for a job well done:

Chairman: Joseph H. Brown, Jr. Deputy Commissioner, Department of Natural Resources

Department of Natural Resources Members:

Howard Bacon, Associate Civil Engineer, Division of Acquisition and Construction  
Gilbert Bliss, Chief, Bureau of Recreation, Division of Forests and Parks  
Emerson Chandler, Chief Planner, Division of Water Resources  
Robert Greenleaf, Chief, Bureau of Statewide Planning, Office of Planning  
Joel Lerner, Director, Division of Conservation Services  
Peter Oatis, Chief Aquatic Biologist, Division of Fish and Game  
Carol Rolf, Acting Chief, Bureau of Project Planning, Office of Planning  
Richard Young, Associate Planner, Division of Water Pollution Control

Other Members:

Michael Padnos, Assistant Secretary, Executive Office of Transportation and Construction  
Robert Rettig, Executive Director, State Historical Commission

## Contents

Introduction . . . . .	1
Lowell Through Time . . . . .	1
A New Beginning . . . . .	2
The Concept of a Lowell Heritage State Park . . . . .	2
Benefits to be Derived from the Heritage Park . . . . .	4
The Park Proposal . . . . .	6
The Design of the Heritage Park . . . . .	6
Description of Park Components . . . . .	8
Estimated Cost of the Heritage Park . . . . .	13
Park Related Issues. . . . .	17
Park-Peripheral Land Use . . . . .	17
Water Resources. . . . .	20
Conclusion. . . . .	22
Future Directions . . . . .	22
The Need for a Cooperative Effort . . . . .	22
A Proposed Action Program. . . . .	25

## Illustrations

Figure 1 Park Conceptual Plan - City Wide . . . . .	following pg. 6
Figure 2 Park Conceptual Plan - In Town . . . . .	following pg. 6
Figure 3 Park Circulation. . . . .	following pg. 6
Figure 4 Pawtucket Boulevard Park . . . . .	following pg.10
Figure 5 The Northern Canal Walk . . . . .	following pg.10
Figure 6 Francis Gate Park. . . . .	following pg.10
Figure 7 Tremont Yard Park . . . . .	following pg.10
Figure 8 Rex Lot Park . . . . .	following pg.10
Figure 9 Cross Sections. . . . .	following pg.10
Figure 10 DNR Owned/Protected . . . . .	following pg.12



## Introduction

### Lowell Through Time

Although Lowell will soon be celebrating its 150th anniversary as a city, its recorded history begins earlier than the nineteenth century. For on Lowell's site, at the confluence of the Concord and Merrimack Rivers, there was several hundred years before an encampment of Pawtucket Indians. In 1629 the area hosted a new group: recent immigrants from Europe who settled in what was to become Lowell, farming and fishing the area and gradually establishing lumber and grist mills along its riverbanks.

The beginning of Lowell as it is known today, however, may be identified as 1793, when a corporation entitled Proprietors of The Locks and Canals on Merrimack River was chartered, and construction of the Pawtucket Canal, one of the earliest of its kind in the United States, was begun. Shortly thereafter, the much longer Middlesex Canal was constructed, which connected the Merrimack River to Boston Harbor. These canals were used for transportation, but in the 1820's a group of visionary entrepreneurs saw that a canal system in Lowell might be put to another use: that of providing water power for a major industrial complex.

Thus began Lowell's elaborate system of watercourses and mills and thus began the creation of the United States' first planned industrial city, which came to be known as "the Venice of America." Central to the founding concept of Lowell was the ideal of a humanized cityscape, one which tempered the goal of economic efficiency with attention to the workers' need for a measure of environmental amenities and open space. They were remarkably successful in achieving this ideal, particularly in comparison with other New England mill communities. However, time and a changing economic picture has taken its toll on Lowell; so that today the city is in need of a major revitalization to both restore its proud heritage and redefine its image, making it again a model for what other cities might be.

## A New Beginning

The seed for this revitalization process has already been planted, and, if properly nurtured, promises to bear fruit. During the past decade, the people of Lowell gradually began to see with new appreciation the technological, architectural, and cultural resources which are woven into the fabric of their city, but which have been in many instances either neglected or misused. In 1970, Secretary Walter Hickel of the U. S. Department of the Interior responded to this vision with the introduction of the idea of a Lowell Urban Cultural Park, a new kind of park which would help to make Lowell a showcase of America's industrial history. Although Secretary Hickel subsequently left Interior, his idea took hold: led by the Lowell City Development Authority, the Northern Middlesex Area Commission, and the Human Services Corporation, Lowell citizens in 1973 prepared a tangible outline for an urban cultural park which was submitted to the Commonwealth in October 1973 in a document entitled Urban Cultural Park Component. In it was outlined a proposal for the development of a multifaceted cultural park in Lowell which would be undertaken as one part of the overall Lowell Development program. In consequence, the Department of Natural Resources has assessed the City's proposal and here recommends the inclusion of some of its elements in the creation of a Lowell Heritage State Park.

## The Concept of a Lowell Heritage State Park

As presently conceived, the Lowell Heritage State Park would be dedicated to two equally important purposes:

- (1) The preservation of the cultural heritage of Lowell and the surrounding region--a heritage which has its roots in the past but which is continually growing and diversifying.
- (2) The development of the resources that comprise the area's heritage to increase public appreciation and enjoyment of these cultural assets.



Furthermore, the Heritage Park concept is based on the premise that water resources, specifically the Lowell canal system and the Merrimack and Concord Rivers, have been through history the backbone of the region's culture, enabling it to grow from an Indian encampment to a major industrial center. As such, and as one of the principal sources of recreational and open space opportunity in the area, these resources merit primary attention and should be developed in a manner complementary to the region's heritage.

The objectives of the Heritage Park are therefore as follows:

- . To develop interpretive sites, facilities, and services at appropriate locations in the Heritage Park which will enable the public to better understand the region's culture.
- . To insure that water related open space, now an important asset of the region, is both protected and improved.
- . To provide land-based public recreational opportunity along the river banks and canal banks - in a manner sensitive to the traditional character of those resources - and to provide water-based public recreational opportunity on their watercourses.
- . To restore, maintain, and utilize sites and buildings of historical and architectural interest that are related to the canal system and the rivers.
- . To restore and maintain the system of locks and canals so that they may once again be used for boat traffic.

With these objectives as its focus, the Heritage Park would accomplish the dual purposes to which it is dedicated.

### Benefits to be Derived from the Heritage Park

The returns to be derived from state investment in the Heritage Park are varied and substantial, conferring benefits on the Commonwealth and the nation, as well as Lowell and its surrounding region. In particular, this park development would result in:

- . Preservation of historic and cultural resources which are of recognized state and national significance.
- . Provision of recreational opportunities for the residents of the Commonwealth and for tourists from other parts of the nation.
- . Restoration of technological resources spanning 182 years and facilitation of their use for educational purposes.
- . Protection of a valuable and scenic resource of the Commonwealth: the banks of the Merrimack and Concord Rivers.

In addition, there are numerous benefits to be derived from the Heritage Park which, while important to the larger populace, would have their most immediate impact on Lowell's citizens. Some of these are:

- . Expansion and diversification of the Lowell region's economy through (1) the primary and secondary economic impact of tourism\* and direct state investment, and (2) the creation of a climate of confidence about the city's business future.

- . An opportunity for Lowell's citizens to integrate recreation into the daily pattern of their lives, thereby responding to the call in the 1971 Massachusetts Statewide Comprehensive Outdoor Recreation Plan and the Department of the Interior's 1973 Nationwide Recreation Plan for more attention to urban recreation needs.
- . The beautification of Lowell's industrial/commercial cityscape through imaginative utilization of its unique natural and manmade resources.

A decision by the Commonwealth to invest in the future of the Lowell area through the development of the Heritage Park recommended here may lead to other investments by private concerns as well as city and federal agencies. Working together, a renaissance of this outstanding example of America's industrial past may be achieved, and the utopian dream of its founders for a humanized cityscape realized.

\* It is estimated that by 1985, the Heritage Park could attract 700,000 to 1,000,000 visitors per year.

