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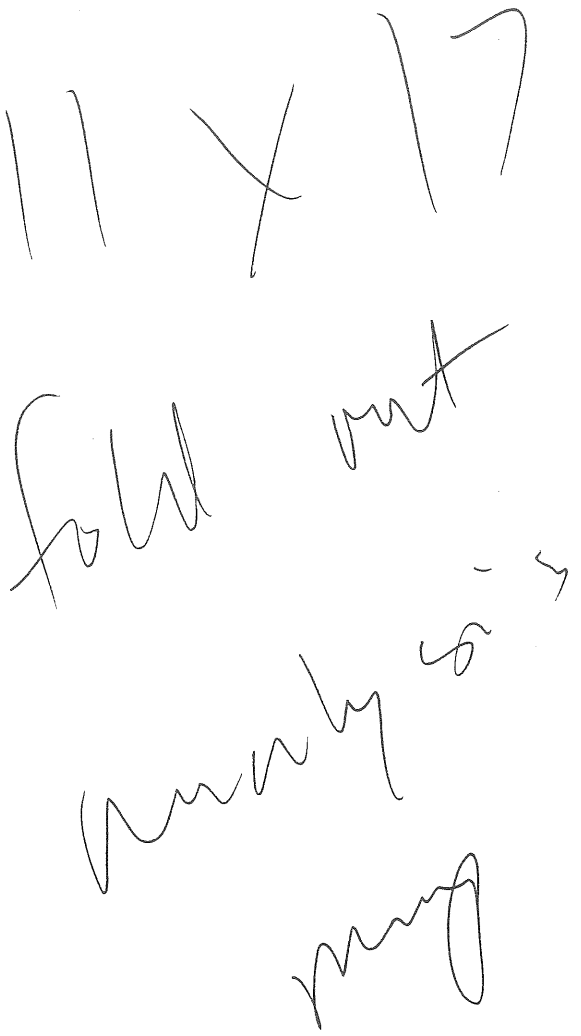
1998-0150

Back Cove Park
Park Improvements
City of Portland

on Spreadsheet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B. Existing Conditions - See Analysis Maps Following Each Narrative Section

1934 - Park Commission Report from 1934 "recommends that 'hard' tennis courts be constructed...and that the present playground be put in better condition," and notes that "(t)here has been some demand for a soccer field in this park." (p. 214)

1939 - The growing importance of the role of parks in lowering juvenile delinquency is reported. In 1939, a total of $79,028.13 is spent for park operations. Softball field development receives $1278. $1500 is set aside for 1940, but is used for hardball fields too.

1940's - Cannon removed from "Gun Plot" and melted for wartime use during World War II

1943 - The National Recreation Association recommends that the playground area be enlarged three and one half acres. This new area, if developed as recommended, (will) include two additional tennis courts, a multiple-use hard surface area for paddle tennis, badminton, volleyball, shuffleboard, roller skating, handball, and outdoor basketball courts as well as facilities for field games such as soccer, field hockey and modified football. The NRA also recommends the construction of a field house with a shower, dressing room, and toilet facilities for men and women.

1947 - The park serves as a picnic area for the Lunt's Corner, East Deering and Woodfords sections of the city as it is easily reached by Baxter Boulevard. Parts of it remains wooded and provides shaded picnic areas although there are no facilities for picnickers. Its present playground equipment is meager but includes two tennis courts, a baseball diamond, swings and children's see-saws. The Park Department seeks a skating pond for the park as well as two more softball diamonds. The Children's Theater Inc. puts on well-attended shows in the park.

early-1950's - Post-World War II housing and construction boom results in dozens of houses being constructed around the park.

1950's - Tennis courts are built in the park.

mid-1950's - Dyer's Flats wetland area is used as a public dump prior to this date.

1960's - Softball fields are built in the park.

1970±- City constructs or upgrades 2 tennis courts, 1 softball field (first lighted softball field in Portland), new playground and tot lot equipment, spray pool, 10 picnic sites and tree plantings.

1918 - James Baxter proposes "planting the Boulevard as an Arboretum, that it may be useful to students of Botany in our schools, and to those of our citizens who are interested in that delightful and important science."

1921 - (November) "Plan Showing Section 3 Baxter Boulevard Station 71 + 13.90 to end," PUBLIC WORKS ARCHIVES 326/1 indicates entrance into Payson Park from Baxter Boulevard

1921±- "Grading Plan Baxter Boulevard and Payson Park," William Doughty, PUBLIC WORKS ARCHIVES 948/25

1921 - Park Commission Report lists the following plantings at Parson Park: 1,000 assorted shrubs, 10,000 Berberis thunbergii, 150 assorted pines, 125 birches, 100 oaks and 50 Schwidleri maples. Eight acres of field are plowed and sowed to hay," and "(a) roadway (is) cut through from the boulevard to connect with Ocean Avenue." (Park Commission Report, 1921, p. 202)

1922 - A "development plan for the fifty acres included in this tract (Payson Park) (is) approved by the Park Commissioners." (Park Commission Report, 1922, p. 257)

1924 - Maintenance, Repair, Fixed Charges - $1,699.76; Improvement Expenditures - $6,291.87

1925 - Maintenance, Repair, Fixed Charges - $2,384.52; Improvement Expenditures - $4,560.88

1925 - "Two memorial piers, surmounted by large octagonal lanterns, (are) erected at the Ocean Avenue entrance..." (from Portland City Guide, WPA Writer Program 1940)

1931 - Grading continues for approaches to Payson Park (from Baxter Blvd. report)

1932 - Development of foot walks and esplanade areas from Payson Park to Washington Avenue (from Baxter Blvd. Report)

1933 - Two new park drives are cut through Payson Park making 15-20 acres of park accessible. There is a proposal to extend the City nursery. City greenhouses are to be moved to Payson Park. One roadway terminates in a turn around and affords a beautiful view of the Back Bay and the City through the tall trees. The ravine is kept in its natural woody atmosphere, giving a rustic effect to the park in general. To one side of the ravine, two tennis courts are marked next to the present playground district. More children than ever enjoy the playground in this year. The baseball fields adjoin the tennis courts. Entrance to the park is being made by the development of Kidder Street in the same way that Fernald Street was developed some years ago." (from Evening Express, 8.27.33)

2. Timeline of events related to Payson Park

1836 - The City of Portland makes its first attempt at establishing pleasure areas for its citizens by laying out drives on the Eastern and Western Promenades.

1866 - Soon after Portland's 'Great Fire' of 1866 the city begins acquiring land for the present park system. Mayor James P. Baxter is credited for having the vision and master plan for park development in Portland.

1896 - (March) "Preliminary Plan for the Improvement of Back Cove," Olmsted, Olmsted and Eliot, Brookline, Ma.; Edward Bolton, Supt. of Construction, Warren Manning, Supt. of Planting, PUBLIC WORKS ARCHIVES 676/10, 676/9.

1904 - "Plan of Portion of Proposed Boulevard around Back Cove," George N. Fernald, City Engineer, PUBLIC WORKS ARCHIVES 118/9 - Indicates property owners along Cove with creek outlets into the Cove, including Edward P. and William M. Payson, with property along Fall Brook (which empties into Back Cove)

1916 - The Edward Payson Park, Ocean Avenue and Baxter Boulevard, the third largest of the city's park areas, is purchased from William M. Payson of Boston for $26,262 by the city to be named in honor of his brother.

1917 - (July 9) Park land is acquired by the City of Portland for $550.00 per acre, or approximately $26,000. Original intent is for passive recreation.

1916/1917 - purchased in 1917 or 1916??????

1917 - A large portion of the Park (20 acres, over 40%) is set aside for community gardens, which are quite successful. "The same privilege will be allowed the coming year." (Park Commission Report, 1917)

1917 - (November 13) "Back Cove" Boulevard (Baxter Boulevard) is opened to the public.

1918 - New garage and greenhouse is built, driveways are laid out for Payson house. Planted 1,000 gladioli, 500 dahlias, 250 trees are transplanted from nursery on Park Avenue, and 776 new trees are bought. About 20 acres are staked out for community gardens, "which gives general satisfaction." (Park Commission Report, 1918, p. 346)

A. HISTORY OF THE PARK

1. Narrative

The City of Portland purchased the park property from the Payson family in 1917 for approximately $26,000. One of the restrictions set by the seller was that the park would forever be known as "The Edward Payson Park" and used "for only public park purposes." Initially, over 40% of the park was set aside for community gardens, which were quite successful according to a 1917 Park Commission Report. In the same year, Baxter Boulevard was opened to the public. A 1921 site plan shows an entrance into Payson Park from Baxter Boulevard and a Park Commission report states that a road was cut through to connect Ocean Avenue to Baxter Boulevard.

In its early years, Payson Park was primarily a passive use park, providing views of the Payson Mansion (*Figure IIA.1*) as well as the extensive community gardens (*Figure IIA.2*). Portions of the park were used by the city as a nursery for street trees and shrubs to be used throughout the city (*Figure IIA.3*).

From the 1950's through the 1970's, active recreation facilities were introduced to the park, including tennis, Little League baseball, softball and playground facilities. These additions shaped the park into the place we know today.

On September 10, 1976 the Longfellow Mini-Arboretum was established in Payson Park, adding another passive use component to the park. The dedication ceremony was marked by the planting of eleven trees from eleven different families of flowering plants from three continents. The Longfellow Arboretum, whose stated goals were to provide the "opportunity to observe labeled, unusual specimens not commonly grown in this area of New England," was believed to be Maine's first public arboretum. By 1992, the collection had grown to nearly 70 trees as well as a growing number of interesting shrubs and bulbs.

In the 1980's, the state of Maine filled the wetland area known as Dyer's Flats and created more usable area within the park. Unfortunately, filling the wetland also created drainage problems for the adjacent park neighbors. By the 1980's, the Parks Department began hosting special events at Payson Park, such as the popular Back Cove Family Day.

B. SUMMARY OF THE PROCESS

1. Narrative Description of Design Process

An important aspect to the development of the Payson Park Master Plan has been the *way* in which it was developed. Experience has shown that when the public contributes to the development of its open space, the result is a place that is better understood, treated, maintained and much more widely used. When the public contributes to the design of a park, then the park is not only *for* the people but also *by* the people. This was the goal of the Payson Park Master Plan process. When properly managed, this process does not limit or hinder creative and innovative solutions to larger issues; rather, it informs and enriches the final product.

Conceptually, the process of developing the Payson Park Master Plan consisted of design work followed by meetings to review the work, followed by the incorporation of feedback and more design work, and so on. The consultants met with City Staff on a monthly (sometimes bi-monthly) basis to review the most current status of the plan. Regular meetings with the various Advisory Committees, although less frequent, were equally important and invariably yielded insightful comments that helped shape the development of the plan. While still in the early stages, the plan was presented to other interested groups for review and feedback. Exposing the project in its early stages to as many people as possible has resulted in a master plan that has a feeling of community ownership in the project, while still addressing the core issues identified by the Parks and Recreation Department.

2. Master Plan Timeline

July 1997	*Work begins on the Payson Park Master Plan*
August 1997	*Consultants begin analysis of Payson Park*
September 1997	*First City staff meeting regarding Payson Park held. Regular, monthly City staff meetings are held through the summer of 1998.*
November 1997	*Consultants present first conceptual design alternatives to City Staff*
January 1998	*First of Payson Park Playground Advisory Committee meetings is held at Presumpscott School*
January 1998	*Consultants meet with Director of Public Works and the City Traffic Engineer*

PART III: MASTER PLAN AND RECOMMENDATIONS

A. The Master Plan 31
B. Design Summary 32
C. Recommendations for Park Improvements. 32
1. Vehicular Circulation and Parking.....33
2. Pedestrian Circulation.....33
3. Grading and Drainage.....33
4. Active Recreation.....33
5. Passive Recreation.....34
6. Lighting.....34
7. Amenities
B. Implementation Strategy.....35
C. Estimated Cost of Improvements.....37
D. Care of Improvements - Maintenance and Management.....38
1. Specific Recommendations.....
2. General Recommendations.....

PART IV: APPENDICES

A. Historic Documents.....39

THE CONSULTANTS:

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A. Acknowledgments

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PAYSON PARK ADVISORY COMMITTEE:

Jim Cohen	Portland Trails
Paul DiMatteo	Portland Men's Softball League
Armond Dirazio	Little Lad Football
Linda Frinsko	Longfellow Garden Club
Lynn Hodgekin	Citizen
Charlie Juris	Back Bay Lacrosse
Deb Krichels	Portland Planning Board
Mark LaMontagne	Portland East Little League Baseball
Ray Libby	T-Ball
Michelle Locker	Payson Park Playground Committee
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Nancy McWilliams	Citizen
Beth O'Donnell	Citizen
Warren Peters	Portland Area Youth Soccer Association
Alex Pozzy	Ultimate Frisbee
Dave Sinclair	Old Port & Portland Softball
Scott Shibles	Deering High School
Jim Trott	Little League Baseball
Polly Wilson	Citizen

PAYSON PARK PLAYGROUND ADVISORY COMMITTEE:

Michelle Locker, Portland
Susan LaVigne, Portland
Dee Kelsey, Portland
Charlotte Witt, Portland

Preface

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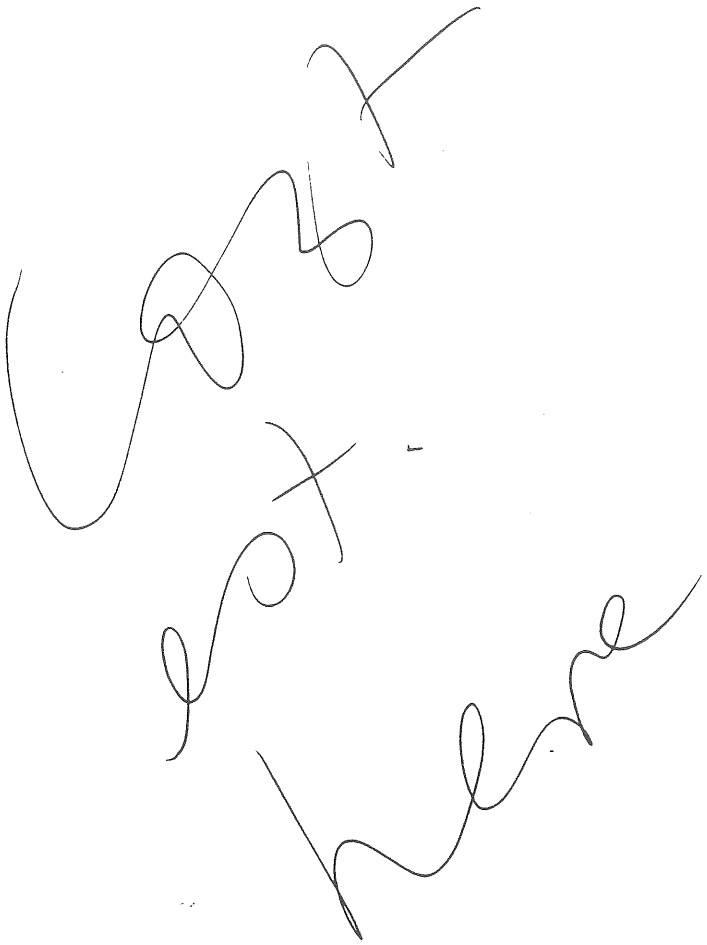
A. HISTORIC DOCUMENTS & INTERESTING PHOTOGRAPHS

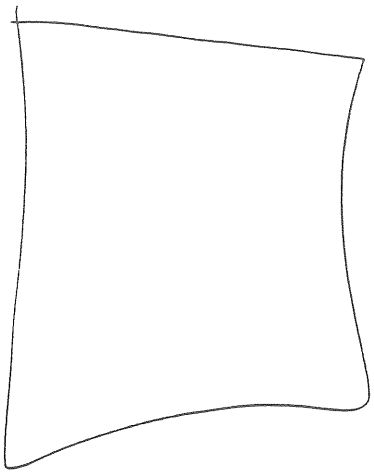


- Install Concession/Bathroom Structure at New Little League Facility
- Install Overflow Parking at Dyer's Flats
- Install Shrubs for Screening/Buffering Measures for New Road
- Tree Planting for Defining the Central Open Space

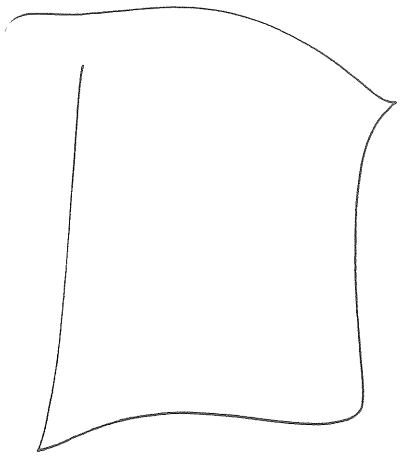
- Demo Trees Next to Ocean Avenue Fields
- Install Parking Lot at Ocean Avenue
- Upgrade /Install Women's Slow-Pitch Softball Field (Coordinate with Other New Work Outside of Payson Park)
- Install/Upgrade Partial Soccer Field
- Tree Planting for Defining the Central Open Space

- Drainage Work Completed As Required
- Demo 4300 LF of Existing Road
- Install 2700 LF New Road, Including Sidewalks, Crosswalks, Street Trees
- Install Part II of Screening/Buffering Measures for New Road As Necessary
- Install Multi-Purpose Path (Use Existing Road as Much as Possible)
- Install Remainder of Soccer Field
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

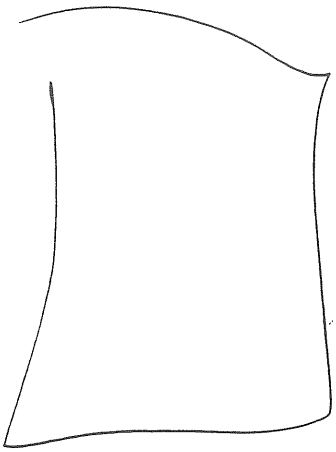
- Demo Adult Softball Field (Coordinate with New Field Construction at New Location)
- Upgrade Basketball Facility
- Upgrade Tennis Facility
- Install Parking Lot Between Basketball and Tennis
- Install Concession/Bathroom Structure Closest to Ocean Avenue
- Install Secondary Paths, Overlooks
- Demo Skating Area
- Install Central Multi-Purpose Space
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum



Trash Receptacles

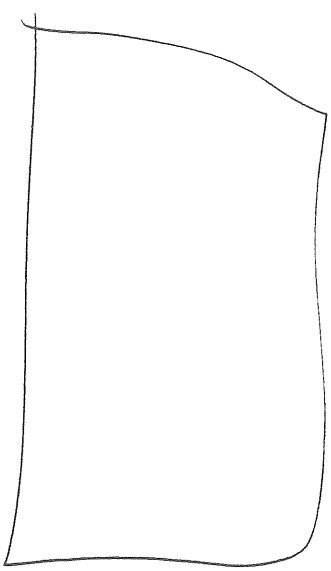


Bicycle Racks

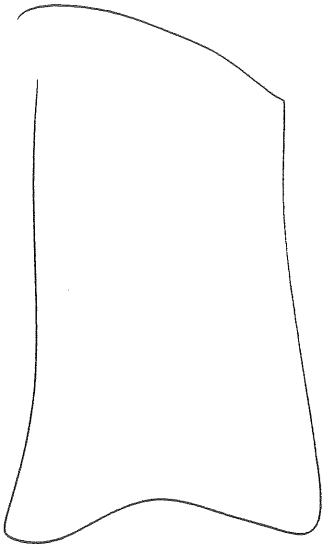


Drinking Fountains

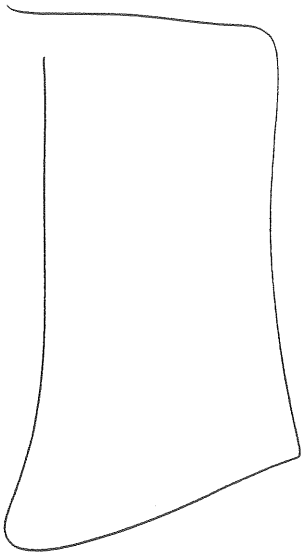
F. *Post and/or Fixture Recommendations*



Multi-Purpose Path Lighting



Roadway Lighting

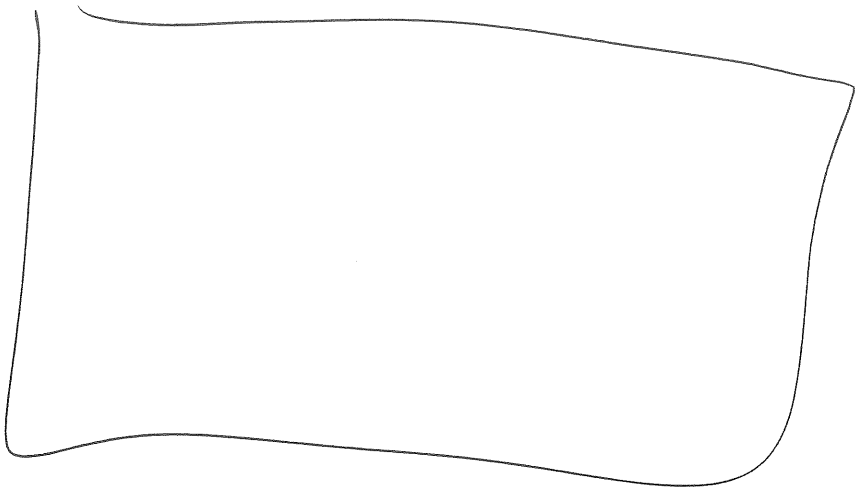


Court Lighting

- Install native shrubs and other plant material in the natural areas of the park that will require little or no maintenance and that attract and maintain a wildlife population

C. *Provide Multi-Purpose Spaces that allow for many different uses, both active and passive*

- These spaces should be large and flat enough to allow for Frisbee, sunbathing, picnicking and casual play while also being graded and sized to provide space for practice and/or games by soccer, Little Lad football and other activities.



5. RECOMMENDATIONS FOR PASSIVE RECREATION

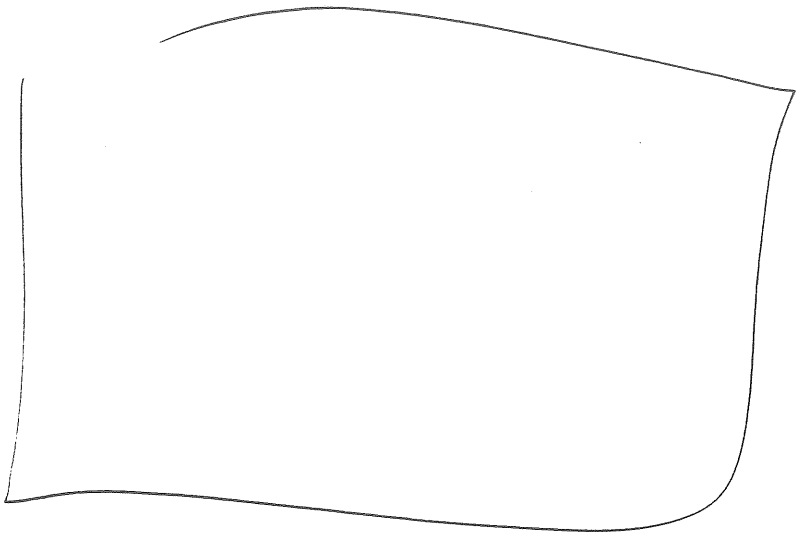
A. *Expand the Longfellow Arboretum*

- Develop the arboretum as the framework for the various park components

- The "heart" of the arboretum can remain in its present location, allowing for a separate, secluded area for quiet enjoyment of the arboretum. This area should remain true to the original, stated intent of the arboretum as one that promotes non-native or unusual trees for the interest of all users.

- The expanded component of the arboretum will encircle the central, multi-purpose space and allow more day-to-day exposure of the arboretum to all users of the park
    - To ensure high survival rates, the newly created aspect of the arboretum should contain more native, hardy species that will tolerate a higher degree of root compaction and other abuses.

    - For maximum protection against "new" pests or outbreaks of "old" pests, adhere to the 10-20-30 Formula for tree planting within the park:
        1. No more than 10% of any single tree species
        2. No more than 20% of species in any tree genus
        3. No more than 30% of species in any tree family

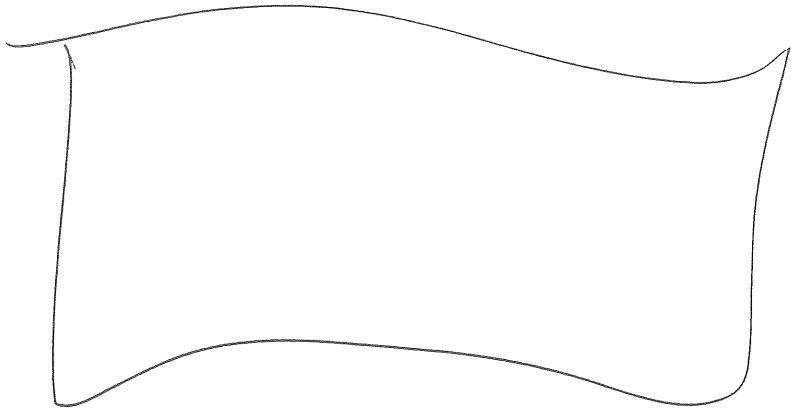


3. RECOMMENDATIONS FOR GRADING AND DRAINAGE

A. *Improve the drainage situation on the north side of the park by installing catch basins and a sub-surface drainage system that connects to Back Cove*

B. *Re-grade all existing and proposed active-use fields to ensure positive drainage*

- Resolve drainage problem at field at base of Ocean Avenue hill



1. RECOMMENDATIONS FOR VEHICULAR CIRCULATION AND PARKING

A. *Re-align the roadway to the northern edge of the park*

- Allow room for buffer planting between the road and the adjacent neighborhood
- The roadway should have a "park" character, including:
  - -curvilinear horizontal alignment
  - -street tree plantings on both sides
  - -two-way traffic
  - -12' lanes
  - -granite curbing
  - -sidewalks and esplanades on both sides of the roadway
  - -raised crosswalks and stop signs at designated crossing points
- The roadway should be adequately-buffered from the neighborhoods on the north side of the park

B. *Reduce the number of ingress/egress points from 4 to 2*

- Install entrance posts on the entrance from Baxter Boulevard
- Posts should match the existing posts on the Ocean Avenue-side of the park

C. *Increase the number of parking spaces in the park from 230 to 420*

- Provide three separate lots to service the major use areas of the park
  - -the lot closest to Baxter Boulevard will also be used for Baxter Boulevard users
- Provide one area that can be used for overflow parking during large events, preferably close to the ballfields
- Parking lots should be designed as "parking gardens," with extensive planting, buffering and screening to reduce the visual impact on the rest of the park
- Screening should be considered from ground level and from higher elevations such as from Ocean Avenue

park. This configuration means that once park users enter the park the road is no longer a danger or even a concern.

Parking

The master plan calls for a substantial increase in parking spaces, from the current level of 230 to a proposed 420 spaces. Two parking lots will provide spaces close to Baxter Boulevard: the 130-space lot between the Little League fields and the overflow parking lot with approximately 60 spaces. All of the proposed parking lots will be landscaped and screened in ways which are respectful of the park setting. The approach allows for the concentration of cars in smaller areas that can more easily be screened. The current lack of designated parking spaces leads to a dangerous condition of double parking along the roadway. An improved parking situation would provide more convenient parking for park users and allow safer pedestrian conditions during high demand times.

Pedestrian Circulation

The master plan recommends a substantial improvement in both the internal pedestrian circulation system and the pedestrian connection from Payson Park to the larger, city trail system. Internally, a small network of interconnected paths will be created that will separate pedestrians from vehicular traffic. A bituminous multi-purpose path will connect joggers, walkers, bicyclists, etc. directly between Baxter Boulevard and Ocean Avenue. In terms of materials, stone dust paths will link Payson Park to the Baxter Boulevard path and will provide an internal circulation loop for joggers, walkers and strollers. By connecting to overlooks which are proposed for the freshwater pond and tidal areas, the proposed paths will also allow users to experience the natural areas of the park. Combined with the multi-purpose path, path network will provide a diversity of path experiences in the park while highlighting Payson Park's natural assets.

C. SUMMARY ASSESSMENT AND GOALS & OBJECTIVES

1. Defining the Need: Summary of Existing Conditions and Uses

Payson Park is a unique mix of natural and constructed recreation opportunities that is widely used by the citizens of Portland. The diversity of uses makes this facility particularly valuable to its users. However, the park suffers from a variety of issues that affect the safety and enjoyment of current users. If left unchanged, these issues would quickly worsen and have a negative impact on the experience of the park or, potentially, endanger a pedestrian, park user or property. The items that are in need of immediate attention include:

- the roadway
- the playground
- the drainage situation along Front Street
- the little league field that is not regulation size and therefore, nearly un-usable
- the parking situation
- the tennis courts
- the poorly drainage softball field
- the arboretum

Payson Park is a valuable component of the Portland park system that is badly in need of a guiding plan for the 21st century.

2. Goals and Objectives of the Master Plan

Analysis and Assessment of the site resulted in the formation of the following Goals and Objectives:

- to lessen the impact of vehicular traffic within the park experience while maintaining the connection between Baxter Boulevard and Ocean Avenue, primarily to improve pedestrian safety but also to improve the quality of experience within the park
- to improve the relationship between active and passive uses within the park, and to improve the condition, safety and efficiency of active and passive use facilities
- to provide a safer and more enjoyable pedestrian circulation system, both within and through the park
- to expand the presence of the Arboretum as a resource for the public
- to make the park enjoyable and accessible for all users, given the natural topography of the site

11 x 17

map

11x17

a map

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a map

3. Physical Features - See Existing Conditions Drawings 5 - 12

Payson Park boasts an impressive diversity of both natural features and active use facilities. The park contains significant areas of successional and undisturbed growth around the freshwater pond and tidal stream at the southwestern corner of the park. The remainder of the park consists of large, open lawn area, and athletic-use facilities.

Dramatic views of the Portland skyline across Back Cove are possible at the southern entrance to Payson Park in the area known as the "Gun Plot." With these views and the open lawn, this area is well sited for picnicking. However, the experience of being surrounded by moving cars makes it less desirable. The guardrail surrounding the Gun Plot, while protecting the lawn areas from overflow parking, make this area difficult to reach, especially with baby strollers and other equipment. Other exceptional viewing areas can be found along Ocean Avenue (viewing across the park and out to Back Cove) and within some of the wetland areas (viewing across the wetland), and are framed by landform and stands of mature trees that enhance the viewing experience.

While the park contains a diversity of active use facilities, the existing layout of facilities is not the result of any guiding master plan. Rather, the location of the current fields and facilities is the result of adding amenities piece by piece as the need arose, and probably related to ease of construction in relation to the existing road. Over time, this circumstance has led to the current inefficient use of available space and resources for the City of Portland.

Amenities in the park are not consistent with the quality of recreational experience available at Payson Park. Benches, trash receptacles and picnic tables are aged and, in some cases, in disrepair. In addition, the overall number of these amenities is insufficient for the number of park users. The road is well lit with "cobra" type lighting. However, the styling of the road lighting is more consistent with that of a standard city street rather than a park road. The Ocean Avenue entrances to Payson Park are each flanked by two large, historic, stone columns that signify entrance into a major city park facility. The Baxter Boulevard entrances have no corresponding entrance markers, other than a small sign centrally located between the two entrances. More specific information on the roadway and parking lots can be found in the Existing Conditions - Circulation section of this report.

Finally, there are important drainage issues in the vicinity of Payson Park. Specifically, filling the wetland area known as Dyer's Flats during construction of Tukey's Bridge resulted in a condition which causes periodic flooding in the homes on Front Street (north of Dyer's Flats). This condition is exacerbated by the poor quality of the fill

11x17

a map

11 x 17

a - map

2. Current Use - See Existing Conditions Drawings 2 - 4

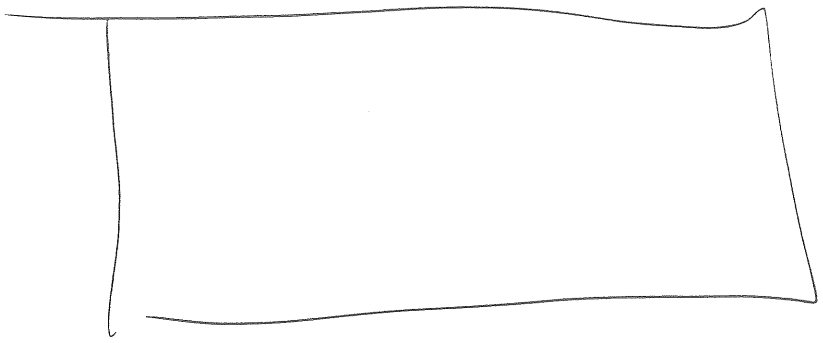
Payson Park boasts an unusual diversity of active and passive uses within a fairly confined area. The natural areas of the park limit the amount of available space that is suitable for active use facilities. Potential uses competing for available, usable space are active use facilities and open, uninterrupted lawn areas that are of particular value in an urban setting adjacent to the expanse of Back Cove

The existence of such a diversity of active and passive use at Payson Park often results in conflicts among park users as well as between park users and the surrounding neighborhood residents. An example of a typical conflict is a night softball game that generates noise and lighting impacts in the surrounding neighborhoods.

Currently, the most significant source of conflict and danger within the park is the location and design of the through-road and the lack of pedestrian facilities within the park. As the only hard surfaced travel lane within the park, the road is often used by pedestrians, joggers, bicyclists, people in wheelchairs and parents with strollers. However, once they've entered the roadway, pedestrians feel trapped by the guardrail which is meant to protect them and by vehicles consistently exceeding the posted speed limit.

This potential flash-point is exacerbated by the fact that the park is used by relatively large numbers of children and the elderly. Neighborhood and visiting children are drawn to Payson Park by the playground (in part because of a shortage of publicly accessible playgrounds in this part of the city), while elderly residents who live in the housing facility adjacent to the park often enjoy the park as an ideal place to walk. These users groups are particularly vulnerable to the current vehicle-pedestrian problem. This issue should be addressed as soon as possible, both on an interim, immediate basis and on a more permanent, far-reaching level (an issue that was discussed at the June 25 neighborhood meeting).

The active use park facilities are organized around the existing road and are therefore somewhat haphazardly placed. An example of this placement is the distance between the current location of the Little League fields and the playground. Active recreation facilities comprise a significant portion of the park, with dedicated space for softball, Little League baseball fields, basketball, tennis, skating and an outdated, dangerous playground that in fact does not meet current playground or ADA guidelines and regulations. Active recreation facilities are heavily used, a condition which often results in a demand for parking beyond that which the park can currently provide.



i. Vehicular

Interpretation

- Park roads have little or no relationship to surrounding roads or circulation systems
- Park road layout promotes fast, easy vehicular travel through the park
- Four entrances to a relatively small park area

Opportunities

- With One (1) entrance per side (two total), there is the potential to make the entrances significant, and of an appropriate scale for a great city park
- Road layout and location could be used to slow cars in the park and to separate vehicular traffic and pedestrian traffic

Constraints

- Cost, environmental considerations and traffic design standards will guide placement of new road alignment

ii. Parking

Interpretation

- There is an inadequate number of parking spaces (175) for the size and current uses of the park. There should be a minimum of --- parking spaces for park users and an additional number for Baxter Boulevard path users
- Lack of available parking spaces forces people to park on the side of the road, especially during large events. On-street parking results in decreased visibility for both vehicle drivers and pedestrians and generally makes the circulation system more dangerous.

1. Circulation - See Existing Conditions Drawing 1

The current circulation patterns at Payson Park can be characterized as vehicular-oriented and potentially dangerous to pedestrians and bicyclists. The park road provides the opportunity for easy, fast, vehicular access between Baxter Boulevard and Ocean Avenue, and is heavily used, particularly for a park road. At two separate locations, the road splits into a "Y" - once near the geographical center of the park and also near the southern entrance to the park. This configuration of roads in a relatively small area results in a somewhat confusing network of one way travel lanes and dead end parking areas. The 18' wide bituminous road has no curbing, pedestrian sidewalks or other amenities and as one of the few paved surfaces in the park, it is often used for walking, jogging, pushing baby strollers, bicycling and roller-blading as well. The resulting conflicts between competing users for this paved surface is discussed more in the Current Use section of the Existing Conditions analysis in this report.

Currently there are 175 parking spaces in Payson Park. On normal days, this number is adequate to meet the demands of the park users. However, during athletic and other events, there is a parking shortage that requires parallel parking along the road. During events, vehicular travel along the road is difficult while cars are parked along the road, and pedestrian travel can be characterized as dangerous.

There are very few pedestrian paths in Payson Park. Currently there is a stone dust path leading from the road into the Longfellow Arboretum, and there is a short, paved loop in the vicinity of the parking lot near Ocean Avenue. There are several makeshift paths worn by repeated pedestrian travel, but these are neither graded properly nor wide enough for save pedestrian travel. Park users can walk across the open lawn areas, as these are generally flat and graded for athletic uses. There are few, if any dedicated accessibly parking spaces or amenities in Payson Park.

1972 - A 3-year program of Urban beautification efforts for the City of Portland is funded by a state grant, federal Legacy of Parks grant and local funds. The major project area in the second year is Payson Park, which receives $40,000 for improvements. Included in the improvements are plans for the construction of two more tennis courts, an unlighted softball field, and playground equipment for younger children, including a spray pool and such tot-lot equipment as a sandbox and chair swings. Scheduled for the third year is the creation of 10 picnic sites at Payson Park.

1976 - Three-acre Longfellow Arboretum is established in Payson Park by the City and the Longfellow Garden Club.

1983 - Payson Park is one of 30 parks in Portland and one of the city's biggest neighborhood parks. Portland parks make up 600 acres for sports and relaxation. The parks are believed to be getting more use than ever due to economic hardship. The City of Portland considers an Adopt-a-Park program.

198? - Tukey's Bridge re-built with the spoil from the construction used to fill the wetland in Dyer's Flats.

late-1980's - State of Maine grades, loams and seeds the Dyer's Flats area to its current condition.

May 1986 - The first Back Cove Family Day is held at Payson Park and Baxter Boulevard.

1997 - Work begins on the Payson Park Master Plan

1999(?)- Payson Park Master Plan is completed and adopted by the Portland City Council. Phase I, the installation of the new playground, is completed.

Figure IIA.4 - Detail of Construction Drawing for Stone Entry Posts at Payson Park, date unknown

Figure IIA.2, IIA.3 - Views of community gardens and street tree inventory circa 1920's

Figure IIA.1 - View of the Payson Mansion before it was demolished

March 1998	*Consultants meet with Public Works engineers to discuss technical drainage issues relating to the park.*
March 1998	*First meeting of the Payson Park Advisory Committee*
May 1998	*The Preliminary Master Plan is presented at a site walk with members of the Longfellow Garden Club*
June 1998	*The Preliminary Master Plan is presented to a neighborhood meeting at St. Pious X Church on Ocean Avenue*
August 1998	*The Preliminary Master Plan is presented at a Planning Board workshop*
???????? -	*Payson Park Master Plan is approved by the Planning Board*
?????? -	*Payson Park Master Plan is approved by the Portland City Council*

A. INTRODUCTION/OVERVIEW

To come

Alphond quote - lungs of the city

today, more than that, more important than ever- the mental and physical health of the city and its people:

the mental health
the aesthetic big picture
Todd's lecture on financial assets of parks

Parks are great
Portland is great
Portland should have great parks

I. The Impetus for the plan/Background
call Dana and Cheryl for background

PAYSON PARK
Master Plan

Table of Contents

PART I: OVERVIEW

A. Introduction/Overview....7
B. Summary of the Process
1. Narrative....8
2. Timeline....8

PART II: ANALYSIS AND ASSESSMENT

A. History of the Park....10
1. Narrative....10
2. Timeline....11
B. Existing Conditions
1. Circulation....15
i. Vehicular....
ii. Parking....15
iii. Pedestrian....15
2. Current Use....17
i. Unprogrammed Areas....19
ii. Unmaintained Areas....20
iii. Active Use Areas....21
3. Physical Features....22
i. Vegetation....23
ii. Topography....24
iii. Wet Areas....25
iv. Views....26
v. Amenities....27
vi. Figure Ground....28
vii. Watershed/Landform/Drainage....29
C. Summary Assessment and Goals & Objectives....30
1. Defining the Need: Summary of Existing Conditions and Uses....
2. Goals and Objectives of the Master Plan....

OTHER CONTRIBUTORS:

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Jim Robbins, Associate Engineer, Archivist, Portland Public Works Department

Larry Ash, Traffic Engineer, Portland Public Works Department

George A. Flaherty, Past Director of Parks and Recreation Department

The Longfellow Garden Club

All of the attendees at a neighborhood meeting on June 25, 1998

Portland Planning Board:

- John H. Carroll, *Chair*
- Jaimey Caron, *Vice Chair*
- Cyrus V. Hagge
- Kenneth M. Cole III
- Mark Malone
- Deborah Krichels
- Erin Rodriguez

Friends of the Parks Commission

- Nathan Smith, *Chairperson*
- Marc LaMontagne
- Lisa Joyce-Gale
- Rob Brooks
- Brad Blake
- Barbara Webster-Querry
- Marcia Noyes
- Charles Houghton
- Constance Bloomfield
- Cheryl Leeman, *City Council Representative through 9/98*
- Charlie Harlow, *City Council Representative effective 10/98*
- Karen A. Geraghty, *City Council Representative effective 10/98*
- Herb Adams, *School Board Rep.*
- ?? ?? , *Planning Board Rep.*
- Portland City Staff for the Friends of the Parks Commission
  - -Dana Souza, Parks Operation Manager
  - -Brenda McGovern, Secretary
  - -Alex Jaegerman, Chief Planner, Planning Department
  - -Rick Knowland, Senior Planner, Planning Department
  - -Laura Savona, City Manager's Office

A. Executive Summary

The Payson Park Master Plan, in its current form, is the result of more than eighteen months of work by a team which includes Portland City Staff, the Payson Park Advisory Committee, the Payson Park Playground Advisory Committee and the project consultant, Richardson & Associates, Landscape Architects. Additional input has been obtained from other sources as well, including city engineers, park users and past City Department Directors. Representatives from the Portland Planning Department, Portland Department of Public Works and the Portland Parks and Recreation Department have also provided significant input in the development of the plan. In addition to regularly scheduled meetings among the parties listed above, the Master Plan was presented for comment at a well-attended neighborhood public meeting on June 25, 1998 and at an on-site walk-through of the plan with representatives from the Longfellow Arboretum on May 27, 1998.

The result of this considerable effort is a forward-looking Master Plan which reflects input from a diverse group of interested and knowledgeable parties for this important city resource.

PAYSON PARK

Portland, Maine

Master Plan

Summer 1999

Prepared for

Portland Parks and Recreation Department
Portland, Maine

by

Richardson & Associates
Landscape Architects
Saco, Maine

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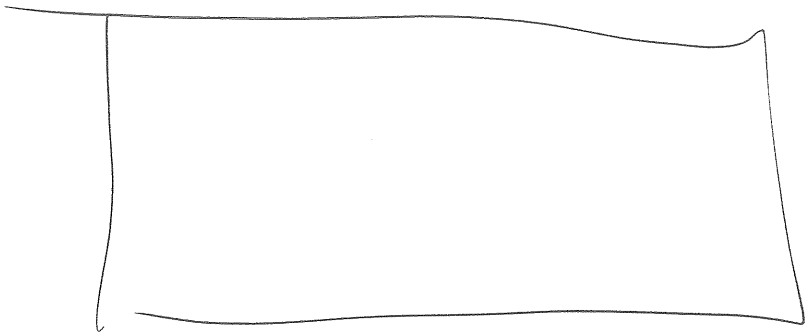
fold out



i. Vehicular

Interpretation

- Park roads have little or no relationship to surrounding roads or circulation systems
- Park road layout promotes fast, easy vehicular travel through the park
- Four entrances to a relatively small park area

Opportunities

- With One (1) entrance per side (two total), there is the potential to make the entrances significant, and of an appropriate scale for a great city park
- Road layout and location could be used to slow cars in the park and to separate vehicular traffic and pedestrian traffic

Constraints

- Cost, environmental considerations and traffic design standards will guide placement of new road alignment

ii. Parking

Interpretation

- There is an inadequate number of parking spaces (175) for the size and current uses of the park. There should be a minimum of --- parking spaces for park users and an additional number for Baxter Boulevard path users
- Lack of available parking spaces forces people to park on the side of the road, especially during large events. On-street parking results in decreased visibility for both vehicle drivers and pedestrians and generally makes the circulation system more dangerous.

Opportunities

- Sufficient parking will provide for a safer pedestrian experience in the park while focusing cars in small areas. This will prevent the impression that parked cars are located throughout the park
- Parking screening should be considered from higher elevations as well as ground level screening. Care should be taken not to compromise the excellent long distance views that are available from the Ocean Avenue end of the park
- Parking areas should be well-landscaped and screened to minimize the visual impact on the rest of the park
- "Parking gardens" could be an approach to designing parking lots in order to minimize visual impact of parked cars

Constraints

- Too much paved parking area would have a negative impact on the overall aesthetic of the park, and would increase the potential for pollutants entering the water system

iii. Pedestrian Circulation

Interpretation

- In the current condition, there is a completely inadequate number of pedestrian walkways for a park this size
- Comparison of road ways with pedestrian ways reveals that current priorities of the park are on vehicular travel
- There is no existing connection or crosswalk to Baxter Boulevard

Opportunities

- This park provides sufficient space for a diverse and scenic circuit walk within the park, without having to cross a street
- The location of Payson Park provides opportunity to link Payson Park with the Baxter Boulevard path and, therefore, the larger park system within the City of Portland. A simple but safe connection will be an important step for the city, both real and symbolic.

Constraints

- Existing topography, cost concerns and environmental impacts will help dictate the location and extent of the paths
- Care must be taken to not over-run the park with paths. Uninterrupted, open lawn areas are desirable within this setting.

2. Current Use - See Existing Conditions Drawings 2 - 4

Payson Park boasts an unusual diversity of active and passive uses within a fairly confined area. The natural areas of the park limit the amount of available space that is suitable for active use facilities. Potential uses competing for available, usable space are active use facilities and open, uninterrupted lawn areas that are of particular value in an urban setting adjacent to the expanse of Back Cove

The existence of such a diversity of active and passive use at Payson Park often results in conflicts among park users as well as between park users and the surrounding neighborhood residents. An example of a typical conflict is a night softball game that generates noise and lighting impacts in the surrounding neighborhoods.

Currently, the most significant source of conflict and danger within the park is the location and design of the through-road and the lack of pedestrian facilities within the park. As the only hard surfaced travel lane within the park, the road is often used by pedestrians, joggers, bicyclists, people in wheelchairs and parents with strollers. However, once they've entered the roadway, pedestrians feel trapped by the guardrail which is meant to protect them and by vehicles consistently exceeding the posted speed limit.

This potential flash-point is exacerbated by the fact that the park is used by relatively large numbers of children and the elderly. Neighborhood and visiting children are drawn to Payson Park by the playground (in part because of a shortage of publicly accessible playgrounds in this part of the city), while elderly residents who live in the housing facility adjacent to the park often enjoy the park as an ideal place to walk. These users groups are particularly vulnerable to the current vehicle-pedestrian problem. This issue should be addressed as soon as possible, both on an interim, immediate basis and on a more permanent, far-reaching level (an issue that was discussed at the June 25 neighborhood meeting).

The active use park facilities are organized around the existing road and are therefore somewhat haphazardly placed. An example of this placement is the distance between the current location of the Little League fields and the playground. Active recreation facilities comprise a significant portion of the park, with dedicated space for softball, Little League baseball fields, basketball, tennis, skating and an outdated, dangerous playground that in fact does not meet current playground or ADA guidelines and regulations. Active recreation facilities are heavily used, a condition which often results in a demand for parking beyond that which the park can currently provide.

Passive use at Payson Park, while less prominent than active use, is an equally important component of the park. Park users enjoy picnicking, sunbathing, engaging in casual athletics (Frisbee, hacky-sack, etc.), visiting the Longfellow Arboretum, bird watching, or simply enjoying the open, natural or unmaintained areas of the park. A unique quality within the park can be found in the presence of both a freshwater pond and a brackish tidal wetland within several hundred feet of each other. Currently, the "natural" areas of the park are not maintained or noted as a significant resource and/or learning opportunity.

Another important use of available park space is for programmed events held by the Parks and Recreation Department and the City of Portland, such as Back Cove Day. The "gunplot" portion of the park, with its advantageous views of Back Cove and Portland, provides an ideal location for this type of activity.

Following is a list of current uses within Payson Park:

Active Recreation Uses

- Little League Baseball - 2 fields
- Adult Men's Softball
- High School Softball
- Playground
- 1 Basketball Court
- 4 Tennis Courts
- Ice Skating
- Various Youth soccer, football, t-ball practices

Passive Uses

- Walking
- Sunning
- Picnicking
- Reading
- Nature Walks
- Arboretum Viewing
- Bicycling
- Relaxing
- Parks Department programmed events

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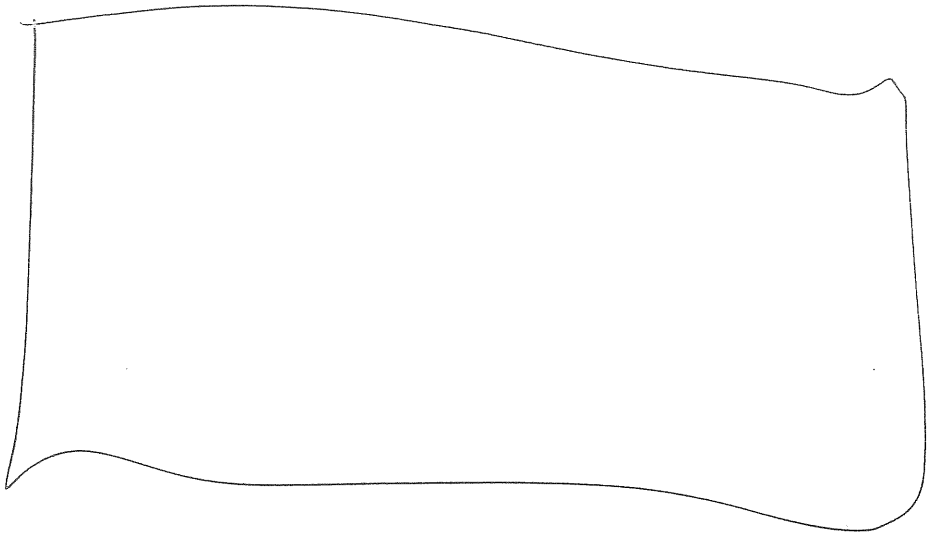
a - map



i. Unprogrammed, Flat, Lawn Areas

Interpretation

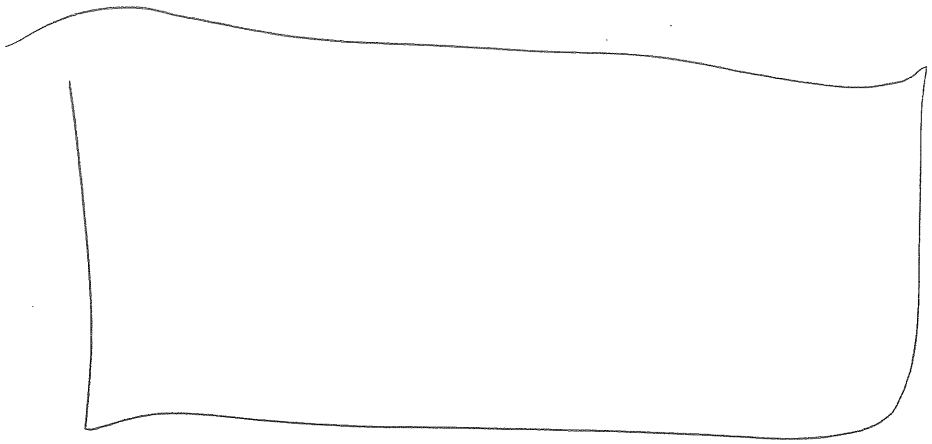
- There is a significant amount of under-utilized space within the park
- The presence of open, unprogrammed, flat lawn areas is important to the identity of the park

Opportunities

- Potential field locations for those areas
- Those areas allow for uninterrupted views through and throughout the park (and especially to Back Cove)
- Rather than being "left-over" space, these areas can be thought of as available space for new uses, allowing for a better organization of available park space

Constraints

- Care must be taken to maintain the presence of large expanses of open lawn, which is an important part of the identity of Payson Park



ii. Unmaintained, Natural Areas

Interpretation

- There is a significant amount of successional growth area for a city park
- Presence of so much unmaintained space generally corresponds to the amount of wet area within the park
- The existence of these areas allows the park to accommodate a large number of people without the severity of impact that would be experienced in a park with only open play fields.

Opportunities

- These areas provide the potential for a significant amount of park use other than active recreation
- Potential link to Back Cove Park and Back Cove itself, in that they all contain relatively "wild" areas
- Proximity to active, programmed space could be what makes Payson Park unique, desirable or notable - This condition could mean that a real diversity of use within the space can occur, which would provide a very rich park experience. Another way of looking at it is that this park provides more "bang for your buck"; i.e., more uses out of just one park
- These areas provide a place within the city for people to explore nature. An educational component would add another layer of meaning to the park experience and would promote outdoor classrooms to occur within Payson Park.

Constraints

- It is often more difficult to monitor and/or maintain natural or "unmaintained" areas or nature trails/walks
- It is potentially difficult for creating a more dangerous environment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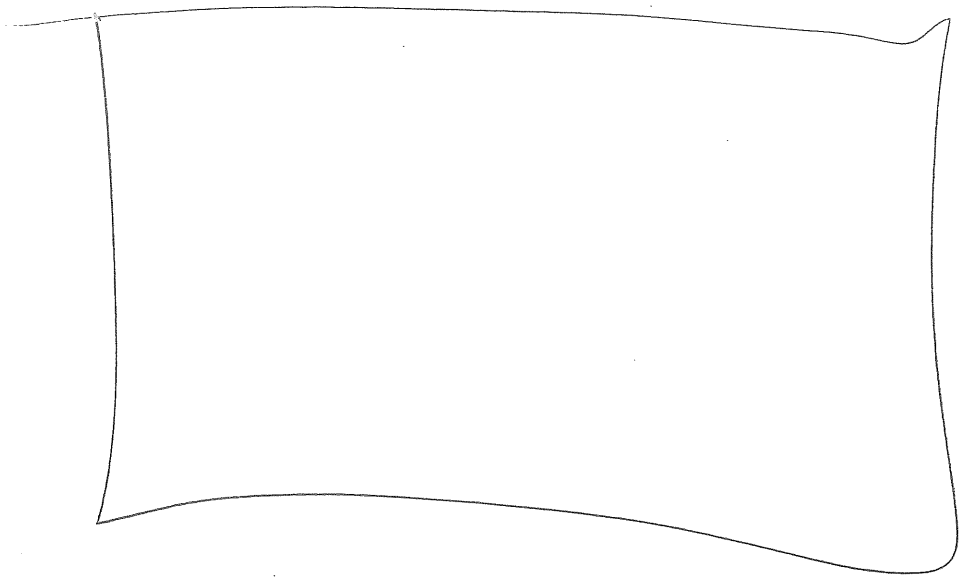
a map



iii. Active Use Areas

Interpretation

- There appears to be completely random placement of active use facilities. As more facilities were needed, they were built in the most convenient, accessible location (next to the road)
- There is no order to the orientation of the fields, in terms of sun angles, wind protection, etc.
- There is no organization of active use facilities that would lead to a logical sharing or overlap of space (i.e., a practice soccer field in the outfield of a little league baseball field.)

Opportunities

- A better organization of active recreation facilities could: 1) save space, thereby allowing more active use facilities and 2)promote a more clustered approach to active use facilities that would be more convenient for park users. This approach results in shorter walks from parking areas to play fields, easier access for equipment hauling, more fields are close to concession area, bathrooms, drop-off and pick-up, etc.

Constraints

- Care must be taken to avoid over-emphasizing the active use component of the park

3. Physical Features - See Existing Conditions Drawings 5 - 12

Payson Park boasts an impressive diversity of both natural features and active use facilities. The park contains significant areas of successional and undisturbed growth around the freshwater pond and tidal stream at the southwestern corner of the park. The remainder of the park consists of large, open lawn area, and athletic-use facilities.

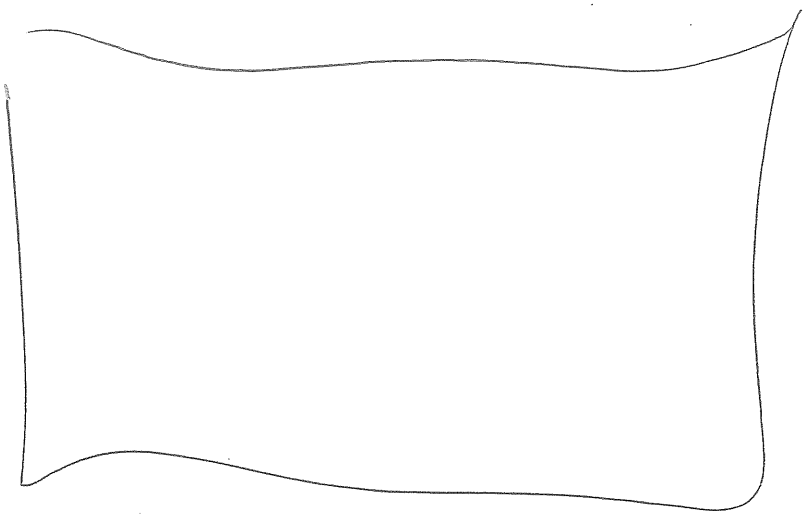
Dramatic views of the Portland skyline across Back Cove are possible at the southern entrance to Payson Park in the area known as the "Gun Plot." With these views and the open lawn, this area is well sited for picnicking. However, the experience of being surrounded by moving cars makes it less desirable. The guardrail surrounding the Gun Plot, while protecting the lawn areas from overflow parking, make this area difficult to reach, especially with baby strollers and other equipment. Other exceptional viewing areas can be found along Ocean Avenue (viewing across the park and out to Back Cove) and within some of the wetland areas (viewing across the wetland), and are framed by landform and stands of mature trees that enhance the viewing experience.

While the park contains a diversity of active use facilities, the existing layout of facilities is not the result of any guiding master plan. Rather, the location of the current fields and facilities is the result of adding amenities piece by piece as the need arose, and probably related to ease of construction in relation to the existing road. Over time, this circumstance has led to the current inefficient use of available space and resources for the City of Portland.

Amenities in the park are not consistent with the quality of recreational experience available at Payson Park. Benches, trash receptacles and picnic tables are aged and, in some cases, in disrepair. In addition, the overall number of these amenities is insufficient for the number of park users. The road is well lit with "cobra" type lighting. However, the styling of the road lighting is more consistent with that of a standard city street rather than a park road. The Ocean Avenue entrances to Payson Park are each flanked by two large, historic, stone columns that signify entrance into a major city park facility. The Baxter Boulevard entrances have no corresponding entrance markers, other than a small sign centrally located between the two entrances. More specific information on the roadway and parking lots can be found in the Existing Conditions - Circulation section of this report.

Finally, there are important drainage issues in the vicinity of Payson Park. Specifically, filling the wetland area known as Dyer's Flats during construction of Tukey's Bridge resulted in a condition which causes periodic flooding in the homes on Front Street (north of Dyer's Flats). This condition is exacerbated by the poor quality of the fill

material on Dyer's Flats. Rather than permitting heavy rainfall to filter through the soil, this poor quality fill results in sheet flow at the surface or just below grade in the direction of the existing problem. This drainage problem will be addressed as part of this plan in the early phases of implementation.



i. Vegetation

Interpretation

- Although there are significant, interesting, vegetated areas within the park, as a whole, the park is sparsely vegetated compared to the surrounding areas
- The densely vegetated areas are the unmaintained areas that are adjacent to or in wetlands or wet areas. It's possible to assume that without the wetlands/wet areas within the park, the entire park would consist of open lawn and/or active use recreation facilities.
- Investigation of the densely vegetated areas reveals that there are existing worn trails within the wooded areas but, as a whole, the wooded areas are not used as an asset for the public
- The densely vegetated areas also act as a screen for winds coming off Back Cove

Opportunities

- Significant vegetation areas provide potential for wetland/vegetation education aspect of the park
- There is the potential to link the arboretum with the wetland and densely wooded areas adjacent to it
- There may be an opportunity to use the screening effect of existing vegetation to protect new facilities, as well as to potentially orchestrate areas of wind exposure within the park

Constraints

- Any development of this area needs to be extremely low impact, keeping the delicacy of the wetland environment in mind

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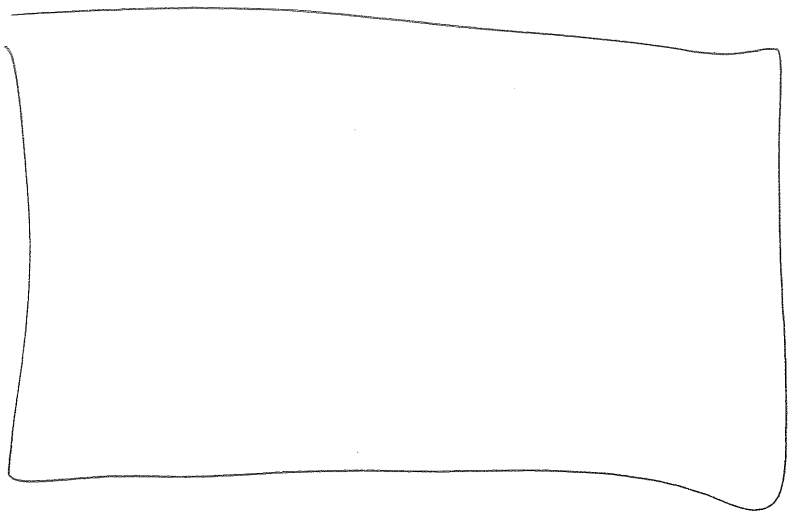


ii. Topography

Interpretation

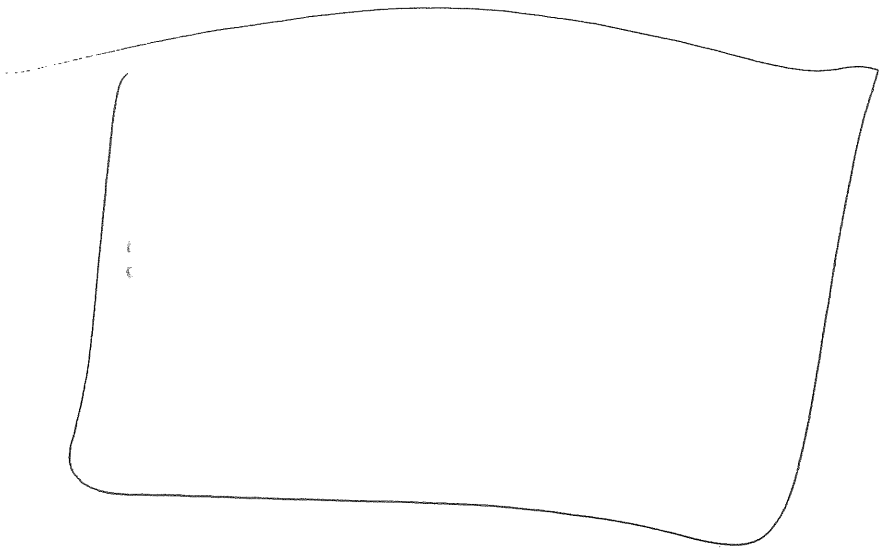
- With the exception of the slope beside Ocean Avenue, significant slopes within the park generally occur in the vicinity of wet areas.
- The majority of the park is relatively flat, with slopes less than 5%

Opportunities

- The presence of so much relatively flat area within the park allows for flexibility in moving fields to find the best, most efficient use of space
- Existing topography indicates that there is sufficient slope to keep the park well-drained, provided an overall grading strategy is maintained
- Areas of steep slopes provide diversity and interest for passive use trails and overlooks

Constraints

- Analysis and interviews reveal a significant drainage problem in the area on the north side of the park. The homes on Front Street have had basement flooding problems since the Dyers Flats area was filled in the 1980's
- ADA guidelines will have an impact on the final layout and design of the park and should be considered when designing the final circulation layout.



iii. Wet Areas

Interpretation

- Wetland areas comprise a significant portion of the park (acreage ? percentage?)

The presence of the brackish, tidal stream and the freshwater pond within the same vegetated area is a unique and notable natural condition

Opportunities

- The uniqueness of these areas provides the potential for wetland access and interpretive areas. These areas would not only provide significant education opportunities within Payson Park, but could also be linked to similar areas in other parks in Portland (especially on Baxter Boulevard and at Back Cove Park)
- Potential for flora and fauna in the park that relate to wetland areas, and for park users to interact with that flora and fauna

Constraints

- To alter, affect or move the wetland areas would be prohibitively expensive
- Any work near or within these delicate areas requires design expertise and experience
- Maine Department of Environmental Protection permitting would apply to any work done within these areas

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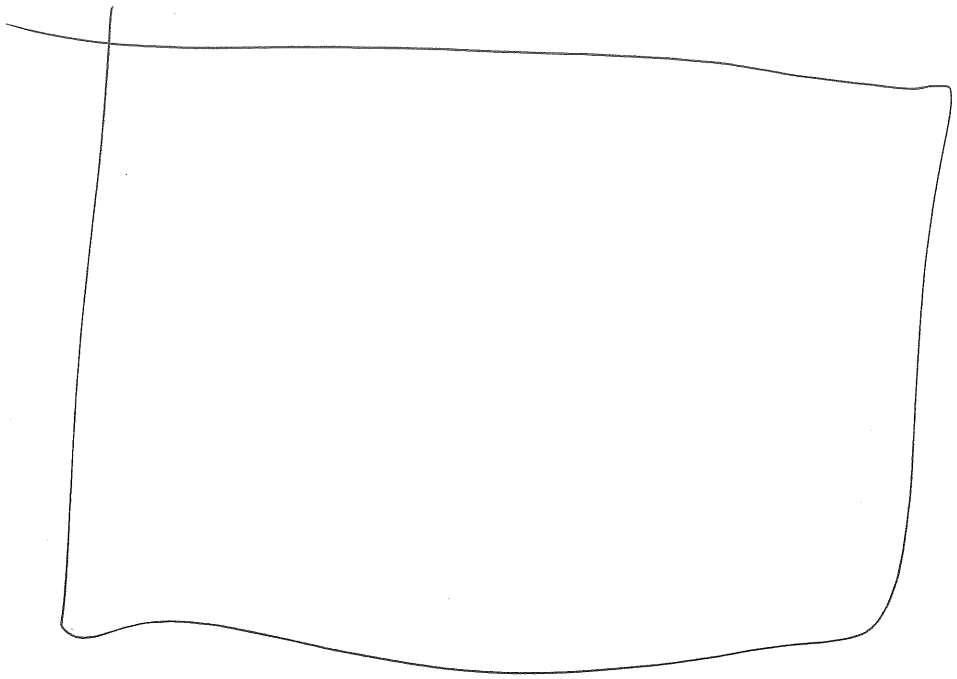


iv. Views

Interpretation

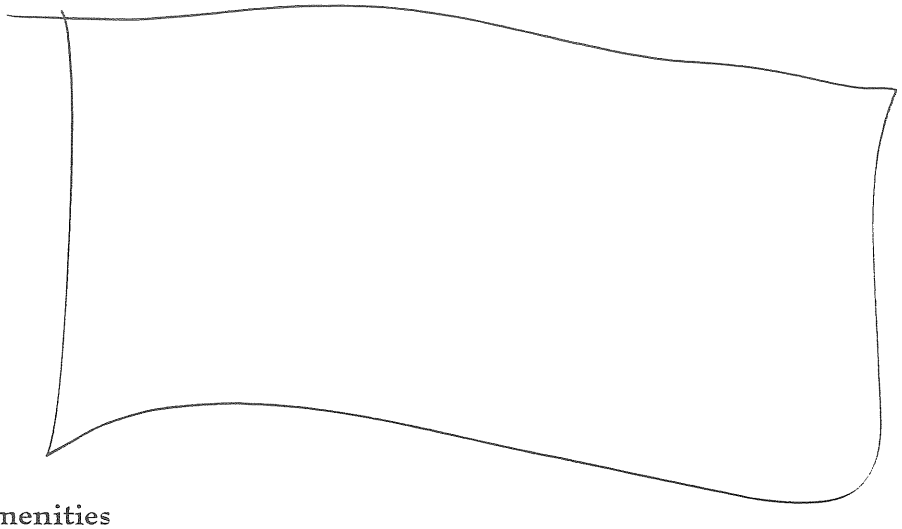
- There are mostly short views around the wet areas because of dense vegetation
- There are excellent long views from atop the Ocean Avenue ridge line
- Long views of Back Cove from within the park are restricted by vegetation, but are dramatic from the "gunplot" location

Opportunities

- There is potential to orchestrate views by using vegetation and landform- Views that could be orchestrated by the final park design are: 1) views from within the park to other park features; 2) views from within the park to features outside of the park; 3) views from outside of the park oriented in to the park
- Designed or orchestrated views could be more effective/dramatic than open views throughout the park

Constraints

- Some views will have to remain the way they are because of the location of wetlands and forest growth, which will necessarily remain undisturbed



v. Amenities

Interpretation

- Amenities map reinforces the idea that the road is the central organizing factor of the park
- Lighting is used only on roads and the adult softball field
- There is an insufficient number of benches and trash cans in the park
- Entry sequencing is inconsistent - there are large posts marking two Ocean Avenue park entrances and nothing on the two Baxter Boulevard entrances
- Signage within the park is inconsistent

Opportunities

- There should be entry sequencing for Payson Park that reflects its significance as an important City asset. These improvements could include entry posts/markers, signs, lighting, etc.

Constraints

- Lighting shouldn't infringe on the surrounding neighborhoods, and shouldn't encourage regular night usage of the park

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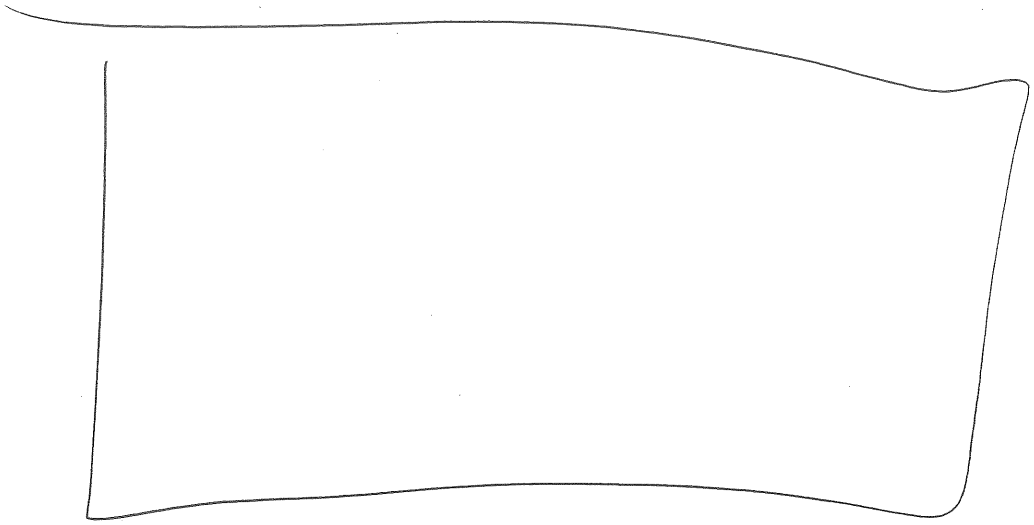

vi. Figure Ground

Interpretation

- Map shows that the built environment of Portland is dense to the edges of the park boundary - comparisons with older maps reveals that this area is becoming more and more dense.
- The park and the land it occupies will become more and more valuable over time
- The presence of Payson Park provides valuable open space within an increasingly more dense built environment
- The presence of Payson Park allows Back Cove to have an impact deeper into the neighborhood than it otherwise would. Back Cove reaches into the neighborhood visually and because of the wind

Opportunities

- Within Payson Park, there may be an opportunity to highlight the relationship between nature and the built world

Constraints

- Changes to Payson Park should respect the existing as well as future pattern of the city

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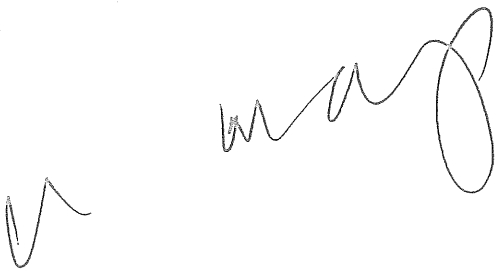
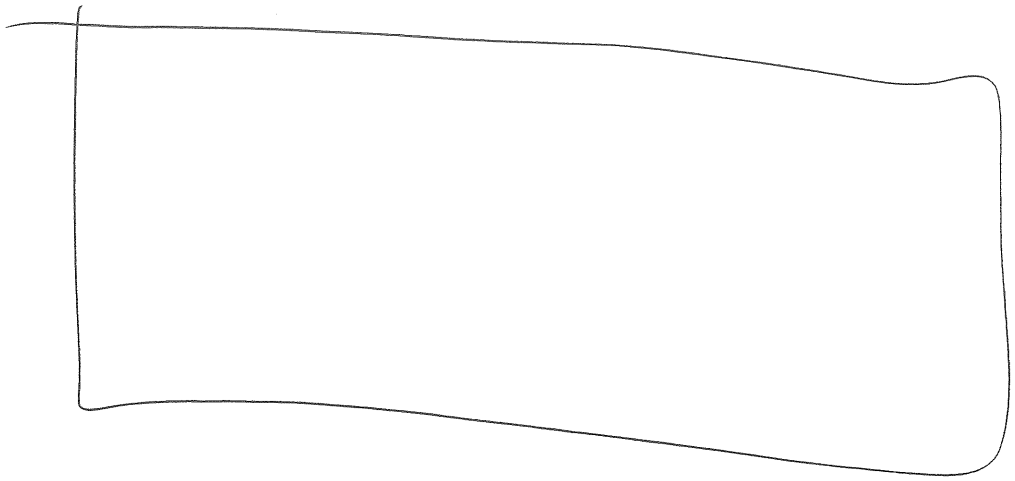




vii. Watershed/Landform/Drainage

Interpretation

- There is a general pattern of positive drainage across the park toward Back Cove
- Low points along the way collect water before it gets to Back Cove
- Low areas within the park are natural except for the skating rink
- High points or knobs within the park are man-made
- The site is basically a flat area (flood plain?) between the hill on which Ocean Avenue sits and Back Cove

Opportunities

- Athletic and recreation facilities should drain into wetland areas to prevent standing water and help filter and purify run-off before it reaches Back Cove
- There is an opportunity for a more natural form for the skating rink
- The flatness of the site is ideal for sports fields and will require little re-grading
- As the master plan is implemented, minor re-grading to improve general drainage of the site should be done, as well as significant drainage improvement measure to alleviate the problems in the Front Street neighborhood

Constraints

- Design development must accommodate the potential for future large storm and flooding events
- Design development must proceed adhering to an overall grading strategy
- Location of low areas will not change

C. Summary Assessment and Goals & Objectives

1. Defining the Need: Summary of Existing Conditions and Uses

Payson Park is a unique mix of natural and constructed recreation opportunities that is widely used by the citizens of Portland. The diversity of uses makes this facility particularly valuable to its users. However, the park suffers from a variety of issues that affect the safety and enjoyment of current users. If left unchanged, these issues would quickly worsen and have a negative impact on the experience of the park or, potentially, endanger a pedestrian, park user or property. The items that are in need of immediate attention include:

- the roadway
- the playground
- the drainage situation along Front Street
- the little league field that is not regulation size and therefore, nearly un-usable
- the parking situation
- the tennis courts
- the poorly drainage softball field
- the arboretum

Payson Park is a valuable component of the Portland park system that is badly in need of a guiding plan for the 21st century.

2. Goals and Objectives of the Master Plan

Analysis and Assessment of the site resulted in the formation of the following Goals and Objectives:

- to lessen the impact of vehicular traffic within the park experience while maintaining the connection between Baxter Boulevard and Ocean Avenue, primarily to improve pedestrian safety but also to improve the quality of experience within the park
- to improve the relationship between active and passive uses within the park, and to improve the condition, safety and efficiency of active and passive use facilities
- to provide a safer and more enjoyable pedestrian circulation system, both within and through the park
- to expand the presence of the Arboretum as a resource for the public
- to make the park enjoyable and accessible for all users, given the natural topography of the site

A. THE MASTER PLAN

11 x 17

MP

B. DESIGN SUMMARY

The focus of the design recommendations is to improve the quality of park experience at Payson Park. These recommendations suggest significant changes in the active use facilities, pedestrian and vehicular movement, as well as major improvements to the passive use facilities in the park.

Active and Passive Recreation Opportunities

The proposal organizes the active and passive uses of the park around a large, central, multi-purpose space which can be used as: 1) passive open space for picnicking, sunbathing and other unprogrammed activities, 2) programmed Parks and Recreation activities such as concerts, performances or other events, 3) practice fields for a variety of athletic activities. An expanded arboretum is seen as the framework which defines this central space and helps define the identity of the park. In addition, this organizing feature will contribute to the clarity and legibility of the park for both new and current users.

Included in the recommendations are improvements to the following active-use facilities:

- 2 regulation Little League baseball fields
- 1 T-Ball field adjacent to the Little League fields which allows for continuity in the Little League baseball program in Portland
- 1 regulation high school softball field
- 1 regulation high school soccer field which can also be used for other athletic purposes (Little Lad football, practices, etc.) at other times of year
- 3 full-court basketball courts
- 5 regulation tennis courts
- 1 new playground which conforms to all safety and accessibility codes and guidelines
- 1 larger skating rink which allows simultaneous use by active (hockey) and by passive skaters

Roadway / Vehicular Circulation

The most important and noticeable aspect of the proposal is the relocation of the road through Payson Park. The proposed road, shown relocated to the north, will have sidewalks on both sides and raised crosswalks with stop signs at key locations to allow neighborhood users safe access to the park. This road alignment provides the safest circulation system for pedestrians, both in getting to the park and in enjoying the park once you've arrived. The road will only be crossed when entering or leaving the park instead of the current condition of having to cross when changing activities within the

park. This configuration means that once park users enter the park the road is no longer a danger or even a concern.

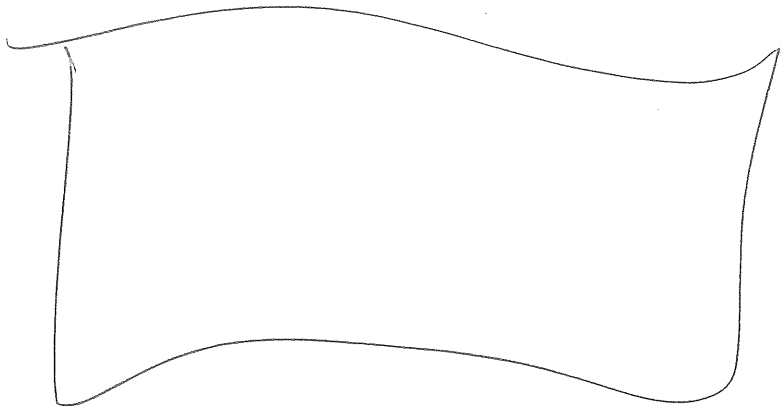
Parking

The master plan calls for a substantial increase in parking spaces, from the current level of 230 to a proposed 420 spaces. Two parking lots will provide spaces close to Baxter Boulevard: the 130-space lot between the Little League fields and the overflow parking lot with approximately 60 spaces. All of the proposed parking lots will be landscaped and screened in ways which are respectful of the park setting. The approach allows for the concentration of cars in smaller areas that can more easily be screened. The current lack of designated parking spaces leads to a dangerous condition of double parking along the roadway. An improved parking situation would provide more convenient parking for park users and allow safer pedestrian conditions during high demand times.

Pedestrian Circulation

The master plan recommends a substantial improvement in both the internal pedestrian circulation system and the pedestrian connection from Payson Park to the larger, city trail system. Internally, a small network of interconnected paths will be created that will separate pedestrians from vehicular traffic. A bituminous multi-purpose path will connect joggers, walkers, bicyclists, etc. directly between Baxter Boulevard and Ocean Avenue. In terms of materials, stone dust paths will link Payson Park to the Baxter Boulevard path and will provide an internal circulation loop for joggers, walkers and strollers. By connecting to overlooks which are proposed for the freshwater pond and tidal areas, the proposed paths will also allow users to experience the natural areas of the park. Combined with the multi-purpose path, path network will provide a diversity of path experiences in the park while highlighting Payson Park's natural assets.

C. RECOMMENDATIONS FOR PARK IMPROVEMENTS



1. RECOMMENDATIONS FOR VEHICULAR CIRCULATION AND PARKING

A. *Re-align the roadway to the northern edge of the park*

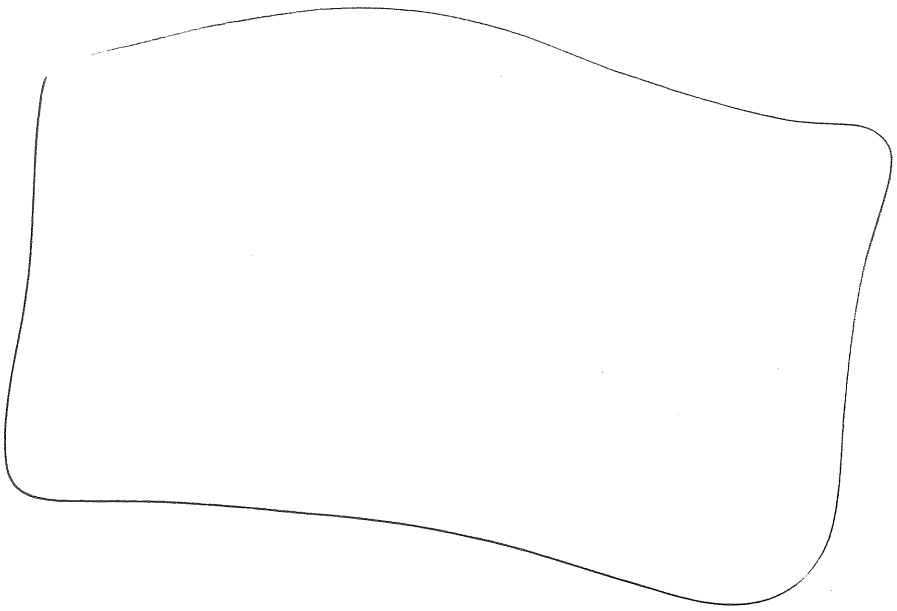
- Allow room for buffer planting between the road and the adjacent neighborhood
- The roadway should have a "park" character, including:
  - -curvilinear horizontal alignment
  - -street tree plantings on both sides
  - -two-way traffic
  - -12' lanes
  - -granite curbing
  - -sidewalks and esplanades on both sides of the roadway
  - -raised crosswalks and stop signs at designated crossing points
- The roadway should be adequately-buffered from the neighborhoods on the north side of the park

B. *Reduce the number of ingress/egress points from 4 to 2*

- Install entrance posts on the entrance from Baxter Boulevard
- Posts should match the existing posts on the Ocean Avenue-side of the park

C. *Increase the number of parking spaces in the park from 230 to 420*

- Provide three separate lots to service the major use areas of the park
  - -the lot closest to Baxter Boulevard will also be used for Baxter Boulevard users
- Provide one area that can be used for overflow parking during large events, preferably close to the ballfields
- Parking lots should be designed as "parking gardens," with extensive planting, buffering and screening to reduce the visual impact on the rest of the park
- Screening should be considered from ground level and from higher elevations such as from Ocean Avenue



2. RECOMMENDATIONS FOR PEDESTRIAN CIRCULATION

A. *Install a network of paths that allows for connections between various uses and allows for a variety of jogging/walking/strolling loops within the park*

- Ensure that there is at least one continuous, paved loop within the park that does not require crossing of any vehicular roadway
- Ensure that there are several loop options within the park, allowing for a diversity of walking experience and length of walks

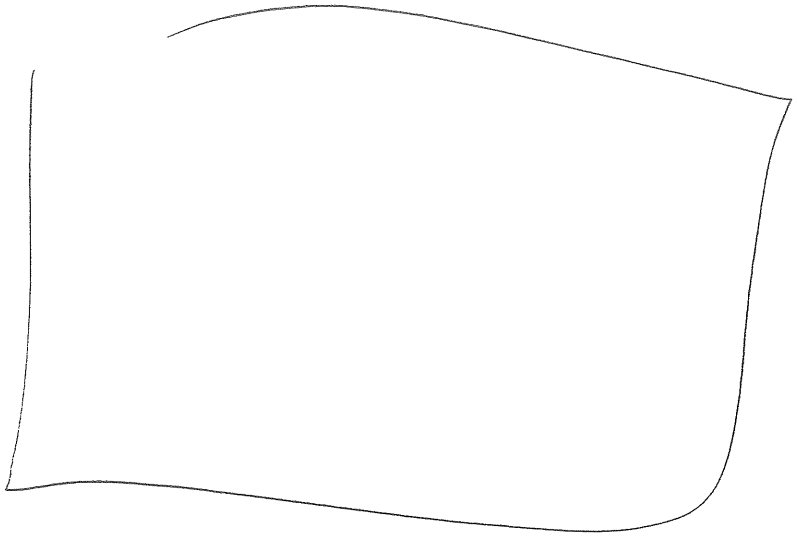
B. *Install a 12' wide, bituminous, multi-purpose path that connects Ocean Avenue and Baxter Boulevard*

- A portion of the multi-purpose path can be converted from the existing roadway

C. *Install sidewalks and crosswalks with the new roadway*

- Sidewalks should be installed on both sides of the roadway
- Sidewalks should connect to raised crosswalks with stop signs at appropriate crossing points

D. *Install a sidewalk on the park side of Baxter Boulevard, within the park boundary*

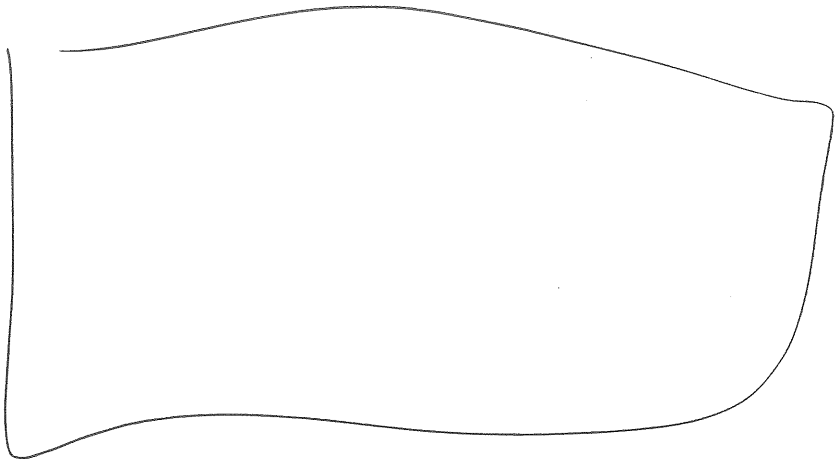


3. RECOMMENDATIONS FOR GRADING AND DRAINAGE

A. *Improve the drainage situation on the north side of the park by installing catch basins and a sub-surface drainage system that connects to Back Cove*

B. *Re-grade all existing and proposed active-use fields to ensure positive drainage*

- Resolve drainage problem at field at base of Ocean Avenue hill



4. RECOMMENDATIONS FOR ACTIVE RECREATION

A. *Relocate two Little League baseball fields to Dyers Flats area, to be grouped with T-Ball field, playground and parking lot*

- Ensure proper orientation of fields (given space restraints)
- Ensure that the relocated fields are regulation-size for Little League play

B. *Install T-Ball field in proximity of Little League fields*

C. *Convert existing baseball field to a softball field*

D. *Install a regulation-size high school soccer field which can also be used for other athletic purposes (Little Lad football, practices, etc.) at other times of year*

E. *Install 3 full-court basketball courts*

- Install fencing around the courts

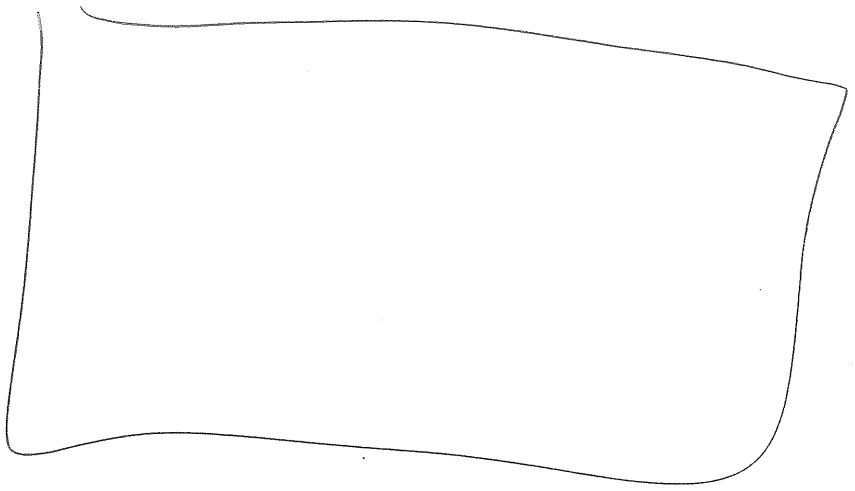
F. *Install 5 tennis courts*

- Install fencing around the courts

G. *Install a new playground that conforms to all safety and accessibility codes and guidelines*

H. *Install a larger skating rink which allows simultaneous use by various user groups, such as active (i.e,. hockey) and passive skaters*

- Skating area should be installed in a way that allows flooding in winter
- Skating area would function as open area during non-winter months



5. RECOMMENDATIONS FOR PASSIVE RECREATION

A. *Expand the Longfellow Arboretum*

- Develop the arboretum as the framework for the various park components

- The "heart" of the arboretum can remain in its present location, allowing for a separate, secluded area for quiet enjoyment of the arboretum. This area should remain true to the original, stated intent of the arboretum as one that promotes non-native or unusual trees for the interest of all users.

- The expanded component of the arboretum will encircle the central, multi-purpose space and allow more day-to-day exposure of the arboretum to all users of the park
    - To ensure high survival rates, the newly created aspect of the arboretum should contain more native, hardy species that will tolerate a higher degree of root compaction and other abuses.

    - For maximum protection against "new" pests or outbreaks of "old" pests, adhere to the 10-20-30 Formula for tree planting within the park:
        1. No more than 10% of any single tree species
        2. No more than 20% of species in any tree genus
        3. No more than 30% of species in any tree family

This approach allows the arboretum to contain a diversity of experiences, from a secluded retreat to a facility that surrounds active use fields, and allows it room to grow into one of the centerpieces for the city of Portland.

- Develop a planting program by areas of the park, following the Installation Sequence on page -- and the notes below

  Different areas of the park should be planted at different rates

  - Buffering/Screening between the roadway and the neighborhood should be developed throughout the life of the park, beginning as early as possible. It is critical to the success of the park development that the roadway does not become an earsore or eyesore to the adjacent neighborhood. As much resources as possible should go into this area, as early as possible, to ensure its success.

  - The planting around the Central Open Space should be installed in a very systematic way, to ensure a consistent and recognizable planting that defines the space. For example, avoid planting one end of the Central Open Space 15 years from planting the other end of the Central Open Space. The goal is to install a planting that fully surrounds the Central Open Space, even if the trees are spaced far apart. Later plantings should also fully surround the space, but fill in the holes left from earlier plantings. Because this area will be more heavily traveled than other areas of the arboretum, the trees planted around the Central Open Space should consist primarily of native, hardy trees such as maples and oaks.

  - The "heart" of the arboretum should continue to be planted in the manner in which it is currently planted. (See Recommendations for Passive Recreations)

- Generate plant lists for specific areas and purposes, and find sponsors to implement planting.

  - Incorporate maintenance costs into initial purchase costs
  (from evergreen)

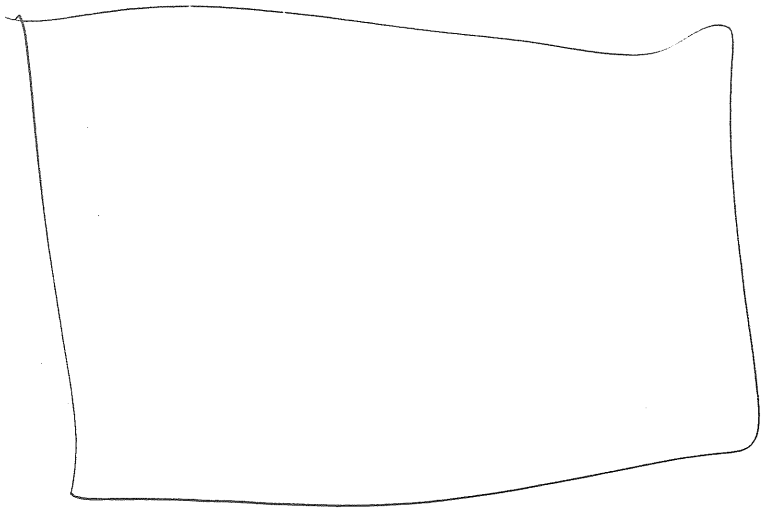
B. *Develop trails, overlooks and habitat within the natural areas of the park*

- These components should have an educational basis that explains the unique habitat, vegetation and physical characteristics of this site

- Install native shrubs and other plant material in the natural areas of the park that will require little or no maintenance and that attract and maintain a wildlife population

C. *Provide Multi-Purpose Spaces that allow for many different uses, both active and passive*

- These spaces should be large and flat enough to allow for Frisbee, sunbathing, picnicking and casual play while also being graded and sized to provide space for practice and/or games by soccer, Little Lad football and other activities.