## The Park Proposal

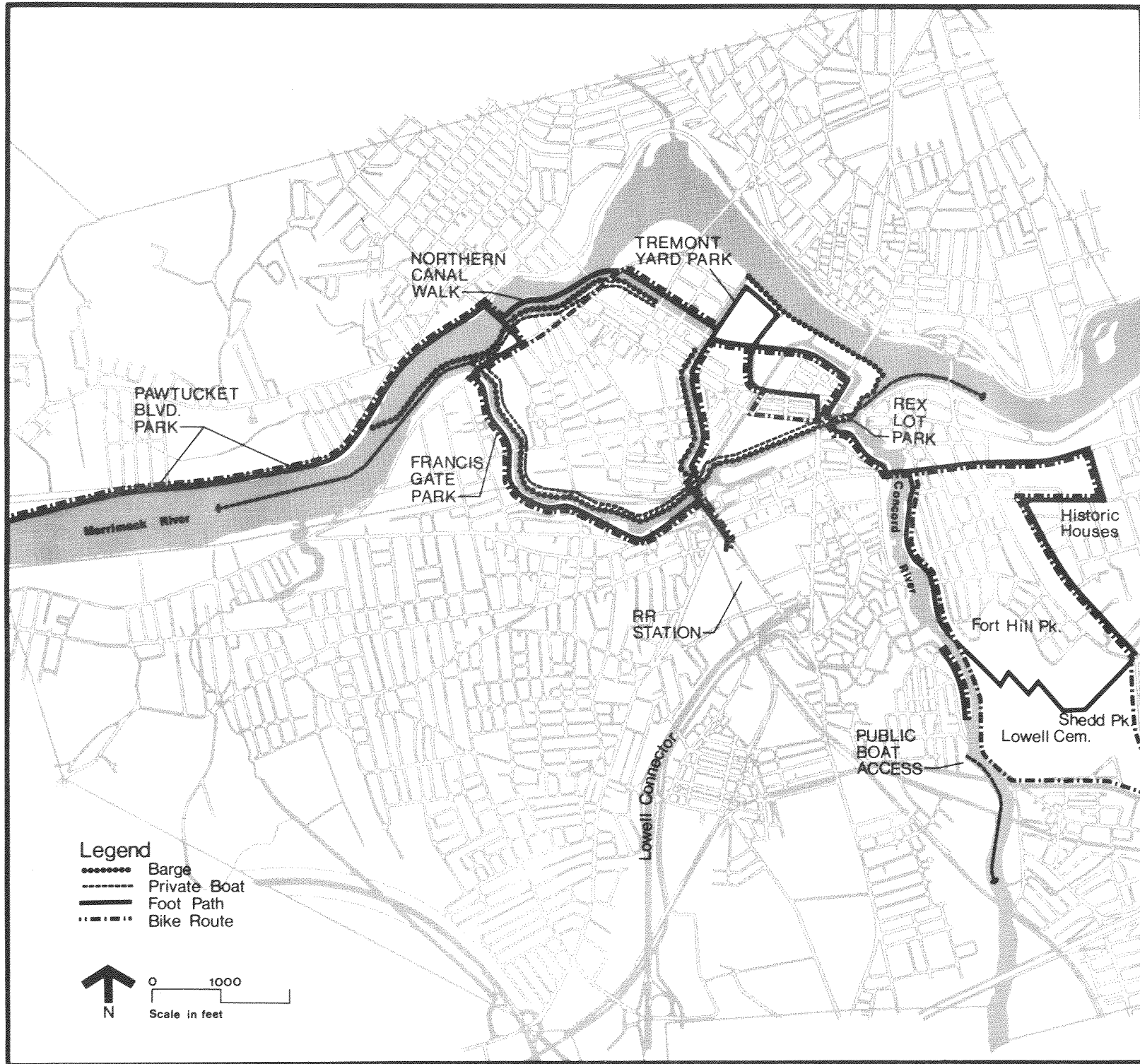
The Department of Natural Resources strongly recommends to Governor Sargent that it undertake the development of a new park in the state park system, and that this park be designated the Lowell Heritage State Park. The primary components of the Heritage Park would be (1) major park sites, including Pawtucket Boulevard Park, the Northern Canal Walk, Francis Gate Park, Tremont Yard Park, and Rex Lot Park; (2) canal and river banks and watercourses; and (3) historically and architecturally significant buildings.

### The Design of the Heritage Park

Being located in an urban area, and oriented to the Lowell canal system and the Merrimack and Concord rivers, the proposed park would have a substantially different physical configuration from that of a traditional state park. Unlike most parks, the Heritage Park would not involve the aggregation of a large unit of land; it would be a dispersed park system, with sites and facilities interspersed throughout the urban area. These sites would be connected by land and water circulation systems, with the canals and the rivers serving as the unifying feature tying together the several scattered land parcels (Fig. 1, 2).

The Heritage Park would be designed to provide the user with an experience that exposes him to a variety of urban environments. The user would be aware of his location within the park system, but he would not be bound to that system. Maximum interaction between the city and the park would be desired, with the objectives being:

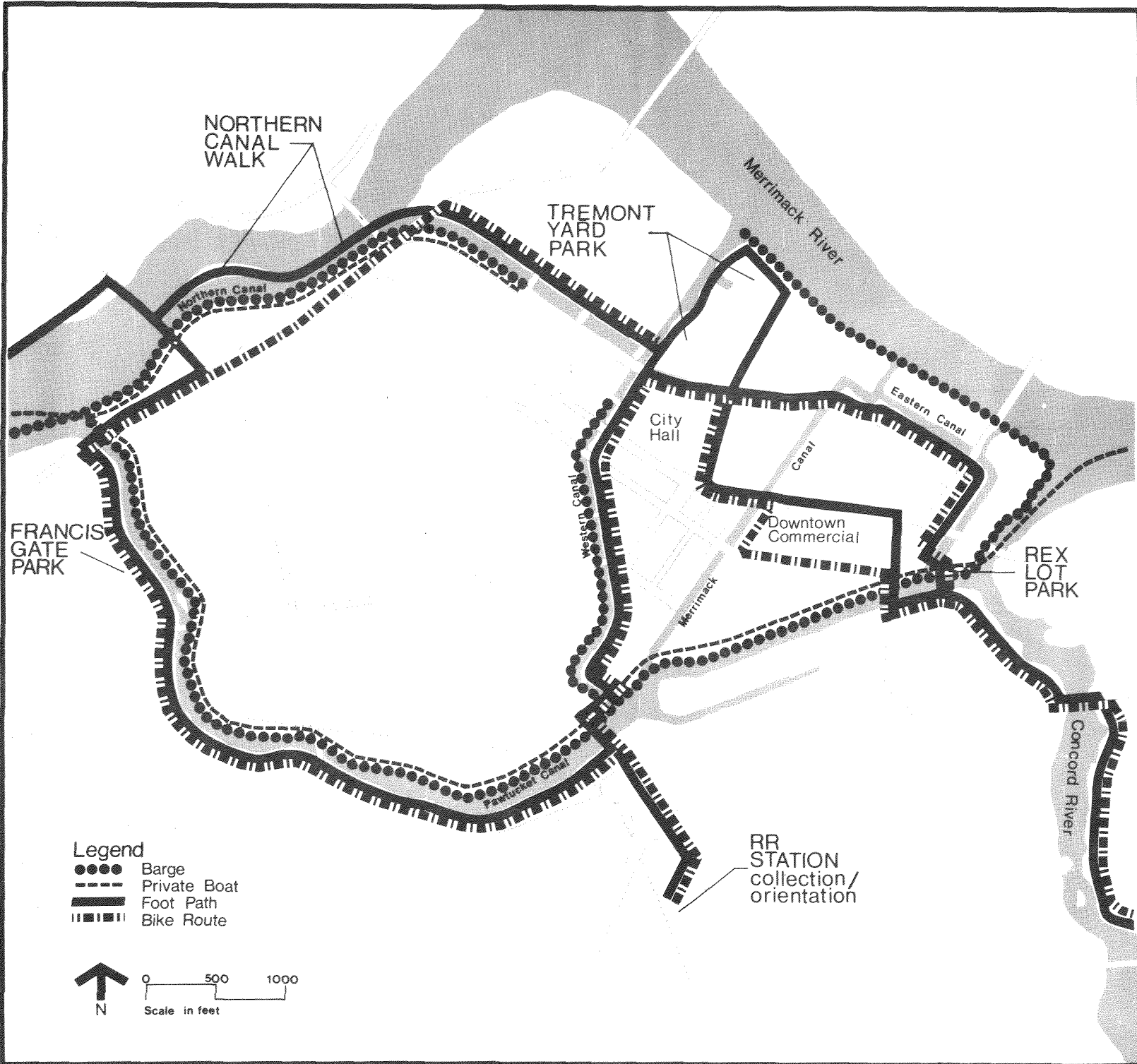
- . To turn the attention of the city towards its waterways so that their potential as cultural, open space, and recreational resources may be fully realized.
- . To turn the attention of park users towards the city so that they may become aware of the diverse historical, architectural, contemporary, and cultural resources that Lowell has to offer.



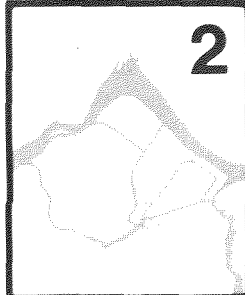
# park conceptual plan

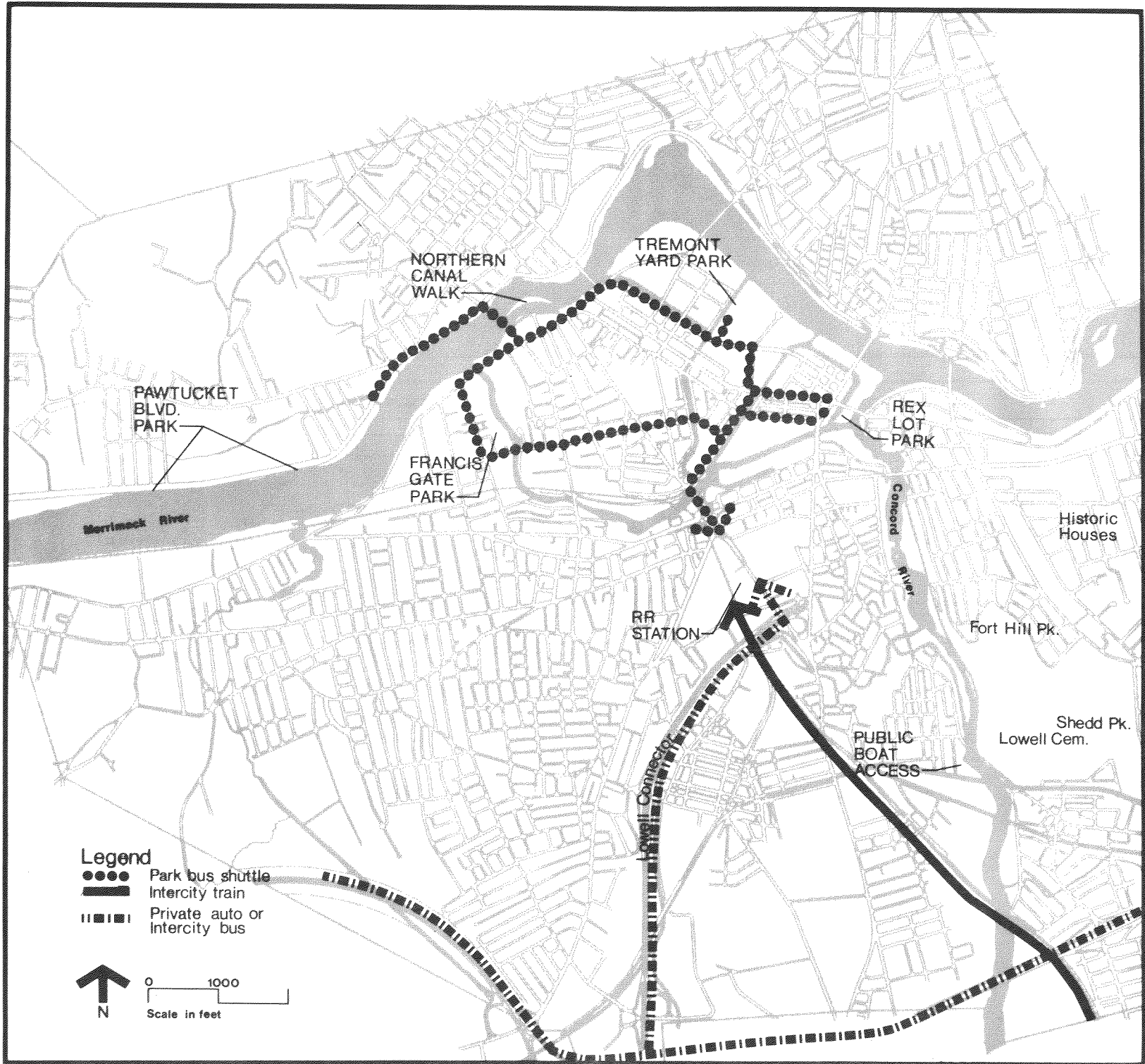
city wide





# park conceptual plan in town





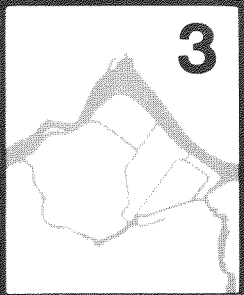
**Legend**

- Park bus shuttle
- Intercity train
- - - Private auto or Intercity bus

↑  
N

0 1000  
Scale in feet

# park circulation





The Heritage Park user would travel through the park on foot, bicycle, boat, or mass transit. (Fig. 3) Use of these modes of transportation would help insure a pleasurable urban experience, plus would avoid the adverse impact that large numbers of automobiles would have on pedestrian safety, air quality, traffic circulation, and noise levels. Parking would generally not be provided at park sites, except to accommodate handicapped persons. However, until mass transit began operating, there would be temporary parking provided at appropriate locations in the park.

To accommodate people visiting the Heritage Park by automobile, it is recommended that the City pursue its intention of using the Lowell Railroad Station site as the location for a major urban parking facility. This facility, if of sufficient capacity, could act as a collection/orientation point from which visitors would embark for the park.

## Description of Park Components

### 1. Park Sites

- . Pawtucket Boulevard Park (Fig. 4)

Presently under City ownership, this approximately 1.4 mile stretch of Merrimack river bank (18.3 acres) would be developed as a linear park. Bordering an outstanding section of the river, this park would be used for both open space and recreational purposes. In addition to landscaping the area, bicycle and foot trails, boat launching areas, barge tour landings, and picnicking facilities would be developed. As a place to view river boating activities -- regattas, crewing, sailing, etc. --, this river bank is unsurpassed.

- . The Northern Canal Walk (Fig. 5)

Presently under ownership of the Proprietors of Locks and Canals, this walkway (8.2 acres) affords a spectacular view of the Merrimack River rapids below Pawtucket Falls, as well as a view of the Northern Canal and the locks at the canal's upper end. The unique feature of this site, however, is the gatehouse at Pawtucket Falls. To be used as an interpretive resource, this gatehouse would provide the public with a chance to view three generations (spanning 125 years) of mechanical technology in their historical setting.

- . Francis Gate Park (Fig. 6)

Presently under ownership divided mainly between the Proprietors of the Locks and Canals and the City, this wooded canal bank (12.2 acres) would perform both open space and recreation functions. Facilities constructed at this site would include bicycle and foot trails, boat dockage, and a tourist barge landing. The most interesting feature of this site is the Guard Locks complex, consisting

of a gatehouse, a lock house, a unique flood prevention gate (which has twice in the past 125 years been relied upon to protect Lowell from Merrimack River floodwaters), and the locks themselves. Interpretive services would be developed here to explain lock operations and the remarkable history of the site.

. Tremont Yard Park (Fig. 7)

Presently under private ownership, this L-shaped parcel of land (13.5 acres) borders both an interesting section of the Western Canal and the Merrimack River. Significantly, this site includes the only portion of the Merrimack River in Lowell's urban core which is potentially available for public use and enjoyment. Developed to be a major open space resource in close proximity to downtown Lowell, this site would be the focal point for two important park functions: (1) the terminus of two potential tourist barge loop tours, and (2) the site of a visitors center and interpretive exhibit (possibly located in one part of the adjacent Wannalancit Mill).

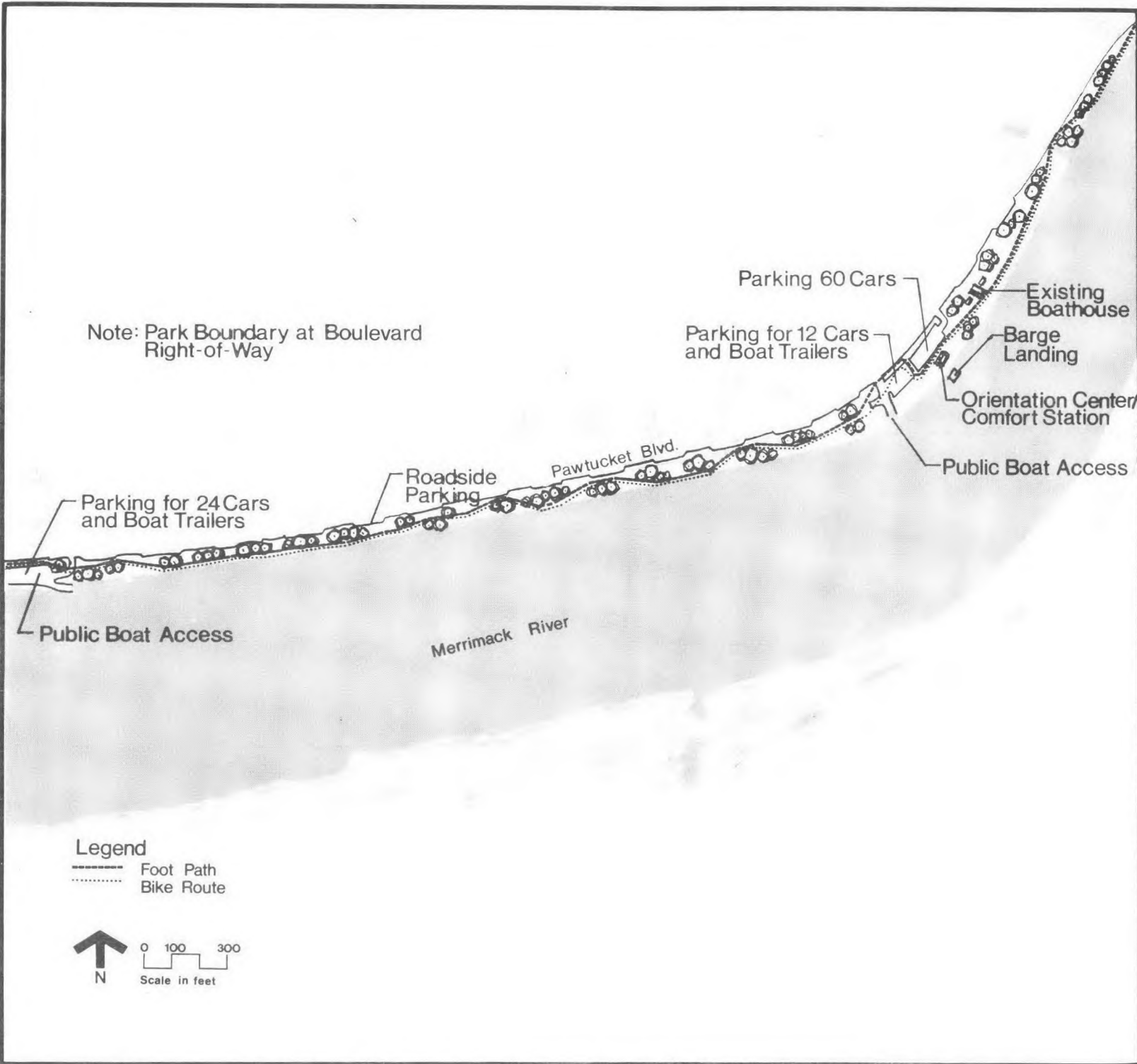
. Rex Lot Park (Fig. 8)