6. RECOMMENDATIONS FOR LIGHTING

A. *Ensure that all new lighting in the park is contained within the park boundary and will not spill over into adjacent neighborhoods*

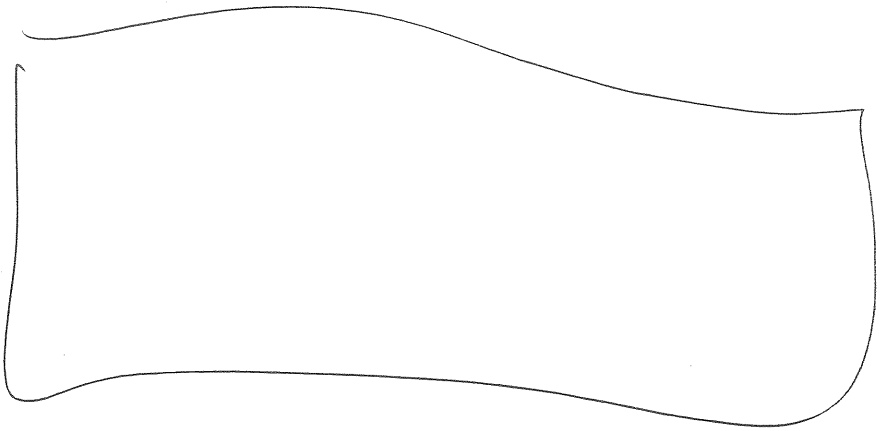
B. *Install pedestrian-scale lighting along the multi-purpose path*

C. *Install appropriate lighting along the new roadway*

D. *Install user-controlled, timed lighting on the new tennis and basketball courts*

- Court lighting should have an over-ride shutdown that will occur at a pre-set time (9:00 p.m., for example)

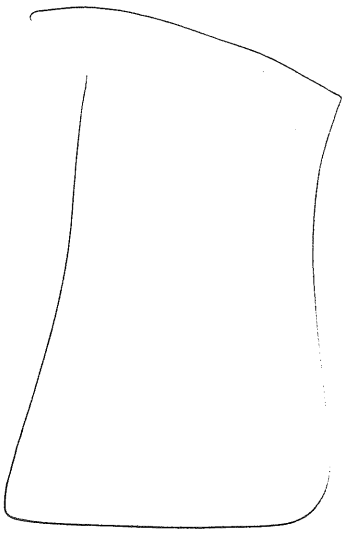
E. *Do not install lighting for fields, skating area or other paths*



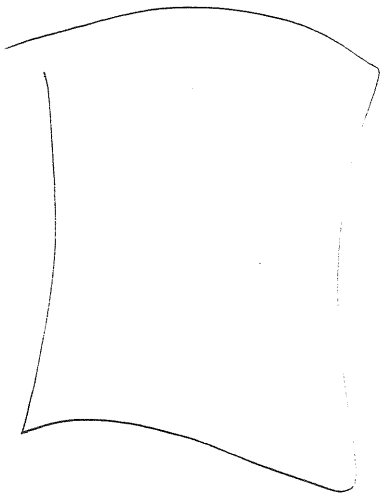
7. RECOMMENDATIONS FOR AMENITIES

A. *Locate benches, picnic tables, trash receptacles, bicycle racks and drinking fountains appropriately throughout the park* (See Amenities Recommendations, below, and Master Plan)

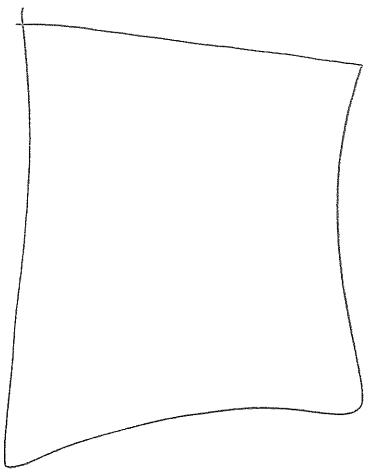
B. *Amenities Recommendations*



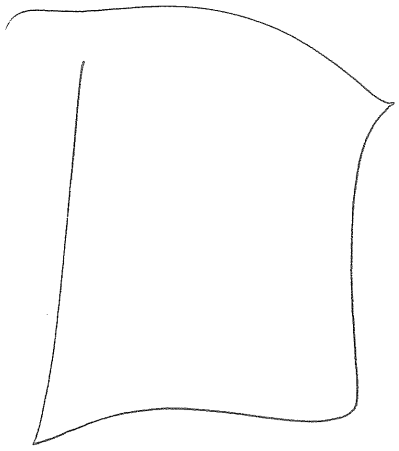
Benches



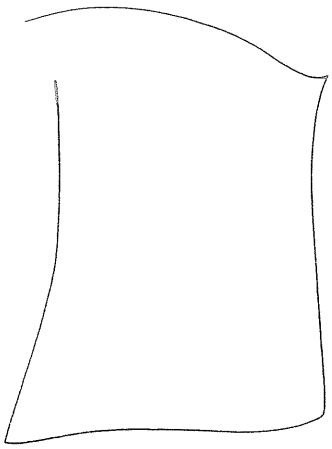
Picnic Tables



Trash Receptacles



Bicycle Racks



Drinking Fountains

- Install Concession/Bathroom Structure at New Little League Facility
- Install Overflow Parking at Dyer's Flats
- Install Shrubs for Screening/Buffering Measures for New Road
- Tree Planting for Defining the Central Open Space

- Demo Trees Next to Ocean Avenue Fields
- Install Parking Lot at Ocean Avenue
- Upgrade /Install Women's Slow-Pitch Softball Field (Coordinate with Other New Work Outside of Payson Park)
- Install/Upgrade Partial Soccer Field
- Tree Planting for Defining the Central Open Space

- Drainage Work Completed As Required
- Demo 4300 LF of Existing Road
- Install 2700 LF New Road, Including Sidewalks, Crosswalks, Street Trees
- Install Part II of Screening/Buffering Measures for New Road As Necessary
- Install Multi-Purpose Path (Use Existing Road as Much as Possible)
- Install Remainder of Soccer Field
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

- Demo Adult Softball Field (Coordinate with New Field Construction at New Location)
- Upgrade Basketball Facility
- Upgrade Tennis Facility
- Install Parking Lot Between Basketball and Tennis
- Install Concession/Bathroom Structure Closest to Ocean Avenue
- Install Secondary Paths, Overlooks
- Demo Skating Area
- Install Central Multi-Purpose Space
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

- Install Concession/Bathroom Structure at New Little League Facility
- Install Overflow Parking at Dyer's Flats
- Install Shrubs for Screening/Buffering Measures for New Road
- Tree Planting for Defining the Central Open Space

- Demo Trees Next to Ocean Avenue Fields
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- Install Secondary Paths, Overlooks
- Demo Skating Area
- Install Central Multi-Purpose Space
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

C. ESTIMATED COST OF IMPROVEMENTS

This cost estimate is meant to be a tool to aid in the long-term management of the project. Several factors must be considered when referring to this estimate:

- The estimate has been compiled using the level of detail developed in this Master Plan. Further development of the site analysis (such as geotechnical information) and of the construction documents will reveal more information regarding project costs.
- The estimate is compiled using cost factors and data from 1998 and 1999. It is anticipated that this project may take several decades to complete. Therefore, a 1999 cost estimate may not be valid during the later phases of construction.

D. CARE OF IMPROVEMENTS - MAINTENANCE AND MANAGEMENT

A plan for the care and management of the proposed improvements is as important as the improvements themselves, for without proper maintenance, the city is risking the investment of the improvements. This is especially true in the first years after construction. Plants must be watered, treated and pruned, while inspection and maintenance of newly installed landscape elements such as tennis courts can often reveal any potential problems early in the process.

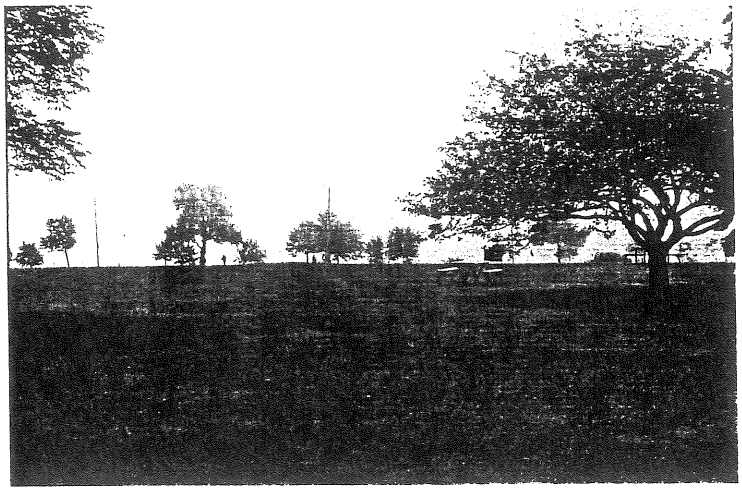
In general, the routine maintenance plan will relate primarily to the plant material, especially in years 1-5 after installation. As the plant material matures, a less rigorous maintenance schedule will be possible. The longer-term, more spaced out maintenance relates to the hardscape and facilities in years 1-20 after installation. Following are specific and general recommendations for a maintenance plan for Payson Park:

1. SPECIFIC RECOMMENDATIONS:

A. HISTORIC DOCUMENTS & INTERESTING PHOTOGRAPHS

PAYSON PARK

Portland, Maine



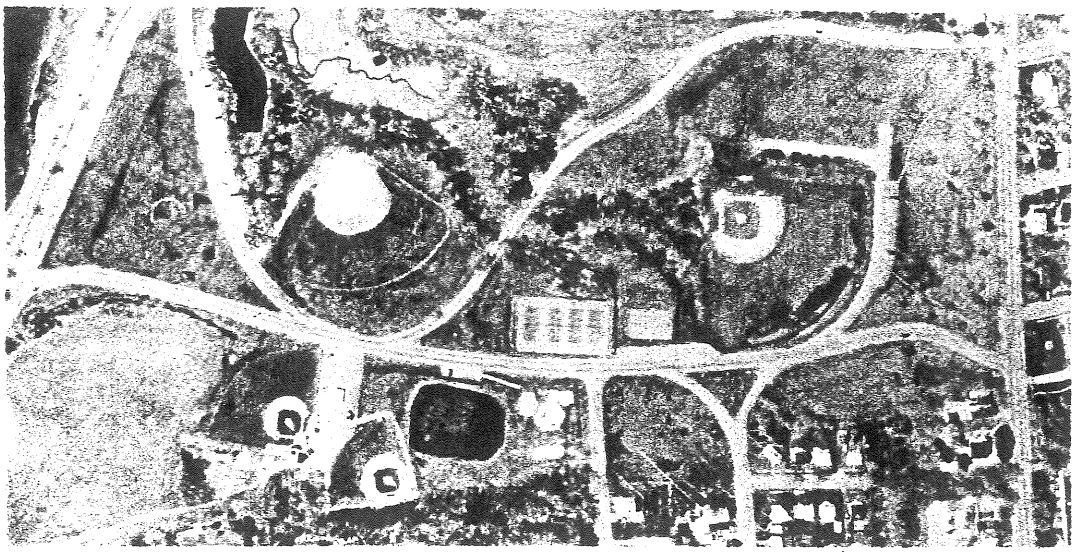
Master Plan

Summer 1999

Prepared by:
Richardson & Associates
Landscape Architects
Saco, Maine

Preface

Part I: Overview



Part II: Analysis and Assessment

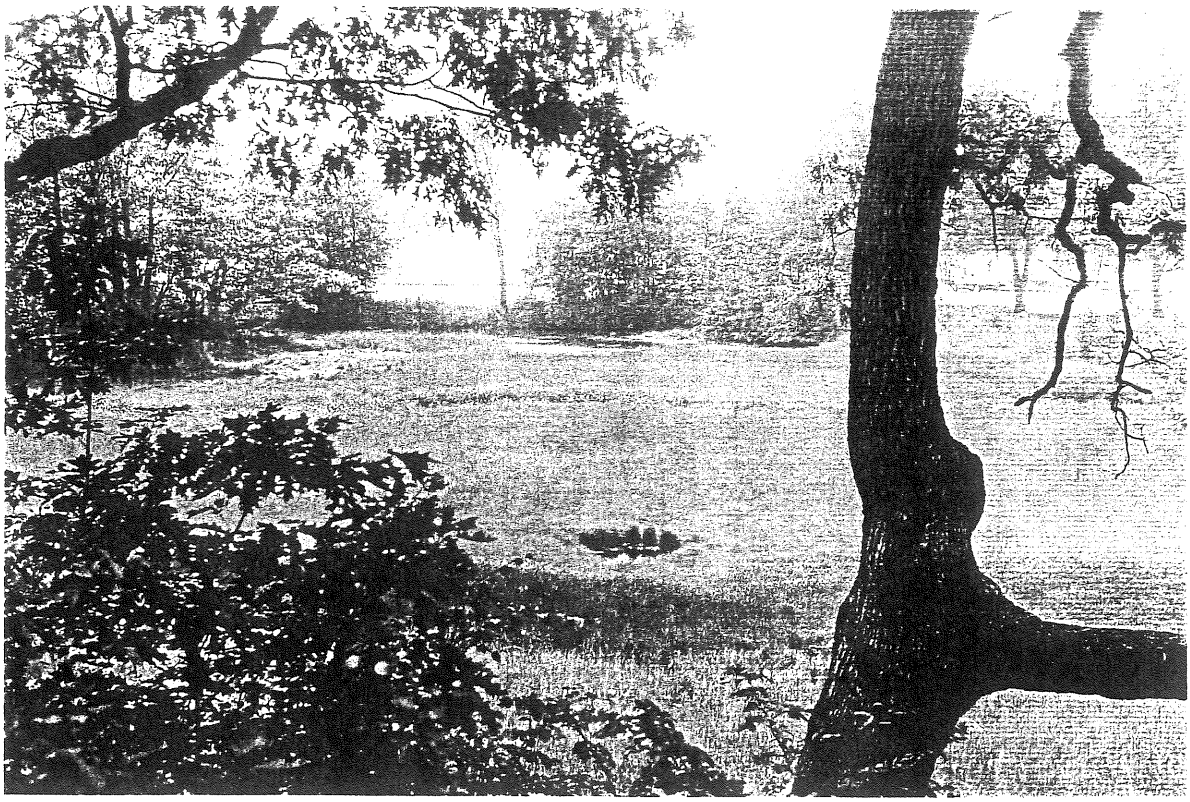


Figure IIA.1 - View of the Payson Mansion before it was demolished

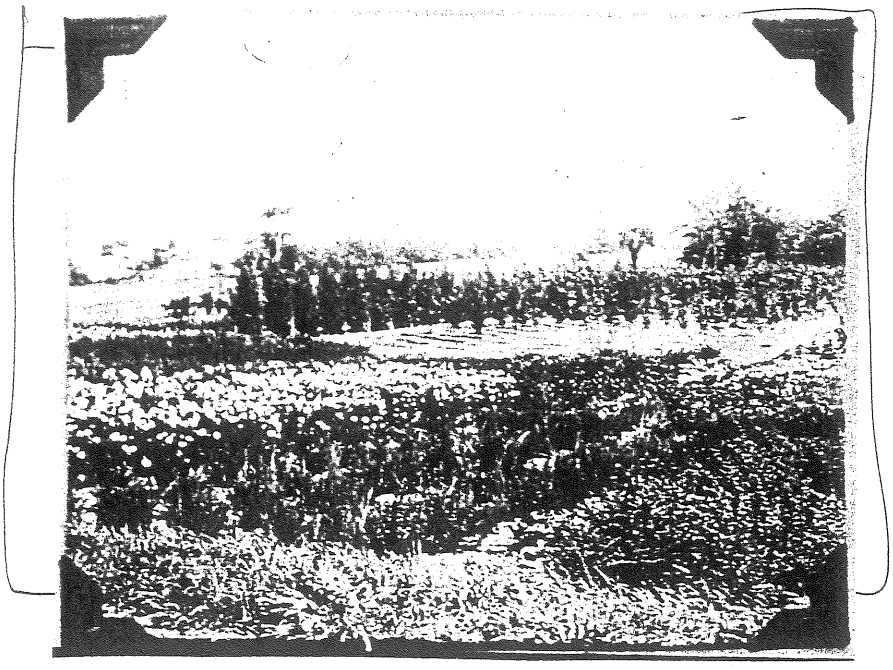


Figure IIA.2, IIA.3 - Views of community gardens and street tree inventory circa 1920's

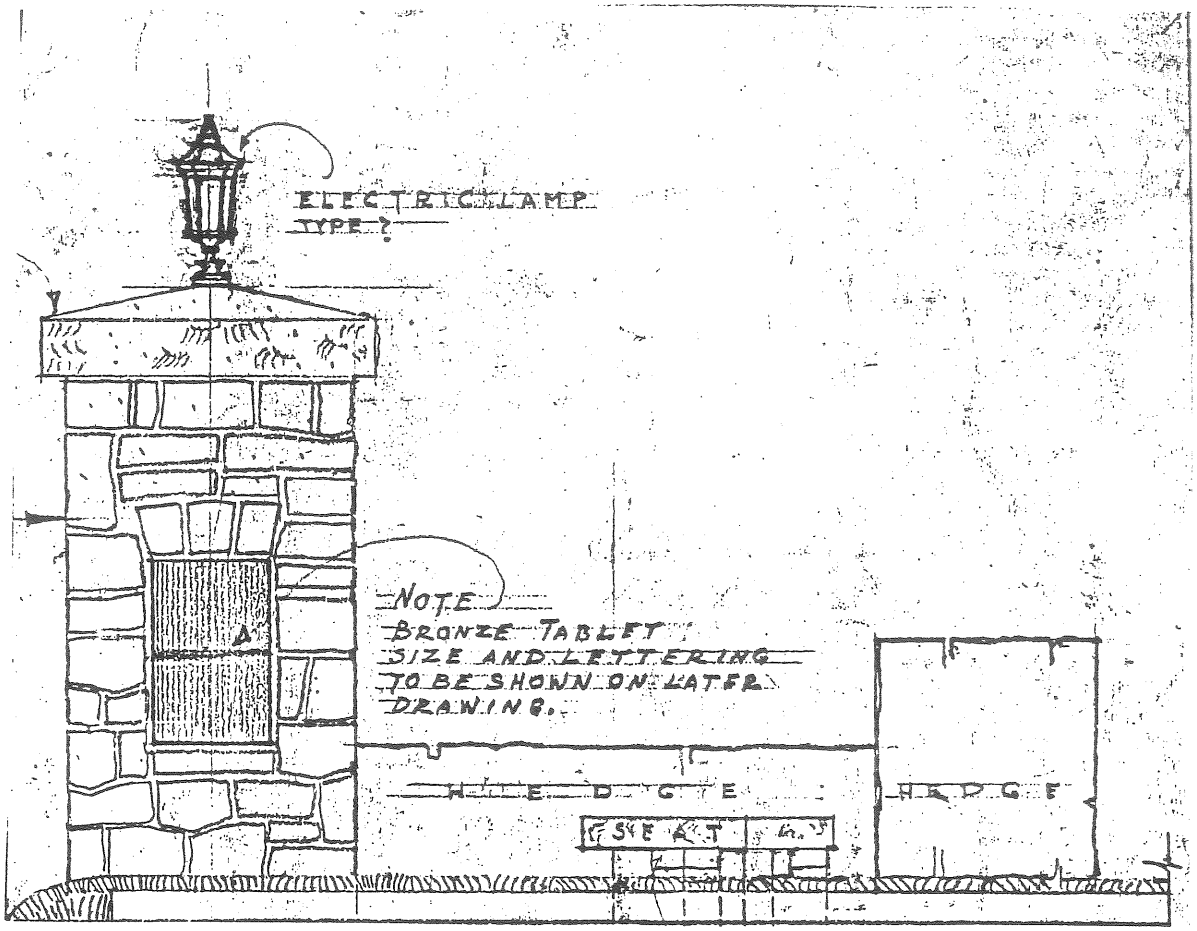
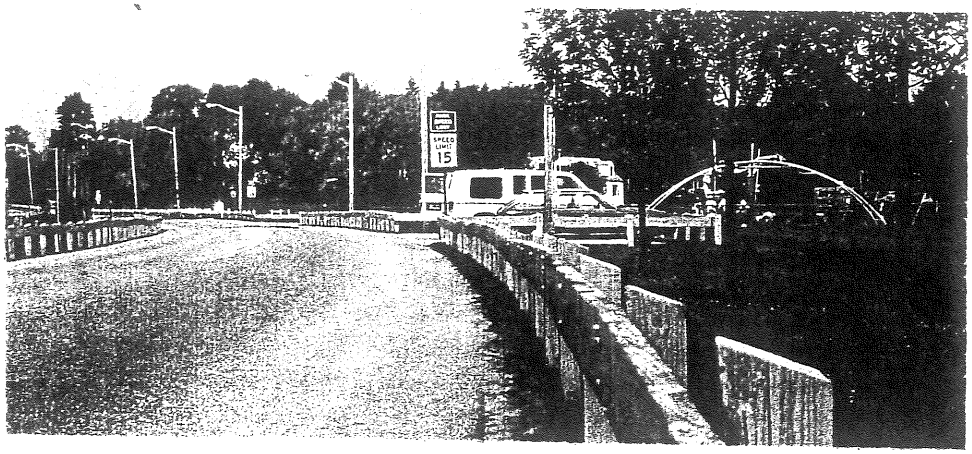


Figure IIA.4 - Detail of Construction Drawing for Stone Entry Posts at Payson Park, date unknown



i. Vehicular

Interpretation

- Park roads have little or no relationship to surrounding roads or circulation systems
- Park road layout promotes fast, easy vehicular travel through the park
- Four entrances to a relatively small park area

Opportunities

- With One (1) entrance per side (two total), there is the potential to make the entrances significant, and of an appropriate scale for a great city park
- Road layout and location could be used to slow cars in the park and to separate vehicular traffic and pedestrian traffic

Constraints

- Cost, environmental considerations and traffic design standards will guide placement of new road alignment

ii. Parking

Interpretation

- There is an inadequate number of parking spaces (175) for the size and current uses of the park. There should be a minimum of --- parking spaces for park users and an additional number for Baxter Boulevard path users
- Lack of available parking spaces forces people to park on the side of the road, especially during large events. On-street parking results in decreased visibility for both vehicle drivers and pedestrians and generally makes the circulation system more dangerous.

i. Unprogrammed, Flat, Lawn Areas

Interpretation

- There is a significant amount of under-utilized space within the park
- The presence of open, unprogrammed, flat lawn areas is important to the identity of the park

Opportunities

- Potential field locations for those areas
- Those areas allow for uninterrupted views through and throughout the park (and especially to Back Cove)
- Rather than being "left-over" space, these areas can be thought of as available space for new uses, allowing for a better organization of available park space

Constraints

- Care must be taken to maintain the presence of large expanses of open lawn, which is an important part of the identity of Payson Park

ii. Unmaintained, Natural Areas

Interpretation

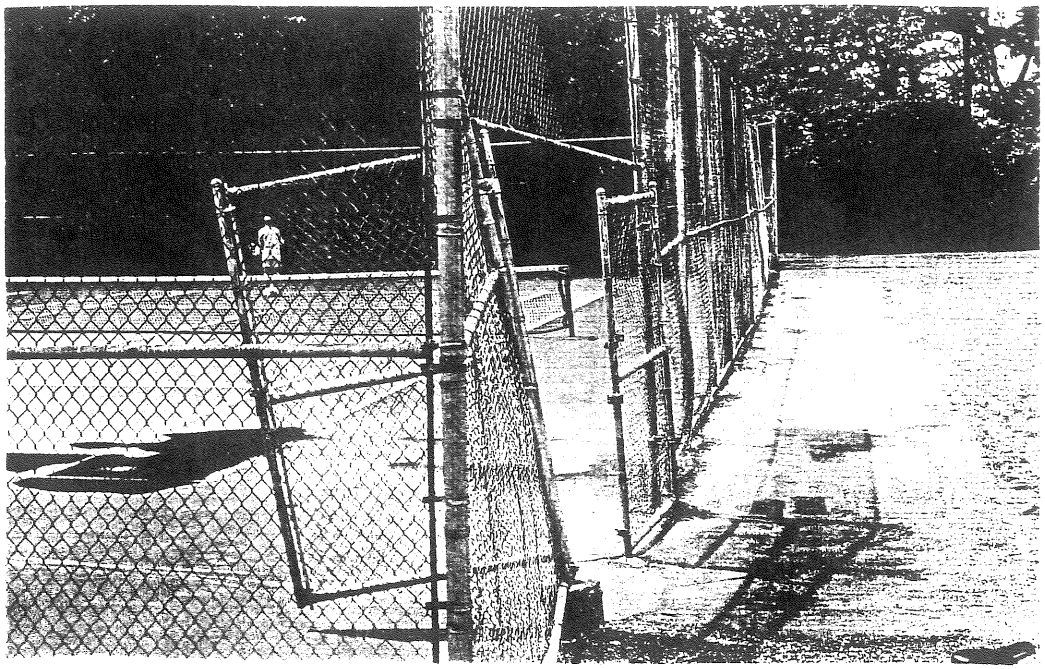
- There is a significant amount of successional growth area for a city park
- Presence of so much unmaintained space generally corresponds to the amount of wet area within the park
- The existence of these areas allows the park to accommodate a large number of people without the severity of impact that would be experienced in a park with only open play fields.

Opportunities

- These areas provide the potential for a significant amount of park use other than active recreation
- Potential link to Back Cove Park and Back Cove itself, in that they all contain relatively "wild" areas
- Proximity to active, programmed space could be what makes Payson Park unique, desirable or notable - This condition could mean that a real diversity of use within the space can occur, which would provide a very rich park experience. Another way of looking at it is that this park provides more "bang for your buck"; i.e., more uses out of just one park
- These areas provide a place within the city for people to explore nature. An educational component would add another layer of meaning to the park experience and would promote outdoor classrooms to occur within Payson Park.

Constraints

- It is often more difficult to monitor and/or maintain natural or "unmaintained" areas or nature trails/walks
- It is potentially difficult for creating a more dangerous environment



iii. Active Use Areas

Interpretation

- There appears to be completely random placement of active use facilities. As more facilities were needed, they were built in the most convenient, accessible location (next to the road)
- There is no order to the orientation of the fields, in terms of sun angles, wind protection, etc.
- There is no organization of active use facilities that would lead to a logical sharing or overlap of space (i.e., a practice soccer field in the outfield of a little league baseball field.)

Opportunities

- A better organization of active recreation facilities could: 1) save space, thereby allowing more active use facilities and 2)promote a more clustered approach to active use facilities that would be more convenient for park users. This approach results in shorter walks from parking areas to play fields, easier access for equipment hauling, more fields are close to concession area, bathrooms, drop-off and pick-up, etc.

Constraints

- Care must be taken to avoid over-emphasizing the active use component of the park

i. Vegetation

Interpretation

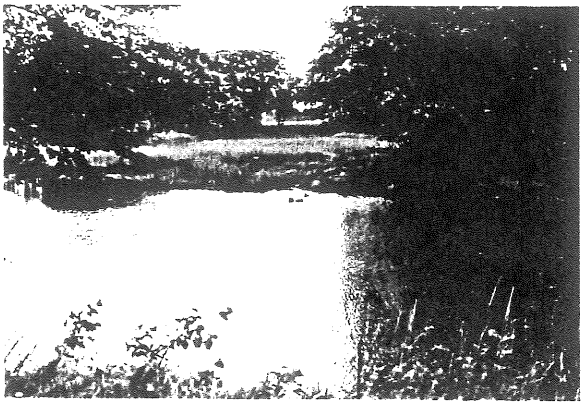
- Although there are significant, interesting, vegetated areas within the park, as a whole, the park is sparsely vegetated compared to the surrounding areas
- The densely vegetated areas are the unmaintained areas that are adjacent to or in wetlands or wet areas. It's possible to assume that without the wetlands/wet areas within the park, the entire park would consist of open lawn and/or active use recreation facilities.
- Investigation of the densely vegetated areas reveals that there are existing worn trails within the wooded areas but, as a whole, the wooded areas are not used as an asset for the public
- The densely vegetated areas also act as a screen for winds coming off Back Cove

Opportunities

- Significant vegetation areas provide potential for wetland/vegetation education aspect of the park
- There is the potential to link the arboretum with the wetland and densely wooded areas adjacent to it
- There may be an opportunity to use the screening effect of existing vegetation to protect new facilities, as well as to potentially orchestrate areas of wind exposure within the park

Constraints

- Any development of this area needs to be extremely low impact, keeping the delicacy of the wetland environment in mind



iii. Wet Areas

Interpretation

- Wetland areas comprise a significant portion of the park (acreage ? percentage?)

The presence of the brackish, tidal stream and the freshwater pond within the same vegetated area is a unique and notable natural condition

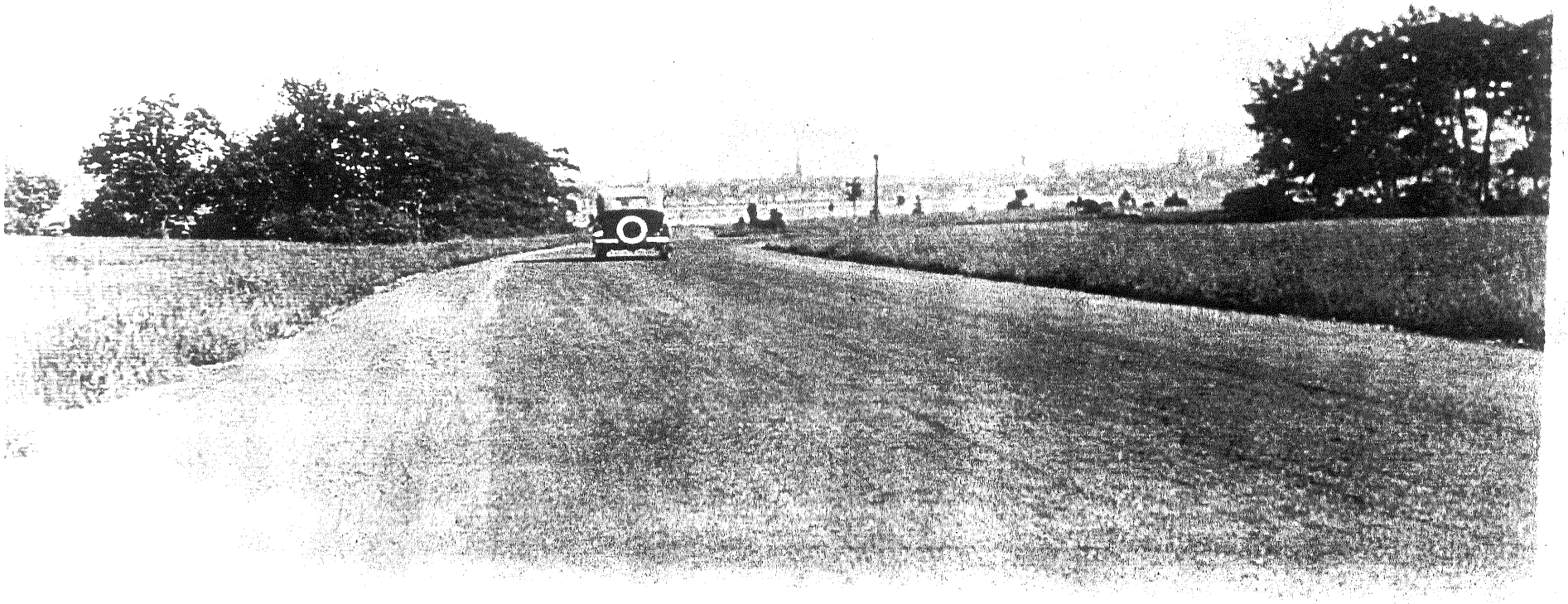
Opportunities

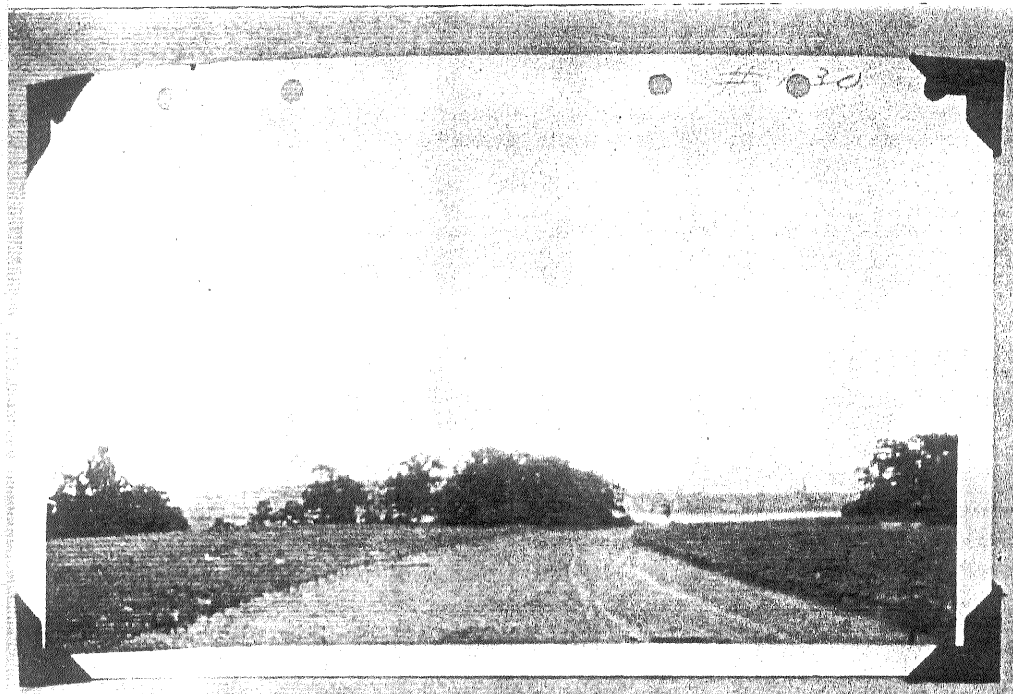
- The uniqueness of these areas provides the potential for wetland access and interpretive areas. These areas would not only provide significant education opportunities within Payson Park, but could also be linked to similar areas in other parks in Portland (especially on Baxter Boulevard and at Back Cove Park)
- Potential for flora and fauna in the park that relate to wetland areas, and for park users to interact with that flora and fauna

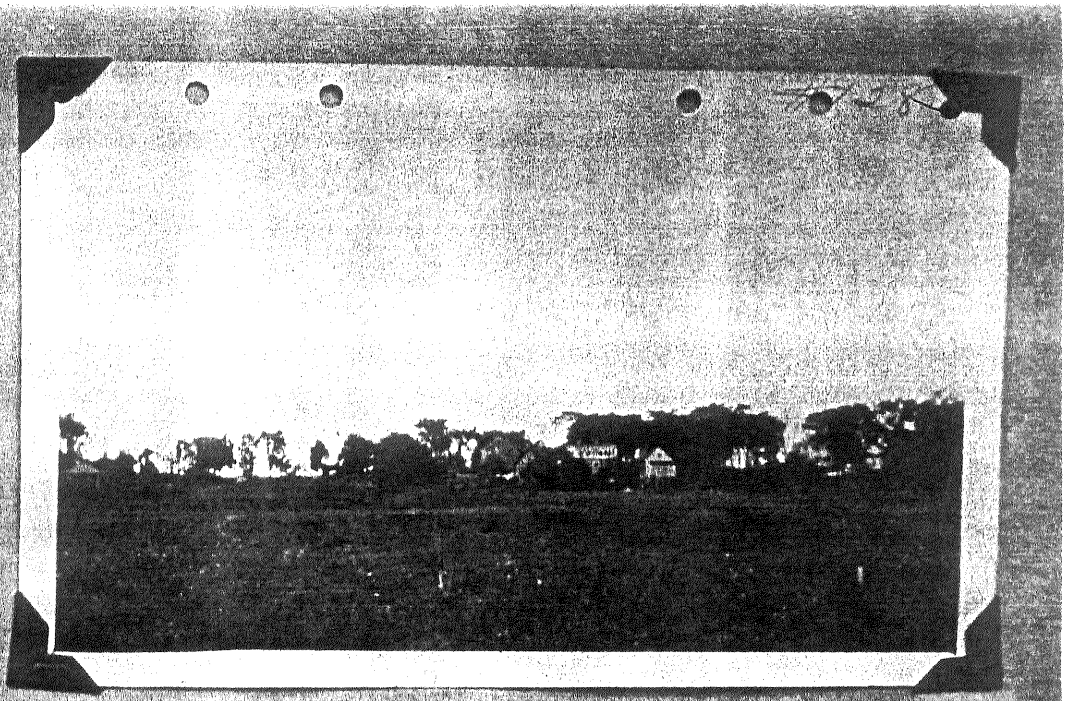
Constraints

- To alter, affect or move the wetland areas would be prohibitively expensive
- Any work near or within these delicate areas requires design expertise and experience
- Maine Department of Environmental Protection permitting would apply to any work done within these areas

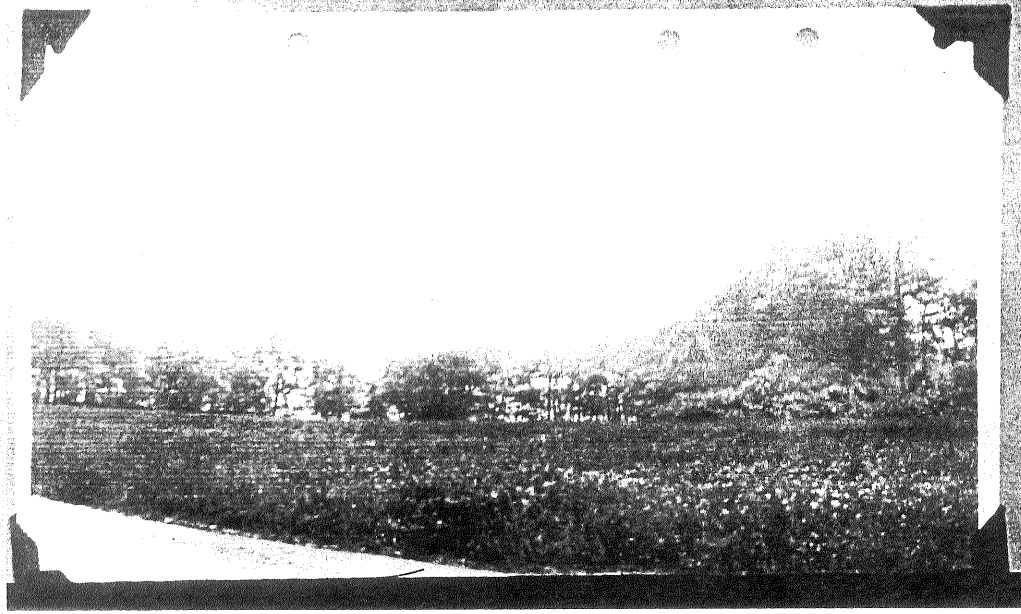
Baseball Field Payson Park 1935

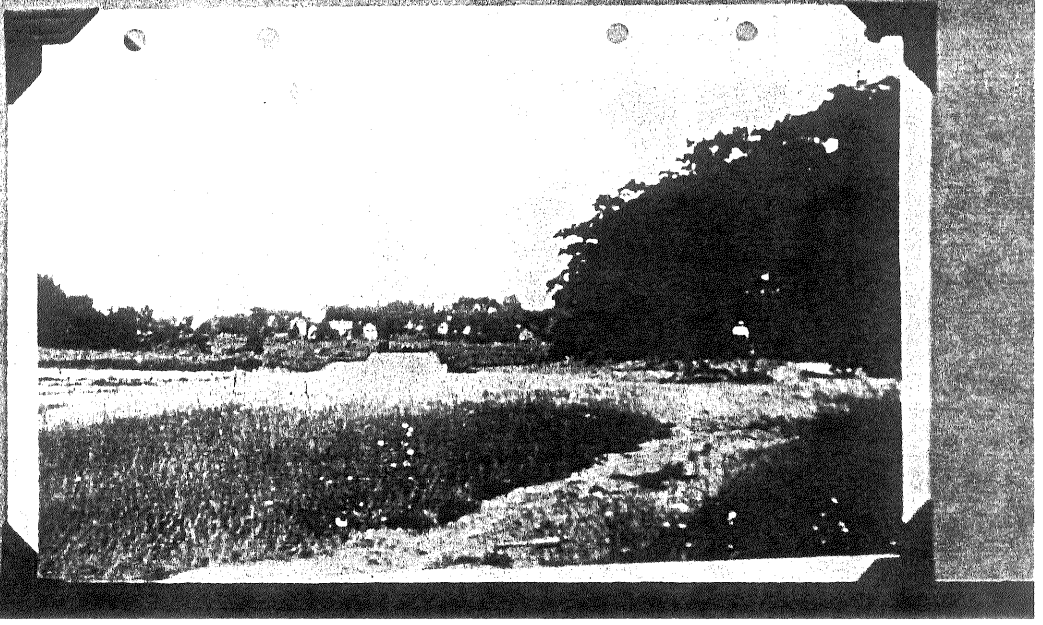


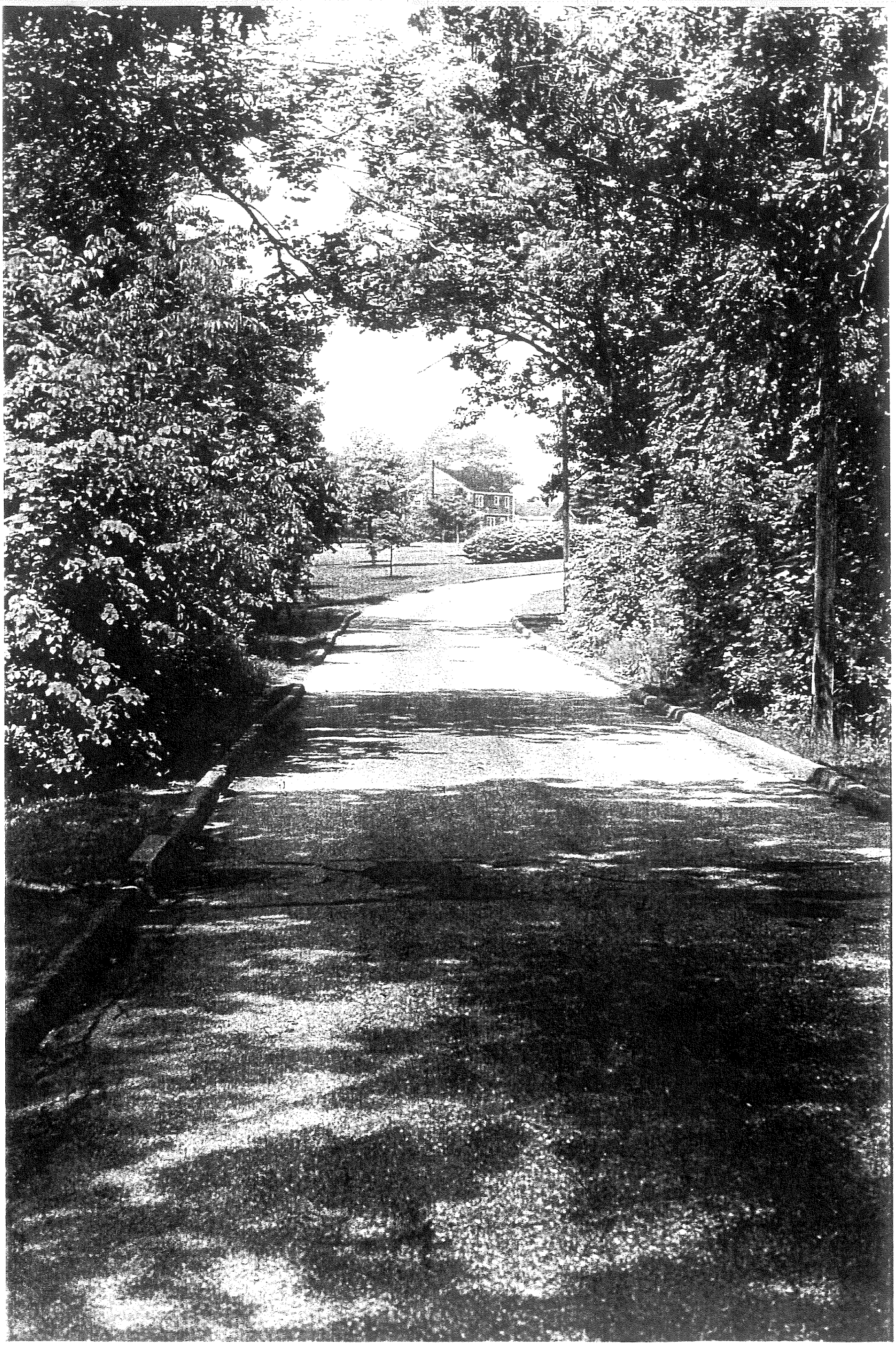




Payson Park During Roadway Construction







PAYSON PARK

Portland, Maine

insert graphic

Master Plan

Summer 1999

Prepared by:
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PAYSON PARK

Portland, Maine

Master Plan

Summer 1999

Prepared for

Portland Parks and Recreation Department
Portland, Maine

by

Richardson & Associates
Landscape Architects
Saco, Maine

Preface

image here

A. Executive Summary

The Payson Park Master Plan, in its current form, is the result of more than eighteen months of work by a team which includes Portland City Staff, the Payson Park Advisory Committee, the Payson Park Playground Advisory Committee and the project consultant, Richardson & Associates, Landscape Architects. Additional input has been obtained from other sources as well, including city engineers, park users and past City Department Directors. Representatives from the Portland Planning Department, Portland Department of Public Works and the Portland Parks and Recreation Department have also provided significant input in the development of the plan. In addition to regularly scheduled meetings among the parties listed above, the Master Plan was presented for comment at a well-attended neighborhood public meeting on June 25, 1998 and at an on-site walk-through of the plan with representatives from the Longfellow Arboretum on May 27, 1998.

The result of this considerable effort is a forward-looking Master Plan which reflects input from a diverse group of interested and knowledgeable parties for this important city resource.

A. Acknowledgments

PORTLAND CITY STAFF

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Paul DiMatteo	Portland Men's Softball League
Armond Dirazio	Little Lad Football
Linda Frinsko	Longfellow Garden Club
Lynn Hodgekin	Citizen
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Larry Ash, Traffic Engineer, Portland Public Works Department

George A. Flaherty, Past Director of Parks and Recreation Department

The Longfellow Garden Club

All of the attendees at a neighborhood meeting on June 25, 1998

Portland Planning Board:

- John H. Carroll, *Chair*
- Jaimey Caron, *Vice Chair*
- Cyrus V. Hagge
- Kenneth M. Cole III
- Mark Malone
- Deborah Krichels
- Erin Rodriguez

Friends of the Parks Commission

- Nathan Smith, *Chairperson*
- Marc LaMontagne
- Lisa Joyce-Gale
- Rob Brooks
- Brad Blake
- Barbara Webster-Querry
- Marcia Noyes
- Charles Houghton
- Constance Bloomfield
- Cheryl Leeman, *City Council Representative through 9/98*
- Charlie Harlow, *City Council Representative effective 10/98*
- Karen A. Geraghty, *City Council Representative effective 10/98*
- Herb Adams, *School Board Rep.*
- ?? ?? , *Planning Board Rep.*
- Portland City Staff for the Friends of the Parks Commission
  - -Dana Souza, Parks Operation Manager
  - -Brenda McGovern, Secretary
  - -Alex Jaegerman, Chief Planner, Planning Department
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PAYSON PARK
Master Plan

Table of Contents

PART I: OVERVIEW

A. Introduction/Overview....7
B. Summary of the Process
1. Narrative....8
2. Timeline....8

PART II: ANALYSIS AND ASSESSMENT

A. History of the Park....10
1. Narrative....10
2. Timeline....11
B. Existing Conditions
1. Circulation....15
i. Vehicular....
ii. Parking....15
iii. Pedestrian....15
2. Current Use....17
i. Unprogrammed Areas....19
ii. Unmaintained Areas....20
iii. Active Use Areas....21
3. Physical Features....22
i. Vegetation....23
ii. Topography....24
iii. Wet Areas....25
iv. Views....26
v. Amenities....27
vi. Figure Ground....28
vii. Watershed/Landform/Drainage....29
C. Summary Assessment and Goals & Objectives....30
1. Defining the Need: Summary of Existing Conditions and Uses....
2. Goals and Objectives of the Master Plan....

PART III: MASTER PLAN AND RECOMMENDATIONS

A. The Master Plan 31
B. Design Summary 32
C. Recommendations for Park Improvements. 32
1. Vehicular Circulation and Parking.....33
2. Pedestrian Circulation.....33
3. Grading and Drainage.....33
4. Active Recreation.....33
5. Passive Recreation.....34
6. Lighting.....34
7. Amenities
B. Implementation Strategy.....35
C. Estimated Cost of Improvements.....37
D. Care of Improvements - Maintenance and Management.....38
1. Specific Recommendations.....
2. General Recommendations.....

PART IV: APPENDICES

A. Historic Documents.....39

A. INTRODUCTION/OVERVIEW

To come

Alphond quote - lungs of the city

today, more than that, more important than ever- the mental and physical health of the city and its people:

the mental health
the aesthetic big picture
Todd's lecture on financial assets of parks

Parks are great
Portland is great
Portland should have great parks

I. The Impetus for the plan/Background
call Dana and Cheryl for background

B. SUMMARY OF THE PROCESS

1. Narrative Description of Design Process

An important aspect to the development of the Payson Park Master Plan has been the *way* in which it was developed. Experience has shown that when the public contributes to the development of its open space, the result is a place that is better understood, treated, maintained and much more widely used. When the public contributes to the design of a park, then the park is not only *for* the people but also *by* the people. This was the goal of the Payson Park Master Plan process. When properly managed, this process does not limit or hinder creative and innovative solutions to larger issues; rather, it informs and enriches the final product.

Conceptually, the process of developing the Payson Park Master Plan consisted of design work followed by meetings to review the work, followed by the incorporation of feedback and more design work, and so on. The consultants met with City Staff on a monthly (sometimes bi-monthly) basis to review the most current status of the plan. Regular meetings with the various Advisory Committees, although less frequent, were equally important and invariably yielded insightful comments that helped shape the development of the plan. While still in the early stages, the plan was presented to other interested groups for review and feedback. Exposing the project in its early stages to as many people as possible has resulted in a master plan that has a feeling of community ownership in the project, while still addressing the core issues identified by the Parks and Recreation Department.

2. Master Plan Timeline

July 1997	*Work begins on the Payson Park Master Plan*
August 1997	*Consultants begin analysis of Payson Park*
September 1997	*First City staff meeting regarding Payson Park held. Regular, monthly City staff meetings are held through the summer of 1998.*
November 1997	*Consultants present first conceptual design alternatives to City Staff*
January 1998	*First of Payson Park Playground Advisory Committee meetings is held at Presumpscott School*
January 1998	*Consultants meet with Director of Public Works and the City Traffic Engineer*

March 1998	*Consultants meet with Public Works engineers to discuss technical drainage issues relating to the park.*
March 1998	*First meeting of the Payson Park Advisory Committee*
May 1998	*The Preliminary Master Plan is presented at a site walk with members of the Longfellow Garden Club*
June 1998	*The Preliminary Master Plan is presented to a neighborhood meeting at St. Pious X Church on Ocean Avenue*
August 1998	*The Preliminary Master Plan is presented at a Planning Board workshop*
???????? -	*Payson Park Master Plan is approved by the Planning Board*
?????? -	*Payson Park Master Plan is approved by the Portland City Council*

A. HISTORY OF THE PARK

1. Narrative

The City of Portland purchased the park property from the Payson family in 1917 for approximately $26,000. One of the restrictions set by the seller was that the park would forever be known as "The Edward Payson Park" and used "for only public park purposes." Initially, over 40% of the park was set aside for community gardens, which were quite successful according to a 1917 Park Commission Report. In the same year, Baxter Boulevard was opened to the public. A 1921 site plan shows an entrance into Payson Park from Baxter Boulevard and a Park Commission report states that a road was cut through to connect Ocean Avenue to Baxter Boulevard.

In its early years, Payson Park was primarily a passive use park, providing views of the Payson Mansion (*Figure IIA.1*) as well as the extensive community gardens (*Figure IIA.2*). Portions of the park were used by the city as a nursery for street trees and shrubs to be used throughout the city (*Figure IIA.3*).

From the 1950's through the 1970's, active recreation facilities were introduced to the park, including tennis, Little League baseball, softball and playground facilities. These additions shaped the park into the place we know today.

On September 10, 1976 the Longfellow Mini-Arboretum was established in Payson Park, adding another passive use component to the park. The dedication ceremony was marked by the planting of eleven trees from eleven different families of flowering plants from three continents. The Longfellow Arboretum, whose stated goals were to provide the "opportunity to observe labeled, unusual specimens not commonly grown in this area of New England," was believed to be Maine's first public arboretum. By 1992, the collection had grown to nearly 70 trees as well as a growing number of interesting shrubs and bulbs.

In the 1980's, the state of Maine filled the wetland area known as Dyer's Flats and created more usable area within the park. Unfortunately, filling the wetland also created drainage problems for the adjacent park neighbors. By the 1980's, the Parks Department began hosting special events at Payson Park, such as the popular Back Cove Family Day.

Figure IIA.1 - View of the Payson Mansion before it was demolished

2. Timeline of events related to Payson Park

1836 - The City of Portland makes its first attempt at establishing pleasure areas for its citizens by laying out drives on the Eastern and Western Promenades.

1866 - Soon after Portland's 'Great Fire' of 1866 the city begins acquiring land for the present park system. Mayor James P. Baxter is credited for having the vision and master plan for park development in Portland.

1896 - (March) "Preliminary Plan for the Improvement of Back Cove," Olmsted, Olmsted and Eliot, Brookline, Ma.; Edward Bolton, Supt. of Construction, Warren Manning, Supt. of Planting, PUBLIC WORKS ARCHIVES 676/10, 676/9.

1904 - "Plan of Portion of Proposed Boulevard around Back Cove," George N. Fernald, City Engineer, PUBLIC WORKS ARCHIVES 118/9 - Indicates property owners along Cove with creek outlets into the Cove, including Edward P. and William M. Payson, with property along Fall Brook (which empties into Back Cove)

1916 - The Edward Payson Park, Ocean Avenue and Baxter Boulevard, the third largest of the city's park areas, is purchased from William M. Payson of Boston for $26,262 by the city to be named in honor of his brother.

1917 - (July 9) Park land is acquired by the City of Portland for $550.00 per acre, or approximately $26,000. Original intent is for passive recreation.

1916/1917 - purchased in 1917 or 1916??????

1917 - A large portion of the Park (20 acres, over 40%) is set aside for community gardens, which are quite successful. "The same privilege will be allowed the coming year." (Park Commission Report, 1917)

1917 - (November 13) "Back Cove" Boulevard (Baxter Boulevard) is opened to the public.

1918 - New garage and greenhouse is built, driveways are laid out for Payson house. Planted 1,000 gladioli, 500 dahlias, 250 trees are transplanted from nursery on Park Avenue, and 776 new trees are bought. About 20 acres are staked out for community gardens, "which gives general satisfaction." (Park Commission Report, 1918, p. 346)

Figure IIA.2, IIA.3 - Views of community gardens and street tree inventory circa 1920's

1918 - James Baxter proposes "planting the Boulevard as an Arboretum, that it may be useful to students of Botany in our schools, and to those of our citizens who are interested in that delightful and important science."

1921 - (November) "Plan Showing Section 3 Baxter Boulevard Station 71 + 13.90 to end," PUBLIC WORKS ARCHIVES 326/1 indicates entrance into Payson Park from Baxter Boulevard

1921±- "Grading Plan Baxter Boulevard and Payson Park," William Doughty, PUBLIC WORKS ARCHIVES 948/25

1921 - Park Commission Report lists the following plantings at Parson Park: 1,000 assorted shrubs, 10,000 Berberis thunbergii, 150 assorted pines, 125 birches, 100 oaks and 50 Schwidleri maples. Eight acres of field are plowed and sowed to hay," and "(a) roadway (is) cut through from the boulevard to connect with Ocean Avenue." (Park Commission Report, 1921, p. 202)

1922 - A "development plan for the fifty acres included in this tract (Payson Park) (is) approved by the Park Commissioners." (Park Commission Report, 1922, p. 257)

1924 - Maintenance, Repair, Fixed Charges - $1,699.76; Improvement Expenditures - $6,291.87

1925 - Maintenance, Repair, Fixed Charges - $2,384.52; Improvement Expenditures - $4,560.88

1925 - "Two memorial piers, surmounted by large octagonal lanterns, (are) erected at the Ocean Avenue entrance..." (from Portland City Guide, WPA Writer Program 1940)

1931 - Grading continues for approaches to Payson Park (from Baxter Blvd. report)

1932 - Development of foot walks and esplanade areas from Payson Park to Washington Avenue (from Baxter Blvd. Report)

1933 - Two new park drives are cut through Payson Park making 15-20 acres of park accessible. There is a proposal to extend the City nursery. City greenhouses are to be moved to Payson Park. One roadway terminates in a turn around and affords a beautiful view of the Back Bay and the City through the tall trees. The ravine is kept in its natural woody atmosphere, giving a rustic effect to the park in general. To one side of the ravine, two tennis courts are marked next to the present playground district. More children than ever enjoy the playground in this year. The baseball fields adjoin the tennis courts. Entrance to the park is being made by the development of Kidder Street in the same way that Fernald Street was developed some years ago." (from Evening Express, 8.27.33)

Figure IIA.4 - Detail of Construction Drawing for Stone Entry Posts at Payson Park, date unknown

1934 - Park Commission Report from 1934 "recommends that 'hard' tennis courts be constructed...and that the present playground be put in better condition," and notes that "(t)here has been some demand for a soccer field in this park." (p. 214)

1939 - The growing importance of the role of parks in lowering juvenile delinquency is reported. In 1939, a total of $79,028.13 is spent for park operations. Softball field development receives $1278. $1500 is set aside for 1940, but is used for hardball fields too.

1940's - Cannon removed from "Gun Plot" and melted for wartime use during World War II

1943 - The National Recreation Association recommends that the playground area be enlarged three and one half acres. This new area, if developed as recommended, (will) include two additional tennis courts, a multiple-use hard surface area for paddle tennis, badminton, volleyball, shuffleboard, roller skating, handball, and outdoor basketball courts as well as facilities for field games such as soccer, field hockey and modified football. The NRA also recommends the construction of a field house with a shower, dressing room, and toilet facilities for men and women.

1947 - The park serves as a picnic area for the Lunt's Corner, East Deering and Woodfords sections of the city as it is easily reached by Baxter Boulevard. Parts of it remains wooded and provides shaded picnic areas although there are no facilities for picnickers. Its present playground equipment is meager but includes two tennis courts, a baseball diamond, swings and children's see-saws. The Park Department seeks a skating pond for the park as well as two more softball diamonds. The Children's Theater Inc. puts on well-attended shows in the park.

early-1950's - Post-World War II housing and construction boom results in dozens of houses being constructed around the park.

1950's - Tennis courts are built in the park.

mid-1950's - Dyer's Flats wetland area is used as a public dump prior to this date.

1960's - Softball fields are built in the park.

1970±- City constructs or upgrades 2 tennis courts, 1 softball field (first lighted softball field in Portland), new playground and tot lot equipment, spray pool, 10 picnic sites and tree plantings.

1972 - A 3-year program of Urban beautification efforts for the City of Portland is funded by a state grant, federal Legacy of Parks grant and local funds. The major project area in the second year is Payson Park, which receives $40,000 for improvements. Included in the improvements are plans for the construction of two more tennis courts, an unlighted softball field, and playground equipment for younger children, including a spray pool and such tot-lot equipment as a sandbox and chair swings. Scheduled for the third year is the creation of 10 picnic sites at Payson Park.

1976 - Three-acre Longfellow Arboretum is established in Payson Park by the City and the Longfellow Garden Club.

1983 - Payson Park is one of 30 parks in Portland and one of the city's biggest neighborhood parks. Portland parks make up 600 acres for sports and relaxation. The parks are believed to be getting more use than ever due to economic hardship. The City of Portland considers an Adopt-a-Park program.

198? - Tukey's Bridge re-built with the spoil from the construction used to fill the wetland in Dyer's Flats.

late-1980's - State of Maine grades, loams and seeds the Dyer's Flats area to its current condition.

May 1986 - The first Back Cove Family Day is held at Payson Park and Baxter Boulevard.

1997 - Work begins on the Payson Park Master Plan

1999(?)- Payson Park Master Plan is completed and adopted by the Portland City Council. Phase I, the installation of the new playground, is completed.

B. EXISTING CONDITIONS - SEE ANALYSIS MAPS FOLLOWING EACH NARRATIVE SECTION

1. Circulation - See Existing Conditions Drawing 1

The current circulation patterns at Payson Park can be characterized as vehicular-oriented and potentially dangerous to pedestrians and bicyclists. The park road provides the opportunity for easy, fast, vehicular access between Baxter Boulevard and Ocean Avenue, and is heavily used, particularly for a park road. At two separate locations, the road splits into a "Y" - once near the geographical center of the park and also near the southern entrance to the park. This configuration of roads in a relatively small area results in a somewhat confusing network of one way travel lanes and dead end parking areas. The 18' wide bituminous road has no curbing, pedestrian sidewalks or other amenities and as one of the few paved surfaces in the park, it is often used for walking, jogging, pushing baby strollers, bicycling and roller-blading as well. The resulting conflicts between competing users for this paved surface is discussed more in the Current Use section of the Existing Conditions analysis in this report.

Currently there are 175 parking spaces in Payson Park. On normal days, this number is adequate to meet the demands of the park users. However, during athletic and other events, there is a parking shortage that requires parallel parking along the road. During events, vehicular travel along the road is difficult while cars are parked along the road, and pedestrian travel can be characterized as dangerous.

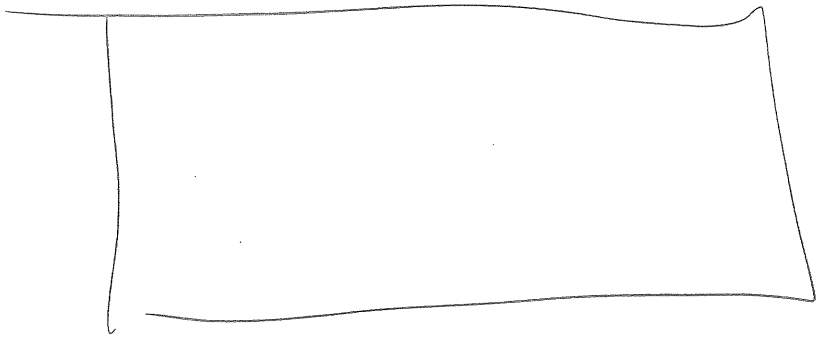
There are very few pedestrian paths in Payson Park. Currently there is a stone dust path leading from the road into the Longfellow Arboretum, and there is a short, paved loop in the vicinity of the parking lot near Ocean Avenue. There are several makeshift paths worn by repeated pedestrian travel, but these are neither graded properly nor wide enough for save pedestrian travel. Park users can walk across the open lawn areas, as these are generally flat and graded for athletic uses. There are few, if any dedicated accessibly parking spaces or amenities in Payson Park.

11 X 17

fold out

analysis

map



i. Vehicular

Interpretation

- Park roads have little or no relationship to surrounding roads or circulation systems
- Park road layout promotes fast, easy vehicular travel through the park
- Four entrances to a relatively small park area

Opportunities

- With One (1) entrance per side (two total), there is the potential to make the entrances significant, and of an appropriate scale for a great city park
- Road layout and location could be used to slow cars in the park and to separate vehicular traffic and pedestrian traffic

Constraints

- Cost, environmental considerations and traffic design standards will guide placement of new road alignment

ii. Parking

Interpretation

- There is an inadequate number of parking spaces (175) for the size and current uses of the park. There should be a minimum of --- parking spaces for park users and an additional number for Baxter Boulevard path users
- Lack of available parking spaces forces people to park on the side of the road, especially during large events. On-street parking results in decreased visibility for both vehicle drivers and pedestrians and generally makes the circulation system more dangerous.

Opportunities

- Sufficient parking will provide for a safer pedestrian experience in the park while focusing cars in small areas. This will prevent the impression that parked cars are located throughout the park
- Parking screening should be considered from higher elevations as well as ground level screening. Care should be taken not to compromise the excellent long distance views that are available from the Ocean Avenue end of the park
- Parking areas should be well-landscaped and screened to minimize the visual impact on the rest of the park
- "Parking gardens" could be an approach to designing parking lots in order to minimize visual impact of parked cars

Constraints

- Too much paved parking area would have a negative impact on the overall aesthetic of the park, and would increase the potential for pollutants entering the water system

iii. Pedestrian Circulation

Interpretation

- In the current condition, there is a completely inadequate number of pedestrian walkways for a park this size
- Comparison of road ways with pedestrian ways reveals that current priorities of the park are on vehicular travel
- There is no existing connection or crosswalk to Baxter Boulevard

Opportunities

- This park provides sufficient space for a diverse and scenic circuit walk within the park, without having to cross a street
- The location of Payson Park provides opportunity to link Payson Park with the Baxter Boulevard path and, therefore, the larger park system within the City of Portland. A simple but safe connection will be an important step for the city, both real and symbolic.

Constraints

- Existing topography, cost concerns and environmental impacts will help dictate the location and extent of the paths
- Care must be taken to not over-run the park with paths. Uninterrupted, open lawn areas are desirable within this setting.

2. Current Use - See Existing Conditions Drawings 2 - 4

Payson Park boasts an unusual diversity of active and passive uses within a fairly confined area. The natural areas of the park limit the amount of available space that is suitable for active use facilities. Potential uses competing for available, usable space are active use facilities and open, uninterrupted lawn areas that are of particular value in an urban setting adjacent to the expanse of Back Cove

The existence of such a diversity of active and passive use at Payson Park often results in conflicts among park users as well as between park users and the surrounding neighborhood residents. An example of a typical conflict is a night softball game that generates noise and lighting impacts in the surrounding neighborhoods.

Currently, the most significant source of conflict and danger within the park is the location and design of the through-road and the lack of pedestrian facilities within the park. As the only hard surfaced travel lane within the park, the road is often used by pedestrians, joggers, bicyclists, people in wheelchairs and parents with strollers. However, once they've entered the roadway, pedestrians feel trapped by the guardrail which is meant to protect them and by vehicles consistently exceeding the posted speed limit.

This potential flash-point is exacerbated by the fact that the park is used by relatively large numbers of children and the elderly. Neighborhood and visiting children are drawn to Payson Park by the playground (in part because of a shortage of publicly accessible playgrounds in this part of the city), while elderly residents who live in the housing facility adjacent to the park often enjoy the park as an ideal place to walk. These users groups are particularly vulnerable to the current vehicle-pedestrian problem. This issue should be addressed as soon as possible, both on an interim, immediate basis and on a more permanent, far-reaching level (an issue that was discussed at the June 25 neighborhood meeting).

The active use park facilities are organized around the existing road and are therefore somewhat haphazardly placed. An example of this placement is the distance between the current location of the Little League fields and the playground. Active recreation facilities comprise a significant portion of the park, with dedicated space for softball, Little League baseball fields, basketball, tennis, skating and an outdated, dangerous playground that in fact does not meet current playground or ADA guidelines and regulations. Active recreation facilities are heavily used, a condition which often results in a demand for parking beyond that which the park can currently provide.

Passive use at Payson Park, while less prominent than active use, is an equally important component of the park. Park users enjoy picnicking, sunbathing, engaging in casual athletics (Frisbee, hacky-sack, etc.), visiting the Longfellow Arboretum, bird watching, or simply enjoying the open, natural or unmaintained areas of the park. A unique quality within the park can be found in the presence of both a freshwater pond and a brackish tidal wetland within several hundred feet of each other. Currently, the "natural" areas of the park are not maintained or noted as a significant resource and/or learning opportunity.

Another important use of available park space is for programmed events held by the Parks and Recreation Department and the City of Portland, such as Back Cove Day. The "gunplot" portion of the park, with its advantageous views of Back Cove and Portland, provides an ideal location for this type of activity.

Following is a list of current uses within Payson Park:

Active Recreation Uses

- Little League Baseball - 2 fields
- Adult Men's Softball
- High School Softball
- Playground
- 1 Basketball Court
- 4 Tennis Courts
- Ice Skating
- Various Youth soccer, football, t-ball practices

Passive Uses

- Walking
- Sunning
- Picnicking
- Reading
- Nature Walks
- Arboretum Viewing
- Bicycling
- Relaxing
- Parks Department programmed events

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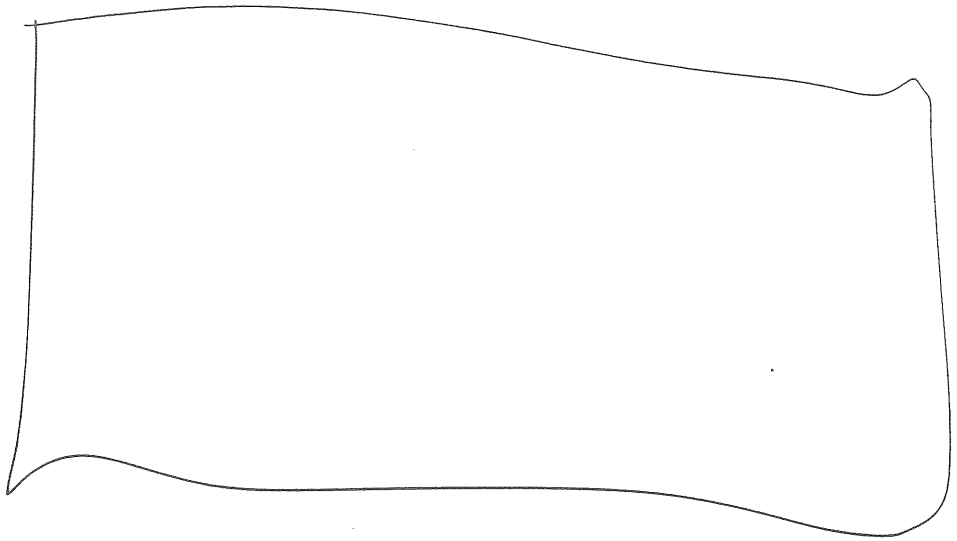
a - map



i. Unprogrammed, Flat, Lawn Areas

Interpretation

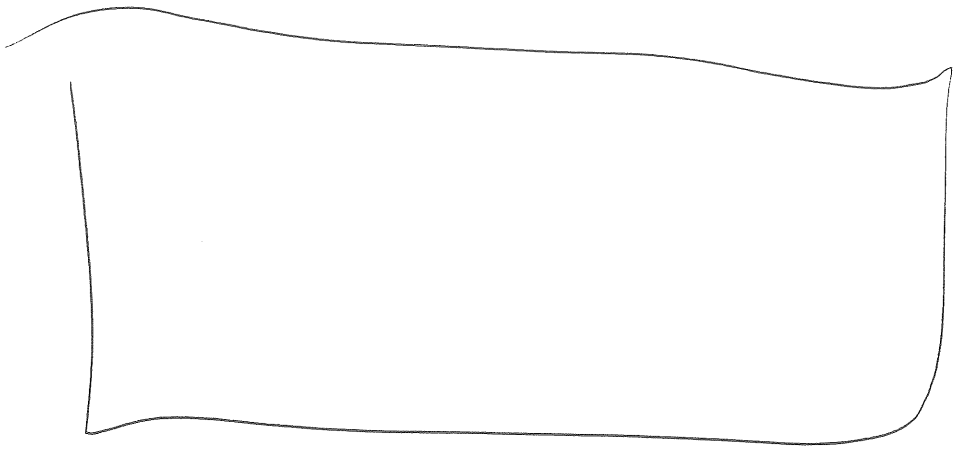
- There is a significant amount of under-utilized space within the park
- The presence of open, unprogrammed, flat lawn areas is important to the identity of the park

Opportunities

- Potential field locations for those areas
- Those areas allow for uninterrupted views through and throughout the park (and especially to Back Cove)
- Rather than being "left-over" space, these areas can be thought of as available space for new uses, allowing for a better organization of available park space

Constraints

- Care must be taken to maintain the presence of large expanses of open lawn, which is an important part of the identity of Payson Park



ii. Unmaintained, Natural Areas

Interpretation

- There is a significant amount of successional growth area for a city park
- Presence of so much unmaintained space generally corresponds to the amount of wet area within the park
- The existence of these areas allows the park to accommodate a large number of people without the severity of impact that would be experienced in a park with only open play fields.

Opportunities

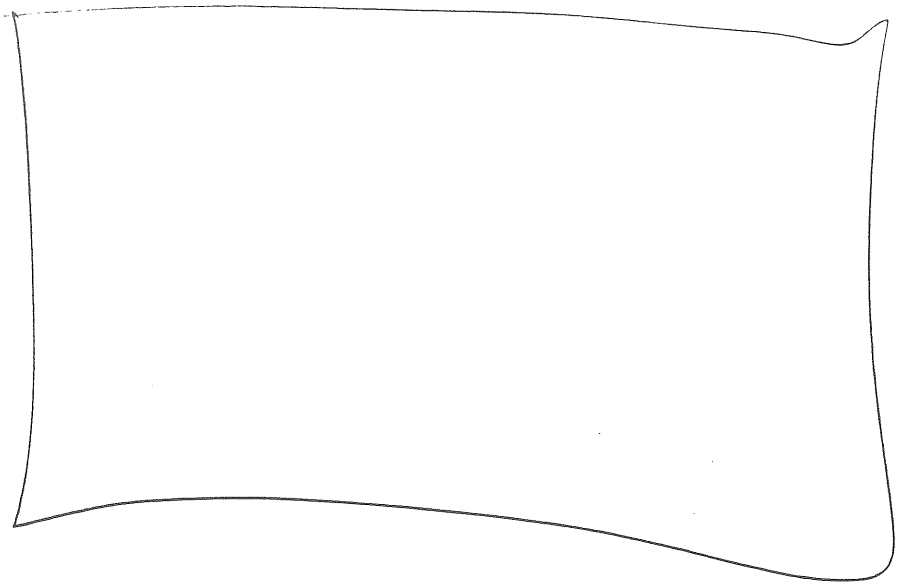
- These areas provide the potential for a significant amount of park use other than active recreation
- Potential link to Back Cove Park and Back Cove itself, in that they all contain relatively "wild" areas
- Proximity to active, programmed space could be what makes Payson Park unique, desirable or notable - This condition could mean that a real diversity of use within the space can occur, which would provide a very rich park experience. Another way of looking at it is that this park provides more "bang for your buck"; i.e., more uses out of just one park
- These areas provide a place within the city for people to explore nature. An educational component would add another layer of meaning to the park experience and would promote outdoor classrooms to occur within Payson Park.

Constraints

- It is often more difficult to monitor and/or maintain natural or "unmaintained" areas or nature trails/walks
- It is potentially difficult for creating a more dangerous environment

11x17

a map



iii. Active Use Areas

Interpretation

- There appears to be completely random placement of active use facilities. As more facilities were needed, they were built in the most convenient, accessible location (next to the road)
- There is no order to the orientation of the fields, in terms of sun angles, wind protection, etc.
- There is no organization of active use facilities that would lead to a logical sharing or overlap of space (i.e., a practice soccer field in the outfield of a little league baseball field.)

Opportunities

- A better organization of active recreation facilities could: 1) save space, thereby allowing more active use facilities and 2)promote a more clustered approach to active use facilities that would be more convenient for park users. This approach results in shorter walks from parking areas to play fields, easier access for equipment hauling, more fields are close to concession area, bathrooms, drop-off and pick-up, etc.

Constraints

- Care must be taken to avoid over-emphasizing the active use component of the park

3. Physical Features - See Existing Conditions Drawings 5 - 12

Payson Park boasts an impressive diversity of both natural features and active use facilities. The park contains significant areas of successional and undisturbed growth around the freshwater pond and tidal stream at the southwestern corner of the park. The remainder of the park consists of large, open lawn area, and athletic-use facilities.

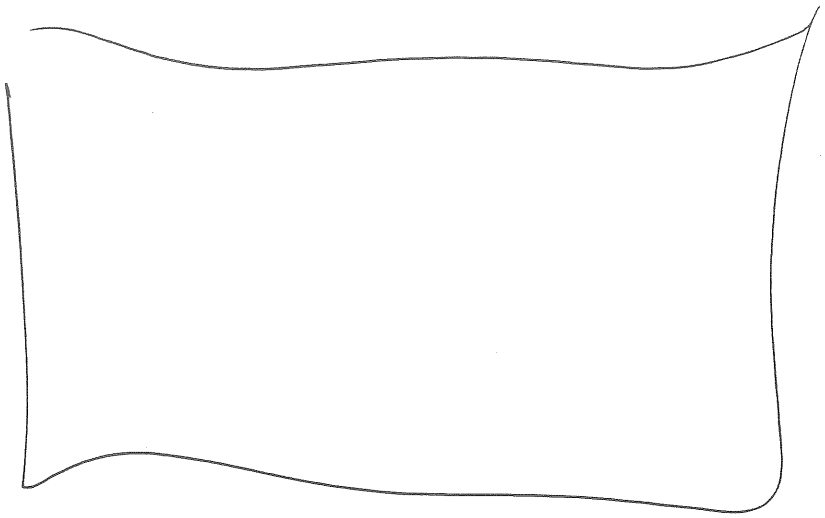
Dramatic views of the Portland skyline across Back Cove are possible at the southern entrance to Payson Park in the area known as the "Gun Plot." With these views and the open lawn, this area is well sited for picnicking. However, the experience of being surrounded by moving cars makes it less desirable. The guardrail surrounding the Gun Plot, while protecting the lawn areas from overflow parking, make this area difficult to reach, especially with baby strollers and other equipment. Other exceptional viewing areas can be found along Ocean Avenue (viewing across the park and out to Back Cove) and within some of the wetland areas (viewing across the wetland), and are framed by landform and stands of mature trees that enhance the viewing experience.

While the park contains a diversity of active use facilities, the existing layout of facilities is not the result of any guiding master plan. Rather, the location of the current fields and facilities is the result of adding amenities piece by piece as the need arose, and probably related to ease of construction in relation to the existing road. Over time, this circumstance has led to the current inefficient use of available space and resources for the City of Portland.

Amenities in the park are not consistent with the quality of recreational experience available at Payson Park. Benches, trash receptacles and picnic tables are aged and, in some cases, in disrepair. In addition, the overall number of these amenities is insufficient for the number of park users. The road is well lit with "cobra" type lighting. However, the styling of the road lighting is more consistent with that of a standard city street rather than a park road. The Ocean Avenue entrances to Payson Park are each flanked by two large, historic, stone columns that signify entrance into a major city park facility. The Baxter Boulevard entrances have no corresponding entrance markers, other than a small sign centrally located between the two entrances. More specific information on the roadway and parking lots can be found in the Existing Conditions - Circulation section of this report.

Finally, there are important drainage issues in the vicinity of Payson Park. Specifically, filling the wetland area known as Dyer's Flats during construction of Tukey's Bridge resulted in a condition which causes periodic flooding in the homes on Front Street (north of Dyer's Flats). This condition is exacerbated by the poor quality of the fill

material on Dyer's Flats. Rather than permitting heavy rainfall to filter through the soil, this poor quality fill results in sheet flow at the surface or just below grade in the direction of the existing problem. This drainage problem will be addressed as part of this plan in the early phases of implementation.



i. Vegetation

Interpretation

- Although there are significant, interesting, vegetated areas within the park, as a whole, the park is sparsely vegetated compared to the surrounding areas
- The densely vegetated areas are the unmaintained areas that are adjacent to or in wetlands or wet areas. It's possible to assume that without the wetlands/wet areas within the park, the entire park would consist of open lawn and/or active use recreation facilities.
- Investigation of the densely vegetated areas reveals that there are existing worn trails within the wooded areas but, as a whole, the wooded areas are not used as an asset for the public
- The densely vegetated areas also act as a screen for winds coming off Back Cove

Opportunities

- Significant vegetation areas provide potential for wetland/vegetation education aspect of the park
- There is the potential to link the arboretum with the wetland and densely wooded areas adjacent to it
- There may be an opportunity to use the screening effect of existing vegetation to protect new facilities, as well as to potentially orchestrate areas of wind exposure within the park

Constraints

- Any development of this area needs to be extremely low impact, keeping the delicacy of the wetland environment in mind

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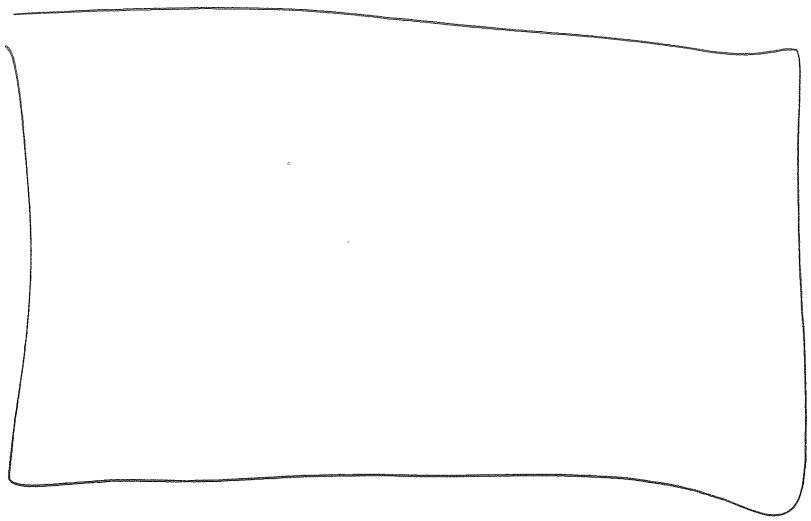
page



ii. Topography

Interpretation

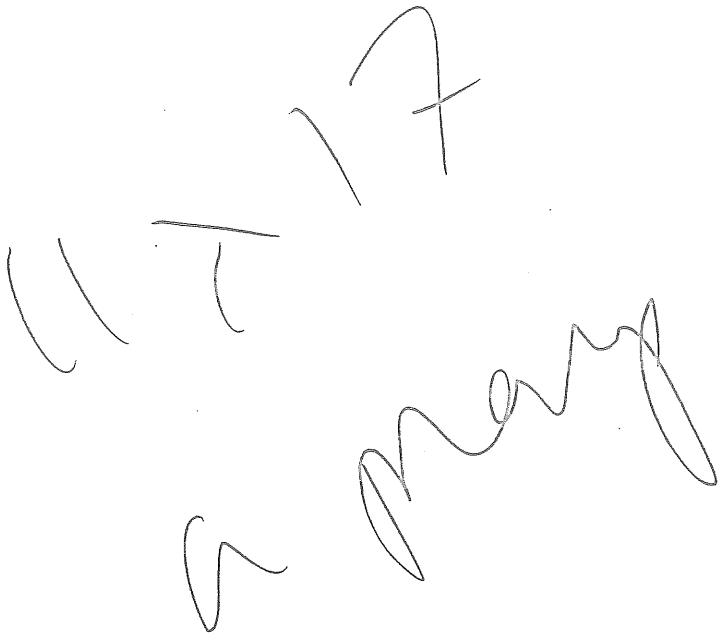
- With the exception of the slope beside Ocean Avenue, significant slopes within the park generally occur in the vicinity of wet areas.
- The majority of the park is relatively flat, with slopes less than 5%

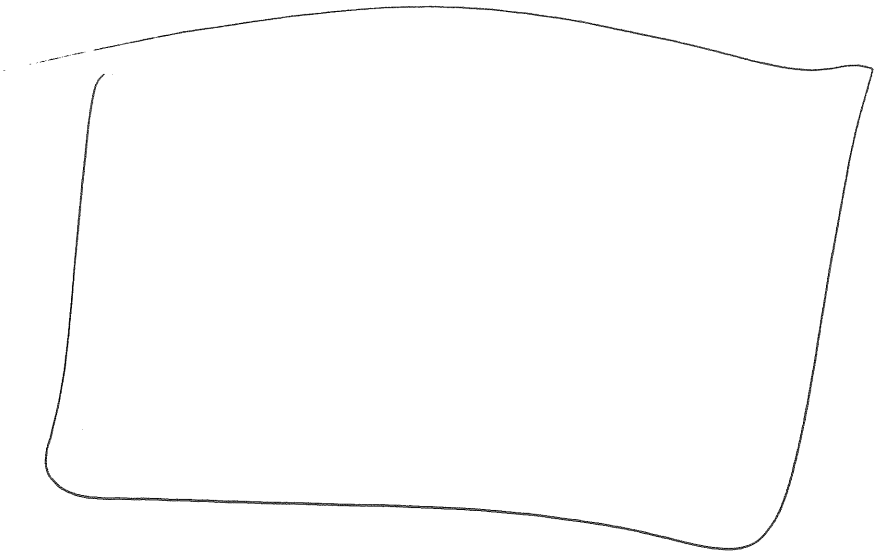
Opportunities

- The presence of so much relatively flat area within the park allows for flexibility in moving fields to find the best, most efficient use of space
- Existing topography indicates that there is sufficient slope to keep the park well-drained, provided an overall grading strategy is maintained
- Areas of steep slopes provide diversity and interest for passive use trails and overlooks

Constraints

- Analysis and interviews reveal a significant drainage problem in the area on the north side of the park. The homes on Front Street have had basement flooding problems since the Dyers Flats area was filled in the 1980's
- ADA guidelines will have an impact on the final layout and design of the park and should be considered when designing the final circulation layout.





iii. Wet Areas

Interpretation

- Wetland areas comprise a significant portion of the park (acreage ? percentage?)

The presence of the brackish, tidal stream and the freshwater pond within the same vegetated area is a unique and notable natural condition

Opportunities

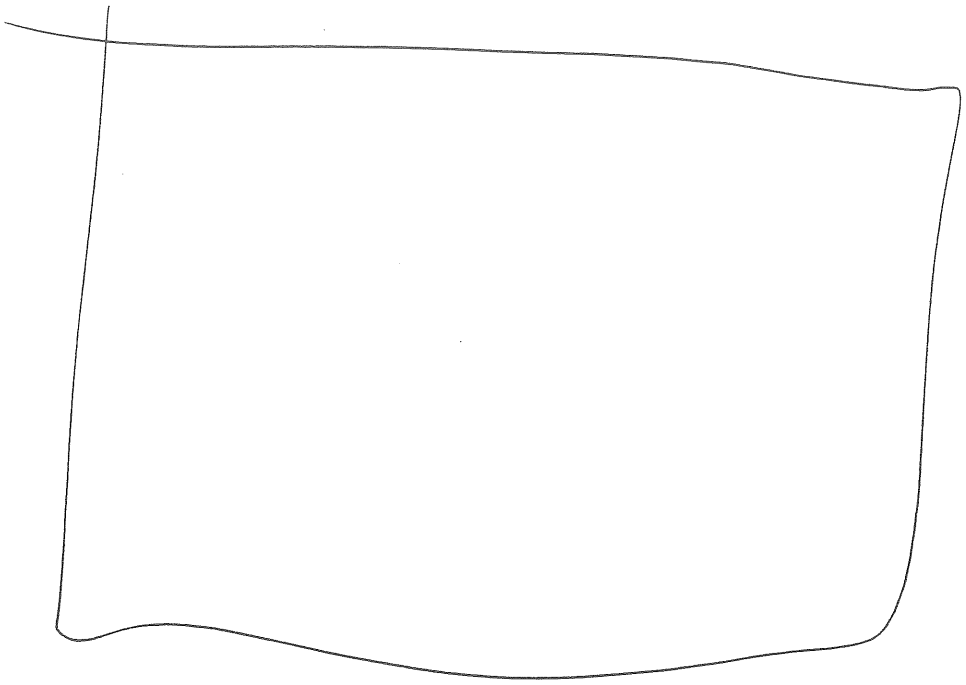
- The uniqueness of these areas provides the potential for wetland access and interpretive areas. These areas would not only provide significant education opportunities within Payson Park, but could also be linked to similar areas in other parks in Portland (especially on Baxter Boulevard and at Back Cove Park)
- Potential for flora and fauna in the park that relate to wetland areas, and for park users to interact with that flora and fauna

Constraints

- To alter, affect or move the wetland areas would be prohibitively expensive
- Any work near or within these delicate areas requires design expertise and experience
- Maine Department of Environmental Protection permitting would apply to any work done within these areas

11 x 17

a map



iv. Views

Interpretation

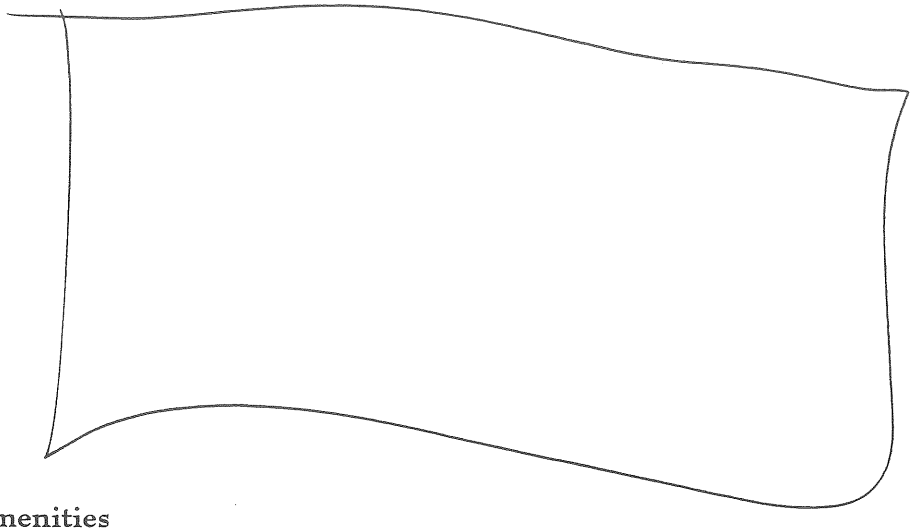
- There are mostly short views around the wet areas because of dense vegetation
- There are excellent long views from atop the Ocean Avenue ridge line
- Long views of Back Cove from within the park are restricted by vegetation, but are dramatic from the "gunplot" location

Opportunities

- There is potential to orchestrate views by using vegetation and landform- Views that could be orchestrated by the final park design are: 1) views from within the park to other park features; 2) views from within the park to features outside of the park; 3) views from outside of the park oriented in to the park
- Designed or orchestrated views could be more effective/dramatic than open views throughout the park

Constraints

- Some views will have to remain the way they are because of the location of wetlands and forest growth, which will necessarily remain undisturbed



v. Amenities

Interpretation

- Amenities map reinforces the idea that the road is the central organizing factor of the park
- Lighting is used only on roads and the adult softball field
- There is an insufficient number of benches and trash cans in the park
- Entry sequencing is inconsistent - there are large posts marking two Ocean Avenue park entrances and nothing on the two Baxter Boulevard entrances
- Signage within the park is inconsistent

Opportunities

- There should be entry sequencing for Payson Park that reflects its significance as an important City asset. These improvements could include entry posts/markers, signs, lighting, etc.

Constraints

- Lighting shouldn't infringe on the surrounding neighborhoods, and shouldn't encourage regular night usage of the park

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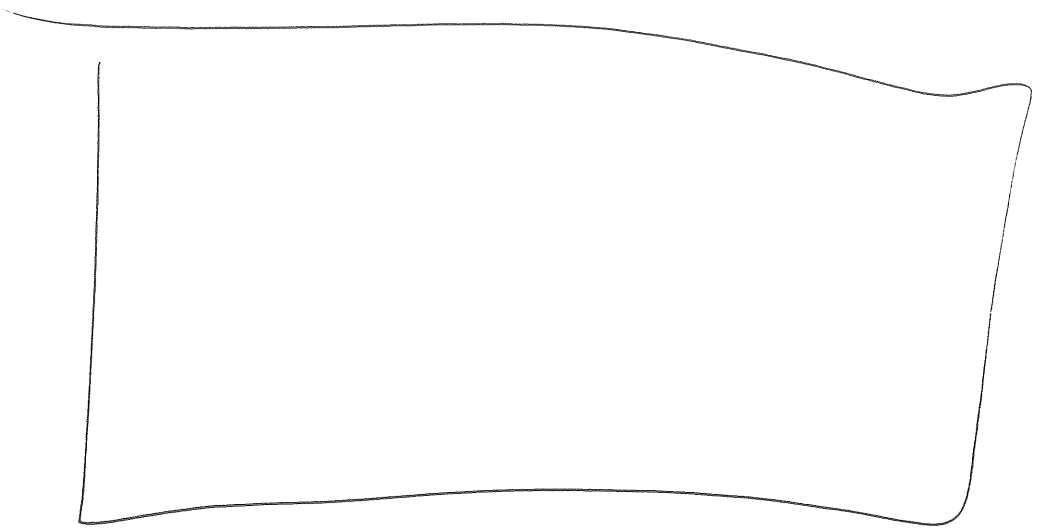


vi. Figure Ground

Interpretation

- Map shows that the built environment of Portland is dense to the edges of the park boundary - comparisons with older maps reveals that this area is becoming more and more dense.
- The park and the land it occupies will become more and more valuable over time
- The presence of Payson Park provides valuable open space within an increasingly more dense built environment
- The presence of Payson Park allows Back Cove to have an impact deeper into the neighborhood than it otherwise would. Back Cove reaches into the neighborhood visually and because of the wind

Opportunities

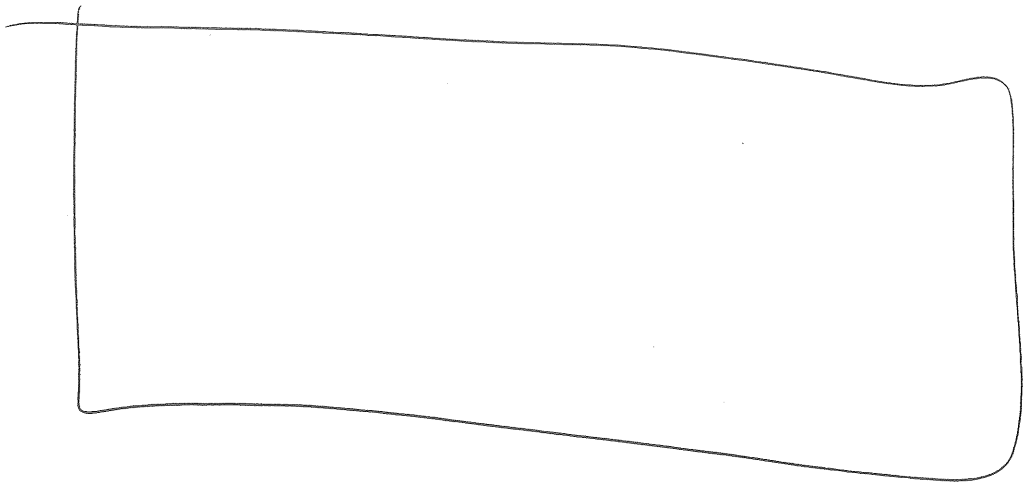
- Within Payson Park, there may be an opportunity to highlight the relationship between nature and the built world

Constraints

- Changes to Payson Park should respect the existing as well as future pattern of the city

11 x 17

a map



vii. Watershed/Landform/Drainage

Interpretation

- There is a general pattern of positive drainage across the park toward Back Cove
- Low points along the way collect water before it gets to Back Cove
- Low areas within the park are natural except for the skating rink
- High points or knobs within the park are man-made
- The site is basically a flat area (flood plain?) between the hill on which Ocean Avenue sits and Back Cove

Opportunities

- Athletic and recreation facilities should drain into wetland areas to prevent standing water and help filter and purify run-off before it reaches Back Cove
- There is an opportunity for a more natural form for the skating rink
- The flatness of the site is ideal for sports fields and will require little re-grading
- As the master plan is implemented, minor re-grading to improve general drainage of the site should be done, as well as significant drainage improvement measure to alleviate the problems in the Front Street neighborhood

Constraints

- Design development must accommodate the potential for future large storm and flooding events
- Design development must proceed adhering to an overall grading strategy
- Location of low areas will not change

C. SUMMARY ASSESSMENT AND GOALS & OBJECTIVES

1. Defining the Need: Summary of Existing Conditions and Uses

Payson Park is a unique mix of natural and constructed recreation opportunities that is widely used by the citizens of Portland. The diversity of uses makes this facility particularly valuable to its users. However, the park suffers from a variety of issues that affect the safety and enjoyment of current users. If left unchanged, these issues would quickly worsen and have a negative impact on the experience of the park or, potentially, endanger a pedestrian, park user or property. The items that are in need of immediate attention include:

- the roadway
- the playground
- the drainage situation along Front Street
- the little league field that is not regulation size and therefore, nearly un-usable
- the parking situation
- the tennis courts
- the poorly drainage softball field
- the arboretum

Payson Park is a valuable component of the Portland park system that is badly in need of a guiding plan for the 21st century.

2. Goals and Objectives of the Master Plan

Analysis and Assessment of the site resulted in the formation of the following Goals and Objectives:

- to lessen the impact of vehicular traffic within the park experience while maintaining the connection between Baxter Boulevard and Ocean Avenue, primarily to improve pedestrian safety but also to improve the quality of experience within the park
- to improve the relationship between active and passive uses within the park, and to improve the condition, safety and efficiency of active and passive use facilities
- to provide a safer and more enjoyable pedestrian circulation system, both within and through the park
- to expand the presence of the Arboretum as a resource for the public
- to make the park enjoyable and accessible for all users, given the natural topography of the site

A. THE MASTER PLAN

11 x 17

MP

B. DESIGN SUMMARY

The focus of the design recommendations is to improve the quality of park experience at Payson Park. These recommendations suggest significant changes in the active use facilities, pedestrian and vehicular movement, as well as major improvements to the passive use facilities in the park.

Active and Passive Recreation Opportunities

The proposal organizes the active and passive uses of the park around a large, central, multi-purpose space which can be used as: 1) passive open space for picnicking, sunbathing and other unprogrammed activities, 2) programmed Parks and Recreation activities such as concerts, performances or other events, 3) practice fields for a variety of athletic activities. An expanded arboretum is seen as the framework which defines this central space and helps define the identity of the park. In addition, this organizing feature will contribute to the clarity and legibility of the park for both new and current users.

Included in the recommendations are improvements to the following active-use facilities:

- 2 regulation Little League baseball fields
- 1 T-Ball field adjacent to the Little League fields which allows for continuity in the Little League baseball program in Portland
- 1 regulation high school softball field
- 1 regulation high school soccer field which can also be used for other athletic purposes (Little Lad football, practices, etc.) at other times of year
- 3 full-court basketball courts
- 5 regulation tennis courts
- 1 new playground which conforms to all safety and accessibility codes and guidelines
- 1 larger skating rink which allows simultaneous use by active (hockey) and by passive skaters

Roadway / Vehicular Circulation

The most important and noticeable aspect of the proposal is the relocation of the road through Payson Park. The proposed road, shown relocated to the north, will have sidewalks on both sides and raised crosswalks with stop signs at key locations to allow neighborhood users safe access to the park. This road alignment provides the safest circulation system for pedestrians, both in getting to the park and in enjoying the park once you've arrived. The road will only be crossed when entering or leaving the park instead of the current condition of having to cross when changing activities within the

park. This configuration means that once park users enter the park the road is no longer a danger or even a concern.

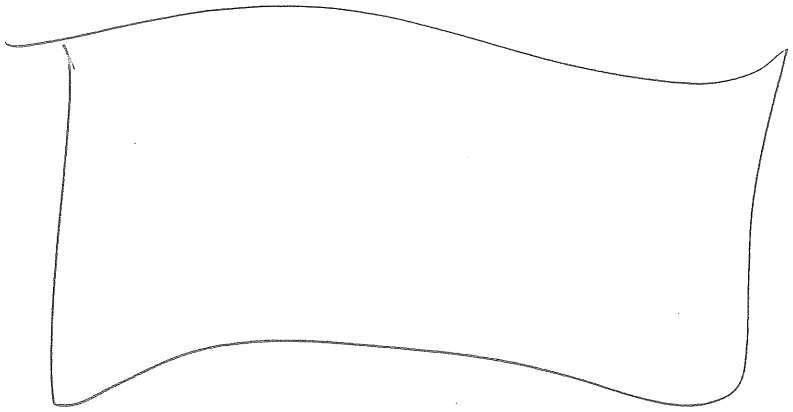
Parking

The master plan calls for a substantial increase in parking spaces, from the current level of 230 to a proposed 420 spaces. Two parking lots will provide spaces close to Baxter Boulevard: the 130-space lot between the Little League fields and the overflow parking lot with approximately 60 spaces. All of the proposed parking lots will be landscaped and screened in ways which are respectful of the park setting. The approach allows for the concentration of cars in smaller areas that can more easily be screened. The current lack of designated parking spaces leads to a dangerous condition of double parking along the roadway. An improved parking situation would provide more convenient parking for park users and allow safer pedestrian conditions during high demand times.

Pedestrian Circulation

The master plan recommends a substantial improvement in both the internal pedestrian circulation system and the pedestrian connection from Payson Park to the larger, city trail system. Internally, a small network of interconnected paths will be created that will separate pedestrians from vehicular traffic. A bituminous multi-purpose path will connect joggers, walkers, bicyclists, etc. directly between Baxter Boulevard and Ocean Avenue. In terms of materials, stone dust paths will link Payson Park to the Baxter Boulevard path and will provide an internal circulation loop for joggers, walkers and strollers. By connecting to overlooks which are proposed for the freshwater pond and tidal areas, the proposed paths will also allow users to experience the natural areas of the park. Combined with the multi-purpose path, path network will provide a diversity of path experiences in the park while highlighting Payson Park's natural assets.

C. RECOMMENDATIONS FOR PARK IMPROVEMENTS



1. Recommendations for Vehicular Circulation and Parking

A. *Re-align the roadway to the northern edge of the park*

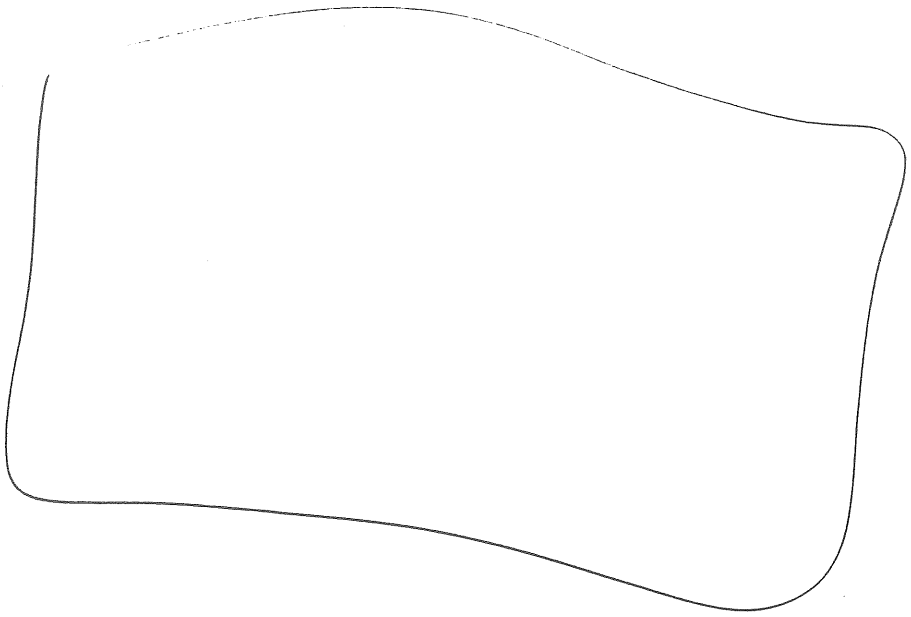
- Allow room for buffer planting between the road and the adjacent neighborhood
- The roadway should have a "park" character, including:
  - -curvilinear horizontal alignment
  - -street tree plantings on both sides
  - -two-way traffic
  - -12' lanes
  - -granite curbing
  - -sidewalks and esplanades on both sides of the roadway
  - -raised crosswalks and stop signs at designated crossing points
- The roadway should be adequately-buffered from the neighborhoods on the north side of the park

B. *Reduce the number of ingress/egress points from 4 to 2*

- Install entrance posts on the entrance from Baxter Boulevard
- Posts should match the existing posts on the Ocean Avenue-side of the park

C. *Increase the number of parking spaces in the park from 230 to 420*

- Provide three separate lots to service the major use areas of the park
  - -the lot closest to Baxter Boulevard will also be used for Baxter Boulevard users
- Provide one area that can be used for overflow parking during large events, preferably close to the ballfields
- Parking lots should be designed as "parking gardens," with extensive planting, buffering and screening to reduce the visual impact on the rest of the park
- Screening should be considered from ground level and from higher elevations such as from Ocean Avenue



2. RECOMMENDATIONS FOR PEDESTRIAN CIRCULATION

A. *Install a network of paths that allows for connections between various uses and allows for a variety of jogging/walking/strolling loops within the park*

- Ensure that there is at least one continuous, paved loop within the park that does not require crossing of any vehicular roadway
- Ensure that there are several loop options within the park, allowing for a diversity of walking experience and length of walks

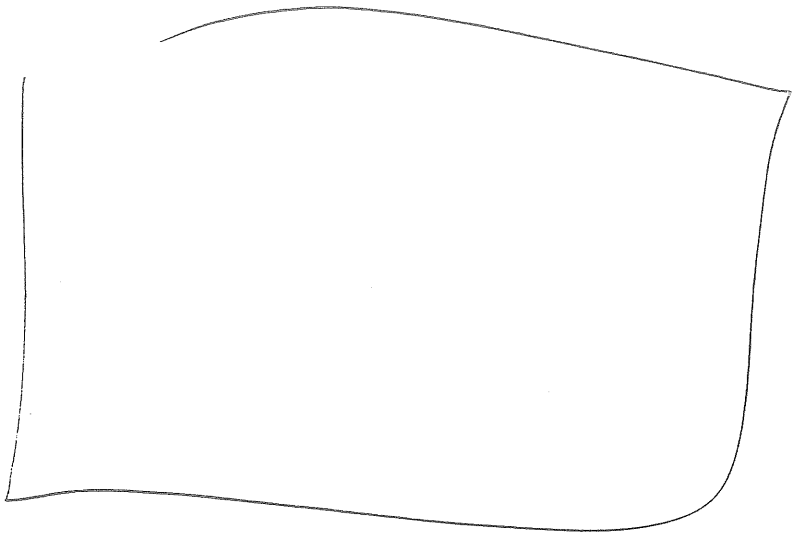
B. *Install a 12' wide, bituminous, multi-purpose path that connects Ocean Avenue and Baxter Boulevard*

- A portion of the multi-purpose path can be converted from the existing roadway

C. *Install sidewalks and crosswalks with the new roadway*

- Sidewalks should be installed on both sides of the roadway
- Sidewalks should connect to raised crosswalks with stop signs at appropriate crossing points

D. *Install a sidewalk on the park side of Baxter Boulevard, within the park boundary*

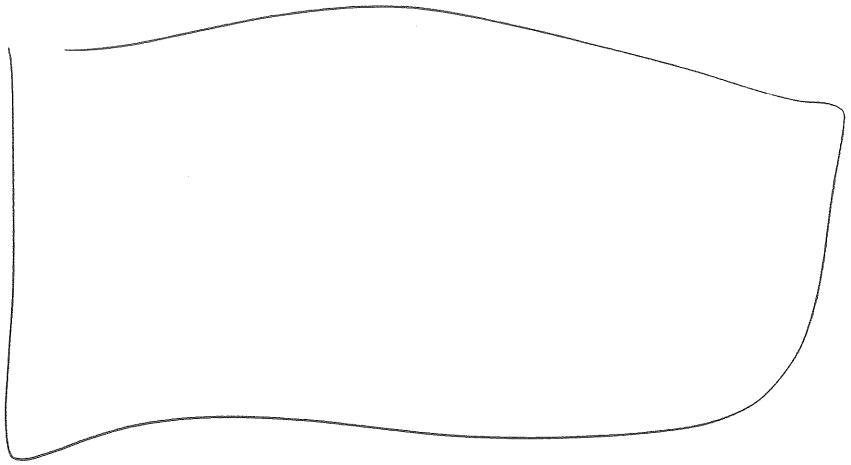


3. Recommendations for Grading and Drainage

A. *Improve the drainage situation on the north side of the park by installing catch basins and a sub-surface drainage system that connects to Back Cove*

B. *Re-grade all existing and proposed active-use fields to ensure positive drainage*

- Resolve drainage problem at field at base of Ocean Avenue hill



4. RECOMMENDATIONS FOR ACTIVE RECREATION

A. *Relocate two Little League baseball fields to Dyers Flats area, to be grouped with T-Ball field, playground and parking lot*

- Ensure proper orientation of fields (given space restraints)
- Ensure that the relocated fields are regulation-size for Little League play

B. *Install T-Ball field in proximity of Little League fields*

C. *Convert existing baseball field to a softball field*

D. *Install a regulation-size high school soccer field which can also be used for other athletic purposes (Little Lad football, practices, etc.) at other times of year*

E. *Install 3 full-court basketball courts*

- Install fencing around the courts

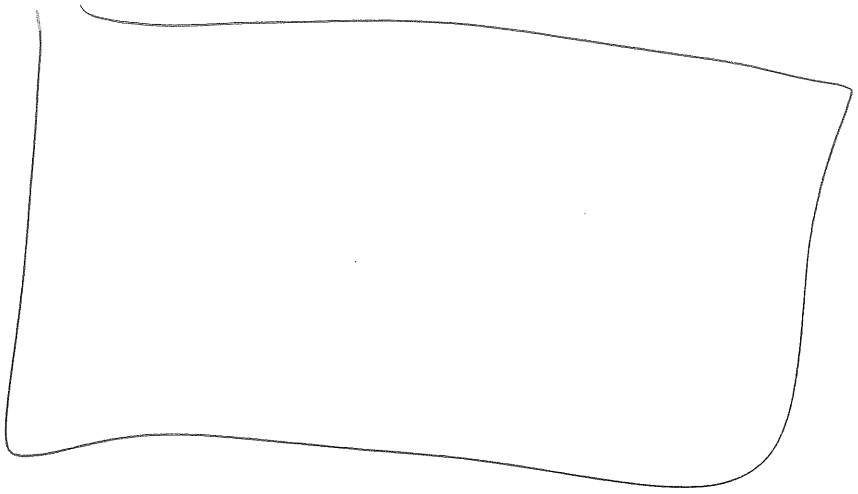
F. *Install 5 tennis courts*

- Install fencing around the courts

G. *Install a new playground that conforms to all safety and accessibility codes and guidelines*

H. *Install a larger skating rink which allows simultaneous use by various user groups, such as active (i.e,. hockey) and passive skaters*

- Skating area should be installed in a way that allows flooding in winter
- Skating area would function as open area during non-winter months



5. RECOMMENDATIONS FOR PASSIVE RECREATION

A. *Expand the Longfellow Arboretum*

- Develop the arboretum as the framework for the various park components

- The "heart" of the arboretum can remain in its present location, allowing for a separate, secluded area for quiet enjoyment of the arboretum. This area should remain true to the original, stated intent of the arboretum as one that promotes non-native or unusual trees for the interest of all users.

- The expanded component of the arboretum will encircle the central, multi-purpose space and allow more day-to-day exposure of the arboretum to all users of the park

    - To ensure high survival rates, the newly created aspect of the arboretum should contain more native, hardy species that will tolerate a higher degree of root compaction and other abuses.

    - For maximum protection against "new" pests or outbreaks of "old" pests, adhere to the 10-20-30 Formula for tree planting within the park:

        1. No more than 10% of any single tree species
        2. No more than 20% of species in any tree genus
        3. No more than 30% of species in any tree family

This approach allows the arboretum to contain a diversity of experiences, from a secluded retreat to a facility that surrounds active use fields, and allows it room to grow into one of the centerpieces for the city of Portland.

- Develop a planting program by areas of the park, following the Installation Sequence on page -- and the notes below

  Different areas of the park should be planted at different rates

  - Buffering/Screening between the roadway and the neighborhood should be developed throughout the life of the park, beginning as early as possible. It is critical to the success of the park development that the roadway does not become an earsore or eyesore to the adjacent neighborhood. As much resources as possible should go into this area, as early as possible, to ensure its success.

  - The planting around the Central Open Space should be installed in a very systematic way, to ensure a consistent and recognizable planting that defines the space. For example, avoid planting one end of the Central Open Space 15 years from planting the other end of the Central Open Space. The goal is to install a planting that fully surrounds the Central Open Space, even if the trees are spaced far apart. Later plantings should also fully surround the space, but fill in the holes left from earlier plantings. Because this area will be more heavily traveled than other areas of the arboretum, the trees planted around the Central Open Space should consist primarily of native, hardy trees such as maples and oaks.

  - The "heart" of the arboretum should continue to be planted in the manner in which it is currently planted. (See Recommendations for Passive Recreations)

- Generate plant lists for specific areas and purposes, and find sponsors to implement planting.

  - Incorporate maintenance costs into initial purchase costs
  (from evergreen)

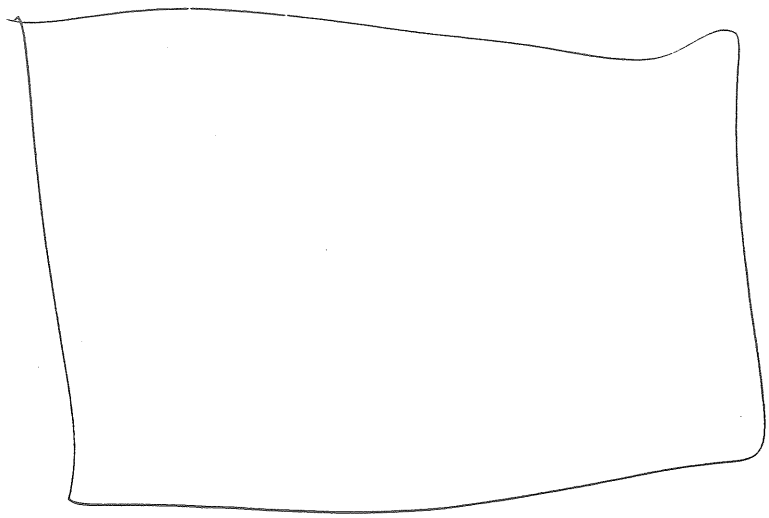
B. *Develop trails, overlooks and habitat within the natural areas of the park*

- These components should have an educational basis that explains the unique habitat, vegetation and physical characteristics of this site

- Install native shrubs and other plant material in the natural areas of the park that will require little or no maintenance and that attract and maintain a wildlife population

C. *Provide Multi-Purpose Spaces that allow for many different uses, both active and passive*

- These spaces should be large and flat enough to allow for Frisbee, sunbathing, picnicking and casual play while also being graded and sized to provide space for practice and/or games by soccer, Little Lad football and other activities.



6. RECOMMENDATIONS FOR LIGHTING

A. *Ensure that all new lighting in the park is contained within the park boundary and will not spill over into adjacent neighborhoods*

B. *Install pedestrian-scale lighting along the multi-purpose path*

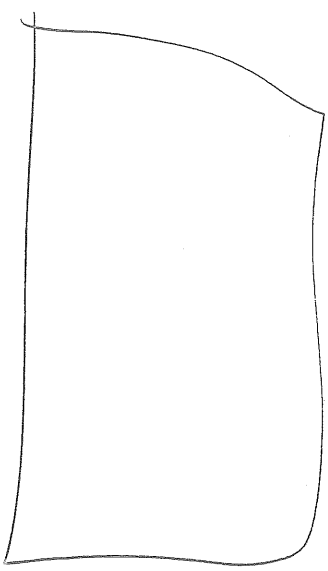
C. *Install appropriate lighting along the new roadway*

D. *Install user-controlled, timed lighting on the new tennis and basketball courts*

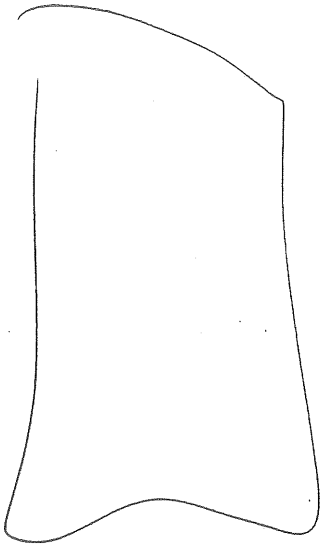
- Court lighting should have an over-ride shutdown that will occur at a pre-set time (9:00 p.m., for example)

E. *Do not install lighting for fields, skating area or other paths*

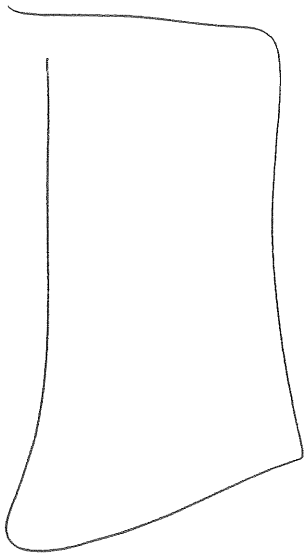
F. *Post and/or Fixture Recommendations*



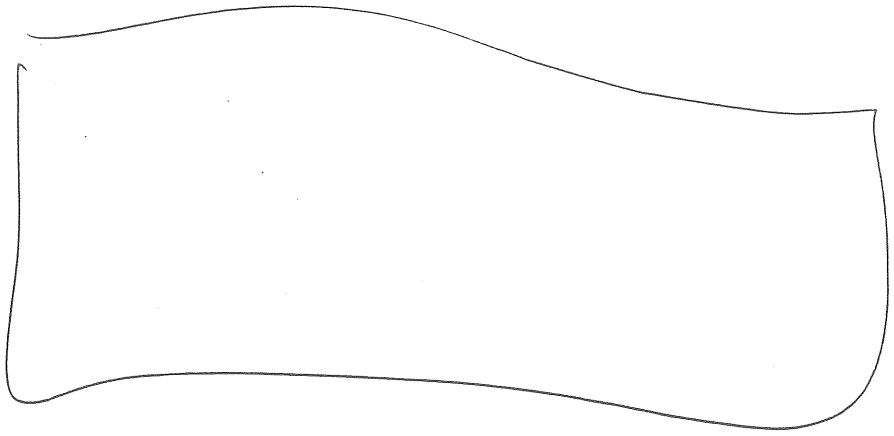
Multi-Purpose Path Lighting



Roadway Lighting



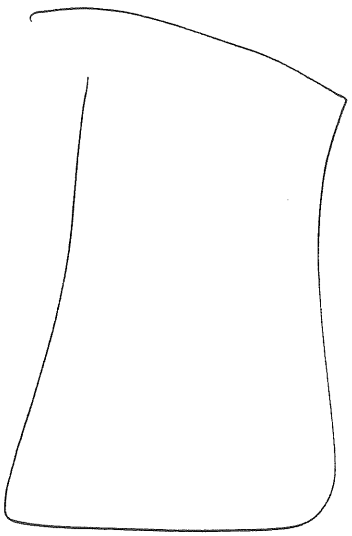
Court Lighting



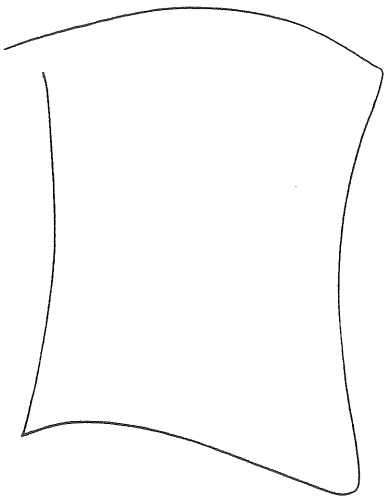
7. RECOMMENDATIONS FOR AMENITIES

A. *Locate benches, picnic tables, trash receptacles, bicycle racks and drinking fountains appropriately throughout the park* (See Amenities Recommendations, below, and Master Plan)

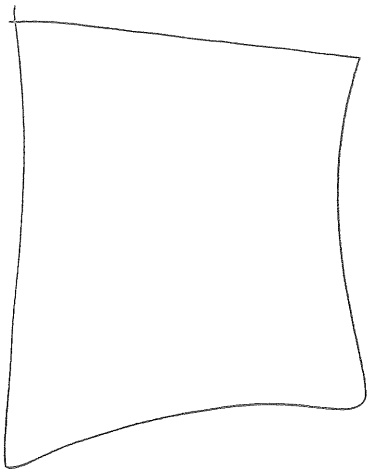
B. *Amenities Recommendations*



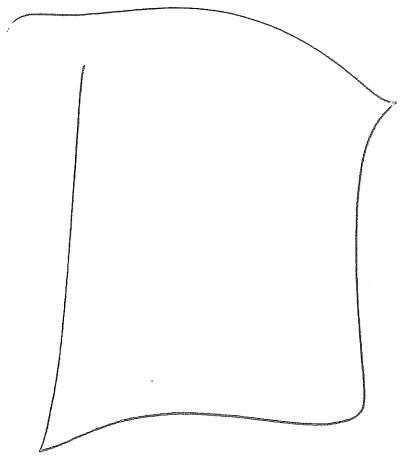
Benches



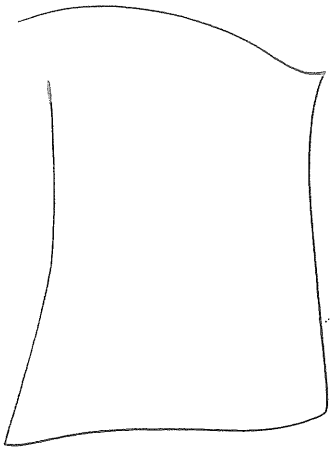
Picnic Tables



Trash Receptacles



Bicycle Racks



Drinking Fountains

B. IMPLEMENTATION STRATEGY

The following list is the recommended order in which the park improvements may take place, given the realities of construction methods and materials. The list is not meant to be a recommendation for a breakdown of specific phases and tasks for each step necessary to implement the Master Plan recommendations. Instead, it should be understood as a way of considering all of the recommendations in the Master Plan.

More specific phases can be identified once funds are allocated and identified for the project, and as the construction documents are developed. In most cases, available funds will dictate the amount of work which can go into each phase. Spaces within the list denote logical breaks in the construction sequence and may be considered as phase breaks, depending on the other aspects of the project.

Tree plantings noted in the list should be completed on an incremental basis, for two reasons. First, smaller plantings spread out over a number of years will mean a lower planting budget for each phase. Second, a greater variety of plant material in terms of species and age of plants will result in a diverse and healthy arboretum.

Following is a *chronological* list of the recommended construction sequence:

- Install New Playground
- Demo Existing Playground
- Tree Planting at Playground

- Install Drainage Improvement Measures in Dyer's Flats Area

- Install 2 Little League Fields at Dyer's Flats Area (See Field Sequencing Notes, Below)
- Demo 2 Little League Fields
- Install Parking Lot Between New Little League Fields
- Install Access Road and Demo Existing Parking Lot
- Grading and Berming for Buffering/Screening of New Roadway
- Tree Planting for Buffering/Screening New Roadway and for Defining the Central Open Space

- Install Concession/Bathroom Structure at New Little League Facility
- Install Overflow Parking at Dyer's Flats
- Install Shrubs for Screening/Buffering Measures for New Road
- Tree Planting for Defining the Central Open Space

- Demo Trees Next to Ocean Avenue Fields
- Install Parking Lot at Ocean Avenue
- Upgrade /Install Women's Slow-Pitch Softball Field (Coordinate with Other New Work Outside of Payson Park)
- Install/Upgrade Partial Soccer Field
- Tree Planting for Defining the Central Open Space

- Drainage Work Completed As Required
- Demo 4300 LF of Existing Road
- Install 2700 LF New Road, Including Sidewalks, Crosswalks, Street Trees
- Install Part II of Screening/Buffering Measures for New Road As Necessary
- Install Multi-Purpose Path (Use Existing Road as Much as Possible)
- Install Remainder of Soccer Field
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

- Demo Adult Softball Field (Coordinate with New Field Construction at New Location)
- Upgrade Basketball Facility
- Upgrade Tennis Facility
- Install Parking Lot Between Basketball and Tennis
- Install Concession/Bathroom Structure Closest to Ocean Avenue
- Install Secondary Paths, Overlooks
- Demo Skating Area
- Install Central Multi-Purpose Space
- Tree Planting for Defining the Central Open Space, and as Additions for the Arboretum

C. ESTIMATED COST OF IMPROVEMENTS

This cost estimate is meant to be a tool to aid in the long-term management of the project. Several factors must be considered when referring to this estimate:

- The estimate has been compiled using the level of detail developed in this Master Plan. Further development of the site analysis (such as geotechnical information) and of the construction documents will reveal more information regarding project costs.
- The estimate is compiled using cost factors and data from 1998 and 1999. It is anticipated that this project may take several decades to complete. Therefore, a 1999 cost estimate may not be valid during the later phases of construction.

D. CARE OF IMPROVEMENTS - MAINTENANCE AND MANAGEMENT

A plan for the care and management of the proposed improvements is as important as the improvements themselves, for without proper maintenance, the city is risking the investment of the improvements. This is especially true in the first years after construction. Plants must be watered, treated and pruned, while inspection and maintenance of newly installed landscape elements such as tennis courts can often reveal any potential problems early in the process.

In general, the routine maintenance plan will relate primarily to the plant material, especially in years 1-5 after installation. As the plant material matures, a less rigorous maintenance schedule will be possible. The longer-term, more spaced out maintenance relates to the hardscape and facilities in years 1-20 after installation. Following are specific and general recommendations for a maintenance plan for Payson Park:

1. SPECIFIC RECOMMENDATIONS:

Improved active use facilities include:

- 2 regulation Little League baseball fields
- a T-Ball field adjacent to the Little League fields which allows for continuity in the Little League baseball program in Portland
- 1 regulation high school softball field
- 1 regulation high school soccer field which can also be used for other athletic purposes (Little Lad football, practices, etc.) at other times of year
- 3 full-court basketball courts
- 5 regulation tennis courts
- a new playground which conforms to all safety and accessibility codes and guidelines
- a larger skating rink which allows simultaneous use by active (hockey) and by passive skaters

The proposal also calls for a substantial improvement in the internal pedestrian circulation system. This network of paths will be separated from automobile movement within and through the park. In a material sense, stone dust paths will connect Payson Park to the Baxter Boulevard path and will provide an internal circulation loop for joggers, walkers, etc. By connecting to overlooks which are proposed for the freshwater pond and tidal areas, the proposed paths will allow users to experience the natural areas of the park. The wooded routes these paths will follow will provide a diversity of path experiences in the park and highlight Payson Park's natural assets. Also, a bituminous multi-purpose path will connect joggers, walkers, bicyclists, etc. directly between Baxter Boulevard and Ocean Avenue.

IV. CONCLUSION

Thanks to the time and effort of *many* people, this Preliminary Master Plan strives to balance the diversity of active and passive recreation needs of the users of the park within the framework of neighborhood use and within the context of the overall park system of the City of Portland.

PLANNING BOARD REPORT #15-99

BACK COVE PARK
SITE PLAN, SHORELAND, AND R-0S REVIEW
CITY OF PORTLAND, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

May 11, 1999

I. INTRODUCTION

On December 8, 1998, the Board tabled consideration of the Preble Street Park (Back Cove Park) site plan. The primary reason for tabling this application was the lack of technical details. Since that meeting, the site plan has been revised to address these concerns.

86 notices were sent to area property owners.

II. BACKGROUND

A summary of the more significant changes to the site plan is shown below

- More technical details are included on the plan.
- The new transition path between Back Cove Park and Baxter Boulevard has been eliminated. This was originally proposed as a way to accommodate the ten-foot wide multi-purpose path proposed in the Baxter Boulevard Plan. This element can always be added later when there is a clearer concensus on the final design details of the Baxter Boulevard multi-purpose path.
- Rather than having trees spaced 40 feet on center along the waterside of the parking lot, trees have been clustered at specific locations. This is intended to open up the view of the cove. The street trees along Preble Street will remain.
- The two driveway openings have been shifted further away from the Shop 'n Save driveway. This change was suggested by the City Traffic Engineer to minimize any conflicts with the Shop 'n Save driveway.
- The configuration of the plaza outlook has changed.
- The drainage plan for the parking lot has been revised to include catchbasins and a stormwater treatment system rather than using sheetflow into the cove.
- The plan now includes catalog cuts of the park amenities (see sheet L-503). This includes light fixtures and poles, benches, picnic tables and trash containers.

This plan and the accompanying written material serves as the park master plan for development of this site. The master plan is intended "to improve the safety, usefulness, and appearance of this heavily used resource in a cost-effective manner". As the Board is aware, Richardson and Associates are the consultants for the Baxter Boulevard Improvement Plan as well as the Back Cove Park. The Baxter Boulevard Improvement Plan recommended a number of design improvements to Back Cove Park, which is addressed in this plan.

Key elements of the plan include the following:

- Reuse of the existing parking lot. The existing parking lot has an excessive aisle width (40 feet), so the parking lot was compressed to allow more green space between the parking lot and the Back Cove shore.

- 170 parking spaces are proposed. This represents a net reduction of about 15 spaces from the previous plan reviewed by the board. This reduction was required in order to install a turnaround at each end of the parking lot. The turnaround avoids the problem of deadending the parking lot, while providing a drop-off area for the trail and the soccer field.

- The number of Preble Street driveway openings has been reduced from four to two.

- A plaza and overlook are shown along the shore side.

- A ten-foot stonedust path is shown between the parking lot and the shore. It connects with both ends of the Back Cove path. The trail loops along the shore by the soccer field.

- A future rest room/storage building is shown on the plan, with a total footprint of less than 1,000 square feet. As building elevations have not been developed to date, this would require staff review.

- A variety of new plantings are proposed adjacent to the plaza, parking lot, and trail.

- Maine Department of Environmental Protection and Army Corps of Engineer approvals will be required for the overlooks and boardwalk.

- Improvements to the soccer field include drainage and a slight field reconfiguration.

III. STAFF REVIEW

This proposal has been reviewed by staff for conformance with the applicable standards of the site plan, shoreland, and R-OS ordinances.

A. SITE PLAN

1./2. Traffic

The existing parking lot is being reorganized in several ways. The number of driveway openings was reduced from four to two. The existing aisle width was reduced to a standard width, providing more green space along the shore.

A drop-off area is shown in front of the proposed plaza. Turnarounds are provided at both ends of the parking lot, although they also function as drop-off areas. Two pedestrian crosswalks are shown on the plan running from the Preble Street sidewalk to the plaza. The crosswalks will be constructed of cobblestones which should clearly delineate it as a crosswalk.

Larry Ash, City Engineer, has reviewed the site plan and finds it acceptable. Mr. Ash suggested that the driveways be shifted further away from the Shop 'n Save driveway. The site plan was revised accordingly. Mr. Ash also reviewed the question of a traffic light that could serve a park driveway and the Shop 'n Save driveway (see Attachment D). Mr. Ash indicates a traffic light at this location is not justified because it does not meet the signal warrants under the Manual on Uniform Traffic Conntrol Devices.

A 10 foot wide stone dust path is shown between the parking lot and water edge. This connects both ends of the existing Back Cove path by the soccer field and Baxter Boulevard.

Comments from John Peverada, Parking Manager, are shown on Attachment E. Mr. Peverada indicates a concern with the number of parking spaces proposed. However, overflow parking can be accommodated in the Marginal Way lot about 500 feet from the Preble Street lot. At the other end of the trail, the Payson Park Master Plan provides for 420 parking spaces.

3. Bulk, Location, Height of Proposed Buildings, and Proposed Used Will Not Cause Health or Safety Problems

This is a 16.3 acre site with a one-story building proposed on it. The site is currently being used for park purposes and parking. There are no known health or safety problems associated with this proposal.

4. Bulk, Location, Height of Proposed Buildings Minimizes Any Substantial Diminution in the Value or Utility of Neighboring Structures

The site is bounded by Back Cove, I-295, and Preble Street. The closest structures are the commercial properties on the southerly side of Preble Street (Shop 'n Save Plaza). The project will significantly improve the aesthetics of this area in contrast to the existing expansive asphalt parking lot.

5. Sewer, Sanitary and Storm Drain, Water/Solid Waste Disposal

There are existing utilities in Preble Street that will serve this development. An existing waterline on the site will be extended to irrigate the soccer field. Utilities are not shown serving the building. This will be reviewed as a phase at a later date.

6/7. Landscaping

The existing street trees along Preble Street will be retained. New trees will be added where driveway openings have been closed.

A variety of shade trees and shrubs will be planted on the site. Originally shade trees we shown along the perimeter of the parking lot (about 40 feet on center). The revised plan has reduced the number of trees and has clustered them in groups. This is intended to open up views of the cove. Landscaping is clustered adjacent to the plaza, stretching area, picnic areas, and near the restroom/storage building. A list of proposed planting material is shown on Attachment A, L-201.

The pathway lighting fixtures will have underground power.

8. Soil and Drainage

This proposal will result in a net decrease in impervious surfaces and stormwater run-off. The dirt slope of the parking lot will be replaced by grass and landscaping.

The parking lot and soccer field currently sheet flows into Back Cove. The revised drainage plan for the parking lot includes catchbasins with granite curbs. Stormwater will flow from the catchbasins into a stormwater treatment tank. Water will then be discharged into the cove via a new stormwater outfall pipe.

Erosion and sedimentation control information has been submitted. See Attachment B-7. Comments from the Development Review Coordinator are shown on Attachment F.

Final comments from Public Works are expected for Tuesday's meeting.

9. Exterior Lighting

The existing street lights along Preble Street will remain. New lighting will be focused between the parking lot edge and the walkway to provide lighting for the pedestrian trail. Seven (7) pole mounted lighting fixtures are shown along the trail. Fourteen other light fixtures will be installed along the pathway that runs by the soccer field and heads north. A specification of the fixture is shown on sheet L-503. The sphere-like light fixture will be mounted on a fluted pole with a total height of 14 feet 6 inches. Although the new lighting fixture for Baxter Boulevard has not been selected yet, it is anticipated that both parks will share a similar fixture design. Therefore the light fixture may vary somewhat from the one shown here but is representative of the type of fixture proposed.

Photometric information should be submitted for this project.

10. Fire

The Fire Department has reviewed the plan, and finds it acceptable.

11. City Infrastructure

The proposed development is designed to be consistent with off-premises infrastructure. The design is intended to be an extension of the Baxter Boulevard Improvement Plan.

12. Historic District

The park is adjacent to the Baxter Boulevard Historic District. The proposed plan is not incongruous to the architectural style or character of those portions of the district as viewed from a street or public open space.

The Baxter Boulevard Improvement Plan has been used as the basis for this plan. The decrease in blacktop, provision for landscaping, trails, and other amenities creates a park environment in sync with the Baxter Boulevard design.

A restroom/storage structure is proposed near the soccer field, a distance of over 1000 feet from Baxter Boulevard. Elevations have not been designed, so this will need to be reviewed by staff at a later date.

B. RECREATION OPEN SPACE DEVELOPMENT STANDARDS

1. Landscaping

All ground areas not used for parking, and pedestrian areas will be appropriately landscaped. The plan increases the amount of landscaping on the site, and results in a net decrease in impervious area.

2. Natural Features

Mature trees will be retained on the site. The unfinished gravel area between the shore and the parking lot will be appropriately landscaped.

3. Loading Areas

There are no loading areas proposed, although the drop-off areas could function as a loading area.

4. Building and Scenic Views

Only one building is proposed. It is on the far end of the site, near the turnpike. The one-story structure should have a minimal impact on scenic views to Back Cove.

5. Storage of Equipment

Park equipment will be stored in the proposed building.

6. Distance to a Residential Use

The multi-purpose field and soccer field are located adjacent to the turnpike. The closest residential use is over 1000 feet away.

7. Off-Street Parking

170 parking spaces are proposed. This represents a net reduction of about 15 spaces from the existing parking lot. However, 200-plus spaces are available during off-hours at the city-owned Marginal Way parking lot, a short distance from the site. In addition, the Payson Park Master Plan calls for 420 parking spaces, which should relieve pressure from the Preble Street parking lot for Back Cove trail users.

C. SHORELAND REGULATIONS

1/2. Structure Setback

The proposed building will be set back a minimum of 75 feet from the high water line.

The overlook structure has been determined by the Zoning Administrator to be a dock. Docks are exempt from the normal 75-foot shoreland regulations setback.

3. Vegetation

Existing vegetation shall be conserved.

4. Erosion and Sedimentation Control

A complete erosion and sedimentation control plan will need to be submitted.

5. Soils

A wetland delineation report has been submitted.

6. Water Quality

The water quality impact of this project on Back Cove should improve. The drainage system from the parking lot will include a closed system with catchbasins and a stormwater treatment system.

7. Archeological

The site is already developed and disturbed.

8/9. Driveway and Parking Areas

The shoreland setback of the driveway and parking area is being increased.

10. Stormwater Run-off

A stormwater plan has been submitted. The amount of impervious surface on the site will be decreased. See previous comments.

11. General Site Plan Features

a. Safe and Healthful Conditions

There are no known safety or public health issues associated with this project.

b. Water Pollution, Erosion, or Sediment

See previous comments.

c. Wastewater

The restroom proposed in the building, will be served by a public sewer.

d. Fish, Wildlife, Birds, Habitat

The site has been previously disturbed. There are no adverse impacts anticipated on fish, wildlife or bird habitat.

e. Public Access and Visual

The proposal enhances public access to the shore by providing an improved trail system. The visual impact of the building and dock is minimal.

f. Archeological and Historic Resources

See previous comments.

g. Fishing or Maritime Activities

The proposal will have no impact on fishing or maritime activities.

h. Flood Plain

All structures will be elevated above the 100-foot flood plain elevation.

IV. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and material submitted by the applicant and on the basis of information provided in Planning Board Report #52-98, the Planning Board finds:

A. That the plan is in conformance with the site plan ordinance of the Land Use Code.

i. Applicant shall submit to the planning office, DEP and Army Corps of Engineers permit applications and final approvals on this project.

ii. That the plan shall be revised reflecting the comments of the Development Review Coordinator.

iii. That a photometric plan be submitted for planning staff review and approval.

B. That the plan is in conformance with the recreation open space standards of the Land Use Code.

C. That the plan is in conformance with the shoreland regulations of the Land Use Code.

Attachments:

A. Site Plan
B. Project Narrative
C. Background Information
D. City Traffic Engineer Memo
E. City Parking Manager Memo
F. Development Review Coordinator Memo

ATTACHMENT B-1

BACK COVE PARK
Portland, Maine

Site Plan Review Submission - April 26, 1999

TABLE OF CONTENTS

I. Introduction.....x

II. Site Plan - Addendum #2 (Current Submission)

a. Addendum #2 Narrative.....1

b. Construction Plan.....4

c. Erosion Control Narrative.....6

III. Site Plan - Addendum #1 (Previous Submission - 11/30/98).....*See Submission*

IV. Site Plan Review (Previous Submission - 10/27/98).....*See Submission*

V. Workshop (Previous Submission - 8/25/98).....*See Submission*

ADDENDUM #2 NARRATIVE:

Previous submissions:

August 25, 1998 - Workshop
October 27, 1998 - Site Plan Review
November 30, 1998 - Site Plan Review - Addendum #1

Please note that the following revisions are shown on the Working Drawings dated 4/26/99:

1. Landscape Treatment at Intersection of Preble Street Extension and Baxter Boulevard:
Revised plan shows work in this area will be part of a later phase. The conceptual intent for this area is to connect the existing 10' stone dust path at Baxter Boulevard with the 10' stone dust primary path proposed for phase I of the project.

All work associated with roadways, intersections, pedestrian and multi-purpose paths in the area of the Baxter Boulevard/Preble Street Extension intersection will be part of a later phase of work, as noted on the current drawings.

2. Building Site:
The future building site is marked to show that the building and associated plaza will be part of a later phase. As shown on the working drawings, phase I work at this location will include the cul-de-sac, sidewalk, and stone dust path connecting to the primary path system.

3. Parking Lot:
Entrances to the improved parking lot have been re-configured to comply with current safety and sight line standards, at the request of the Traffic Engineer for the City of Portland.

The parking lot will be curbed on all sides, and will utilize a self-contained sub-surface stormwater treatment system as shown on the drawings. Curbing will allow easier winter maintenance of the parking lot. All critical dimensions, invert elevations, pipe slopes and materials information relating to the stormwater management system were provided by a sub consultant civil engineer.

4. Pedestrian Path System:

The revised plans show a 10' wide *primary* path that provides a continuous experience of a 10' wide pedestrian path, as currently found on Baxter Boulevard. The intent is to provide (given existing site conditions) a consistent pedestrian experience around the perimeter of Back Cove. All secondary stone dust paths are 6' wide.

The pedestrian path layout has also been modified to improve circulation flow within the park. The primary stone dust path will follow the most desirable line to connect to the existing path. This alignment has several benefits:

- a shorter length of 10' path will have a lighter visual impact on the landscape
- the more direct route will be the preferred route by the majority of users, and should therefore serve as the primary path
- the "water-side" route is still available as a secondary, accessible, 6'-wide path
- this alignment allows for a lighting plan that has a lower visual impact in the park. Lighting the "water-side" path would require pole luminaires (high visual impact) or numerous bollards (lower visual impact, but more lights would be necessary to effectively light the path)
- the space requirements for the soccer field prevent a smooth horizontal path alignment in the area between the soccer field and the water. A primary path in this location would bring large numbers of path users in close proximity to the field. This would promote cutting across the field (damaging the field) and could be potentially dangerous to have the primary path immediately adjacent to an on-going soccer game (balls and/or players leaving the field)

5. Plaza:

The primary, public plaza is contained within a circular seat wall located between the parking lot and Back Cove. The depressed or lowered central area of the plaza provides a visual and physical separation from the nearby parking lot and drop-off area, as well as from the primary path the passes by the plaza on either side. An added benefit of the lowered plaza is that it provides the potential for a wind break, allowing pedestrians to find a place to find some protection on windy days. This might be especially helpful for people waiting for rides in the vicinity of the drop-off area.

The plaza will drain to a catch basin in the center of the plaza and connect into the proposed sub-surface stormwater management system for the parking lot area.

6. Overlook/Boardwalk:

Conceptual design is ongoing for this aspect of the project. The overlook includes two components:

- i. one component, the overlook, is a contained space adjacent to the path and plaza which can be used to effectively increase the size of the usable plaza area when large numbers of people are gathered in the area.
- ii. the other component, the boardwalk is a curvilinear pier that extends to a small space approximately 50' from the edge of the primary path. This component allows pedestrians to walk over the water at high or low tide. The curve provides a changing orientation along the way, while focusing the orientation toward Baxter Boulevard rather the I-295. The small space at the end of the curve is on axis with the drop-off area, the plaza and the larger overlook space.

Preliminary geotechnical, marine and structural engineering studies are included in this submission. (See Table of Contents)

7. *List* and *Status* of Items to be Completed:

a. Overlook/Boardwalk

This aspect of the project will continue as more information is gathered from the geotechnical engineer. Technical design development of the overlook/boardwalk will be contingent on the geotechnical information

b. Maine Department of Environmental Protection-Permit Application

The application is currently being completed by Portland Parks and Recreation.

c. Field Underdrains

The underdrain design shown in the area of the soccer and multi-purpose fields is conceptual. The consultant is currently assembling information regarding underdrain pipe sizes, spacing, depth. It is anticipated that this information will be complete by May 11, 1999.

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1/3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used (refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

B-14

Response to Questions in:

Portland Code, Section 14-525 c., *'Written Statements,' pp. 1356-1357*

i. Name and address of owner:

City of Portland
Parks & Recreation Department
17 Arbor Street
Portland, Maine 04103
Dana Souza, Director of Parks and Recreation

ii. Estimated Cost of Development: $342,000 (does not include building or Preble Street Extension roadway adjustments)

1. Description of Proposed Uses:

The proposed use for the site is a public park, with a parking lot to accommodate approximately 170 cars. Overall, proposed uses are nearly identical to existing uses, with additional or improved amenities. The proposed changes and improvements include:

- The Master Plan recommends a reconfiguration of the intersection at Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan. This work will be part of a later phase, although Phase I work is designed to fit seamlessly into future work at the intersection.
- An improved parking lot that includes:
  - -curbing on all sides, to improve the edge condition of the parking lot (durability), make the lot easier to plow (maintenance), improve the "look" of the parking lot (aesthetic), and aid in the stormwater management system.
  - -drop-off areas
  - -reduction in size to conventional standards for parking stalls and travel aisles
  - -resurfacing and striping of the parking lot
  - -reduction of access points from 4 to 2 to reduce speeds within the parking lot and increase pedestrian safety

relocation of the park access points to allow a safe distance between park access and the Shop n' Save access.

-pedestrian travel routes for safe access from the parking lot to the park

- An accessible sidewalk along Preble Street Extension
- A future building with restrooms and storage space
- A shaded public plaza with benches and other amenities
- Picnic areas
- A 10' wide stone dust path adjacent to the water's edge
- An overlook that will extend from the plaza and provide excellent panoramic viewing of Back Cove and the surrounding area
- A short boardwalk in the wetland area that will provide access to a viewing platform with education and observation opportunities for wetland flora and fauna
- Reconstructed fields that will include a new irrigation system and underdrains.

2. *Total Land Area of Site:*
16.3 acres ±

3. *General Summary of Existing and Proposed Easements and/or Other Burdens:*
See letter from Dana Souza, Director of Portland Parks and Recreation

4. *Types and Estimated Quantities of Solid Waste to be Generated:*
See letter from Dana Souza

5. *Evidence of Availability of Off-Site Facilities, Including Sewer, Water and Streets:*
As shown on the survey and the Site Plan, the site is served by sewer, water and streets.

Rev. 6

6. *Description of Existing Surface Drainage, and Proposed Stormwater Management Plan:*
Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

The proposed plan calls for a subsurface stormwater management system for the parking lot. Five catch basins (including the plaza) will be installed. In addition, the system will include a Vortechnics Stormwater Treatment Tank to filter the runoff before it is released into Back Cove.

The proposal calls for improved sheet drainage in the area of the multi-purpose field and soccer field.

Rev. 0

7. *Construction Plan - Sequencing and Approximate Dates:*

Sequencing for the project:

- Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .
- Strip, stockpile and protect topsoil as necessary.
- Perform demolition and rough grading.
- Mulch all exposed soil within 7 days of soil disturbance.
- Install irrigation system and underdrain system at multi-purpose field and soccer field.
- Install aggregate base, loam and sod on soccer field.
- Install sub-surface stormwater system and related erosion control devices in parking lot area
  a. storm drain inlet protection
- Complete site construction work
  a. utilities
  b. parking lot-new curbing, reset curbing, bituminous paving
  c. plaza
  d. stretching area
  e. overlook and pier (if in Phase I)
  f. wetland boardwalk
  g. paths
  h. lighting
  i. aggregate base, loam and seed multi-purpose field
  j. amenities
  k. gateway piers
- Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.
- Install permanent planting in all exposed areas.
- Remove temporary erosion control measures.
- Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

Estimated Commencement Date for Construction: July 1999
Estimated Completion Date for Construction: September 1999

***Note: Because of the linear quality of the site, many aspects of the project can occur concurrently.

8. List of State and Federal Regulatory Approvals to which the Project is Subject:

- Maine Department of Environmental Protection (MDEP):
- Army Corps of Engineers:

See letter from Dana Souza for more information. Christopher Di Matteo, Landscape Architect for Portland Parks and Recreation, will be the primary contact for this aspect of the project.

9. Evidence of Financial and Technical Capacity to Undertake and Complete the Project:

- Owner: City of Portland
- Portland Parks and Recreation Department will invite bids and select a qualified and experienced contractor for the project

See letter from Dana Souza for more information.

10. Evidence of the Applicant's Title, Right or Interest in the Property:

See letter from Dana Souza

Rev.

11. Description of any Unusual Natural Areas, Wildlife and Fisheries Habitats or Archaeological Sites Located On or Near the Project Site, and Protection Methods:

As noted on the site plan, approximately four (4) acres of the site qualify as Coastal Wetland. As a result, the plan will have to undergo MDEP and Army Corps of Engineers application procedures. The proposal recommends a low-profile boardwalk that enters the wetland from the upland side and will provide several advantages, not only for visitors to the site but also for the benefit of the wetland:

Benefits of the Boardwalk:

1) the boardwalk provides an accessible path to an area that is of particular interest educational opportunities and for bird watching and observation of wetland flora and fauna (this area is of particular interest because of the variety of salt-tolerant and salt-intolerant plant communities)

2) the overlook is located far enough out in the wetland to allow visitors to experience its particular qualities, but allows generous space for flora and fauna to remain relatively undisturbed

3) the location of the boardwalk on the upland side of the wetland provides access and important educational opportunities in a manner that is as low impact as possible and in fact increases the educational opportunities of the project (i.e., provides the opportunity to explain why the boardwalk is positioned as it is).

4) providing a semi-permanent path in this area will reduce the number of people who are currently walking through the wetland

5) an increased presence of visitors in this area will decrease opportunities for vandalism, such as the riding of all-terrain vehicles (ATV's) in the wetland

Response to Standards and Regulations Listed in:

Land Use, Section 14-449 Land Use Standards *pp. 1302.1-1307*

1. *Principal and accessory structures:*

a. The structure shown on the site plan is more than 75' feet from the normal high water line of Back Cove. The siting for the building is the result of several factors:
1) After consulting with Parks and Recreation Department staff and City staff, it has been determined that the building should be in the general vicinity of where the storage and restroom facilities are currently located. The building should be close to the soccer field for storage purposes, and it should be accessible from the parking lot
2) This location satisfies the requirements listed above while remaining at or above the 100-year flood level. Siting the building here would require a minimum amount of grading to attain the necessary elevation requirements.
3) There was an aesthetic desire by the planning and design team to have the building relate more to the park than to the parking lot, thereby de-emphasizing the presence of the parking lot and not usurping any valuable parking spaces.
b. The first floor elevation shall be elevated at least one-foot six-inches (1'6") above the elevation of the 100-year flood.
c. All applicable permits will be obtained from local, state and federal levels before the construction of the boardwalk or overlooks. See letter from Dana Souza for more information

2. *Piers, docks, etc.. and other structures and uses extending over or beyond the normal high water line of a water body or within a wetland:*

The boardwalk and overlooks will adhere to all conditions described herein. In addition, the development of the construction drawings and technical specifications for these elements will be concurrent with Maine Department of Environmental Protection and Army Corps of Engineers permitting process, and will be reviewed and approved by City Staff throughout the process.

3. *Clearing of vegetation:*

See #2, above. This project will require minimal clearing, cutting and/or pruning and, because of the proposed planting, will result in a more healthy plant community than currently is found at the site. The only clearing will be for the purpose of constructing the low-impact boardwalk. Otherwise, there will be no cutting of trees or other vegetation.

4. Erosion and sedimentation control:

Erosion and sedimentation control measures will conform the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices. The proposal recommends hay bales and a silt fence used in conjunction to surround the construction site. The technique will provide a double layer of protection to the waters of Back Cove during the construction phase. A description and drawing of each method, as well as other relevant written information is included in this package.

The site planning principles of this project have also taken into account erosion and sedimentation control practices, such as:

- *fitting the development plan to the site* - no major changes are planned for this development that will alter the existing topography or drainage patterns of the site
- *preserving the existing natural drainage patterns and vegetation as much as possible* - see previous explanation
- *keeping the time period of soil disturbance short* - the sensitive nature of this site will be noted on the drawings and during pre-construction meetings with the contractor. In addition, the consulting landscape architect will ensure that these requirements are met during the construction process.
- *keeping disturbed areas small* - see previous description

5. Soils:

Soils in the project site are fill which is the result of the construction of I-295 in the late 1960's. No proposed uses for this project qualify as intensive land uses and therefore no soils report is included in this submission.

6. Water quality:

The project will adhere to this standard, without exception.

7. Archaeological sites:

The project consultants are currently investigating whether this site is on or adjacent to sites listed on, or eligible to be listed on, the National Register of Historic Places. If so, the project will be submitted to the Maine Historic Preservation Commission for review and comment at least 20 days prior to action being taken by the building authority.

8. Installation of public utility service:

Services to the proposed structure will be installed as per the requirements of this section. At this time, the design of the building has not been determined. Design

development will proceed with regular, periodic reviews by City staff, and all necessary permits will be acquired before any work begins.

9. *Roads and driveways:*
The proposal calls for a reduction of parking lot driveways from four (4) to two (2), and for the relocation of the two driveways as per the recommendation of the Traffic Engineer for the City of Portland. In a memorandum dated January 25, 1999, the City Traffic Engineer recommends that the two parking lot driveways be located "at least 150 feet on either side of the exit/entrance to the shopping mall so as to minimize conflicts with entering/exiting/turning vehicles utilizing Back Cove Park parking or the shopping mall." In a future phase, there will be minor realignment at the intersection of Baxter Boulevard and Preble Street Extension, as recommended in the Baxter Boulevard Report.

10. *Parking areas:*
The parking area will be improved as shown on the drawings and as noted in the Site Plan Review written statements. When finished, the paved parking area will be farther from the high water line of Back Cove than the current condition by approximately 18'.

11. *Stormwater runoff:*
Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

The proposed stormwater management plan will provide a filtration system for parking lot runoff. The vegetated strip between the parking lot and Back Cove will slow runoff and allow it to infiltrate into the soil. This process will greatly improve the quality of parking lot runoff that eventually enters the Back Cove. The proposal calls for improved drainage in the area of the multi-purpose field and soccer field. Overall, however, the proposal will not change the concept of the existing surface drainage.

12. *Agriculture:*
Not applicable to this project

13. *General site plan features:*
The proposal attempts to fully comply with conditions a - j described in this section.

ATTACHMENT C-1

BAKER DESIGN CONSULTANTS

04/06/99

Frank Liggett- LA
Richardson & Associates
Pepperell SquarePO Box 426
Saco, ME 04072

Subject: Wetlands Boardwalk
Back Cove Park- City of Portland

Dear Frank,

I have completed a preliminary review of the Wetlands Boardwalk. The attached sketch indicates my recommendations for the structure. Key items are noted below with some discussion of the alternatives.

1. Loading- I have used a design live load of 50 psf. which is reasonable for the walkway. This will be increased to 100psf at the overlook.

2. Decking- 2 x 6 Composite decking (Trex –or equal) is recommended. 2 x 4 pressure treated Southern Yellow Pine No. 1 will work but will not be as long lasting. The decking must be supported at 24" (max) on center in order to achieve a 50-psf live load capacity.

3. Deck Beams- 3 beams are required to support the 6'-0" wide walkway. I have indicated some options on the sketch depending on the walkway span. The best way to support these members is to stagger/overlap the beams at the support. This makes for a simple connection detail that tolerates field span and angle differentials.

4. Foundation- I recommend the solid concrete bent be used instead of three (3) sonotubes. This is much more stable against lateral loading and effectively anchors the walkway during flooding. They could be precast off site and placed with minimal excavation by a wetland backhoe fitted with a narrow bucket. There would be no differential settlement in the walkway at each sonotube bent location.

Please call with any questions.

Sincerely,

BAKER DESIGN CONSULTANTS, Inc.

BJB

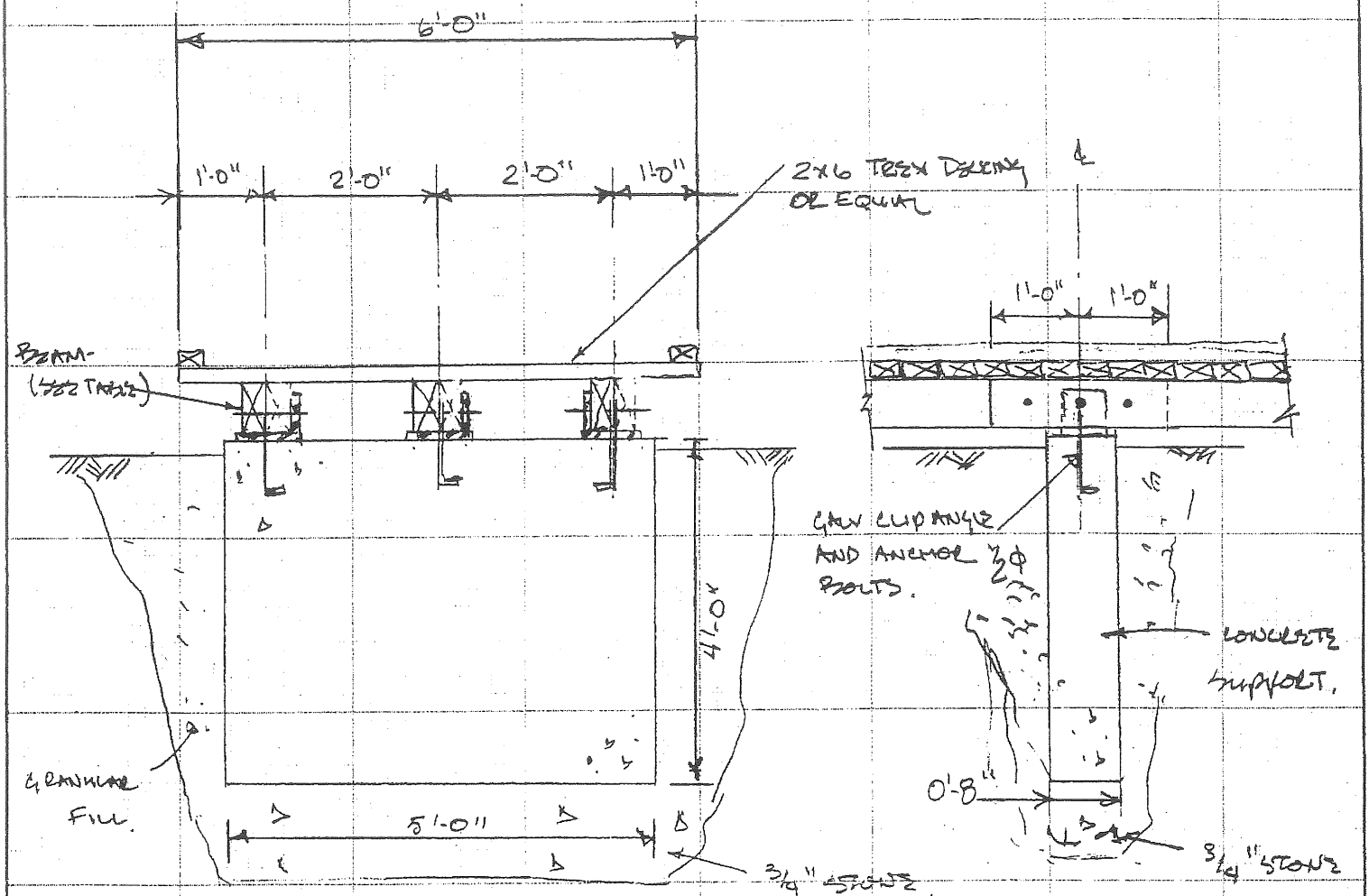
Barney Baker PE
JN: 99008

Copy w/Enc.
Christopher Di Matteo- LA, Portland Parks and Recreation

11 STONY BROOK LANE, YARMOUTH, ME 04096 PHONE (207) 846-9724 FAX: (207) 846-3620 EMAIL: bakerdesign@compuserve.com

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park — SHEET NO. 1 OF 1
CALCULATED BY BSB — JOB NO. 99008 C-2
CHECKED BY — DATE
ITEM WETLAND BOARDWALK DESIGN



PIER ELEVATIONS

WT = 4'x5'x8/12 = 2000 lbs.

BEAM SPAN TABLE

SPAN	COMPOSITE BEAM	SOUTHERN YELLOW PINE
8'-0"	PSL-PT 1.75"x5.5"	2x8 PT
10'-0"	PSL-PT 1.75x7.25"	6x6 PT No.1
12'-0"	PSL-PT 1.75x.9.25"	6x8 PT No.1
	2.0E 2900 Fb	

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 C-3

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Post-it® Fax Note 7671	Date 22 MAR	# of pages ▶ 5
To FRANK LIGGETT	From BARNEY BAKER
Co./Dept. RICHARDSON	Co. BDC
Phone # 284-9139	Phone # 846-9224
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To: Stephen Rabasca
Peterson-Rabasca GeoEngineers
46 Main Street
Yarmouth, ME 04096

FILE COPY

From: Barney Baker, PE

Date: March 19, 1999

Subject: Pedestrian Marine Overlook- Back Cove Park- City of Portland

Copy: File, Frank Liggett-Richardson & Associates, Chris Di Matteo-Portland Parks and Recreation

Job No: 99008

TRANSMITTAL

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Attached are draft sketches for the proposed pier structure and an incomplete outline of design parameters needed to analyze the pier. As per our discussion, I hope your pending geotechnical fieldwork will allow you to define the Soil/Pile parameters.

The sketches identify 3 elements of the pier construction that require geotechnical input.

1. Abutment/retaining wall- This structure retains/supports the landward side of the elevated Boardwalk and provides a solid base for granite blocks above. I anticipate a reinforced concrete retaining wall structure with spread footing

2. Marine Overlook. Timber pile with composite deck. The geometry requires extra piles. To limit exposure to ice, no intertidal bracing is proposed. To resist lateral loads, batter piles are indicated.

3. Connecting Walkway. Each bent consists of two (2) piles. The structure is in the shadow of the Overlook and is therefore somewhat protected from ice buildup. Intertidal bracing is anticipated.

Please comment on the suitability of the proposed structure support at this site and tailor the pending field exploration to best determine design values.

Please call with any questions on the information provided.

March 19, 1999
DRAFT

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Pedestrian Marine Overlook- Back Cove Park
City of Portland Parks and Recreation

STRUCTURE DESIGN PARAMETERS

Applied Loading

Live Load	Walkway	85 psf
(Pedestrian)	Overlook	100 psf
	Boardwalk	100psf
Wind Load	Basic Speed	100 MPH
	Max Pressure	50 psf
Ice Load	shear strength	100psi (assumes fractures and breakup due to tidal action)
	density	50 pcf
	thickness	6 inches

Soil/Pile Parameters

Abutment	Bearing
	Backfill
Piles	Shear Friction
	End Bearing
	Downdrag
	Pile Penetration

Based on the above parameters and proposed pile spacing, typical pile loads are outlined below. Refer to the attached sketch for point of application.

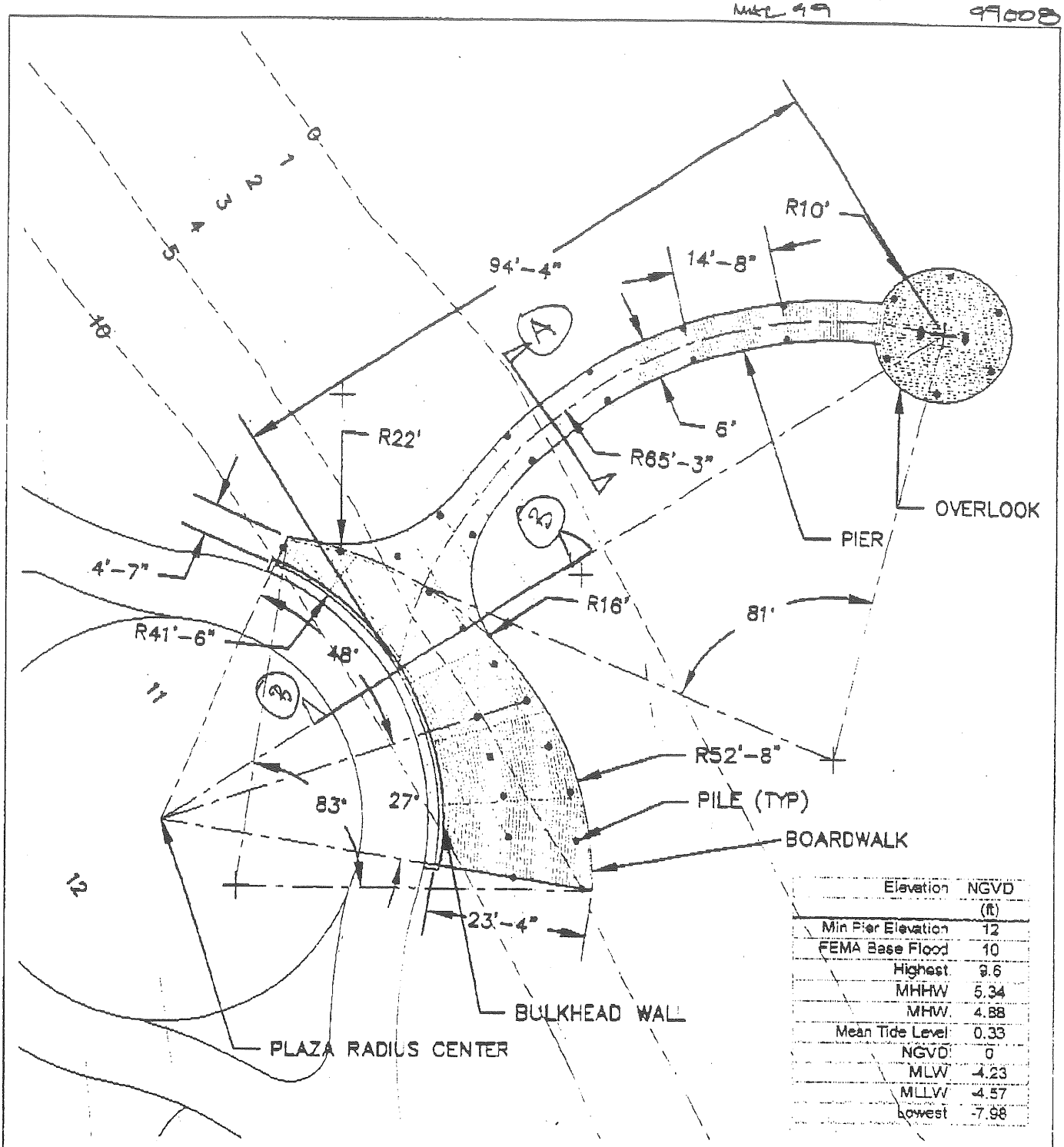
LOAD TYPE	PILE LOAD		POINT OF APPLICATION	
	Axial (kips)	Lateral (kips)	Elevation	Notes
Dead	.5 to 1.5	-	10.0	Deck self wt/Top of Pile
Live	2.5 to 3.5	-	10.0	Pedestrian/Top of Pile
Ice load	2.5 to 5.5	3.6	-5.0 to 5.0	Tidal Zone
Ice uplift	-2.5 to -5.5	NA	-5.0 to 5.0	Ice block (10'-15') sq. x 6" thick

Preliminary
Mar 99

1 of 3

C-5

99008



Elevation	NGVD (ft)
Min Pier Elevation	12
FEMA Base Flood	10
Highest	9.6
MHHW	5.34
MHW	4.88
Mean Tide Level	0.33
NGVD	0
MLW	-4.23
MLLW	-4.57
Lowest	-7.98

PURPOSE Boardwalk, Pier, Overlook

PIER GEOMETRY

1"=20'-0"

APPLICANT Parks & Recreation
17 Arbor Street
Portland, ME 04103

PROJECT
BACK COVE PARK
CITY OF PORTLAND

COUNTY OF CUMBERLAND

DATE MARCH 99

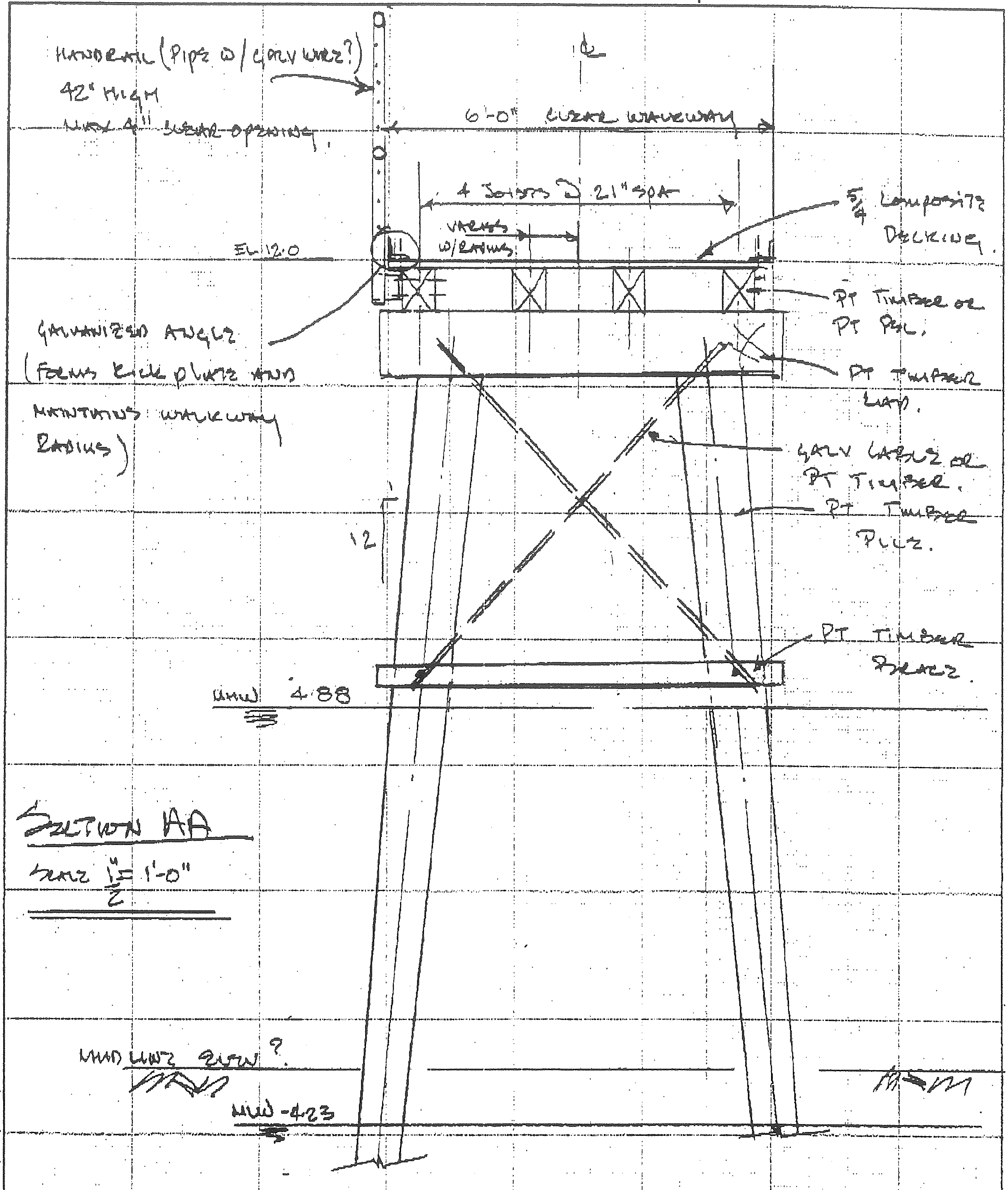
SHEET NO. 1 OF 3

Baker Design Consultants
11 Stony Brook Lane Yarmouth, ME 04096 (207) 846-4724

3C-6

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park SHEET NO. 2 OF 3
JOB NO. 99008
CALCULATED BY BSB DATE MAR-99
CHECKED BY DATE
ITEM Preliminary Pier Section

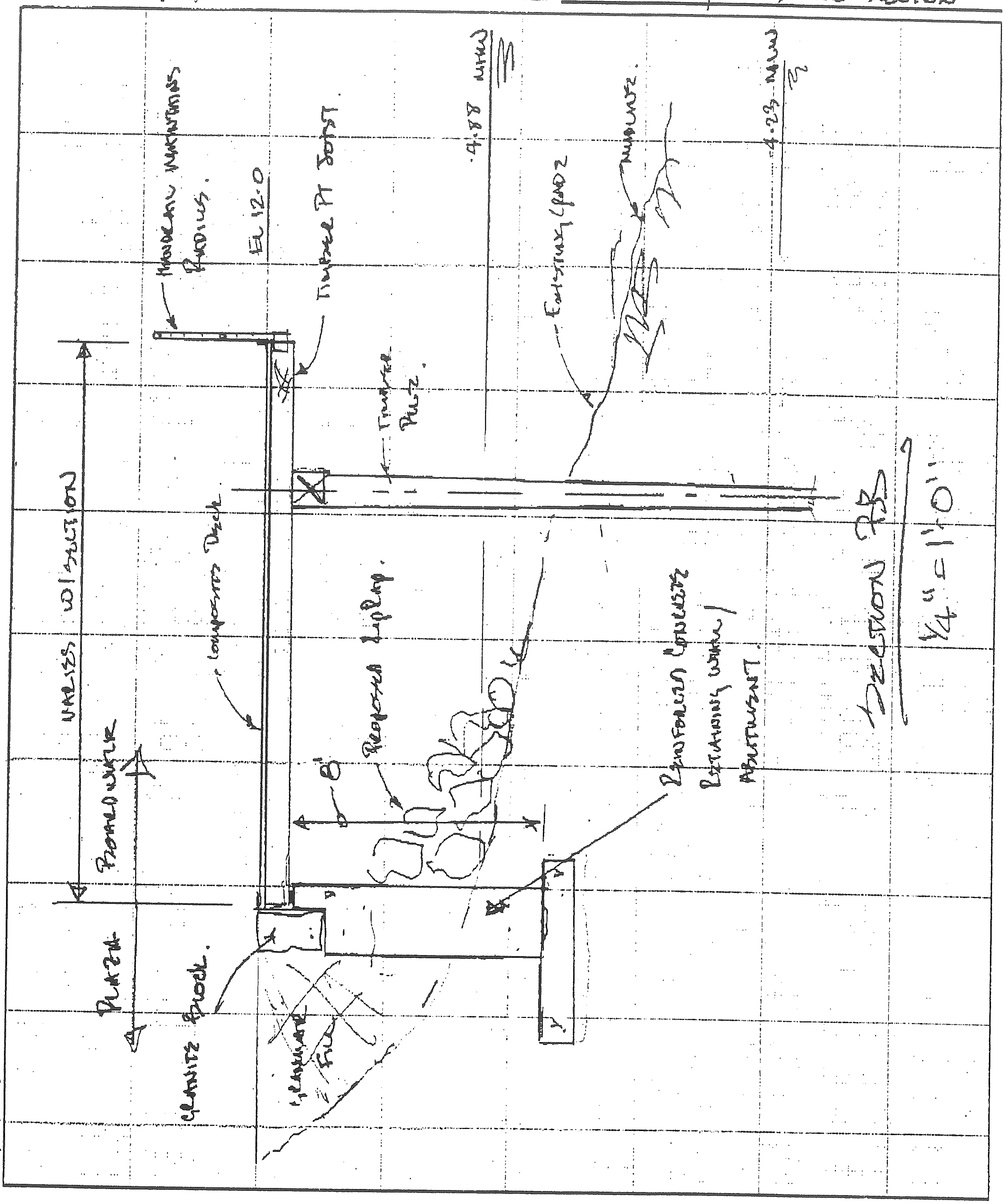


E:/BDC/ACAD/DRWGS/CALC2

C-7

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB: Back Cove Park
SHEET NO. 3 OF 3
CALCULATED BY: RRB
JOB NO. 98009
DATE: Mar 99
CHECKED BY:
DATE:
ITEM: Preliminary Boardwalk Section



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BACK COVE PARK
Portland, Maine

March 22, 1999

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

BACK COVE PARK
Portland, Maine

March 22, 1999

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices. Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet. with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1/3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used (refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

3.19.99

C-17

BACK COVE PARK
STORMWATER MANAGEMENT PLAN

Introduction

This stormwater management plan has been prepared for Richardson & Associates for the construction of a parking lot at the proposed Back Cove Park in Portland, Maine. The proposed park is located between Preble Road Extension and Back Cove. The area associated with this analysis is an approximately 1.39 acre parking lot for the proposed park.

Stormwater Runoff Analysis

Methodology

Stormwater runoff calculations for the site were prepared using the Rational Method. This method was chosen because it is more appropriate in estimating the runoff from small homogeneous areas. A 25 year storm frequency was used as the basis for this analysis as required by the City of Portland's design standards.

Hydrology

The Rational Method estimates runoff rates based on the following formula:

$Q = CiA$ where

- Q = (peak) rate of runoff in cubic feet per second (cfs),
- C = runoff coefficient which is dependent on the characteristics of the drainage area (land use/cover),
- i = average rainfall intensity in inches per hour and
- A = drainage area in acres.

Because the majority of the area is going to be paved, the value of C was calculated assuming all impervious area.

Rainfall intensity is determined from historical data published in the form of Intensity – Duration – Frequency (I-D-F) Charts. For this project, rainfall intensities were based on historical data established for Portland, Maine, for a 25 year frequency. The I-D-F chart is included in the calculations.

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.19 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

SQUAW BAY CORP.
Consulting Engineers
P.O. BOX 192, CUMBERLAND CENTER, ME 04021

C-19

JOB NO. 99.232
SHEET NO. 1 OF 1
CALCULATED BY SMT DATE 3-17-99
CHECKED BY DATE
SUBJECT Drainage Areas
SCALE 1"= Rational Method

CB #1
A= 13584 S.F = 0.31 Ac
i = 6.2
C = 0.9
Q = CiA = (0.9)(6.2)(0.31) = 1.73 cfs

CB #2
A= 18544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #3
A= 2827 S.F. = 0.06 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.06) = 0.33 cfs

CB #4
A= 18544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #5
A = 19317 S.F = 0.44 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.44) = 2.46 cfs

C-20

Pipe No. (1)	Location (2)	CB Manhole No. From (3)	CB Manhole No. To (4)	Length (ft) (5)	Tributary Area Increment (acre) (6)	Tributary Area Total (acre) (7)	Time of Flow To Upper End (min) (8)	Time of Flow In Section (min) (9)	Σ Time Impervious Area (min) (10)	C	i	Total Runoff (cfs) (12)	Slope of Sewer (13)	Diam (in.) (14)	Capacity Full (cfs) (15)	Velocity Full (fps) (16)	Design Flow Velocity (fps) (17)	Design Flow Velocity Head (ft) (18)	Design Flow Depth of Flow (ft) (19)	Design Flow Total Energy Head (ft) (20)	Manh Loss Transit + Cu + Junc (ft) (21)
					0.44	0.44	5	—	5 min	0.9	6.2	2.46									
L_1		5	4	236				1.26					0.0034	12	2.46	3.13					
					0.43	0.87	5		6.26	0.9	5.7	4.46	Use	15"	S=0.00	3					
L_2		4	2	238				1.57					0.0023	18	4.46	2.52					
					0.06 0.43	1.36	5		6.57	0.9	5.4	6.85									
L_3		2	1	218				0.34					0.003	18	6.85	3.88					
					0.31	1.67	5		5.94	0.9	5.8	8.72									
L_4		1	0	62				0.21					0.0049	18	8.72	4.93					
									5.21	0.9	6.1	9.17									

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 2

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	7.59 cfs

Computed Results:

Full Flow Channel Slope	0.0037 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	4.30 fps
Flow Area.....	1.77 sf
Critical Depth....	1.07 ft
Critical Slope....	0.0051 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	7.59 cfs
QMAX @.94D.....	8.16 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 3

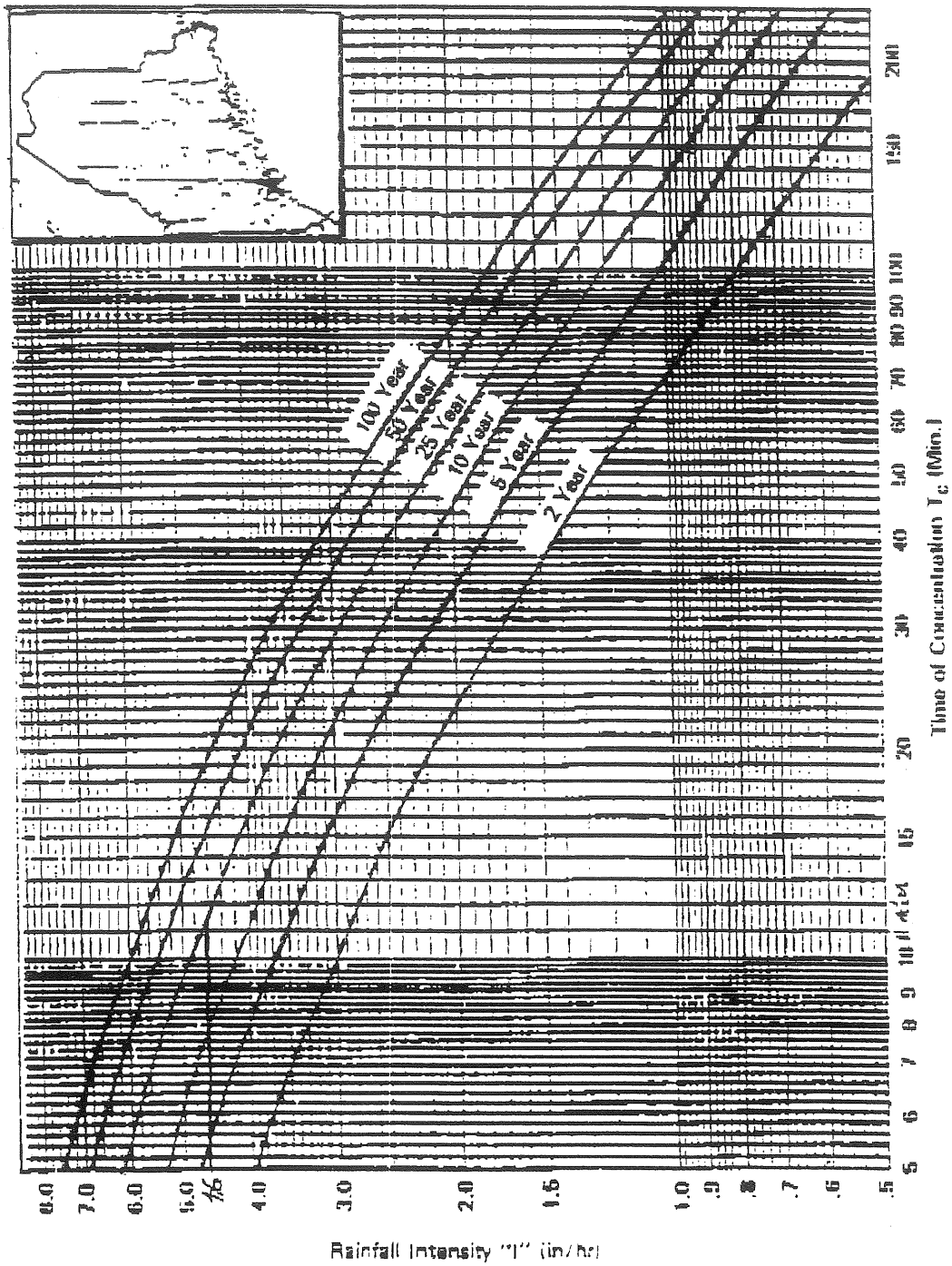
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	0.36 cfs

Computed Results:

Full Flow Channel Slope	0.0000 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	0.46 fps
Flow Area.....	0.79 sf
Critical Depth.....	0.25 ft
Critical Slope.....	0.0040 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	0.36 cfs
QMAX @.94D.....	0.39 cfs
Froude Number.....	FULL



IDF CURVE FOR CITY OF PORTLAND
(Rational Method)

Figure 12-12

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 4

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	4.85 cfs

Computed Results:

Full Flow Channel Slope	0.0015 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	2.74 fps
Flow Area.....	1.77 sf
Critical Depth....	0.85 ft
Critical Slope....	0.0041 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	4.85 cfs
QMAX @.94D.....	5.22 cfs
Froude Number.....	FULL

Open Channel Flow Module, Version 3.11 (c) 1990
Haestad Methods, Inc. * 37 Brookside Rd * Waterbury, Ct 06708

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 5

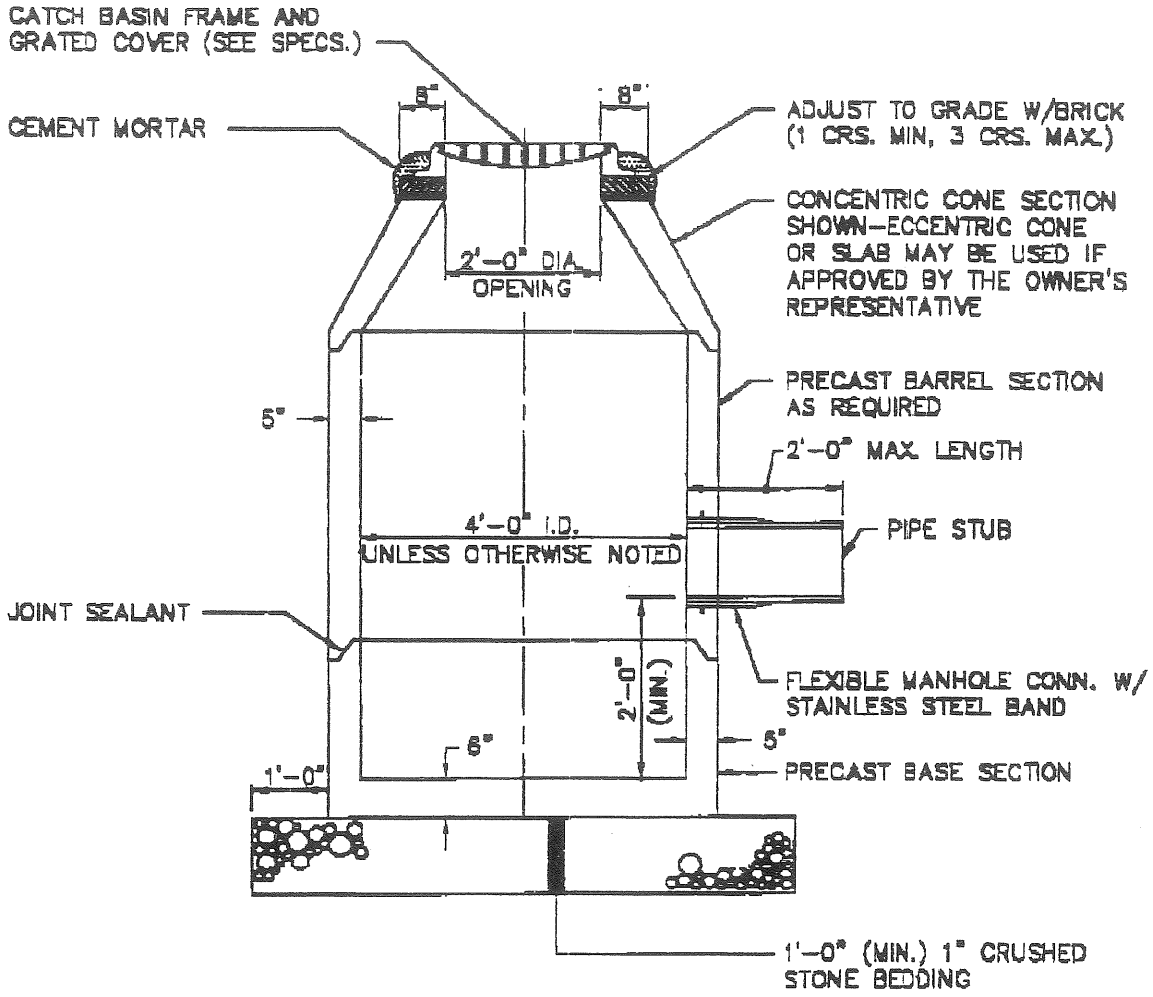
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	2.47 cfs

Computed Results:

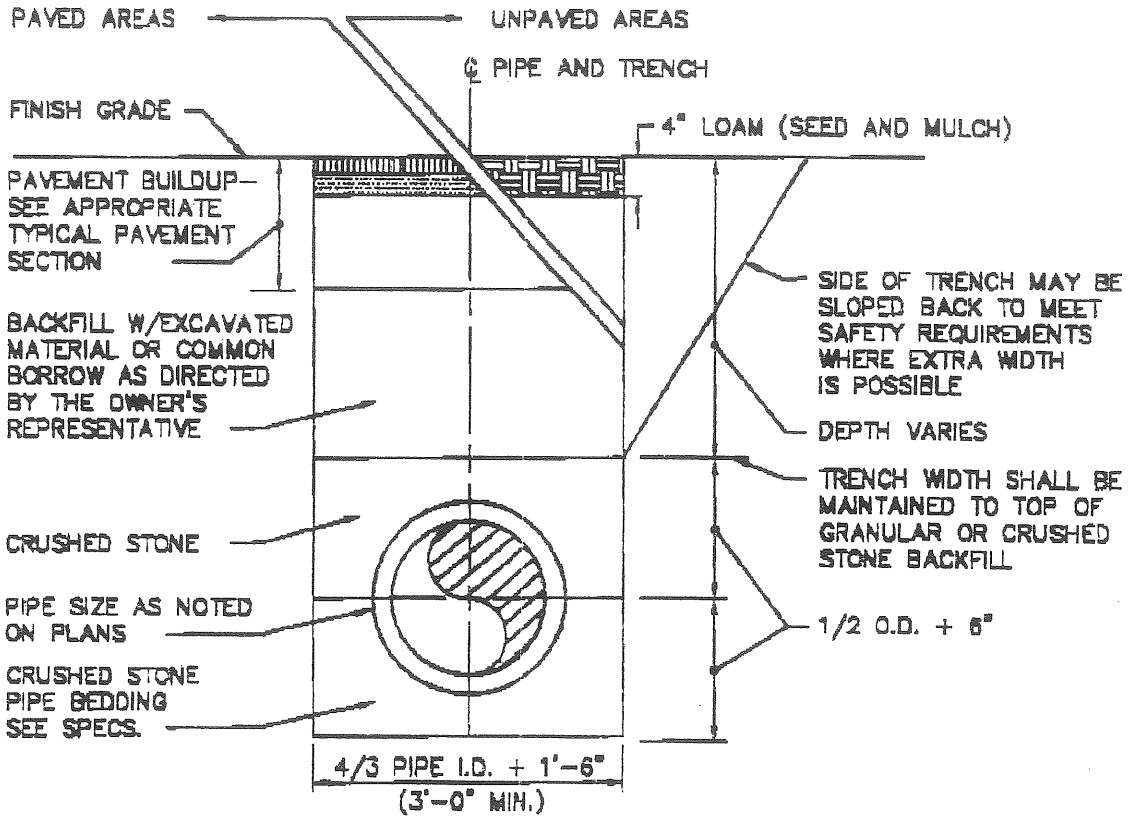
Full Flow Channel Slope	0.0034 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	3.14 fps
Flow Area.....	0.79 sf
Critical Depth....	0.67 ft
Critical Slope....	0.0054 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	2.47 cfs
QMAX @.94D.....	2.66 cfs
Froude Number.....	FULL



TYPICAL CATCH BASIN

N.T.S.