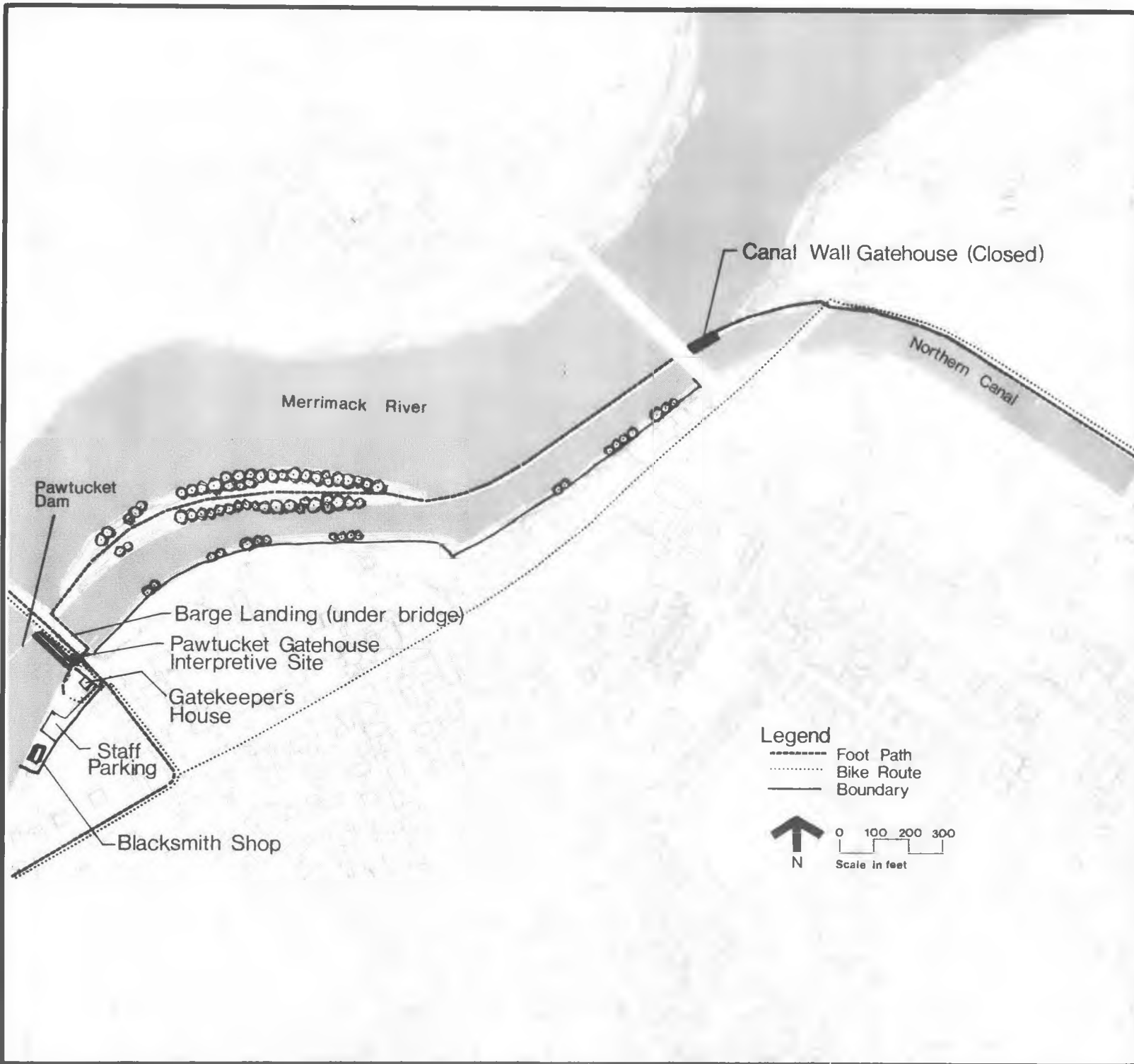
Presently under City ownership, this site (2.8 acres) would be a major park attraction, as it affords the best vantage points of any site in the system to observe the operation of locks. In addition to providing respite for shoppers and workers, development of this site would help to make nearby Merrimack and Central Streets more attractive commercial areas.

The use of a portion of the Central Street bridge over the Pawtucket Canal as a viewing platform would provide an opportunity to increase the accessibility of the Rex Lot site, and it would afford a vista of the Pawtucket Canal west to Swamp Locks and east to the Concord River. (Relocation of the commercial enterprises and removal of structures over the canal would necessarily precede this development.) A tourist barge landing and public boat dockage at the park

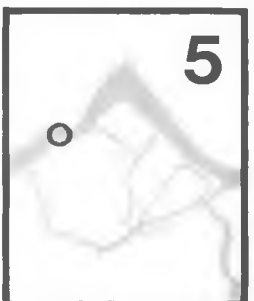
would serve to augment the attractiveness of this site. In addition, the potential exists at Rex Lot to develop a portion of the site for a compatible use, which would enhance the park visually as well as contribute to Rex Lot's singular appeal.

# pawtucket blvd park

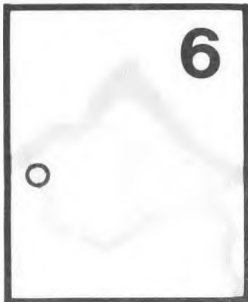
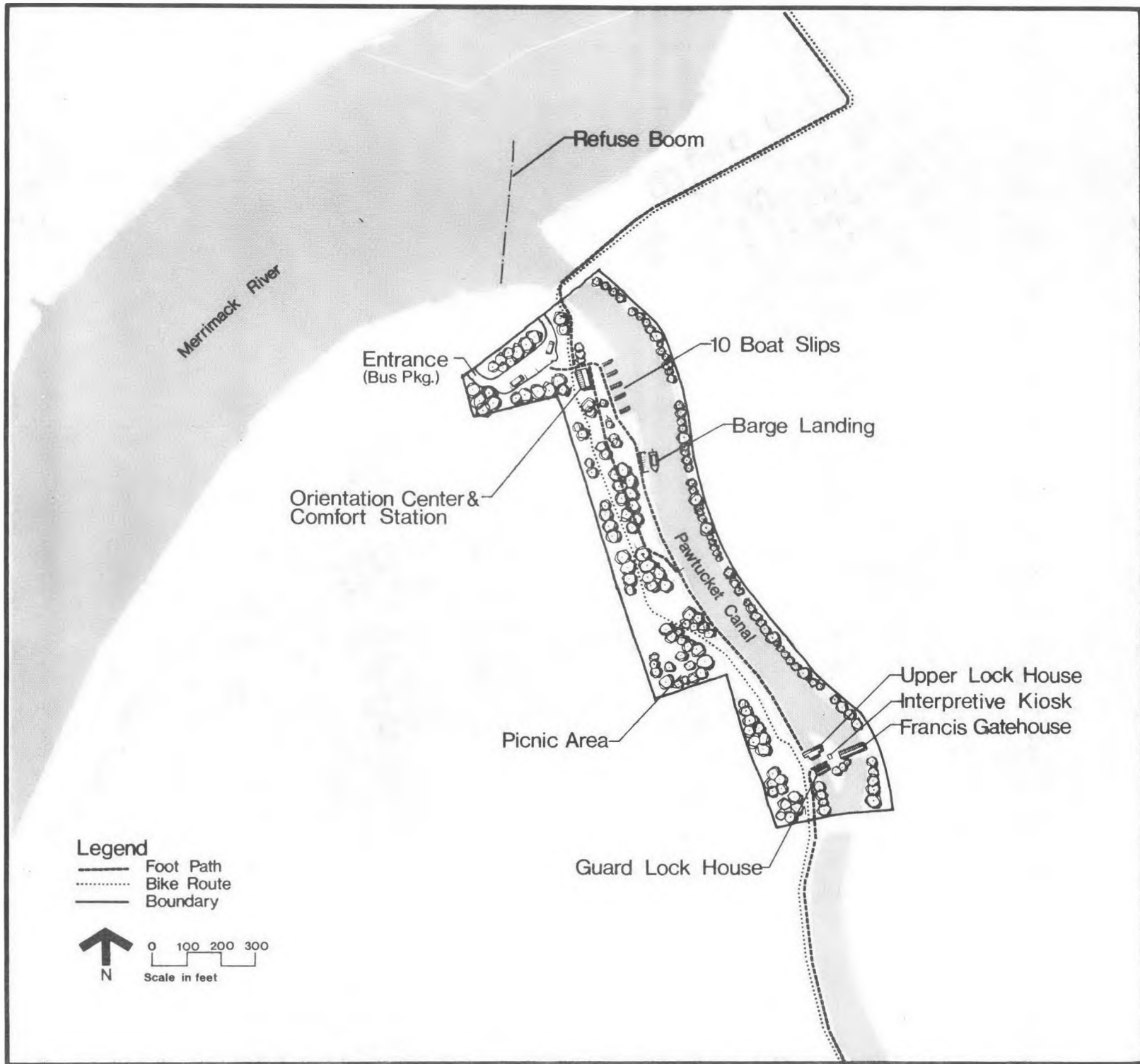