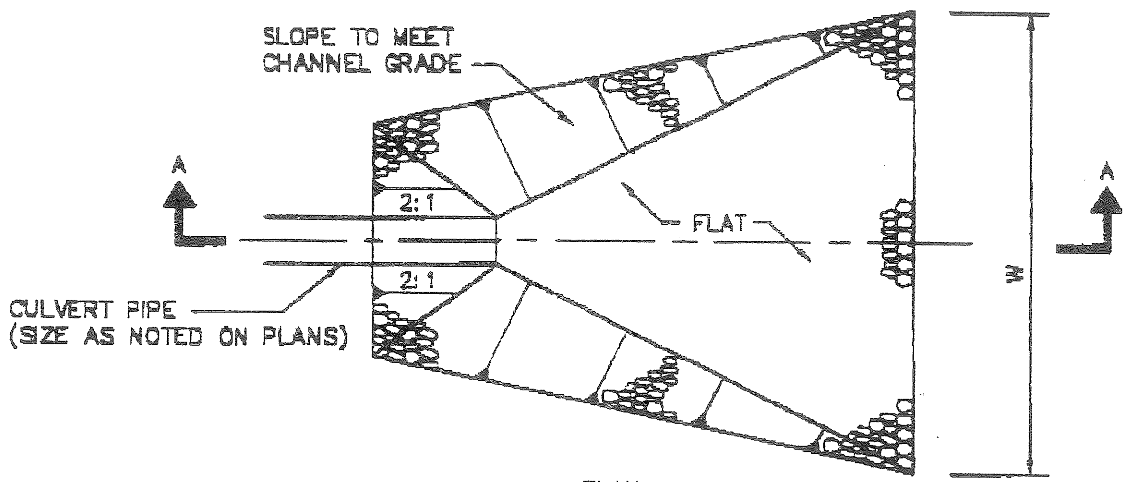
Squaw Bay Corp Consulting Engineers Land Surveyors	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE	
		TYPICAL CATCH BASIN	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99–222 DWG. NO. C–300	REV.



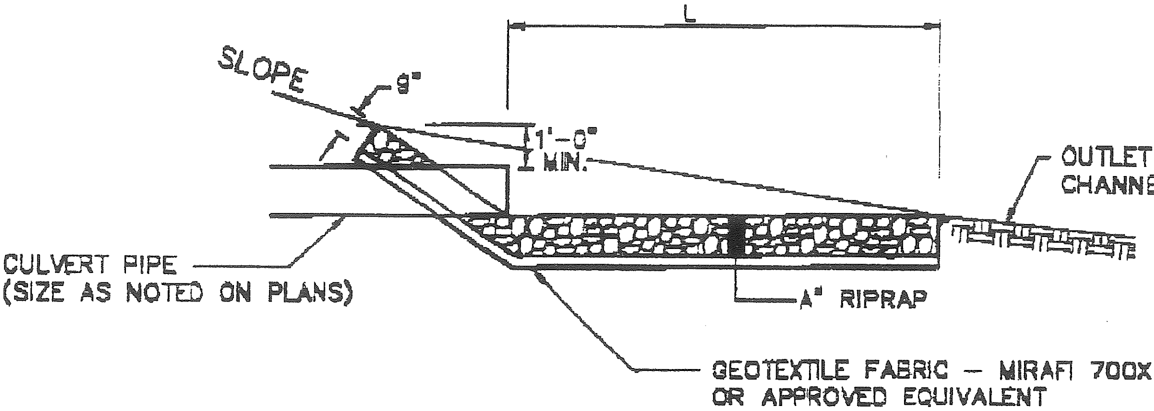
TYPICAL TRENCH DETAIL

N.T.S.

Squaw Bay Corp Consulting Engineers Land Surveyors	DESIGN WSD	PROJECT	BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE
	DRAWN SMT		
	CHKD WSD		PIPE TRENCH DETAIL
RICHARDSON & ASSOCIATES P.O. BOX 428, SACO, MAINE 04072	MARCH 1999	PROJ. NO.	99-222 REV.
	SCALE N.T.S.	DWG. NO.	C-301



PLAN



SECTION A-A

DIAMETER	L	W	A	D_{50}
18"	8'	5'	12"	5"

RIPRAP INLET/OUTLET PROTECTION

N.T.S.

Squaw Bay Corp Consulting Engineers & Land Surveyors	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE RIPRAP OUTLET PROTECTION	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-302	REV.

ATTACHMENT D

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
OPERATIONS/ENGINEERING - INSPECTIONS
M E M O R A N D U M

TO: Chris DiMatteo, Parks and Recreation
FROM: Larry Ash, Traffic Engineer LA
DATE: January 25, 1999
SUBJECT: A Traffic Signal at Back Cove Park

In response to a request for a traffic signal at the exit/entrance to the proposed Back Cove Park I can offer the following comments:

The Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, has been formally adopted by the State of Maine and all 50 states as the document which provides standards, criteria and guidelines for the installation of all traffic control devices on our streets and highways. The uniform and consistent application of these standards is most important to the road user. A standard device used where it is not appropriate is as objectionable as a nonstandard device.

There are 11 "signal warrants" contained within the MUTCD by which a traffic signal may be installed and which are based upon vehicular and pedestrian volumes, gaps in the traffic stream and accident history. The satisfaction of a warrant is not in itself justification for a signal installation as information should be obtained by means of engineering studies and compared with the requirements set forth in the warrants.

At Back Cove Park the installation of a traffic signal would be necessary only when existing conditions satisfy or meet the requirements of at least one signal warrant and cannot be installed based on what "might be" or conditions which have not yet been established.

At this time, I cannot recommend installation of a traffic signal at Back Cove Park. Further, it is my recommendation that the two proposed exits/entrances to the parking area be moved to at least 150 feet on either side of the exit/entrance to the shopping mall so as to minimize conflicts with entering/exiting/turning vehicles utilizing the Back Cove Park parking or the shopping mall.

Should anybody have any questions or comments regarding the traffic signal or other aspects relating to the Park, please call me at 874-8894.

LA:jw
cc: Robert B. Ganley, City Manager
Nadeen M. Daniels, Assistant City Manager
William J. Bray, P.E., Director of Public Works
Bruce A. Bell, Operations Manager
Dana Souza, Director of Parks and Recreation
Todd Richardson, Richardson & Associates

ATTACHMENT E

CITY OF PORTLAND

MEMORANDUM

TO: Rick Knowland, Planner

FROM: John Peverada, Parking Manager J.P.

DATE: December 3, 1998

RE: Preble St. Ext. Park/Parking Lot

While the plan to be presented to the Planning Board on Tuesday is aesthetically pleasing, I still have reservations about the number of parking spaces being provided. The present lot, as unattractive as it is, provides over 200 parking spaces, and is often full. The new plan only has approximately 170 spaces.

Assuming that the Eastern Promenade Trail will be connected to Baxter Blvd., and the improvements to the Boulevard, including the addition of a roller blade/bike lane are completed, I have to believe that **there will be an increased demand for parking** at the Preble St. lot which will not be met. In fact, many people from surrounding towns will probably drive there to bike, jog or walk. I know that people will be encouraged to park in the Marginal Way lot when this lot is full; however, they will do it under protest. I am also concerned that others will park in the Shop'n'Save lot and get towed. In any event, I have to believe that people are going to ask why the City didn't provide more convenient parking so everyone can easily enjoy the space.

Please do not misunderstand me; I like the concept, but I am concerned about the ramifications of people blaming the lack of parking on a project. Please feel free to pass this memo along to anyone you wish.

ATTACHMENT F-1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

MEMORANDUM

TO: Rick Knowland, Senior Planner

FROM: Jim Wendel, P.E. Development Review Coordinator

DATE: May 6, 1999

RE: Site Plan Review
Back Cove Park
Preble Street Extension

A review of the revised site plan dated 4/26/99 has been completed. We offer the following comments:

1. The demolition plan notes removal of a portion of the existing stone dust path of the Back Cove perimeter trail. We recommend that provisions be made for providing a construction schedule that minimizes or prevents disruption of the use of the path by the public.

2. MDOT has recently extensively revised their hot bituminous pavement specifications. They no longer use the Hveem design of grades A, B, C and D asphalt pavement mixes. The new mix is called "Superpave". Does the City want to use Superpave or continue to use the traditional mixes, if available? Recommend that the applicant's consultant research this change in hot bituminous pavement specifications within the industry. The impact of this change on the availability and cost of "traditional mixes" should be established.

3. It appears that a significant removal and shimming of the existing pavement is required to achieve the proposed grading of the parking area. We recommend that an additional plan be provided that notes detailed limits of pavement to be removed and areas to be shimmed to achieve the proposed grades. This will provide a clearer design for bidding and construction.

4. The City standard is to provide a 7" curb reveal with vertical curb. This standard will require that the length of tip-down curb is 7'.

5. Additional detail is needed for the underdrain system; i.e., pipe slopes and inverts.

6. Does detail "E"-Jumbo Cobble Stone Sidewalk require a sand swept joint?

7. The City standard catch basin uses a 3' sump; also the frame must be compatible with the size of the grate dimensioned in figure II-7, page II-10 of the City technical standard guidelines. Also, catch basins require Casco Traps.

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

F-2

8. The detail of the Vortechs model 7000 grit treatment tank appears too large a unit for this application. Is this size unit based on a preliminary design? Preliminary sizing calculations should be provided.

9. The storm drain outfall indicates an approximately 30' riprap channel. There is no detail for this design.

Should you have any questions please call.

Portland High School Soccer Boosters

June 1,1998

Mr. Dana Souza, Director of Parks and Recreation
City of Portland
17 Arbor St.
Portland, Maine 04103

Dear Mr. Souza:

With the tremendous growth in soccer at the Youth and particularly the High School age level, the number of participants atPortland High has nearly doubled over the past 5 years. At present we have six high school interscholastic teams - with only one safe playing field, Preble Street Field, for daily practices and 32 regular season games. Preble Street field is used for 14 field hockey games during the same Fall season. Moreover, the Portland Area Youth Soccer Association (" PAYSA"), (which provides a soccer program for elementary and middle school age students during the spring, summer, and fall) has over 600 participants.

Without additional safe playing fields, there are two negative situations that are occuring: Our teams are not able to practice on a daily basis (on most days we have to rotate 4 teams on 1 field for practice and 2 teams cannot practice) , and Preble St. Field is deteriorating rapidly because of the overuse. Five years ago with only 3 soccer teams playing, and Field Hockey using only Doherty field, Preble St. field was adequate as the only soccer site. In order to meet the requirements and demands of Portland's soccer growth, the City MUST immediately increase the number of facilities available for soccer.

The only solution to this intense pressure on Portland's playing fields is to repair Fox St. field and to retain and improve the Preble St. field open area to a safe condition and then develop another site, possibly Payson Park or Dyer Flats. Repair to Fox St. need not be grandiose nor expensive. Adding loam to reduce the many potholes and to level the field, and then seeding and watering would rejuevenate the field enough to allow it to be used as a practice site on a daily basis. The Preble St. field area alluded to above is the area directly in front of the existing soccer field. Although this area is smaller than regulation and could not be used as a game site, the area is an excellent one for practice, small sided games, and sufficient for primary age youth games. This area, however, is in its present state unsafe for use. The entire rectangle desperately needs large potholes filled, leveling, and new grass. This repair, again, is not a huge undertaking, but is one that can help our lack of space tremendously.

The development of another facility site for soccer fields is equally vital to any plan to improve the City's lack of playing field space. Portland should carefully examine the Payson Park, Dyer Flats area, and even the old Foundry Area between Cumberland Ave. and Marginal Way. By so doing, the City would be able to alleviate the overuse at Preble Street Field and Fox Street Field, and the needs of the hundreds of young soccer players in PAYSA would be accomodated.

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, Zoning Administrator
Tony Lombardo, Project Engineer
Development Review Coordinator
William Bray, Director of Public Works
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Inspection Department
Kathleen Brown, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

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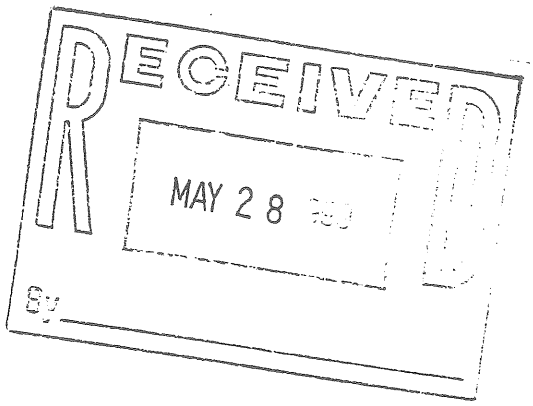
CITY OF PORTLAND, MAINE
PLANNING BOARD



May 13, 1999

Dana Souza
Director of Parks and Recreation
17 Arbor St.
Portland ME 04103

re: Back Cove Park Site Plan, Preble Street

Dear Mr. Souza:

On May 11, 1999, the Portland Planning Board voted on the following motions regarding the Back Cove Park Site plan located on Preble Street:

1. The Board voted 7-0 that the plan was in conformance with the site plan ordinance of the land use code, subject to the following conditions:

   i. Applicant shall submit to the planning office, DEP and Army Corps of Engineers permit applications and final approvals for this project.

   ii. That the plan shall be revised reflecting the comments of the Development Review Coordinator.

   iii. That a photometric plan for the light fixtures be submitted for planning staff review and approval.

   iv. That the site plan be revised reflecting the comments of the Friends of the Parks.

   v. That the two turn-arounds be eliminated from the site plan and replaced with parking.

   vi. That the guardrail by the "neck" along Preble Street (near the Baxter Boulevard intersection) shall be be relocated to the backside of the Preble Street curb, with the understanding that the path width be maximized.

2. The Board voted 7-0 that the plan was in conformance with the recreation-open space standards of the land use code.

3. The Board voted 7-0 that the plan was in conformance with the shoreland regulations of the land use code.

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The approved site plan includes improvements to the parking lot, pathways, landscaping, soccer field, and park amenities.

Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,

John H. Carroll, Chair
Portland Planning Board

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Memorandum

Portland Parks and Recreation

To: Joe Gray

From: Christopher DiMatteo

Date: Monday, June 26, 2000

Re: Back Cove Park, Planning Board Condition of Approval

CC: Robert Ganley, Alex Jaegerman, Rick Knowland, Larry Ash, Dana Souza, File

---

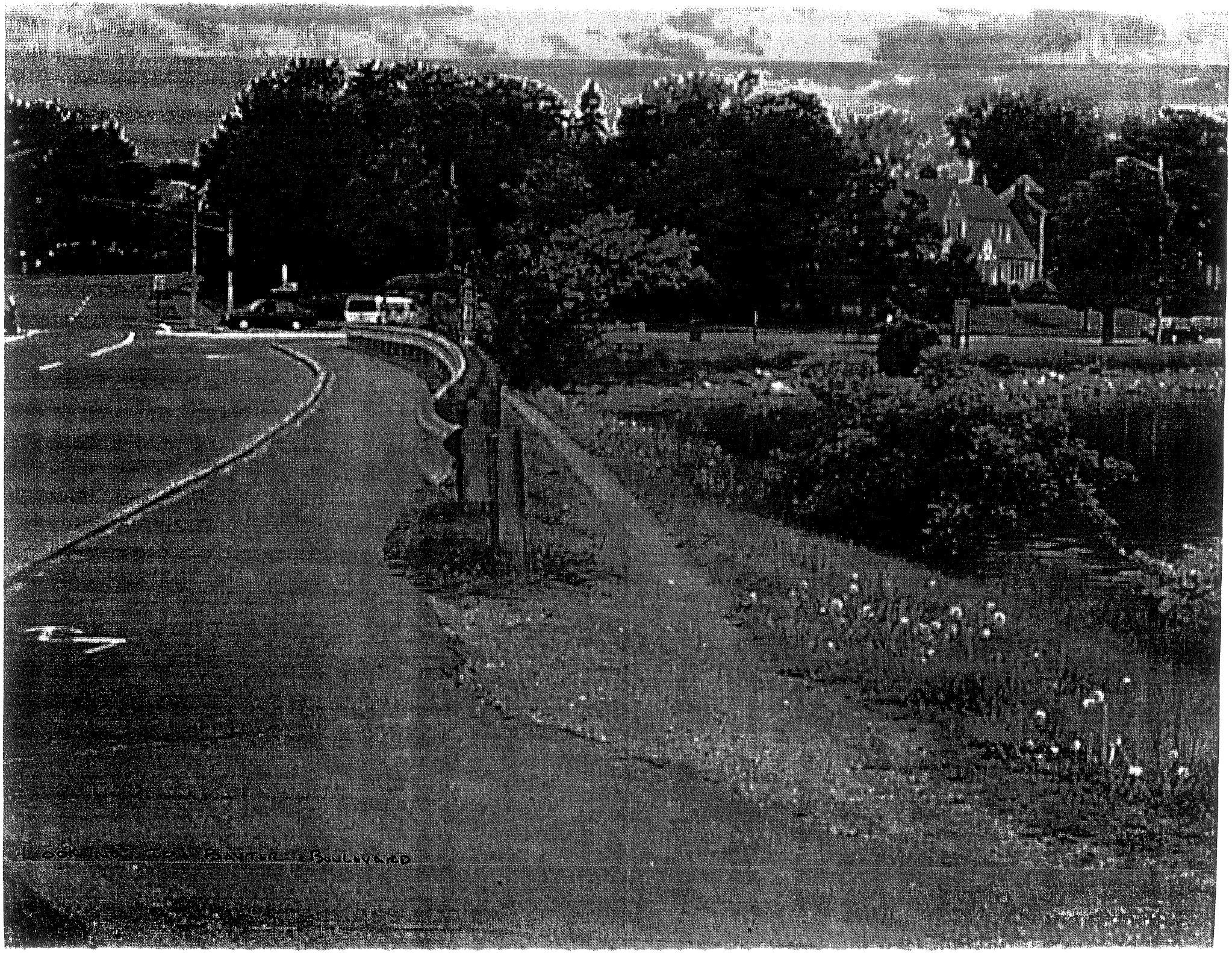
After meeting with Rick Knowland, it was suggested that the Department make a formal request to postpone one of the conditions of approval for Back Cove Park: **item vi.** regarding the guardrail at the intersection of Preble Street and Baxter Blvd. After reviewing of the planning board recommendation and the contract documents, relocating the guardrail along the curb at Preble Street and providing a new path adjacent to it appears to be unsafe. Specifically:

- After relocating the guardrail, the side that would be facing pedestrians and cyclists would be rough, sharp and unsafe needing covering that was not provided in the contract.
- The guardrail does not meet the safety specification required for bicyclists along public ways, this standard calls for a rail 4'-6" tall so a bicyclist does not topple over in case of a collision.
- At Larry Ash's suggestion DeLuca-Hoffaman investigated the need for a guardrail at this location and found that none is needed.
- Maine DOT was contacted since the area is in their ROW. They are amenable to no guardrail, however, they are very interested in a 5 to 6 foot fence being installed between the path and the waters edge. (A $4,375 cost)

With these facts in mind, we felt that it would not be money well spent to relocate the guardrail if it does not meet current safety codes. In addition we may not need it at all, and with regard to MDOT's requests, we do not have enough time scheduled or money left in this contract to address the fence.

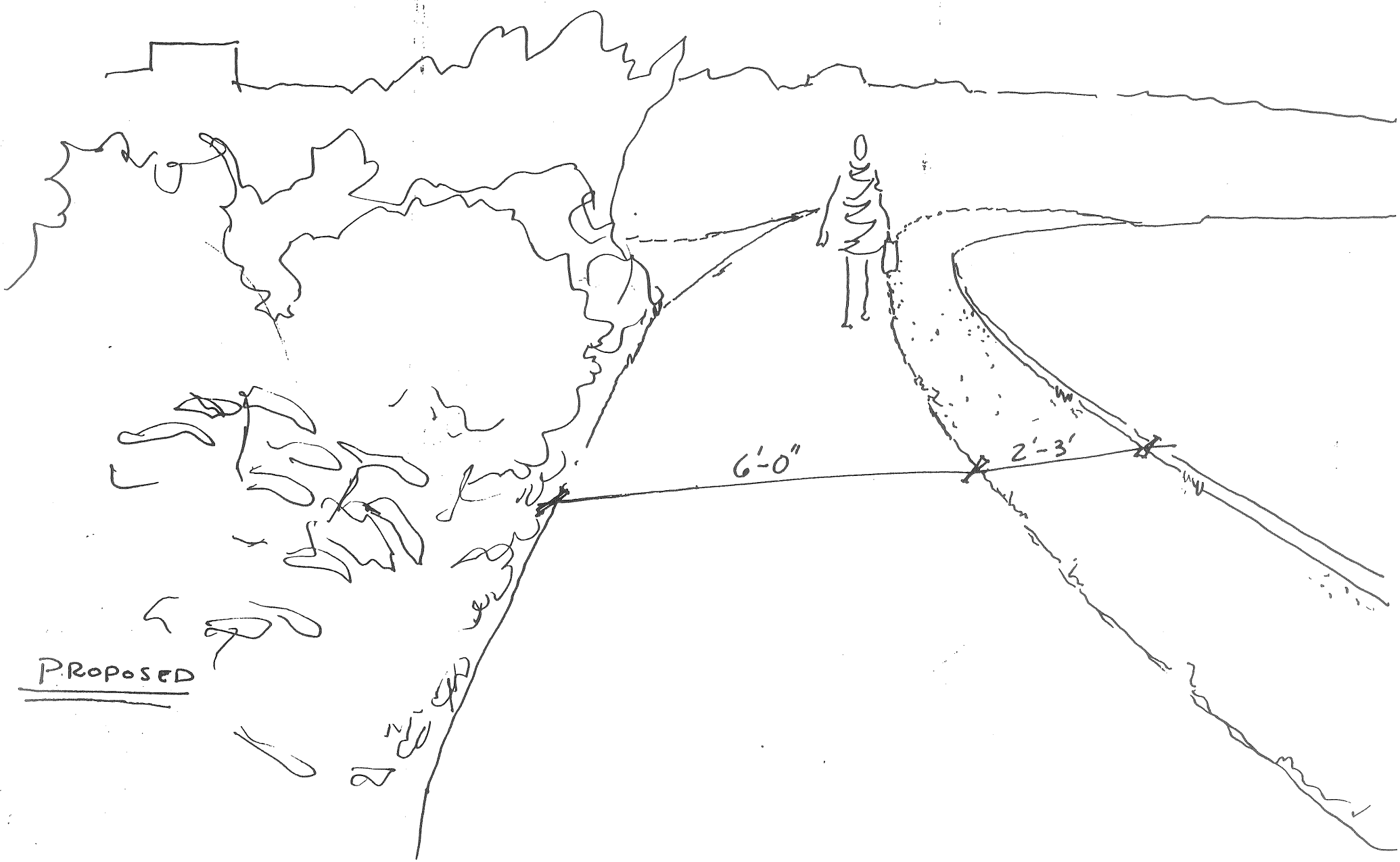
It is our hope that we can leave the guardrail as it exists and attend to it in the subsequent phases. There are plans to provide a more enhanced solution to this area so that a park character is maintained as you travel on the Back Cove path from Baxter Blvd. To Back Cove Park. I am confident that we can address the safety concerns brought up by the board in these subsequent phases. Please find attached some additional information regarding what I have outlined.

I appreciate your help in this matter.



LOOKING TOWARDS I-295

LOOKING TOWARD I-295



PROPOSED

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

June 2, 2000

Mr. Steve Howick
Portland City Hall
Department of Parks and Recreation
389 Congress Street
Portland, ME 04101

RE: **Back Cove**
Guardrail Warrant

Dear Steve:

You have asked that DeLuca-Hoffman Associates, Inc. investigate the need for a guardrail along a portion of the Back Cove walking path. The specific location is at the northeast corner of Preble Street at Baxter Boulevard. The City intends to replace the existing 4' bituminous walk with a 2 to 3 foot esplanade and 6' path. There is an existing guardrail and vertical granite curb along this section of roadway. The granite curb will remain but you have questioned the need for replacing the guardrail.

We have reviewed the AASHTO Roadside Design Guide and determined that this publication is applicable to roadway design speeds of 40 mph or more. Since the posted speed in this location is less than 40 mph, we have referred to the Maine DOT Highway Design Guide. Chapter 10 paragraph 1.06 refers to the need for clear zones in curbed sections as follows:

"On urban streets where curbs are provided, the minimum clear zone distance is 1.5 feet from the gutter line. Where both a barrier curb and sidewalk are present, the minimum clear zone distance is 1.0 feet from the face of curb. However, if practical, a 3-foot clear zone distance should be provided, especially at intersections and driveway entrances."

Since the City intends to maintain the barrier curb and provide greater than 3 feet clear distance behind the curb, no guardrail is needed.

Should you have any questions, please contact me.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Peter A. Hedrich, P.E.
Senior Engineer

PAH/ajs/JN1900.30/Howick6-1

c: Larry Ash

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, Zoning Administrator
Tony Lombardo, Project Engineer
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Lt. Gaylen McDougall, Fire Prevention
Inspection Department
Kathleen Brown, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

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Memorandum

Portland Parks and Recreation

To: Planning Board

From: Christopher Di Matteo

Date: Wednesday, July 19, 2000

Re: Back Cove Park: Guardrail Relocation

CC: Robert Ganley, Joe Gray, Alex Jaegerman, Rick Knowland, Larry Ash, Dana Souza, File

---

As stated in my June 26th memo to Joe Gray, the Department is requesting a postponement for the condition of approval for Back Cove Park; item vi. Relocation of existing guardrail to curb's edge at the intersection of Preble Street Extension and Baxter Boulevard.

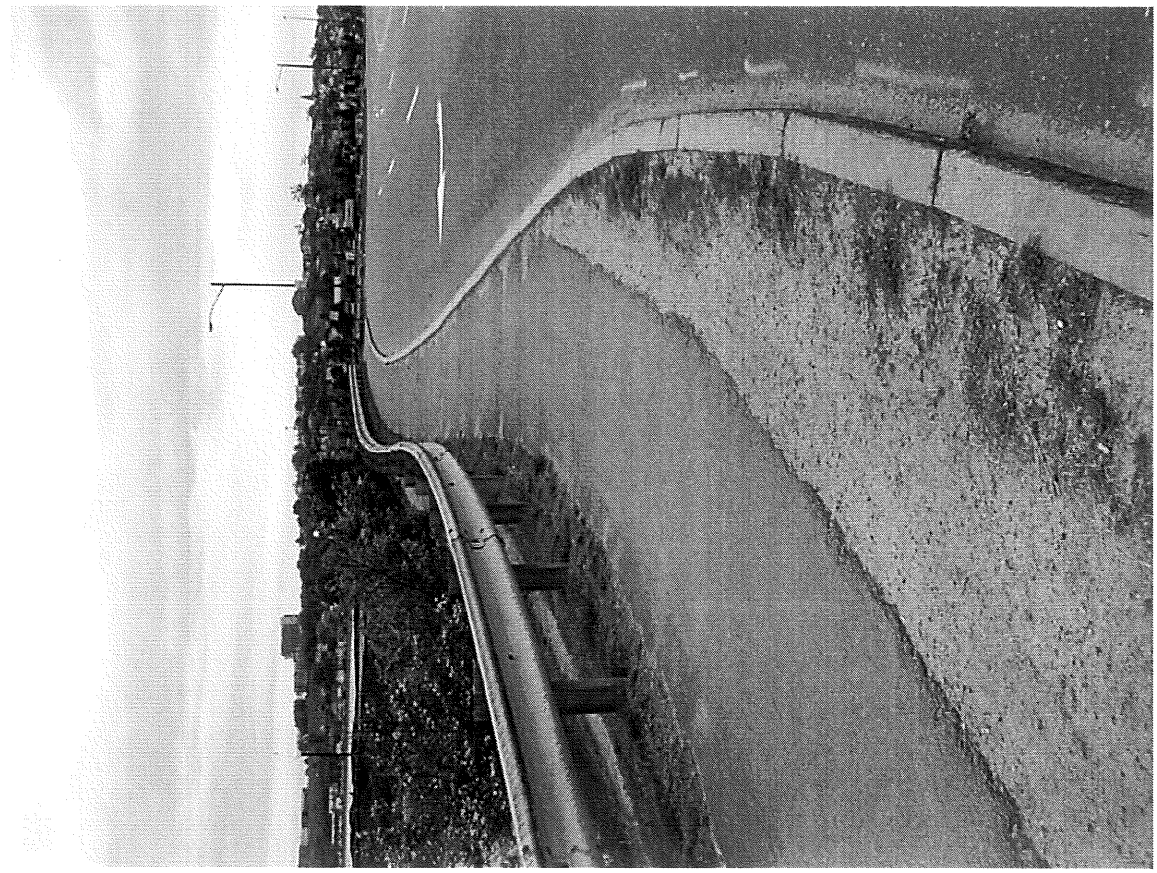
The intent of the condition, as I understand it, is to increase the level of comfort and safety for those walking/running/riding between the Baxter Boulevard path and the Back Cove path. This would be done by moving the guardrail to the curb allowing ample room for people to pass—not to be forced on the same side of the guardrail that the motor vehicles are on as with the situation that exists now.

This intent assumes that the guardrail is needed here at this location to keep vehicles from going into the Cove and if relocated to the curb's edge it would provide safety for motorists and park visitors alike. This is no longer the case; the guardrail is not needed at this location which is outlined in the June 2nd letter from Peter Hedrich from DeLuca-Hoffman Associates.

With this new information we thought that the situation would be better served by eliminating the guardrail, thereby eliminating the un-comfort passersby may have thinking about the potential of being pinned to the guardrail by an on-coming vehicle. Unfortunately the City does not have the authority to eliminate this guardrail because it is in a state ROW. Our first discussion with the State on this matter was agreeable with regard to the elimination of the guardrail; however, they are very interested in having a 5-6' high fence instead. I do not agree with their request.

This is in part, the reason for the postponement, we would like more time with MDOT to come to a better solution. In addition, outlined in my memo to Joe, the guardrail adjacent to the current and expected bicycle use does not meet safety standards.

The Department's intention is to remove the guardrail and to increase the vegetation on the slope, increasing the existing buffer, and in a future phase address the entire area in a capital improvement.



Memorandum

Portland Parks and Recreation

To: Joe Gray

From: Christopher DiMatteo

Date: Monday, June 26, 2000

Re: Back Cove Park, Planning Board Condition of Approval

CC: Robert Ganley, Alex Jaegerman, Rick Knowland, Larry Ash, Dana Souza, File

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After meeting with Rick Knowland, it was suggested that the Department make a formal request to postpone one of the conditions of approval for Back Cove Park: **item vi.** regarding the guardrail at the intersection of Preble Street and Baxter Blvd. After reviewing of the planning board recommendation and the contract documents, relocating the guardrail along the curb at Preble Street and providing a new path adjacent to it appears to be unsafe. Specifically:

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I appreciate your help in this matter.

LOOKING TOWARD I-295

PROPOSED

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL 207 775 1121
FAX 207 879 0896

June 2, 2000

Mr. Steve Howick
Portland City Hall
Department of Parks and Recreation
389 Congress Street
Portland, ME 04101

RE: **Back Cove**
Guardrail Warrant

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Senior Engineer

PAH/ajs/JN1900.30/Howick6-1

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Portland Parks and Recreation

To: Planning Board

From: Christopher Di Matteo

Date: Wednesday, July 19, 2000

Re: Back Cove Park: Guardrail Relocation

CC: Robert Ganley, Joe Gray, Alex Jaegerman, Rick Knowland, Larry Ash, Dana Souza, File

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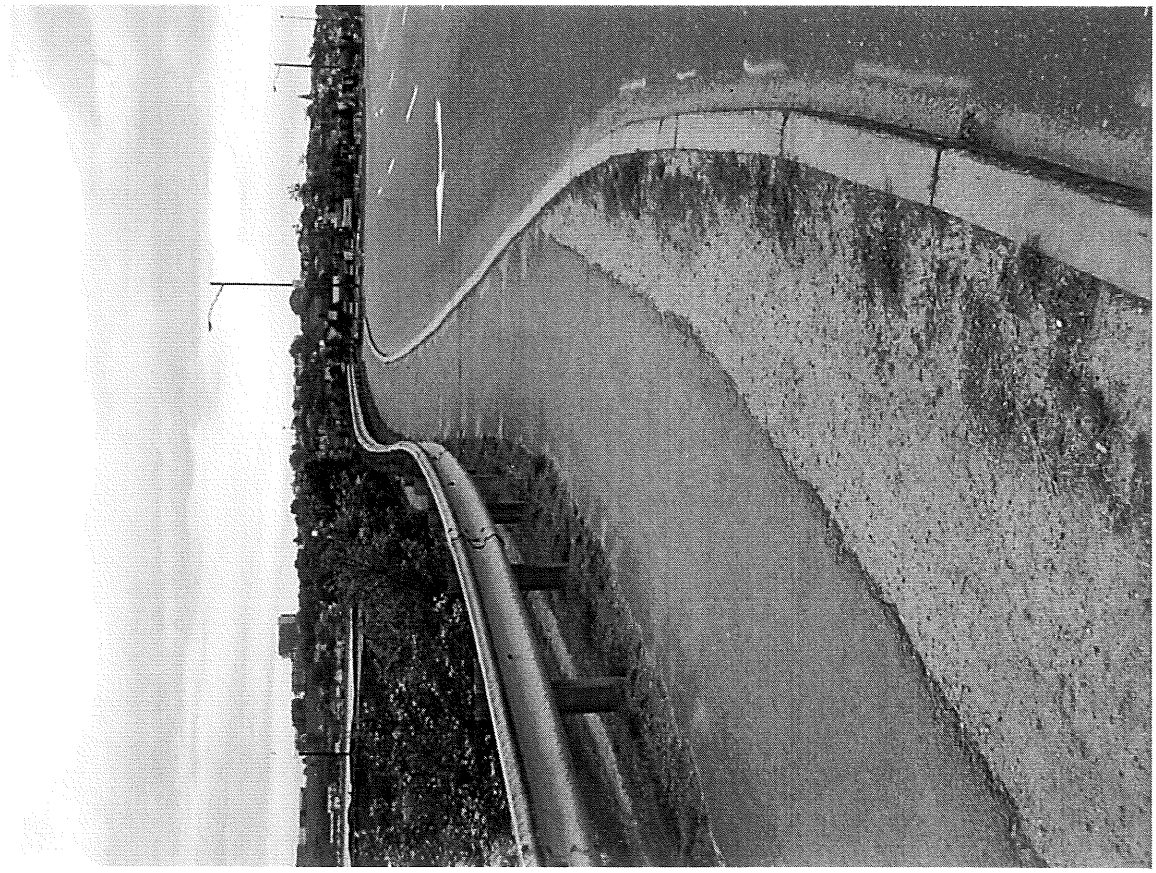

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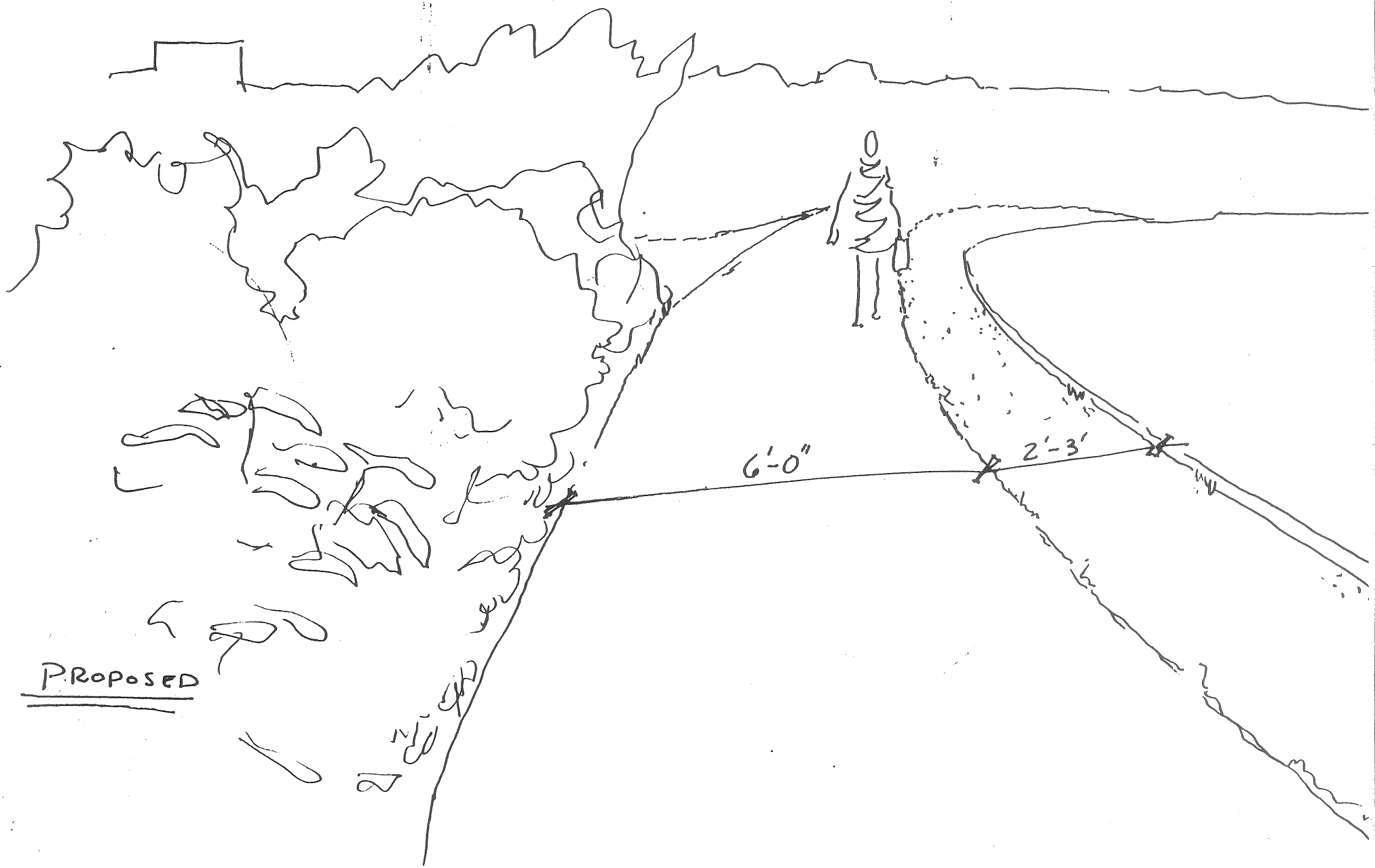

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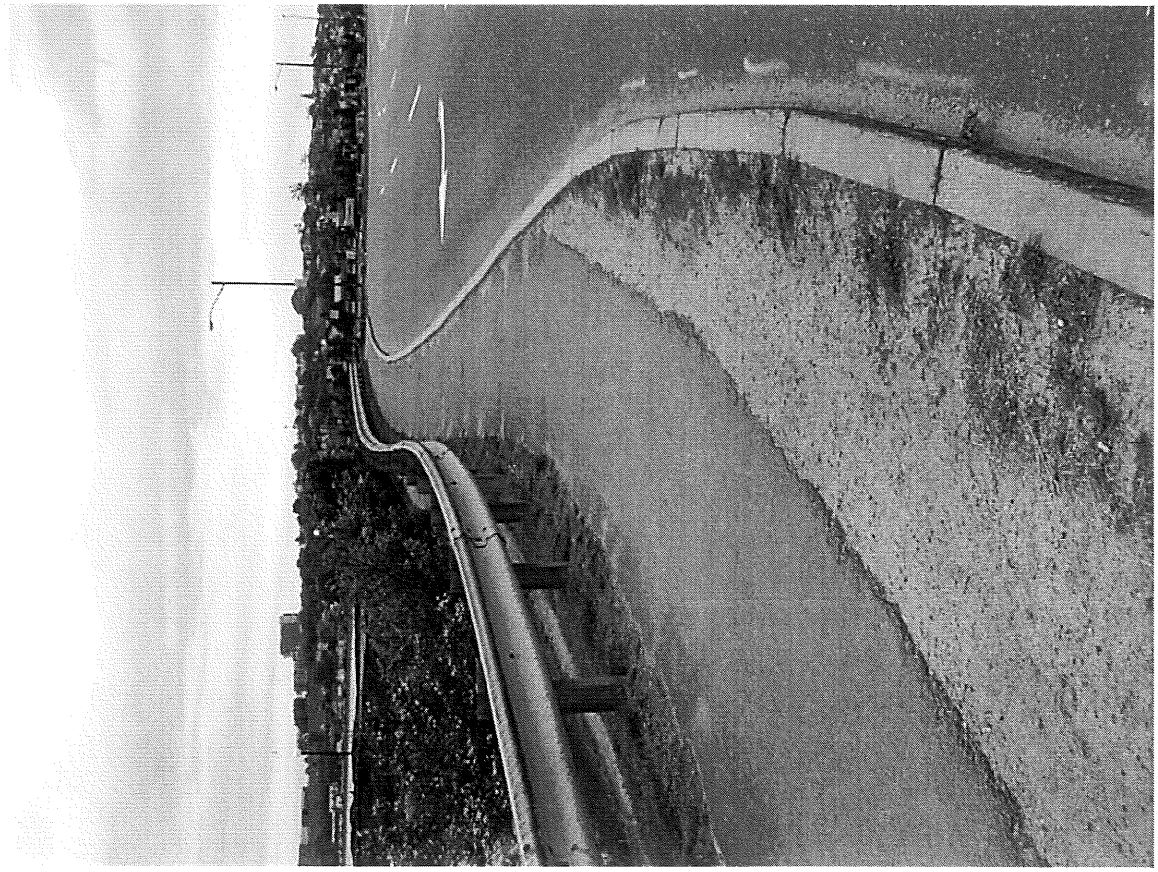

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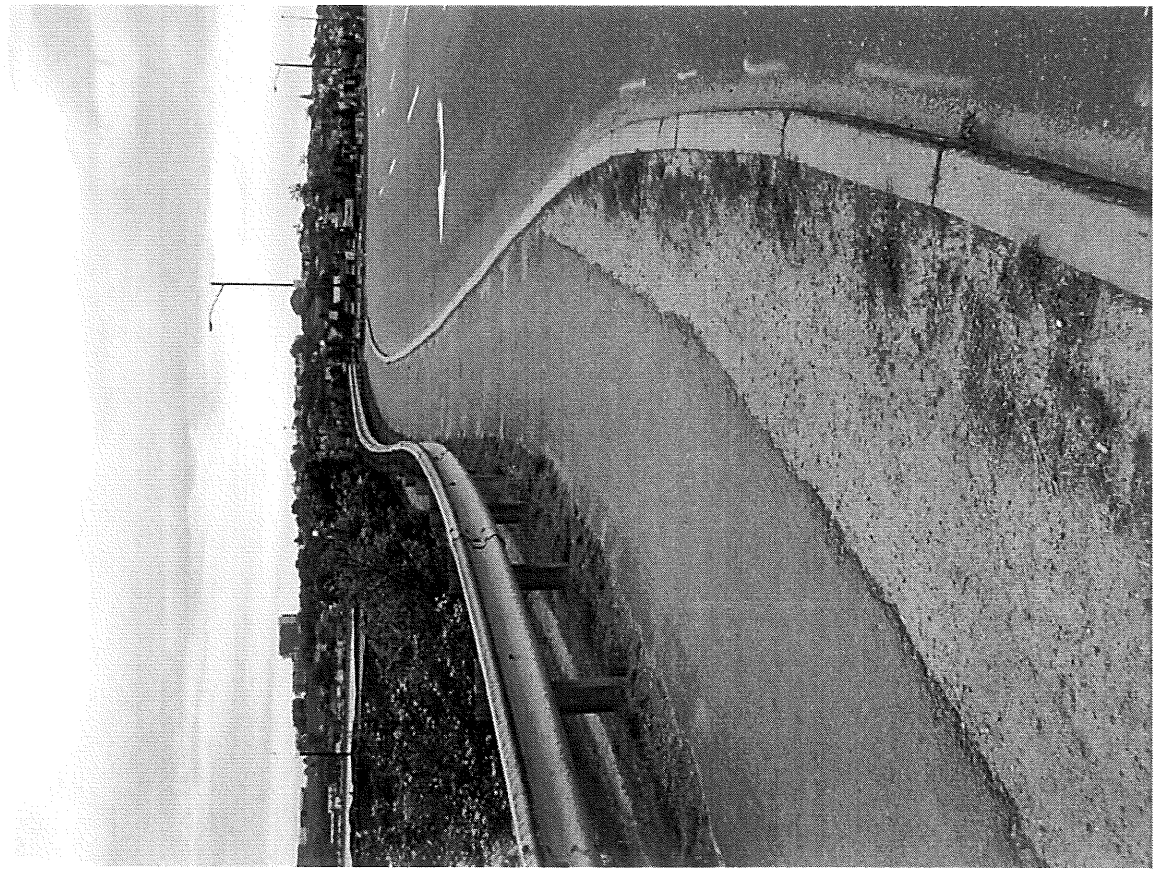

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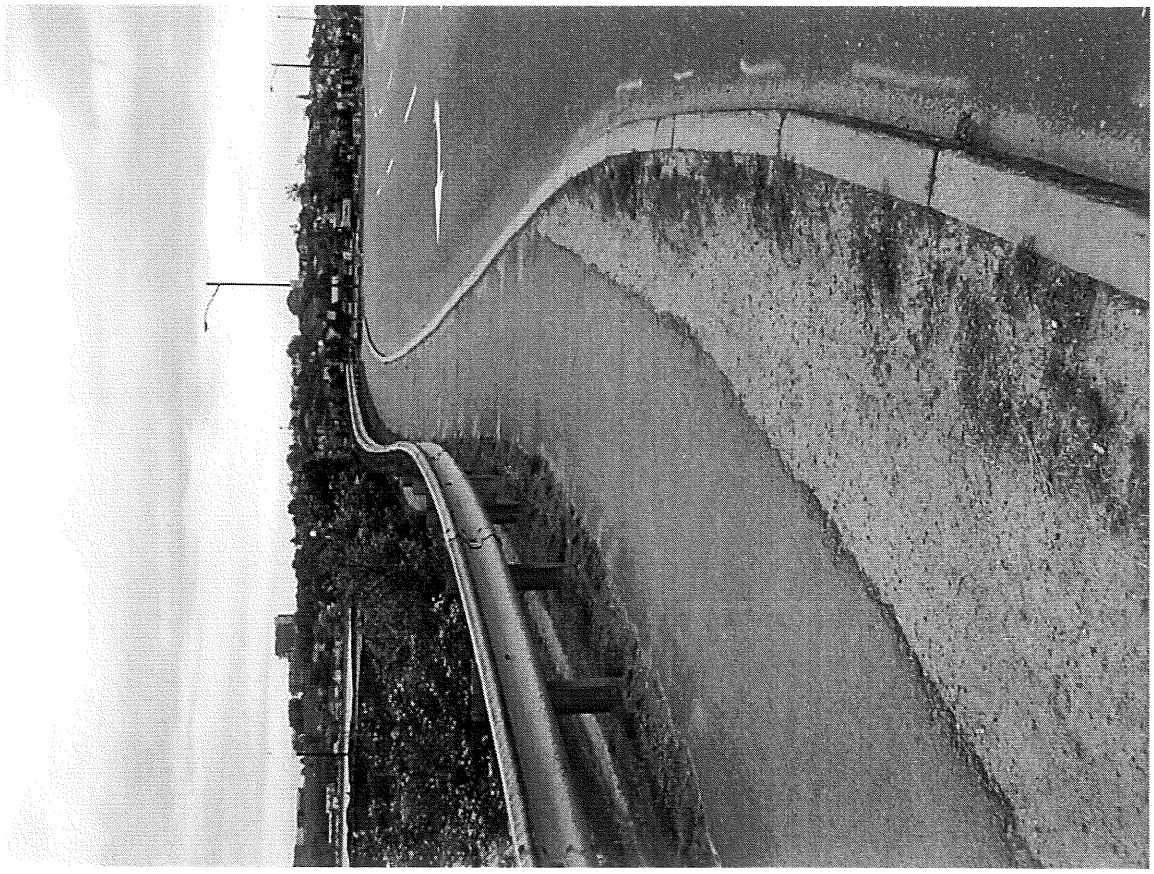

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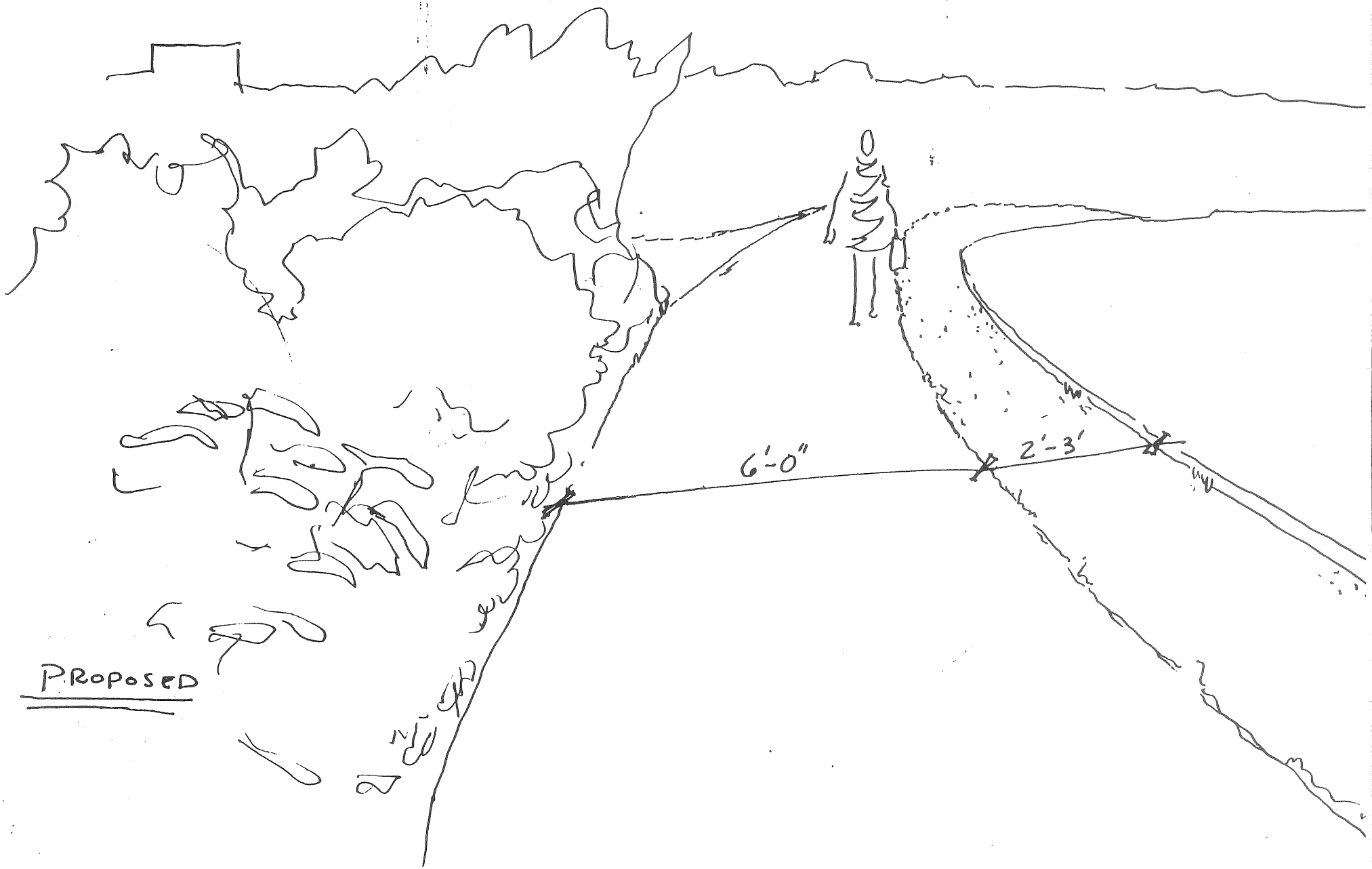

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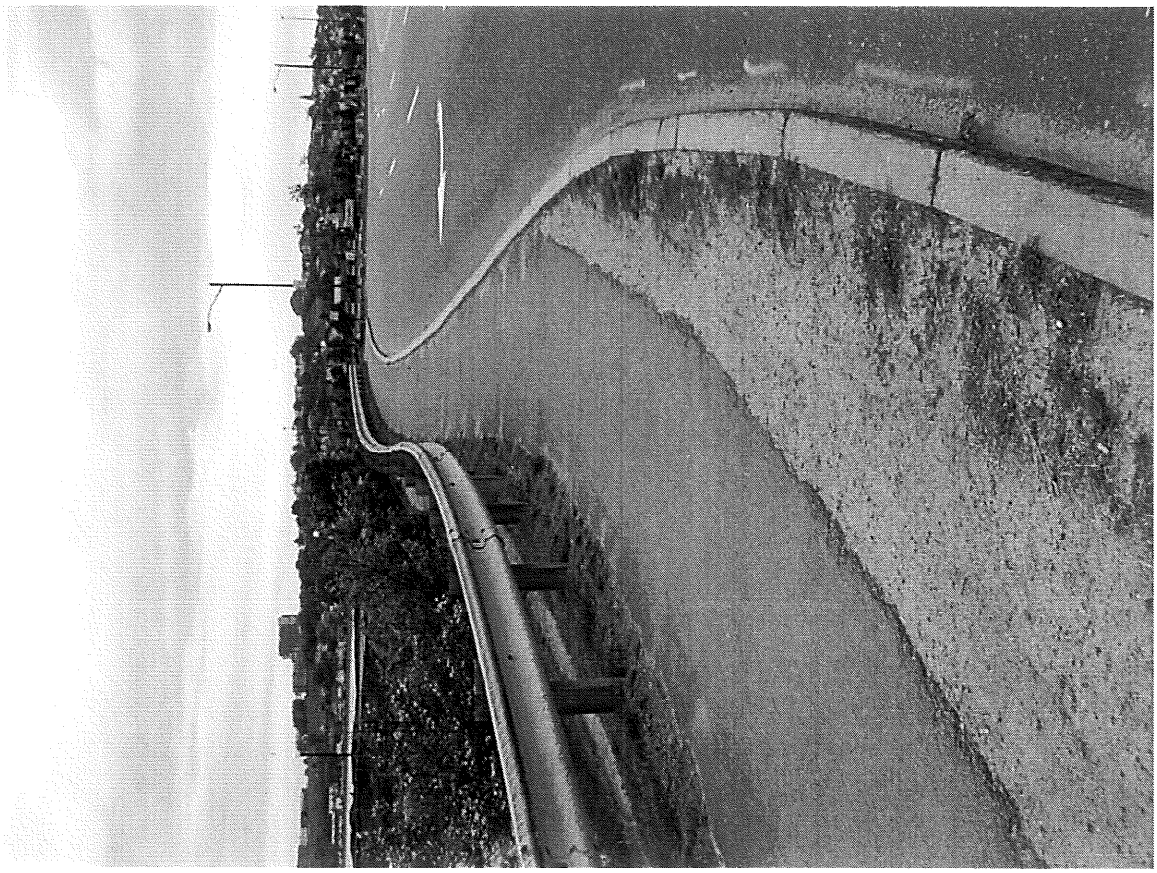

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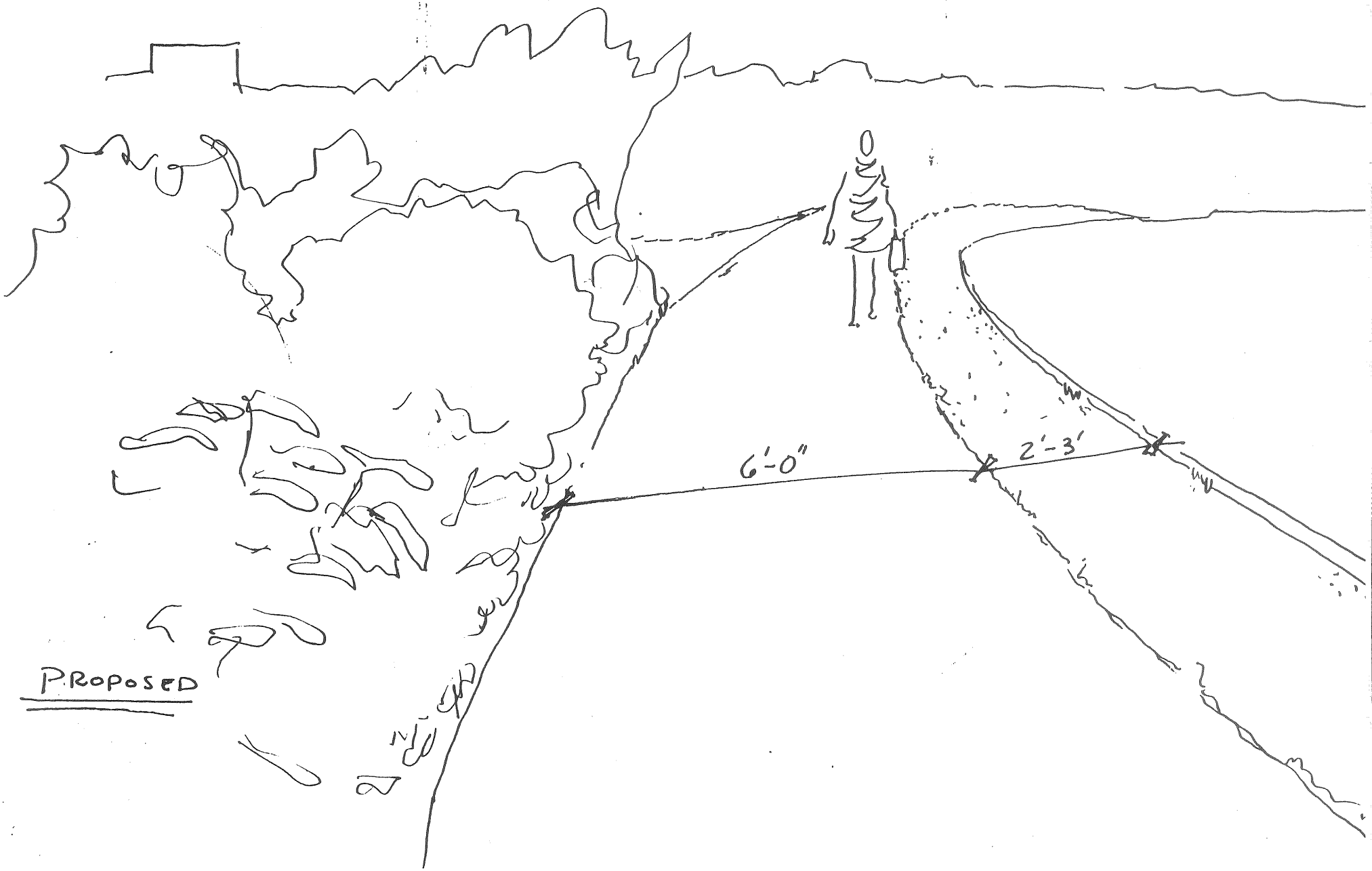

PROPOSED

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL 207 775 1121
FAX 207 879 0896

June 2, 2000

Mr. Steve Howick
Portland City Hall
Department of Parks and Recreation
389 Congress Street
Portland, ME 04101

RE: **Back Cove**
Guardrail Warrant

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Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Peter A. Hedrich, P.E.
Senior Engineer

PAH/ajs/JN1900.30/Howick6-1

c: Larry Ash

Memorandum

Portland Parks and Recreation

To: Planning Board

From: Christopher Di Matteo

Date: Wednesday, July 19, 2000

Re: Back Cove Park: Guardrail Relocation

CC: Robert Ganley, Joe Gray, Alex Jaegerman, Rick Knowland, Larry Ash, Dana Souza, File

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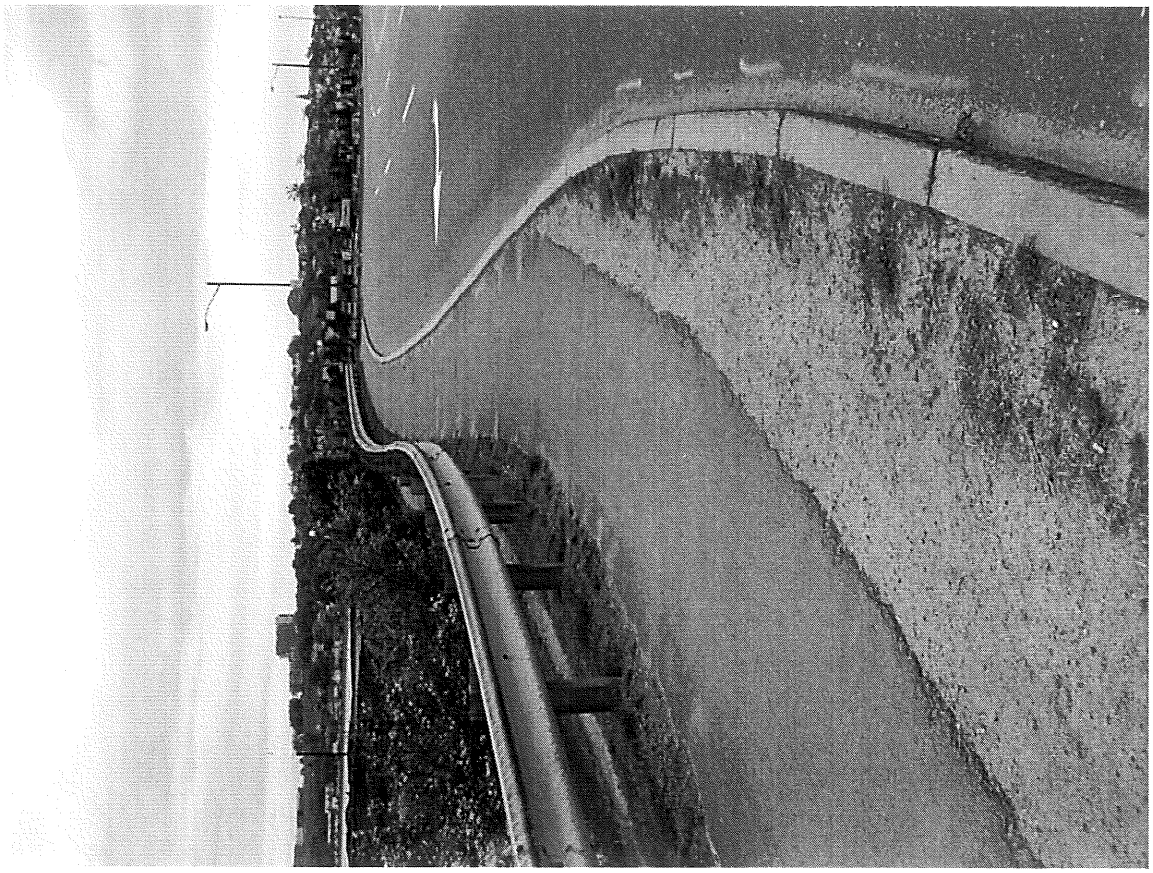

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- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
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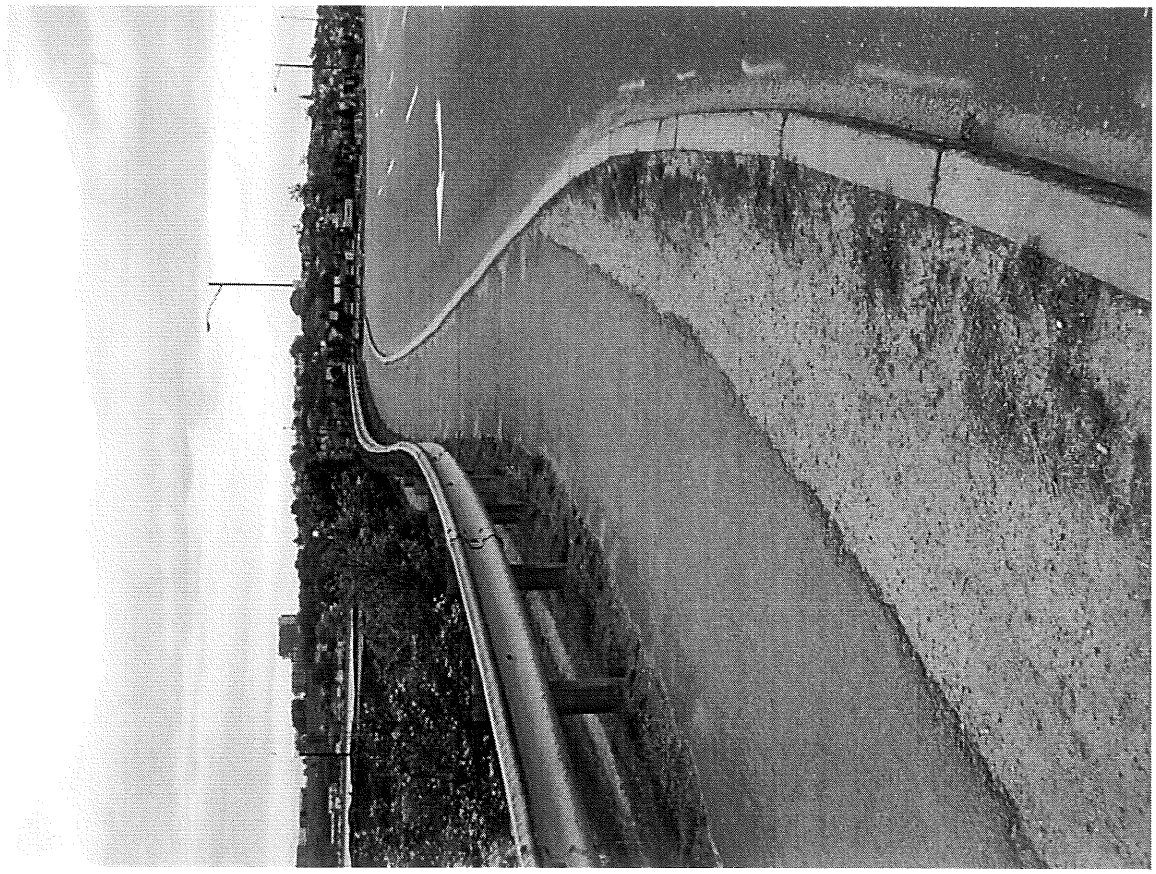

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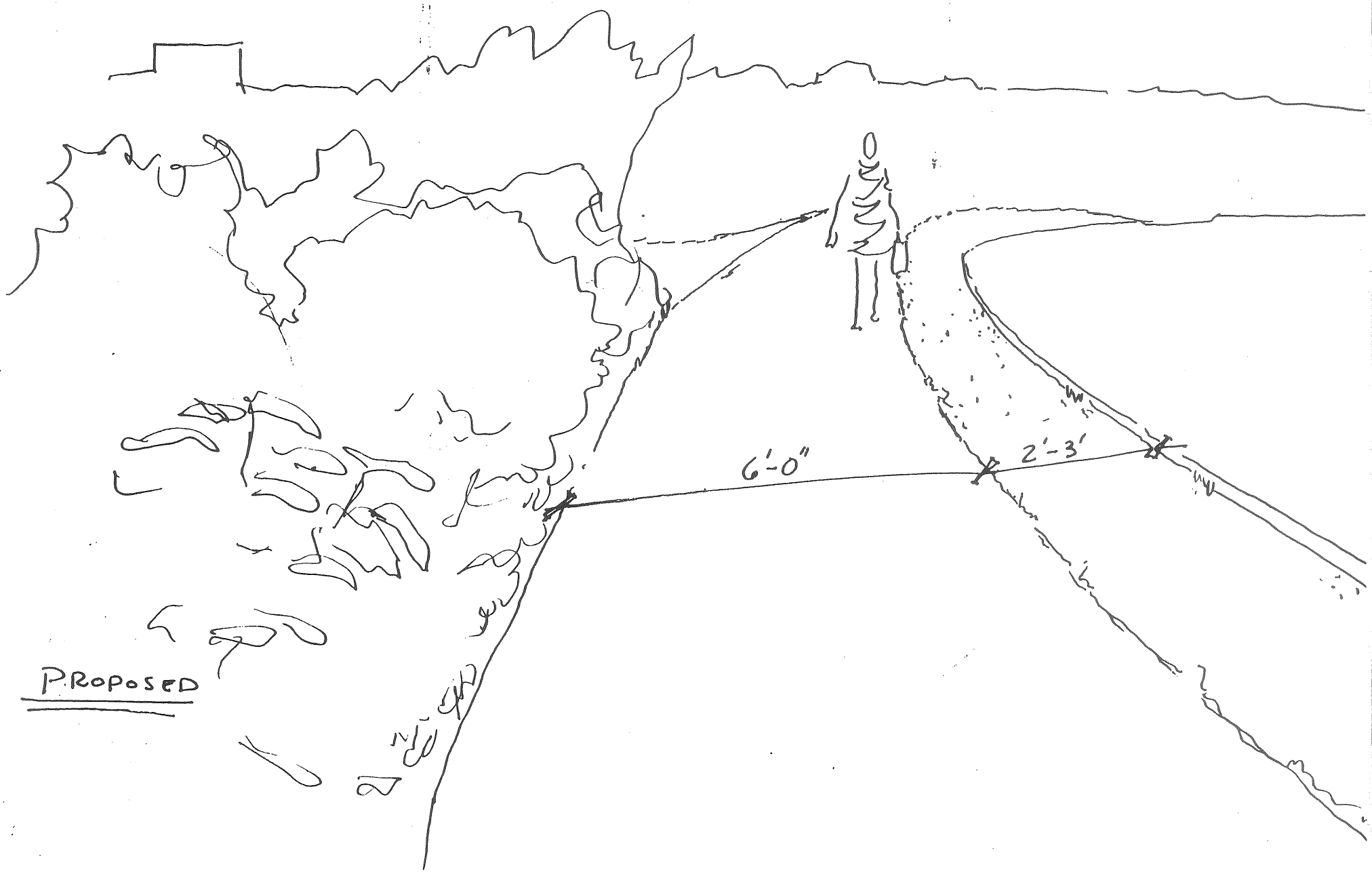

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PLANNING OFFICE

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Portland Parks and Recreation

To: Chris Di Matteo

From: Stephan Howick

Date: Monday, June 26, 2000

Re: Back Cove Park at Preble Street Extension – Phase I

CC: Dana Souza, File

Below are the cost estimates you requested for the walk connection between Baxter Boulevard and the Parking lot on Preble Street Extension.

The issue involves the safety of path users. The original proposal positions pedestrians and joggers on the exposed backside of the relocated guardrail and adjacent to a 6 foot embankment leading to the cove. The modified proposal is covered in the attached letter.

Original Proposal

Remove and Reset Guardrail	270 Linear Feet	$12.00	$3,240.00
Excavation	35 Cubic Yards	$10.00	$ 350.00
Aggregate Base	25 Cubic Yards	$18.00	$ 450.00
Stonedust Path	28 Tons	$28.00	$ 784.00
Loam & Seed	2 Units	$28.00	$ 56.00
			$4,880.00

Modified Proposal

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Loam & Seed	2 Units	$28.00	$ 56.00
Vegetative Buffer	60 Each	$25.00	$1,500.00
			$6,380.00

MDOT Request for Safety Fence

6' PVC Coated Fence	250 Linear Feet	$17.50	**$4375.00**

Dana Souza
Director

Robert B. Ganley
City Manager

CITY OF PORTLAND
Parks & Recreation Department

Nancy A. Geer
Recreation Administrator

Carol McClure
Operations Manager

Donn Mathews
Parks Coordinator

Jeff Tarling
City Arborist

Christopher DiMatteo
Landscape Architect

Paul Butters
Principal Financial Officer

Michael Murray
Cemetery Coordinator
797-4597

John Wone
Athletic Facilities
Coordinator

Sally DeLuca
Program Coordinator

Marie Davis Sweatt
Aquatics Supervisor
874-8456

Keith Hansen
Adult & Senior
Program Coordinator

Gina L. Ripley
Safety Coordinator

David Venditti
Portland Ice Arena
774-8553

Riverside Municipal
Golf Course 797-3524

Dan Brown
P.D.D. Coordinator
775-4401

Reiche Community
Center 874-8873

Riverton Community
Center 874-8455

Cummings Community
Center 874-8870

Peaks Island Community
Center 766-2970

June 2, 2000

Mr. Dean Lessard, Division Traffic Engineer
Maine Department of Transportation
Pleasant Hill Road
Scarborough, ME 04074

RE: Preble Street Extension – Guardrail

Dear Mr. Lessard:

Thank you for considering this request on such short notice. As we discussed yesterday, the City of Portland Parks and Recreation Department is interested in determining the feasibility of removing the guardrail located along Preble Street Extension at the Intersection with Baxter Boulevard.

Currently the City is reconstructing the Back Cove Park. As part of this project the City is upgrading the Back Cove Trail system by providing improved connections between various segments of the trail system. The portion of trail located adjacent to the guardrail in question is slated for improvement.

The existing conditions are as follows. Currently there is a four to five foot wide sidewalk located along the Preble Street Extension curb line. On the cove side of this sidewalk is the guardrail in question. On the backside of this guardrail is a grassed slope leading down to Back Cove. Please review the attached existing conditions plan and photos of the site.

The proposed condition is as follows. The existing bituminous sidewalk and guardrail will be removed. In their place a two to three foot grassed esplanade will be installed along the curb line. Adjacent to this esplanade a new six foot wide bituminous sidewalk will be installed. The existing shrubs along the cove will be preserved to extent possible and augmented with additional shrubs as needed to provide a vegetative barrier between the walk and the cove. Please review the attached proposed conditions plan and sketch.

Peter Hedrich of Deluca-Hoffman Associates has reviewed the site with the proposed changes in consideration. His letter of findings are attached for your review and consideration.

If you have any questions please feel free to contact me at 874-8793 or by email at *sch@ci.portland.me.us*.

Sincerely,

Stephan C. Howick

cc. Larry Ash, Traffic Division

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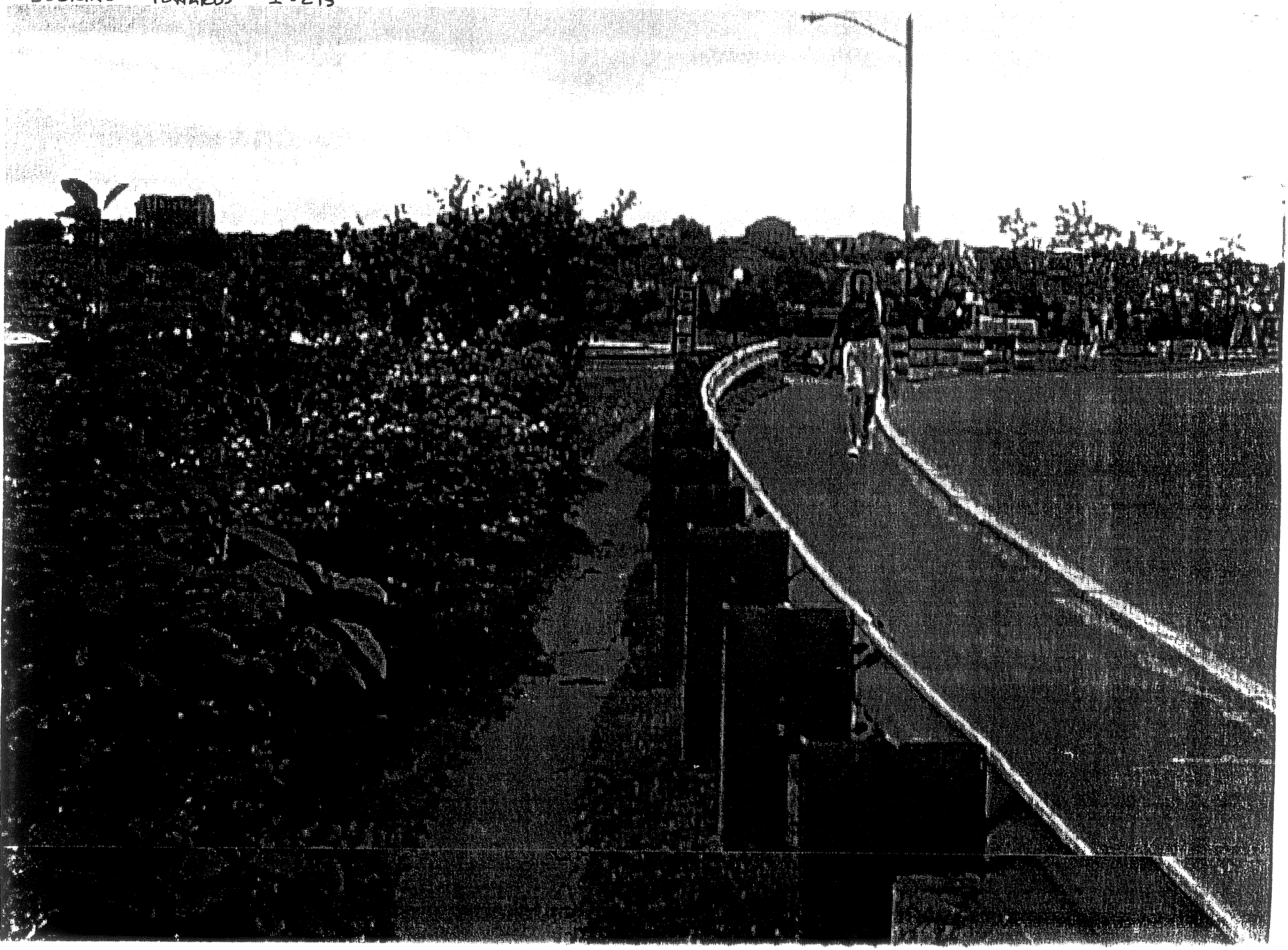

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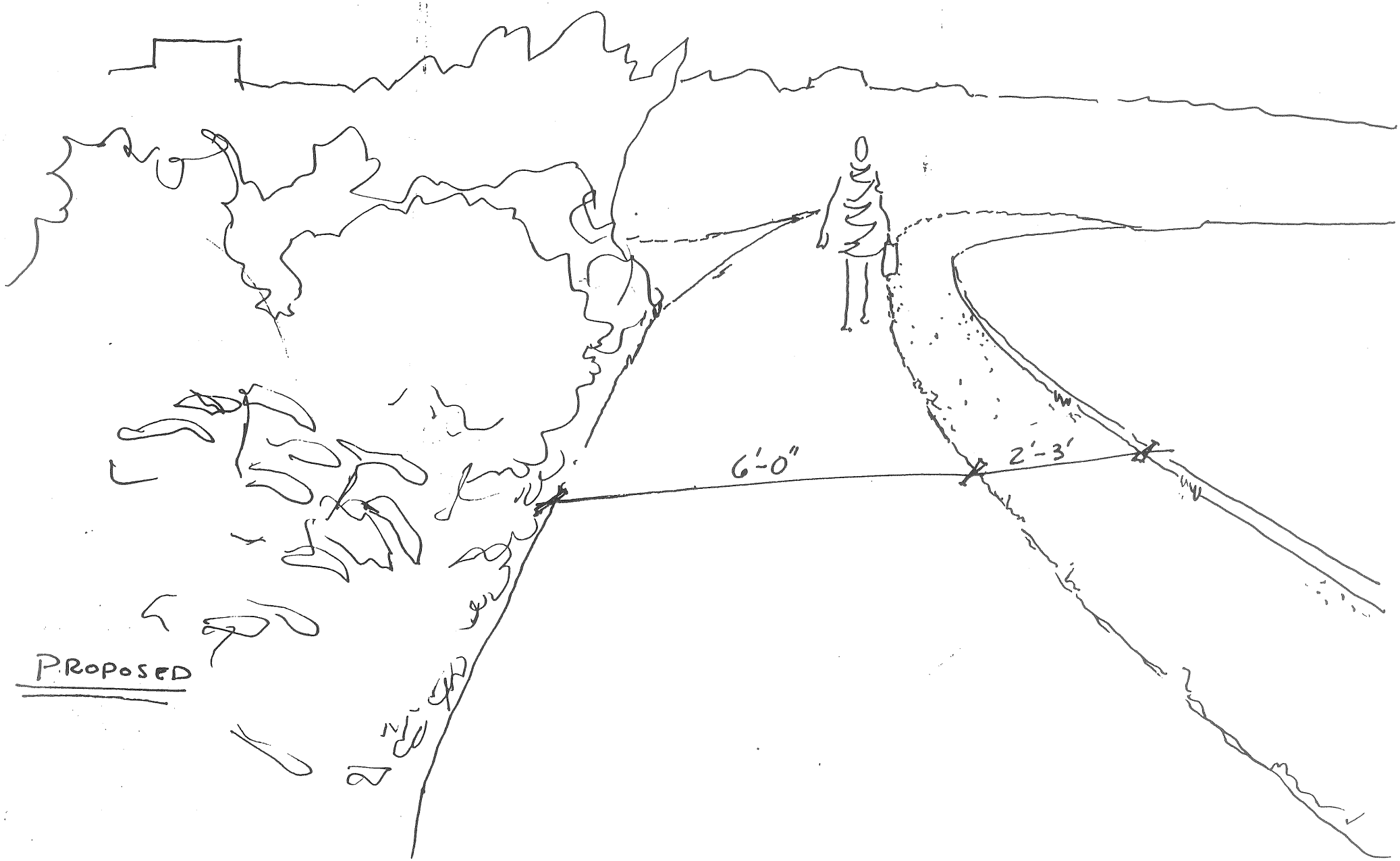

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SOUTH PORTLAND, MAINE 04106
TEL 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

June 2, 2000

Mr. Steve Howick
Portland City Hall
Department of Parks and Recreation
389 Congress Street
Portland, ME 04101

RE: **Back Cove**
Guardrail Warrant

Dear Steve:

You have asked that DeLuca-Hoffman Associates, Inc. investigate the need for a guardrail along a portion of the Back Cove walking path. The specific location is at the northeast corner of Preble Street at Baxter Boulevard. The City intends to replace the existing 4' bituminous walk with a 2 to 3 foot esplanade and 6' path. There is an existing guardrail and vertical granite curb along this section of roadway. The granite curb will remain but you have questioned the need for replacing the guardrail.

We have reviewed the AASHTO Roadside Design Guide and determined that this publication is applicable to roadway design speeds of 40 mph or more. Since the posted speed in this location is less than 40 mph, we have referred to the Maine DOT Highway Design Guide. Chapter 10 paragraph 1.06 refers to the need for clear zones in curbed sections as follows:

"On urban streets where curbs are provided, the minimum clear zone distance is 1.5 feet from the gutter line. Where both a barrier curb and sidewalk are present, the minimum clear zone distance is 1.0 feet from the face of curb. However, if practical, a 3-foot clear zone distance should be provided, especially at intersections and driveway entrances."

Since the City intends to maintain the barrier curb and provide greater than 3 feet clear distance behind the curb, no guardrail is needed.

Should you have any questions, please contact me.

Sincerely,

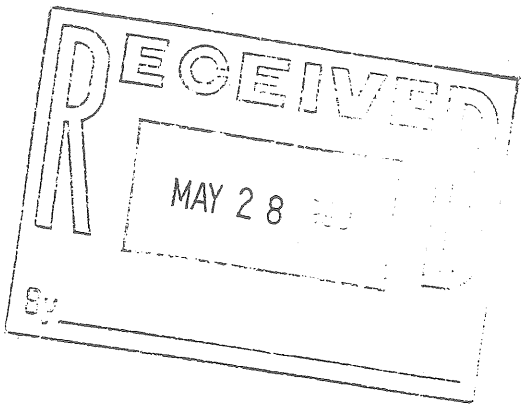
DeLUCA-HOFFMAN ASSOCIATES, INC.

Peter A. Hedrich, P.E.
Senior Engineer

PAH/ajs/JN1900.30/Howick6-1

c: Larry Ash

CITY OF PORTLAND, MAINE
PLANNING BOARD



May 13, 1999

Dana Souza
Director of Parks and Recreation
17 Arbor St.
Portland ME 04103

re: Back Cove Park Site Plan, Preble Street

Dear Mr. Souza:

On May 11, 1999, the Portland Planning Board voted on the following motions regarding the Back Cove Park Site plan located on Preble Street:

1. The Board voted 7-0 that the plan was in conformance with the site plan ordinance of the land use code, subject to the following conditions:

   i. Applicant shall submit to the planning office, DEP and Army Corps of Engineers permit applications and final approvals for this project.

   ii. That the plan shall be revised reflecting the comments of the Development Review Coordinator.

   iii. That a photometric plan for the light fixtures be submitted for planning staff review and approval.

   iv. That the site plan be revised reflecting the comments of the Friends of the Parks.

   v. That the two turn-arounds be eliminated from the site plan and replaced with parking.

   vi. That the guardrail by the "neck" along Preble Street (near the Baxter Boulevard intersection) shall be be relocated to the backside of the Preble Street curb, with the understanding that the path width be maximized.

2. The Board voted 7-0 that the plan was in conformance with the recreation-open space standards of the land use code.

3. The Board voted 7-0 that the plan was in conformance with the shoreland regulations of the land use code.

The approved site plan includes improvements to the parking lot, pathways, landscaping, soccer field, and park amenities.

Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,

John H. Carroll, Chair
Portland Planning Board

O:\PLAN\DEVREVW\PREBLE\APRVLPB9.LEC

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Richard Knowland, Senior Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, Zoning Administrator
Tony Lombardo, Project Engineer
Development Review Coordinator
William Bray, Director of Public Works
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Inspection Department
Kathleen Brown, Director of Economic Development
Susan Doughty, Assessor's Office
Approval Letter File

O:\PLAN\DEVREVW\PREBLE\APRVLPB9.LEC

Facsimile Cover Sheet

To: RICK KNOWLAND

Company: PORTLAND

Phone:

Fax: 756-8258

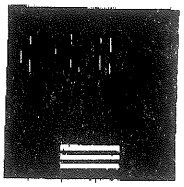
From: Jon W

Company: DeLuca-Hoffman Associates, Inc.
Phone: (207) 775-1121
Fax: (207) 879-0896

Date: 8/23/99

Pages including this cover page: 2

Comments:



DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL 207 775 1121
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MEMORANDUM

TO: Rick Knowland, Senior Planner

FROM: Jim Wendel, PE, Development Review Coordinator

DATE: August 20, 1999

RE: Site Plan Review
Bookland
87 Marginal Way

A review of the latest submission dated August 8, 1999 has been completed. We offer the following comments:

1. The parking spaces along the frontage are only 17' deep; the standard is 19'.

2. The new sidewalk along Marginal Way is vague on grading; the grades should be based on the City's standards with the elevation at the back edge of the sidewalk being in this case 1.1' above the gutter grade. The calculation is based a 7" curb reveal and a slope of the esplanade and sidewalk of 1/4"-3/8"/ft. and the back edge of the sidewalk being 17' from the face of curb. The grades of the parking stalls along the frontage should be appropriately matched with the sidewalk grades. Also the entrance grade should be revised to match this standard. When the City resets the curb in the future, then the sidewalk will be in the correct vertical relationship to the road. Tony may have some thoughts on this item.

3. The minimum entrance curve radius is 20'; Larry Ash may have some comments on this item.

4. Item 2 of our previous memo to you dated March 19, 1999 regarding failed pavement and thickness of an overlay has not been addressed.

5. We recommend that a barrier be installed between the parking area and the Maine Rock Gym Climbing Tower along the paved and unpaved line to separate the uses and prevent vehicle movements between the two areas.

6. The plan should be clear as to where granite and concrete curb are used, particularly at the entrances.

7. The concrete sidewalk within the right of way does not have a detail; it should conform to the City standard.

8. The dumpster is in a poor location; it can not be accessed if vehicles are parked in the spaces on either side.

Should you have any questions, please call.

CITY OF PORTLAND, MAINE

PLANNING BOARD

TO RESIDENTS AND PROPERTY OWNERS IN THE VICINITY OF
PREBLE STREET

On Tuesday, May 11, 1999, the Portland Planning Board will consider a plan by the City of Portland to reorganize the existing Preble Street parking lot adjacent to Back Cove and to develop park space adjacent to this land. The proposal results in a net decrease in blacktop with a total of 170 parking spaces. Other project elements include additional landscaping, trails, and other amenities. The project area includes the existing parking area and areas adjacent to the soccer field. Zoning for the site is Recreation-Open Space (R-OS). The project will be reviewed for conformance with the Site Plan, Shoreland, and R-OS standards.

The public hearing is scheduled to begin at 6:30 p.m. in Room 209, City Hall, 389 Congress Street, Portland, Maine. Should you wish to review the plans in advance, they are available in the Portland Planning Department, 4th Floor, City Hall. If you are unable to attend the public meeting of the Board, please submit your written comments to Joseph E. Gray, Jr., Director of Planning and Urban Development, City Hall, 4th Floor, 389 Congress Street, Portland, Maine 04101.

Alexander Jaegerman
Chief Planner

5/5/1999

We support this project enthusiastically!

Linda and Earl Stevens
25 Belmonde Road

2-11-99

PROBLE JT.

utilities power

Larry Ash ok but doesn't like compact spaces

crosswalk materials / sidewalk cross-section, but plan not clear where one material begins and another stops also boardwalk

~~existing trees~~
pavement overlay

~~gateway plaz - what is it?~~

~~dirty water treatment~~ shown in sheet L-702

curb opens upon

L-201 → varying width sidewalk
L-202 what is proposed native vegetation

surface material of walkway

~~curb~~
overlay

L-403 new stormwater outlet? DEP review
type of vortechnics treatment system

L-501 has picnic tables what about location of benches
~~type of sign and size?~~
type of shrub
surface material

2-11-99

where are jumble cobblestones

lighting + benches

construction details of circle

driveway - sidewalk ramp except maybe on detail

rectangular dimension of precast finish

other Public Art

L-501 bench siting

quantity

No detail
stonewall or other materials

* need a narrative on DGP permits needed + what actuates

T. LaPointe
underground utilities needed such as scoreboard

P.D
plaza details

utility plan

* revise 11/30/98

12-8-98

BACK COVE PARK
PH.

Dana S. comments
reviewed by Bob C yesterday OK at this level

Frank L. presentation

Peter Monro speaks as a bicyclist and Portland Trails
wants triple separation
taken aback
wants separate paths as long as possible
B-2 → design decision should be made late

Tom LaPointe
lighting - some provision for underground utilities for
a scoreboard PHJ teams use it
likes the utility building
soccer - no barrier to Back Cove balls are
lost in will trees be adequate to stop
soccer balls in loses 2 or 3 balls a year
likes the multi-purpose space
wants to reduce trees between the soccer fields
and multi-purpose space put along I-295
reduce noise

B. Vestal How many phases are being reviewed?
Concerned about phase 2

Ken says leave the trail
Deb likes the curb openings ; doesn't like traffic light
Mark Agrees with Deb
plaza area lacks detail

John C wants to see a traffic light
slows traffic down , tis cut off from the Shop n Save

plaza, intersection, traffic light

project is tabled
rodm , Kretchel, Hagge

FRANK L.
CHRIS D.
JIM W
TONY L.
LANNY A

BACK COVE PARK
12-30-98

concrete curb

large granite stone

Cape cod

* Tony City used granite curb

LANNY COMMENT (1) shift both curb openings min 150' from Shapiro Sewer

driveway

egress in and out

2 traffic light

11 warrants 1 doesn't guarantee

accident, volumes

Feb 9 P.B mtg. Larry will do a memo

BACK COVE PARK

Portland, Maine

Planning Board Public Hearing
Site Plan Review Submission
October 27, 1998

Submitted to:

Planning Department
City of Portland
389 Congress Street
Portland, Maine 04101

Submitted by:

Richardson & Associates
Landscape Architects
Todd A. Richardson, Principal
P.O. Box 426
Saco, Maine 04072
207.286-9291

on behalf of:

Portland Parks and Recreation Department
Dana Souza, Director
17 Arbor Street
Portland, Maine 04103
207.756-8383

Response to Questions in:

Portland Code, Section 14-525 c., *'Written Statements,' pp. 1356-1357*

i. Name and address of owner:

City of Portland
Parks & Recreation Department
17 Arbor Street
Portland, Maine 04103
Dana Souza, Director of Parks and Recreation

ii. Estimated Cost of Development: $342,000 (does not include building or Preble Street Extension roadway adjustments)

1. Description of Proposed Uses:

The proposed use for the site is a public park, with a parking lot to accommodate approximately 166 cars. Overall, proposed uses are nearly identical to existing uses. The proposed changes and improvements include:

- reconfiguration of the intersection at Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan
- an improved pedestrian path near the intersection of Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan
- an improved parking lot that includes:
  - -drop-off areas
  - -reduction in size to conventional standards for parking stalls and travel aisles
  - -resurfacing and striping of the parking lot
  - -reduction of access points from 4 to 2 to reduce speeds within the parking lot and increase pedestrian safety
  - -pedestrian travel routes for safe access from the parking lot to the park
- an accessible sidewalk along Preble Street Extension
- a future building with restrooms and storage space
- a shaded plaza with benches and other amenities
- picnic areas
- a stone dust path adjacent to the water's edge

- an overlook that will extend from the plaza and provide excellent panoramic viewing of Back Cove and the surrounding area
- a short boardwalk that will provide access to a viewing platform with education and observation opportunities for wetland flora and fauna
- improvements to the existing irrigation system and drainage at the existing soccer field.
- improvements to the condition of the existing open or multi-purpose area

2. *Total Land Area of Site:*
   16.3 acres ±

3. *General Summary of Existing and Proposed Easements and/or Other Burdens:*
   See letter from Dana Souza, Director of Portland Parks and Recreation

4. *Types and Estimated Quantities of Solid Waste to be Generated:*
   See letter from Dana Souza

5. *Evidence of Availability of Off-Site Facilities, Including Sewer, Water and Streets:*
   As shown on the Site Plan, the site is served by sewer, water and streets.

6. *Description of Existing Surface Drainage, and Proposed Stormwater Management Plan:*
   Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

   The proposed plan will provide a filtration system for parking lot runoff. The vegetated strip between the parking lot and Back Cove will slow runoff and allow it to infiltrate into the soil. This process will greatly improve the quality of parking lot runoff that eventually enters the Back Cove. The proposal calls for improved drainage in the area of the multi-purpose field and soccer field. Overall, however, the proposal will not change the concept of the existing surface drainage or existing stormwater management system.

7. *Construction Plan - Sequencing and Approximate Dates:*
   Sequencing for the project:

   a. site preparation, including erosion and sedimentation control measures and safety/security markings
   b. construct boardwalk
   c. re-grade and improve soccer field
   d. re-grade and improve multi-purpose area

e. construct new stone dust path in interior of site
f. install lighting, benches and other amenities
g. install plantings and mulch in interior of site
h. fine grading and loam and seed interior of site
i. trim existing parking lot to new dimensions
j. install tip-down curbing and new curbing to block existing entrance drives
k. install entry posts
l. install plaza, new path and overlook adjacent to parking lot
m. reconfigure Preble Street Extension at Baxter Boulevard, if funds allow
n. install guard rail and reconstruct or reinforce path as necessary
o. install remaining plantings and mulch, loam and seed as necessary
p. re-pave and stripe parking lot
q. remove erosion and sedimentation control measures

Estimated Commencement Date for Construction: May 1999
Estimated Completion Date for Construction: September 1999

***Note: Because of the linear quality of the site, many aspects of the project can occur concurrently.

8. List of State and Federal Regulatory Approvals to which the Project is Subject:

- Maine Department of Environmental Protection (MDEP):
- Army Corps of Engineers:

See letter from Dana Souza for more information. Christopher Di Matteo, Landscape Architect for Portland Parks and Recreation, will be the primary contact for this aspect of the project.

9. Evidence of Financial and Technical Capacity to Undertake and Complete the Project:

- Owner: City of Portland
- Portland Parks and Recreation Department will invite bids and select a qualified and experienced contractor for the project

See letter from Dana Souza for more information.

10. Evidence of the Applicant's Title, Right or Interest in the Property:

See letter from Dana Souza

11. Description of any Unusual Natural Areas, Wildlife and Fisheries Habitats or Archaeological Sites Located On or Near the Project Site, and Protection Methods:

As noted on the site plan, approximately four (4) acres of the site qualify as Coastal Wetland. As a result, the plan will have to undergo MDEP and Army Corps of Engineers application procedures. The proposal recommends a 200'(±), low-

boardwalk enters the wetland from the upland side and will provide several advantages, not only for visitors to the site but also for the benefit of the wetland:

For the Benefit of Park Users:

1) the boardwalk provides an accessible path to an area that is of particular interest educational opportunities and for bird watching and observation of wetland flora and fauna (this area is of particular interest because of the variety of salt-tolerant and salt-intolerant plant communities)

2) the overlook is located far enough out in the wetland to allow visitors to experience its particular qualities, but allows generous space for flora and fauna to remain relatively undisturbed

3) the location of the boardwalk on the upland side of the wetland provides access and important educational opportunities in a manner that is as low impact as possible and in fact increases the educational opportunities of the project (i.e., provides the opportunity to explain why the boardwalk is positioned as it is).

Related Benefits of the Boardwalk:

1) providing a semi-permanent path in this area will reduce the number of people who are currently walking through the wetland

2) an increased presence of visitors in this area will decrease opportunities for vandalism, such as the riding of all-terrain vehicles (ATV's) in the wetland

3) the proposed boardwalk and stone dust path will help define the boundary of the wetland and help eliminate existing confusion regarding mowing limits.

Response to Standards and Regulations Listed in:

Land Use, Section 14-449 Land Use Standards *pp. 1302.1-1307*

1. Principal and accessory structures:

a. The structure shown on the site plan is within 25' feet of the normal high water line of Back Cove. The siting for the building is the result of several factors:

1) After consulting with Parks and Recreation Department staff and City staff, it has been determined that the building should be in the general vicinity of where the storage and restroom facilities are currently located. The building needs to be close to the soccer field for storage purposes, and it needs to be accessible from the parking lot

2) This location satisfies the requirements listed above while remaining at or above the 100 year flood level. Siting the building here would require a minimum amount of grading to attain the necessary elevation requirements.

3) An aesthetic desire to have the building relate more to the park than to the parking lot, thereby de-emphasizing the presence of the parking lot and not usurping any valuable parking spaces.

b. The first floor elevation shall be elevated at least one-foot six-inches (1'6") above the elevation of the 100-year flood.

c. All applicable permits will be obtained from local, state and federal levels before the construction of the boardwalk or overlooks. See letter from Dana Souza for more information

2. Piers, docks, etc.. and other structures and uses extending over or beyond the normal high water line of a water body or within a wetland:

The boardwalk and overlooks will adhere to all conditions described herein. In addition, the development of the construction drawings and technical specifications for these elements will be concurrent with Maine Department of Environmental Protection and Army Corps of Engineers permitting process, and will be reviewed and approved by City Staff throughout the process.

3. Clearing of vegetation:

See #2, above. This project will require minimal clearing, cutting and/or pruning and will result in a more healthy plant community than currently is found at the site. The only clearing will be for the purpose of constructing the low-impact boardwalk. Otherwise, there will be no cutting of trees or other vegetation.

4. Erosion and sedimentation control:

Erosion and sedimentation control measures will conform the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices. The proposal recommends **hay bales** and a **silt fence** used in conjunction to surround the construction site. The technique will provide a double layer of protection to the waters of Back Cove during the construction phase. A description and drawing of each method, as well as other relevant written information is included in this package.

The site planning principles of this project have also taken into account erosion and sedimentation control practices, such as:

- *fitting the development plan to the site* - no major changes are planned for this development that will alter the existing topography or drainage patterns of the site
- *preserving the existing natural drainage patterns and vegetation as much as possible* - see previous explanation
- *keeping the time period of soil disturbance short* - the sensitive nature of this site will be noted on the drawings and during pre-construction meetings with the contractor. In addition, the consulting landscape architect will ensure that these requirements are met during the construction process.
- *keeping disturbed areas small* - see previous description

5. Soils:

Soils in the project site are fill which is the result of the construction of I-295 in the late 1960's. No proposed uses for this project qualify as intensive land uses and therefore no soils report is included in this submission.

6. Water quality:

The project will adhere to this standard, without exception.

7. Archaeological sites:

The project consultants are currently investigating whether this site is on or adjacent to sites listed on, or eligible to be listed on, the National Register of Historic Places. If so, the project will be submitted to the Maine Historic Preservation Commission for review and comment at least 20 days prior to action being taken by the building authority.

8. Installation of public utility service:

Services to the proposed structure will be installed as per the requirements of this section. At this time, the design of the building has not been determined. Design development will proceed with regular, periodic reviews by City staff, and all necessary permits will be acquired before work begins.

9. Roads and driveways:

No new roads or driveways will be installed as part of this project. There will be minor realignment at the intersection of Baxter Boulevard and Preble Street Extension. The number of driveways, or entrances, to the parking lot will be reduced from four to two entrances.

10. Parking areas:

The parking area will be improved as shown on the drawings and as noted in the Site Plan Review written statements. When finished, the paved parking area will be farther from the high water line of Back Cove than the current condition by approximately 18'. In addition, lawn and plant materials will filtrate parking lot run-off before it reaches Back Cove.

11. Stormwater runoff:

Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

The proposed stormwater management plan will provide a filtration system for parking lot runoff. The vegetated strip between the parking lot and Back Cove will slow runoff and allow it to infiltrate into the soil. This process will greatly improve the quality of parking lot runoff that eventually enters the Back Cove. The proposal calls for improved drainage in the area of the multi-purpose field and soccer field. Overall, however, the proposal will not change the concept of the existing surface drainage.

12. Agriculture:

Not applicable to this project

13. General site plan features:

The proposal attempts to fully comply with conditions a - j described in this section.

Response to:

Section 14-154 Permitted Uses, *p. 1181*

The proposed uses for this project that fall within this section are:

(1) Municipal park, public open space, picnic area
(6) Outdoor ballfields and public athletic fields
(8) Picnic groves and areas
(9) Natural parks and scenic overlooks
(10) Hiking, walking, bicycling
(13) Accessory uses, including structures or buildings of less than two thousand five hundred (2,500) square feet of floor area

Section 14-157 Space and bulk requirements, *p. 1181*

Relevant requirements:

(5) Maximum building height: The proposed building will not exceed thirty-five feet in height.
(6) Maximum coverage of lot: The proposed building shall not cover more than 25% of the lot area

Section 14-158 Development standards for recreation and open space zone, *p. 1183*

All development proposed for this project complies with development standards 1-7 in this section.

HAY BALE DIKE

(Key No. 4)

Definition

A temporary barrier with a life expectancy of 3 months or less, installed across or at the toe of a slope.

Purpose

The purpose of a hay bale dike is to intercept and detain small amounts of sediment from unprotected areas of limited extent.

Conditions Where Practice Applies

The hay bale dike is used where:

1. No other practice is feasible, and
2. There is no concentration of water in a channel or other drainageway above the barrier, and
3. Erosion would occur in the form of sheet and rill erosion, and
4. Contributing drainage area is less than one-half acre and the length of slope above the dike is less than 100 feet. The practice may also be used for a lone single-family lot if the slope is less than 15%. The contributing drainage area in this instance shall be less than one acre and the length of slope above the dike shall be less than 200 feet.

Design Criteria

A design is not required. All bales shall be placed on the contour and shall be either wire bound or tied with nylon string.

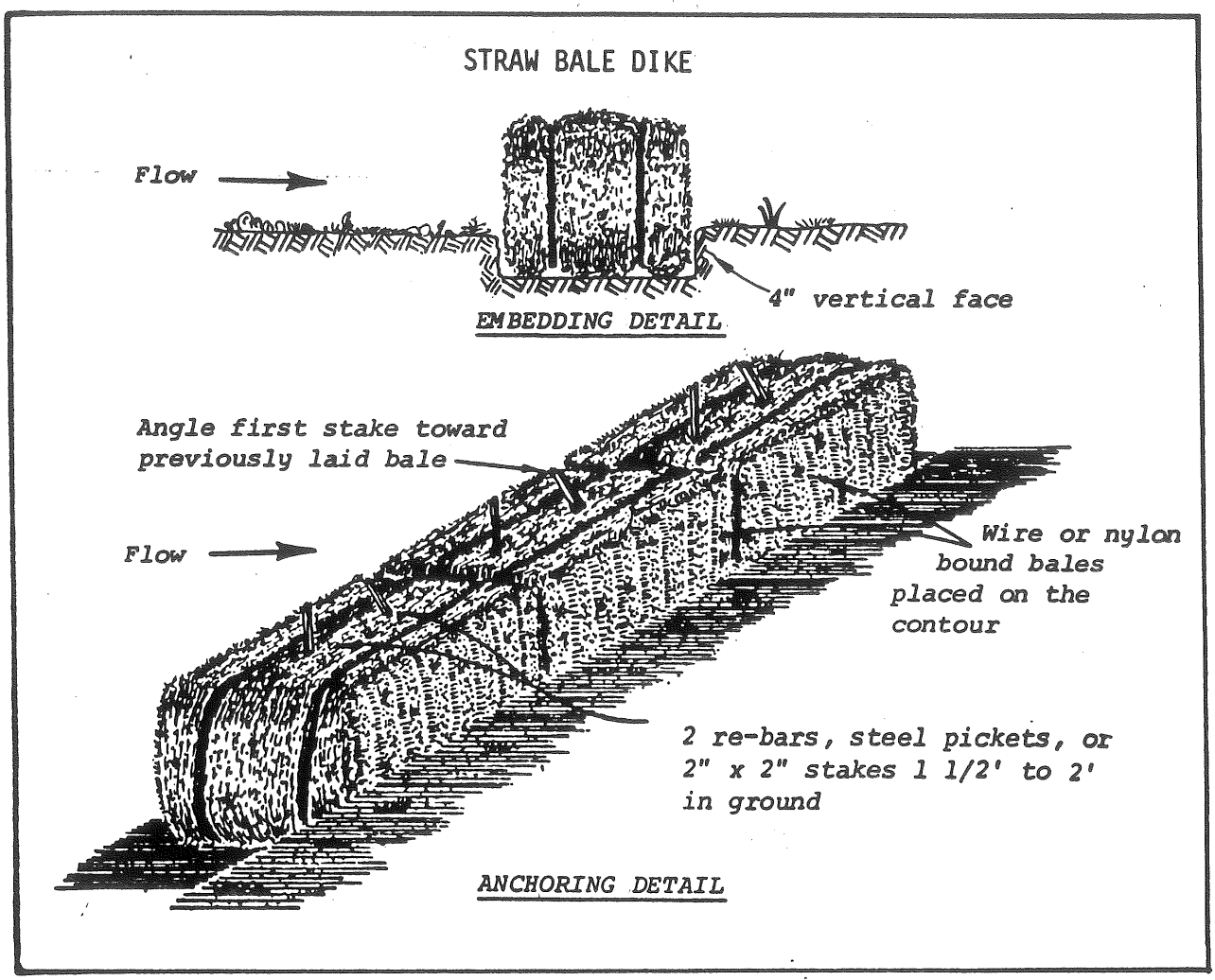
Construction Specifications

1. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
2. Each bale shall be embedded in the soil a minimum of 4 inches.

3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. The first stake in each bale shall be driven toward the previously laid bale to force bales together.

4. Inspection shall be frequent and repair or replacement shall be made promptly as needed.

5. Bales shall be removed when they have served their usefulness, so as not to block or impede storm flow or drainage.



SILT FENCE

(Key No. 11)

Definition

A vertical barrier composed of regular livestock wire fence with wood or metal fenceposts, on which a filter fabric is attached.

Purpose

Silt fences are used to trap sediment before it leaves the construction area. The silt fence detains construction runoff preventing silt and debris from leaving the construction site.

Conditions Where Practice Applies

Silt fence is used along the toe of slopes, on the edge of vegetative buffer strips bordering bodies of water, and at any other locations where it is important to reduce the quantity of sediment and flow velocities leaving an area of disturbed soil. The silt fence should be built after the cutting of trees and brush, but before excavating any haul roads.

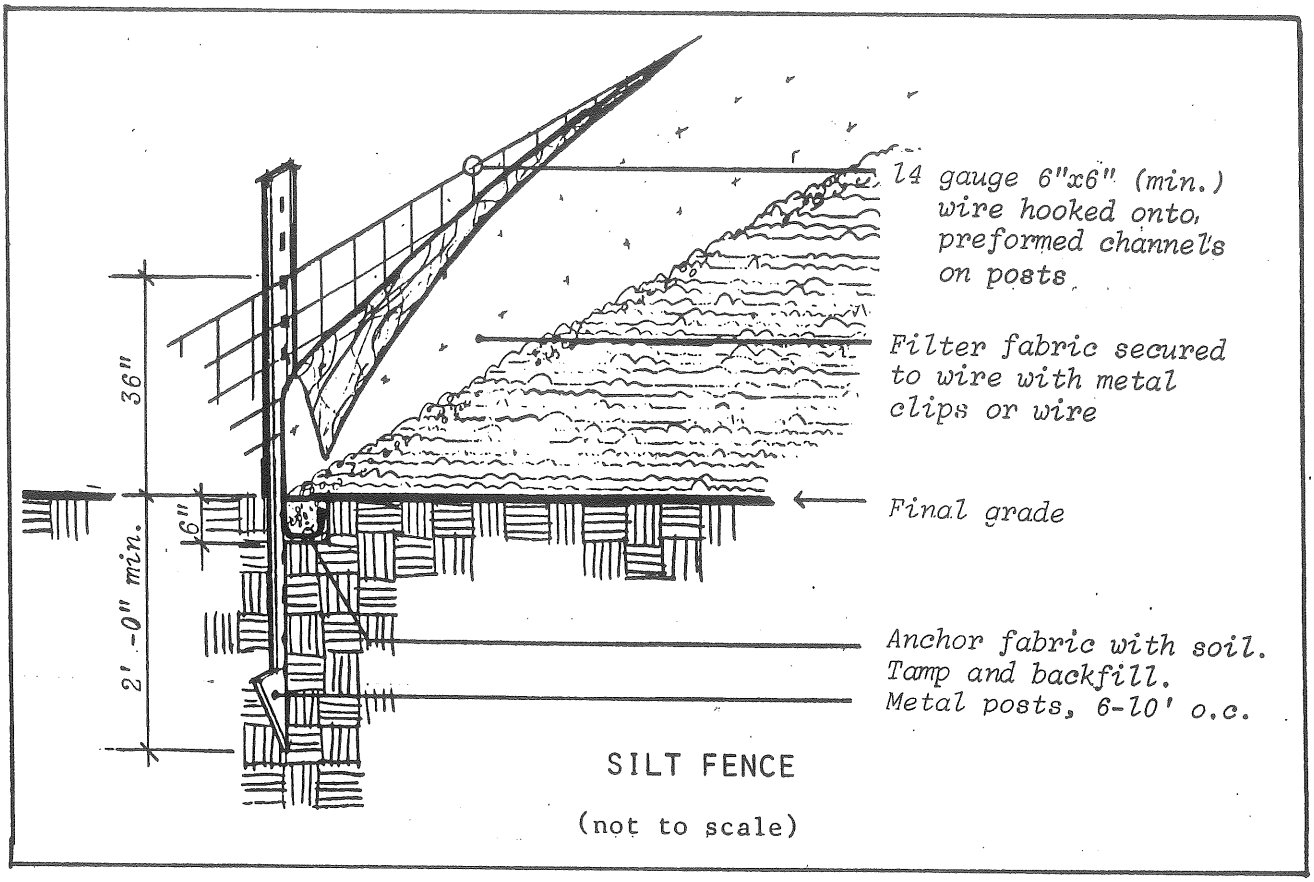
Design Criteria

A design is not required. The following criteria shall be used:

Support fence: livestock wire fence, at least 14-gauge, a minimum of 36 inches in height, with a maximum mesh spacing of 6 inches.

Posts: wood or steel, minimum length of 5 feet. Set in the ground at least 2 feet, at a spacing of 6 to 10 feet. Stapling or attaching the fence to existing trees should be minimized.

Filter fabric: either woven or non-woven material. Standard burlap has been used as a filter fabric and was found to deteriorate in 30 to 90 days. Since the silt fence must generally be in place longer than 90 days, commercial filter fabrics are recommended. Minimum of 3 feet in height. Secure to the top of



the support fence by suitable tie wire or hog rings. The bottom of the cloth should be keyed into the ground sufficiently to prevent water from flowing beneath it.

Construction Specifications

The following is the normal sequence for construction of a silt fence:

1. Drive fenceposts.
2. Construct small trench on front side of fence.
3. Staple or attach wire fence.
4. Staple or attach filter fabric to wire fence allowing sufficient material for use in the bottom of the trench.
5. Bury the filter cloth a minimum of 6 inches to prevent undermining.

It is good practice to construct the silt fence across a flat area in the form of a horseshoe. This aids in ponding the runoff and allowing sedimentation.

Maintenance

Silt fences should be inspected periodically for damages, such as tearing by equipment, animals, or wind, and for the amount of sediment which has accumulated. Removal of the sediment is generally necessary when it reaches one-half the height of the silt fence. In situations where access is available, machinery can be used; otherwise, it must be removed manually. The key elements to remember are:

1. The sediment deposits should be removed when heavy rain or high water is anticipated.

2. The sediment removed should be placed in an area where there is no danger of erosion.

The silt fence should not be removed until adequate vegetation ensures no further erosion of the disturbed slopes. Generally, the fabric is cut at ground level, the wire and posts removed, the sediment spread, and seeding and mulch is applied immediately.

Back Cove Park

Portland, Maine
Preliminary Plant Palette - 10/27/98

PLANT SELECTION CRITERIA:

1. Mostly natives
2. Tolerant of seashore conditions (soils, wind, salt)
3. Very low maintenance
4. Ability to provide erosion control/slope stability
5. Ability to attract wildlife (primarily birds)
6. Aesthetically interesting, to allow for interesting/beautiful plant compositions

Item	Number	Botanical Name	Common Name	Mature Size	Ordered Size
TREES					
Large Deciduous	_	Gleditsia triacanthos 'Inermis'	Thornless Honey Locust	H50' W40"	3" cal.
	_	Quercus palustris	Pin Oak	H75' W50"	3" cal.
	_	Quercus rubra	Red Oak	H75' W60"	3" cal.
Small Deciduous	_	Amelanchier canadensis	Shad	H20' W15'	1 1/2" cal.
	_	Crataegus crusgalli 'Inermis'	Cockspur Thornless Hawthorne	H25' W25'	1 1/2" cal.
	_	Crataegus 'Toba'	Toba Hawthorne	H20' W15'	6-8'
	_	Malus cultivars	Crabapple	H15'-20' W 15'	2-2 1/2" cal.
Evergreen	_	Picea glauca	White Spruce	H60' W30'	8'-10'
	_	Pinus mugo	Mugo Pine	H18' W12'	2 1/2" cal.
	_	Pinus nigra	Austrian Pine	H60' W25'	8'-10'
	_	Pinus sylvestris	Scotch Pine	H45' W30'	7'-8'
	_	Pinus thuunbergii	Japanese Black Pine	H60' W30'	5'-6'
SHRUBS					
Large Deciduous	_	Myrica pennsylvannica	Northern Bayberry	H8' W'8'	2-2 1/2'
	_	Prunus cistena	Purple Sand Cherry	H8' W8'	3'-4'
	_	Prunus maritima	Beach Plum	H6' W6'	2'-3'
	_	Rosa rugosa	Rugosa Rose	H6' W6'	2'-3'
	_	Vaccinium corymbosum	Highbush Blueberry	H6' W6'	#3
	_	Viburnum trilobum	Cranberry Viburnum	H10' W10'	3'-4'
Small Deciduous	_	Clethra alnifolia 'Compacta'	Compact Sweet Pepperbush	H4' W4'	18-24"
	_	Cotoneaster horizontalis 'Perpusilla'	Rockspray Cotoneaster	H3' W8'	15"-18"
	_	Vaccinium angustifolium	Lowbush Blueberry	H18" W 3'	#2
Needled Evergreen	_	Juniperus chinensis 'Sea Green'	Sea Green Juniper	H4' W8'	#5
	_	Juniperus sabina 'Scandia'	Scandia Juniper	H18" W5'	#6
Broad-Leaved Evergreen	_	Ilex glabra 'Compacta'	Compact Inkberry	H2' W4'	2-2 1/2'
GROUNDCOVERS					
	_	Arctostaphylos uva-ursi	Bearberry	H6" W6'	#1
	_	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Juniper	H6" W6'	#3
	_	Juniperus horizontalis 'Wiltoni'	Blue Rug Juniper	H6" W6'	#3
GRASSES, BROOMS, SEDGES					
	_	to be selected in consultation with the City Arborist			

Memorandum

Portland Parks and Recreation

To: Rick Knowland

From: Dana Souza

Date: Wednesday, October 28, 1998

Re: Back Cove Park

CC: Chris DiMatteo, File

The following are answers to Site Plan Review questions 3, 4, 9 and 10, (Found in Article V. Site Plan—Sec. 14-525. Final site plan.), in preparation for the Planning Board's upcoming review of Back Cove Park masterplan.

(3) **General Summary of existing and proposed easements or other burdens now existing or to be placed on the property; (pg. 1357)**

The following are restrictions and limitations that exist today on the parcels that constitute Back Cove Park. Our department is currently looking into these constraints.

(1) Egress and ingress to the premises is limited to that area outlined on the plan in Appendix A.
(2) No motor vehicles will be permitted on the premises except those engaged in construction, maintenance or the provision of emergency activities.
(3) No permanent buildings shall be constructed on the premises except those needed for athletic or maintenance activities.
(4) No change in the elevation of the land shall be made unless permission from the Grantor is first obtained.

The above constraints along with the description of the parcel are found in the title for the parcel on file at the Cumberland County Registry of Deeds.

(4) **The types of estimated quantities of solid waste to be generated by the development; (pg.1357)**

Parks and Recreation maintains the existing site, and will continue to do so in the future. Currently Parks and Recreation maintenance crews maintains five 20-gallon trashcans at the site which are emptied daily. With the completion of the proposed improvement, our operations will remain unchanged.

(9) **Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so; (pg. 1357)**

Parks and Recreation anticipate on spending approximately $350,000.00 on the proposed improvements. Funds from within the Baxter Trust Account will pay for the project.

(10) **Evidence of the applicant's title. Right, or interest in the property, including without limitation deeds, leases, purchases options or any other documentation; (pg. 1358)**

As per the title, on file at Cumberland County Registry of Deeds and information from the City Assessor's Office, the City of Portland owns all the land that constitutes Back Cove Park.

CAREX ECOSYSTEM SCIENCES
Natural Resource Assessment & Management

603-742-6665 PHONE/FAX
9-A FRENCH CROSS ROAD
MADBURY, NEW HAMPSHIRE 03820

WETLAND DELINEATION REPORT

BACK COVE PARCEL
PREBLE STREET EXTENSION
PORTLAND, MAINE

PREPARED FOR

CITY OF PORTLAND
DEPARTMENT OF PARKS & RECREATION
17 ARBOR STREET
PORTLAND, MAINE 04103

PREPARED BY

CAREX ECOSYSTEM SCIENCES
9A FRENCH CROSS ROAD
MADBURY, NH 03820

OCTOBER 27, 1998
981005

Introduction and Methods

On 26 October 1998, I conducted an on-site delineation of wetlands at the subject parcel located off of Preble Street Extension in Portland. Wetlands under state and federal jurisdiction were identified based on the *Corps of Engineers Wetlands Delineation Manual* (Dept. of the Army, 1987). Except in special circumstances, these criteria require that indicators of wetland soils, vegetation, and hydrology all be present for an area to be considered a wetland. Additional supporting documents used include:

Classification of Wetlands and Deepwater Habitats of the United States, US Fish and Wildlife Service, 1979.
Field Indicators for Identifying Hydric Soils in New England, Version 2, New England Interstate Water Pollution Control commission, 1998.
National List of Plant Species that Occur in Wetlands: 1988, US Fish and Wildlife Service, 1988.
Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, Maine Association of Professional Soil Scientists, 1995.

The site borders the ocean and has been the site of significant disturbance. Much of the area has been filled, at least along the upper edges of the wetland. The area grades from natural and recovered tidal marsh on fill dominated by salt tolerant species in lower elevations, to a band of wetland dominated by salt intolerant species on fill, to upland lawn on fill. The wetland dominated by salt intolerant species includes many weedy and cultivated species. All of the wetland areas are assumed to be under the influence of the maximum spring tides and, therefore, to meet the state definition of coastal wetlands.

The upper edge of the wetland dominated by salt intolerant species and the area dominated by salt tolerant species were marked separately with wooden stakes and sequentially numbered plastic flagging. In the vicinity of the proposed impact I completed Corps of Engineers data forms for each of the two wetland zones, as well as for the upland.

Wetland Characteristics

Salt Tolerant Zone

Wetland Classification: Estuarine persistent emergent, irregularly flooded (EEM1K)
Flag Numbers: Salt-1 to Salt-16
Soils: Poorly drained fill
Representative Plant Species:

Saltmeadow cordgrass	*Spartina patens*
Black grass	*Juncus gerardii*
Spike grass	*Distichlis spicata*
Seaside alkali grass	*Puccinellia maritima*
Saltmarsh sand-spurrey	*Spergularia marina*

Seaside goldenrod *Solidago sempervirens*

Hydrological Indicators:

Debris line

Saturation at <12" from soil surface

*****

Salt Intolerant Zone

Wetland Classification: Palustrine persistent emergent, irregularly flooded (PEM1K)

Flag Numbers: Wet-1 to Wet-16

Soils: Poorly drained fill

Representative Plant Species:

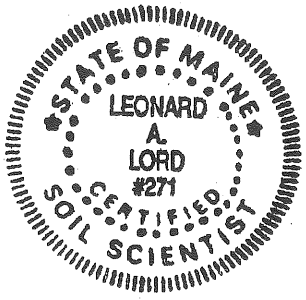
Meadow fescue	*Festuca pratensis*
Poverty grass drop-seed	*Sporobolis vaginiflorus*
Reed canary grass	*Phalaris arundinacea*
Eastern lined aster	*Aster lanceolatus*
Flat-top goldenrod	*Euthamia graminifolia*
Fall dandelion	*Leontodon autumnalis*

Hydrological Indicators:

Saturation at <12" from soil surface

Notes:

- Highly disturbed vegetation includes some upland species but area has good hydric soil indicators.



Leonard A. Lord, Ph.D.
Wetland Ecologist
ME Certified Soil Scientist #271

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98 (SALT TOLERANT ZONE)

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
JUNCUS GERARDII	45/90	50 %	FACW+
SPARTINA PATENS	45/90	50 %	OBL

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
1	1					

Hydrophytes SUBTOTAL: 2 NON-hydrophytes SUBTOTAL: 0

100 x Subtotal Hydrophytes / Subtotal Hydrophytes + Subtotal Non-hydrophytes = PERCENT HYDROPHYTES = 100%

HYDROLOGY 1. Hydrology is often the most difficult feature to observe. 2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc. 3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
Stream, lake or tidal gage Identification: _____
Aerial Photograph Identification: _____
Other Identification: _____

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☑ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 2

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98 (WETLAND WITH SALT INTOLERANT SPECIES)

VEGETATION — Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
SPOROBOLUS VAGINIFLORUS	70/90	78%	FACW+

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
	1					

Hydrophytes SUBTOTAL: 1 NON-hydrophytes SUBTOTAL: _____

100 x Subtotal Hydrophytes / Subtotal Hydrophytes + Subtotal Non-hydrophytes = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
MANICURED LAWN DOMINATED BY UNIDENTIFYABLE GRASSES BUT INCLUDING:			
TRIFOLIUM PRATENSE (FACU-)			
FESTUCA PRATENSIS (FACU)			
LEONTODON AUTUMNALIS (UPL)			

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

____ OBL ____ FACW ____ FAC ____ *OTHER HYDROPHYTES ____ FAC- ____ FACU ____ UPL

Hydrophytes SUBTOTAL: ______ NON-hydrophytes SUBTOTAL: ______

100 x Subtotal Hydrophytes / (Subtotal Hydrophytes + Subtotal Non-hydrophytes) = PERCENT HYDROPHYTES = ______

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage Identification: ______
- Aerial Photograph Identification: ______
- Other Identification: ______

☐ NO RECORDED DATA

☐ OBSERVATIONS:

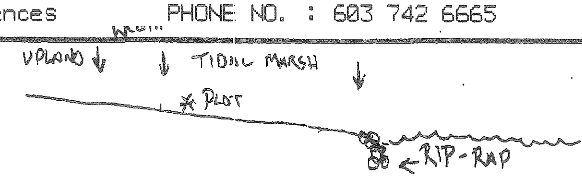
Depth to Free Water: ______
Depth to Saturation (including capillary fringe): ______
Describe Altered Hydrology: ______

☐ Inundated ☐ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): NONE

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
+1	Oe	—	—	HEMIC ORGANIC MATTER
0-4	A	10YR 3/3	7.5YR 3/4 OXIDIZED RHIZOSPHERES	VERY FINE SANDY LOAM, MANY FINE ROOTS
4-11	Cg1	2.5Y5/2	20% 5Y 5/1 DEPLETIONS 1/4-1/2"	VERY GRAVELLY SANDY LOAM - SOMEWHAT COMPACT FILL
11-16	Cg2	5Y 5/2	"	GRAVELLY SILTY CLAY LOAM FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S)

II OR IIID

REFERENCE:

FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

REFERENCES:

TAXONOMIC SUBGROUP: ENDOAQUENT — KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: VERY POORLY DRAINED (DISTURBED) — MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

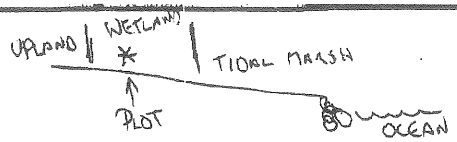
IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☐

REMARKS:

CENED-OD-RAN/mp Version 1AUG95 Page 7

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1 (SALT TOLERANT ZONE)

SOIL | Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2	A	10YR 3/2	NONE	FINE SANDY LOAM, MANY FINE ROOTS
2-12	Cg1	5Y 5/2	10% 5Y 5/1 DEPLETIONS, 1/4"	GRAVELLY LOAMY SAND – FILL FEW FINE ROOTS AT TOP OF HORIZON
12-14+	Cg2	5Y 5/2	—	GRAVELLY SILTY CLAY LOAM, FIRM – FILL
				OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): III D.

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

SOIL DRAINAGE CLASS: POORLY DRAINED

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

REFERENCES: KEYS TO SOIL TAXONOMY, 1996

MAPSS KEY, 3/97

CONCLUSIONS

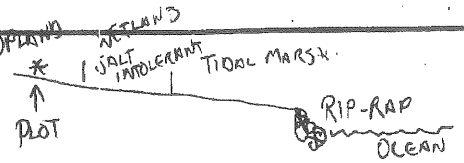
	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☑ No ☐

REMARKS:

PROJECT TITLE: BACK COVE TRANSECT: PLOT: 2 (SALT INTOLERANT WETLAND)

SOIL | Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2		10YR 3/2	NONE	FINE SANDY LOAM - FILL MANY FINE ROOTS
2-9		10YR 4/4	NONE	VERY COBBLY LOAMY COARSE SAND FEW FINE ROOTS - FILL WITH 10% ASPHALT
9-13		5Y 5/3	5% 2.5Y 5/6 CONCENTRATIONS	VERY GRAVELLY LOAMY SAND FILL
13-24		5Y 5/3	20% 5Y 5/2 DEPLETIONS 10% 2.5Y 5/6	GRAVELLY LOAMY FINE SAND FILL WITH SILT LOAM LENSES

HYDRIC SOIL INDICATOR(S): NOT HYDRIC

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

REFERENCES: KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: SOMEWHAT POORLY DRAINED

MADSS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☐	☑
Hydric Soils Criterion Met?	☐	☑
Wetland Hydrology Met?	☐	☑

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☑

REMARKS:

CENED-OD-RAWmp Version 1AUG98 Page 2

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

Back Cove Park

Portland, Maine

City Staff Meeting
12.30.98

AGENDA

I. Parking Lot Drainage
- A. Parking Stops/Bollards
  - •Section
  - •Cost Estimates
- B. Curbing Options
  - •Section
  - •Cost Estimates

II. Parking Lot Entrances
- A. 2 entrance option
- B. 1 entrance option

III. Plaza Design
- A. Options

IV. Field Improvements
- A. Field alignment - ideal is long axis NW to SE, or N to S
- B. Irrigation: 0.50/s.f. x 64350 s.f.= $32,175.00
- C. Drainage - subsurface and grading
- D. Amenities
  - •scoreboard: $3250(min) - $38900(max)
  - •bleachers: outdoor, portable, 3-5 tiers = $32.50(min)-$55(max) per seat (average $45/seat: $4500 for 100 seats)
  - •goal posts: ±$2000/pair

V. Building
- A. Requirements/Needs

VI. Viewing amenities
- A. Plaza overlook
- B. Wetland boardwalk and overlook

Back Cove Park

Portland, Maine

Preliminary Cost Estimates for Parking Stop Options - 12/29/98

In-Place Composite Costs:

OPTION	MATERIAL	QUANTITY	COST $	/UNIT	UNIT SUBTOTAL $	TOTAL $
1. Curbing Options - *"Total $" prices include curbing plus site work allowance estimated for curbing option*						
	a. Granite - straight	1,300 l.f.	$19.80	/l.f.	$25,740.00	$95,740.00
	b. Granite - radius	1,300 l.f.	$28.00	/l.f.	$36,400.00	$106,400.00
	c. Precast concrete - straight	1,300 l.f.	$10.70	/l.f.	$13,910.00	$83,910.00
	d. Precast concrete - radius	1,300 l.f.	$16.65	/l.f.	$21,645.00	$91,645.00
	**Grading and paving allowance	1 allowance	$50,000.00			
	**Drainage allowance	1 allowance	$20,000.00			
	Total site work allowance estimated for curbing option				*$70,000.00*	
2. Parking Stops - *"Total $" prices include site work and alternating trees estimated for parking stop option*						
	a. Concrete Posts - square	60 ea.	$50.00	/ea.	$3,000.00	$66,198.80
	b. Wood Posts	60 ea.	$42.00	/ea.	$2,520.00	$65,718.80
	c. Pipe Bollards - 12" diam. -conc. filled, painted	60 ea.	$440.00	/ea.	$26,400.00	$89,598.80
	**Alternating Trees (stops)	23 ea.	$500.00		$11,500.00	
	**Grading and paving allowance (4" hot top)	1 allowance	$35,000.00		$35,000.00	
	**Granite blocks (8" x 4" x 4") - 2'	1,532 s.f.	$10.90	/s.f.	$16,698.80	
	Total for site work and tree allowance estimated for parking stop option				*$63,198.80*	
3. Guard Rails - *"Total $" prices include site work allowance estimated for guard rail option*						
	a. Timber Guard Rail -4"x 8" w/ 6"x 8" wood posts	1,300 l.f.	$11.05	/l.f.	$14,365.00	$66,063.80
	b. Corrug. Steel Guard Rail -galv. steel posts, 6'3" o.c., double face	1,300 l.f.	$18.60	/l.f.	$24,180.00	$75,878.80
	**Grading and paving allowance (4" hot top)	1 allowance	$35,000.00		$35,000.00	
	**Granite blocks (8" x 4" x 4") - 2'	1,532 s.f.	$10.90	/s.f.	$16,698.80	
	Total for site work allowance estimated for parking stop option				*$51,698.80*	

Portland High School Soccer Boosters

June 1,1998

Mr. Dana Souza, Director of Parks and Recreation
City of Portland
17 Arbor St.
Portland, Maine 04103

Dear Mr. Souza:

With the tremendous growth in soccer at the Youth and particularly the High School age level, the number of participants atPortland High has nearly doubled over the past 5 years. At present we have six high school interscholastic teams - with only one safe playing field, Preble Street Field, for daily practices and 32 regular season games. Preble Street field is used for 14 field hockey games during the same Fall season. Moreover, the Portland Area Youth Soccer Association (" PAYSA"), (which provides a soccer program for elementary and middle school age students during the spring, summer, and fall) has over 600 participants.

Without additional safe playing fields, there are two negative situations that are occuring: Our teams are not able to practice on a daily basis (on most days we have to rotate 4 teams on 1 field for practice and 2 teams cannot practice) , and Preble St. Field is deteriorating rapidly because of the overuse. Five years ago with only 3 soccer teams playing, and Field Hockey using only Doherty field, Preble St. field was adequate as the only soccer site. In order to meet the requirements and demands of Portland's soccer growth, the City MUST immediately increase the number of facilities available for soccer.

The only solution to this intense pressure on Portland's playing fields is to repair Fox St. field and to retain and improve the Preble St. field open area to a safe condition and then develop another site, possibly Payson Park or Dyer Flats. Repair to Fox St. need not be grandiose nor expensive. Adding loam to reduce the many potholes and to level the field, and then seeding and watering would rejuevenate the field enough to allow it to be used as a practice site on a daily basis. The Preble St. field area alluded to above is the area directly in front of the existing soccer field. Although this area is smaller than regulation and could not be used as a game site, the area is an excellent one for practice, small sided games, and sufficient for primary age youth games. This area, however, is in its present state unsafe for use. The entire rectangle desperately needs large potholes filled, leveling, and new grass. This repair, again, is not a huge undertaking, but is one that can help our lack of space tremendously.

The development of another facility site for soccer fields is equally vital to any plan to improve the City's lack of playing field space. Portland should carefully examine the Payson Park, Dyer Flats area, and even the old Foundry Area between Cumberland Ave. and Marginal Way. By so doing, the City would be able to alleviate the overuse at Preble Street Field and Fox Street Field, and the needs of the hundreds of young soccer players in PAYSA would be accomodated.

We, of course, continue to be committed to increasing the access Portland High School's Home Field at Fitzpatrick Stadium. Minimal amenities, such as bleachers, a scoreboard, and a building for concessions, are the norm for all High School Varsity soccer games in our conference. Deering High School, our sibling school across town has these amenities and play all 25 regular season Varsity home field contests on their field, Memorial Field. Portland High School is limited to just 14 Varsity contests each Fall. This inequity is unfair to the athletes at Portland High. Equity and safety are our major goals in this request in increase the usage at Fitzpatrick Stadium.

We at Portland High School and PAYSA must emphasize how important the repairs to Fox Street Field, the increase in usage of Fitzpatrick Stadium, and the development of another playing field are to the survival of our soccer programs that serve the City's youth. Hopefully these two projects will receive top priority in the City's Capital Improvement budget.

Sincerley,

Tom LaPointe

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Please see SANTA
page this section

The Associated Press

Linda Toon, a postal worker at the House of Representatives, grabs another tray of letters to deliver to members of Congress on Tuesday. Thousands of letters and e-mail messages are pouring in to Congress by citizens who want to air their view on impeachment.

der oath - not be punished," said McKer-
nan, a former two-term governor and
two-term congressman.

"On the other hand, I think they're

If the House votes to impea

Please see MAINE,

Back Cove park to be redesigned

● Using money from the Baxter Trust, Portland plans to improve sports fields, paths and parking.

By MARK SHANAHAN
Staff Writer

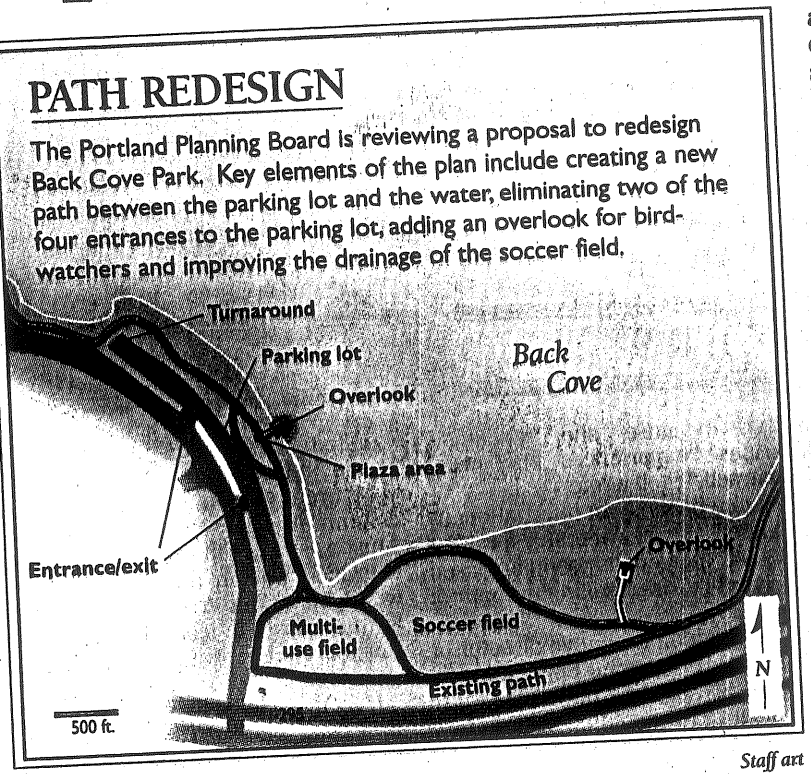
Back Cove park, Portland's most popular place for recreation and a significant habitat for migratory birds, is being redesigned.

A proposal before the Planning Board would enhance the park by completing the stone-dust path around the cove, improving the playing fields and giving bird watchers a better view.

The sprawling, often-chaotic parking lot on Preble Street would be reconfigured to make room along Back Cove's rocky shore for a new path and picnic area.

"There's a huge amount of blacktop down there that's very unattractive," said Richard Knowland, the city's senior planner. "We're trying to create a more park-like atmosphere."

The plan, which needs approval from the Planning Board, is an attempt to better organize the green space set aside by Portland Mayor James Phinney Baxter in the late 19th century.



Staff art

The work, to begin as early as next spring, would be paid for with $400,000 from the Baxter Trust – money that the city got last year after a long legal battle with Boston over the bequests of Baxter and his son, former Maine Gov. Percival B. Baxter.

The key element of the plan is completing the path, which is now interrupted by the sidewalk along Preble Street.

A new section of path between the water and the Preble Street parking lot would complete the loop. It would be complemented by a small plaza, a picnic area and an overlook at the water's edge.

"It makes a connection to the water," said Dana Souza, Portland's director of parks and recreation. "Right now, if you're in the parking lot, you get the sense that the area between the lot and the water is unpleasant."

To make room for the changes and improve the flow of traffic, the city would narrow the parking lot and eliminate two of the four entrances.

Although some Planning Board members say a traffic signal is needed at the entrance to the lot, Souza disagrees. He says a light might encourage people to park at the Shop

Please see PARK
Back page this section

New SU
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By TUX TURKEL
Staff Writer

Peggy Thompson got
call in August. After 11
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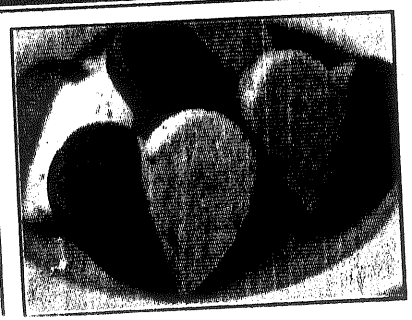


FOOD & HEALTH

For many, Christmas is a time for homemade cookies. Three new cookbooks make the holiday task easier – with sweet results. 1C

THE WEATHER

Still mild but not as warm today, more clouds, high 48. Low in the 30s tonight. Cloudy, light snow Thursday. 12B

INDEX

Abby	4C
Business	6C
Classified	6D
Comics	4C
Deaths	11B
Editorials	18A
Flip Side	12D

PARK

Continued from Page 1A

'n Save plaza and walk across busy Preble Street.

More interesting than the changes to the parking lot are proposals for better playing fields and a new boardwalk and bird-watching station.

The fields, which are heavily used by Portland High School soccer and field-hockey teams as well as adult and youth soccer leagues, would be re-engineered to improve the irrigation and drainage.

"It's an example of any number of fields in Portland that are overused and need to be repaired," said Tom Lapointe, a Portland High soccer booster. "These fields need to be properly maintained, and this is a start."

Many people who walk or run around Back Cove may not know that the area is an important habitat for a variety of birds. At one time or another, more than half of the 400 or so bird species in Maine have been spotted feeding or just standing on the shore of Back Cove.

For that reason, a small lookout would be built near the wetlands on the Interstate 295 side of the cove.

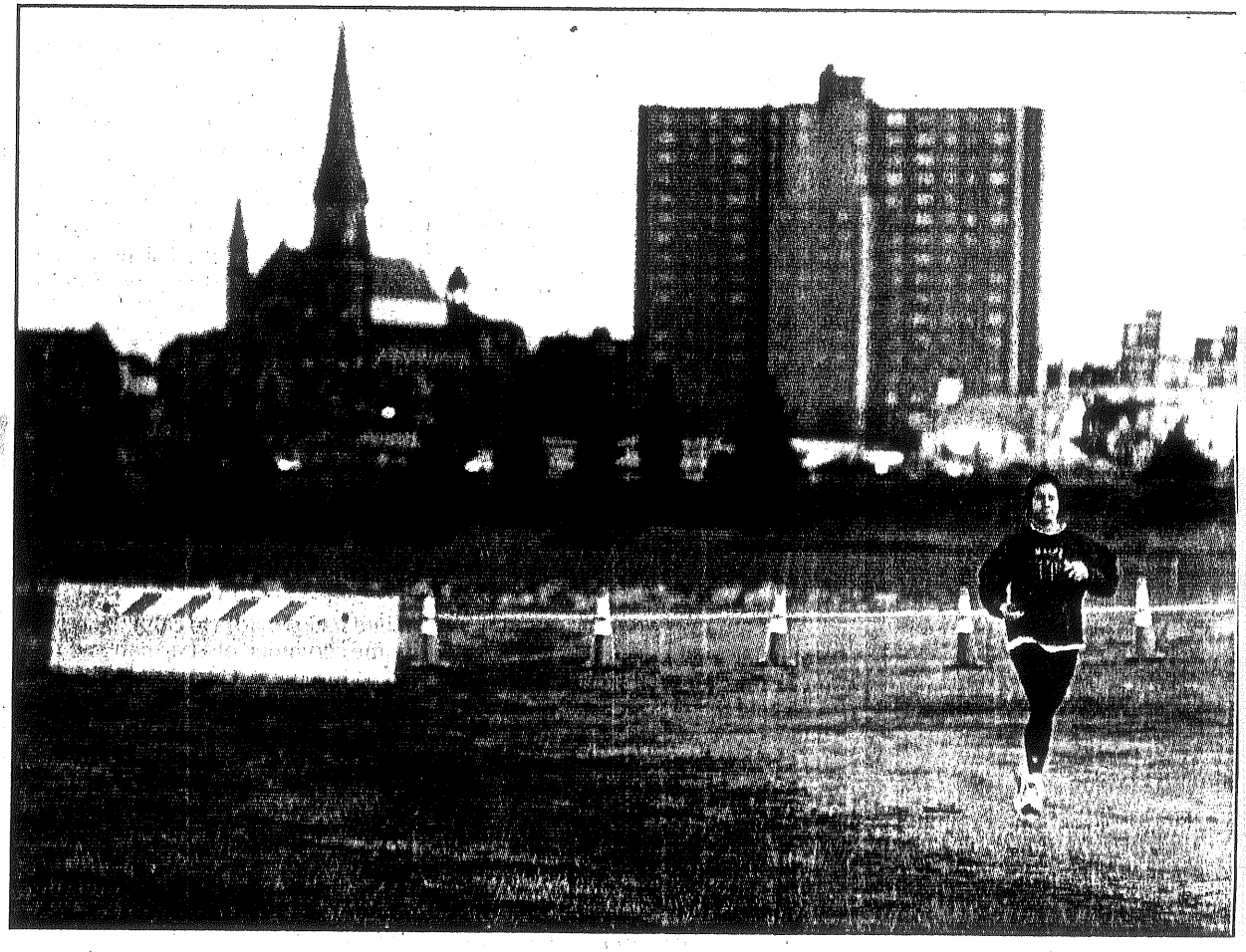
Richard Eakin, a biology professor on the Westbrook College campus of the University of New England, has been watching birds at Back Cove for 26 years. He said he is delighted that the city is now encouraging others to take a look.

More interesting than the changes to the parking lot are proposals for better soccer and field-hockey playing fields and a new boardwalk and bird-watching station.

"This is an oasis in an urban area," Eakin said. "Of course, I'd have some concerns if people were all over down there – you can love a place to death – but I don't think that will happen."

The proposed redesign of Back Cove follows similar discussions about improving nearby Baxter Boulevard and Payson Park. After years of neglect, due primarily to budget constraints, Souza said the city's parks are making a comeback.

"When there are reductions (in funding), parks and recreation are the first to be hit because they're not considered essential services," he said. "We're moving to correct that."



Staff photo by Gordon Chibroski

Steve Treat of Portland runs on the area where a new path will be constructed to complete the loop around Back Cove. The barriers will be removed so runners don't have to run through the parking lot.

SANTA

Continued from Page 1A

Sagadahoc and Knox counties.

This year, organizers hope to raise more and give more.

Despite the fact that their one vehicle is falling apart and they don't have enough money for blankets and warm clothes, the woman says her family has something that many others don't. "We do love one another, and somehow we will make it through this difficult time," she writes.

Another woman wrote to the Santa Fund after losing her job this year.

From Courtney, Lynne, Michael, Cora, Kaitlin, Adriana and Nana White at Presumpscot School $5
In memory of my brother Steve from your mom, Barbara, and your brothers, T.J. and D.C. Stelling $5
In memory of Buzzy $5
In memory of Judy, from Cliff and Gerry Ashley $10
In memory of Susan Bishop, from Aunt Mary Ann $10
In memory of Susan Bishop, from Harry and Joanne Irvin $10
In memory of Muffin Biscuit, Cupcake and Danish, from Shron Libby ..... $..... $10
Vietnam Vet 10
Great Nana $10
Henry and Loretta Ayotte $10
In memory of Dr. Alex Tanous $10
Merry Christmas, from Jim Varmecky $10
Bob Newman $15
Mary and John Douglass Jr. $25
In memory of my grandmothers, Hazel Strout and Mary Goodine, with love - Sara $25
In memory of John D. Cogswell and Tiffy $25
Merry Christmas to Phaedra Gallant .. $25
In memory of Patrick and John McGovern, from Jeff, Vickie, Michael and Kelly ... $25
In memory of Uncle Bim, from Herbert and Helen Whitmore $25
From Sarah and Benjamin $25
From Gram $25
Betty and Austin Nichols $25
In memory of Paul A. Kenney, from Marvin and Patricia Kenney $25
Merry Christmas! Danielle and Kristen $25
In loving memory of Marilynn Savage Southard, she loved Christmas, from Mom and Dad Harvey $25

BRUCE ROBERTS FUND

The Bruce Roberts Santa Fund uses donated money to buy gifts and then distributes them to needy children up to age 16. Gift packs contain items appropriate to each child's age and sex.

The fund, serving Cumberland, York, Lincoln, Sagadahoc and Knox counties, relies on the generosity of readers of the Portland Press Herald and Maine Sunday Telegram. Donations will be

Sanford Alternative School $28
In memory of my loving Dad, Alton L. Hamm. Jr. Love, Mary $35
In celebration of the birth of Matthew Cook, love Grammie $35
In loving memory of our mom, Linda Freudenberger, from Braden, Colin, Kelsey and Kacie $35
The Ennamorati family $40
In lieu of local Christmas cards, from Peter, Rae, Seth and Molly Brown $40
The students of VICA Club at Portland Arts and Technology $40
Kenneth Cleaves $50
Michael and Kathy Duell Camire $50
Sons of American Legion Post 161 ..... $50
Robert and Elizabeth Lemieux $50
For Aunt Nancy, we miss you $50
Nicholas and Marguerite Ferraris $50
From the Lum family $50
Guy and Eleanor Vigue $50

11-2-98

STAFF COMMENTS ON PROBLE ST. PARK

1. SEE TONY LOMBARDO'S MEMO

2. PROPOSED BUILDING DOES NOT MEET THE 75 FT WATERFRONT SETBACK

3. PARKING SPACES HAVE BEEN LOST, NOT GOOD, COULD YOU LOSE THE WESTERLY CUL-DE-SAC? IT IS NOT EFFICIENT IN TERMS OF PARKING SPACES LOST

4 HOW DOES THIS PLAN ACCOMMODATE THE BAXTON BLVD CROSS SECTION?

5. SHOW LIGHTING LOCATION, TYPE OF FIXTURE, HEIGHT OF POLE. ALSO SHOW EXISTING LIGHTING

6. TYPICAL CROSS SECTION OF TRAIL MATERIALS NEEDED

7. EXISTING SITE CONDITION PLAN NEEDED.

8. WHAT IS THE CAN BARRIER THAT KEEPS THE PANICLE CANE IN PLACE?

9. OVERLOOK CROSS SECTION IS NEEDED. WHAT ARE THE MATERIALS? WHAT DOES IT LOOK LIKE?

10. PUT STANDARD SITE PLAN NOTES ON THE PLAN

11. WHAT IS GOING TO BE THE BOGG TREATMENT ALONG THE SWALE? GRASS?

12. WHERE ARE THE COMPACT SPACES?

13. BOARDWALK MATERIALS? SHOW TYPICAL CROSS SECTION

14. INDICATE PLAZA MATERIALS

15. EXISTING AND PROPOSED TREES, YOUR TREE SELECTION CHART SHOULD BE ON THE PLAN.

16. EROSION AND SEDIMENTATION CONTROL MEASURES NEED TO BE SHOWN ON THE PLAN

17. SIDEWALK RAMP AND DRIVEWAY ENTRANCE DETAILS NEED TO BE SHOWN

18. WILL REPAVING AFFECT DRAINAGE OR PARKING LOT

19. EXPLAIN REGRADE + IMPROVE SWALE AND MULTI-PURPOSE AREA

19. BENCH LOCATIONS

20. UTILITY LOCATIONS

PUBLIC WORKS ENGINEERING MEMORANDUM

To: *Rick Knowland, Senior Planner*
From: *Anthony Lombardo, P.E., Project Engineer*
Date: *October 30, 1998*
Subject: *Back Cove Park*

The following comments were generated during Public Works Engineering review of proposed Back Cove Park, as submitted by Richardson and Associates. The plans and application were dated October 27, 1998.

- *Missing from this submission is a "Standard Boundary Plan", prepared and stamped by a professional licensed surveyor. This requirement is per the Land Use Ordinance, Section 14-525(b).*
- *The "Site Plan", as submitted, indicates no proposed grading for any of the following:*
    1. *parking area*
    2. *proposed building*
    3. *waterside path*
    4. *plaza*
    5. *overlook A*
    6. *overlook B and boardwalk*
- *Applicant indicates the existing parking area will be overlaid with additional pavement. The depth of overlay must be specified. In addition, proposed spot grades will be necessary .*
- *The applicant proposes to close the northwesterly entrance, however, this "site plan" is not drawn at an appropriate scale to determine the extent of work proposed in this area.*
- *Public Works does not feel the plan entitled "site plan" is anything more than a conceptual plan for the following reasons:*
    1. *plan only specifies existing grades and does not specify any proposed grading.*
    2. *plan is drawn at a scale too small to identify the extent of proposed work.*
- *A full set of "construction details" must be submitted for all of the proposed work if this application is to be considered complete.*
- *An "erosion and sediment control plan" is an absolute must for a project positioned so close to a coastal wetland. This erosion and sediment control plan must be included as part of the construction drawings.*
- *An NRPA, Permit-by-Rule application must be filed with MDEP for work proposed so close to a coastal wetland. The applicant must provide evidence of this application to*

Public Works. An Army Corps of Engineers permit will be required for an work below the mean high water elevation. A copy of this application must be included as part of your submittal to the City as well.

- *The proposed "stormwater management plan" must be explained in more detail and must be shown in plan form at a more acceptable drawing scale. This drawing should be accompanied by "construction details".*

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

FROM: Alexander Jaegerman, Chief Planner

DATE: August 21, 1998

SUBJECT: Preble Street Park Site Plan and R-OS Review

The Preble Street park plans have been significantly revised since the Planning Board workshop last spring. The attached *Back Cove Park Master Plan* submission by the consultants, Richardson & Associates, presents the plans in detail. The plan is much more focused on basic improvements and adheres to a realistic budget amount. The basic principle of providing about the same amount of legitimate parking spaces while reclaiming the water's edge for open space, walkway, and recreation, has been achieved. Overflow parking can be readily accommodated in the Marginal Way lot less than 500 feet from the Preble Street lot.

I received a letter from a citizen who raises issues about mowing in the vicinity of the wetland area. That letter and the consultant's response are attached.

BAKER DESIGN CONSULTANTS

04/06/99

Frank Liggett- LA
Richardson & Associates
Pepperell SquarePO Box 426
Saco, ME 04072

Subject: Wetlands Boardwalk
Back Cove Park- City of Portland

Dear Frank,

I have completed a preliminary review of the Wetlands Boardwalk. The attached sketch indicates my recommendations for the structure. Key items are noted below with some discussion of the alternatives.

1. Loading- I have used a design live load of 50 psf, which is reasonable for the walkway. This will be increased to 100psf at the overlook.

2. Decking- 2 x 6 Composite decking (Trex –or equal) is recommended. 2 x 4 pressure treated Southern Yellow Pine No. 1 will work but will not be as long lasting. The decking must be supported at 24" (max) on center in order to achieve a 50-psf live load capacity.

3. Deck Beams- 3 beams are required to support the 6'-0" wide walkway. I have indicated some options on the sketch depending on the walkway span. The best way to support these members is to stagger/overlap the beams at the support. This makes for a simple connection detail that tolerates field span and angle differentials.

4. Foundation- I recommend the solid concrete bent be used instead of three (3) sonotubes. This is much more stable against lateral loading and effectively anchors the walkway during flooding. They could be precast off site and placed with minimal excavation by a wetland backhoe fitted with a narrow bucket. There would be no differential settlement in the walkway at each sonotube bent location.

Please call with any questions.

Sincerely,

BAKER DESIGN CONSULTANTS, Inc.

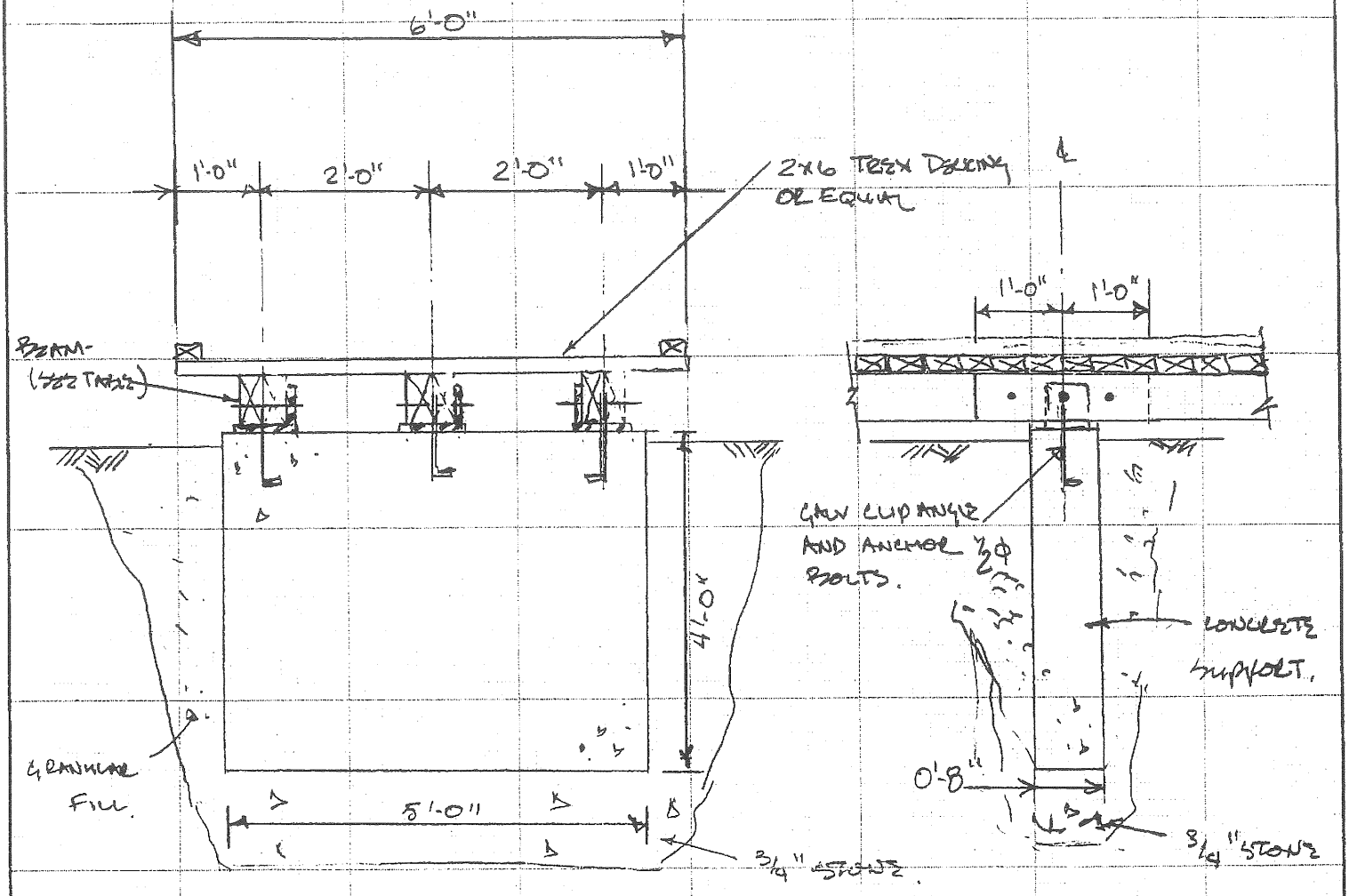
Barney Baker PE
JN: 99008

Copy w/Enc.
Christopher Di Matteo- LA, Portland Parks and Recreation

11 STONY BROOK LANE, YARMOUTH, ME 04096 PHONE: (207) 846-9724 FAX: (207) 846-5620 EMAIL: bakerdesign@compuserve.com

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park — SHEET NO. 1 OF 1
CALCULATED BY BSB — JOB NO. 99008
CHECKED BY — DATE
ITEM WETLAND BOARDWALK DESIGN



PIER ELEVATIONS

WT = 4'x5'x8 / 12 = 2000 lbs.

BEAM SPAN TABLE

SPAN	COMPOSITE BEAM	SOUTHERN YELLOW PINE
8'-0"	PSL-PT 1.75"x5.5"	2x8 PT
10'-0"	PSL-PT 1.75x7.25"	6x6 PT No.1
12'-0"	PSL-PT 1.75x.9.25"	6x8 PT No.1
	2.0E 2900 Fb	

DRAFT
6/APR/99

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BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Post-it® Fax Note 7671	Date 22 March	# of pages ▶ 5
To Frank Liggett	From Barney Baker
Co./Dept Richardson	Co. BDC
Phone # 284-0139	Phone # 846-9224
Fax # 286-9650	Fax # 846-3620

To: Stephen Rabasca
Peterson-Rabasca GeoEngineers
46 Main Street
Yarmouth, ME 04096

FILE COPY

From: Barney Baker, PE

Date: March 19, 1999

Subject: Pedestrian Marine Overlook- Back Cove Park- City of Portland

Copy: File, Frank Liggett-Richardson & Associates, Chris Di Matteo-Portland Parks and Recreation

Job No: 99008

(207) 846-4220 D:\BDC\PROJECTS\99\99-08PTLND\PKIT-PR-1.DOC

TRANSMITTAL

Reviewed ☐
For your use ☐
As per your request ☐

VIA:
Personal Delivery ☐
Special Delivery ☐
Messenger ☐
U.S. Mail ☐
U.S. Express Mail ☐
Overnight Express ☐
UPS ☐
Separate Cover ☐
Fax ☐
Modem ☐

Attached are draft sketches for the proposed pier structure and an incomplete outline of design parameters needed to analyze the pier. As per our discussion, I hope your pending geotechnical fieldwork will allow you to define the Soil/Pile parameters.

The sketches identify 3 elements of the pier construction that require geotechnical input.

1. Abutment/retaining wall- This structure retains/supports the landward side of the elevated Boardwalk and provides a solid base for granite blocks above. I anticipate a reinforced concrete retaining wall structure with spread footing

2. Marine Overlook. Timber pile with composite deck. The geometry requires extra piles. To limit exposure to ice, no intertidal bracing is proposed. To resist lateral loads, batter piles are indicated.

3. Connecting Walkway. Each bent consists of two (2) piles. The structure is in the shadow of the Overlook and is therefore somewhat protected from ice buildup. Intertidal bracing is anticipated.

Please comment on the suitability of the proposed structure support at this site and tailor the pending field exploration to best determine design values.

Please call with any questions on the information provided.

March 19, 1999
DRAFT

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Pedestrian Marine Overlook- Back Cove Park
City of Portland Parks and Recreation

STRUCTURE DESIGN PARAMETERS

Applied Loading

Live Load	Walkway	85 psf
(Pedestrian)	Overlook	100 psf
	Boardwalk	100psf
Wind Load	Basic Speed	100 MPH
	Max Pressure	50 psf
Ice Load	shear strength	100psi (assumes fractures and breakup due to tidal action)
	density	50 pcf
	thickness	6 inches

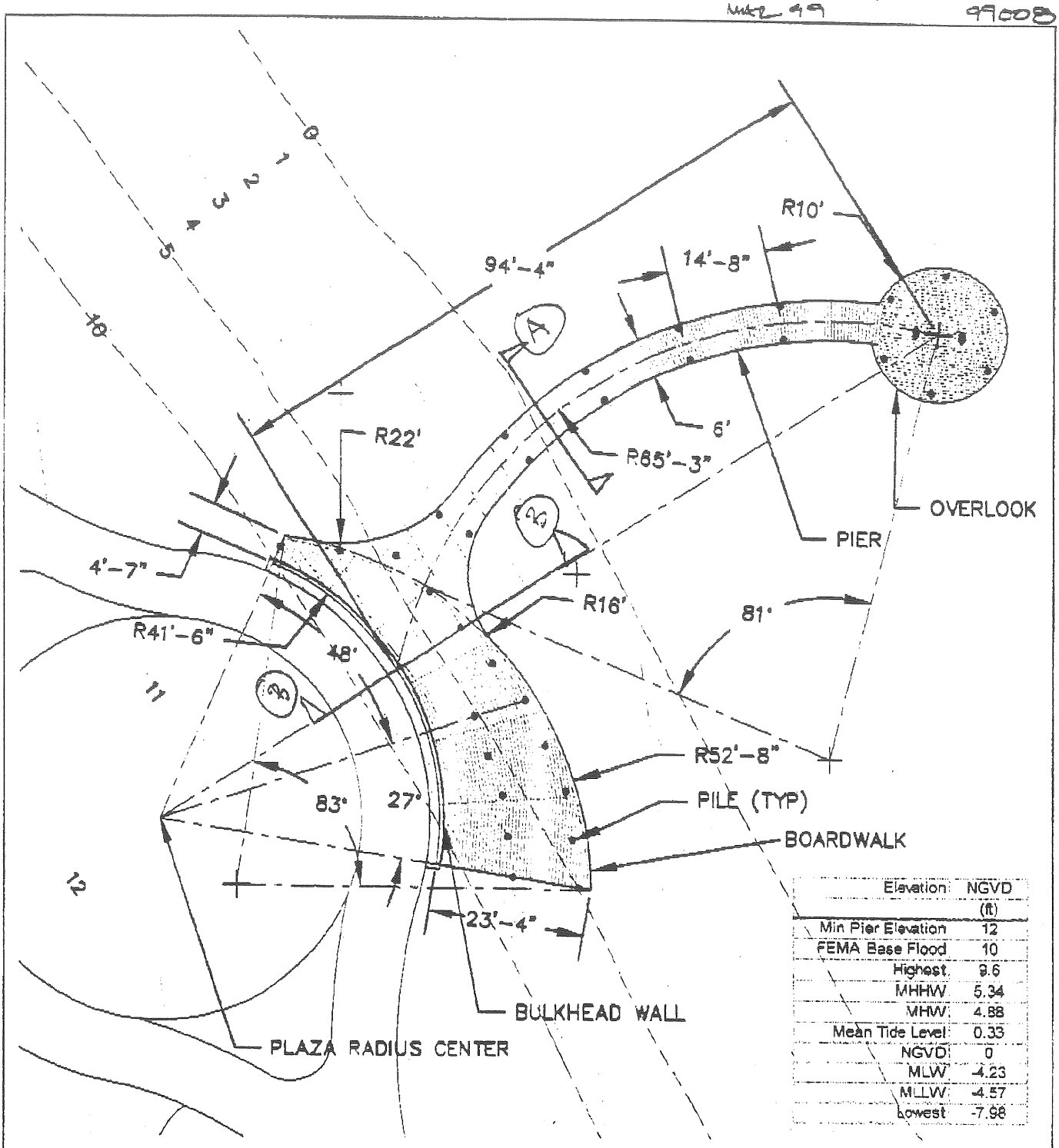
Soil/Pile Parameters

Abutment	Bearing
	Backfill
Piles	Shear Friction
	End Bearing
	Downdrag
	Pile Penetration

Based on the above parameters and proposed pile spacing, typical pile loads are outlined below. Refer to the attached sketch for point of application.

LOAD TYPE	PILE LOAD		POINT OF APPLICATION	
	Axial (kips)	Lateral (kips)	Elevation	Notes
Dead	.5 to 1.5	-	10.0	Deck self wt/Top of Pile
Live	2.5 to 3.5	-	10.0	Pedestrian/Top of Pile
Ice load	2.5 to 5.5	3.6	-5.0 to 5.0	Tidal Zone
Ice uplift	-2.5 to –5.5	NA	-5.0 to 5.0	Ice block (10'-15') sq. x 6" thick

Preliminary
Mar 99



Elevation	NGVD (ft)
Min Pier Elevation	12
FEMA Base Flood	10
Highest	9.6
MHHW	5.34
MHW	4.88
Mean Tide Level	0.33
NGVD	0
MLW	-4.23
MLLW	-4.57
Lowest	-7.98

PURPOSE Boardwalk, Pier, Overlook

PIER GEOMETRY

1"=20'-0"

APPLICANT Parks & Recreation
17 Arbor Street
Portland, ME 04103

PROJECT
BACK COVE PARK
CITY OF PORTLAND

COUNTY OF CUMBERLAND

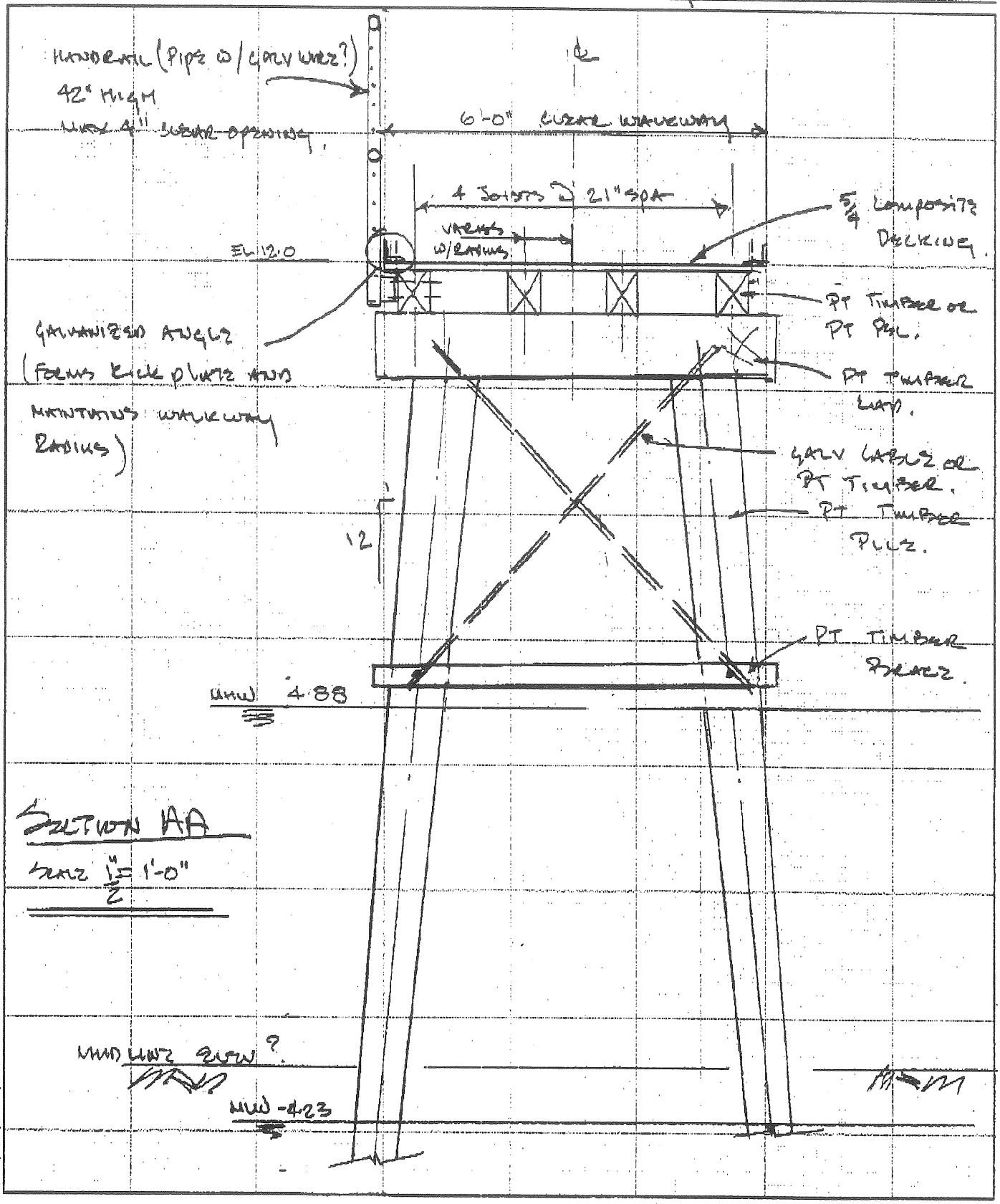
DATE MARCH 99

SHEET NO. 1 OF 3

Baker Design Consultants
11 Stony Brook Lane Yarmouth, ME 04096 (207) 846-0776

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Rock Lane Rock SHEET NO. 2 OF 3
CALCULATED BY BSB JOB NO. 99008
CHECKED BY DATE 4/6/99
ITEM Preliminary Pier Section DATE



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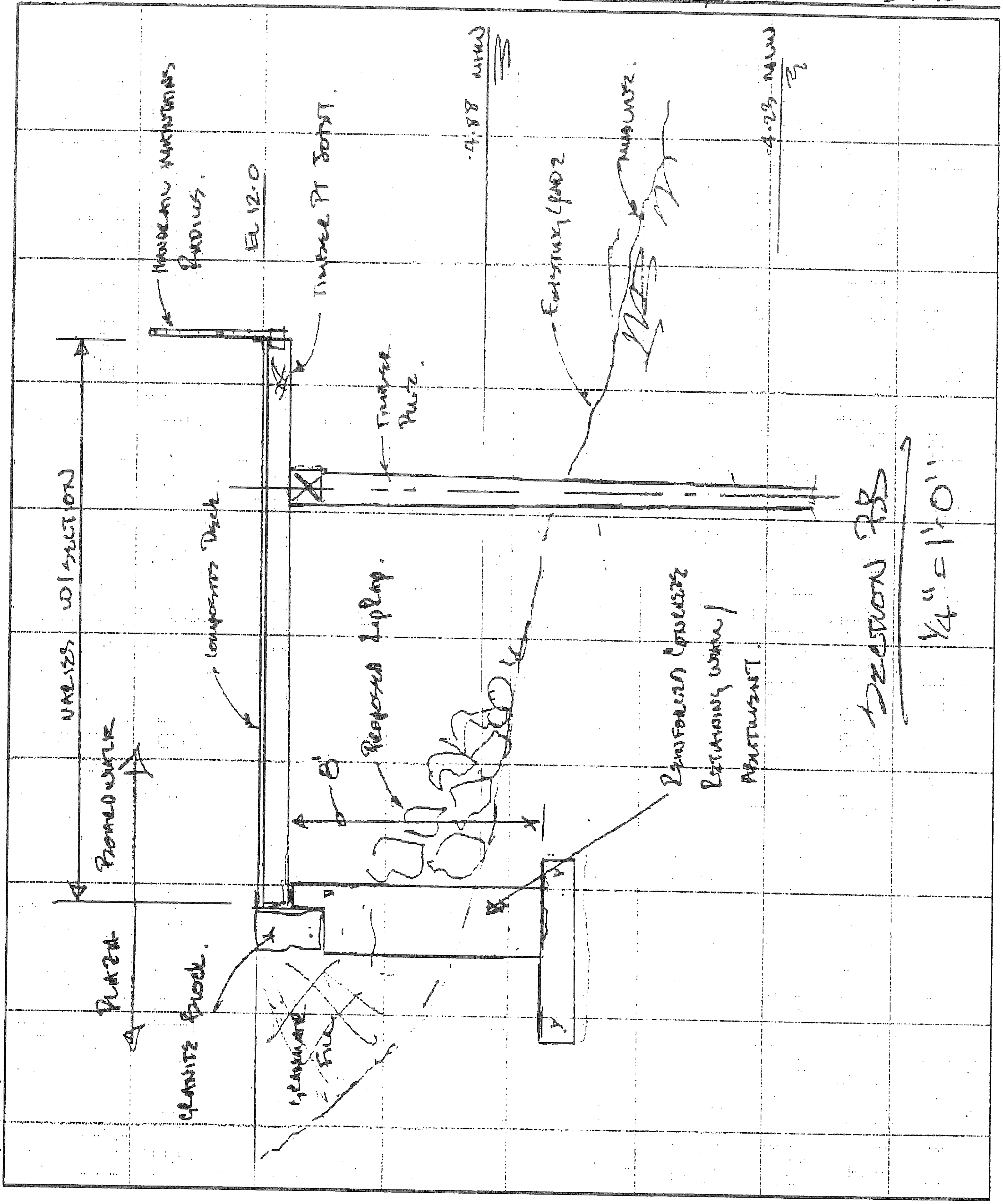
BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park SHEET NO. 3 OF 3
CALCULATED BY BMB JOB NO. 98009
CHECKED BY DATE MAR 99
DATE
ITEM Preliminary Boardwalk Section



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BACK COVE PARK
Portland, Maine

March 22, 1999

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

BACK COVE PARK
Portland, Maine

March 22, 1999

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1 3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used (refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

3.19.99

BACK COVE PARK
STORMWATER MANAGEMENT PLAN

Introduction

This stormwater management plan has been prepared for Richardson & Associates for the construction of a parking lot at the proposed Back Cove Park in Portland, Maine. The proposed park is located between Preble Road Extension and Back Cove. The area associated with this analysis is an approximately 1.39 acre parking lot for the proposed park.

Stormwater Runoff Analysis

Methodology

Stormwater runoff calculations for the site were prepared using the Rational Method. This method was chosen because it is more appropriate in estimating the runoff from small homogeneous areas. A 25 year storm frequency was used as the basis for this analysis as required by the City of Portland's design standards.

Hydrology

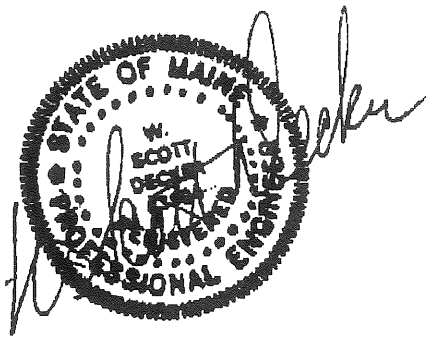
The Rational Method estimates runoff rates based on the following formula:

$Q = CiA$ where

- Q = (peak) rate of runoff in cubic feet per second (cfs),
- C = runoff coefficient which is dependent on the characteristics of the drainage area (land use/cover),
- i = average rainfall intensity in inches per hour and
- A = drainage area in acres.

Because the majority of the area is going to be paved, the value of C was calculated assuming all impervious area.

Rainfall intensity is determined from historical data published in the form of Intensity – Duration – Frequency (I-D-F) Charts. For this project, rainfall intensities were based on historical data established for Portland, Maine, for a 25 year frequency. The I-D-F chart is included in the calculations.



[redacted]

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

SQUAW BAY CORP.
Consulting Engineers
P.O. BOX 192, CUMBERLAND CENTER, ME 04021

JOB NO. 99.222
SHEET NO. 1 OF 1
CALCULATED BY SMT DATE 3-19-99
CHECKED BY _____ DATE _____
SUBJECT Drainage Areas
SCALE 1" = Rational Method

CB #1
A = 13584 S.F = 0.31 Ac
i = 6.2
C = 0.9
Q = C i A = (0.9)(6.2)(0.31) = 1.73 cfs

CB #2
A = 18544 S.F = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #3
A = 2827 S.F. = 0.06 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.06) = 0.33 cfs

CB #4
A = 18544 S.F = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #5
A = 19317 S.F = 0.444 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.44) = 2.46 cfs

Line No. (1)	Location (2)	CB Manhole No. From (3)	CB Manhole No. To (4)	Length (ft) (5)	Tributary Area Increment (acre) (6)	Tributary Area Total (acre) (7)	Time of Flow To Upper End (min) (8)	Time of Flow In Section (min) (9)	Σ Time Impervious Area (min) (10)	C (11)	i Runoff (inch/hour) (11)	Total Runoff (cfs) (12)	Slope of Sewer (13)	Diam (in.) (14)	Capacity Full (cfs) (15)	Velocity Full (fps) (16)	Design Flow Velocity (fps) (17)	Design Flow Velocity Head (ft) (18)	Design Flow Depth of Flow (ft) (19)	Design Flow Total Energy Head (ft) (20)	Manh Loss Transit + Cur + Junc (ft) (21)
					0.44	0.44	5	—	5min	0.9	6.2	2.46									
L1		5	4	236				1.26					0.0034	12	2.46	3.13					
					0.43	0.87	5		6.26	0.9	5.7	4.46	Use	15"	S=0.00	3					
L2		4	2	238				1.57					~~0.0013~~	~~18~~	4.46	2.52					
					0.06 0.43	1.36	5		6.57	0.9	5.6	6.85									
L3		2	1	218				0.34					0.003	18	6.85	3.88					
					0.31	1.67	5		5.94	0.9	5.0	8.72									
L4		1	0	62				0.21					0.0049	18	8.72	4.93					
									5.21	1.9	6.1	9.17									

SQUAW BAY CORP

03/19/99 11:19 FAX 207 829 2231 004

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth.....	1.18 ft
Critical Slope.....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 2

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	7.59 cfs

Computed Results:

Full Flow Channel Slope	0.0037 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	4.30 fps
Flow Area.....	1.77 sf
Critical Depth....	1.07 ft
Critical Slope....	0.0051 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	7.59 cfs
QMAX @.94D.....	8.16 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 3

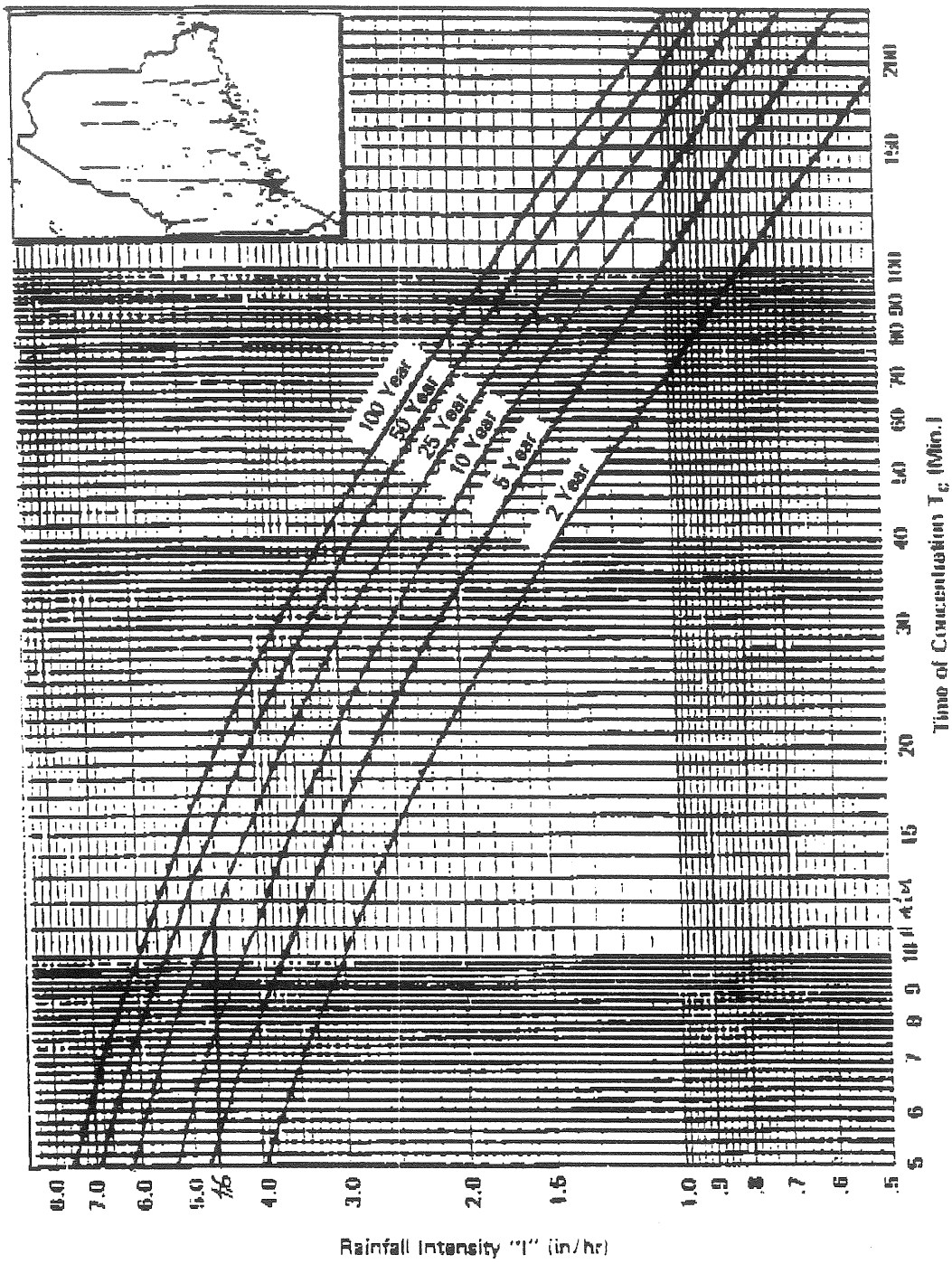
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	0.36 cfs

Computed Results:

Full Flow Channel Slope	0.0000 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	0.46 fps
Flow Area.....	0.79 sf
Critical Depth....	0.25 ft
Critical Slope....	0.0040 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	0.36 cfs
QMAX @.94D.....	0.39 cfs
Froude Number.....	FULL



IDF CURVE FOR CITY OF PORTLAND
(Rational Method)

Figure 12-12

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 4

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	4.85 cfs

Computed Results:

Full Flow Channel Slope	0.0015 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	2.74 fps
Flow Area.....	1.77 sf
Critical Depth.....	0.85 ft
Critical Slope.....	0.0041 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	4.85 cfs
QMAX @.94D.....	5.22 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 5

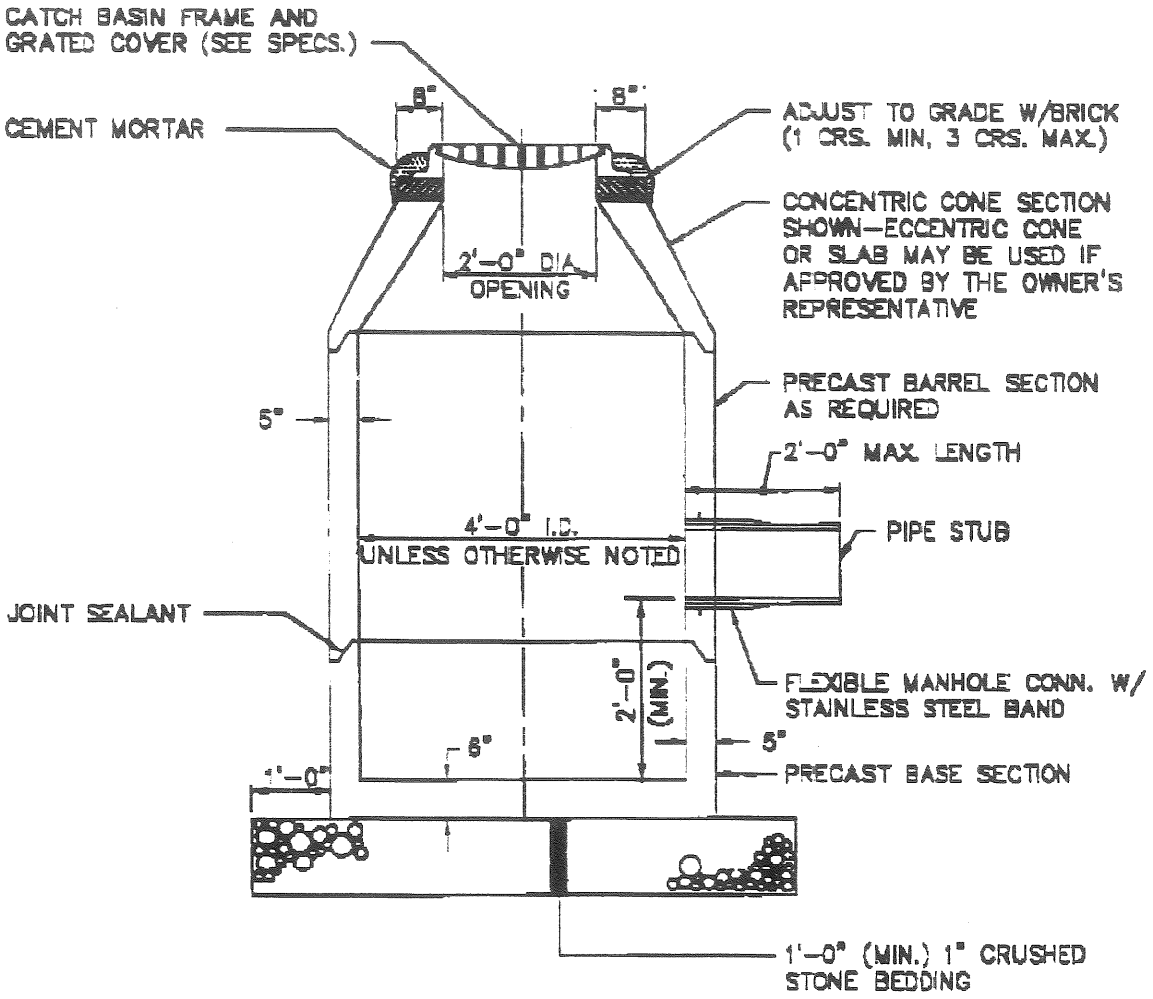
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	2.47 cfs

Computed Results:

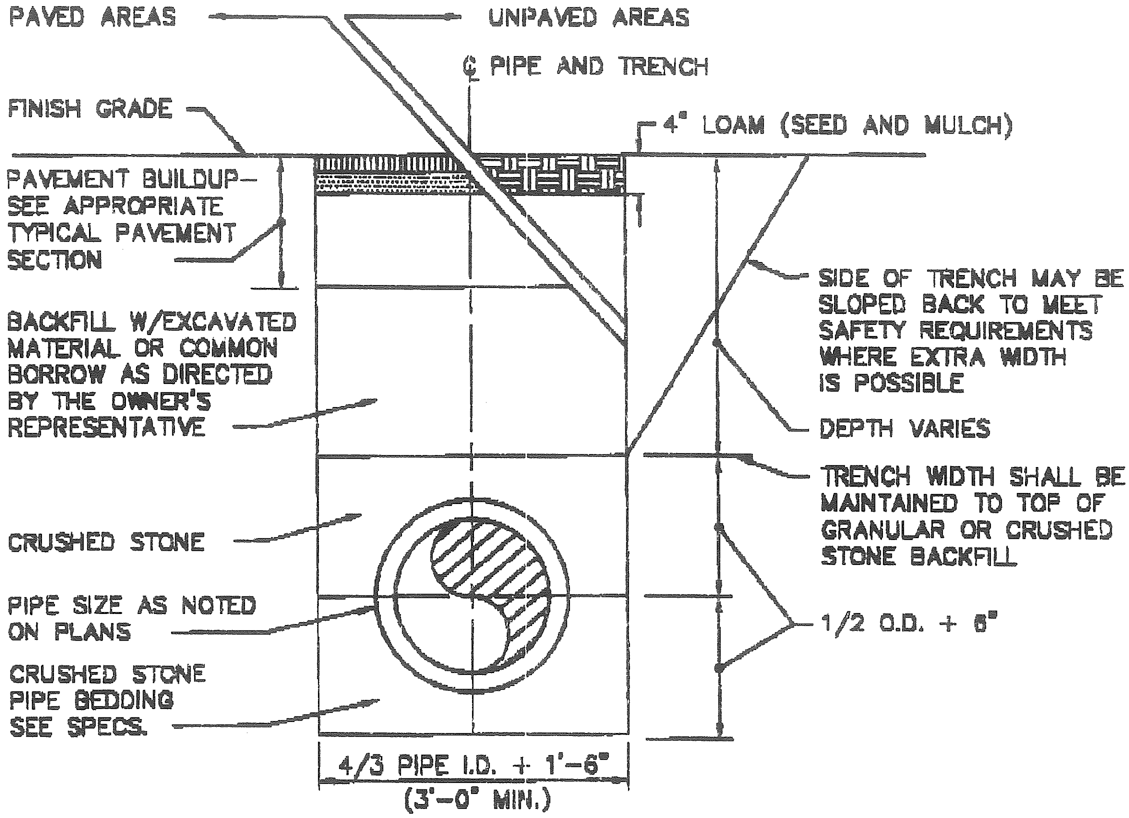
Full Flow Channel Slope	0.0034 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	3.14 fps
Flow Area.....	0.79 sf
Critical Depth....	0.67 ft
Critical Slope....	0.0054 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	2.47 cfs
QMAX @.94D.....	2.66 cfs
Froude Number.....	FULL



TYPICAL CATCH BASIN

N.T.S.