# northern canal walk

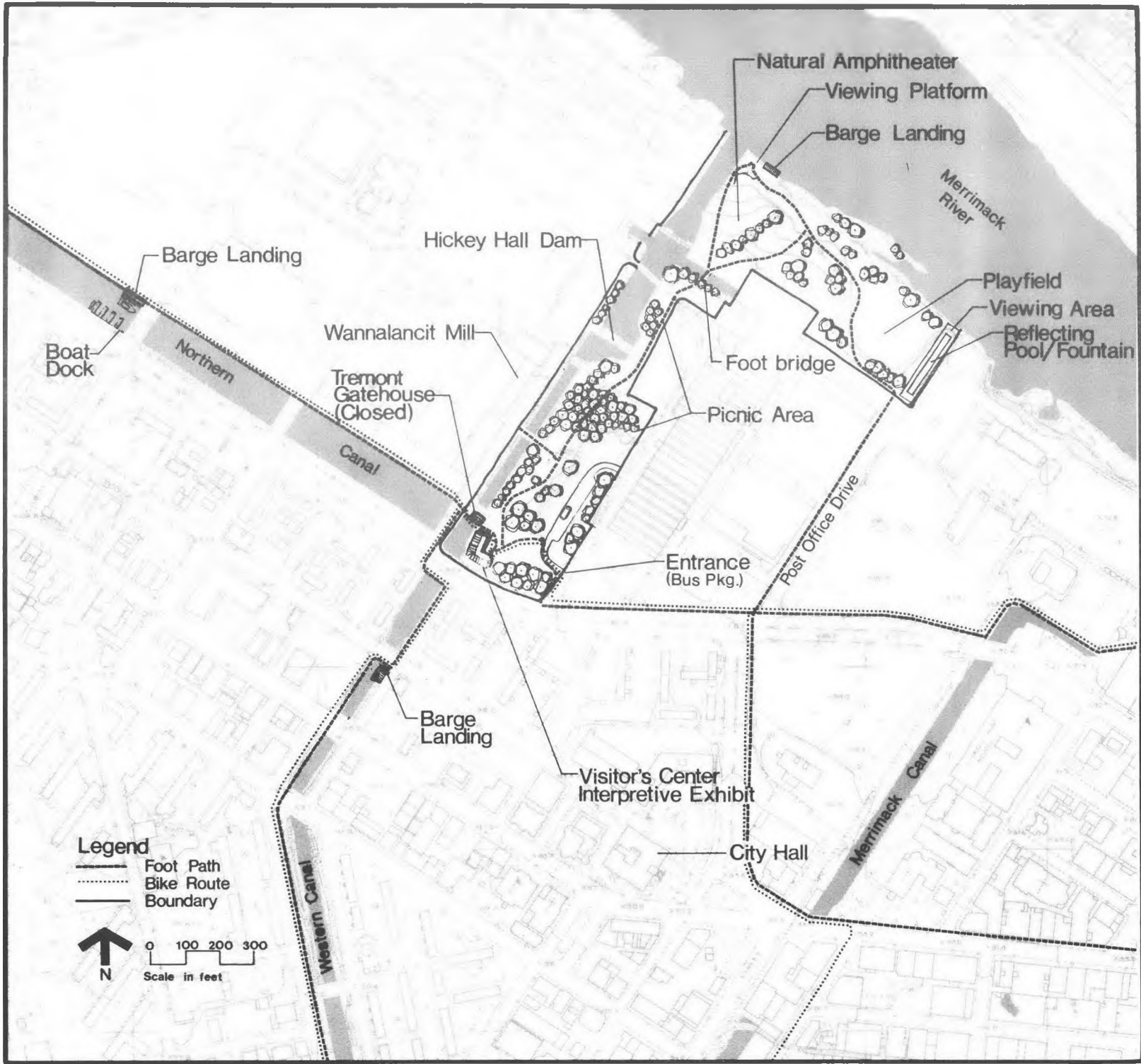
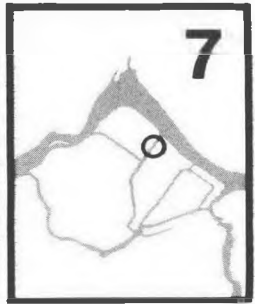


# francis gate park

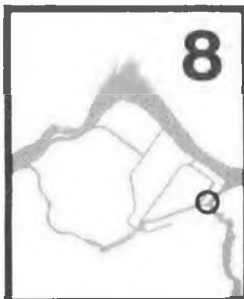
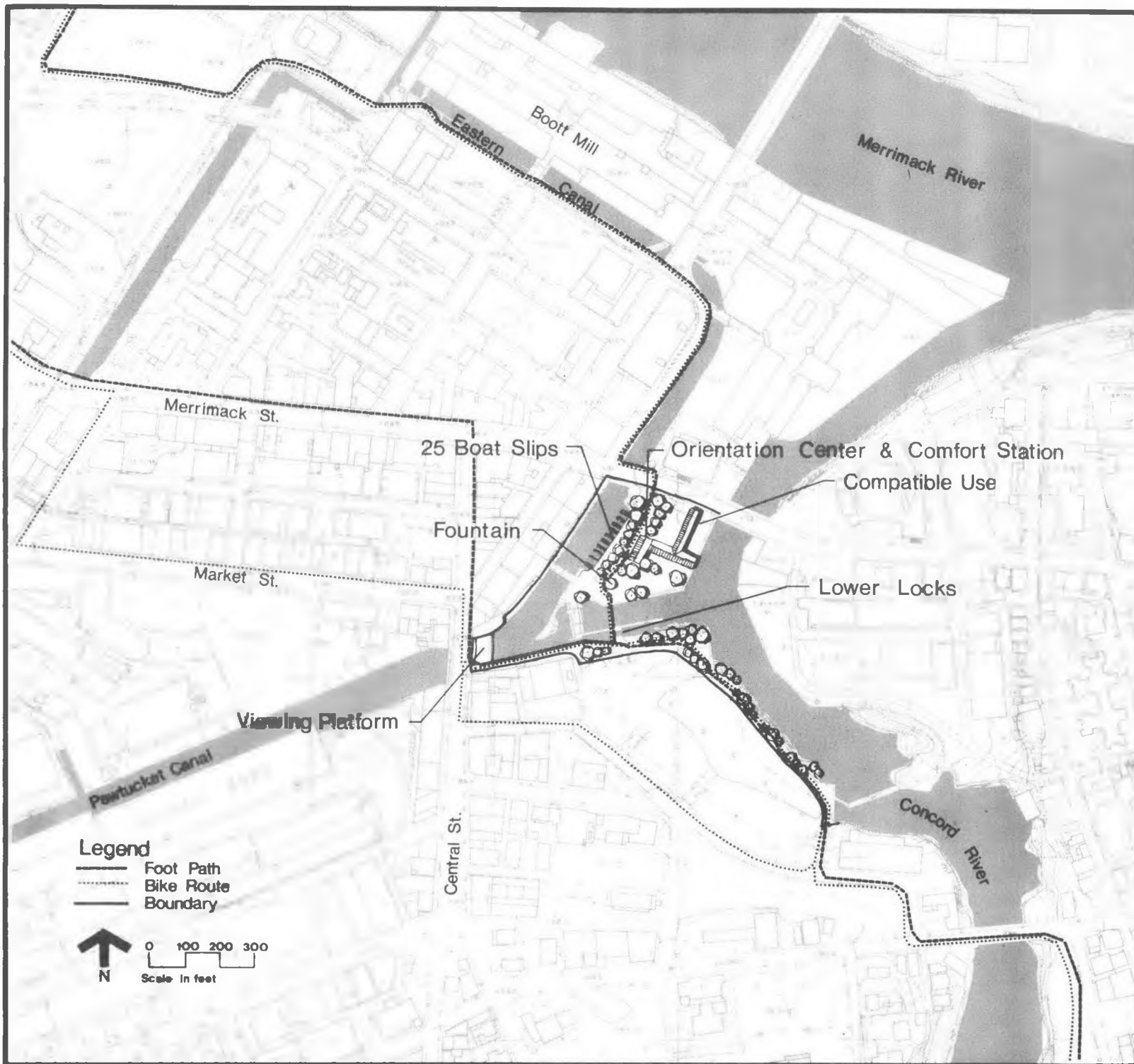