Squaw Bay Corp Consulting Engineers Land Surveyors	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE TYPICAL CATCH BASIN	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-300	REV.



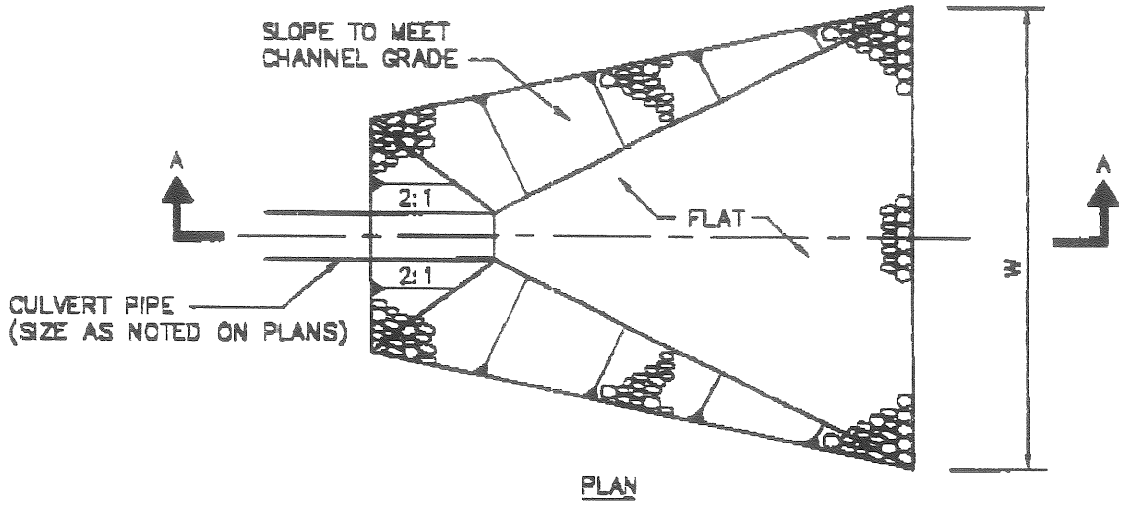
TYPICAL TRENCH DETAIL

N.T.S.

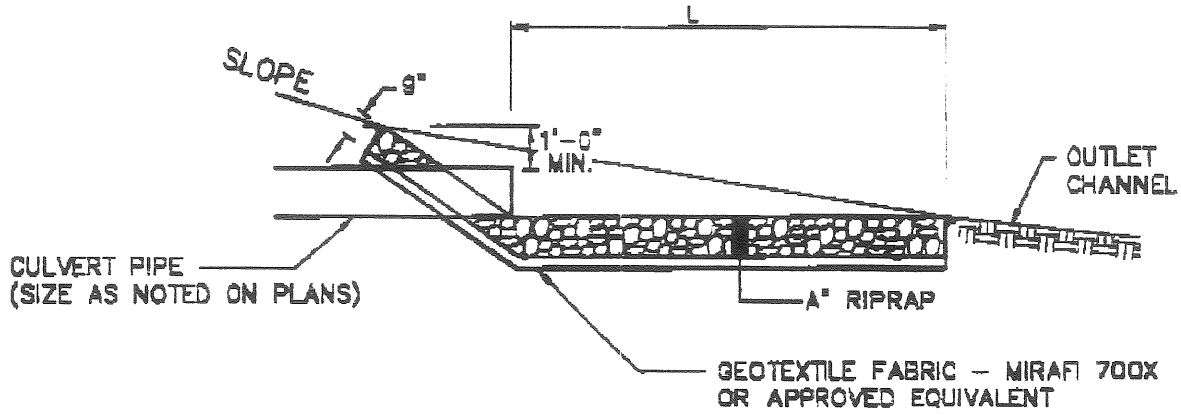
Squaw Bay Corp
Consulting Engineers & Land Surveyors

RICHARDSON & ASSOCIATES
P.O. BOX 426, SACO, MAINE 04072

DESIGN	WSD	PROJECT:	BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE
DRAWN	SMT		PIPE TRENCH DETAIL
CHKD	WSD		
	MARCH 1999	PROJ. NO.	99-222
SCALE	N.T.S.	DWG. NO.	C-301



PLAN



SECTION A–A

DIAMETER	L	W	A	D_{50}
18"	8'	5'	12"	5"

RIPRAP INLET/OUTLET PROTECTION

N.T.S.

Squaw Bay Corp Consulting Engineers & Land Surveyors P.O. BOX 426, CUMBERLAND CENTER, ME. 04021	DESIGN WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE	
	DRAWN SMT		
	CHKD WSD	RIPRAP OUTLET PROTECTION	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999	PROJ. NO. 99–222	REV.
	SCALE N.T.S.	DWG. NO. C–302	

Memorandum

Portland Parks and Recreation

To: Rick Knowland

From: Dana Souza

Date: Wednesday, October 28, 1998

Re: Back Cove Park

CC: Chris DiMatteo, File

The following are answers to Site Plan Review questions 3, 4, 9 and 10, (Found in Article V. Site Plan—Sec. 14-525. Final site plan.), in preparation for the Planning Board's upcoming review of Back Cove Park masterplan.

(3) General Summary of existing and proposed easements or other burdens now existing or to be placed on the property; (pg. 1357)

The following are restrictions and limitations that exist today on the parcels that constitute Back Cove Park. Our department is currently looking into these constraints.

(1) Egress and ingress to the premises is limited to that area outlined on the plan in Appendix A.
(2) No motor vehicles will be permitted on the premises except those engaged in construction, maintenance or the provision of emergency activities.
(3) No permanent buildings shall be constructed on the premises except those needed for athletic or maintenance activities.
(4) No change in the elevation of the land shall be made unless permission from the Grantor is first obtained.

The above constraints along with the description of the parcel are found in the title for the parcel on file at the Cumberland County Registry of Deeds.

(4) The types of estimated quantities of solid waste to be generated by the development; (pg.1357)

Parks and Recreation maintains the existing site, and will continue to do so in the future. Currently Parks and Recreation maintenance crews maintains five 20-gallon trashcans at the site which are emptied daily. With the completion of the proposed improvement, our operations will remain unchanged.

(9) Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so; (pg. 1357)

Parks and Recreation anticipate on spending approximately $350,000.00 on the proposed improvements. Funds from within the Baxter Trust Account will pay for the project.

(10) Evidence of the applicant's title. Right, or interest in the property, including without limitation deeds, leases, purchases options or any other documentation; (pg. 1358)

As per the title, on file at Cumberland County Registry of Deeds and information from the City Assessor's Office, the City of Portland owns all the land that constitutes Back Cove Park.

I haven't had a chance to fully look at this part of the submission Chris.

BACK COVE PARK
Portland, Maine

Amenities Proposal
March 9, 1999

TABLE OF CONTENTS

I. Lighting.....1

II. Bench.....2

III. Trash Receptacle.....3

IV. Drinking Fountain.....4

V. Bicycle Rack.....5

VI. Picnic Table.....6

KEY TO AMENITIES SYMBOLS ON DRAWINGS:


Lighting


Bench


Trash Receptacle


Drinking Fountain


Bicycle Rack

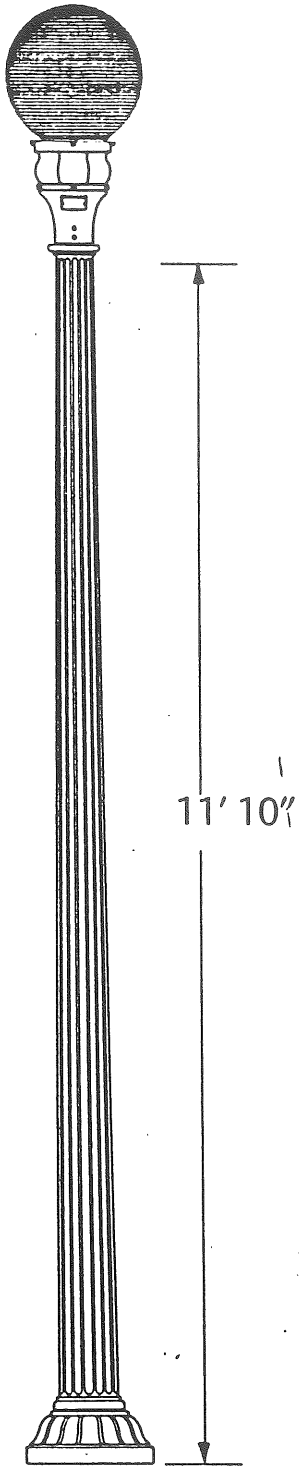

Picnic Table

RECREATION / FIELD TASK FORCE

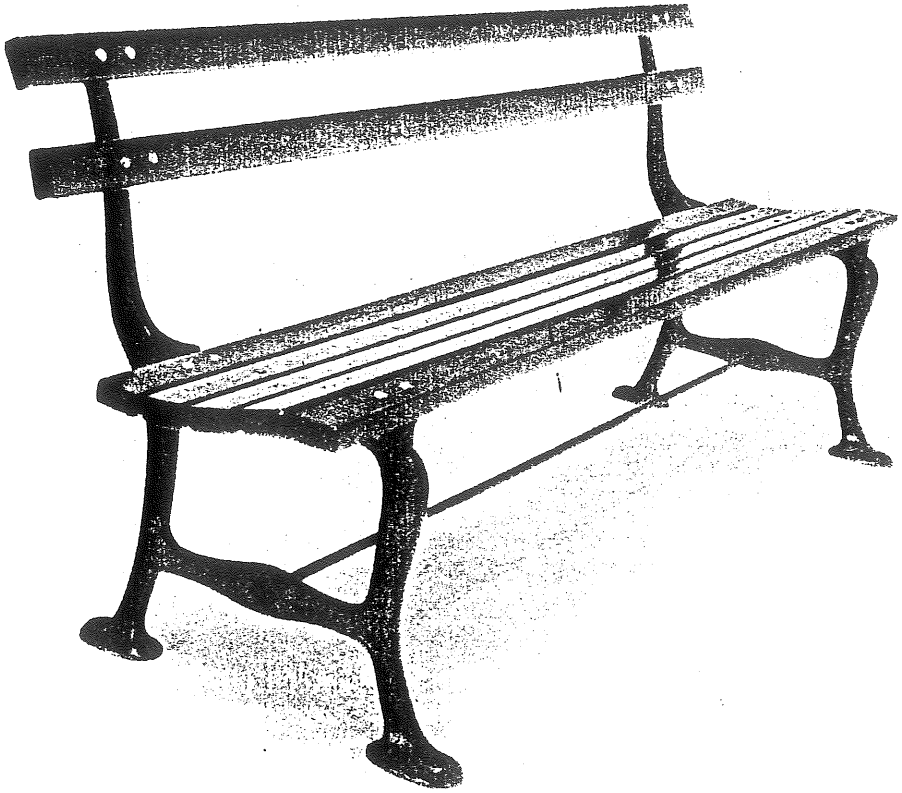
- Inventory ; analysis of uses, demand ; expansion needs

D. Brennan, T. LePointe, Nelson Toner, Payson (Dep Fenton), Ch Kuhbach, School Dept. Ray Mailman, DNJ, black lab football
adult users, nonschool users

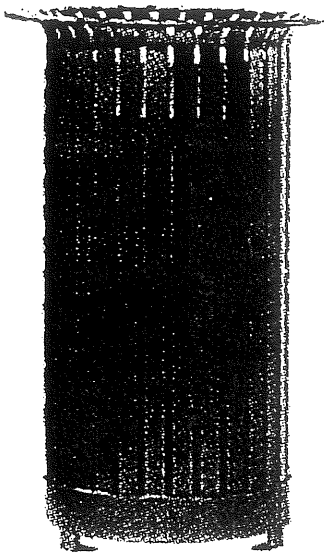
Mission Statement Discussion



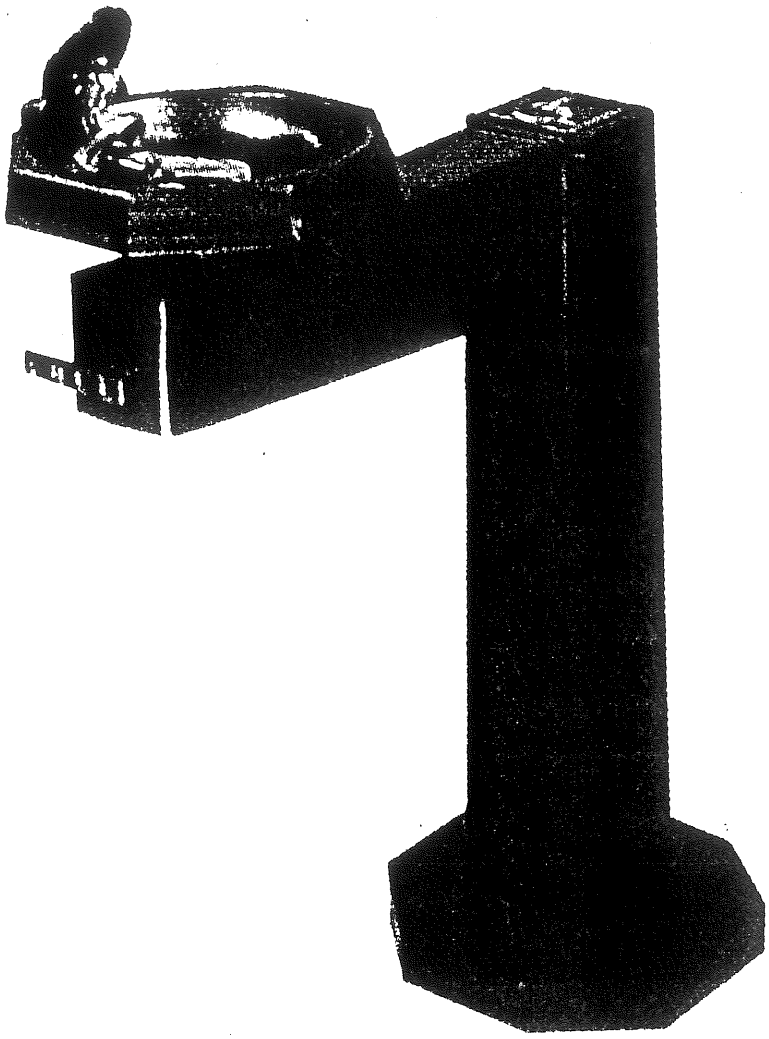
Delaware cast iron or cast iron base with steel shaft, 5 through 21 ft. height.



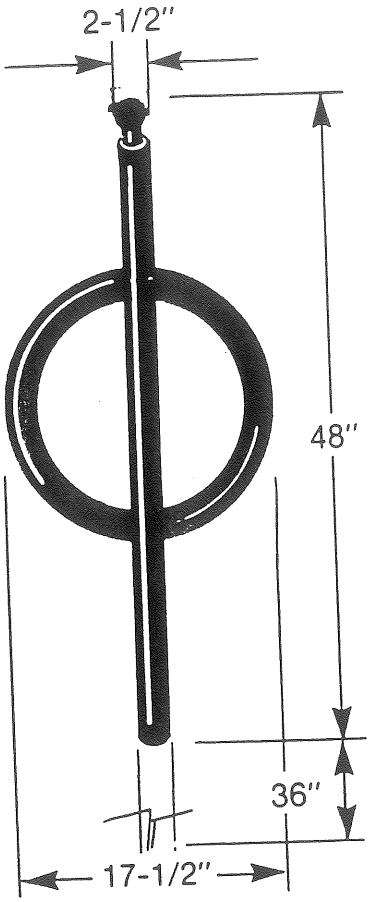
Kenneth Lynch & Sons - Central Park Settee

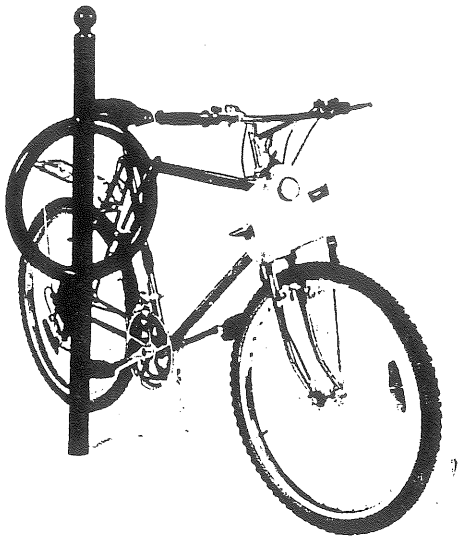


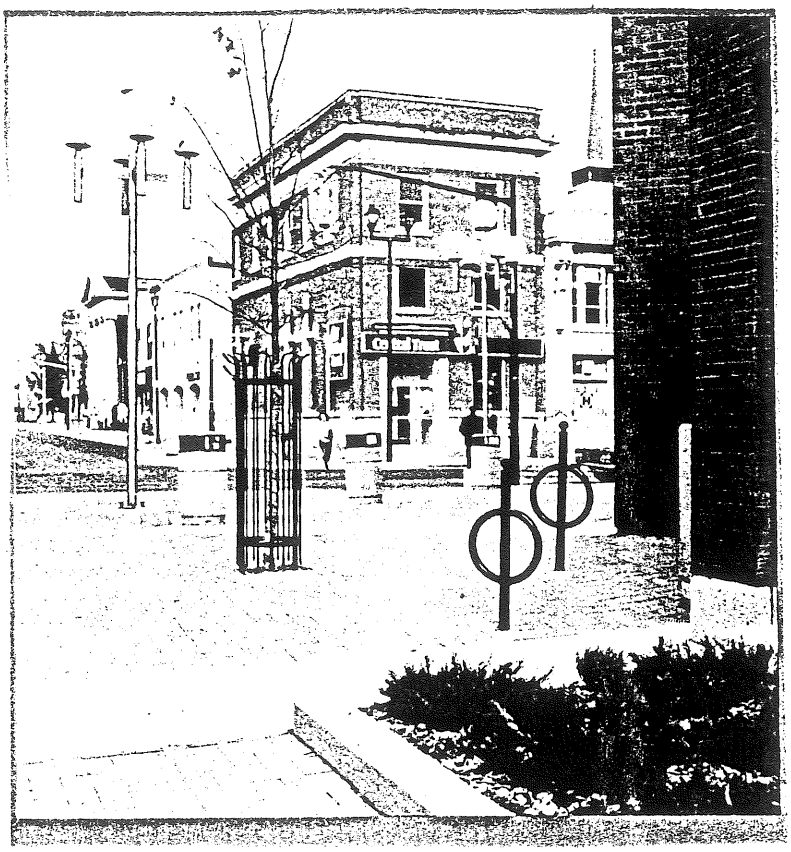
Trystan - Harbour Series Trash Receptacle



Murdock Drinking Fountain - Heavy Duty, Anti-Freezing, Wheelchair Accessible







Trystan Bike Rack

5-11-99

PROBLE ST PARK P.B
P.A.

Tom LePointe
is multi-purpose field large enough?

Jaimie bottleneck at the BB and Proble St

Dana A phase 2 project, too expensive now

Deb concerned about parking a sign is
needed to direct people to Marginal Way

Dana A sign will be put up

Ken agrees turnaround is unnecessary it's "organized"
now why give up spaces for the turnaround
they will not go to Marginal Way

Cyrus supports the project

Ken should have posted the Proble St Park for ~~that~~ meeting

Mark likes the project concerned about the loss
of parking
but there is a bottleneck at Shapiro
no pedestrian cross zone across Proble St.

Larry can review a left hand turn on Proble St.

John Crosswalks are needed across Proble St.
disagree about ~~that~~ completing the loop by
Baxter Boulevard
turnarounds are crazy, they'll just park
there
wants grills
the athletic field should be lighted
priorities are wrong

CHANNEL
BOBC.
JOHN R.
DAVID
TODD
FRANK
6-3-98

PROBLEM / PAYSON

PROBLEM S

112 + 80 = 212 250 total

DEPT INVOL

JOHN PARKED OVER PEOPLE AND PARKING ON GRAVEL SHOU

ON WEEKENDS MORE THAN 200 SPACES

MARGINAL WAY PARKING LOT "NOT SAFE"

CHANNEL IT'S NOT THE PLAN ~ BUDGET INVOL

BOB TOO MUCH MONEY

MOVE PATH TO THE WATERSIDE
MORE
PROVIDE SOME OPEN SPACE ~ PICNIC AREA

BACK UP THE PARKING LOT A LITTLE

DRAINAGE

NADINE → NEED TO ADDRESS UTIL PARKING LOT

BOB FOCUS ON THE PATH ; FIX UP THE WATER AREA

SEPARATE THE PARKING LOT

SUGGESTS AN EASEMENT FOR OUTLOT

WANTS A WIDE OPEN SPACE ALONG THE SHORE BY

THE PARKING LOT IA

LEGAL INVG

-PARKING LAYOUT

TRESPASS DRIVEWAY OPENING

SUNVG

TODD
JOHN P.
CHRIS D
DANA
LAURA
JOE
JIM W.
FRANK L
ALEX

threats 4 to 2 driveway openings

cul-de-sac within the existing block to

Larry Burk get DPW comment on plowing

Width of driveway opening

John P July 21 215 parking spaces

Cheryl B. Berg Patrick met to discuss this

42 FT CURB CUT

Larry doesn't like Prob of crosswalk

elimination of Δ, island to be installed for pedestrians walking move guardrail to protect pedestrians

24 hour count not a peak demand - may not need √ lanes do dome counts

CAREX ECOSYSTEM SCIENCES
Natural Resource Assessment & Management

603-742-6665 PHONE/FAX
9-A FRENCH CROSS ROAD
MADBURY, NEW HAMPSHIRE 03820

WETLAND DELINEATION REPORT

BACK COVE PARCEL
PREBLE STREET EXTENSION
PORTLAND, MAINE

PREPARED FOR

CITY OF PORTLAND
DEPARTMENT OF PARKS & RECREATION
17 ARBOR STREET
PORTLAND, MAINE 04103

PREPARED BY

CAREX ECOSYSTEM SCIENCES
9A FRENCH CROSS ROAD
MADBURY, NH 03820

OCTOBER 27, 1998
981005

Introduction and Methods

On 26 October 1998, I conducted an on-site delineation of wetlands at the subject parcel located off of Preble Street Extension in Portland. Wetlands under state and federal jurisdiction were identified based on the *Corps of Engineers Wetlands Delineation Manual* (Dept. of the Army, 1987). Except in special circumstances, these criteria require that indicators of wetland soils, vegetation, and hydrology all be present for an area to be considered a wetland. Additional supporting documents used include:

Classification of Wetlands and Deepwater Habitats of the United States, US Fish and Wildlife Service, 1979.
Field Indicators for Identifying Hydric Soils in New England, Version 2, New England Interstate Water Pollution Control commission, 1998.
National List of Plant Species that Occur in Wetlands: 1988, US Fish and Wildlife Service, 1988.
Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, Maine Association of Professional Soil Scientists, 1995.

The site borders the ocean and has been the site of significant disturbance. Much of the area has been filled, at least along the upper edges of the wetland. The area grades from natural and recovered tidal marsh on fill dominated by salt tolerant species in lower elevations, to a band of wetland dominated by salt intolerant species on fill, to upland lawn on fill. The wetland dominated by salt intolerant species includes many weedy and cultivated species. All of the wetland areas are assumed to be under the influence of the maximum spring tides and, therefore, to meet the state definition of coastal wetlands.

The upper edge of the wetland dominated by salt intolerant species and the area dominated by salt tolerant species were marked separately with wooden stakes and sequentially numbered plastic flagging. In the vicinity of the proposed impact I completed Corps of Engineers data forms for each of the two wetland zones, as well as for the upland.

Wetland Characteristics

Salt Tolerant Zone

Wetland Classification: Estuarine persistent emergent, irregularly flooded (EEM1K)
Flag Numbers: Salt-1 to Salt-16
Soils: Poorly drained fill
Representative Plant Species:

Saltmeadow cordgrass	*Spartina patens*
Black grass	*Juncus gerardii*
Spike grass	*Distichlis spicata*
Seaside alkali grass	*Puccinellia maritima*
Saltmarsh sand-spurrey	*Spergularia marina*

Seaside goldenrod *Solidago sempervirens*

Seaside goldenrod *Solidago sempervirens*

Hydrological Indicators:

Debris line

Saturation at <12" from soil surface

*****

Salt Intolerant Zone

Wetland Classification: Palustrine persistent emergent, irregularly flooded (PEM1K)

Flag Numbers: Wet-1 to Wet-16

Soils: Poorly drained fill

Representative Plant Species:

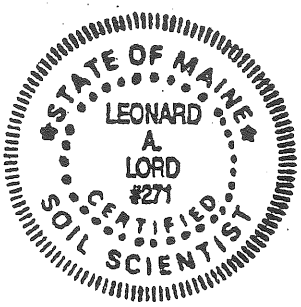
Meadow fescue	*Festuca pratensis*
Poverty grass drop-seed	*Sporobolis vaginiflorus*
Reed canary grass	*Phalaris arundinacea*
Eastern lined aster	*Aster lanceolatus*
Flat-top goldenrod	*Euthamia graminifolia*
Fall dandelion	*Leontodon autumnalis*

Hydrological Indicators:

Saturation at <12" from soil surface

Notes:

- Highly disturbed vegetation includes some upland species but area has good hydric soil indicators.



Leonard A. Lord, Ph.D.
Wetland Ecologist
ME Certified Soil Scientist #271

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1 (SALT TOLERANT ZONE)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION

Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
JUNCUS GERARDII	45/90	50%	FACW+
SPARTINA PATENS	45/90	50%	OBL

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
1	1					

Hydrophytes SUBTOTAL: 2 NON-hydrophytes SUBTOTAL: 0

$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes + Subtotal Non-hydrophytes}}$ = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
Stream, lake or tidal gage Identification: ________
Aerial Photograph Identification: ________
Other Identification: ________

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: ________
Depth to Saturation (including capillary fringe): ________
Describe Altered Hydrology: ________

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☑ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND

TRANSECT:

PLOT: 2 (WETLAND WITH SALT INTOLERANT SPECIES)

DELINEATOR(S): LEONARD A. LORD, PhD

DATE: 10/26/98

VEGETATION

Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
SPOROBOLUS VAGINIFLORUS	70/90	78%	FACW+

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
	1					

Hydrophytes SUBTOTAL: 1

NON-hydrophytes SUBTOTAL: ______

100 x Subtotal Hydrophytes / (Subtotal Hydrophytes + Subtotal Non-hydrophytes) = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification:
- Aerial Photograph — Identification:
- Other — Identification:

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water:

Depth to Saturation (including capillary fringe):

Describe Altered Hydrology:

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
	MANICURED LAWN DOMINATED BY UNIDENTIFYABLE GRASSES BUT INCLUDING: TRIFOLIUM PRATENSE (FACU-) FESTUCA PRATENSIS (FACU) LEONTODON AUTUMNALIS (UPL)			

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL

Hydrophytes SUBTOTAL: _____ NON-hydrophytes SUBTOTAL: _____

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = \_\_\_\_\_$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

☐ OBSERVATIONS:

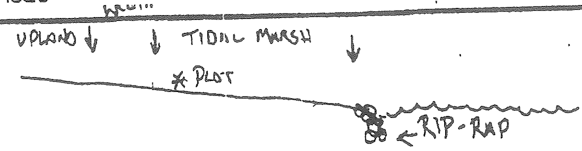
Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☐ Saturated in upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): NONE

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
+1	Oe	—	—	HEMIC ORGANIC MATTER
0-4	A	10YR 3/3	7.5YR 3/4 OXIDIZED RHIZOSPHERES	VERY FINE SANDY LOAM, MANY FINE ROOTS
4-11	Cg1	2.5Y5/2	20% 5Y 5/1 DEPLETIONS 1/4-1/2"	VERY GRAVELLY SANDY LOAM - SOMEWHAT COMPACT FILL
11-16	Cg2	5Y 5/2	"	GRAVELLY SILTY CLAY LOAM FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): II OR IIID

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

REFERENCES:

TAXONOMIC SUBGROUP: ENDOAQUENT — KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: VERY POORLY DRAINED (DISTURBED) — MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☐

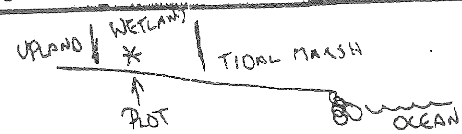
REMARKS:

CENED-CO-RAWP Version MAR96 Page 2

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1 (SALT TOLERANT ZONE)

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2	A	10YR 3/2	NONE	FINE SANDY LOAM, MANY FINE ROOTS
2-12	Cg1	5Y 5/2	10% 5Y 5/1 DEPLETIONS, 1/4"	GRAVELLY LOAMY SAND - FILL FEW FINE ROOTS AT TOP OF HORIZON
12-14+	Cg2	5Y 5/2	—	GRAVELLY SILTY CLAY LOAM, FIRM - FILL
				OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): III D.

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

REFERENCES:

TAXONOMIC SUBGROUP: ENDOAQUENT — KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: POORLY DRAINED — MAPSS KEY, 3/97

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

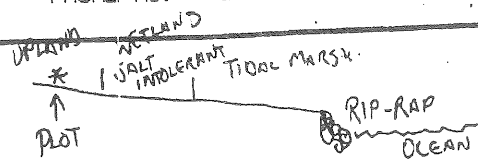
IS THIS DATAPOINT WITHIN A WETLAND? Yes ☑ No ☐

REMARKS:

PROJECT TITLE: BACK COVE TRANSECT: PLOT: 2 (SALT INTOLERANT WETLAND)

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2		10YR 3/2	NONE	FINE SANDY LOAM - FILL MANY FINE ROOTS
2-9		10YR 4/4	NONE	VERY COBBLY LOAMY COARSE SAND FEW FINE ROOTS - FILL WITH 10% ASPHALT
9-13		5Y 5/3	5% 2.5Y 5/6 CONCENTRATIONS	VERY GRAVELLY LOAMY SAND FILL
13-24		5Y 5/3	20% 5Y 5/2 DEPLETIONS 10% 2.5Y 5/6	GRAVELLY LOAMY FINE SAND FILL WITH SILT LOAM LENSES

HYDRIC SOIL INDICATOR(S)

NOT HYDRIC

REFERENCE:

FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

SOIL DRAINAGE CLASS: SOMEWHAT POORLY DRAINED

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

REFERENCES:

KEYS TO SOIL TAXONOMY, 1996

MADSS DRAINAGE CLASS KEY 3/96

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☐	☑
Hydric Soils Criterion Met?	☐	☑
Wetland Hydrology Met?	☐	☑

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☑

REMARKS:

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

in this area due to the location of the bituminous parking lot and compacted, bare areas that are used for parking and jogging. The parking lot is one of the most heavily salted areas in the city in winter because it provides space for the city's snow-tow lot and because of the heavy traffic flow on Preble Street Extension. The proximity of I-295 contributes to the pollutant levels and the overall noise levels at the site.

The western end of the parking lot receives heavy use from Baxter Boulevard path users while soccer field and multi-purpose space users often use the eastern end. Portable bathrooms are located on the eastern end of the parking lot and are used by Baxter Boulevard path users, soccer field users and others. Soccer field storage vans are left here during the season. The parking lot is a favorite spot for people who park and eat lunch, and food vendors often park vending vehicles here in pleasant-weather months. In winter, the lot becomes the city's snow-tow lot. It is also frequently used as a meeting place for buses, vans or carpools attending off-site events.

The pedestrian path, while in relatively good condition overall, has several conditions that are problematic and potentially dangerous. At the western end of the park, the pedestrian path that connects this area to the Baxter Boulevard path is exposed to traffic from the Preble Street Extension. As noted in the Baxter Boulevard Report, the current location of the guardrail does not protect pedestrians from on-coming traffic.

The current configuration of the path directs pedestrians to the Preble Street Extension sidewalk, which exposes pedestrians to heavily used vehicular entrances four times within the park. The crosswalks here are poorly marked and are not accessible to ADA standards. Typically, pedestrians leave the path at the western edge of the parking lot and use the hard-packed area between the parking lot and the water, as it provides the safest route, better water views and lower noise levels.

The soccer field, despite a current Parks and Recreation Department regimen of irrigation and chemical treatments, can not be maintained at optimal playing conditions because it receives very high use and suffers from poor drainage. The multi-use area suffers from drainage and irrigation problems and is, therefore, in poor condition as well. City stormwater overflow pipes outfall in to Back Cove directly adjacent to the park, and have a significant visual impact on the site.

At the eastern end of the park, a coastal wetland has been left unmaintained since the creation of the park. Currently, the area supports a variety of flora and fauna, and provides excellent opportunities for birding and nature walks.

The park suffers from a general lack of pedestrian amenities. There is no lighting, seating (except for soccer field bleachers), picnic tables, shaded areas or bicycle racks within the park, and there are a limited number of trash receptacles.

Despite its declining condition and overall lack of pedestrian amenities, the site is very heavily used for both active and passive recreation.

III. DESIGN SUMMARY

The most noticeable element of the Preliminary Master Plan is the recommendation for a pedestrian path adjacent to Back Cove within the entire park area, as recommended by the City Manager. Beginning in the vicinity of the intersection of Baxter Boulevard and Preble Street Extension, the proposal calls for moving the vehicle guardrail to a new location *between* Preble Street traffic and the pedestrian path, as recommended in the Baxter Boulevard Report. This arrangement will allow the guardrail to protect pedestrians from oncoming vehicles.

While the Master Plan recommends accessible tip-down curbing and painted crosswalks at the four parking lot entrances along the Preble Street sidewalk, the proposed stone dust pedestrian path will continue along the water in front of the existing parking lot. This path will improve pedestrian safety by eliminating the need for pedestrians to confront vehicles at any place within the park. This area will contain other pedestrian amenities as well, including shaded picnic tables and benches.

At the eastern end of the park, a proposed boardwalk through the existing wetland will allow pedestrians to remain relatively close to the water's edge while experiencing the natural beauty and diversity of the wetland. The boardwalk will have an educational component that includes explanations of various wetland issues. The proposed boardwalk will end at an intersection with the existing pedestrian path. Leaving the existing path in its current position will allow pedestrians to choose a travel option and will reduce overall costs for the project.

As recommended by the Planning Board and the City Manager, the plan proposes that the existing bituminous parking lot remain in its current location while being reduced in size to more conventional parking lot standards. The current 38' two-way travel lane will be reduced to a city standard 22' width, while the parking stall depths will remain unchanged. Striping the lot will improve parking efficiency, clarity and safety. The total "horizontal" width of bituminous parking area will remain unchanged, but the required handicapped parking spaces and a small drop-off zone will provide the city with a superior parking facility. Overall, the number of stalls will be reduced by seven, from approximately 192 to 185. Because of the increased efficiency of the proposed parking lot, the handicapped parking spaces and drop-off area will account for only a 7-stall decrease in total parking stalls. The four existing entrances to the parking lot will remain in place.

The proximity of the vast Marginal Way parking lot will more than offset any reduction in stalls at the Preble Street Extension lot. In addition, the Payson Park Master Plan recommends approximately 190 parking spaces near Baxter Boulevard that can easily be

used by Boulevard path users in the future. When the Payson Park Master Plan and the Back Cove Park Master Plan are considered together, they will result in a net gain of total parking spaces along Baxter Boulevard.

A public plaza will be added north of and centered on the parking lot, and will include plantings and benches for casual seating. The plaza will be spacious enough to allow for larger public gatherings such as programmed events by the Parks and Recreation Department. An overlook will extend on axis from the plaza and allow seating and viewing out over Back Cove. This area will allow visitors a more direct experience of Back Cove, the water and the wind, and will provide an ideal location for eating lunch or enjoying spectacular views of Back Cove and the city of Portland.

A small stretching area for joggers will be located at the western end of the parking lot. Most people who use the Preble Street Extension parking lot for jogging, walking, bicycling, etc., park on this end of the lot. The stretching plaza will include a shaded area with seating to allow for rest, changing shoes and equipment, and stretching before and after exercise.

Plantings will be used to create comfortable and shaded spaces, to define important edges and boundaries, to screen undesirable views and to enhance wildlife habitat. The Master Plan recommends the use of hardy and primarily native plant material, which will not only provide a potential for learning experiences and increased wildlife use but also ensure better plant survival rates in this difficult location. This version of the Master Plan reflects the Planning Board's recommendation for fewer plantings and lower overall project cost, and the City Manager's request for improved planting and aesthetic appearance of the landscape within a strict budget.

The Master Plan also recommends grading and drainage improvements to the existing soccer field. The heavy use the soccer field receives makes it difficult to maintain in optimum playing condition. Improved irrigation combined with proposed grading and drainage improvements will help alleviate this condition. The proposal also recommends improved grading and drainage and the addition of irrigation facilities in the area of the plan delineated as "multi-purpose space." This area is to remain a large, open, unprogrammed space that can be used for practice or "pick-up" active recreation, sunbathing or other passive use, or programmed activities by the Parks and Recreation Department.

Park amenities will also be improved or added, including seating, picnic tables, trash receptacles, bicycle racks, a drinking fountain, signage and improved lighting. Amenities will be consistent with those at Baxter Boulevard.

IV. CONCLUSION

This Preliminary Master Plan strives to improve the safety and experience of pedestrian movement around Back Cove while completing the pedestrian loop begun at Baxter Boulevard. The Plan improves the safety, clarity and efficiency of this important city parking facility while adding a small drop-off area and required handicapped parking stalls. Overall, the Master Plan is designed to improve the safety, usefulness and appearance of this heavily used resource in a cost-effective manner, as recommended by the Baxter Boulevard Report, the Planning Board and the City Manager.

Done

PHILLIP M. HOOSE
8 Arlington Street
Portland, Maine 04101
Phone: (207) 874-4931
Fax: (207) 874-2102
e-mail: hoose@gwi.net

July 31, 1998

Mr. Alex Jaegerman,
Chief Planner
City of Portland
Portland City Hall 04101

Dear Mr. Jaegerman:

We run, walk or bike around Back Cove nearly every day and we have noticed that the patch of wild vegetation near the soccer field is shrinking. More and more of it seems to be getting mowed. We are writing to urge you to post its perimeter with signs that identify it as an area in which vegetation is to be left in natural condition. This will help alert those who mow it.

We also recommend that city workers and the general public be provided information as to why the area should be left in natural condition. This is counterintuitive to most. Most people who notice the area at all probably regard it as an eyesore, as a patch that the city forgot to mow.

Dr. Richard Eakin, a ~~Zoologist with, we think, USM,~~ biologist who UNE has been studying birds at Back Cove for something like 20 years. He points out that the patch is at least as important as a stopover area for migratory birds as it is as a nesting site. He has developed a terrific slide show depicting the birds of Back Cove, and his narration provides a great deal of information. The address and number we have for Dr. Eakin is 64 Gleckler Road, Portland 04103. Phone is 773-8249.

We commend the city for its farsightedness in leaving a wild portion of a heavily-used resource.

Sincerely,

Phil Hoose . Shoshana Hoose

Phil and Shoshana Hoose

From: <lnkberry@aol.com>
To: Portland.CityHall(AQJ,DAS)
Date: Tue, Aug 18, 1998 11:01 AM
Subject: Re: Re: Preble Street/Back Cove Park narrative

Here's a long reply (sorry):

I just read the letter from Mr. Hoose, and he actually brings up some valid points. The area he is talking about is between the existing stone dust path and the wetland. It's an area where very little happens now-people don't often use it. Several weeks ago, we walked the site with the DEP rep, Doug Burdick, and with Pam Morgan, a wetland scientist. She pointed out that the area currently being mowed does in fact include plants that would be classified as existing in a coastal wetland. I don't know if the limit of mowing has changed over the last few years, but Pam was able to recognize the plants even after mowing. You can actually see a sort of brown looking area there-the browner plants are wetland plants, while the grass stays green after mowing.

One of the things we talked about with Doug Burdick is that if DEP requests compensation for the boardwalk (it will shade out areas of the wetland), we could propose that area as part of the compensation package. Less mowing, signs, ideas etc.- still to be developed. Regardless, the final plan will probably recommend a clear definition of where the wetland ends and the upland begins, so that there is no confusion about it.

As a response to Mr. and Mrs. Hoose's letter, you can say that we are aware of the mowing issue, and it will be addressed as part of the plan for the park. Also, the boardwalk, wherever it's final path is, will have some education aspect to it which explains the nature of the coastal wetland, what flora and fauna are there, what affect the boardwalk has on the wetland (i.e., why it is located where it is), etc..

Also, if it's OK with you two, we will contact the UNE biologist, as he will be able to provide more insight on that area.

I hope that answers the questions that both of you might have about that issue. If not, please let me know.

Finally, a question for Alex regarding Portland Downtown: We are desperately trying to reach Alan Holt for base map information for downtown. Apparently, he might have digital or CAD file of the downtown streets (someone mentioned that he might ?). If so, we need to get a copy as soon as possible. We'd like to get into the in-depth analysis, but we're waiting to hear from Alan first. If there's any way you could ask him contact us at his earliest convenience, that would be great. Today would be even better, because time is growing short. We haven't had much luck reaching him over the last week or so.

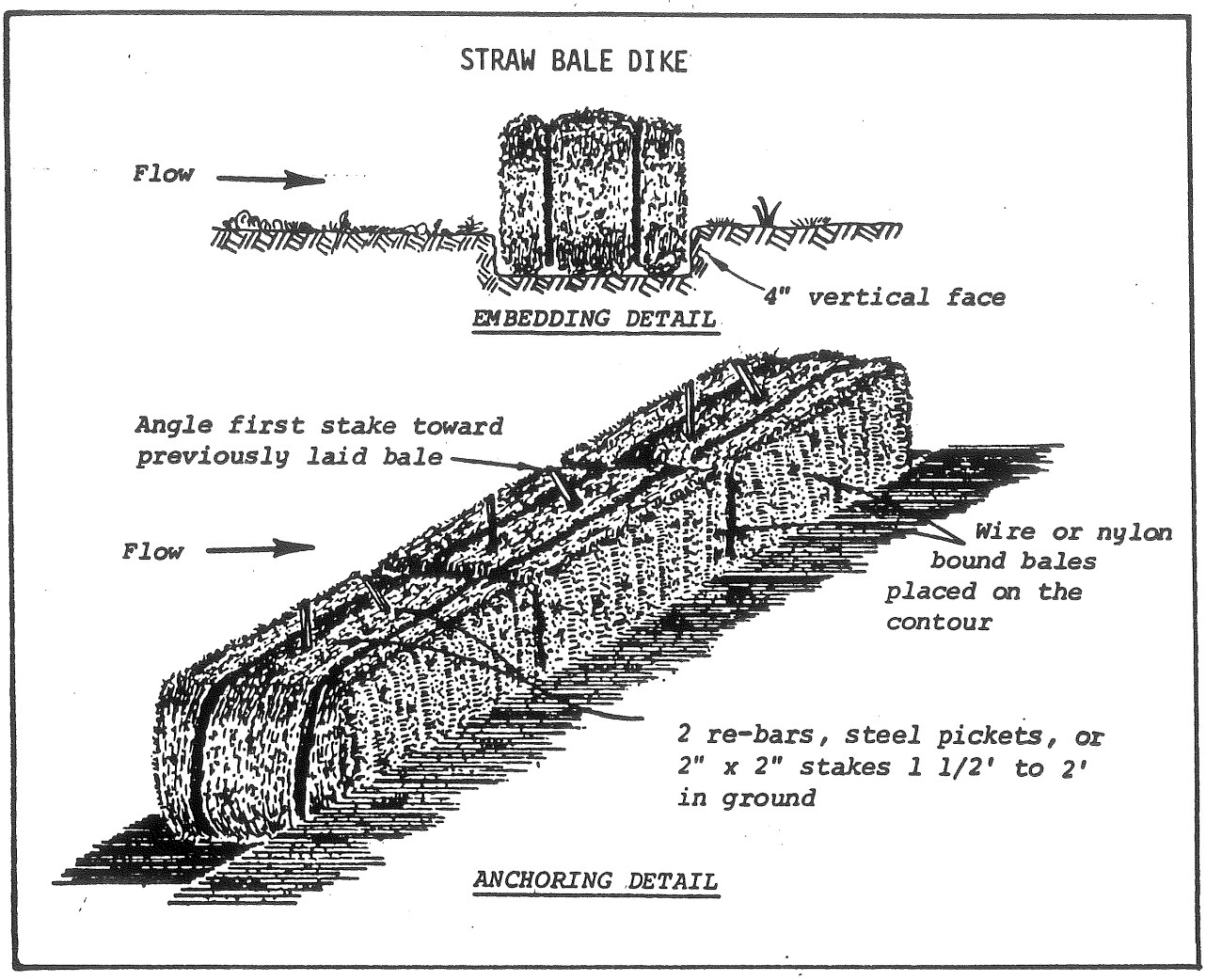
Thanks,

Frank

3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. The first stake in each bale shall be driven toward the previously laid bale to force bales together.

4. Inspection shall be frequent and repair or replacement shall be made promptly as needed.

5. Bales shall be removed when they have served their usefulness, so as not to block or impede storm flow or drainage.



SILT FENCE

(Key No. 11)

Definition

A vertical barrier composed of regular livestock wire fence with wood or metal fenceposts, on which a filter fabric is attached.

Purpose

Silt fences are used to trap sediment before it leaves the construction area. The silt fence detains construction runoff preventing silt and debris from leaving the construction site.

Conditions Where Practice Applies

Silt fence is used along the toe of slopes, on the edge of vegetative buffer strips bordering bodies of water, and at any other locations where it is important to reduce the quantity of sediment and flow velocities leaving an area of disturbed soil. The silt fence should be built after the cutting of trees and brush, but before excavating any haul roads.

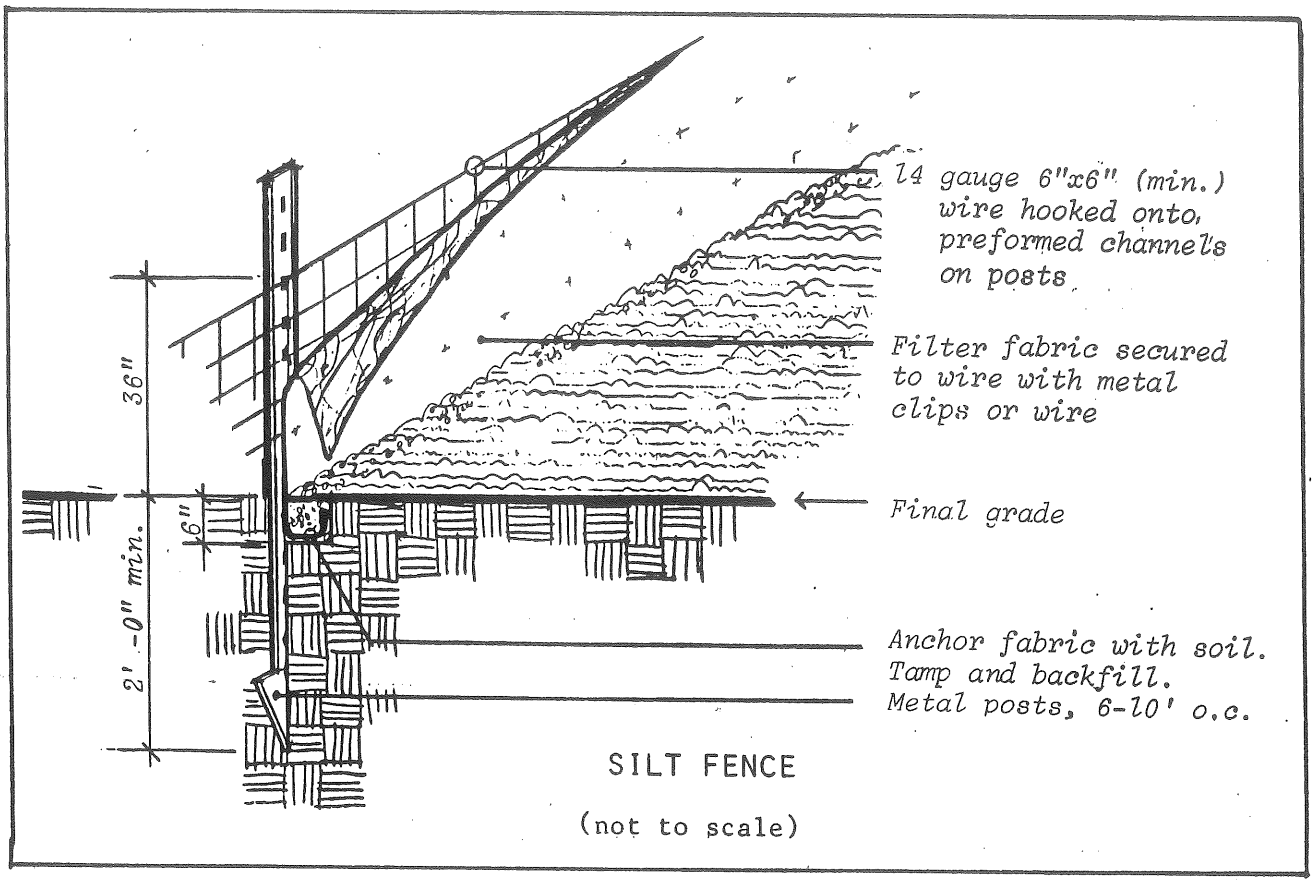
Design Criteria

A design is not required. The following criteria shall be used:

Support fence: livestock wire fence, at least 14-gauge, a minimum of 36 inches in height, with a maximum mesh spacing of 6 inches.

Posts: wood or steel, minimum length of 5 feet. Set in the ground at least 2 feet, at a spacing of 6 to 10 feet. Stapling or attaching the fence to existing trees should be minimized.

Filter fabric: either woven or non-woven material. Standard burlap has been used as a filter fabric and was found to deteriorate in 30 to 90 days. Since the silt fence must generally be in place longer than 90 days, commercial filter fabrics are recommended. Minimum of 3 feet in height. Secure to the top of



SILT FENCE

(not to scale)

the support fence by suitable tie wire or hog rings. The bottom of the cloth should be keyed into the ground sufficiently to prevent water from flowing beneath it.

Construction Specifications

The following is the normal sequence for construction of a silt fence:

1. Drive fenceposts.
2. Construct small trench on front side of fence.
3. Staple or attach wire fence.
4. Staple or attach filter fabric to wire fence allowing sufficient material for use in the bottom of the trench.
5. Bury the filter cloth a minimum of 6 inches to prevent undermining.

It is good practice to construct the silt fence across a flat area in the form of a horseshoe. This aids in ponding the runoff and allowing sedimentation.

Maintenance

Silt fences should be inspected periodically for damages, such as tearing by equipment, animals, or wind, and for the amount of sediment which has accumulated. Removal of the sediment is generally necessary when it reaches one-half the height of the silt fence. In situations where access is available, machinery can be used; otherwise, it must be removed manually. The key elements to remember are:

1. The sediment deposits should be removed when heavy rain or high water is anticipated.

2. The sediment removed should be placed in an area where there is no danger of erosion.

The silt fence should not be removed until adequate vegetation ensures no further erosion of the disturbed slopes. Generally, the fabric is cut at ground level, the wire and posts removed, the sediment spread, and seeding and mulch is applied immediately.

Back Cove Park

Portland, Maine
Preliminary Plant Palette - 10/27/98

PLANT SELECTION CRITERIA:

1. Mostly natives
2. Tolerant of seashore conditions (soils, wind, salt)
3. Very low maintenance
4. Ability to provide erosion control/slope stability
5. Ability to attract wildlife (primarily birds)
6. Aesthetically interesting, to allow for interesting/beautiful plant compositions

Item	Number	Botanical Name	Common Name	Mature Size	Ordered Size
TREES					
Large Deciduous	_	Gleditsia triacanthos 'Inermis'	Thornless Honey Locust	H50' W40"	3" cal.
	_	Quercus palustris	Pin Oak	H75' W50"	3" cal.
	_	Quercus rubra	Red Oak	H75' W60"	3" cal.
Small Deciduous	_	Amelanchier canadensis	Shad	H20' W15'	1 1/2" cal.
	_	Crataegus crusgalli 'Inermis'	Cockspur Thornless Hawthorne	H25' W25'	1 1/2" cal.
	_	Crataegus 'Toba'	Toba Hawthorne	H20' W15'	6-8'
	_	Malus cultivars	Crabapple	H15'-20' W 15'	2-2 1/2" cal.
Evergreen	_	Picea glauca	White Spruce	H60' W30'	8'-10'
	_	Pinus mugo	Mugo Pine	H18' W12'	2 1/2" cal.
	_	Pinus nigra	Austrian Pine	H60' W25'	8'-10'
	_	Pinus sylvestris	Scotch Pine	H45' W30'	7'-8'
	_	Pinus thuunbergii	Japanese Black Pine	H60' W30'	5'-6'
SHRUBS					
Large Deciduous	_	Myrica pennsylvannica	Northern Bayberry	H8' W'8'	2-2 1/2'
	_	Prunus cistena	Purple Sand Cherry	H8' W8'	3'-4'
	_	Prunus maritima	Beach Plum	H6' W6'	2'-3'
	_	Rosa rugosa	Rugosa Rose	H6' W6'	2'-3'
	_	Vaccinium corymbosum	Highbush Blueberry	H6' W6'	#3
	_	Viburnum trilobum	Cranberry Viburnum	H10' W10'	3'-4'
Small Deciduous	_	Clethra alnifolia 'Compacta'	Compact Sweet Pepperbush	H4' W4'	18-24"
	_	Cotoneaster horizontalis 'Perpusilla'	Rockspray Cotoneaster	H3' W8'	15"-18"
	_	Vaccinium angustifolium	Lowbush Blueberry	H18" W 3'	#2
Needled Evergreen	_	Juniperus chinensis 'Sea Green'	Sea Green Juniper	H4' W8'	#5
	_	Juniperus sabina 'Scandia'	Scandia Juniper	H18" W5'	#6
Broad-Leaved Evergreen	_	Ilex glabra 'Compacta'	Compact Inkberry	H2' W4'	2-2 1/2'
GROUNDCOVERS					
	_	Arctostaphylos uva-ursi	Bearberry	H6" W6'	#1
	_	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Juniper	H6" W6'	#3
	_	Juniperus horizontalis 'Wiltoni'	Blue Rug Juniper	H6" W6'	#3
GRASSES, BROOMS, SEDGES					
	_	to be selected in consultation with the City Arborist			

Letter from

Dana Souza

Memorandum

Portland Parks and Recreation

To: Rick Knowland

From: Dana Souza

Date: Wednesday, October 28, 1998

Re: Back Cove Park

CC: Chris DiMatteo, File

The following are answers to Site Plan Review questions 3, 4, 9 and 10, (Found in Article V. Site Plan—Sec. 14-525. Final site plan.), in preparation for the Planning Board's upcoming review of Back Cove Park masterplan.

(3) General Summary of existing and proposed easements or other burdens now existing or to be placed on the property; (pg. 1357)

The following are restrictions and limitations that exist today on the parcels that constitute Back Cove Park. Our department is currently looking into these constraints.

(1) Egress and ingress to the premises is limited to that area outlined on the plan in Appendix A.
(2) No motor vehicles will be permitted on the premises except those engaged in construction, maintenance or the provision of emergency activities.
(3) No permanent buildings shall be constructed on the premises except those needed for athletic or maintenance activities.
(4) No change in the elevation of the land shall be made unless permission from the Grantor is first obtained.

The above constraints along with the description of the parcel are found in the title for the parcel on file at the Cumberland County Registry of Deeds.

(4) The types of estimated quantities of solid waste to be generated by the development; (pg.1357)

Parks and Recreation maintains the existing site, and will continue to do so in the future. Currently Parks and Recreation maintenance crews maintains five 20-gallon trashcans at the site which are emptied daily. With the completion of the proposed improvement, our operations will remain unchanged.

(9) Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so; (pg. 1357)

Parks and Recreation anticipate on spending approximately $350,000.00 on the proposed improvements. Funds from within the Baxter Trust Account will pay for the project.

(10) Evidence of the applicant's title. Right, or interest in the property, including without limitation deeds, leases, purchases options or any other documentation; (pg. 1358)

As per the title, on file at Cumberland County Registry of Deeds and information from the City Assessor's Office, the City of Portland owns all the land that constitutes Back Cove Park.

CAREX ECOSYSTEM SCIENCES
Natural Resource Assessment & Management

603-742-6665 PHONE/FAX
9-A FRENCH CROSS ROAD
MADBURY, NEW HAMPSHIRE 03820

WETLAND DELINEATION REPORT

BACK COVE PARCEL
PREBLE STREET EXTENSION
PORTLAND, MAINE

PREPARED FOR

CITY OF PORTLAND
DEPARTMENT OF PARKS & RECREATION
17 ARBOR STREET
PORTLAND, MAINE 04103

PREPARED BY

CAREX ECOSYSTEM SCIENCES
9A FRENCH CROSS ROAD
MADBURY, NH 03820

OCTOBER 27, 1998
981005

Introduction and Methods

On 26 October 1998, I conducted an on-site delineation of wetlands at the subject parcel located off of Preble Street Extension in Portland. Wetlands under state and federal jurisdiction were identified based on the *Corps of Engineers Wetlands Delineation Manual* (Dept. of the Army, 1987). Except in special circumstances, these criteria require that indicators of wetland soils, vegetation, and hydrology all be present for an area to be considered a wetland. Additional supporting documents used include:

Classification of Wetlands and Deepwater Habitats of the United States, US Fish and Wildlife Service, 1979.
Field Indicators for Identifying Hydric Soils in New England, Version 2, New England Interstate Water Pollution Control commission, 1998.
National List of Plant Species that Occur in Wetlands: 1988, US Fish and Wildlife Service, 1988.
Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, Maine Association of Professional Soil Scientists, 1995.

The site borders the ocean and has been the site of significant disturbance. Much of the area has been filled, at least along the upper edges of the wetland. The area grades from natural and recovered tidal marsh on fill dominated by salt tolerant species in lower elevations, to a band of wetland dominated by salt intolerant species on fill, to upland lawn on fill. The wetland dominated by salt intolerant species includes many weedy and cultivated species. All of the wetland areas are assumed to be under the influence of the maximum spring tides and, therefore, to meet the state definition of coastal wetlands.

The upper edge of the wetland dominated by salt intolerant species and the area dominated by salt tolerant species were marked separately with wooden stakes and sequentially numbered plastic flagging. In the vicinity of the proposed impact I completed Corps of Engineers data forms for each of the two wetland zones, as well as for the upland.

Wetland Characteristics

Salt Tolerant Zone

Wetland Classification: Estuarine persistent emergent, irregularly flooded (EEM1K)
Flag Numbers: Salt-1 to Salt-16
Soils: Poorly drained fill
Representative Plant Species:

Saltmeadow cordgrass	*Spartina patens*
Black grass	*Juncus gerardii*
Spike grass	*Distichlis spicata*
Seaside alkali grass	*Puccinellia maritima*
Saltmarsh sand-spurrey	*Spergularia marina*

Seaside goldenrod *Solidago sempervirens*

Hydrological Indicators:

Debris line

Saturation at <12" from soil surface

*****

Salt Intolerant Zone

Wetland Classification: Palustrine persistent emergent, irregularly flooded (PEM1K)

Flag Numbers: Wet-1 to Wet-16

Soils: Poorly drained fill

Representative Plant Species:

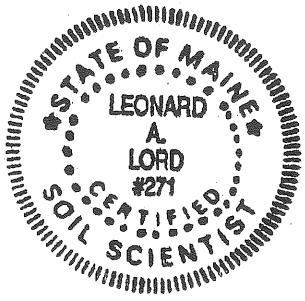
Meadow fescue	*Festuca pratensis*
Poverty grass drop-seed	*Sporobolis vaginiflorus*
Reed canary grass	*Phalaris arundinacea*
Eastern lined aster	*Aster lanceolatus*
Flat-top goldenrod	*Euthamia graminifolia*
Fall dandelion	*Leontodon autumnalis*

Hydrological Indicators:

Saturation at <12" from soil surface

Notes:

- Highly disturbed vegetation includes some upland species but area has good hydric soil indicators.



Leonard A. Lord, Ph.D.
Wetland Ecologist
ME Certified Soil Scientist #271

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98 (SALT TOLERANT ZONE)

VEGETATION — Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
JUNCUS GERARDII	45/90	50 %	FACW+
SPARTINA PATENS	45/90	50 %	OBL

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
1	1					

Hydrophytes SUBTOTAL: 2 NON-hydrophytes SUBTOTAL: 0

100 x Subtotal Hydrophytes / Subtotal Hydrophytes + Subtotal Non-hydrophytes = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☑ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 2 (WETLAND WITH SALT INTOLERANT SPECIES)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
SPOROBOLUS VAGINIFLORUS	70/90	78%	FACW+

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
	1					

Hydrophytes SUBTOTAL: 1 NON-hydrophytes SUBTOTAL: ______

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes + Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = 100\%$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage Identification: ______
- Aerial Photograph Identification: ______
- Other Identification: ______

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: ______
Depth to Saturation (including capillary fringe): ______
Describe Altered Hydrology: ______

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
	MANICURED LAWN DOMINATED BY UNIDENTIFYABLE GRASSES BUT INCLUDING: TRIFOLIUM PRATENSE (FACU-) FESTUCA PRATENSIS (FACU) LEONTODON AUTUMNALIS (UPL)			

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL

Hydrophytes SUBTOTAL: _____ NON-hydrophytes SUBTOTAL: _____

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} =$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

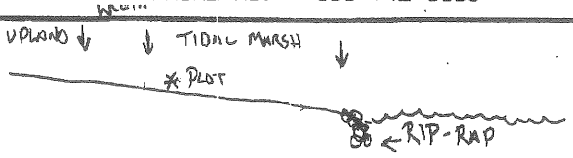
☐ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☐ Saturated in upper 12 Inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): NONE

SOIL Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
+1	Oe	—	—	HEMIC ORGANIC MATTER
0-4	A	10YR 3/3	7.5YR 3/4 OXIDIZED RHIZOSPHERES	VERY FINE SANDY LOAM, MANY FINE ROOTS
4-11	Cg1	2.5Y5/2	20% 5Y 5/1 DEPLETIONS 1/4-1/2"	VERY GRAVELLY SANDY LOAM - SOMEWHAT COMPACT FILL
11-16	Cg2	5Y 5/2	"	GRAVELLY SILTY CLAY LOAM FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): II OR IIID

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP: ENDOAQUENT — **REFERENCES:** KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: VERY POORLY DRAINED (DISTURBED) — MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

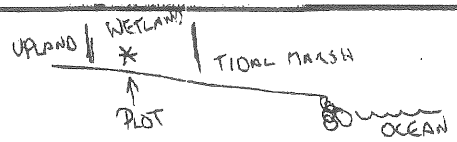
	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☐

REMARKS:

PROJECT TITLE: BACK COVE, PORTLAND **TRANSECT:** **PLOT:** 1 (SALT TOLERANT ZONE)

SOIL | Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2	A	10YR 3/2	NONE	FINE SANDY LOAM, MANY FINE ROOTS
2-12	Cg1	5Y 5/2	10% 5Y 5/1 DEPLETIONS, 1/4"	GRAVELLY LOAMY SAND – FILL FEW FINE ROOTS AT TOP OF HORIZON
12-14+	Cg2	5Y 5/2	—	GRAVELLY SILTY CLAY LOAM, FIRM – FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): IIID.

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP: ENDOAQUENT

SOIL DRAINAGE CLASS: POORLY DRAINED

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

REFERENCES: KEYS TO SOIL TAXONOMY, 1996
MAPSS KEY, 3/97

CONCLUSIONS

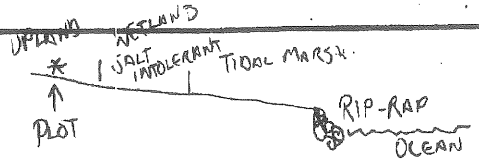
	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☑ No ☐

REMARKS:

PROJECT TITLE: BACK COVE TRANSECT: PLOT: 2 (SALT INTOLERANT WETLAND)

SOIL Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2		10YR 3/2	NONE	FINE SANDY LOAM - FILL MANY FINE ROOTS
2-9		10YR 4/4	NONE	VERY COBBLY LOAMY COARSE SAND FEW FINE ROOTS - FILL WITH 10% ASPHALT
9-13		5Y 5/3	5% 2.5Y 5/6 CONCENTRATIONS	VERY GRAVELLY LOAMY SAND FILL
13-24		5Y 5/3	20% 5Y 5/2 DEPLETIONS 10% 2.5Y 5/6	GRAVELLY LOAMY FINE SAND FILL WITH SILT LOAM LENSES

HYDRIC SOIL INDICATOR(S): NOT HYDRIC

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

REFERENCES: KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: SOMEWHAT POORLY DRAINED

MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☐	☑
Hydric Soils Criterion Met?	☐	☑
Wetland Hydrology Met?	☐	☑

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☑

REMARKS:

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

Memorandum

Portland Parks and Recreation

To: Rick Knowland, Senior Planner

From: Stephan Howick, Landscape Architect

Date: Tuesday, August 24, 1999

Re: Back Cove Park @ Preble Street Extension Phase I Site Plan Review

CC: Jim Wendel, P.E. Development Review Coordinator; Chris DiMatteo; File

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In response to Mr. Mr. Wendel's review comments the following alterations where made to the plans and specifications for this project. I discussed these changes with Mr. Wendel during a phone conversation during the week of August 2, 1999.

The following number items correspond to Mr. Wendel's numbered comments on his May 6, 1999 Memorandum.

1. A special note has been added to the plans instructing the contractor to maintain access to the pedestrian path system. This note appears on sheet L-002 of the contract documents.
2. The pavement depths and grading reflect the City standards. I discussed the use of Superpave specifications with the Construction Department of the Maine Department of Transportation. The City standards are very similar to the new Superpave mixes. A special note has been added to the Supplemental Specifications Section 403 Hot Bituminous Pavements. The note reads: Superpave equivalent pavement specifications will be accepted by the approval of the engineer."
3. The grading plans in the contract documents have been drafted to clearly define the changes in grade for the parking lot area. These grading plans are shown on sheets L-300-A and L-300-B of the contract documents.
4. The curb reveal for new Type "1" Curbing shall meet the City standard of 7 inches. The curb reveal on existing curbing to remain in place will vary to reflect changes in the elevations of the reconstructed parking lot and entrances. The Detail N Granite Curb Cross Section on sheet L-501 of the contract documents has been revised to specify a 7-inch reveal.
5. The grading and notes for the underdrain system has been extensive redrafted to clarify construction requirements. These changes are reflected on sheets U-101 and U-102 of the contract documents.
6. Detail E Jumbo Cobble Stone Paving on sheet L-501 of the contract documents has been revised to specify butt joints swept with stone dust or sand.
7. The Detail S Catch Basin @ Parking Lot and Detail U.1 Catch Basin @ Fields on sheet L-502 of the contract documents have been revised to specify 3'-0" sumps, compatibility with City standard frames and covers and the inclusion of Casco Traps.

8. The Vortechs model 700 grit treatment tank was designed to meet the needs of the site by a stormwater treatment consultant. No changes were made to this system.
9. Detail U RipRap Inlet/Outlet Protection on sheet L-502 of the contract Documents has been added.

ADDENDUM

November 30, 1998

to

Back Cove Park

Portland, Maine

Site Plan Review Submission

dated

October 27, 1998

ADDENDUM EXPLANATIONS:

Please note that the following revisions are shown on the Site Plan dated 11.30.98:

1. Stone Dust Paths: Revised plan shows width of paths at 8' instead of 6'.

2. Landscape Treatment at Intersection of Preble Street Extension and Baxter Boulevard: Revised plan shows updated pedestrian and multi-purpose paths in the vicinity of the intersection. Concerns have been raised about safety at this intersection, especially considering that three potentially confusing pedestrian/bicycle lanes will converge at a 4-way intersection that contains a very heavily used right-turn lane (from Preble Street Extension on to Baxter Boulevard). This revised treatment allows for a safe resolution to the 3-tiered path system on Baxter Boulevard that is recommended in the Baxter Boulevard Report.

Pedestrian Path: The stone dust path will continue on the water side of the other paths (as it currently exists on Baxter Boulevard). Pedestrians will cross the multi-purpose lane when attempting to cross at the Preble Street Extension/Baxter Boulevard intersection and when entering the water side pedestrian path from the Preble Street Extension sidewalk.

Multi-Purpose (Group B) Path: This path, as recommended in the Baxter Boulevard Report, will be located on the water side of Baxter Boulevard (inside the curb) in a 2-way configuration. Because this path has been identified as being used primarily by less agile users (Group B users, as defined by U.S. Department of Transportation, Federal Highway Administration Publication No. FHWA-RD-92-073, January 1994) and children, the revised plan allows the multi-purpose path to leave the roadway before the Preble Street Extension/Baxter Boulevard intersection. The path leads to a turn-around/dismount circle that allows users to safely and conveniently leave or enter the multi-purpose path in the vicinity of the parking lot.

Group A Path: This path, as recommended in the Baxter Boulevard Report, will be a 4' lane adjacent to the automobile travel lane on both sides of Baxter Boulevard. The revised plan shows the continuation of the Group A, 4' bicycle lane on both sides of Preble Street Extension so that it can connect to the future Bayside Trail (abandoned rail line).

3. Building Site: The future building site has been moved away from the high water mark to comply with shoreland regulations.

4. Parking Lot: The parking locations for compact cars have been re-configured to improve vehicular circulation within the lot.

5. Pedestrian Path: An additional pedestrian path has been added in the vicinity of the soccer field. The revision is in response to numerous site visits and observation of the desire lines that are currently used by pedestrians.

We, of course, continue to be committed to increasing the access Portland High School's Home Field at Fitzpatrick Stadium. Minimal amenities, such as bleachers, a scoreboard, and a building for concessions, are the norm for all High School Varsity soccer games in our conference. Deering High School, our sibling school across town has these amenities and play all 25 regular season Varsity home field contests on their field, Memorial Field. Portland High School is limited to just 14 Varsity contests each Fall. This inequity is unfair to the athletes at Portland High. Equity and safety are our major goals in this request in increase the usage at Fitzpatrick Stadium.

We at Portland High School and PAYSA must emphasize how important the repairs to Fox Street Field, the increase in usage of Fitzpatrick Stadium, and the development of another playing field are to the survival of our soccer programs that serve the City's youth. Hopefully these two projects will receive top priority in the City's Capital Improvement budget.

Sincerley,

Tom LaPointe

Response to Questions in:

Portland Code, Section 14-525 c., *'Written Statements,' pp. 1356-1357*

i. Name and address of owner:

City of Portland
Parks & Recreation Department
17 Arbor Street
Portland, Maine 04103
Dana Souza, Director of Parks and Recreation

ii. Estimated Cost of Development: $342,000 (does not include building or Preble Street Extension roadway adjustments)

1. Description of Proposed Uses:

The proposed use for the site is a public park, with a parking lot to accommodate approximately 166 cars. Overall, proposed uses are nearly identical to existing uses. The proposed changes and improvements include:

- reconfiguration of the intersection at Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan
- an improved pedestrian path near the intersection of Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan
- an improved parking lot that includes:
  - -drop-off areas
  - -reduction in size to conventional standards for parking stalls and travel aisles
  - -resurfacing and striping of the parking lot
  - -reduction of access points from 4 to 2 to reduce speeds within the parking lot and increase pedestrian safety
  - -pedestrian travel routes for safe access from the parking lot to the park
- an accessible sidewalk along Preble Street Extension
- a future building with restrooms and storage space
- a shaded plaza with benches and other amenities
- picnic areas
- a stone dust path adjacent to the water's edge

- an overlook that will extend from the plaza and provide excellent panoramic viewing of Back Cove and the surrounding area
- a short boardwalk that will provide access to a viewing platform with education and observation opportunities for wetland flora and fauna
- improvements to the existing irrigation system and drainage at the existing soccer field.
- improvements to the condition of the existing open or multi-purpose area

2. *Total Land Area of Site:*
   16.3 acres ±

3. *General Summary of Existing and Proposed Easements and/or Other Burdens:*
   See letter from Dana Souza, Director of Portland Parks and Recreation

4. *Types and Estimated Quantities of Solid Waste to be Generated:*
   See letter from Dana Souza

5. *Evidence of Availability of Off-Site Facilities, Including Sewer, Water and Streets:*
   As shown on the Site Plan, the site is served by sewer, water and streets.

6. *Description of Existing Surface Drainage, and Proposed Stormwater Management Plan:*
   Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

   The proposed plan will provide a filtration system for parking lot runoff. The vegetated strip between the parking lot and Back Cove will slow runoff and allow it to infiltrate into the soil. This process will greatly improve the quality of parking lot runoff that eventually enters the Back Cove. The proposal calls for improved drainage in the area of the multi-purpose field and soccer field. Overall, however, the proposal will not change the concept of the existing surface drainage or existing stormwater management system.

7. *Construction Plan - Sequencing and Approximate Dates:*
   Sequencing for the project:

   a. site preparation, including erosion and sedimentation control measures and safety/security markings
   b. construct boardwalk
   c. re-grade and improve soccer field
   d. re-grade and improve multi-purpose area

8-25-98

PROBLO ST. PARK WKSHP

98

TODD PRESENTATION

192 spaces now 185 spaces proposed

barrier along parking lot edge

Ken # of curbcuts get rid of the 2 end ones

* concensus a reduction in the # of curbcuts

John maybe there should be a traffic light and centralized entrances

Deb might not need a crosswalk if restrooms are installed

Mark doesn't think a traffic lite is needed, would like to hear from Larry Bik
rcd on right
should use a 25 ft wide lane → safety

Erin zigzag walkway thru the marsh

Cyrus likes eliminating end curbcuts
keep bikes off the boards or make it wider
likes the plan

John island at Baxter + Preble St. → Todd traffic

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

FROM: Alexander Jaegerman, Chief Planner

DATE: August 21, 1998

SUBJECT: Preble Street Park Site Plan and R-OS Review

The Preble Street park plans have been significantly revised since the Planning Board workshop last spring. The attached *Back Cove Park Master Plan* submission by the consultants, Richardson & Associates, presents the plans in detail. The plan is much more focused on basic improvements and adheres to a realistic budget amount. The basic principle of providing about the same amount of legitimate parking spaces while reclaiming the water's edge for open space, walkway, and recreation, has been achieved. Overflow parking can be readily accommodated in the Marginal Way lot less than 500 feet from the Preble Street lot.

I received a letter from a citizen who raises issues about mowing in the vicinity of the wetland area. That letter and the consultant's response are attached.

Back Cove Park Master Plan

Portland, Maine

Planning Board Workshop

August 25, 1998

I. INTRODUCTION/OVERVIEW

The Back Cove Park Preliminary Master Plan, in its current form, is the result of more than 12 months of work by Portland City Staff and the project consultant, Richardson & Associates, Landscape Architects. Additional input has been obtained from other sources as well, including the Maine Department of Environmental Protection, Portland City Engineers, the Friends of the Park, park users and past City Department Directors. Representatives from the Portland Planning Department, Portland Department of Public Works and the Portland Parks and Recreation Department have provided significant input in the development of the plan. In addition to regularly scheduled meetings among the parties listed above, an earlier version of the Master Plan was presented for comment at a Planning Board workshop on May 26, 1998. The Planning Board raised concerns about the overall cost of the project in general. Specifically, the Planning Board recommended that the existing parking lot be trimmed to current parking lot standards while remaining in its current location. The Planning Board also recommended fewer pedestrian paths and a general reduction in planting.

An earlier version of the plan was also presented to the City Manager on February 25, 1998 and again on June 2, 1998. His recommendations were to provide a pedestrian path adjacent to Back Cove, improve the condition of the soccer facility and improve the appearance of the park in general while maintaining a strict budget.

Part III, Design Summary will convey how the team responded to the recommendations from the Planning Board workshop and the City Manager.

The result of this considerable effort is a forward-looking Master Plan that reflects input from a diverse group of interested and knowledgeable parties for this important city resource.

II. SUMMARY ANALYSIS AND SYNTHESIS

The project site is a unique combination of extreme natural and urban environmental conditions. Located at the southern edge of Back Cove, it receives heavy wind and salt spray during winter months. There is a relatively high level of polluted run-off and erosion

in this area due to the location of the bituminous parking lot and compacted, bare areas that are used for parking and jogging. The parking lot is one of the most heavily salted areas in the city in winter because it provides space for the city's snow-tow lot and because of the heavy traffic flow on Preble Street Extension. The proximity of I-295 contributes to the pollutant levels and the overall noise levels at the site.

The western end of the parking lot receives heavy use from Baxter Boulevard path users while soccer field and multi-purpose space users often use the eastern end. Portable bathrooms are located on the eastern end of the parking lot and are used by Baxter Boulevard path users, soccer field users and others. Soccer field storage vans are left here during the season. The parking lot is a favorite spot for people who park and eat lunch, and food vendors often park vending vehicles here in pleasant-weather months. In winter, the lot becomes the city's snow-tow lot. It is also frequently used as a meeting place for buses, vans or carpools attending off-site events.

The pedestrian path, while in relatively good condition overall, has several conditions that are problematic and potentially dangerous. At the western end of the park, the pedestrian path that connects this area to the Baxter Boulevard path is exposed to traffic from the Preble Street Extension. As noted in the Baxter Boulevard Report, the current location of the guardrail does not protect pedestrians from on-coming traffic.

The current configuration of the path directs pedestrians to the Preble Street Extension sidewalk, which exposes pedestrians to heavily used vehicular entrances four times within the park. The crosswalks here are poorly marked and are not accessible to ADA standards. Typically, pedestrians leave the path at the western edge of the parking lot and use the hard-packed area between the parking lot and the water, as it provides the safest route, better water views and lower noise levels.

The soccer field, despite a current Parks and Recreation Department regimen of irrigation and chemical treatments, can not be maintained at optimal playing conditions because it receives very high use and suffers from poor drainage. The multi-use area suffers from drainage and irrigation problems and is, therefore, in poor condition as well. City stormwater overflow pipes outfall in to Back Cove directly adjacent to the park, and have a significant visual impact on the site.

At the eastern end of the park, a coastal wetland has been left unmaintained since the creation of the park. Currently, the area supports a variety of flora and fauna, and provides excellent opportunities for birding and nature walks.

The park suffers from a general lack of pedestrian amenities. There is no lighting, seating (except for soccer field bleachers), picnic tables, shaded areas or bicycle racks within the park, and there are a limited number of trash receptacles.

Despite its declining condition and overall lack of pedestrian amenities, the site is very heavily used for both active and passive recreation.

III. DESIGN SUMMARY

The most noticeable element of the Preliminary Master Plan is the recommendation for a pedestrian path adjacent to Back Cove within the entire park area, as recommended by the City Manager. Beginning in the vicinity of the intersection of Baxter Boulevard and Preble Street Extension, the proposal calls for moving the vehicle guardrail to a new location *between* Preble Street traffic and the pedestrian path, as recommended in the Baxter Boulevard Report. This arrangement will allow the guardrail to protect pedestrians from oncoming vehicles.

While the Master Plan recommends accessible tip-down curbing and painted crosswalks at the four parking lot entrances along the Preble Street sidewalk, the proposed stone dust pedestrian path will continue along the water in front of the existing parking lot. This path will improve pedestrian safety by eliminating the need for pedestrians to confront vehicles at any place within the park. This area will contain other pedestrian amenities as well, including shaded picnic tables and benches.

At the eastern end of the park, a proposed boardwalk through the existing wetland will allow pedestrians to remain relatively close to the water's edge while experiencing the natural beauty and diversity of the wetland. The boardwalk will have an educational component that includes explanations of various wetland issues. The proposed boardwalk will end at an intersection with the existing pedestrian path. Leaving the existing path in its current position will allow pedestrians to choose a travel option and will reduce overall costs for the project.

As recommended by the Planning Board and the City Manager, the plan proposes that the existing bituminous parking lot remain in its current location while being reduced in size to more conventional parking lot standards. The current 38' two-way travel lane will be reduced to a city standard 22' width, while the parking stall depths will remain unchanged. Striping the lot will improve parking efficiency, clarity and safety. The total "horizontal" width of bituminous parking area will remain unchanged, but the required handicapped parking spaces and a small drop-off zone will provide the city with a superior parking facility. Overall, the number of stalls will be reduced by seven, from approximately 192 to 185. Because of the increased efficiency of the proposed parking lot, the handicapped parking spaces and drop-off area will account for only a 7-stall decrease in total parking stalls. The four existing entrances to the parking lot will remain in place.

The proximity of the vast Marginal Way parking lot will more than offset any reduction in stalls at the Preble Street Extension lot. In addition, the Payson Park Master Plan recommends approximately 190 parking spaces near Baxter Boulevard that can easily be

used by Boulevard path users in the future. When the Payson Park Master Plan and the Back Cove Park Master Plan are considered together, they will result in a net gain of total parking spaces along Baxter Boulevard.

A public plaza will be added north of and centered on the parking lot, and will include plantings and benches for casual seating. The plaza will be spacious enough to allow for larger public gatherings such as programmed events by the Parks and Recreation Department. An overlook will extend on axis from the plaza and allow seating and viewing out over Back Cove. This area will allow visitors a more direct experience of Back Cove, the water and the wind, and will provide an ideal location for eating lunch or enjoying spectacular views of Back Cove and the city of Portland.

A small stretching area for joggers will be located at the western end of the parking lot. Most people who use the Preble Street Extension parking lot for jogging, walking, bicycling, etc., park on this end of the lot. The stretching plaza will include a shaded area with seating to allow for rest, changing shoes and equipment, and stretching before and after exercise.

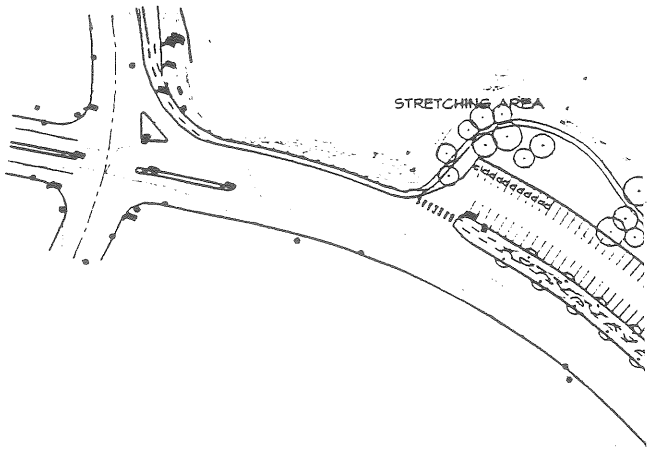
Plantings will be used to create comfortable and shaded spaces, to define important edges and boundaries, to screen undesirable views and to enhance wildlife habitat. The Master Plan recommends the use of hardy and primarily native plant material, which will not only provide a potential for learning experiences and increased wildlife use but also ensure better plant survival rates in this difficult location. This version of the Master Plan reflects the Planning Board's recommendation for fewer plantings and lower overall project cost, and the City Manager's request for improved planting and aesthetic appearance of the landscape within a strict budget.

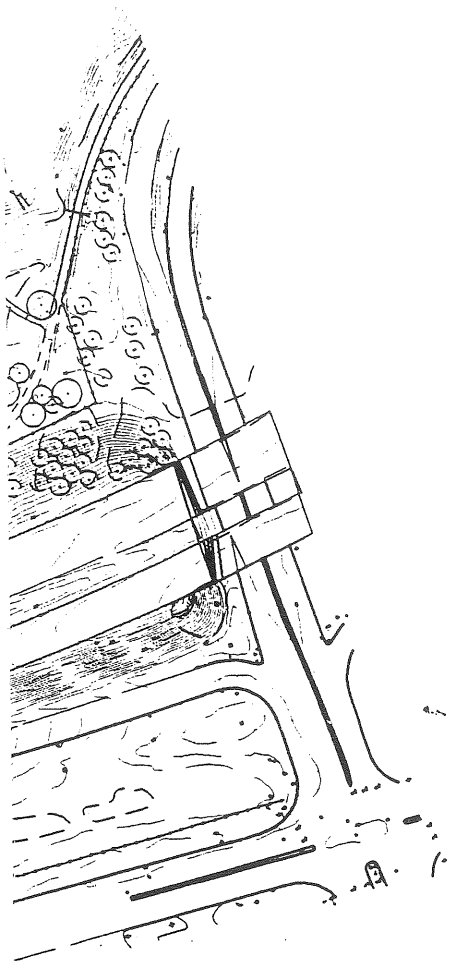
The Master Plan also recommends grading and drainage improvements to the existing soccer field. The heavy use the soccer field receives makes it difficult to maintain in optimum playing condition. Improved irrigation combined with proposed grading and drainage improvements will help alleviate this condition. The proposal also recommends improved grading and drainage and the addition of irrigation facilities in the area of the plan delineated as "multi-purpose space." This area is to remain a large, open, unprogrammed space that can be used for practice or "pick-up" active recreation, sunbathing or other passive use, or programmed activities by the Parks and Recreation Department.

Park amenities will also be improved or added, including seating, picnic tables, trash receptacles, bicycle racks, a drinking fountain, signage and improved lighting. Amenities will be consistent with those at Baxter Boulevard.

IV. CONCLUSION

This Preliminary Master Plan strives to improve the safety and experience of pedestrian movement around Back Cove while completing the pedestrian loop begun at Baxter Boulevard. The Plan improves the safety, clarity and efficiency of this important city parking facility while adding a small drop-off area and required handicapped parking stalls. Overall, the Master Plan is designed to improve the safety, usefulness and appearance of this heavily used resource in a cost-effective manner, as recommended by the Baxter Boulevard Report, the Planning Board and the City Manager.





Back Cove Park

Portland, Maine

Preliminary Master Plan

Not to Scale
Date: 3.20.98

Richardson & Associates
Landscape Architects

Done

PHILLIP M. HOOSE
8 Arlington Street
Portland, Maine 04101
Phone: (207) 874-4931
Fax: (207) 874-2102
e-mail: hoose@gwi.net

July 31, 1998

Mr. Alex Jaegerman,
Chief Planner
City of Portland
Portland City Hall 04101

Dear Mr. Jaegerman:

We run, walk or bike around Back Cove nearly every day and we have noticed that the patch of wild vegetation near the soccer field is shrinking. More and more of it seems to be getting mowed. We are writing to urge you to post its perimeter with signs that identify it as an area in which vegetation is to be left in natural condition. This will help alert those who mow it.

We also recommend that city workers and the general public be provided information as to why the area should be left in natural condition. This is counterintuitive to most. Most people who notice the area at all probably regard it as an eyesore, as a patch that the city forgot to mow.

Dr. Richard Eakin, a ~~Zoologist with, we think, USM~~ biologist with UNE, has been studying birds at Back Cove for something like 20 years. He points out that the patch is at least as important as a stopover area for migratory birds as it is as a nesting site. He has developed a terrific slide show depicting the birds of Back Cove, and his narration provides a great deal of information. The address and number we have for Dr. Eakin is 64 Gleckler Road, Portland 04103. Phone is 773-8249.

We commend the city for its farsightedness in leaving a wild portion of a heavily-used resource.

Sincerely,

Phil Hoose . Shoshana Hoose

Phil and Shoshana Hoose

From: <lnkberry@aol.com>
To: Portland.CityHall(AQJ,DAS)
Date: Tue, Aug 18, 1998 11:01 AM
Subject: Re: Re: Preble Street/Back Cove Park narrative

Here's a long reply (sorry):

I just read the letter from Mr. Hoose, and he actually brings up some valid points. The area he is talking about is between the existing stone dust path and the wetland. It's an area where very little happens now-people don't often use it. Several weeks ago, we walked the site with the DEP rep, Doug Burdick, and with Pam Morgan, a wetland scientist. She pointed out that the area currently being mowed does in fact include plants that would be classified as existing in a coastal wetland. I don't know if the limit of mowing has changed over the last few years, but Pam was able to recognize the plants even after mowing. You can actually see a sort of brown looking area there-the browner plants are wetland plants, while the grass stays green after mowing.

One of the things we talked about with Doug Burdick is that if DEP requests compensation for the boardwalk (it will shade out areas of the wetland), we could propose that area as part of the compensation package. Less mowing, signs, ideas etc.- still to be developed. Regardless, the final plan will probably recommend a clear definition of where the wetland ends and the upland begins, so that there is no confusion about it.

As a response to Mr. and Mrs. Hoose's letter, you can say that we are aware of the mowing issue, and it will be addressed as part of the plan for the park. Also, the boardwalk, wherever it's final path is, will have some education aspect to it which explains the nature of the coastal wetland, what flora and fauna are there, what affect the boardwalk has on the wetland (i.e., why it is located where it is), etc..

Also, if it's OK with you two, we will contact the UNE biologist, as he will be able to provide more insight on that area.

I hope that answers the questions that both of you might have about that issue. If not, please let me know.

Finally, a question for Alex regarding Portland Downtown: We are desperately trying to reach Alan Holt for base map information for downtown. Apparently, he might have digital or CAD file of the downtown streets (someone mentioned that he might ?). If so, we need to get a copy as soon as possible. We'd like to get into the in-depth analysis, but we're waiting to hear from Alan first. If there's any way you could ask him contact us at his earliest convenience, that would be great. Today would be even better, because time is growing short. We haven't had much luck reaching him over the last week or so.

Thanks,

Frank

ADDENDUM
November 30, 1998

to

Back Cove Park
Portland, Maine

Site Plan Review Submission
dated
October 27, 1998

ADDENDUM EXPLANATIONS:

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Multi-Purpose (Group B) Path: This path, as recommended in the Baxter Boulevard Report, will be located on the water side of Baxter Boulevard (inside the curb) in a 2-way configuration. Because this path has been identified as being used primarily by less agile users (Group B users, as defined by U.S. Department of Transportation, Federal Highway Administration Publication No. FHWA-RD-92-073, January 1994) and children, the revised plan allows the multi-purpose path to leave the roadway before the Preble Street Extension/Baxter Boulevard intersection. The path leads to a turn-around/dismount circle that allows users to safely and conveniently leave or enter the multi-purpose path in the vicinity of the parking lot.

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4. Parking Lot: The parking locations for compact cars have been re-configured to improve vehicular circulation within the lot.

5. Pedestrian Path: An additional pedestrian path has been added in the vicinity of the soccer field. The revision is in response to numerous site visits and observation of the desire lines that are currently used by pedestrians.

City of Portland

Memorandum

To: Alex Jaegerman, Chief Planner

From: Deb Andrews, Historic Preservation Program Planner

Date: March 17, 1998

Subject: Applicability of Historic Preservation Regulations on Payson Park and Preble Street Park Projects

This memo is in response to your inquiry regarding the applicability of the historic preservation ordinance regulations on projects now in the planning stages for Payson Park and the new "Preble Street Park."

Regarding the two areas designated for Preble Street Park and the secondary parking lot, it appears that neither of these parcels falls within the boundaries of the Baxter Boulevard Historic Landscape District. As such, the projects would not be subject to review under the preservation ordinance. However, to the extent that any infrastructure elements proposed for these areas, such as lighting fixtures, trash receptacles, benches, etc., might eventually be continued along Baxter Boulevard itself, it might be prudent to review these in a workshop session with the Historic Preservation Committee. For design continuity's sake, it would be desireable for these elements of street furniture to either be the same throughout or be related in some key attributes.

Regarding Payson Park, the attached map shows that the boundaries of the Baxter Boulevard Historic Landscape District include a portion of Payson Park, as one enters from the Boulevard. Any work proposed for this area would be reviewable under the historic preservation ordinance. Also, under Sec. 14-526(a)(18) of the site plan ordinance, any alterations within 100 feet of the historic district boundary line would have to be found to be "not incongruous to the...character of those portions of such designated...district as are currently visible to the development..." In this instance, the Planning Board would be making the determination.

SQUAW BAY CORP

Pipe No. (1)	Location (2)	CB Manhole No. From (3)	CB Manhole No. To (4)	Length (ft) (5)	Tributary Area Increment (acre) (6)	Tributary Area Total (acre) (7)	Time of Flow To Upper End (min) (8)	Time of Flow In Section (min) (9)	ΣTime Impervious Area (10)	C (11)	i Runoff (in/hr) (11)	Total Runoff (cfs) (12)	Slope of Sewer (13)	Diam (in.) (14)	Capacity Full (cfs) (15)	Velocity Full (fps) (16)	Design Flow Velocity (fps) (17)	Design Flow Velocity Head (ft) (18)	Design Flow Depth of Flow (ft) (19)	Design Flow Total Energy Head (ft) (20)	Manh Loss Transit + Cur + Junc (ft) (21)
					0.44	0.44	5	—	5min	0.9	6.2	2.46									
L1		5	4	236				1.26					0.0034	12	2.46	3.13					
					0.43	0.87	5		6.26	0.9	5.7	4.46	Use	15"	S=0.00	3					
L2		4	2	238				1.57					0.0013	18	4.46	2.52					
					0.06 0.43	1.36	5		6.57	0.9	5.6	6.85									
L3		2	1	218				0.94					0.003	18	6.85	3.88					
					0.31	1.67	5		5.94	0.9	5.8	8.72									
L4		1	0	62				0.21					0.0049	18	8.72	4.93					
									5.21	1.9	6.1	9.17									

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 2

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	7.59 cfs

Computed Results:

Full Flow Channel Slope	0.0037 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	4.30 fps
Flow Area.....	1.77 sf
Critical Depth....	1.07 ft
Critical Slope....	0.0051 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	7.59 cfs
QMAX @.94D.....	8.16 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 3

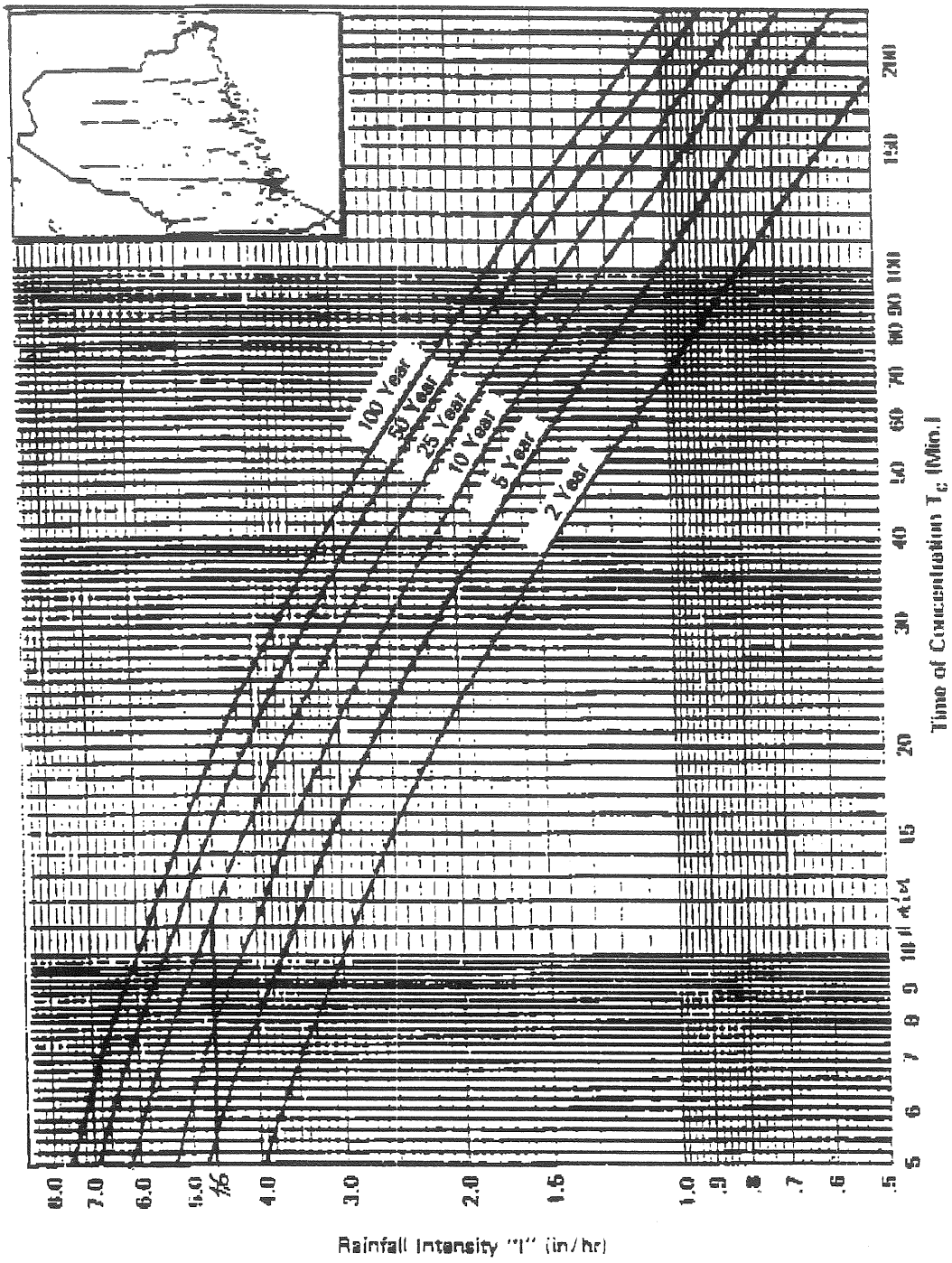
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	0.36 cfs

Computed Results:

Full Flow Channel Slope	0.0000 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	0.46 fps
Flow Area.....	0.79 sf
Critical Depth....	0.25 ft
Critical Slope....	0.0040 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	0.36 cfs
QMAX @.94D.....	0.39 cfs
Froude Number.....	FULL



IDF CURVE FOR CITY OF PORTLAND
(Rational Method)

Figure 12-12

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 4

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	4.85 cfs

Computed Results:

Full Flow Channel Slope	0.0015 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	2.74 fps
Flow Area.....	1.77 sf
Critical Depth.....	0.85 ft
Critical Slope.....	0.0041 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	4.85 cfs
QMAX @.94D.....	5.22 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 5

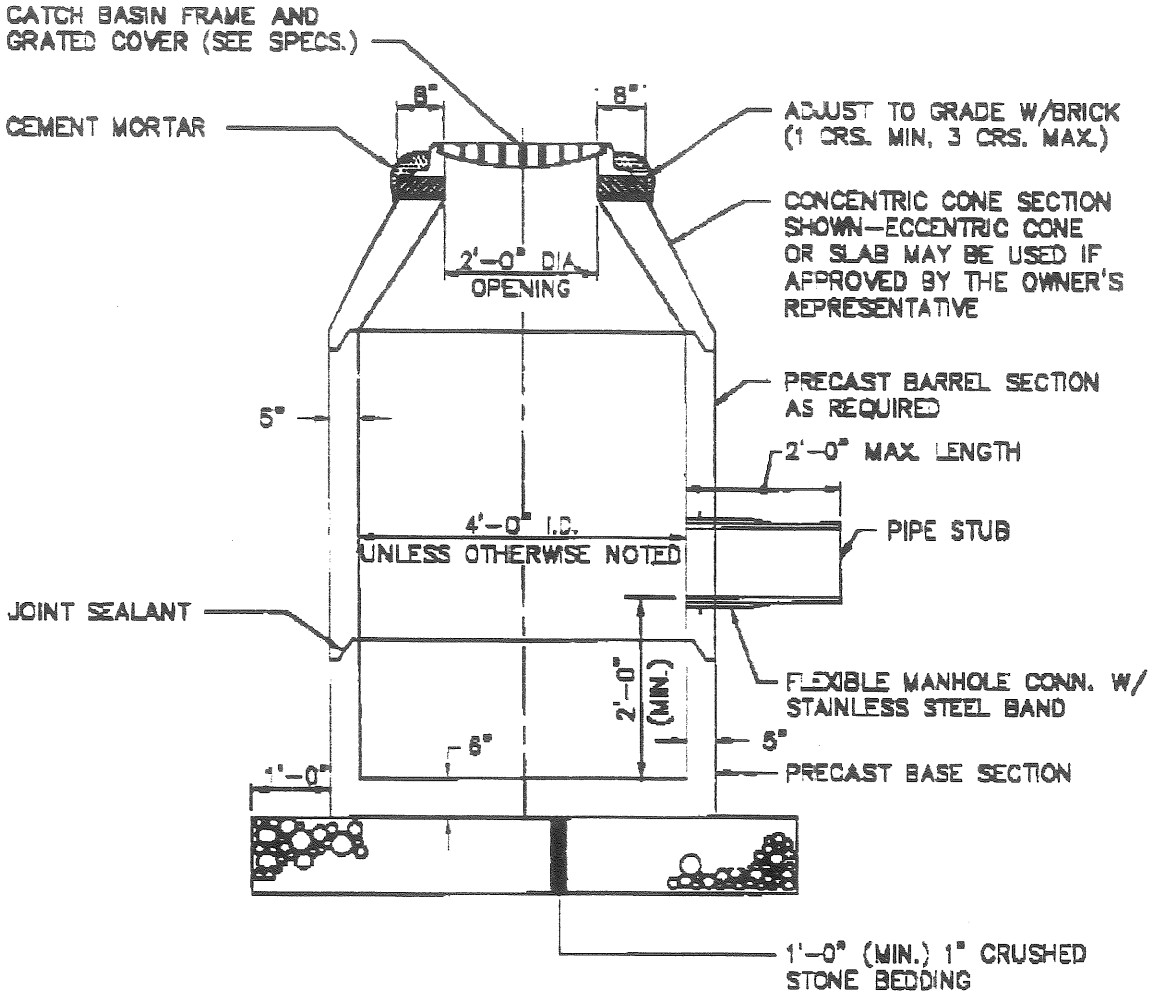
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	2.47 cfs

Computed Results:

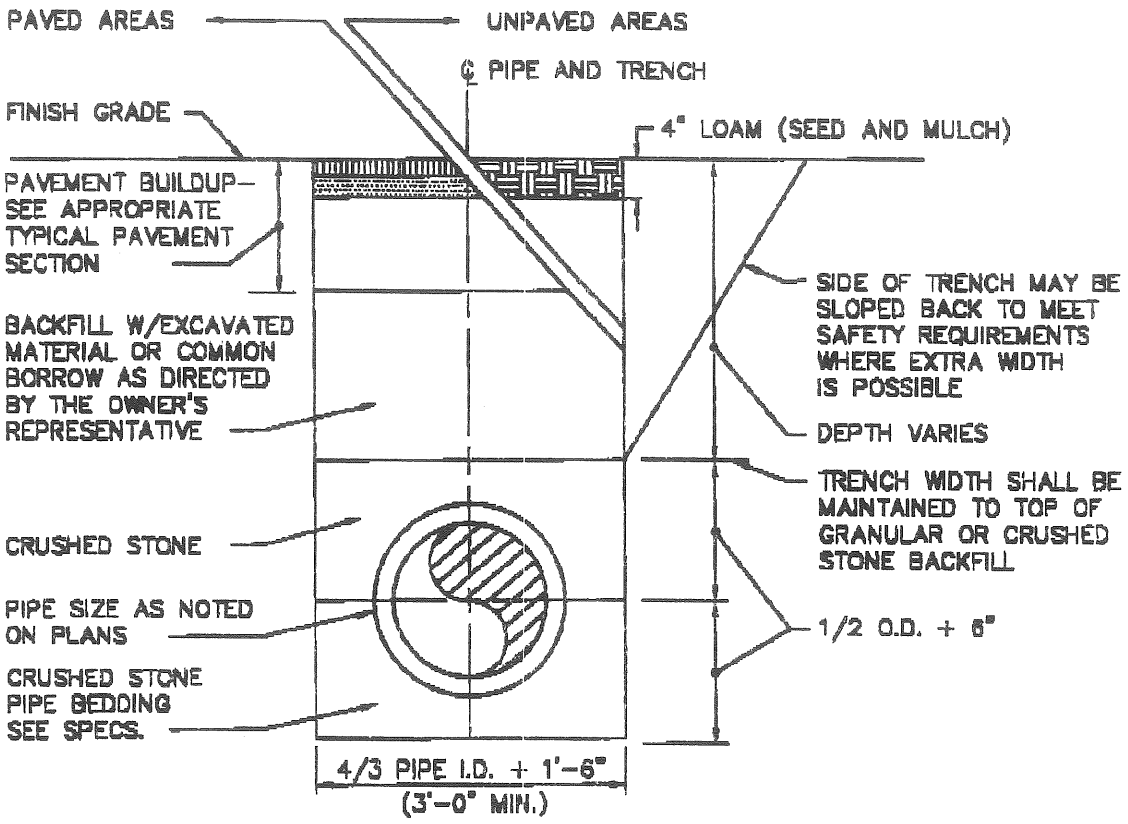
Full Flow Channel Slope	0.0034 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	3.14 fps
Flow Area.....	0.79 sf
Critical Depth....	0.67 ft
Critical Slope....	0.0054 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	2.47 cfs
QMAX @.94D.....	2.66 cfs
Froude Number.....	FULL



TYPICAL CATCH BASIN

N.T.S.

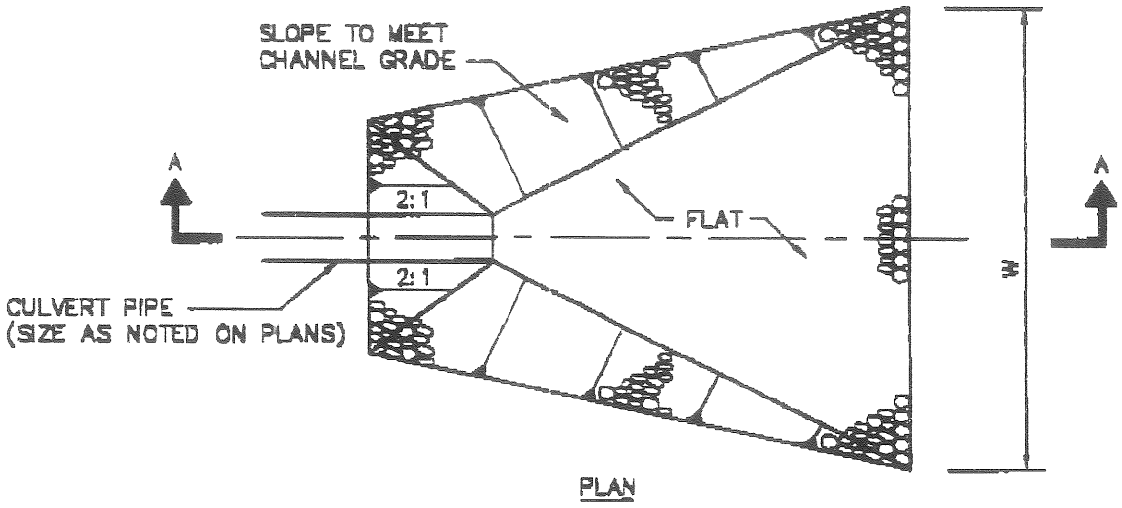
Squaw Bay Corp Consulting Engineers Land Surveyors P.O. BOX 426, SACO, MAINE 04072	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE TYPICAL CATCH BASIN	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-300	REV.



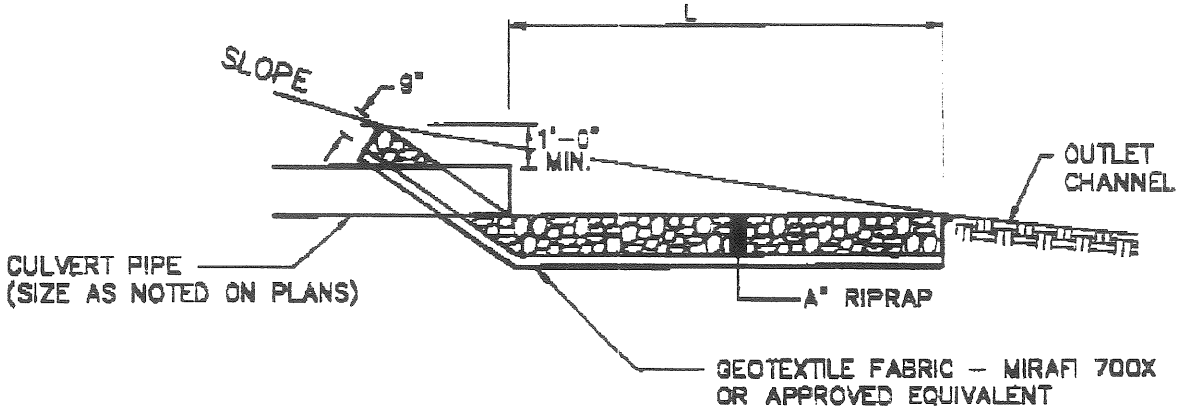
TYPICAL TRENCH DETAIL

N.T.S.

Squaw Bay Corp Consulting Engineers & Land Surveyors P.O. BOX 381, CUMBERLAND CENTER, ME. 04021	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT	BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE PIPE TRENCH DETAIL
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. DWG. NO.	99-222 C-301



PLAN



SECTION A–A

DIAMETER	L	W	A	D_{50}
18"	8'	5'	12"	5"

RIPRAP INLET/OUTLET PROTECTION

N.T.S.

Squaw Bay Corp Consulting Engineers & Land Surveyors P.O. BOX 604, CUMBERLAND CENTER, ME. 04021	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE RIPRAP OUTLET PROTECTION	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-302	REV.

Memorandum

Portland Parks and Recreation

To: Rick Knowland

From: Dana Souza

Date: Wednesday, October 28, 1998

Re: Back Cove Park

CC: Chris DiMatteo, File

The following are answers to Site Plan Review questions 3, 4, 9 and 10, (Found in Article V. Site Plan—Sec. 14-525. Final site plan.), in preparation for the Planning Board's upcoming review of Back Cove Park masterplan.

(3) General Summary of existing and proposed easements or other burdens now existing or to be placed on the property; (pg. 1357)

The following are restrictions and limitations that exist today on the parcels that constitute Back Cove Park. Our department is currently looking into these constraints.

(1) Egress and ingress to the premises is limited to that area outlined on the plan in Appendix A.
(2) No motor vehicles will be permitted on the premises except those engaged in construction, maintenance or the provision of emergency activities.
(3) No permanent buildings shall be constructed on the premises except those needed for athletic or maintenance activities.
(4) No change in the elevation of the land shall be made unless permission from the Grantor is first obtained.

The above constraints along with the description of the parcel are found in the title for the parcel on file at the Cumberland County Registry of Deeds.

(4) The types of estimated quantities of solid waste to be generated by the development; (pg.1357)

Parks and Recreation maintains the existing site, and will continue to do so in the future. Currently Parks and Recreation maintenance crews maintains five 20-gallon trashcans at the site which are emptied daily. With the completion of the proposed improvement, our operations will remain unchanged.

(9) Evidence of financial and technical capacity to undertake and complete the development including, but not limited to, a letter from a responsible financial institution stating that it has reviewed the planned development and would seriously consider financing it when approved, if requested to do so; (pg. 1357)

Parks and Recreation anticipate on spending approximately $350,000.00 on the proposed improvements. Funds from within the Baxter Trust Account will pay for the project.

(10) Evidence of the applicant's title. Right, or interest in the property, including without limitation deeds, leases, purchases options or any other documentation; (pg. 1358)

As per the title, on file at Cumberland County Registry of Deeds and information from the City Assessor's Office, the City of Portland owns all the land that constitutes Back Cove Park.

I haven't had a chance to fully look at this part of the submission Chris.

BACK COVE PARK
Portland, Maine

Amenities Proposal

March 9, 1999

TABLE OF CONTENTS

I. Lighting.....1

II. Bench.....2

III. Trash Receptacle.....3

IV. Drinking Fountain.....4

V. Bicycle Rack.....5

VI. Picnic Table.....6

KEY TO AMENITIES SYMBOLS ON DRAWINGS:


Lighting


Bench


Trash Receptacle


Drinking Fountain


Bicycle Rack


Picnic Table

Recreation / Field Task Force

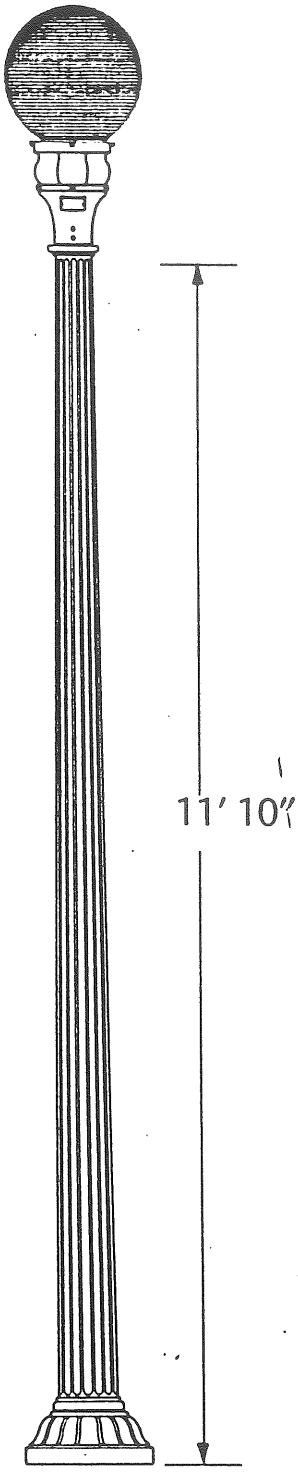
- inventory ; analysis of uses, demand ; expansion needs

D. Brennan, T. LePointe, Nelson Toner, Dep Fenth Payson, Ch Kuhbauch,

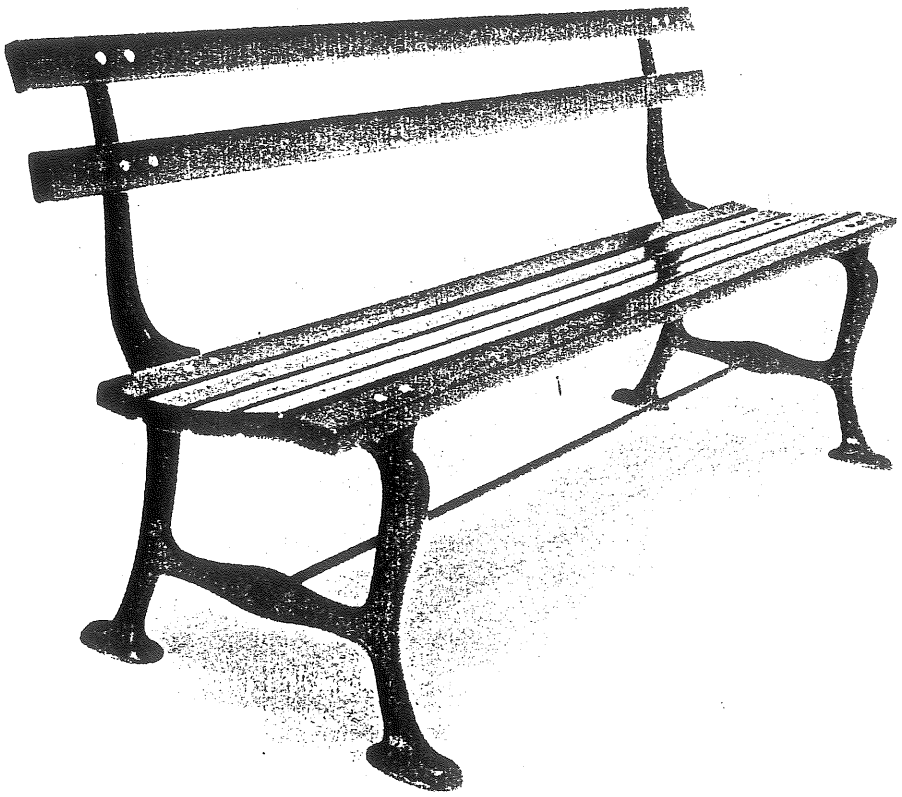
School Dept. Ray Mailman, DWS, little lad football

adult users, nonschool users

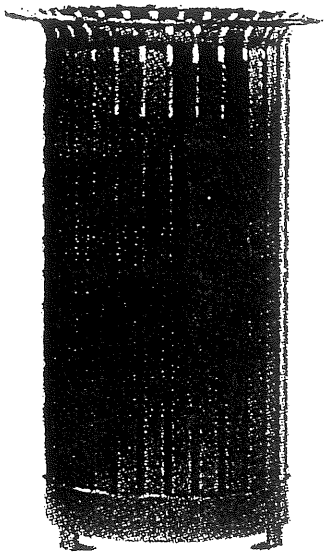
Mission Statement Discussion



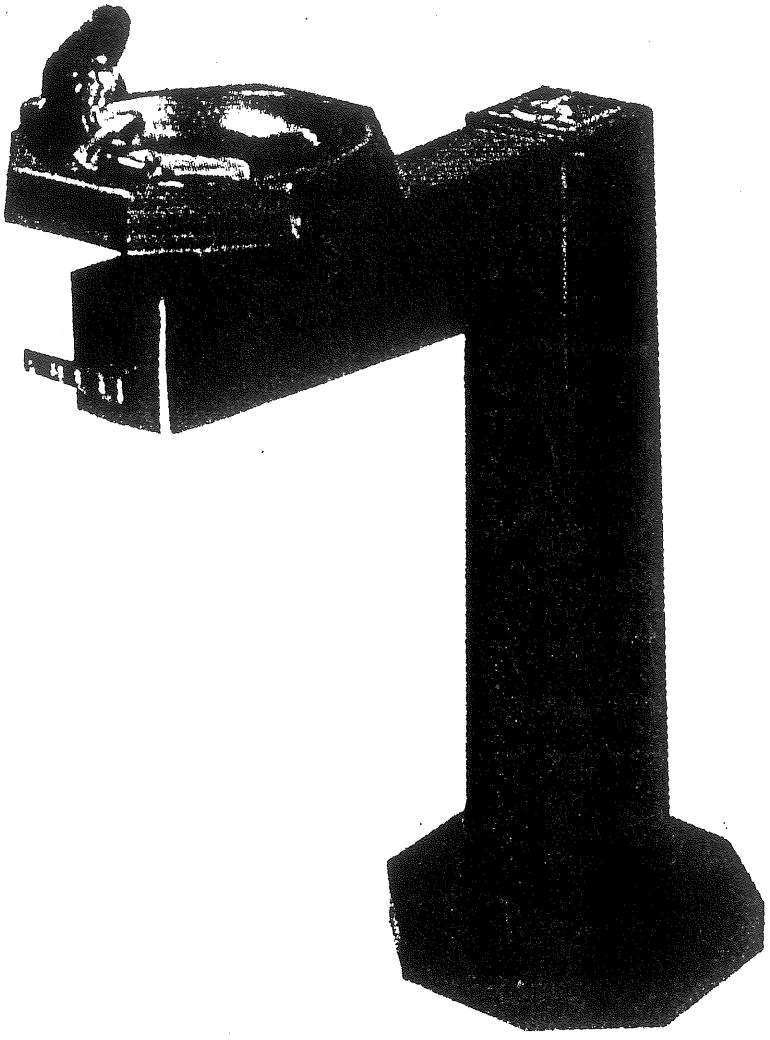
Delaware cast iron or cast iron base with steel shaft, 5 through 21 ft. height.



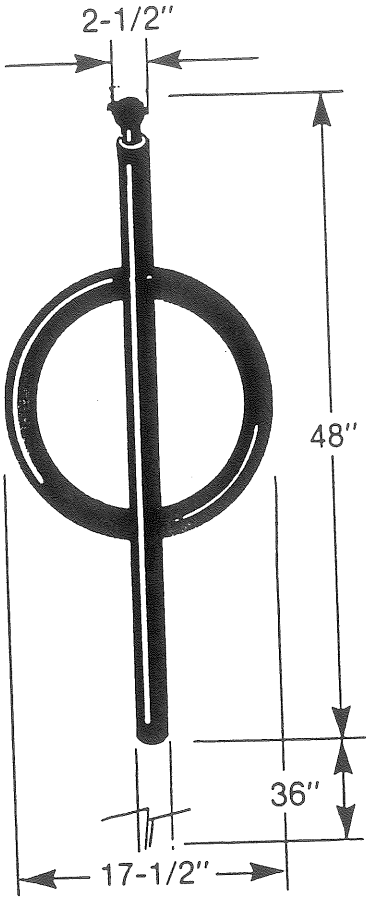
Kenneth Lynch & Sons - Central Park Settee

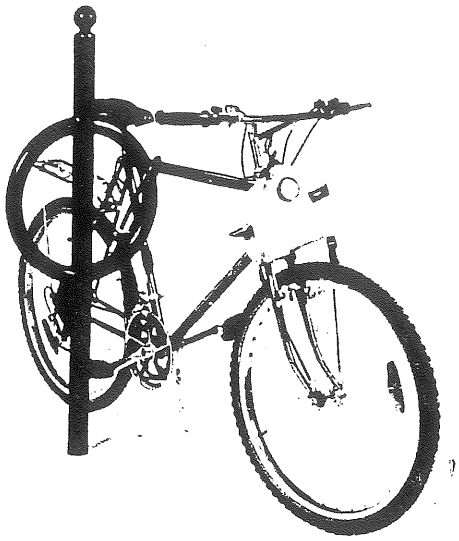


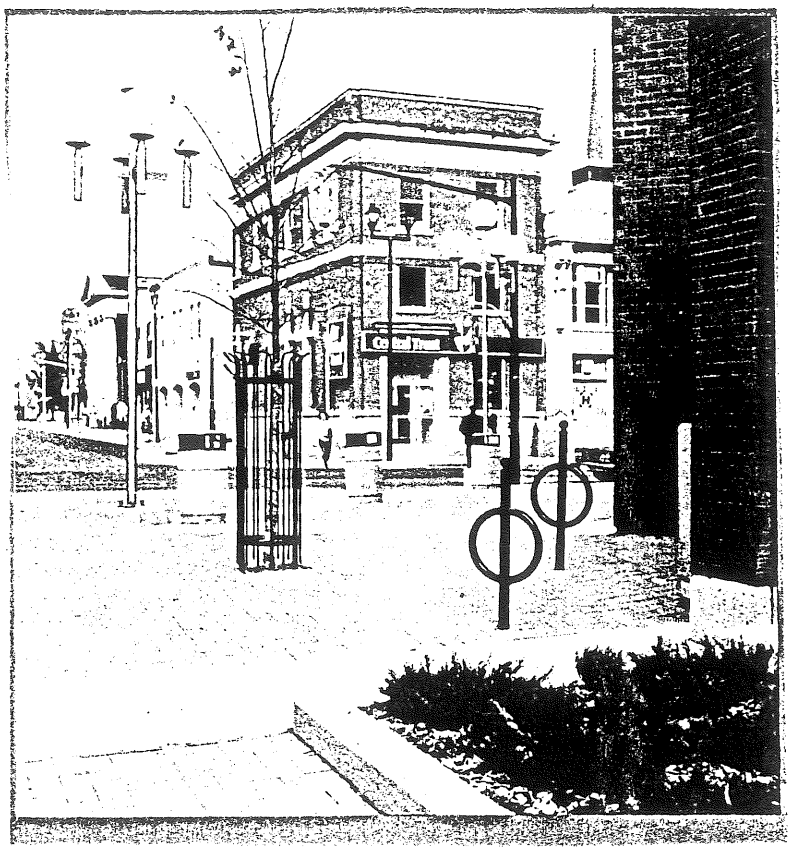
Trystan - Harbour Serics Trash Receptacle



Murdock Drinking Fountain - Heavy Duty, Anti-Freezing, Wheelchair Accessible







Trystan Bike Rack

5-11-99

PREBLE ST PARK P.B
P.H.

Tom LaPointe
is multi-purpose field large enough?

Jaimie bottleneck at the BB and Preble St
Dana A phase 2 project, too expensive now

Deb concerned about parking a sign is
needed to direct people to Marginal Way
Dana A sign will be put up
Ken agrees turnaround is unnecessary its organized
now why give up spaces for the turnaround
~~they~~ will not go to Marginal Way
Cyrus supports the project
Ken should have posted the Preble St ~~the meeting~~ pro for pe
Mark likes the project concerned about the loss
of parking
but there is a bottleneck at Shop n Save
no pedestrian cross zone across Preble St.
Larry can review a left hand turn on Preble St.
John Crosswalks are needed across Preble St.
disagree about ~~that~~ completing the loop by
Baxter Boulevard
turnarounds are crazy, they'll just park
there
wants grills
the athletic field should be lighted
priorities are wrong

CHUCK
BOB C.
JOHN R.
DAVE
TODD
FRANK

6-3-98

PROBLEM / PAYSON

PROBLEM ST

112 + 80 = 212 250 total

DEPT INVOLVED

JOHN PAVED AREA PEOPLE ARE PARKING ON GRAVEL AREA

ON WEEKENDS MORE THAN 200 SPACES

MARGINAL WAY PARKING LOT "NOT SAFE"

CHUCK IT'S NOT THE PLAN ... BUDGET INVOLVED

BOB TOO MUCH MONEY

MOVE PATH TO THE WATERSIDE

MAKE

PROVIDE SOME OPEN SPACE ... PICNIC AREA

BACK UP THE PARKING LOT A LITTLE

DRAINAGE

NADINE → NEED TO ADDRESS UTIL PARKING LOT

BOB FOCUS ON THE PATH ; FIX UP THE WATER AREA

SEPARATE THE PARKING LOT

SUGGESTS AN EXERCISE FOR OURSELVES

WANTS A WIDE OPEN SPACE ALONG THE SHORE BY

THE PARKING LOT IA

LEGAL ISSUES

-PARKING LAYOUT
TRAFFIC DRIVEWAY OPEN

TODD
JOHN P.
CHRIS DI
DANA
LARRY A
JOE
JIM W.
FRANK L.
ALEX

SURVEY

throats 4 to 2 driveway openings

cul-de-sacs within the existing blacktop

Larry Ash get DPW comment on plowing

width of driveway opening

John P July 31 215 parking space

Cheryl, B. Bay Petrunio met to discuss this

42 FT CURB CUT

Larry doesn't like Pebble St crosswalk

elimination of Δ, island to be installed for pedestrian walking, move guardrail to protect pedestrian

24 hour count not a peak demand ~ may not need 5 lanes do some counts

CAREX ECOSYSTEM SCIENCES
Natural Resource Assessment & Management

603-742-6665 PHONE/FAX
9-A FRENCH CROSS ROAD
MADBURY, NEW HAMPSHIRE 03820

WETLAND DELINEATION REPORT

BACK COVE PARCEL
PREBLE STREET EXTENSION
PORTLAND, MAINE

PREPARED FOR

CITY OF PORTLAND
DEPARTMENT OF PARKS & RECREATION
17 ARBOR STREET
PORTLAND, MAINE 04103

PREPARED BY

CAREX ECOSYSTEM SCIENCES
9A FRENCH CROSS ROAD
MADBURY, NH 03820

OCTOBER 27, 1998
981005

Introduction and Methods

On 26 October 1998, I conducted an on-site delineation of wetlands at the subject parcel located off of Preble Street Extension in Portland. Wetlands under state and federal jurisdiction were identified based on the *Corps of Engineers Wetlands Delineation Manual* (Dept. of the Army, 1987). Except in special circumstances, these criteria require that indicators of wetland soils, vegetation, and hydrology all be present for an area to be considered a wetland. Additional supporting documents used include:

Classification of Wetlands and Deepwater Habitats of the United States, US Fish and Wildlife Service, 1979.
Field Indicators for Identifying Hydric Soils in New England, Version 2, New England Interstate Water Pollution Control commission, 1998.
National List of Plant Species that Occur in Wetlands: 1988, US Fish and Wildlife Service, 1988.
Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, Maine Association of Professional Soil Scientists, 1995.

The site borders the ocean and has been the site of significant disturbance. Much of the area has been filled, at least along the upper edges of the wetland. The area grades from natural and recovered tidal marsh on fill dominated by salt tolerant species in lower elevations, to a band of wetland dominated by salt intolerant species on fill, to upland lawn on fill. The wetland dominated by salt intolerant species includes many weedy and cultivated species. All of the wetland areas are assumed to be under the influence of the maximum spring tides and, therefore, to meet the state definition of coastal wetlands.

The upper edge of the wetland dominated by salt intolerant species and the area dominated by salt tolerant species were marked separately with wooden stakes and sequentially numbered plastic flagging. In the vicinity of the proposed impact I completed Corps of Engineers data forms for each of the two wetland zones, as well as for the upland.

Wetland Characteristics

Salt Tolerant Zone

Wetland Classification: Estuarine persistent emergent, irregularly flooded (EEM1K)
Flag Numbers: Salt-1 to Salt-16
Soils: Poorly drained fill
Representative Plant Species:

Saltmeadow cordgrass	*Spartina patens*
Black grass	*Juncus gerardii*
Spike grass	*Distichlis spicata*
Seaside alkali grass	*Puccinellia maritima*
Saltmarsh sand-spurrey	*Spergularia marina*

Seaside goldenrod *Solidago sempervirens*

Seaside goldenrod *Solidago sempervirens*

Hydrological Indicators:
Debris line
Saturation at <12" from soil surface

*****

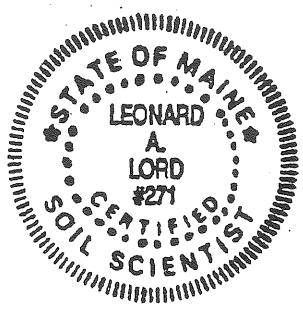
Salt Intolerant Zone

Wetland Classification: Palustrine persistent emergent, irregularly flooded (PEM1K)
Flag Numbers: Wet-1 to Wet-16
Soils: Poorly drained fill
Representative Plant Species:

Meadow fescue	*Festuca pratensis*
Poverty grass drop-seed	*Sporobolis vaginiflorus*
Reed canary grass	*Phalaris arundinacea*
Eastern lined aster	*Aster lanceolatus*
Flat-top goldenrod	*Euthamia graminifolia*
Fall dandelion	*Leontodon autumnalis*

Hydrological Indicators:
Saturation at <12" from soil surface

Notes:
- Highly disturbed vegetation includes some upland species but area has good hydric soil indicators.



Leonard A. Lord, Ph.D.
Wetland Ecologist
ME Certified Soil Scientist #271

PROJECT TITLE: BACK COVE, PORTLAND

TRANSECT:

PLOT: 1

(SALT TOLERANT ZONE)

DELINEATOR(S): LEONARD A. LORD, PhD

DATE: 10/26/98

VEGETATION

Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
JUNCUS GERARDII	45/90	50%	FACW+
SPARTINA PATENS	45/90	50%	OBL

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
1	1					

Hydrophytes SUBTOTAL: 2

NON-hydrophytes SUBTOTAL: 0

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = 100\%$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: ______
- Aerial Photograph — Identification: ______
- Other — Identification: ______

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: ______

Depth to Saturation (including capillary fringe): ______

Describe Altered Hydrology: ______

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☑ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 2 (WETLAND WITH SALT INTOLERANT SPECIES)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
SPOROBOLUS VAGINIFLORUS	70/90	78%	FACW+

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
	1					

Hydrophytes SUBTOTAL: 1

NON-hydrophytes SUBTOTAL: ____

$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes + Subtotal Non-hydrophytes}}$ = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA

Stream, lake or tidal gage Identification:

Aerial Photograph Identification:

Other Identification:

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water:

Depth to Saturation (including capillary fringe):

Describe Altered Hydrology:

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND

TRANSECT:

PLOT: 3 (UPLAND)

DELINEATOR(S): LEONARD A. LORD, PhD

DATE: 10/26/98

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
MANICURED LAWN DOMINATED BY UNIDENTIFYABLE GRASSES BUT INCLUDING:			
TRIFOLIUM PRATENSE (FACU-)			
FESTUCA PRATENSIS (FACU)			
LEONTODON AUTUMNALIS (UPL)			

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

____ OBL ____ FACW ____ FAC ____ *OTHER HYDROPHYTES ____ FAC- ____ FACU ____ UPL

Hydrophytes SUBTOTAL: ________

NON-hydrophytes SUBTOTAL: ________

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = \_\_\_\_\_\_$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: ________
- Aerial Photograph — Identification: ________
- Other — Identification: ________

☐ NO RECORDED DATA

☐ OBSERVATIONS:

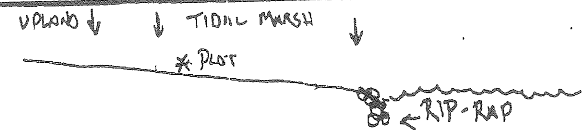
Depth to Free Water: ________
Depth to Saturation (including capillary fringe): ________
Describe Altered Hydrology: ________

☐ Inundated ☐ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): NONE

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
+1	Oe	—	—	HEMIC ORGANIC MATTER
0-4	A	10YR 3/3	7.5YR 3/4 OXIDIZED RHIZOSPHERES	VERY FINE SANDY LOAM, MANY FINE ROOTS
4-11	Cg1	2.5Y 5/2	20% 5Y 5/1 DEPLETIONS 1/4-1/2"	VERY GRAVELLY SANDY LOAM - SOMEWHAT COMPACT FILL
11-16	Cg2	5Y 5/2	"	GRAVELLY SILTY CLAY LOAM FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S)

II OR IIID

REFERENCE:

FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

REFERENCES:

TAXONOMIC SUBGROUP : ENDOAQUENT — KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: VERY POORLY DRAINED (DISTURBED) — MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

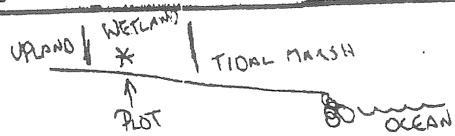
	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☐

REMARKS:

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1 (SALT TOLERANT ZONE)

SOIL Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2	A	10YR 3/2	NONE	FINE SANDY LOAM, MANY FINE ROOTS
2-12	Cg1	5Y 5/2	10% 5Y 5/1 DEPLETIONS, 1/4"	GRAVELLY LOAMY SAND - FILL FEW FINE ROOTS AT TOP OF HORIZON
12-14+	Cg2	5Y 5/2	—	GRAVELLY SILTY CLAY LOAM, FIRM - FILL
				OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S)
III D.

REFERENCE:
FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

SOIL DRAINAGE CLASS: POORLY DRAINED

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

REFERENCES:
KEYS TO SOIL TAXONOMY, 1996
MADSS KEY, 3/97

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

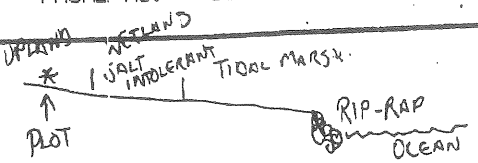
IS THIS DATAPOINT WITHIN A WETLAND? Yes ☑ No ☐

REMARKS:

CENED-CO-RAW(?) Version 1/1/98 Page 2

PROJECT TITLE: BACK COVE TRANSECT: PLOT: 2 (SALT INTOLERANT WETLAND)

SOIL | Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2		10YR 3/2	NONE	FINE SANDY LOAM - FILL MANY FINE ROOTS
2-9		10YR 4/4	NONE	VERY COBBLY LOAMY COARSE SAND FEW FINE ROOTS - FILL WITH 10% ASPHALT
9-13		5Y 5/3	5% 2.5Y 5/6 CONCENTRATIONS	VERY GRAVELLY LOAMY SAND FILL
13-24		5Y 5/3	20% 5Y 5/2 DEPLETIONS 10% 2.5Y 5/6	GRAVELLY LOAMY FINE SAND FILL WITH SILT LOAM LENSES

HYDRIC SOIL INDICATOR(S)
NOT HYDRIC

REFERENCE:
FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:
TAXONOMIC SUBGROUP : ENDOAQUENT
SOIL DRAINAGE CLASS: SOMEWHAT POORLY DRAINED
DEPTH TO ACTIVE WATER TABLE:
NTCHS HYDRIC SOIL CRITERION:

REFERENCES:
KEYS TO SOIL TAXONOMY, 1996
MASS DRAINAGE CLASS KEY 3/96

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☐	☑
Hydric Soils Criterion Met?	☐	☑
Wetland Hydrology Met?	☐	☑

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☑

REMARKS:

CENED-CO-Routine Version VAL088 Page 2

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

Back Cove Park Master Plan

Portland, Maine

Planning Board Workshop

August 25, 1998

I. INTRODUCTION/OVERVIEW

The Back Cove Park Preliminary Master Plan, in its current form, is the result of more than 12 months of work by Portland City Staff and the project consultant, Richardson & Associates, Landscape Architects. Additional input has been obtained from other sources as well, including the Maine Department of Environmental Protection, Portland City Engineers, the Friends of the Park, park users and past City Department Directors. Representatives from the Portland Planning Department, Portland Department of Public Works and the Portland Parks and Recreation Department have provided significant input in the development of the plan. In addition to regularly scheduled meetings among the parties listed above, an earlier version of the Master Plan was presented for comment at a Planning Board workshop on May 26, 1998. The Planning Board raised concerns about the overall cost of the project in general. Specifically, the Planning Board recommended that the existing parking lot be trimmed to current parking lot standards while remaining in its current location. The Planning Board also recommended fewer pedestrian paths and a general reduction in planting.

An earlier version of the plan was also presented to the City Manager on February 25, 1998 and again on June 2, 1998. His recommendations were to provide a pedestrian path adjacent to Back Cove, improve the condition of the soccer facility and improve the appearance of the park in general while maintaining a strict budget.

Part III, Design Summary will convey how the team responded to the recommendations from the Planning Board workshop and the City Manager.

The result of this considerable effort is a forward-looking Master Plan that reflects input from a diverse group of interested and knowledgeable parties for this important city resource.

II. SUMMARY ANALYSIS AND SYNTHESIS

The project site is a unique combination of extreme natural and urban environmental conditions. Located at the southern edge of Back Cove, it receives heavy wind and salt spray during winter months. There is a relatively high level of polluted run-off and erosion

CAREX ECOSYSTEM SCIENCES
Natural Resource Assessment & Management

603-742-6665 PHONE/FAX
9-A FRENCH CROSS ROAD
MADBURY, NEW HAMPSHIRE 03820

WETLAND DELINEATION REPORT

BACK COVE PARCEL
PREBLE STREET EXTENSION
PORTLAND, MAINE

PREPARED FOR

CITY OF PORTLAND
DEPARTMENT OF PARKS & RECREATION
17 ARBOR STREET
PORTLAND, MAINE 04103

PREPARED BY

CAREX ECOSYSTEM SCIENCES
9A FRENCH CROSS ROAD
MADBURY, NH 03820

OCTOBER 27, 1998
981005

Introduction and Methods

On 26 October 1998, I conducted an on-site delineation of wetlands at the subject parcel located off of Preble Street Extension in Portland. Wetlands under state and federal jurisdiction were identified based on the *Corps of Engineers Wetlands Delineation Manual* (Dept. of the Army, 1987). Except in special circumstances, these criteria require that indicators of wetland soils, vegetation, and hydrology all be present for an area to be considered a wetland. Additional supporting documents used include:

Classification of Wetlands and Deepwater Habitats of the United States, US Fish and Wildlife Service, 1979.
Field Indicators for Identifying Hydric Soils in New England, Version 2, New England Interstate Water Pollution Control commission, 1998.
National List of Plant Species that Occur in Wetlands: 1988, US Fish and Wildlife Service, 1988.
Guidelines for Maine Certified Soil Scientists for Soil Identification and Mapping, Maine Association of Professional Soil Scientists, 1995.

The site borders the ocean and has been the site of significant disturbance. Much of the area has been filled, at least along the upper edges of the wetland. The area grades from natural and recovered tidal marsh on fill dominated by salt tolerant species in lower elevations, to a band of wetland dominated by salt intolerant species on fill, to upland lawn on fill. The wetland dominated by salt intolerant species includes many weedy and cultivated species. All of the wetland areas are assumed to be under the influence of the maximum spring tides and, therefore, to meet the state definition of coastal wetlands.

The upper edge of the wetland dominated by salt intolerant species and the area dominated by salt tolerant species were marked separately with wooden stakes and sequentially numbered plastic flagging. In the vicinity of the proposed impact I completed Corps of Engineers data forms for each of the two wetland zones, as well as for the upland.

Wetland Characteristics

Salt Tolerant Zone

Wetland Classification: Estuarine persistent emergent, irregularly flooded (EEM1K)
Flag Numbers: Salt-1 to Salt-16
Soils: Poorly drained fill
Representative Plant Species:

Saltmeadow cordgrass	*Spartina patens*
Black grass	*Juncus gerardii*
Spike grass	*Distichlis spicata*
Seaside alkali grass	*Puccinellia maritima*
Saltmarsh sand-spurrey	*Spergularia marina*

Seaside goldenrod *Solidago sempervirens*

Hydrological Indicators:

Debris line

Saturation at <12" from soil surface

*****

Salt Intolerant Zone

Wetland Classification: Palustrine persistent emergent, irregularly flooded (PEM1K)

Flag Numbers: Wet-1 to Wet-16

Soils: Poorly drained fill

Representative Plant Species:

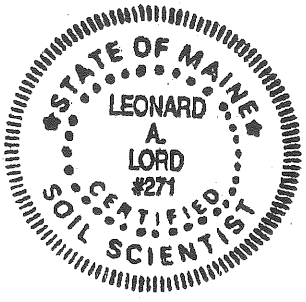
Meadow fescue	*Festuca pratensis*
Poverty grass drop-seed	*Sporobolis vaginiflorus*
Reed canary grass	*Phalaris arundinacea*
Eastern lined aster	*Aster lanceolatus*
Flat-top goldenrod	*Euthamia graminifolia*
Fall dandelion	*Leontodon autumnalis*

Hydrological Indicators:

Saturation at <12" from soil surface

Notes:

- Highly disturbed vegetation includes some upland species but area has good hydric soil indicators.



Leonard A. Lord, Ph.D.
Wetland Ecologist
ME Certified Soil Scientist #271

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 1

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98 (SALT TOLERANT ZONE)

VEGETATION — Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
JUNCUS GERARDII	45/90	50 %	FACW+
SPARTINA PATENS	45/90	50 %	OBL

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
1	1					

Hydrophytes SUBTOTAL: 2 NON-hydrophytes SUBTOTAL: 0

100 x Subtotal Hydrophytes / (Subtotal Hydrophytes + Subtotal Non-hydrophytes) = PERCENT HYDROPHYTES = 100%

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☑ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 2 (WETLAND WITH SALT INTOLERANT SPECIES)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
SPOROBOLUS VAGINIFLORUS	70/90	78%	FACW+

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL
	1					

Hydrophytes SUBTOTAL: 1 NON-hydrophytes SUBTOTAL: ______

100 x Subtotal Hydrophytes / Subtotal Hydrophytes + Subtotal Non-hydrophytes = PERCENT HYDROPHYTES = 100%

HYDROLOGY
1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage Identification: ______
- Aerial Photograph Identification: ______
- Other Identification: ______

☐ NO RECORDED DATA

☑ OBSERVATIONS:

Depth to Free Water: ______
Depth to Saturation (including capillary fringe): ______
Describe Altered Hydrology: ______

☐ Inundated ☑ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

DELINEATOR(S): LEONARD A. LORD, PhD DATE: 10/26/98

VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
	MANICURED LAWN DOMINATED BY UNIDENTIFYABLE GRASSES BUT INCLUDING: TRIFOLIUM PRATENSE (FACU-) FESTUCA PRATENSIS (FACU) LEONTODON AUTUMNALIS (UPL)			

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	*OTHER HYDROPHYTES	FAC-	FACU	UPL

Hydrophytes SUBTOTAL: _____ NON-hydrophytes SUBTOTAL: _____

$$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = \_\_\_\_\_$$

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the validity of the observation in light of the season, recent weather conditions, watershed alterations, etc.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA
- Stream, lake or tidal gage — Identification: _____
- Aerial Photograph — Identification: _____
- Other — Identification: _____

☐ NO RECORDED DATA

☐ OBSERVATIONS:

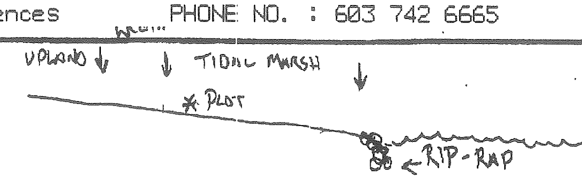
Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

☐ Inundated ☐ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): NONE

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
+1	Oe	—	—	HEMIC ORGANIC MATTER
0-4	A	10YR 3/3	7.5YR 3/4 OXIDIZED RHIZOSPHERES	VERY FINE SANDY LOAM, MANY FINE ROOTS
4-11	Cg1	2.5Y 5/2	20% 5Y 5/1 DEPLETIONS 1/4-1/2"	VERY GRAVELLY SANDY LOAM - SOMEWHAT COMPACT FILL
11-16	Cg2	5Y 5/2	"	GRAVELLY SILTY CLAY LOAM FILL OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S): II OR IIID

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

REFERENCES:

TAXONOMIC SUBGROUP: ENDOAQUENT — KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: VERY POORLY DRAINED (DISTURBED) — MASS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

	Yes	No
IS THIS DATAPOINT WITHIN A WETLAND?	☐	☐

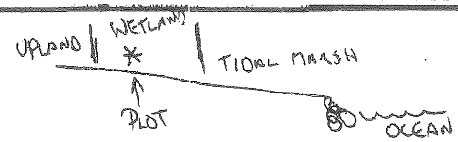
REMARKS:

CENED-OD-RAM Version 1AUG98 Page 2

PROJECT TITLE: BACK COVE, PORTLAND **TRANSECT:** **PLOT:** 1 (SALT TOLERANT ZONE)

SOIL

Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2	A	10YR 3/2	NONE	FINE SANDY LOAM, MANY FINE ROOTS
2-12	Cg1	5Y 5/2	10% 5Y 5/1 DEPLETIONS, 1/4"	GRAVELLY LOAMY SAND - FILL FEW FINE ROOTS AT TOP OF HORIZON
12-14+	Cg2	5Y 5/2	—	GRAVELLY SILTY CLAY LOAM, FIRM - FILL
				OBSERVATION DISCONTINUED DUE TO STONES

HYDRIC SOIL INDICATOR(S)

III D.

REFERENCE:

FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT

SOIL DRAINAGE CLASS: POORLY DRAINED

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

REFERENCES:

KEYS TO SOIL TAXONOMY, 1996

MADSS KEY, 3/97

CONCLUSIONS

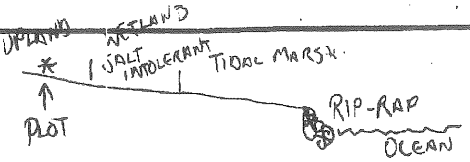
	Yes	No
Greater than 50% Hydrophytes?	☑	☐
Hydric Soils Criterion Met?	☑	☐
Wetland Hydrology Met?	☑	☐

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☑ No ☐

REMARKS:

PROJECT TITLE: BACK COVE TRANSECT: PLOT: 2 (SALT INTOLERANT WETLAND)

SOIL | Sketch Landscape Position



DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-2		10YR 3/2	NONE	FINE SANDY LOAM - FILL MANY FINE ROOTS
2-9		10YR 4/4	NONE	VERY COBBLY LOAMY COARSE SAND FEW FINE ROOTS - FILL WITH 10% ASPHALT
9-13		5Y 5/3	5% 2.5Y 5/6 CONCENTRATIONS	VERY GRAVELLY LOAMY SAND FILL
13-24		5Y 5/3	20% 5Y 5/2 DEPLETIONS 10% 2.5Y 5/6	GRAVELLY LOAMY FINE SAND FILL WITH SILT LOAM LENSES

HYDRIC SOIL INDICATOR(S): NOT HYDRIC

REFERENCE: FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 7/98

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP : ENDOAQUENT — REFERENCES: KEYS TO SOIL TAXONOMY, 1996

SOIL DRAINAGE CLASS: SOMEWHAT POORLY DRAINED — MADSS DRAINAGE CLASS KEY 3/96

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 50% Hydrophytes?	☐	☑
Hydric Soils Criterion Met?	☐	☑
Wetland Hydrology Met?	☐	☑

IS THIS DATAPOINT WITHIN A WETLAND? Yes ☐ No ☑

REMARKS:

PROJECT TITLE: BACK COVE, PORTLAND TRANSECT: PLOT: 3 (UPLAND)

Back Cove Park

Portland, Maine

City Staff Meeting
12.30.98

AGENDA

I. Parking Lot Drainage
    A. Parking Stops/Bollards
        - Section
        - Cost Estimates
    B. Curbing Options
        - Section
        - Cost Estimates

II. Parking Lot Entrances
    A. 2 entrance option
    B. 1 entrance option

III. Plaza Design
    A. Options

IV. Field Improvements
    A. Field alignment - ideal is long axis NW to SE, or N to S
    B. Irrigation: 0.50/s.f. x 64350 s.f.= $32,175.00
    C. Drainage - subsurface and grading
    D. Amenities
        - scoreboard: $3250(min) - $38900(max)
        - bleachers: outdoor, portable, 3-5 tiers = $32.50(min)-$55(max) per seat (average $45/seat: $4500 for 100 seats)
        - goal posts: ±$2000/pair

V. Building
    A. Requirements/Needs

VI. Viewing amenities
    A. Plaza overlook
    B. Wetland boardwalk and overlook

Back Cove Park

Portland, Maine

Preliminary Cost Estimates for Parking Stop Options - 12/29/98

In-Place Composite Costs:

OPTION	MATERIAL	QUANTITY	COST $	/UNIT	UNIT SUBTOTAL $	TOTAL $
1. Curbing Options - *"Total $" prices include curbing plus site work allowance estimated for curbing option*						
	a. Granite - straight	1,300 l.f.	$19.80	/l.f.	$25,740.00	$95,740.00
	b. Granite - radius	1,300 l.f.	$28.00	/l.f.	$36,400.00	$106,400.00
	c. Precast concrete - straight	1,300 l.f.	$10.70	/l.f.	$13,910.00	$83,910.00
	d. Precast concrete - radius	1,300 l.f.	$16.65	/l.f.	$21,645.00	$91,645.00
	**Grading and paving allowance	1 allowance	$50,000.00			
	**Drainage allowance	1 allowance	$20,000.00			
	Total site work allowance estimated for curbing option				*$70,000.00*	
2. Parking Stops - *"Total $" prices include site work and alternating trees estimated for parking stop option*						
	a. Concrete Posts - square	60 ea.	$50.00	/ea.	$3,000.00	$66,198.80
	b. Wood Posts	60 ea.	$42.00	/ea.	$2,520.00	$65,718.80
	c. Pipe Bollards - 12" diam. -conc. filled, painted	60 ea.	$440.00	/ea.	$26,400.00	$89,598.80
	**Alternating Trees (stops)	23 ea.	$500.00		$11,500.00	
	**Grading and paving allowance (4" hot top)	1 allowance	$35,000.00		$35,000.00	
	**Granite blocks (8" x 4" x 4") - 2'	1,532 s.f.	$10.90	/s.f.	$16,698.80	
	Total for site work and tree allowance estimated for parking stop option				*$63,198.80*	
3. Guard Rails - *"Total $" prices include site work allowance estimated for guard rail option*						
	a. Timber Guard Rail -4"x 8" w/ 6"x 8" wood posts	1,300 l.f.	$11.05	/l.f.	$14,365.00	$66,063.80
	b. Corrug. Steel Guard Rail -galv. steel posts, 6'3" o.c., double face	1,300 l.f.	$18.60	/l.f.	$24,180.00	$75,878.80
	**Grading and paving allowance (4" hot top)	1 allowance	$35,000.00		$35,000.00	
	**Granite blocks (8" x 4" x 4") - 2'	1,532 s.f.	$10.90	/s.f.	$16,698.80	
	Total for site work allowance estimated for parking stop option				*$51,698.80*	

Portland High School Soccer Boosters

June 1,1998

Mr. Dana Souza, Director of Parks and Recreation
City of Portland
17 Arbor St.
Portland, Maine 04103

Dear Mr. Souza:

With the tremendous growth in soccer at the Youth and particularly the High School age level, the number of participants atPortland High has nearly doubled over the past 5 years. At present we have six high school interscholastic teams - with only one safe playing field, Preble Street Field, for daily practices and 32 regular season games. Preble Street field is used for 14 field hockey games during the same Fall season. Moreover, the Portland Area Youth Soccer Association (" PAYSA"), (which provides a soccer program for elementary and middle school age students during the spring, summer, and fall) has over 600 participants.

Without additional safe playing fields, there are two negative situations that are occuring: Our teams are not able to practice on a daily basis (on most days we have to rotate 4 teams on 1 field for practice and 2 teams cannot practice) , and Preble St. Field is deteriorating rapidly because of the overuse. Five years ago with only 3 soccer teams playing, and Field Hockey using only Doherty field, Preble St. field was adequate as the only soccer site. In order to meet the requirements and demands of Portland's soccer growth, the City MUST immediately increase the number of facilities available for soccer.

The only solution to this intense pressure on Portland's playing fields is to repair Fox St. field and to retain and improve the Preble St. field open area to a safe condition and then develop another site, possibly Payson Park or Dyer Flats. Repair to Fox St. need not be grandiose nor expensive. Adding loam to reduce the many potholes and to level the field, and then seeding and watering would rejuevenate the field enough to allow it to be used as a practice site on a daily basis. The Preble St. field area alluded to above is the area directly in front of the existing soccer field. Although this area is smaller than regulation and could not be used as a game site, the area is an excellent one for practice, small sided games, and sufficient for primary age youth games. This area, however, is in its present state unsafe for use. The entire rectangle desperately needs large potholes filled, leveling, and new grass. This repair, again, is not a huge undertaking, but is one that can help our lack of space tremendously.

The development of another facility site for soccer fields is equally vital to any plan to improve the City's lack of playing field space. Portland should carefully examine the Payson Park, Dyer Flats area, and even the old Foundry Area between Cumberland Ave. and Marginal Way. By so doing, the City would be able to alleviate the overuse at Preble Street Field and Fox Street Field, and the needs of the hundreds of young soccer players in PAYSA would be accomodated.

We, of course, continue to be committed to increasing the access Portland High School's Home Field at Fitzpatrick Stadium. Minimal amenities, such as bleachers, a scoreboard, and a building for concessions, are the norm for all High School Varsity soccer games in our conference. Deering High School, our sibling school across town has these amenities and play all 25 regular season Varsity home field contests on their field, Memorial Field. Portland High School is limited to just 14 Varsity contests each Fall. This inequity is unfair to the athletes at Portland High. Equity and safety are our major goals in this request in increase the usage at Fitzpatrick Stadium.

We at Portland High School and PAYSA must emphasize how important the repairs to Fox Street Field, the increase in usage of Fitzpatrick Stadium, and the development of another playing field are to the survival of our soccer programs that serve the City's youth. Hopefully these two projects will receive top priority in the City's Capital Improvement budget.

Sincerley,

Tom LaPointe

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Please see SANTA
page this section

The Associated Press

Linda Toon, a postal worker at the House of Representatives, grabs another tray of letters to deliver to members of Congress on Tuesday. Thousands of letters and e-mail messages are pouring in to Congress by citizens who want to air their view on impeachment.

der oath - not be punished," said McKernan, a former two-term governor and two-term congressman.

"On the other hand, I think they're

If the House votes to impea

Please see MAINE,

Back Cove park to be redesigned

● Using money from the Baxter Trust, Portland plans to improve sports fields, paths and parking.

By MARK SHANAHAN
Staff Writer

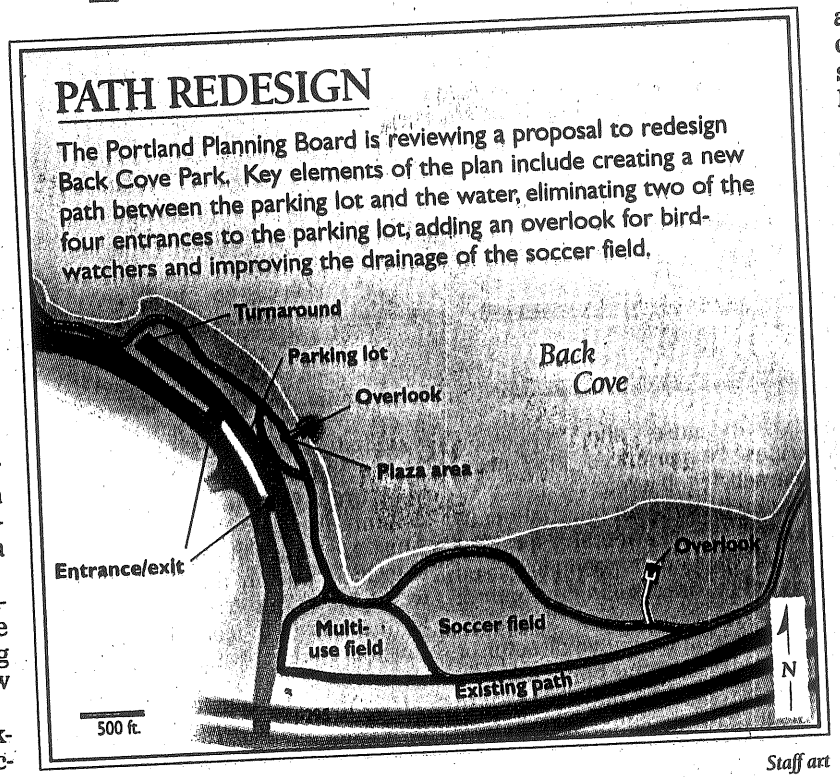
Back Cove park, Portland's most popular place for recreation and a significant habitat for migratory birds, is being redesigned.

A proposal before the Planning Board would enhance the park by completing the stone-dust path around the cove, improving the playing fields and giving bird watchers a better view.

The sprawling, often-chaotic parking lot on Preble Street would be reconfigured to make room along Back Cove's rocky shore for a new path and picnic area.

"There's a huge amount of blacktop down there that's very unattractive," said Richard Knowland, the city's senior planner. "We're trying to create a more park-like atmosphere."

The plan, which needs approval from the Planning Board, is an attempt to better organize the green space set aside by Portland Mayor James Phinney Baxter in the late 19th century.



Staff art

The work, to begin as early as next spring, would be paid for with $400,000 from the Baxter Trust – money that the city got last year after a long legal battle with Boston over the bequests of Baxter and his son, former Maine Gov. Percival B. Baxter.

The key element of the plan is completing the path, which is now interrupted by the sidewalk along Preble Street.

A new section of path between the water and the Preble Street parking lot would complete the loop. It would be complemented by a small plaza, a picnic area and an overlook at the water's edge.

"It makes a connection to the water," said Dana Souza, Portland's director of parks and recreation. "Right now, if you're in the parking lot, you get the sense that the area between the lot and the water is unpleasant."

To make room for the changes and improve the flow of traffic, the city would narrow the parking lot and eliminate two of the four entrances.

Although some Planning Board members say a traffic signal is needed at the entrance to the lot, Souza disagrees. He says a light might encourage people to park at the Shop

Please see PARK
Back page this section

New SU
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By TUX TURKEL
Staff Writer

Peggy Thompson got
call in August. After 11
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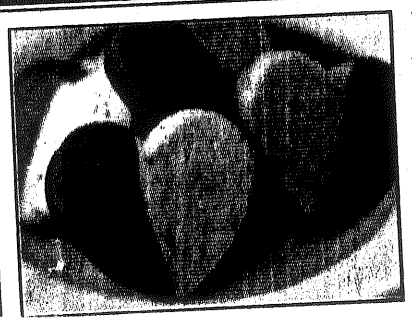


FOOD & HEALTH

For many, Christmas is a time for homemade cookies. Three new cookbooks make the holiday task easier – with sweet results. 1C

THE WEATHER

Still mild but not as warm today, more clouds, high 48. Low in the 30s tonight. Cloudy, light snow Thursday. 12B

INDEX

Abby	4C
Business	6C
Classified	6D
Comics	4C
Deaths	11B
Editorials	18A
Flip Side	12D

PARK

Continued from Page 1A

'n Save plaza and walk across busy Preble Street.

More interesting than the changes to the parking lot are proposals for better playing fields and a new boardwalk and bird-watching station.

The fields, which are heavily used by Portland High School soccer and field-hockey teams as well as adult and youth soccer leagues, would be re-engineered to improve the irrigation and drainage.

"It's an example of any number of fields in Portland that are overused and need to be repaired," said Tom Lapointe, a Portland High soccer booster. "These fields need to be properly maintained, and this is a start."

Many people who walk or run around Back Cove may not know that the area is an important habitat for a variety of birds. At one time or another, more than half of the 400 or so bird species in Maine have been spotted feeding or just standing on the shore of Back Cove.

For that reason, a small lookout would be built near the wetlands on the Interstate 295 side of the cove.

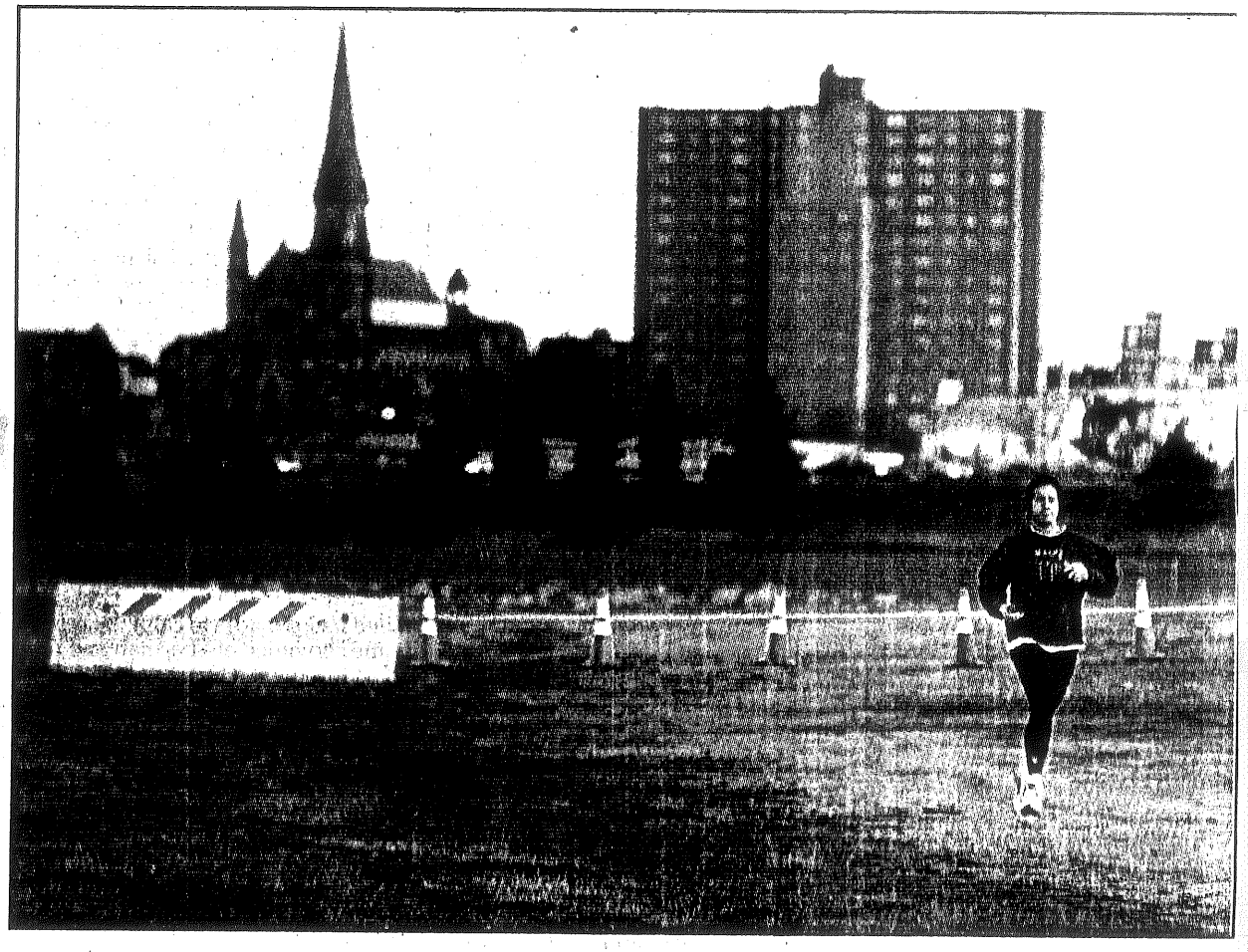
Richard Eakin, a biology professor on the Westbrook College campus of the University of New England, has been watching birds at Back Cove for 26 years. He said he is delighted that the city is now encouraging others to take a look.

More interesting than the changes to the parking lot are proposals for better soccer and field-hockey playing fields and a new boardwalk and bird-watching station.

"This is an oasis in an urban area," Eakin said. "Of course, I'd have some concerns if people were all over down there – you can love a place to death – but I don't think that will happen."

The proposed redesign of Back Cove follows similar discussions about improving nearby Baxter Boulevard and Payson Park. After years of neglect, due primarily to budget constraints, Souza said the city's parks are making a comeback.

"When there are reductions (in funding), parks and recreation are the first to be hit because they're not considered essential services," he said. "We're moving to correct that."



Staff photo by Gordon Chibroski

Steve Treat of Portland runs on the area where a new path will be constructed to complete the loop around Back Cove. The barriers will be removed so runners don't have to run through the parking lot.

SANTA

Continued from Page 1A

Sagadahoc and Knox counties.

This year, organizers hope to raise more and give more.

Despite the fact that their one vehicle is falling apart and they don't have enough money for blankets and warm clothes, the woman says her family has something that many others don't. "We do love one another, and somehow we will make it through this difficult time," she writes.

Another woman wrote to the Santa Fund after losing her job this year.

From Courtney, Lynne, Michael, Cora, Kaitlin, Adriana and Nana White at Presumpscot School $5
In memory of my brother Steve from your mom, Barbara, and your brothers, T.J. and D.C. Stelling $5
In memory of Buzzy $5
In memory of Judy, from Cliff and Gerry Ashley $10
In memory of Susan Bishop, from Aunt Mary Ann $10
In memory of Susan Bishop, from Harry and Joanne Irvin $10
In memory of Muffin Biscuit, Cupcake and Danish, from Shron Libby ..... $..... $10
Vietnam Vet 10
Great Nana $10
Henry and Loretta Ayotte $10
In memory of Dr. Alex Tanous $10
Merry Christmas, from Jim Varmecky $10
Bob Newman $15
Mary and John Douglass Jr. $25
In memory of my grandmothers, Hazel Strout and Mary Goodine, with love - Sara $25
In memory of John D. Cogswell and Tiffy $25
Merry Christmas to Phaedra Gallant .. $25
In memory of Patrick and John McGovern, from Jeff, Vickie, Michael and Kelly ... $25
In memory of Uncle Bim, from Herbert and Helen Whitmore $25
From Sarah and Benjamin $25
From Gram $25
Betty and Austin Nichols $25
In memory of Paul A. Kenney, from Marvin and Patricia Kenney $25
Merry Christmas! Danielle and Kristen $25
In loving memory of Marilynn Savage Southard, she loved Christmas, from Mom and Dad Harvey $25

BRUCE ROBERTS FUND

The Bruce Roberts Santa Fund uses donated money to buy gifts and then distributes them to needy children up to age 16. Gift packs contain items appropriate to each child's age and sex.

The fund, serving Cumberland, York, Lincoln, Sagadahoc and Knox counties, relies on the generosity of readers of the Portland Press Herald and Maine Sunday Telegram. Donations will be

Sanford Alternative School $28
In memory of my loving Dad, Alton L. Hamm. Jr. Love, Mary $35
In celebration of the birth of Matthew Cook, love Grammie $35
In loving memory of our mom, Linda Freudenberger, from Braden, Colin, Kelsey and Kacie $35
The Ennamorati family $40
In lieu of local Christmas cards, from Peter, Rae, Seth and Molly Brown $40
The students of VICA Club at Portland Arts and Technology $40
Kenneth Cleaves $50
Michael and Kathy Duell Camire $50
Sons of American Legion Post 161 ..... $50
Robert and Elizabeth Lemieux $50
For Aunt Nancy, we miss you $50
Nicholas and Marguerite Ferraris $50
From the Lum family $50
Guy and Eleanor Vigue $50

11-2-98

STAFF COMMENTS ON PROBLE ST. PARK

1. SEE TONY LOMBARDO'S MEMO

2. PROPOSED BUILDING DOES NOT MEET THE 75 FT SHORELAND SETBACK

3. PARKING SPACES HAVE BEEN LOST, NOT GOOD, COULD YOU LOSE THE WESTERLY CUL-DE-SAC? IT IS NOT EFFICIENT IN TERMS OF PARKING SPACES LOST

4 HOW DOES THIS PLAN ACCOMMODATE THE BAXTON BLVD CROSS SECTION?

5. SHOW LIGHTING LOCATION, TYPE OF FIXTURE, HEIGHT OF POLE. ALSO SHOW EXISTING LIGHTING

6. TYPICAL CROSS SECTION OF TRAIL MATERIALS NEEDED

7. EXISTING SITE CONDITION PLAN NEEDED.

8. WHAT IS THE CAN BARRIER THAT KEEPS THE PARKED CARS IN PLACE?

9. OVERLOOK CROSS SECTION IS NEEDED. WHAT ARE THE MATERIALS? WHAT DOES IT LOOK LIKE?

10. PUT STANDARD SITE PLAN NOTES ON THE PLAN

11. WHAT IS GOING TO BE THE BOGG TREATMENT ALONG THE SHORE? GRASS?

12. WHERE ARE THE COMPACT SPACES?

13. BOARDWALK MATERIALS? SHOW TYPICAL CROSS SECTION

14. INDICATE PLAZA MATERIALS

15. EXISTING AND PROPOSED TREES, YOUR TREE SELECTION CHART SHOULD BE ON THE PLAN.

16. EROSION AND SEDIMENTATION CONTROL MEASURES NEED TO BE SHOWN ON THE PLAN

17. SIDEWALK RAMP AND DRIVEWAY ENTRANCE DETAILS NEED TO BE SHOWN

18. WILL REPAVING AFFECT DRAINAGE OR PARKING LOT

19. EXPLAIN REGRADE + IMPROVE SWALE AND MULTI-PURPOSE AREA

19. BENCH LOCATIONS

20. UTILITY LOCATIONS

PUBLIC WORKS ENGINEERING MEMORANDUM

To: *Rick Knowland, Senior Planner*
From: *Anthony Lombardo, P.E., Project Engineer*
Date: *October 30, 1998*
Subject: *Back Cove Park*

The following comments were generated during Public Works Engineering review of proposed Back Cove Park, as submitted by Richardson and Associates. The plans and application were dated October 27, 1998.

- *Missing from this submission is a "Standard Boundary Plan", prepared and stamped by a professional licensed surveyor. This requirement is per the Land Use Ordinance, Section 14-525(b).*
- *The "Site Plan", as submitted, indicates no proposed grading for any of the following:*
    1. *parking area*
    2. *proposed building*
    3. *waterside path*
    4. *plaza*
    5. *overlook A*
    6. *overlook B and boardwalk*
- *Applicant indicates the existing parking area will be overlaid with additional pavement. The depth of overlay must be specified. In addition, proposed spot grades will be necessary .*
- *The applicant proposes to close the northwesterly entrance, however, this "site plan" is not drawn at an appropriate scale to determine the extent of work proposed in this area.*
- *Public Works does not feel the plan entitled "site plan" is anything more than a conceptual plan for the following reasons:*
    1. *plan only specifies existing grades and does not specify any proposed grading.*
    2. *plan is drawn at a scale too small to identify the extent of proposed work.*
- *A full set of "construction details" must be submitted for all of the proposed work if this application is to be considered complete.*
- *An "erosion and sediment control plan" is an absolute must for a project positioned so close to a coastal wetland. This erosion and sediment control plan must be included as part of the construction drawings.*
- *An NRPA, Permit-by-Rule application must be filed with MDEP for work proposed so close to a coastal wetland. The applicant must provide evidence of this application to*

Public Works. An Army Corps of Engineers permit will be required for an work below the mean high water elevation. A copy of this application must be included as part of your submittal to the City as well.

- *The proposed "stormwater management plan" must be explained in more detail and must be shown in plan form at a more acceptable drawing scale. This drawing should be accompanied by "construction details".*

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

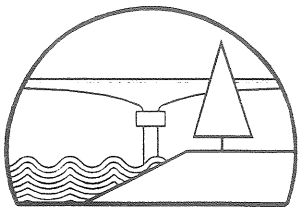
FROM: Alexander Jaegerman, Chief Planner

DATE: August 21, 1998

SUBJECT: Preble Street Park Site Plan and R-OS Review

The Preble Street park plans have been significantly revised since the Planning Board workshop last spring. The attached *Back Cove Park Master Plan* submission by the consultants, Richardson & Associates, presents the plans in detail. The plan is much more focused on basic improvements and adheres to a realistic budget amount. The basic principle of providing about the same amount of legitimate parking spaces while reclaiming the water's edge for open space, walkway, and recreation, has been achieved. Overflow parking can be readily accommodated in the Marginal Way lot less than 500 feet from the Preble Street lot.

I received a letter from a citizen who raises issues about mowing in the vicinity of the wetland area. That letter and the consultant's response are attached.



04/06/99

Frank Liggett- LA
Richardson & Associates
Pepperell SquarePO Box 426
Saco, ME 04072

Subject: Wetlands Boardwalk
Back Cove Park- City of Portland

Dear Frank,

I have completed a preliminary review of the Wetlands Boardwalk. The attached sketch indicates my recommendations for the structure. Key items are noted below with some discussion of the alternatives.

1. Loading- I have used a design live load of 50 psf, which is reasonable for the walkway. This will be increased to 100psf at the overlook.

2. Decking- 2 x 6 Composite decking (Trex –or equal) is recommended. 2 x 4 pressure treated Southern Yellow Pine No. 1 will work but will not be as long lasting. The decking must be supported at 24" (max) on center in order to achieve a 50-psf live load capacity.

3. Deck Beams- 3 beams are required to support the 6'-0" wide walkway. I have indicated some options on the sketch depending on the walkway span. The best way to support these members is to stagger/overlap the beams at the support. This makes for a simple connection detail that tolerates field span and angle differentials.

4. Foundation- I recommend the solid concrete bent be used instead of three (3) sonotubes. This is much more stable against lateral loading and effectively anchors the walkway during flooding. They could be precast off site and placed with minimal excavation by a wetland backhoe fitted with a narrow bucket. There would be no differential settlement in the walkway at each sonotube bent location.

Please call with any questions.

Sincerely,

BAKER DESIGN CONSULTANTS, Inc.

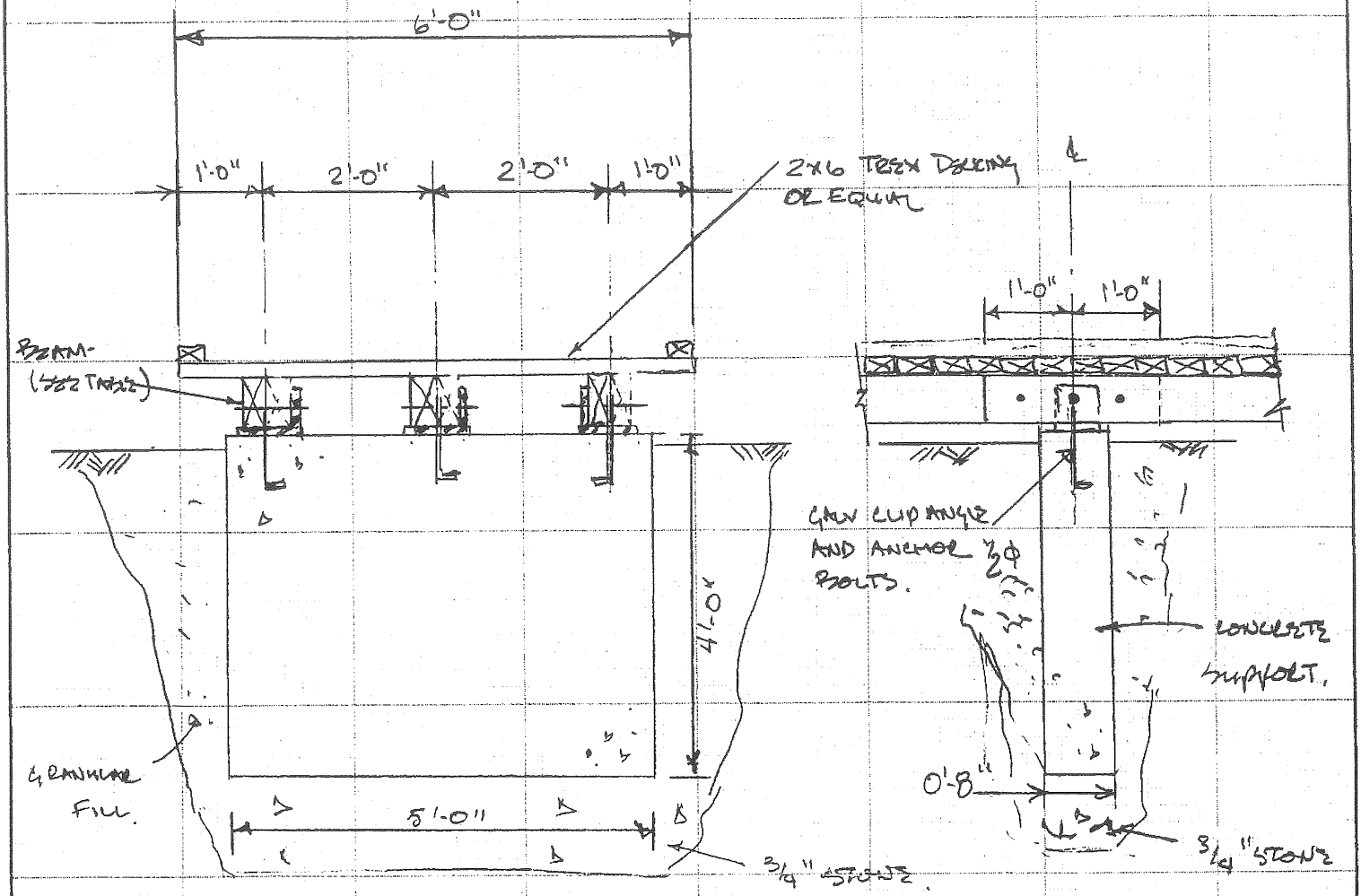
Barney Baker PE
JN: 99008

Copy w/Enc.
Christopher Di Matteo- LA, Portland Parks and Recreation

11 STONY BROOK LANE, YARMOUTH, ME 04096 PHONE: (207) 846-9724 FAX: (207) 846-3620 EMAIL: bakerdesign@compuserve.com

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park SHEET NO. 1 OF 1
JOB NO. 99008
CALCULATED BY BSB DATE
CHECKED BY DATE
ITEM WETLAND BOARDWALK DESIGN



PIER ELEVATIONS

WT = $\frac{4' \times 5' \times 8}{12}$ = 2000 lbs.

BEAM SPAN TABLE

SPAN	COMPOSITE BEAM	SOUTHERN YELLOW PINE
8'-0"	PSL-PT 1.75"x5.5"	2x8 PT
10'-0"	PSL-PT 1.75x7.25"	6x6 PT NO.1
12'-0"	PSL-PT 1.75x.9.25"	6x8 PT NO.1
	2.0E 2900 F_b	

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BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Post-it® Fax Note 7671	Date 22 MAR	# of pages ▶ 5
To FRANK WIGGETT	From BARNEY BAKER	
Co./Dept RICHARDSON	Co. BDC	
Phone # 284-0139	Phone # 846-9924	
Fax # 286-9150	Fax # 846-3620	

To: Stephen Rabasca
Peterson-Rabasca GeoEngineers
46 Main Street
Yarmouth, ME 04096

FILE COPY

From: Barney Baker, PE

Date: March 19, 1999

Subject: Pedestrian Marine Overlook- Back Cove Park- City of Portland

Copy: File, Frank Liggett-Richardson & Associates, Chris Di Matteo-Portland Parks and Recreation

Job No: 99008

TRANSMITTAL

Reviewed ☐
For your use ☐
As per your request ☐

VIA:
Personal Delivery ☐
Special Delivery ☐
Messenger ☐
U.S. Mail ☐
U.S. Express Mail ☐
Overnight Express ☐
UPS ☐
Separate Cover ☐
Fax ☐
Modem ☐

Attached are draft sketches for the proposed pier structure and an incomplete outline of design parameters needed to analyze the pier. As per our discussion, I hope your pending geotechnical fieldwork will allow you to define the Soil/Pile parameters.

The sketches identify 3 elements of the pier construction that require geotechnical input.

1. Abutment/retaining wall- This structure retains/supports the landward side of the elevated Boardwalk and provides a solid base for granite blocks above. I anticipate a reinforced concrete retaining wall structure with spread footing

2. Marine Overlook. Timber pile with composite deck. The geometry requires extra piles. To limit exposure to ice, no intertidal bracing is proposed. To resist lateral loads, batter piles are indicated.

3. Connecting Walkway. Each bent consists of two (2) piles. The structure is in the shadow of the Overlook and is therefore somewhat protected from ice buildup. Intertidal bracing is anticipated.

Please comment on the suitability of the proposed structure support at this site and tailor the pending field exploration to best determine design values.

Please call with any questions on the information provided.

March 19, 1999
DRAFT

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Pedestrian Marine Overlook- Back Cove Park
City of Portland Parks and Recreation

STRUCTURE DESIGN PARAMETERS

Applied Loading

Live Load	Walkway	85 psf
(Pedestrian)	Overlook	100 psf
	Boardwalk	100psf
Wind Load	Basic Speed	100 MPH
	Max Pressure	50 psf
Ice Load	shear strength	100psi (assumes fractures and breakup due to tidal action)
	density	50 pcf
	thickness	6 inches

Soil/Pile Parameters

Abutment	Bearing
	Backfill
Piles	Shear Friction
	End Bearing
	Downdrag
	Pile Penetration

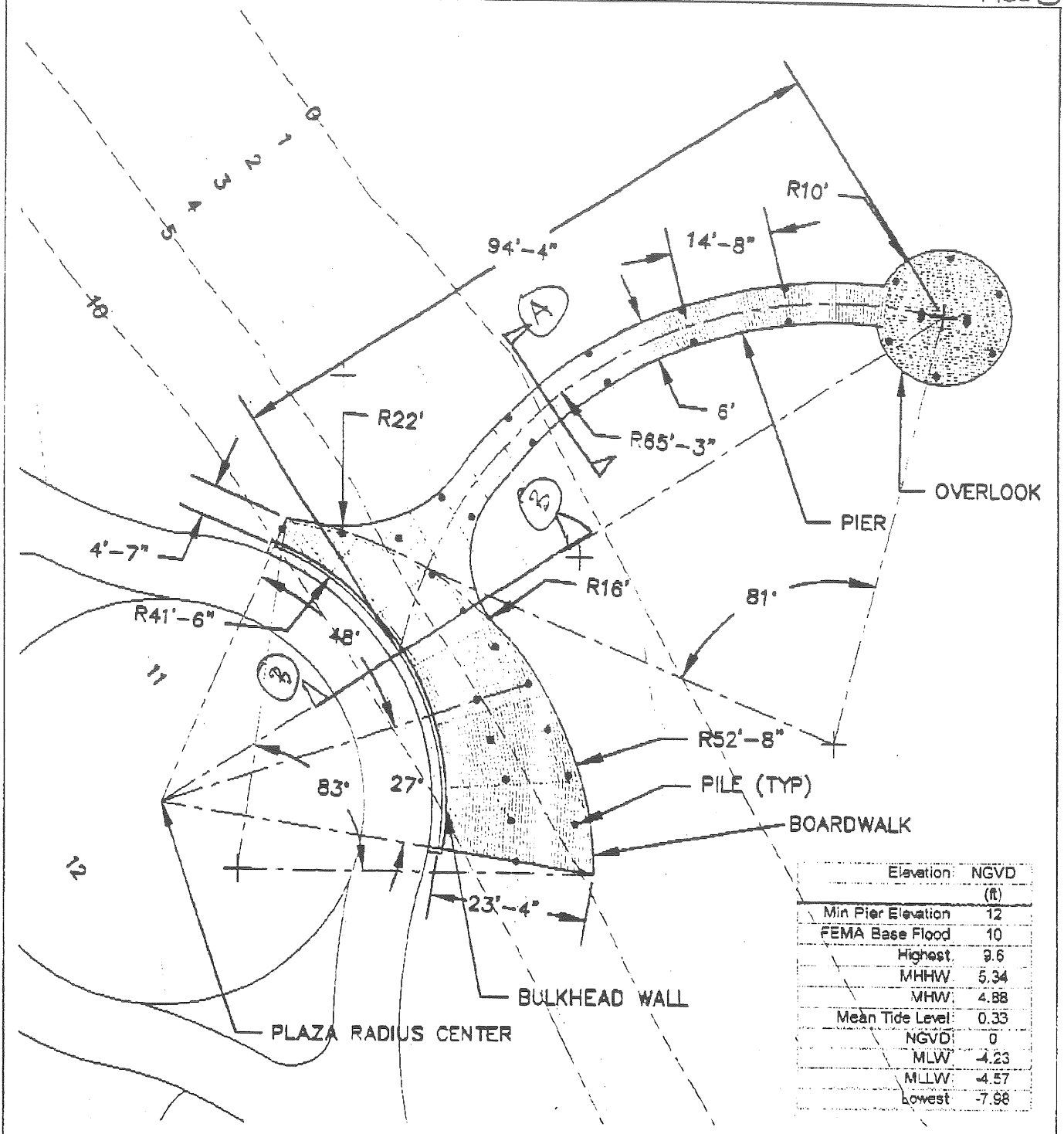
Based on the above parameters and proposed pile spacing, typical pile loads are outlined below. Refer to the attached sketch for point of application.