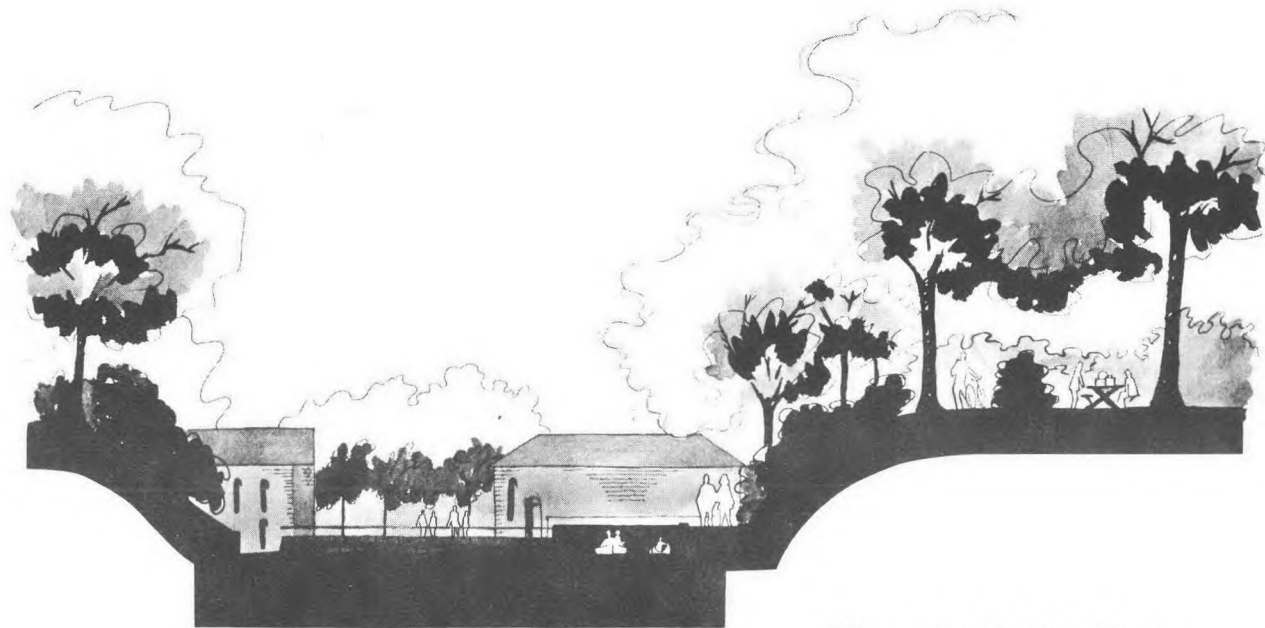


# tremont yard park



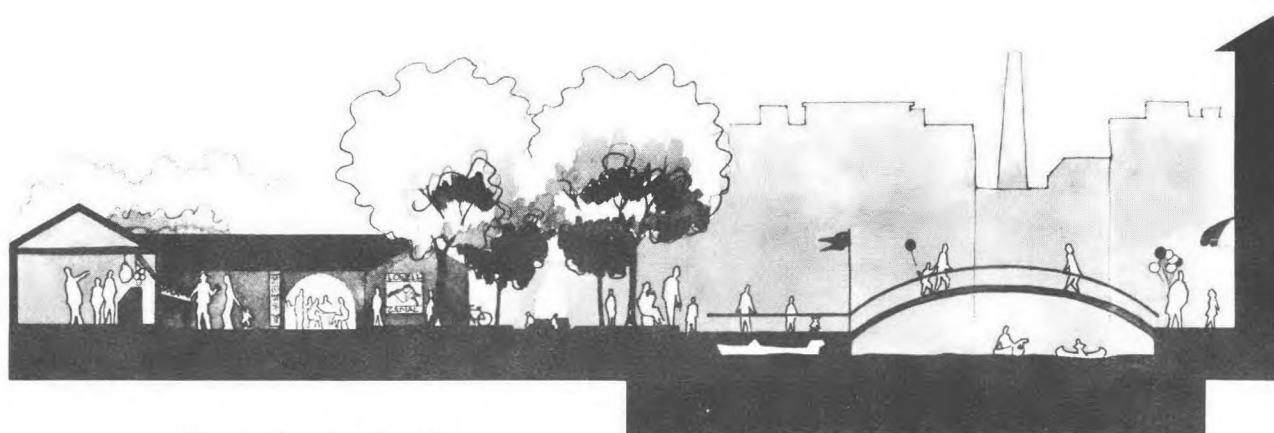
# rex lot park





Pawtucket Canal

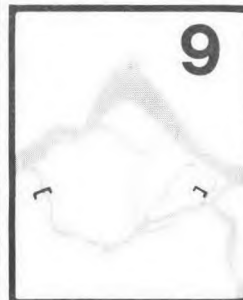
Francis Gate Park



Rex Lot Park

Eastern Canal

**cross sections**



## 2. Canal and River Banks and Watercourses

### . Banks

The banks of the entire Lowell canal system (10 miles) which are not built upon, and all of the undeveloped banks of the Merrimack and Concord rivers in Lowell (12 miles) would be considered part of the Heritage Park (Fig. 10). All canal and river banks in the park would be protected by acquisition or easement where feasible, and otherwise by application of the Scenic Rivers Act. Protection of these resources would be facilitated by the fact that almost all of these canal and river banks are presently owned by either the City, the Proprietors of the Locks and Canals, or Lowell educational institutions.

The purpose for protecting canal and river banks would be threefold: (1) they would provide access facilities for water-based recreation, such as barge landings, public boat launch and dockage areas, canoe rental sites, etc., (2) they would provide areas for land-based recreation, such as walking and bicycling, fishing, picnicking, sunbathing, etc., and (3) they would provide a buffer between the water and adjacent developed land. Undeveloped and protected canal and river banks insure that visual and physical access to the water will not be obstructed in the future.

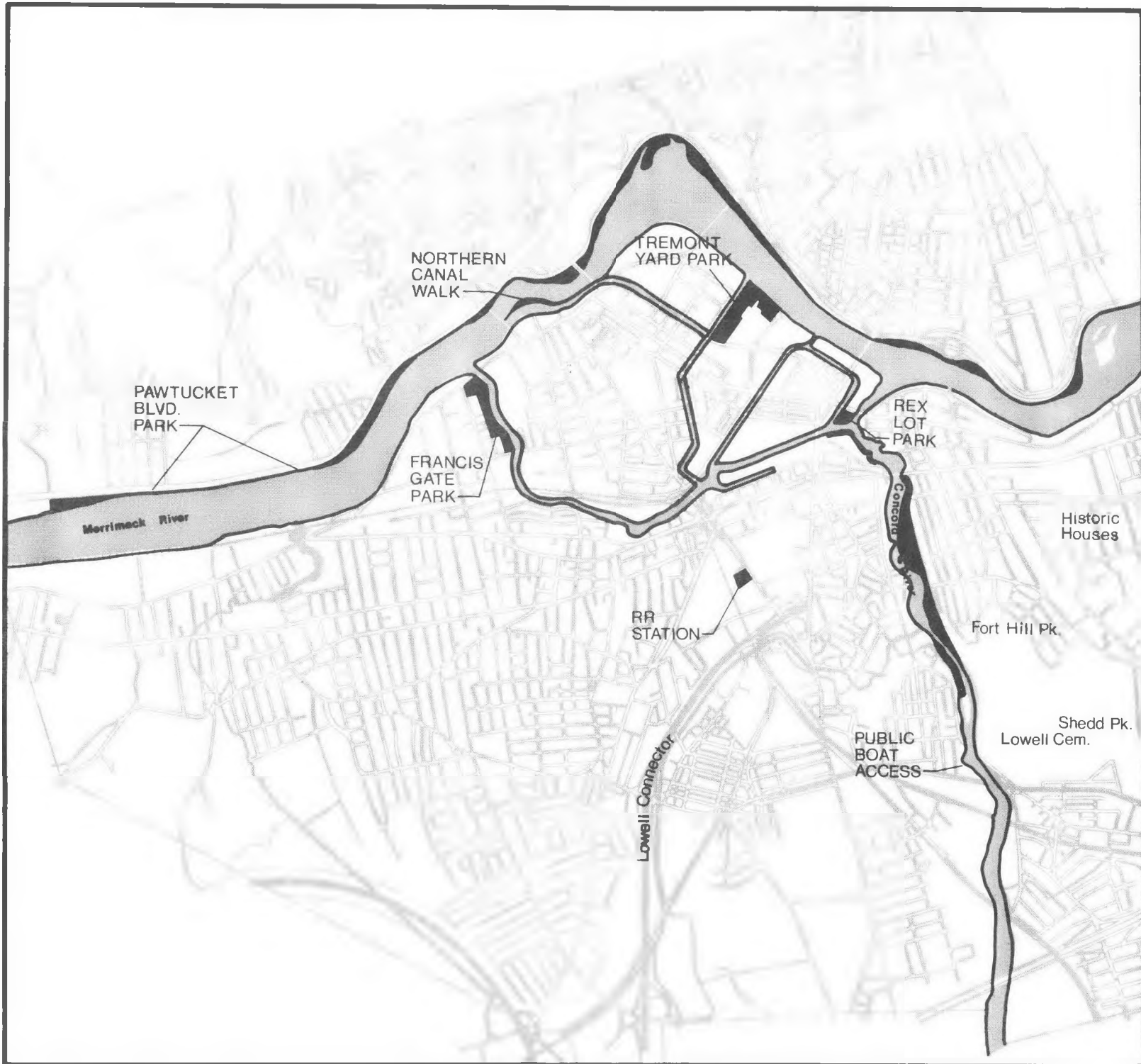
### . Watercourses

Canal watercourses would be developed to accommodate various types of small boat and barge traffic. Bridge clearances on the primary boating canal, the Pawtucket, are presently adequate. However, bridge clearances would have to be improved at several locations in the system in order to accommodate boating on the Western, Merrimack, and Eastern Canals. Restoration of the four sets of locks in the system, dredging, and minor alteration of the canal system for safety purposes (safety booms, etc.) must precede any recreational boating activity on the canals.

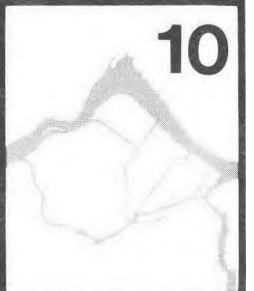
River watercourses (the Merrimack and Concord Rivers) would be used for power boating, sculling, canoeing, etc. Dams and river shallows would restrict the type and range of boating traffic on these watercourses at least for the short-run future, as these impediments require special attention by governmental agencies concerned with river navigability. However, the Merrimack River upstream of the Pawtucket Falls dam is currently a fine boating resource with no restraints on navigability between Lowell and Nashua, New Hampshire.

### 3. Historically and Architecturally Significant Buildings

As mentioned previously, the Pawtucket Dam Gatehouse, Guard Lock House, Upper Lock House, and Wannalancit Mill are all historically significant structures which could be utilized for interpretive purposes. Added to this list is the Thorndike Mill, a portion of which could also be used for a visitor orientation center (in conjunction with the railroad station parking facility). It is anticipated that other gatehouses and structures which are historically related to the canal system (mills, corporation housing, workshops, architecturally significant homes, etc.) would be developed for interpretive purposes as the opportunity arose.



**dnr owned / protected**





## Estimated Cost

The various land parcels which constitute the Heritage Park are for the most part owned by either the Proprietors of the Locks and Canals, the City of Lowell, or Lowell educational institutions. Due to the fact that there are several potential alternative park ownership arrangements--including use of such techniques as direct transfer of property to the Commonwealth, fee simple acquisition, and purchase of easement rights--no detailed estimate of property acquisition costs has been attempted. A lump sum estimate for these costs has been projected, as indicated below in (1).

Also outlined below are projections of estimated park development costs, by site (2), and lock restoration costs (3). These figures are based on 1974 costs and include the cost of design as well as a 25% contingency allowance for inflation and unforeseen expenses.

(1) Projected property acquisition/protection costs . . . . . total:       \$2,900,000

(2) Projected Heritage Park development costs

. Pawtucket Boulevard Park . . . . . \$1,200,000

Parking	Landscaping
Boat access	Comfort station/Orientation center
Barge landing	Foot and bike trails
Seating	

. Northern Canal Walk . . . . . \$ 144,000

Landscaping	Staff parking
Stairs	Interpretive center -
Seating	gatehouse
Lighting	



. Francis Gate Park . . . . .		\$ 512,000
	Landscaping	Information/comfort station
	Barge landing	Foot and bike trails
	Safety boom	Temporary parking
	Lighting	Building restoration
	Boat slips	Refuse boom
. Tremont Yard Park . . . . .		\$ 930,000
	Landscaping	Visitors center/Interpretive exhibits
	Barge landings	Temporary parking
	Excavation	Picnic tables
	Foot trails	Fountain/
	Lighting	
. Rex Lot Park . . . . .		\$1,265,000
	Fountain	Pavement removal
	Landscaping	Boat slips
	Barge landing	Information/comfort station
	Lighting	Central Street viewing area
	Footbridges	
. Western Canal . . . . .		\$ 86,000
	Landscaping	Walks
	Barge landing	
. Pawtucket Canal . . . . .		\$ 196,000
	Landscaping	Foot and bicycle trails

. Eastern Canal . . . . .			\$ 96,000
	Landscaping	Walks	
. Northern Canal (French Street section) . . . . .			\$ 104,000
	Landscaping	Walks	
	Barge landing	Boat slips	
. Concord Riverfront . . . . .			\$ 161,000
	Landscaping	Foot and bicycle	
. Concord Boat Access . . . . .			\$ 240,000
	Canoe rental	Parking/entrance	
	Boat ramp		
. Heritage Park administrative/maintenance center . . . . .			\$ 250,000
. Thorndike Mill Visitor Orientation Center . . . . .			\$ 500,000
			<u>TOTAL \$5,684,000</u>

(3) Projected lock restoration costs

. Northern Canal Locks . . . . .	\$ 123,000
. Francis Gate Locks . . . . .	\$ 170,000
. Swamp Locks . . . . .	\$ 127,000
. Lower Locks. . . . .	\$ 146,000
	<u>TOTAL: \$ 566,000</u>

TOTAL HERITAGE PARK COST: \$9,150,000

**Park-Related Issues** Issues which affect the Heritage Park encompass both land and water resources in the Lowell area. They have been identified as including the following two broad subject areas, but it should be noted that this is not an exhaustive compendium: other issues may arise which will also merit the attention of those concerned with the park's development.

#### Park-Peripheral Land Use

Intrinsic to the concept of the Lowell Heritage State Park is the fact that the proposed park system will be not an isolated entity but an interrelated aspect of Lowell's total urban fabric. It is therefore essential that the nature of these interrelationships be understood and that precautions be taken to insure their harmony, for only with such measures can the park be of optimal benefit to its users and to the city as a whole. These measures can be grouped into two categories:

1. The guidance of neighboring land uses

The following areas should be addressed to improve both the City's and the Commonwealth's ability to guide the use of land bordering on or related to the proposed park system:

The Lowell Zoning Ordinance:

- . The City has taken the initiative to study possible revisions in its zoning ordinance. As part of this study, the City Council should consider enacting changes in the B2 districts on the north side of Pawtucket Boulevard and the IB district on the eastern bank of the lower Concord River, to prevent the encroachment of incompatible business and industrial uses in these areas.
- . The DNR should be given prior notification in writing of all public hearings required under the zoning ordinance that are held concerning property in the immediate vicinity of the Heritage Park.

### The Lowell Historical Commission Ordinance

- . Lowell took a farsighted move to preserve its historic resources by enacting this ordinance in 1973, and it is continuing its effort to increase the number of historic areas covered by the ordinance. As part of this effort, the City Council should consider expanding the present Locks and Canals Historic District to include all property lots any part of which is within 30 feet of the bank of any canal watercourse. Only such an expanded district can adequately protect this invaluable aspect of Lowell's heritage by insuring that proposed property changes are compatible with the canal area's aesthetic quality.
- . The DNR should be notified in writing of any application to the Lowell Historical Commission for a certificate of appropriateness for any alteration of historic district property which is in the immediate vicinity of the Lowell Heritage State Park.

### The Commonwealth's Scenic and Recreational Rivers Act

- . In its implementation of the above statute, the DNR should consider the possibility of using the regulatory measures available under this act to protect the scenic and recreational resources of the Merrimack and Concord Rivers.

## 2. The selection of public projects

Direct actions which Lowell takes to execute or abet major projects in the city may also have a substantial impact on the Heritage Park--an impact which can be either beneficial or detrimental. Numerous opportunities exist to maximize the former and minimize the latter type of effect, for example:

- . The City should consider expanding its new city park on the southern bank of the Merrimack River to extend westward and include land to be made available following the High S Bridge reconstruction. In addition, if the proposed

Route 213 bridge over the Merrimack River is built, the city should use every available means to insure that the construction has a minimum impact on the northern bank's Pawtucket Boulevard Park, and it should also consider using the bridge and adjacent land on the southern bank to create a pedestrian link between the two parks.

- . The City should continue to actively pursue a policy of encouraging and aiding the adaptive restoration of its historic mills and other fine examples of its architecture.
- . To insure its compatibility with the Heritage Park's Pawtucket Boulevard Park site, the riverside portion of the city's industrial park on Pawtucket Boulevard should be retained for recreation-related uses, rather than being sold for industrial development.
- . In order to prevent the destruction of a valuable natural resource which is recommended for passive recreational use in this report, the city should discourage the presently contemplated construction of a highway on the eastern bank of the Concord River. This highway proposal, which is one alternative being considered in the current Skidmore, Owens, Merrill (SOM) Lowell Transportation Study, would be in direct conflict with the purposes of the park. On this issue, as on other transportation proposals resulting from the SOM study, the City should take an active stance, insuring the compatibility of these proposals with the Heritage Park.

In addition to the above, a general agreement should be adopted between Lowell and the DNR to insure the compatibility of City actions with the Heritage Park. This agreement should provide that the City Council will obtain the DNR's advisory opinion on all prospective City-supported projects to be executed on land adjacent to the Heritage Park

## Water Resources

As water resources were identified in the Introduction as being the backbone of Lowell's cultural heritage and meriting the primary attention of the Commonwealth in the development of the Heritage Park, so issues which relate to these water resources are of predominant importance and merit the attention of numerous parties. Following are three such issues which need particular attention:

### 1. NEWS Water Supply Studies

The Corps of Engineers is presently studying the feasibility of diverting Merrimack River waters for public water supply purposes. The potential impact of a water diversion project on public boating and other water oriented recreational activity is significant. The 4500 c. f. s. flow requirement for power generation at Lowell may be adequate for multi-purpose use--both power generation and water-based recreation. However, prior to implementation of any diversion project on the river, a thorough study should be made of its impact on Heritage Park activities, for an adequate water supply is crucial to the success of the Park.