LOAD TYPE	PILE LOAD		POINT OF APPLICATION	
	Axial (kips)	Lateral (kips)	Elevation	Notes
Dead	.5 to 1.5	-	10.0	Deck self wt/Top of Pile
Live	2.5 to 3.5	-	10.0	Pedestrian/Top of Pile
Ice load	2.5 to 5.5	3.6	-5.0 to 5.0	Tidal Zone
Ice uplift	-2.5 to –5.5	NA	-5.0 to 5.0	Ice block (10'-15') sq. x 6" thick

Preliminary March 99

1 of 3

99008



Elevation	NGVD (ft)
Min Pier Elevation	12
FEMA Base Flood	10
Highest	9.6
MHHW	5.34
MHW	4.88
Mean Tide Level	0.33
NGVD	0
MLW	-4.23
MLLW	-4.57
Lowest	-7.98

PURPOSE Boardwalk, Pier, Overlook

PIER GEOMETRY

1"=20'-0"

APPLICANT Parks & Recreation
17 Arbor Street
Portland, ME 04103

PROJECT
BACK COVE PARK
CITY OF PORTLAND

COUNTY OF CUMBERLAND

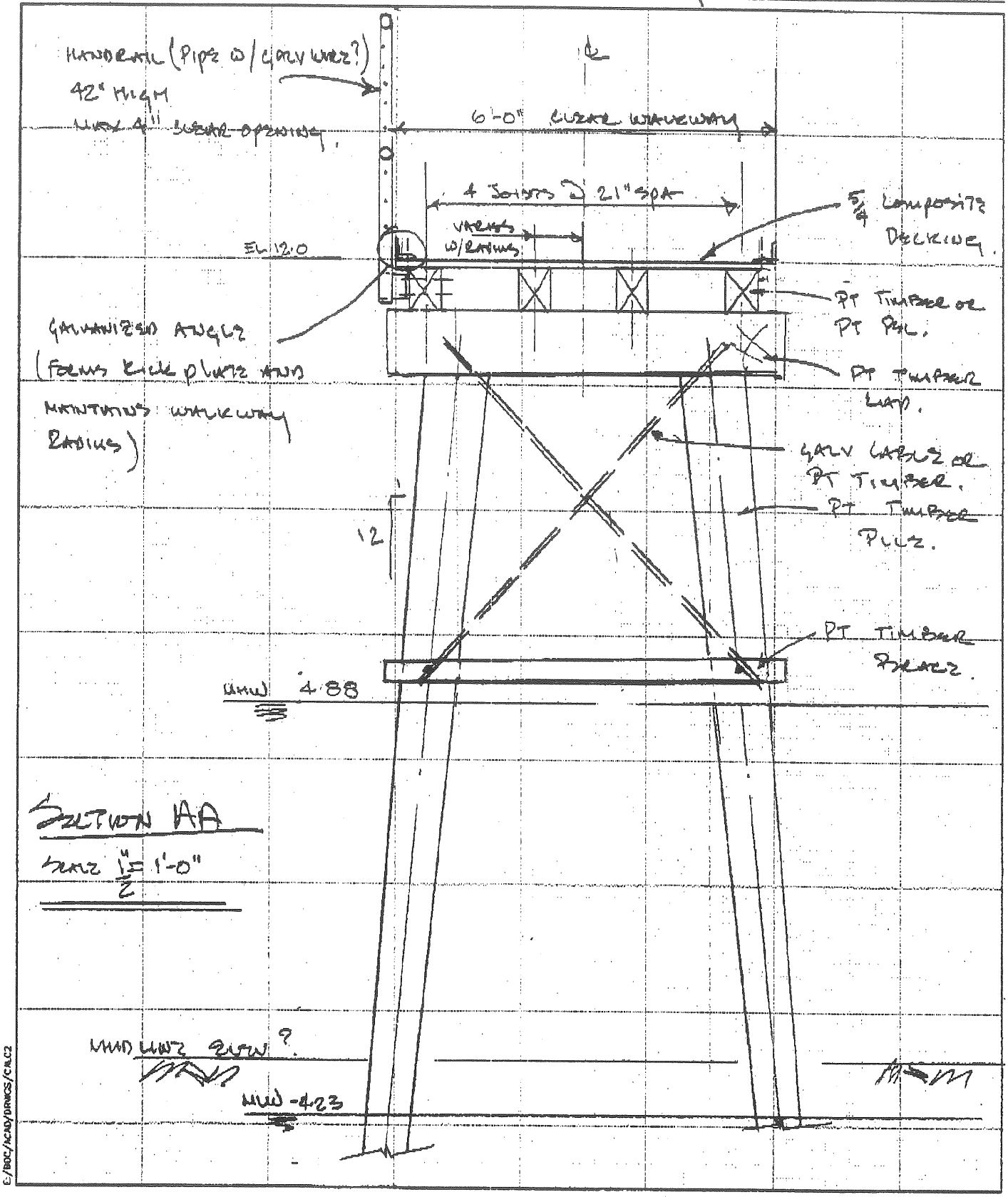
DATE MARCH 99

SHEET NO. 1 OF 3

Baker Design Consultants

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Rock Lane Rock SHEET NO. 2 OF 3
CALCULATED BY SSB JOB NO. 99008
CHECKED BY DATE 4/6/99
ITEM Preliminary Pier Section DATE



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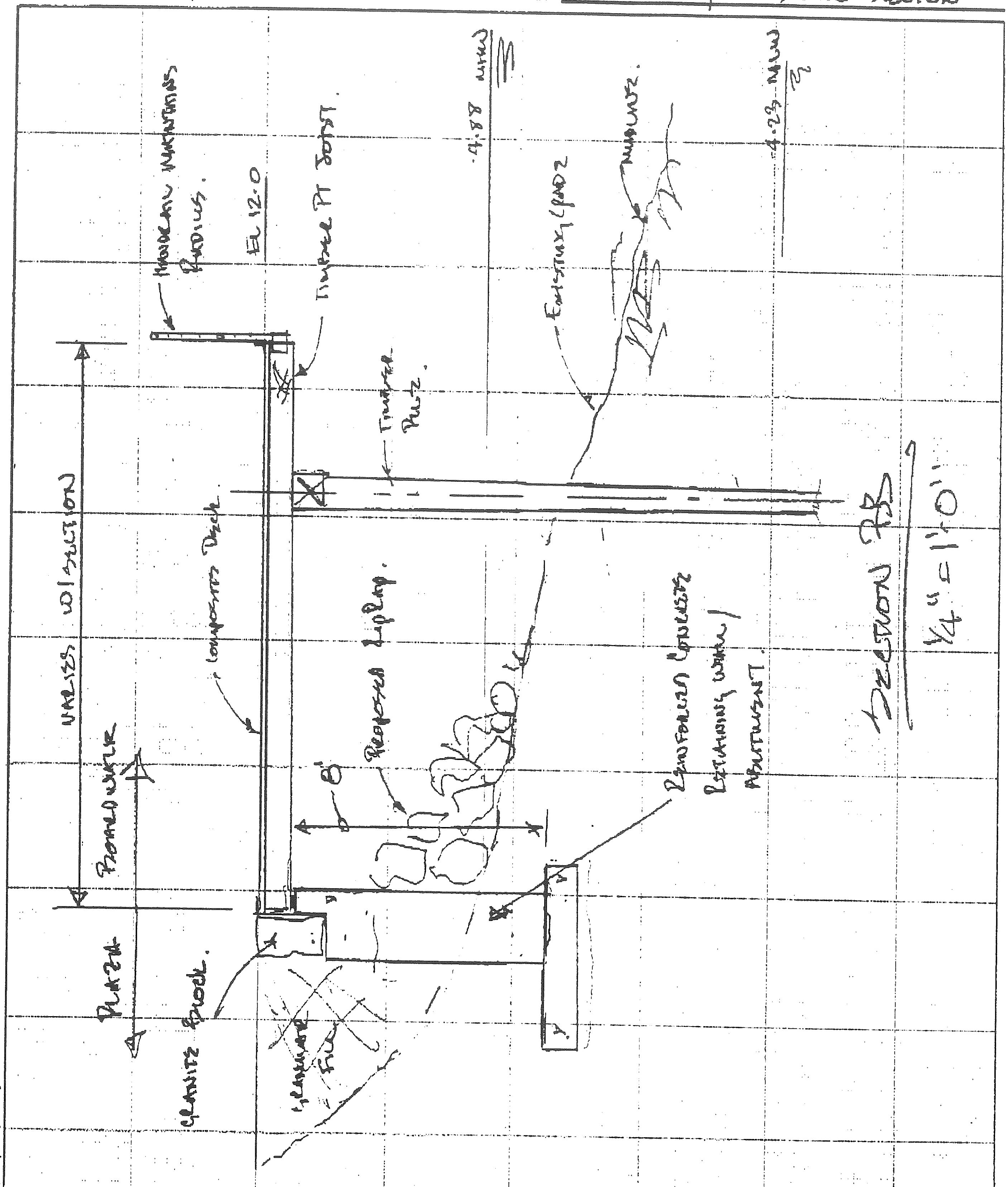
BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park
SHEET NO. 3 OF 3
JOB NO. 98009
CALCULATED BY BRB
DATE MAR 99
CHECKED BY
DATE
ITEM Preliminary Boardwalk Section



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BACK COVE PARK
Portland, Maine

March 22, 1999

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

BACK COVE PARK
Portland, Maine

March 22, 1999

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1 3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used (refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

3.19.99

BACK COVE PARK
STORMWATER MANAGEMENT PLAN

Introduction

This stormwater management plan has been prepared for Richardson & Associates for the construction of a parking lot at the proposed Back Cove Park in Portland, Maine. The proposed park is located between Preble Road Extension and Back Cove. The area associated with this analysis is an approximately 1.39 acre parking lot for the proposed park.

Stormwater Runoff Analysis

Methodology

Stormwater runoff calculations for the site were prepared using the Rational Method. This method was chosen because it is more appropriate in estimating the runoff from small homogeneous areas. A 25 year storm frequency was used as the basis for this analysis as required by the City of Portland's design standards.

Hydrology

The Rational Method estimates runoff rates based on the following formula:

Q = CiA where

- Q = (peak) rate of runoff in cubic feet per second (cfs),
- C = runoff coefficient which is dependent on the characteristics of the drainage area (land use/cover),
- i = average rainfall intensity in inches per hour and
- A = drainage area in acres.

Because the majority of the area is going to be paved, the value of C was calculated assuming all impervious area.

Rainfall intensity is determined from historical data published in the form of Intensity – Duration – Frequency (I-D-F) Charts. For this project, rainfall intensities were based on historical data established for Portland, Maine, for a 25 year frequency. The I-D-F chart is included in the calculations.

[redacted]

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

SQUAW BAY CORP.
Consulting Engineers

P.O. BOX 192, CUMBERLAND CENTER, ME 04021

JOB NO. 99.222
SHEET NO. 1 OF 1
CALCULATED BY SMT DATE 3-19-99
CHECKED BY _____ DATE _____
SUBJECT Drainage Areas
SCALE 1" = Rational Method

CB #1
A = 13584 S.F. = 0.31 Ac
i = 6.2
C = 0.9
Q = C i A = (0.9)(6.2)(0.31) = 1.73 cfs

CB #2
A = 16544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #3
A = 2827 S.F. = 0.06 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.06) = 0.33 cfs

CB #4
A = 16544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #5
A = 19317 S.F. = 0.444 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.44) = 2.46 cfs

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Carroll and Members of the Portland Planning Board

FROM: Richard Knowland, Senior Planner

DATE: March 24, 1998

RE: Preble Street Park/Back Cove Park

Introduction

The City of Portland requests workshop review for changes to Preble Street parking lot adjacent to Back Cove. This property was originally conceived as a "scenic overlook" as part of the I-295 construction project, but with the massive introduction of blacktop, absence of landscaping, and poor treatment of the shore edge, it has not lived up to its potential as a waterfront park. This land was given to the City by the state when part of Deering Oaks was taken for I-295. The new plan is intended to serve as an integrated element of Baxter Boulevard and the green space (jogging trail) that surrounds Back Cove. A site plan is shown on Attachment A.

Richardson and Associates, the landscape architects for this project and the Baxter Boulevard Improvement Plan, will be presenting the plan at Tuesday's workshop.

Key components of the plan include the following:

* Reorganization of the existing parking lot into two separate lots, providing a large open space area in the middle of the old lot while linking green space to the soccer field and Baxter Boulevard.

* With careful site planning, 200 parking spaces will be provided, an increase of about 20 spaces. The existing paved surface has a very inefficient layout.

* The second parking lot is located near the soccer field which should encourage overflow parking to the Marginal Way parking lot adjacent to the I-295 overpass.

* A number of new trails are proposed along the shore and in other open space areas.

* A landscaped median strip in Preble Street is shown on the plan. This may become an option, if there are budget constraints.

* As shown on the plan, reclaiming blacktop for green space provides the opportunity for large open spaces that can accommodate a range of activities including picnicking, impromptu field games, concerts, and other activities.

Staff is in the process of reviewing site amenity elements, such as lighting, benches, and water fountains. The intent is to integrate these design elements with Baxter Boulevard. These will be presented as part of the final site plan.

This development is subject to site plan, shoreland, and recreation open space zone review standards.

Attachment:

1. Site Plan

TO: Alex Jaegerman, Chief Planner - Department of Planning and Urban Development

FROM: Jaimey Caron - Planning Board

DATE: August 25, 1998

SUBJECT: Preble Street Park

At this afternoon's workshop, we are going to discuss the Preble Street Park. I would like to offer the following questions/comments:

Preble St. Park

1. I would like to suggest that the plan consider adding a permanent structure near the parking lot. The structure would house accessory uses (similar to the Castle In the Park in Deering Oaks) including public restrooms and phones, Parks Department equipment, concession stand, and equipment rental. It would be a tremendous asset for groups using the loop for road races, lacrosse games, and fundraising walks as well as for those walking or riding the loop or using the large grass area. Perhaps the students at PATHS could provide the labor and the Public works department the site work.

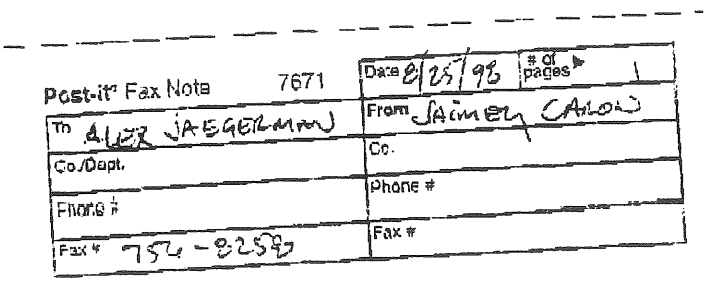
2. Public Works uses this site for storing cars towed during winter parking bans. This lot is also used to test striping equipment. Can we limit municipal use of this area? I would prefer to see these activities take place in one of the Marginal Way parking lots.

3. The Baxter Boulevard Master Plan suggests linking the Preble St parking lot with the city parking lot on Marginal Way. I would like to see the site plan address this issue more specifically. If the plan calls for linking these two parking lots, we should require the upgrade of lighting under the bridge as a minimum to improve pedestrian safety. The overpass at I-295 creates a visual barrier to the Marginal Way area and the rest of the peninsula that can be corrected with proper lighting, landscaping, painting and signage. One suggestion might be to engage the arts community by holding a design contest and then asking MDOT for permission to implement the winning design.

4. The edges of the parking lot are undefined. I would suggest that there be a defined edge (berm, guardrail, plantings) to prevent conflicts between pedestrians and vehicles and to prevent overflow parking in the green areas.

5. The master plan suggests increasing trail width at the intersection of Preble St. and Baxter Boulevard. The site plan should address this issue as a top priority. Moving the guardrail is not enough to provide adequate safety to all the users of the park. Conflicts between walkers and bikes or wheel chairs are my particular concern. One suggestion is to use a small amount of segmental, precast concrete retaining wall in this area to increase the flat area. The sidewalk would remain where it is while the new flat area could be used for the stone dust trail. Cost for this type of retaining wall would be relatively small as well as easy to install and maintain with little or no impact to wetlands.

6. The site plan should indicate that the two inner entrances to the park be combined into one entrance and relocated directly across from the entrance to Shop n Save. A crosswalk should be located here to link the park with the strip mall. During many of the larger events, the parking lot across the street is used for overflow parking.



ATTACHMENT F-1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

MEMORANDUM

TO: Rick Knowland, Senior Planner

FROM: Jim Wendel, P.E. Development Review Coordinator

DATE: May 6, 1999

RE: Site Plan Review
Back Cove Park
Preble Street Extension

A review of the revised site plan dated 4/26/99 has been completed. We offer the following comments:

1. The demolition plan notes removal of a portion of the existing stone dust path of the Back Cove perimeter trail. We recommend that provisions be made for providing a construction schedule that minimizes or prevents disruption of the use of the path by the public.

2. MDOT has recently extensively revised their hot bituminous pavement specifications. They no longer use the Hveem design of grades A, B, C and D asphalt pavement mixes. The new mix is called "Superpave". Does the City want to use Superpave or continue to use the traditional mixes, if available? Recommend that the applicant's consultant research this change in hot bituminous pavement specifications within the industry. The impact of this change on the availability and cost of "traditional mixes" should be established.

3. It appears that a significant removal and shimming of the existing pavement is required to achieve the proposed grading of the parking area. We recommend that an additional plan be provided that notes detailed limits of pavement to be removed and areas to be shimmed to achieve the proposed grades. This will provide a clearer design for bidding and construction.

4. The City standard is to provide a 7" curb reveal with vertical curb. This standard will require that the length of tip-down curb is 7'.

5. Additional detail is needed for the underdrain system; i.e., pipe slopes and inverts.

6. Does detail "E"-Jumbo Cobble Stone Sidewalk require a sand swept joint?

7. The City standard catch basin uses a 3' sump; also the frame must be compatible with the size of the grate dimensioned in figure II-7, page II-10 of the City technical standard guidelines. Also, catch basins require Casco Traps.

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

F-2

8. The detail of the Vortechs model 7000 grit treatment tank appears too large a unit for this application. Is this size unit based on a preliminary design? Preliminary sizing calculations should be provided.

9. The storm drain outfall indicates an approximately 30' riprap channel. There is no detail for this design.

Should you have any questions please call.

Portland High School Soccer Boosters

June 1,1998

Mr. Dana Souza, Director of Parks and Recreation
City of Portland
17 Arbor St.
Portland, Maine 04103

Dear Mr. Souza:

With the tremendous growth in soccer at the Youth and particularly the High School age level, the number of participants atPortland High has nearly doubled over the past 5 years. At present we have six high school interscholastic teams - with only one safe playing field, Preble Street Field, for daily practices and 32 regular season games. Preble Street field is used for 14 field hockey games during the same Fall season. Moreover, the Portland Area Youth Soccer Association (" PAYSA"), (which provides a soccer program for elementary and middle school age students during the spring, summer, and fall) has over 600 participants.

Without additional safe playing fields, there are two negative situations that are occuring: Our teams are not able to practice on a daily basis (on most days we have to rotate 4 teams on 1 field for practice and 2 teams cannot practice) , and Preble St. Field is deteriorating rapidly because of the overuse. Five years ago with only 3 soccer teams playing, and Field Hockey using only Doherty field, Preble St. field was adequate as the only soccer site. In order to meet the requirements and demands of Portland's soccer growth, the City MUST immediately increase the number of facilities available for soccer.

The only solution to this intense pressure on Portland's playing fields is to repair Fox St. field and to retain and improve the Preble St. field open area to a safe condition and then develop another site, possibly Payson Park or Dyer Flats. Repair to Fox St. need not be grandiose nor expensive. Adding loam to reduce the many potholes and to level the field, and then seeding and watering would rejuevenate the field enough to allow it to be used as a practice site on a daily basis. The Preble St. field area alluded to above is the area directly in front of the existing soccer field. Although this area is smaller than regulation and could not be used as a game site, the area is an excellent one for practice, small sided games, and sufficient for primary age youth games. This area, however, is in its present state unsafe for use. The entire rectangle desperately needs large potholes filled, leveling, and new grass. This repair, again, is not a huge undertaking, but is one that can help our lack of space tremendously.

The development of another facility site for soccer fields is equally vital to any plan to improve the City's lack of playing field space. Portland should carefully examine the Payson Park, Dyer Flats area, and even the old Foundry Area between Cumberland Ave. and Marginal Way. By so doing, the City would be able to alleviate the overuse at Preble Street Field and Fox Street Field, and the needs of the hundreds of young soccer players in PAYSA would be accomodated.

FAX
TRANSMITTAL

Date: 5.7.99

RE: BACK COVE PARK

Richardson & Associates
Landscape Architects
P.O. Box 426
Saco, Maine 04072
(207) 286-9291 T (207) 286-9650 F
mail@richardsonassociates.com

TO: RICK KNOWLAND / PLANNING

FAX NUMBER: 756-8258

MEMO:

Rich - Attached are revised Site Plan Review & Shoreland Reg. Statements. I've circled those sections that have been revised.

Please call if you have any questions.

Thanks,

Jack

Number of Pages 9 (Including Cover)

CC:

ATTACHMENT B-1

BACK COVE PARK
Portland, Maine

Site Plan Review Submission - April 26, 1999

TABLE OF CONTENTS

I. Introduction.....x

II. Site Plan - Addendum #2 (Current Submission)

a. Addendum #2 Narrative.....1

b. Construction Plan.....4

c. Erosion Control Narrative.....6

III. Site Plan - Addendum #1 (Previous Submission - 11/30/98).....*See Submission*

IV. Site Plan Review (Previous Submission - 10/27/98).....*See Submission*

V. Workshop (Previous Submission - 8/25/98).....*See Submission*

B-2

ADDENDUM #2 NARRATIVE:

Previous submissions:

August 25, 1998 - Workshop
October 27, 1998 - Site Plan Review
November 30, 1998 - Site Plan Review - Addendum #1

Please note that the following revisions are shown on the Working Drawings dated 4/26/99:

1. Landscape Treatment at Intersection of Preble Street Extension and Baxter Boulevard:
Revised plan shows work in this area will be part of a later phase. The conceptual intent for this area is to connect the existing 10' stone dust path at Baxter Boulevard with the 10' stone dust primary path proposed for phase I of the project.

All work associated with roadways, intersections, pedestrian and multi-purpose paths in the area of the Baxter Boulevard/Preble Street Extension intersection will be part of a later phase of work, as noted on the current drawings.

2. Building Site:
The future building site is marked to show that the building and associated plaza will be part of a later phase. As shown on the working drawings, phase I work at this location will include the cul-de-sac, sidewalk, and stone dust path connecting to the primary path system.

3. Parking Lot:
Entrances to the improved parking lot have been re-configured to comply with current safety and sight line standards, at the request of the Traffic Engineer for the City of Portland.

The parking lot will be curbed on all sides, and will utilize a self-contained sub-surface stormwater treatment system as shown on the drawings. Curbing will allow easier winter maintenance of the parking lot. All critical dimensions, invert elevations, pipe slopes and materials information relating to the stormwater management system were provided by a sub consultant civil engineer.

4. Pedestrian Path System:

The revised plans show a 10' wide *primary* path that provides a continuous experience of a 10' wide pedestrian path, as currently found on Baxter Boulevard. The intent is to provide (given existing site conditions) a consistent pedestrian experience around the perimeter of Back Cove. All secondary stone dust paths are 6' wide.

The pedestrian path layout has also been modified to improve circulation flow within the park. The primary stone dust path will follow the most desirable line to connect to the existing path. This alignment has several benefits:

- a shorter length of 10' path will have a lighter visual impact on the landscape
- the more direct route will be the preferred route by the majority of users, and should therefore serve as the primary path
- the "water-side" route is still available as a secondary, accessible, 6'-wide path
- this alignment allows for a lighting plan that has a lower visual impact in the park. Lighting the "water-side" path would require pole luminaires (high visual impact) or numerous bollards (lower visual impact, but more lights would be necessary to effectively light the path)
- the space requirements for the soccer field prevent a smooth horizontal path alignment in the area between the soccer field and the water. A primary path in this location would bring large numbers of path users in close proximity to the field. This would promote cutting across the field (damaging the field) and could be potentially dangerous to have the primary path immediately adjacent to an on-going soccer game (balls and/or players leaving the field)

5. Plaza:

The primary, public plaza is contained within a circular seat wall located between the parking lot and Back Cove. The depressed or lowered central area of the plaza provides a visual and physical separation from the nearby parking lot and drop-off area, as well as from the primary path the passes by the plaza on either side. An added benefit of the lowered plaza is that it provides the potential for a wind break, allowing pedestrians to find a place to find some protection on windy days. This might be especially helpful for people waiting for rides in the vicinity of the drop-off area.

The plaza will drain to a catch basin in the center of the plaza and connect into the proposed sub-surface stormwater management system for the parking lot area.

6. Overlook/Boardwalk:

Conceptual design is ongoing for this aspect of the project. The overlook includes two components:

- i. one component, the overlook, is a contained space adjacent to the path and plaza which can be used to effectively increase the size of the usable plaza area when large numbers of people are gathered in the area.
- ii. the other component, the boardwalk is a curvilinear pier that extends to a small space approximately 50' from the edge of the primary path. This component allows pedestrians to walk over the water at high or low tide. The curve provides a changing orientation along the way, while focusing the orientation toward Baxter Boulevard rather the I-295. The small space at the end of the curve is on axis with the drop-off area, the plaza and the larger overlook space.

Preliminary geotechnical, marine and structural engineering studies are included in this submission. (See Table of Contents)

7. *List* and *Status* of Items to be Completed:

a. Overlook/Boardwalk

This aspect of the project will continue as more information is gathered from the geotechnical engineer. Technical design development of the overlook/boardwalk will be contingent on the geotechnical information

b. Maine Department of Environmental Protection-Permit Application

The application is currently being completed by Portland Parks and Recreation.

c. Field Underdrains

The underdrain design shown in the area of the soccer and multi-purpose fields is conceptual. The consultant is currently assembling information regarding underdrain pipe sizes, spacing, depth. It is anticipated that this information will be complete by May 11, 1999.

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1/3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used (refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

B-14

Response to Questions in:

Portland Code, Section 14-525 c., *'Written Statements,' pp. 1356-1357*

i. Name and address of owner:

City of Portland
Parks & Recreation Department
17 Arbor Street
Portland, Maine 04103
Dana Souza, Director of Parks and Recreation

ii. Estimated Cost of Development: $342,000 (does not include building or Preble Street Extension roadway adjustments)

1. *Description of Proposed Uses:*

The proposed use for the site is a public park, with a parking lot to accommodate approximately 170 cars. Overall, proposed uses are nearly identical to existing uses, with additional or improved amenities. The proposed changes and improvements include:

REV.

- The Master Plan recommends a reconfiguration of the intersection at Baxter Boulevard and Preble Street Extension as recommended by the Baxter Boulevard Improvement Plan. This work will be part of a later phase, although Phase I work is designed to fit seamlessly into future work at the intersection.
- An improved parking lot that includes:
  - -curbing on all sides, to improve the edge condition of the parking lot (durability), make the lot easier to plow (maintenance), improve the "look" of the parking lot (aesthetic), and aid in the stormwater management system.
  - -drop-off areas
  - -reduction in size to conventional standards for parking stalls and travel aisles
  - -resurfacing and striping of the parking lot
  - -reduction of access points from 4 to 2 to reduce speeds within the parking lot and increase pedestrian safety

relocation of the park access points to allow a safe distance between park access and the Shop n' Save access.

-pedestrian travel routes for safe access from the parking lot to the park

- An accessible sidewalk along Preble Street Extension
- A future building with restrooms and storage space
- A shaded public plaza with benches and other amenities
- Picnic areas
- A 10' wide stone dust path adjacent to the water's edge
- An overlook that will extend from the plaza and provide excellent panoramic viewing of Back Cove and the surrounding area
- A short boardwalk in the wetland area that will provide access to a viewing platform with education and observation opportunities for wetland flora and fauna
- Reconstructed fields that will include a new irrigation system and underdrains.

2. *Total Land Area of Site:*
16.3 acres ±

3. *General Summary of Existing and Proposed Easements and/or Other Burdens:*
See letter from Dana Souza, Director of Portland Parks and Recreation

4. *Types and Estimated Quantities of Solid Waste to be Generated:*
See letter from Dana Souza

5. *Evidence of Availability of Off-Site Facilities, Including Sewer, Water and Streets:*
As shown on the survey and the Site Plan, the site is served by sewer, water and streets.

Rev. C

6. *Description of Existing Surface Drainage, and Proposed Stormwater Management Plan:*
Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

The proposed plan calls for a subsurface stormwater management system for the parking lot. Five catch basins (including the plaza) will be installed. In addition, the system will include a Vortechnics Stormwater Treatment Tank to filter the runoff before it is released into Back Cove.

The proposal calls for improved sheet drainage in the area of the multi-purpose field and soccer field.

Rev. 0

7. *Construction Plan - Sequencing and Approximate Dates:*

Sequencing for the project:

- Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .
- Strip, stockpile and protect topsoil as necessary.
- Perform demolition and rough grading.
- Mulch all exposed soil within 7 days of soil disturbance.
- Install irrigation system and underdrain system at multi-purpose field and soccer field.
- Install aggregate base, loam and sod on soccer field.
- Install sub-surface stormwater system and related erosion control devices in parking lot area
  a. storm drain inlet protection
- Complete site construction work
  a. utilities
  b. parking lot-new curbing, reset curbing, bituminous paving
  c. plaza
  d. stretching area
  e. overlook and pier (if in Phase I)
  f. wetland boardwalk
  g. paths
  h. lighting
  i. aggregate base, loam and seed multi-purpose field
  j. amenities
  k. gateway piers
- Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.
- Install permanent planting in all exposed areas.
- Remove temporary erosion control measures.
- Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

Estimated Commencement Date for Construction: July 1999
Estimated Completion Date for Construction: September 1999

***Note: Because of the linear quality of the site, many aspects of the project can occur concurrently.

8. List of State and Federal Regulatory Approvals to which the Project is Subject:

- Maine Department of Environmental Protection (MDEP):
- Army Corps of Engineers:

See letter from Dana Souza for more information. Christopher Di Matteo, Landscape Architect for Portland Parks and Recreation, will be the primary contact for this aspect of the project.

9. Evidence of Financial and Technical Capacity to Undertake and Complete the Project:

- Owner: City of Portland
- Portland Parks and Recreation Department will invite bids and select a qualified and experienced contractor for the project

See letter from Dana Souza for more information.

10. Evidence of the Applicant's Title, Right or Interest in the Property:

See letter from Dana Souza

Rev. 0

11. Description of any Unusual Natural Areas, Wildlife and Fisheries Habitats or Archaeological Sites Located On or Near the Project Site, and Protection Methods:

As noted on the site plan, approximately four (4) acres of the site qualify as Coastal Wetland. As a result, the plan will have to undergo MDEP and Army Corps of Engineers application procedures. The proposal recommends a low-profile boardwalk that enters the wetland from the upland side and will provide several advantages, not only for visitors to the site but also for the benefit of the wetland:

Benefits of the Boardwalk:

1) the boardwalk provides an accessible path to an area that is of particular interest educational opportunities and for bird watching and observation of wetland flora and fauna (this area is of particular interest because of the variety of salt-tolerant and salt-intolerant plant communities)

2) the overlook is located far enough out in the wetland to allow visitors to experience its particular qualities, but allows generous space for flora and fauna to remain relatively undisturbed

3) the location of the boardwalk on the upland side of the wetland provides access and important educational opportunities in a manner that is as low impact as possible and in fact increases the educational opportunities of the project (i.e., provides the opportunity to explain why the boardwalk is positioned as it is).

4) providing a semi-permanent path in this area will reduce the number of people who are currently walking through the wetland

5) an increased presence of visitors in this area will decrease opportunities for vandalism, such as the riding of all-terrain vehicles (ATV's) in the wetland

Response to Standards and Regulations Listed in:

Land Use, Section 14-449 Land Use Standards *pp. 1302.1-1307*

1. *Principal and accessory structures:*

a. The structure shown on the site plan is more than 75' feet from the normal high water line of Back Cove. The siting for the building is the result of several factors:
1) After consulting with Parks and Recreation Department staff and City staff, it has been determined that the building should be in the general vicinity of where the storage and restroom facilities are currently located. The building should be close to the soccer field for storage purposes, and it should be accessible from the parking lot
2) This location satisfies the requirements listed above while remaining at or above the 100-year flood level. Siting the building here would require a minimum amount of grading to attain the necessary elevation requirements.
3) There was an aesthetic desire by the planning and design team to have the building relate more to the park than to the parking lot, thereby de-emphasizing the presence of the parking lot and not usurping any valuable parking spaces.
b. The first floor elevation shall be elevated at least one-foot six-inches (1'6") above the elevation of the 100-year flood.
c. All applicable permits will be obtained from local, state and federal levels before the construction of the boardwalk or overlooks. See letter from Dana Souza for more information

2. *Piers, docks, etc.. and other structures and uses extending over or beyond the normal high water line of a water body or within a wetland:*

The boardwalk and overlooks will adhere to all conditions described herein. In addition, the development of the construction drawings and technical specifications for these elements will be concurrent with Maine Department of Environmental Protection and Army Corps of Engineers permitting process, and will be reviewed and approved by City Staff throughout the process.

3. *Clearing of vegetation:*

See #2, above. This project will require minimal clearing, cutting and/or pruning and, because of the proposed planting, will result in a more healthy plant community than currently is found at the site. The only clearing will be for the purpose of constructing the low-impact boardwalk. Otherwise, there will be no cutting of trees or other vegetation.

4. Erosion and sedimentation control:

Erosion and sedimentation control measures will conform the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices. The proposal recommends **hay bales and a silt fence** used in conjunction to surround the construction site. The technique will provide a double layer of protection to the waters of Back Cove during the construction phase. A description and drawing of each method, as well as other relevant written information is included in this package.

The site planning principles of this project have also taken into account erosion and sedimentation control practices, such as:

- *fitting the development plan to the site* - no major changes are planned for this development that will alter the existing topography or drainage patterns of the site
- *preserving the existing natural drainage patterns and vegetation as much as possible* - see previous explanation
- *keeping the time period of soil disturbance short* - the sensitive nature of this site will be noted on the drawings and during pre-construction meetings with the contractor. In addition, the consulting landscape architect will ensure that these requirements are met during the construction process.
- *keeping disturbed areas small* - see previous description

5. Soils:

Soils in the project site are fill which is the result of the construction of I-295 in the late 1960's. No proposed uses for this project qualify as intensive land uses and therefore no soils report is included in this submission.

6. Water quality:

The project will adhere to this standard, without exception.

7. Archaeological sites:

The project consultants are currently investigating whether this site is on or adjacent to sites listed on, or eligible to be listed on, the National Register of Historic Places. If so, the project will be submitted to the Maine Historic Preservation Commission for review and comment at least 20 days prior to action being taken by the building authority.

8. Installation of public utility service:

Services to the proposed structure will be installed as per the requirements of this section. At this time, the design of the building has not been determined. Design

development will proceed with regular, periodic reviews by City staff, and all necessary permits will be acquired before any work begins.

9. *Roads and driveways:*

The proposal calls for a reduction of parking lot driveways from four (4) to two (2), and for the relocation of the two driveways as per the recommendation of the Traffic Engineer for the City of Portland. In a memorandum dated January 25, 1999, the City Traffic Engineer recommends that the two parking lot driveways be located "at least 150 feet on either side of the exit/entrance to the shopping mall so as to minimize conflicts with entering/exiting/turning vehicles utilizing Back Cove Park parking or the shopping mall." In a future phase, there will be minor realignment at the intersection of Baxter Boulevard and Preble Street Extension, as recommended in the Baxter Boulevard Report.

10. *Parking areas:*

The parking area will be improved as shown on the drawings and as noted in the Site Plan Review written statements. When finished, the paved parking area will be farther from the high water line of Back Cove than the current condition by approximately 18'.

11. *Stormwater runoff:*

Existing surface drainage is primarily sheet flow into Back Cove, from the soccer field, open area and parking lot. The parking lot run-off sheet flows across the parking lot and across a small, open, bare-soil condition where water either puddles and eventually percolates or sheets directly into Back Cove without the benefit of any vegetation for filtration.

The proposed stormwater management plan will provide a filtration system for parking lot runoff. The vegetated strip between the parking lot and Back Cove will slow runoff and allow it to infiltrate into the soil. This process will greatly improve the quality of parking lot runoff that eventually enters the Back Cove. The proposal calls for improved drainage in the area of the multi-purpose field and soccer field. Overall, however, the proposal will not change the concept of the existing surface drainage.

12. *Agriculture:*

Not applicable to this project

13. *General site plan features:*

The proposal attempts to fully comply with conditions a - j described in this section.

ATTACHMENT C-1

BAKER DESIGN CONSULTANTS

04/06/99

Frank Liggett- LA
Richardson & Associates
Pepperell SquarePO Box 426
Saco, ME 04072

Subject: Wetlands Boardwalk
Back Cove Park- City of Portland

Dear Frank,

I have completed a preliminary review of the Wetlands Boardwalk. The attached sketch indicates my recommendations for the structure. Key items are noted below with some discussion of the alternatives.

1. Loading- I have used a design live load of 50 psf. which is reasonable for the walkway. This will be increased to 100psf at the overlook.

2. Decking- 2 x 6 Composite decking (Trex –or equal) is recommended. 2 x 4 pressure treated Southern Yellow Pine No. 1 will work but will not be as long lasting. The decking must be supported at 24" (max) on center in order to achieve a 50-psf live load capacity.

3. Deck Beams- 3 beams are required to support the 6'-0" wide walkway. I have indicated some options on the sketch depending on the walkway span. The best way to support these members is to stagger/overlap the beams at the support. This makes for a simple connection detail that tolerates field span and angle differentials.

4. Foundation- I recommend the solid concrete bent be used instead of three (3) sonotubes. This is much more stable against lateral loading and effectively anchors the walkway during flooding. They could be precast off site and placed with minimal excavation by a wetland backhoe fitted with a narrow bucket. There would be no differential settlement in the walkway at each sonotube bent location.

Please call with any questions.

Sincerely,

BAKER DESIGN CONSULTANTS, Inc.

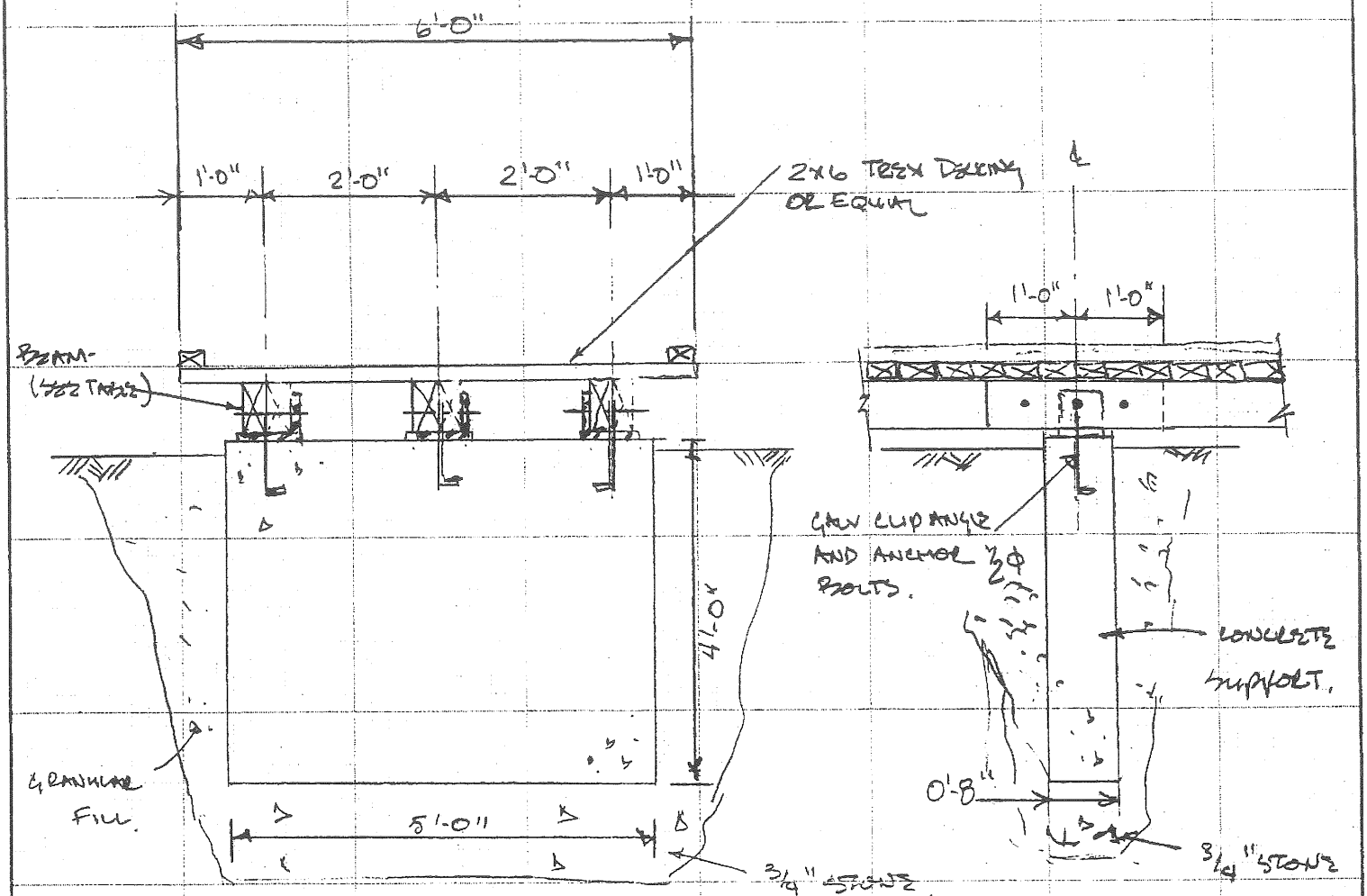
Barney Baker PE
JN: 99008

Copy w/Enc.
Christopher Di Matteo- LA, Portland Parks and Recreation

11 STONY BROOK LANE, YARMOUTH, ME 04096 PHONE: (207) 846-9724 FAX: (207) 846-3620 EMAIL: bakerdesign@compuserve.com

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park — SHEET NO. 1 OF 1
CALCULATED BY BSB — JOB NO. 99008 C-2
CHECKED BY — DATE
ITEM WETLAND BOARDWALK DESIGN



PIER ELEVATIONS

WT = $\frac{4' \times 5' \times 8}{12}$ = 2000 lbs.

BEAM SPAN TABLE

SPAN	COMPOSITE BEAM	SOUTHERN YELLOW PINE
8'-0"	PSL-PT 1.75"x5.5"	2x8 PT
10'-0"	PSL-PT 1.75x7.25"	6x6 PT NO.1
12'-0"	PSL-PT 1.75x.9.25"	6x8 PT NO.1
	2.0E 2900 Fb	

DRAFT
Gapen99

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BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Post-it® Fax Note 7671	Date 22 March	# of pages ▶ 5
To FRANK WRIGHT	From Barney Baker
Co./Dept Richardson	Co. BDC
Phone # 284-0139	Phone # 846-9224
Fax # 286-9650	Fax # 846-3620

To: Stephen Rabasca
Peterson-Rabasca GeoEngineers
46 Main Street
Yarmouth, ME 04096

FILE COPY

From: Barney Baker, PE

Date: March 19, 1999

Subject: Pedestrian Marine Overlook- Back Cove Park- City of Portland

Copy: File, Frank Liggett-Richardson & Associates, Chris Di Matteo-Portland Parks and Recreation

Job No: 99008

TRANSMITTAL

Reviewed ☐
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VIA:
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Separate Cover ☐
Fax ☐
Modem ☐

Attached are draft sketches for the proposed pier structure and an incomplete outline of design parameters needed to analyze the pier. As per our discussion, I hope your pending geotechnical fieldwork will allow you to define the Soil/Pile parameters.

The sketches identify 3 elements of the pier construction that require gectechnical input.

1. Abutment/retaining wall- This structure retains/supports the landward side of the elevated Boardwalk and provides a solid base for granite blocks above. I anticipate a reinforced concrete retaining wall structure with spread footing

2. Marine Overlook. Timber pile with composite deck. The geometry requires extra piles. To limit exposure to ice, no intertidal bracing is proposed. To resist lateral loads, batter piles are indicated.

3. Connecting Walkway. Each bent consists of two (2) piles. The structure is in the shadow of the Overlook and is therefore somewhat protected from ice buildup. Intertidal bracing is anticipated.

Please comment on the suitability of the proposed structure support at this site and tailor the pending field exploration to best determine design values.

Please call with any questions on the information provided.

March 19, 1999
DRAFT

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

Pedestrian Marine Overlook- Back Cove Park
City of Portland Parks and Recreation

STRUCTURE DESIGN PARAMETERS

Applied Loading

Live Load	Walkway	85 psf
(Pedestrian)	Overlook	100 psf
	Boardwalk	100psf
Wind Load	Basic Speed	100 MPH
	Max Pressure	50 psf
Ice Load	shear strength	100psi (assumes fractures and breakup due to tidal action)
	density	50 pcf
	thickness	6 inches

Soil/Pile Parameters

Abutment	Bearing
	Backfill
Piles	Shear Friction
	End Bearing
	Downdrag
	Pile Penetration

Based on the above parameters and proposed pile spacing, typical pile loads are outlined below. Refer to the attached sketch for point of application.

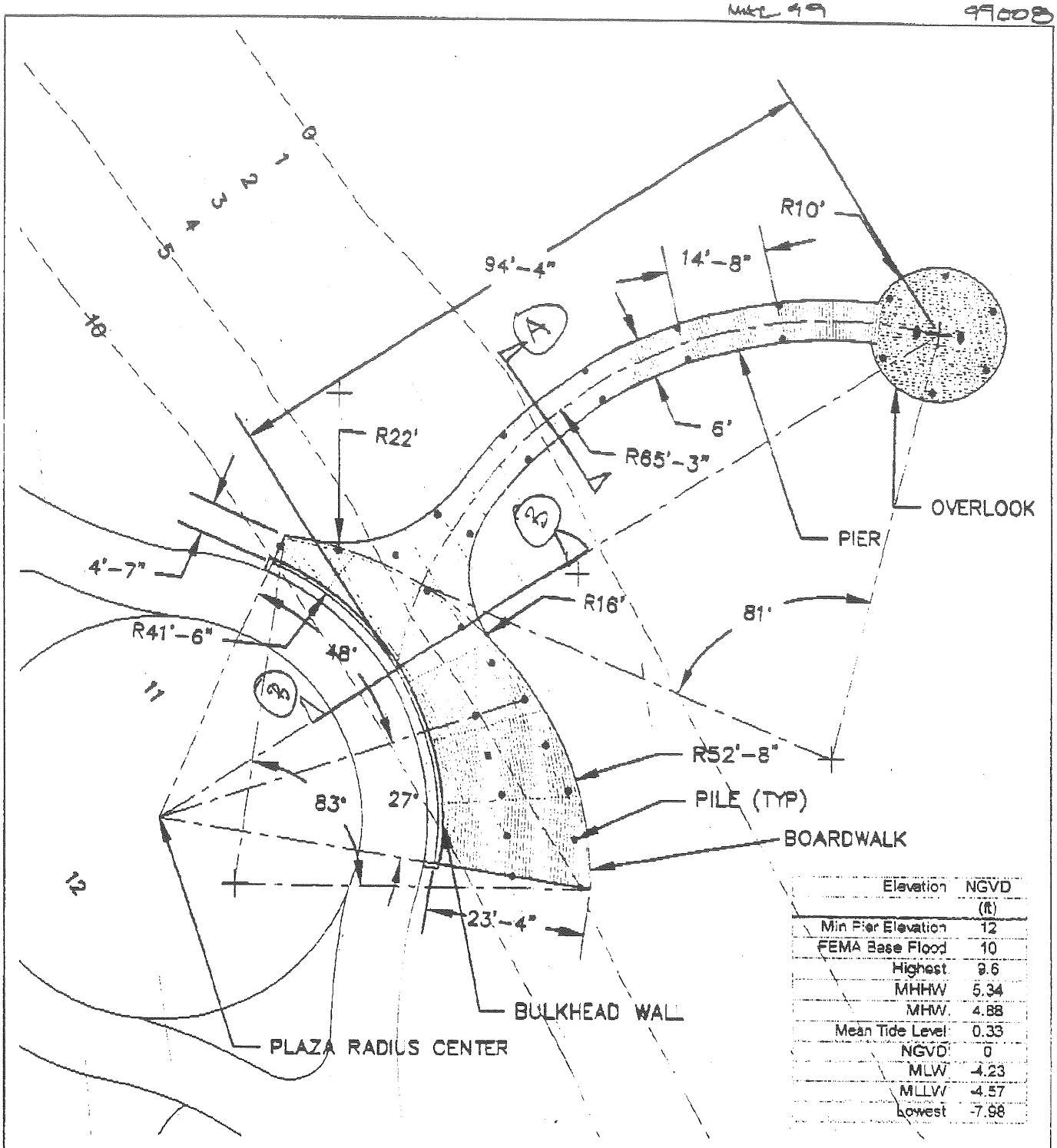
LOAD TYPE	PILE LOAD		POINT OF APPLICATION	
	Axial (kips)	Lateral (kips)	Elevation	Notes
Dead	.5 to 1.5	-	10.0	Deck self wt/Top of Pile
Live	2.5 to 3.5	-	10.0	Pedestrian/Top of Pile
Ice load	2.5 to 5.5	3.6	-5.0 to 5.0	Tidal Zone
Ice uplift	-2.5 to -5.5	NA	-5.0 to 5.0	Ice block (10'-15') sq. x 6" thick

Preliminary
MAR 99

1 of 3

C-5

99008



Elevation	NGVD (ft)
Min Pier Elevation	12
FEMA Base Flood	10
Highest	9.6
MHHW	5.34
MHW	4.88
Mean Tide Level	0.33
NGVD	0
MLW	-4.23
MLLW	-4.57
Lowest	-7.98

PURPOSE Boardwalk, Pier, Overlook

PIER GEOMETRY

1"=20'-0"

APPLICANT Parks & Recreation
17 Arbor Street
Portland, ME 04103

PROJECT
BACK COVE PARK
CITY OF PORTLAND

COUNTY OF CUMBERLAND

DATE MARCH 99

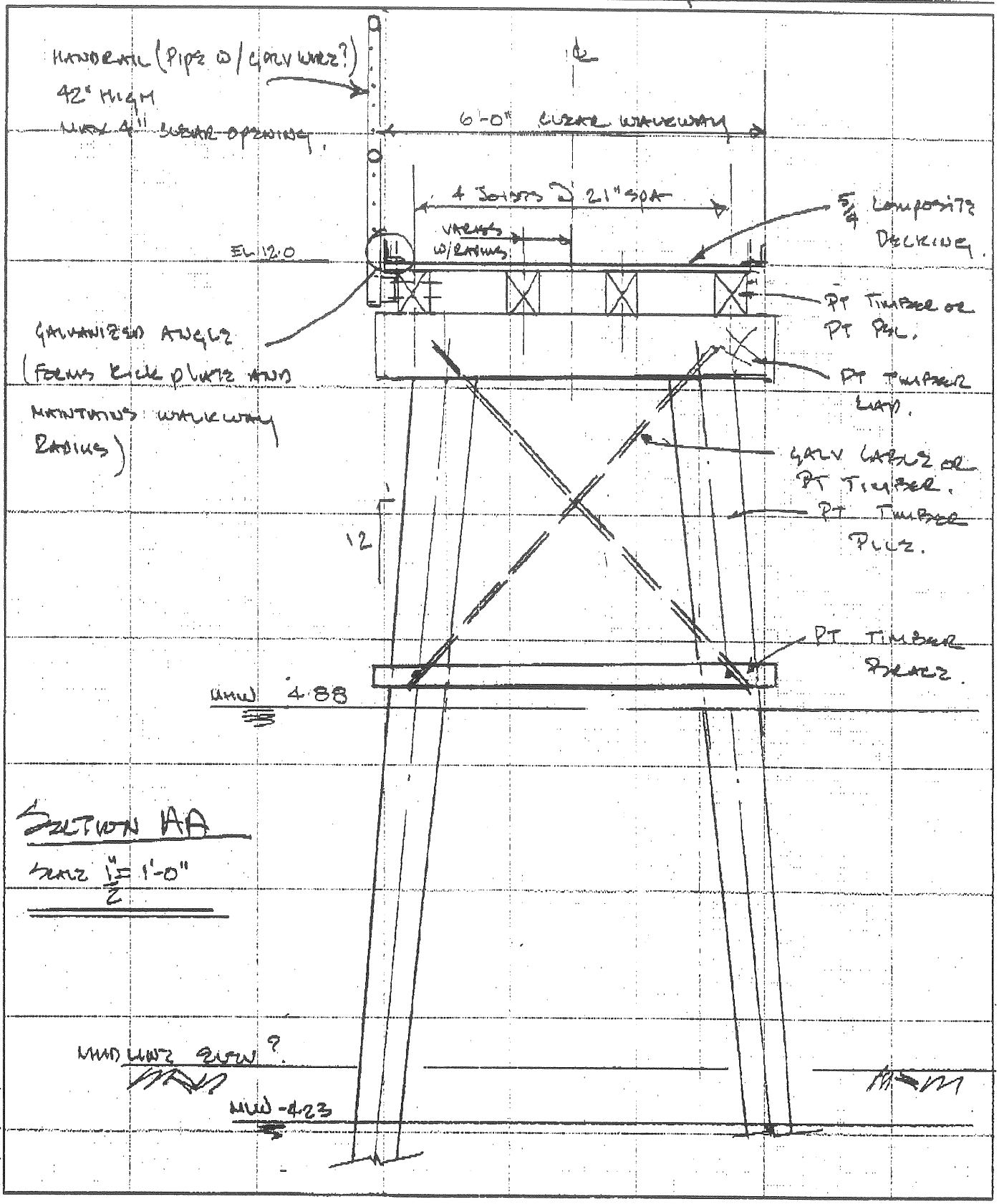
SHEET NO. 1 OF 3

Baker Design Consultants
11 [illegible] Lane Yarmouth, ME 04096 (207) 846-4724

C-6

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Pine Lane Park SHEET NO. 2 OF 3
CALCULATED BY BSB JOB NO. 99008
CHECKED BY DATE 4/99
ITEM Preliminary Pier Section DATE M



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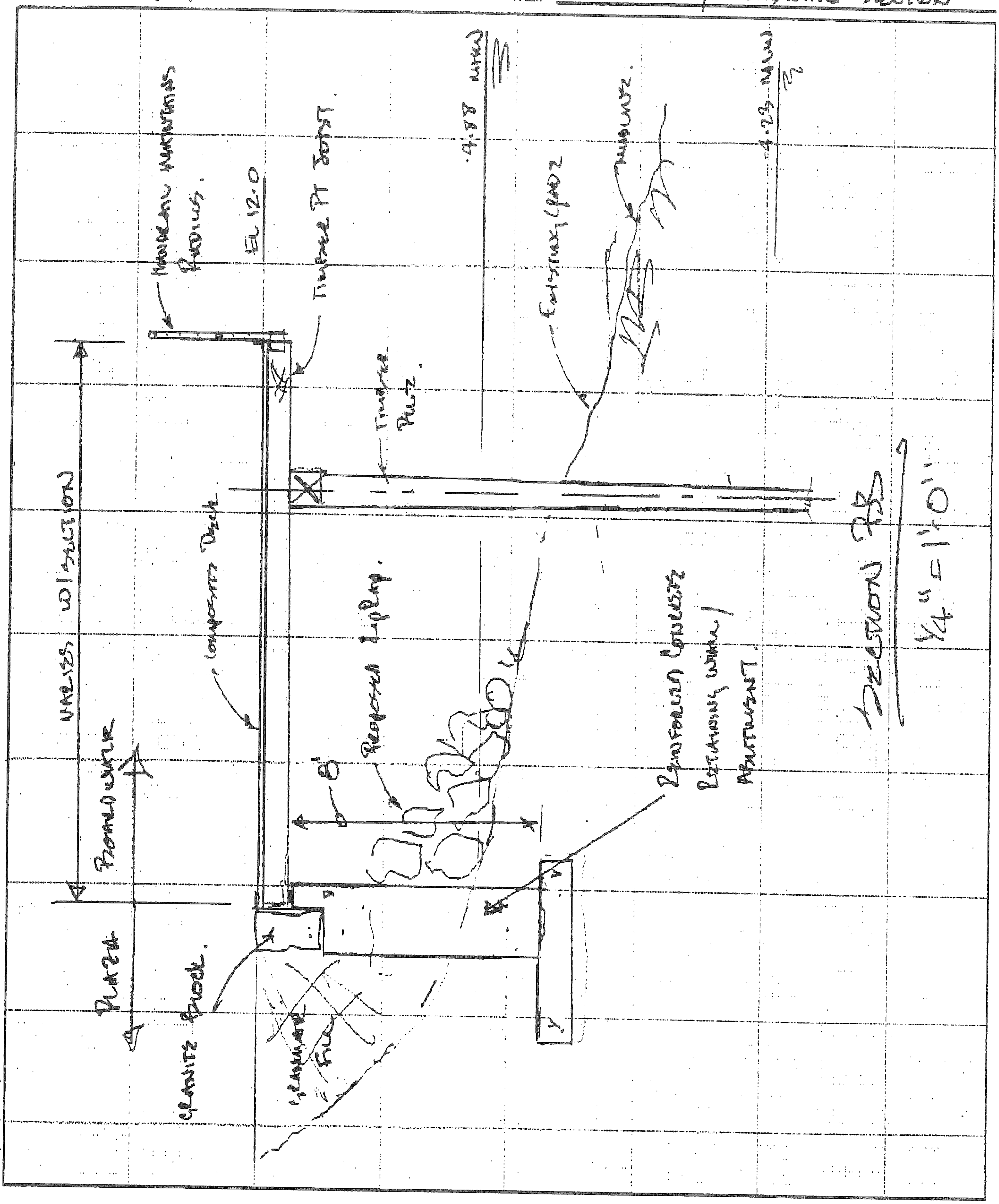
C-7

BAKER DESIGN CONSULTANTS
11 Stony Brook Lane
Yarmouth, Maine 04096
Tel: (207) 846-9724
Civil, Marine, and Structural Engineering

JOB Back Cove Park
SHEET NO. 3 OF 3
CALCULATED BY BRB
JOB NO. 98009
DATE Mar 99
CHECKED BY
DATE
ITEM Preliminary Boardwalk Section



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BACK COVE PARK
Portland, Maine

March 22, 1999

CONSTRUCTION PLAN

The general construction schedule for Back Cove Park is to begin June 1999, with the completion of Phase I scheduled for September 1999. The general sequence of work shall be as follows:

1. Install temporary erosion and sediment control measures consisting of silt fencing, hay bales and stabilized construction entrance .

2. Strip, stockpile and protect topsoil as necessary.

3. Perform demolition and rough grading.

4. Mulch all exposed soil within 7 days of soil disturbance.

5. Install irrigation system and underdrain system at multi-purpose field and soccer field.

6. Install aggregate base, loam and sod on soccer field.

7. Install sub-surface stormwater system and related erosion control devices in parking lot area
    a. storm drain inlet protection

8. Complete site construction work
    a. utilities
    b. parking lot-new curbing, reset curbing, bituminous paving
    c. plaza
    d. stretching area
    e. overlook and pier (if in Phase I)
    f. wetland boardwalk
    g. paths
    h. lighting
    i. aggregate base, loam and seed multi-purpose field
    j. amenities
    k. gateway piers

9. Perform fine grading and permanent mulching. Vegetate all areas to be exposed for a period greater than 60 days.

10. Install permanent planting in all exposed areas.

11. Remove temporary erosion control measures.

12. Perform continuing maintenance as outlined in Erosion Control Plan Narrative.

BACK COVE PARK
Portland, Maine

March 22, 1999

EROSION CONTROL PLAN (NARRATIVE) (see also graphic plan)

A. GENERAL

1. All soil erosion and sedimentation control shall be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.

2. All erosion control measures shall be installed by the contractor following the sequence outlined in this plan. The contractor shall be responsible for the repair, replacement, and maintenance of all erosion control measures until final acceptance of work. All temporary erosion control measures shall be removed by the contractor at final acceptance. The City of Portland shall be responsible for the maintenance of all permanent erosion control measures following final acceptance.

3. Disturbed areas shall be permanently stabilized within 15 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.

4. In all areas disturbance of topsoil shall be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil shall be stripped and stockpiled for reuse in final grading. Topsoil shall be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile shall not exceed 2:1. All topsoil stockpiles shall be surrounded by silt fencing. Topsoil stockpiles shall be temporarily seeded with Aroostook Rye, Annual or Perennial Ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Grasses:

Aroostook Rye:	Recommended Seeding Dates:	8/15 - 10/1
	Application Rate:	112 lbs/acre
Annual Ryegrass:	Recommended Seeding Dates:	4/1 - 7/1
	Application Rate:	40 lbs/acre
Perennial Ryegrass:	Recommended Seeding Dates:	8/15 - 9/15
	Application Rate:	40 lbs/acre

Mulch:

Hay or Straw:	Application Rate: 70-90 lb / 1000 sf.. Anchor with mulch netting (installed per manufacturer's recommendations)
Wood Fiber Cellulose:	Application Rate: 4,000 lbs/acre. Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fencing (also refer to attached detail)

(a) Silt fencing shall be installed as shown on the Erosion Control Site Plan prior to any soil disturbance of the contributing drainage area above the fencing.

(b) The height of a silt fence shall not exceed 36 inches.

c) Filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.

(a) A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier.

(f) When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire stapled at least 1 inch long, tie wires or hog rings. The wire shall extend more than 36 inches above the original ground surface.

(g) The standard strength of filter fabric shall be stapled or wired to the fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(h) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric shall be stapled or wired directly to the posts with all other provisions of item (g) applying.

(i) The trench shall be backfilled and the soil compacted over the filter fabric.

(j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.

(k) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be inspected if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they shall be replaced with a temporary crushed stone check dam.

(1) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric shall be replaced promptly.

(m) Sediment deposits should be removed after each storm event.

(n) In lieu of providing the 4"x4" trench, the bottom 8"-12", of the fabric may be laid on existing grade and backfilled with stone anchoring material, as shown on Exhibit 6, Erosion Control Details.

2. Straw Bale at Top of Slope and as Catch Basin Sediment Filter (also refer to attached detail)

(a) Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.

(b) Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together.

(c) The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches. After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier.

(d) Each bale shall be securely anchored and held in place by at least two stakes or rebars driven through the bale.

(e) Loose straw shall be wedged between bales to prevent water from entering between bales.

(f) The structure shall be inspected after each rainfall and repairs made as needed.

(g) Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it shall not erode.

(h) Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

3. Temporary Mulching

(a.) Temporary mulching must be applied within 7 days of soil disturbance. Areas which have been temporarily seeded shall be mulched immediately following seeding.

(b.) The following mulch materials and application rates are suitable for temporary use:

Hay or Straw	Air Dried; free of undesirable seeds and coarse materials	70-90 lb per 1000 sf	Lightly cover 75-90% of surface
	Anchor with mulch netting (installed as per manufacturers recommendation)		
Wood Fiber Cellulose	Made from natural wood, usually w/green dye and dispersing agent added. Max 15% moisture packed	100 lb / 1000 sf	
	May not require anchoring		

(c.) All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Netting must be inspected after rainstorms for dislocation or failure. If washouts or breakage occur, re-install net as necessary after repairing damage to the slope.

4. Stabilized Construction Entrance (also refer to attached detail)

(a.) Shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area.

(b.) Use 2-inch stone with aggregate thickness not less than 6 inches, or reclaimed or recycled concrete equivalent.

(c.) Length of stabilization shall not be less than 50 feet; width not less than 10 feet. Width shall not be less than the full width of points where ingress or egress occurs.

(d.) Geotextile shall be placed over the entire area to be covered with aggregate. The geotextile filter cloth shall be woven or non-woven fabric consisting only of continuous chain polymetric filaments or yards of polyester. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, mildew, rot resistant, and conform to the fabric properties as shown on Table 18.1 of the Best Management Practices Handbook.

(e.) The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches or waterways.

C. PERMANENT MEASURES

1. Permanent Grass and Legume Cover

(a) Seeding should be completed by May 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by October 20 shall be reseeded with the specified application rates increased by 50%.

SEEDING SPECIFICATIONS

(1) Seed

Mixture	lbs/acre
Kentucky Bluegrass	20
Creeping Red Fescue	20
Perennial Ryegrass	5

(2) Fertilizer: Apply 800 pounds per acre of 10-20-20 fertilizer or equivalent per acre (18.4 lbs/1,000 sq. ft.).

(3) Lime: Apply ground limestone at a rate of 3 tons per acre (138 lb./1,000 sq. ft.).

(4) Mulch: Mulch with weed free hay or straw at 1.0 - 2.0 tons per acre.

Anchor mulch with mulch netting installed as per manufacturer's recommendations.

(5) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type of seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(6) "Areas Left to Naturalize" as shown on Erosion Control Plans, shall not be mown by the City of Portland. A conservation seed mix shall be applied to these areas to encourage native, fast-growing plant materials in these areas.

2. Sodding

(a.) Prepare site as necessary for sodding.

(b.) Fill areas must be compacted enough to prevent uneven settling. The entire surface to be sodded shall be free from large clods, stones or other debris. Incorporate lime and fertilizer uniformly into the surface soil as needed. Immediately before sodding, the soil shall be loosened to a depth of 1 inch and thoroughly dampened.

(c.) If time permits, have soils tested and follow lime and fertilizer recommendations. In lieu of a soil test, apply lime at the rate of 138 pounds of ground limestone per 1000 square feet. Lime to a minimum depth of 4 inches. Apply fertilizer at a minimum rate of 18.4 pounds of 10-20-20 fertilizer per 1000 square feet.

(d.) Select sod from seed of adapted varieties or types and under cultural practices conducive to high quality sod that will be free of any serious thatch, weed, insect, disease or other pest problems.

(e.) Select species and varieties best suited for the sites to be stabilized. Use mixtures tested and approved by State Experiment Stations.

(f.) Select sod at least 15 months old and no older than 3 years.

(g.) Select sod cuts of width and length suited to the equipment and job. Sod may be cut and rolled or folded in the middle and stacked on pallets.

(h.) Deliver sod to the site as soon as practical after lifting. During hot weather delivery should be made within 6 hours and may be extended to 48 hours during cool seasons.

(i.) Sod can be established in Maine from April 1 to November 15, depending on the region.

(j.) Lay strips of sod at right angles to the direction of slope or flow of water starting at the lowest elevation. Wedge the edges and ends of the sod strips together and tamp or roll. Stagger joints. Make the top of the sod strips flush with the top of the undisturbed ground.

(k.) When sod is installed to stabilize areas of concentrated flow, installation must be completed before runoff is directed to that area.

(l.) After the first week, sod shall be watered as necessary to maintain adequate moisture in the root zone and prevent dormancy of sod. No more than 1/3 of the shoot (grass leaf) should be removed in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

(m.) After the first growing season, established sod will require fertilization and may require lime. Follow soil test recommendations.

3. Shrubs

(a.) In conjunction with grass and naturalized areas, a combination of container-grown shrubs shall be planted to stabilize areas susceptible to wind erosion, as shown on the Erosion Control Site Plan. These permanent plant materials shall be selected for the following characteristics:

- soil stabilizing root system
- native to the region
- drought tolerant
- encourage development of wildlife habitat
- rapid growth habit

(b.) A variety of plants shall be selected in order to improve diversity.

4. Topsoiling

(a) Topsoil: Use stockpiled materials, if available, spread to a minimum compacted depth of 4 inches or as shown on the contract drawings or in the planting specification. Topsoil shall be stockpiled in such a manner that natural drainage is not obstructed and no off-site sediment damage shall result.

(b.) All topsoil shall be tested by a recognized laboratory for the following and shall meet the requirements given:

- Organic matter content shall be not less than 3% by weight.
- pH range shall be 6.0-7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results with the recommendations of the vegetative establishment practice being used.
- Soluble salts shall not exceed 500 ppm.

(c.) Approved topsoil substitutes may be used refer to Section 13.0 of Best Management Practices Handbook).

(d.) Before topsoiling, establish needed erosion and sediment control measures. These measures must be maintained during topsoiling.

(e.) Previously established grades on the areas to be topsoiled shall be maintained according to the approved grading plan.

(f.) Where the pH of subsoil is 6.0 or less, ground agricultural limestone shall be spread in accordance with the soil texture or the vegetative establishment practice being used. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by discing or scarifying to a depth of at least 2 inches to ensure bonding with subsoil.

(g.) Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

(h.) Permanent seedings or sod shall not be established in topsoil that has been treated with herbicides which would inhibit plant growth. Topsoil so treated shall be stockpiled for one year to allow breakdown of herbicide residues or topsoil will be covered with 6 inches of untreated topsoil to serve as a seedbed.

D. MAINTENANCE PLAN

1. Routine Maintenance

Inspections shall be performed periodically during wet weather by a qualified person to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for structural damage or failure and for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq. ft.)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq. ft.).

E. INSPECTIONS

Inspections shall be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections shall occur bi-weekly and after each significant rainfall event (1 inch or more within a 24-hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized. Written reports should be submitted to the City of Portland within one week of completion of each inspection.

G. CONCLUSION

The foregoing measures and controls will ensure that no unreasonable erosion of soil or sediment shall occur as a result of the development or operation of the facility.

3.19.99

C-17

BACK COVE PARK
STORMWATER MANAGEMENT PLAN

Introduction

This stormwater management plan has been prepared for Richardson & Associates for the construction of a parking lot at the proposed Back Cove Park in Portland, Maine. The proposed park is located between Preble Road Extension and Back Cove. The area associated with this analysis is an approximately 1.39 acre parking lot for the proposed park.

Stormwater Runoff Analysis

Methodology

Stormwater runoff calculations for the site were prepared using the Rational Method. This method was chosen because it is more appropriate in estimating the runoff from small homogeneous areas. A 25 year storm frequency was used as the basis for this analysis as required by the City of Portland's design standards.

Hydrology

The Rational Method estimates runoff rates based on the following formula:

$Q = CiA$ where

- Q = (peak) rate of runoff in cubic feet per second (cfs),
- C = runoff coefficient which is dependent on the characteristics of the drainage area (land use/cover),
- i = average rainfall intensity in inches per hour and
- A = drainage area in acres.

Because the majority of the area is going to be paved, the value of C was calculated assuming all impervious area.

Rainfall intensity is determined from historical data published in the form of Intensity – Duration – Frequency (I-D-F) Charts. For this project, rainfall intensities were based on historical data established for Portland, Maine, for a 25 year frequency. The I-D-F chart is included in the calculations.

C-18

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

SQUAW BAY CORP.
Consulting Engineers
P.O. BOX 192, CUMBERLAND CENTER, ME 04021

C-19

JOB NO. 99.232
SHEET NO. 1 OF 1
CALCULATED BY SMT DATE 3-19-99
CHECKED BY DATE
SUBJECT Drainage Areas
SCALE 1" = Rational Method

CB #1
A = 13504 S.F. = 0.31 Ac
i = 6.2
C = 0.9
Q = C(A)(i) = (0.9)(6.2)(0.31) = 1.73 cfs

CB #2
A = 18544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #3
A = 2827 S.F. = 0.06 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.06) = 0.33 cfs

CB #4
A = 18544 S.F. = 0.43 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.43) = 2.40 cfs

CB #5
A = 19312 S.F. = 0.44 Ac
i = 6.2
C = 0.9
Q = (0.9)(6.2)(0.44) = 2.46 cfs

C-20

SQUAW BAY CORP

Pipe No. (1)	Location (2)	CB Manhole No. From (3)	CB Manhole No. To (4)	Length (ft) (5)	Tributary Area Increment (acre) (6)	Tributary Area Total (acre) (7)	Time of Flow To Upper End (min) (8)	Time of Flow In Section (min) (9)	Σ TIME (10)	C (11)	i (11)	Total Runoff (cfs) (12)	Slope of Sewer (13)	Diam (in.) (14)	Capacity Full (cfs) (15)	Velocity Full (fps) (16)	Design Flow Velocity (fps) (17)	Design Flow Velocity Head (ft) (18)	Design Flow Depth of Flow (ft) (19)	Design Flow Total Energy Head (ft) (20)	Manh Loss Transit + Cur + Junc (ft) (21)
					0.44	0.44	5	—	5min	0.9	6.2	2.46									
L1		5	4	236				1.26					0.0034	12	2.46	3.13					
					0.43	0.87	5		6.26	0.9	5.7	4.46	Use	15"	S=0.003						
L2		4	2	238				1.57					~~0.0013~~	~~18~~	4.46	2.52					
					0.06 0.43	1.36	5		6.57	0.9	5.6	6.85									
L3		2	1	218				0.34					0.003	18	6.85	3.88					
					0.31	1.67	5		5.94	0.9	5.8	8.72									
L4		1	0	62				0.21					0.0049	18	8.72	4.93					
									5.21	1.9	6.1	9.17									

C-21

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 1

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	9.33 cfs

Computed Results:

Full Flow Channel Slope	0.0056 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	5.28 fps
Flow Area.....	1.77 sf
Critical Depth....	1.18 ft
Critical Slope....	0.0061 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	9.33 cfs
QMAX @.94D.....	10.04 cfs
Froude Number.....	FULL

C-22

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 2

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	7.59 cfs

Computed Results:

Full Flow Channel Slope	0.0037 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	4.30 fps
Flow Area.....	1.77 sf
Critical Depth....	1.07 ft
Critical Slope....	0.0051 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	7.59 cfs
QMAX @.94D.....	8.16 cfs
Froude Number.....	FULL

C-23

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 3

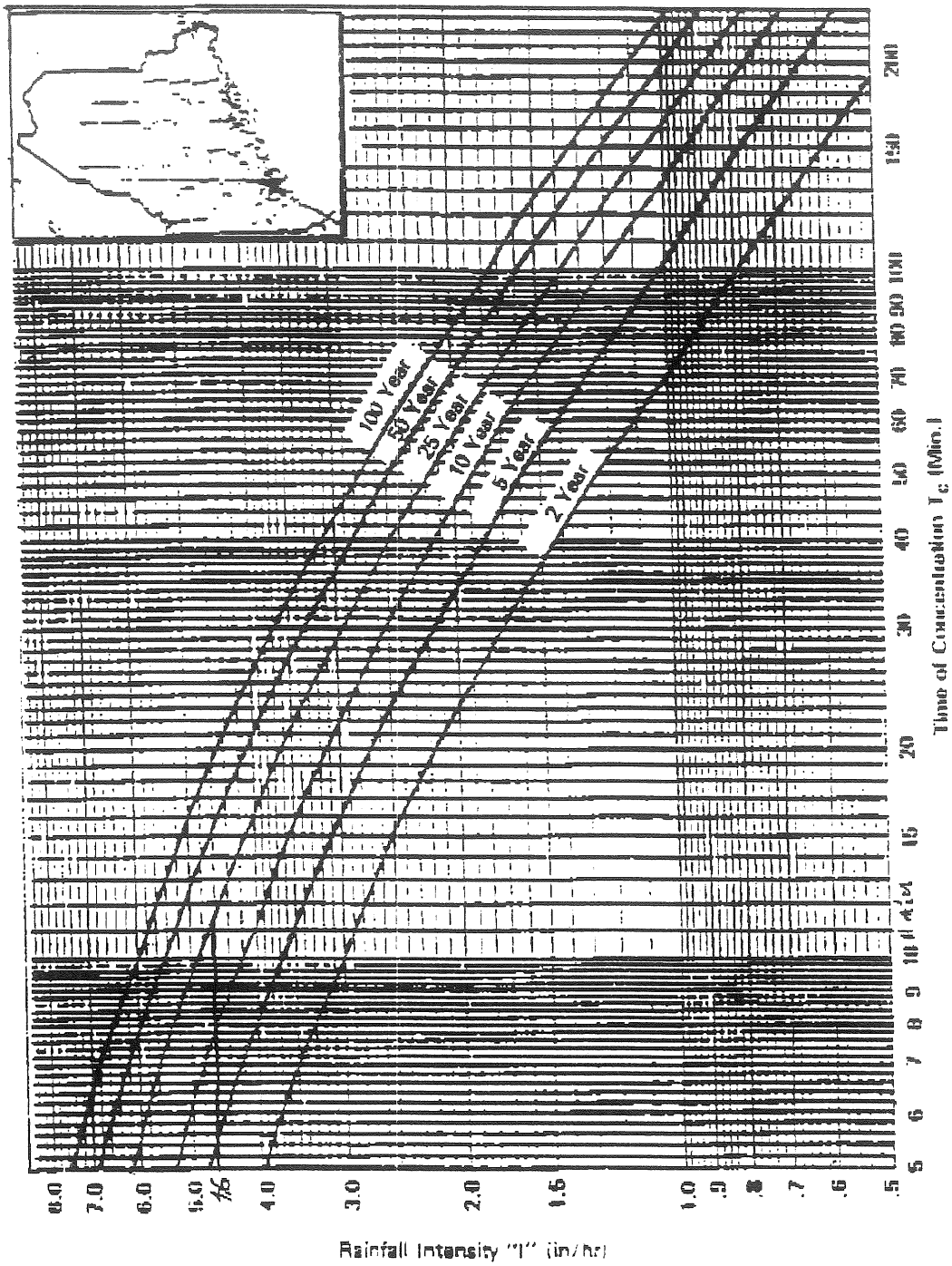
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	0.36 cfs

Computed Results:

Full Flow Channel Slope	0.0000 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	0.46 fps
Flow Area.....	0.79 sf
Critical Depth....	0.25 ft
Critical Slope....	0.0040 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	0.36 cfs
QMAX @.94D.....	0.39 cfs
Froude Number.....	FULL



IDF CURVE FOR CITY OF PORTLAND
(Rational Method)

Figure 12-12

C-25

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 4

Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.50 ft
Manning's n.....	0.011
Discharge.....	4.85 cfs

Computed Results:

Full Flow Channel Slope	0.0015 ft/ft
Full Flow Depth.....	1.50 ft
Velocity.....	2.74 fps
Flow Area.....	1.77 sf
Critical Depth....	0.85 ft
Critical Slope....	0.0041 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	4.85 cfs
QMAX @.94D.....	5.22 cfs
Froude Number.....	FULL

C-22

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: 99-222

Comment: CB 5

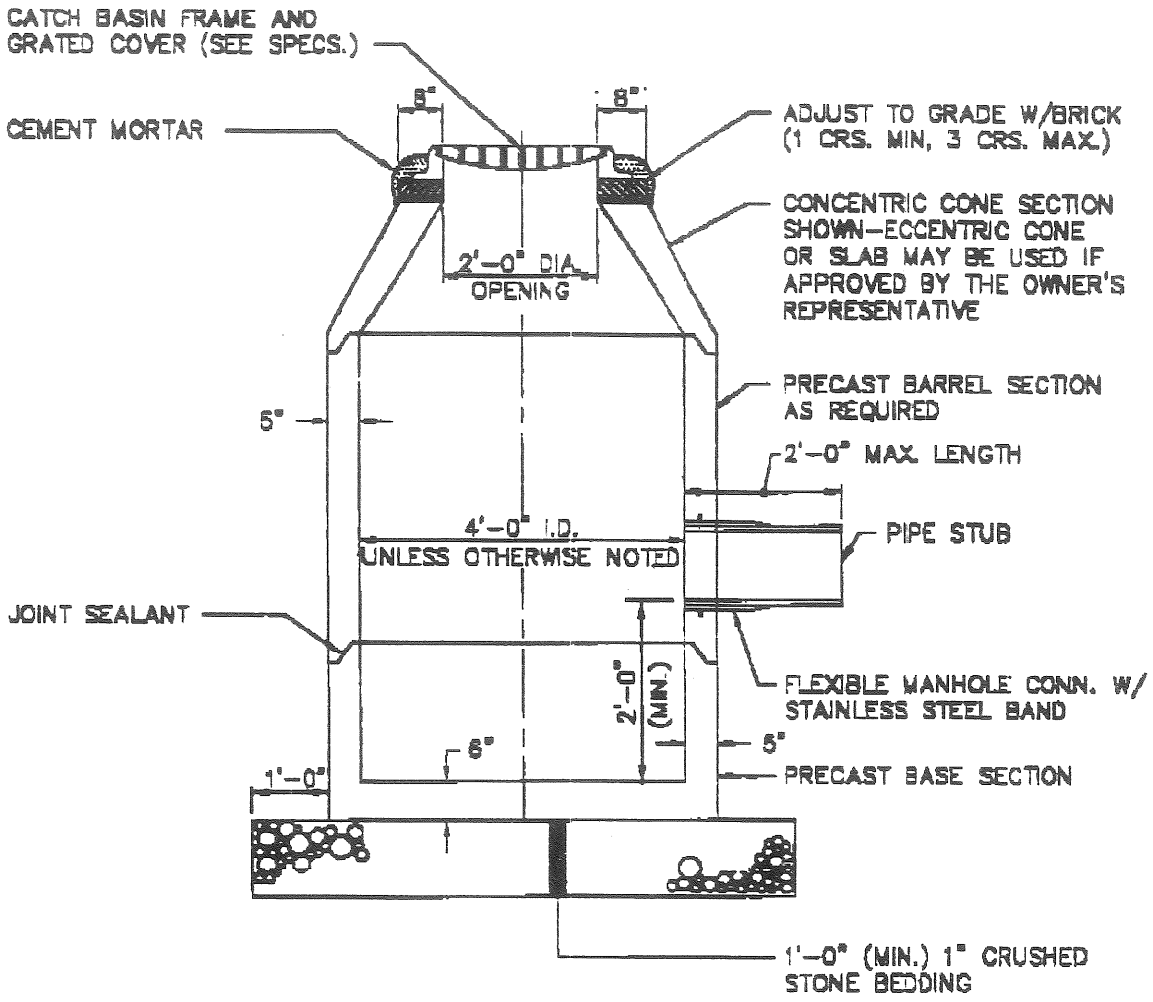
Solve For Full Flow Slope

Given Input Data:

Diameter.....	1.00 ft
Manning's n.....	0.011
Discharge.....	2.47 cfs

Computed Results:

Full Flow Channel Slope	0.0034 ft/ft
Full Flow Depth.....	1.00 ft
Velocity.....	3.14 fps
Flow Area.....	0.79 sf
Critical Depth....	0.67 ft
Critical Slope....	0.0054 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	2.47 cfs
QMAX @.94D.....	2.66 cfs
Froude Number.....	FULL

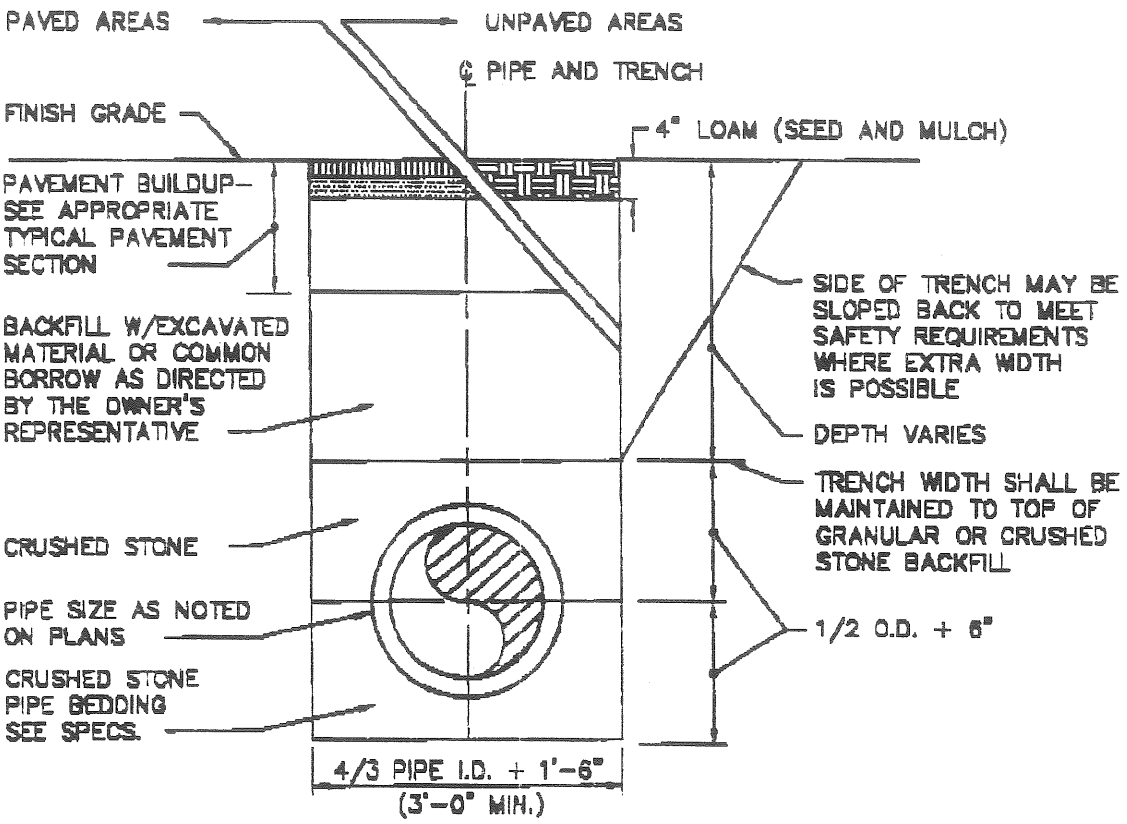


TYPICAL CATCH BASIN

N.T.S.

Squaw Bay Corp Consulting Engineers Land Surveyors	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE	
		TYPICAL CATCH BASIN	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-300	REV.

C-28

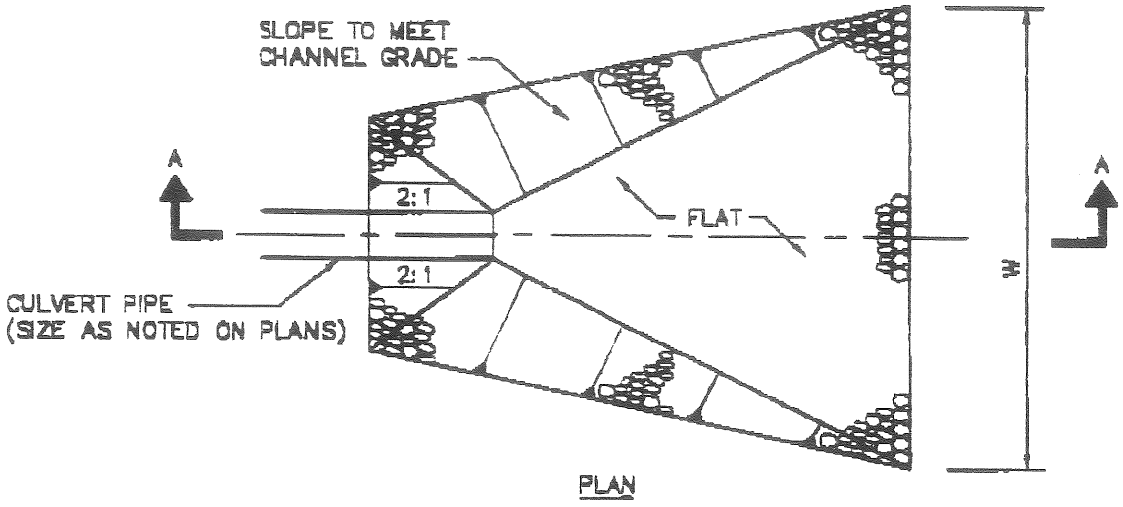


TYPICAL TRENCH DETAIL

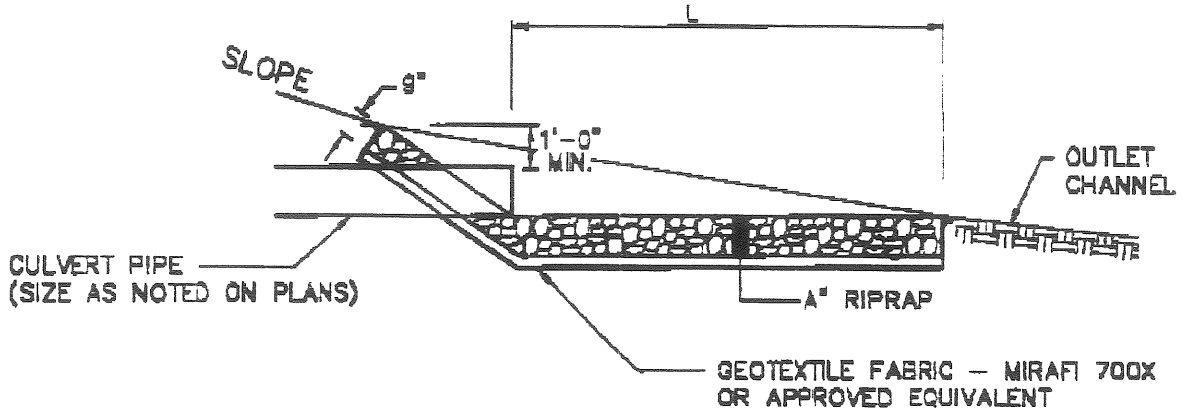
N.T.S.

Squaw Bay Corp Consulting Engineers & Land Surveyors P.O. BOX 566, CUMBERLAND CENTER, ME. 04021	DESIGN WSD	PROJECT	BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE
	DRAWN SMT		
	CHKD WSD		PIPE TRENCH DETAIL
RICHARDSON & ASSOCIATES P.O. BOX 428, SACO, MAINE 04072	MARCH 1999	PROJ. NO.	99–222
	SCALE N.T.S.	DWG. NO.	C–301

C-29



PLAN



SECTION A-A

DIAMETER	L	W	A	D_{50}
18"	8'	5'	12"	5"

RIPRAP INLET/OUTLET PROTECTION

N.T.S.

Squaw Bay Corp Consulting Engineers Land Surveyors P.O. BOX 426, CUMBERLAND CENTER, ME. 04021	DESIGN WSD DRAWN SMT CHKD WSD	PROJECT: BACK COVE PARK PREBLE ST. EXTENSION, PORTLAND, MAINE RIPRAP OUTLET PROTECTION	
RICHARDSON & ASSOCIATES P.O. BOX 426, SACO, MAINE 04072	MARCH 1999 SCALE N.T.S.	PROJ. NO. 99-222 DWG. NO. C-302	REV.

ATTACHMENT D

CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
OPERATIONS/ENGINEERING - INSPECTIONS
M E M O R A N D U M

TO: Chris DiMatteo, Parks and Recreation
FROM: Larry Ash, Traffic Engineer LA
DATE: January 25, 1999
SUBJECT: A Traffic Signal at Back Cove Park

In response to a request for a traffic signal at the exit/entrance to the proposed Back Cove Park I can offer the following comments:

The Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, has been formally adopted by the State of Maine and all 50 states as the document which provides standards, criteria and guidelines for the installation of all traffic control devices on our streets and highways. The uniform and consistent application of these standards is most important to the road user. A standard device used where it is not appropriate is as objectionable as a nonstandard device.

There are 11 "signal warrants" contained within the MUTCD by which a traffic signal may be installed and which are based upon vehicular and pedestrian volumes, gaps in the traffic stream and accident history. The satisfaction of a warrant is not in itself justification for a signal installation as information should be obtained by means of engineering studies and compared with the requirements set forth in the warrants.

At Back Cove Park the installation of a traffic signal would be necessary only when existing conditions satisfy or meet the requirements of at least one signal warrant and cannot be installed based on what "might be" or conditions which have not yet been established.

At this time, I cannot recommend installation of a traffic signal at Back Cove Park. Further, it is my recommendation that the two proposed exits/entrances to the parking area be moved to at least 150 feet on either side of the exit/entrance to the shopping mall so as to minimize conflicts with entering/exiting/turning vehicles utilizing the Back Cove Park parking or the shopping mall.

Should anybody have any questions or comments regarding the traffic signal or other aspects relating to the Park, please call me at 874-8894.

LA:jw
cc: Robert B. Ganley, City Manager
Nadeen M. Daniels, Assistant City Manager
William J. Bray, P.E., Director of Public Works
Bruce A. Bell, Operations Manager
Dana Souza, Director of Parks and Recreation
Todd Richardson, Richardson & Associates

ATTACHMENT E

CITY OF PORTLAND

MEMORANDUM

TO: Rick Knowland, Planner

FROM: John Peverada, Parking Manager J.P.

DATE: December 3, 1998

RE: Preble St. Ext. Park/Parking Lot

While the plan to be presented to the Planning Board on Tuesday is aesthetically pleasing, I still have reservations about the number of parking spaces being provided. The present lot, as unattractive as it is, provides over 200 parking spaces, and is often full. The new plan only has approximately 170 spaces.

Assuming that the Eastern Promenade Trail will be connected to Baxter Blvd., and the improvements to the Boulevard, including the addition of a roller blade/bike lane are completed, I have to believe that **there will be an increased demand for parking** at the Preble St. lot which will not be met. In fact, many people from surrounding towns will probably drive there to bike, jog or walk. I know that people will be encouraged to park in the Marginal Way lot when this lot is full; however, they will do it under protest. I am also concerned that others will park in the Shop'n'Save lot and get towed. In any event, I have to believe that people are going to ask why the City didn't provide more convenient parking so everyone can easily enjoy the space.

Please do not misunderstand me; I like the concept, but I am concerned about the ramifications of people blaming the lack of parking on a project. Please feel free to pass this memo along to anyone you wish.