### 2. Anadromous Fish Restoration

Presently a consortium of state, federal and private agencies are working towards restoring the historic run of anadromous fish (primarily salmon and shad) on the Merrimack River from Newburyport to breeding waters in central New Hampshire. Two major obstacles stand in the way of this restoration, these being the dams in Lawrence and Lowell. The logistics of fish passage both downstream and upstream at these dams are complex and need not be outlined in this report. The expense of the restoration will be great (an estimated 5.2 million), and it is clear that Lowell and Lawrence should be considered in tandem, as passage at both dams must be provided before restoration can be accomplished.



At the present time there are unresolved issues (such as the prospective FPC licensing of the dam owners) which preclude a final determination of functional responsibilities in the restoration project. Coordination has been established between DNR and the aforementioned agencies, and an effort will be made to insure that the on-going fish restoration project will be synchronized with development of the Heritage Park.

### 3. Water Quality

Because rivers and canals play such a major role in the Heritage Park proposal, water quality will have an important bearing on many of the components in the proposal. This interrelationship between water quality and Park components is reflected in the proposed Park development schedule outlined in the final section of this report. The importance of coordinating water quality improvement efforts with the development of the Heritage Park cannot be overstressed; federal, state, and local agencies and individuals concerned with water quality should work together to ensure that Lowell's water resources are developed to the fullest extent possible for public recreational use and enjoyment.

## Conclusions

### Future Directions

It must be recognized that the Heritage Park recommended in this report does not purport to be a complete answer to the Lowell area's needs. Numerous possibilities exist for eventual expansion of both the Heritage Park and the state's overall role in the area; for example, the continuing desire for other recreational opportunities not provided by the Heritage Park should be addressed, as should be the continuing need to protect and restore other important aspects of Lowell's heritage, such as the Middlesex Canal (a need which was substantiated in a DNR report written in response to Chapter 54 of the resolves of 1971, in which the General Court directed the DNR to study this unique resource). In addition, the potential offered by resources located outside of the core city but within the surrounding region--at Lowell-Dracut and Warren Manning State Forests, and at Great Meadows National Wildlife Refuge, to name only a few--should be explored, both for their separate assets and for the possibility they offer of a truly regional park system. Finally, it should be noted that the park recommended in this report is intended to be only a beginning effort: one which presages the concept of a network of urban state parks throughout the Commonwealth but which does not dictate the nature of those parks. In this, as in all matters relating to the development of a state park in Lowell or in another urban area, the physical design of the park must remain flexible, responsive to the exigencies of the moment and to the currents of change.

### The Need for a Cooperative Effort

A response to the immediate and future needs of the Lowell area can be made most effectively if it is a cooperative effort, for given that the immediate scope of the Heritage Park must necessarily be limited, only a joint venture involving private, city, regional, state, and federal participants could hope to fully take advantage of the area's outstanding resources. It is recommended that the prospective role of these participants be as follows:

1. The Private Sector

Private interests have begun to respond to the challenge of restoring old and developing new commercial structures which are architecturally in keeping with Lowell's heritage. Only if individual businessmen as well as large developers respond to this challenge en masse will Lowell gain the recognition it deserves as a cityscape of national significance.

2. The Quasi-Public Sector

Organizations such as the Massachusetts Audubon Society and the Trustees of Reservations could also play a major role in the preservation of the Lowell region's natural and cultural assets, acquiring in full or in part those resources which are of particular significance to the Commonwealth and which might otherwise go unprotected.

3. The City

The City should make a strong commitment to the Heritage Park, expressing this commitment in part by transferring to DNR the city-owned land which falls within the boundaries of Heritage Park sites. The city should also: make a strong commitment to the continued expansion and improvement of its own park system; address the need for the overall beautification of the city; and most importantly, wholly commit itself to the preservation of its heritage. Lowell might go the way numerous other cities have gone, sacrificing heritage to economic expediency. The City should instead guide and work in cooperation with developers to insure the evolution of a compatible urban form and function. In the final analysis it will be Lowell's citizens and not the DNR who, through these issues, determine the success or failure of the Heritage Park.

4. The Northern Middlesex Area Commission

The area's regional planning commission has several means available to it to enhance the Lowell Heritage State Park. Of particular importance is its A-95 review function and its relationship to the Regional Transit Authority, both of which afford it the opportunity to consider development and transportation plans and proposals that might affect the Heritage Park and discourage those that would have a negative impact.

5. The State

In addition to the proposed DNR effort in Lowell, other state agencies should determine their interest in contributing to Lowell's development. At the very least, every state agency should insure that no action it takes will have adverse impact on the Heritage Park or any of Lowell's historic resources.

6. The Federal Government

Other than the previously noted federal agencies concerned with water-related issues, the most important federal participant in this cooperative venture may be the National Park Service (NPS). This agency has expressed interest in the cultural/historical resources of Lowell. Legislation relevant to their participation is pending in Congress at this time.

The NPS is urged to play an active role in the preservation and development of Lowell's historic resources, for the prospect of a mutually supportive partnership dedicated to those purposes is welcomed by the DNR. Examples of areas in which the NPS could take the lead role are:

- . Restoration and adaptive development of mill complexes
- . Restoration of other historic and architecturally significant structures (such

- . as the row housing, market houses, etc. noted in the 1970 Lowell Urban Design Study)
- . Utilization of Lowell's multifaceted resources for educational purposes
- . Establishment of cultural and interpretive programs in mills and other historic structures

Through the combined efforts of the above groups, and through a continuing recognition by all parties of as yet unexplored possibilities, the goal of a renaissance of the Lowell area may be achieved, making it a harbinger of comparable efforts in other urban areas of the Commonwealth and the nation.

#### A Proposed Action Program

By making a recommendation to Governor Sargent urging the creation of a Lowell Heritage State Park, the DNR is committing itself to a new and exciting endeavor. Upon receiving the Governor's approval, and upon agreement being reached between the various parties integral to the success of the Park - the DNR, the City of Lowell, and the Proprietors of the Locks and Canals - the DNR is prepared to immediately begin the task of making the Heritage Park a reality. A significant amount of time and effort has been spent putting together this viable park proposal; what remains is for ideas to be translated into action.

#### 1. Proposed Heritage Park Development Schedule

As previously outlined in this report, the total cost of the Heritage Park has been estimated at \$9,150,000. It is recommended that the Governor submit to the legislature a capital outlay request for 3.9 million dollars for fiscal year 1976, 3.9 million dollars for fiscal year 1977, and 1.2 million dollars for fiscal year 1978. A development schedule and cost itemization is outlined below:

. Fiscal Year 1975 (July 1974-June 1975)

In this time period the DNR would commit staff services plus \$150,000 from existing funds, to be used for the following purposes: (1) all agreements between the DNR, the City of Lowell, and the Proprietors of Locks and Canals would be finalized, (2) appraisals and property title examinations of land parcels to be incorporated in the Park would be made, and (3) initiation of the park design process would be undertaken.

appraisals and preliminary design . . . . . TOTAL \$ 150,000

. Fiscal Year 1976 (July 1975-June 1976)

In this time period (1) all Park components would be acquired to ensure that they would be protected in the interim period prior to site development, (2) final design of the Park would be undertaken, and (3) construction activities would begin on a limited basis, with restoration of the four sets of locks undertaken. Capital outlay funds requested for this fiscal year would be directed towards the following:

<u>acquisition</u> . . . . .	\$2,800,000
<u>design</u> . . . . .	620,000
<u>construction*</u>	
- Northern Canal Locks . . . . .	111,000
- Francis Gate Locks . . . . .	153,000
- Swamp Locks . . . . .	114,000
- Lower Locks . . . . .	131,000
	<u>TOTAL \$3,929,000</u>

\* includes construction management and administration costs.

. Fiscal Year 1977 (July 1976-June 1977)

In this time period (1) the construction of major park sites would occur, and (2) operation of the Park could begin on a limited basis, depending on its stage of completion. Capital outlay funds requested for this fiscal year would be directed towards the following:

construction\*

- Pawtucket Boulevard Park . . . . .	\$1,076,000
- Northern Canal Walk . . . . .	.125,000
- Francis Gate Park . . . . .	.456,000
- Tremont Yard Park. . . . .	.833,000
- Rex Lot Park . . . . .	.1,134,000
- Heritage Park Administrative/Maintenance Center . . . . .	.225,000
	<u>TOTAL \$3,849,000</u>

. Fiscal Year 1978 (July 1977-June 1978)

In this time period construction of the remaining park components would be undertaken. Capital outlay funds requested for this fiscal year would be directed towards the following:

construction\*

- Western Canal . . . . .	\$ 73,000
- Pawtucket Canal . . . . .	.72,000
- Eastern Canal . . . . .	.82,000
- Northern Canal. . . . .	.89,000
- Concord Riverfront . . . . .	140,000
- Concord Boat Access . . . . .	216,000
- Thorndike Mill Visitor Orientation Center . . . . .	450,000
	<u>TOTAL \$1,222,000</u>

\* includes construction management and administration costs.

. Fiscal Year 1979 (July 1978-June 1979)

In this time period the remainder of park construction would be completed. Full scale operation of the park is envisioned as beginning in the Spring of 1979.

2. Establishment of an On-going Park Advisory Committee

The interrelatedness of the Heritage Park and the City will require that in both the development and operations phase of the Park there be close cooperation among the various parties involved. Towards this end, the DNR recommends that a permanent local committee be established to advise the Department on a continuing basis. This committee's membership should include both public and private interests.