

RESOLUTION NO. 150

A RESOLUTION ADOPTING A PARKS, RECREATION AND OPEN SPACE PLAN WHICH INCLUDES A SIX-YEAR FINANCING STRATEGY

WHEREAS, the City conducted a public planning process beginning in October, 1996 to develop a Parks, Recreation and Open Space Plan, and the process included a workshop, neighborhood meetings, information in the City newsletter and local newspapers, an advisory group of citizens, Parks and Recreation Commission review, Planning Commission and City Council study sessions and a 200-household random sample telephone survey; and

WHEREAS, the Planning Commission held a public hearing on April 16, 1997 and recommended approval of the plan concept to the City Council; and

WHEREAS, the City Council held a public hearing on May 19, 1997 to consider adoption of a plan and six-year capital financing program; and

WHEREAS, the Responsible SEPA official has determined that the plan does not have a probable significant adverse impact on the environment; and

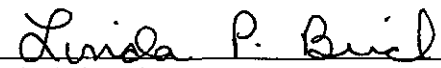
WHEREAS, approval of the plan will qualify the City to apply for state and federal grants, and the plan, including the capital financing strategy, will be included as an element of the City's Comprehensive Plan when it is adopted by ordinance in 1998; **NOW THEREFORE**,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF UNIVERSITY PLACE

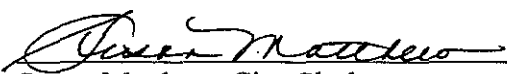
Section 1. The 1997 Parks, Recreation and Open Space Plan attached hereto as Exhibit A is hereby adopted.

Section 2. This resolution shall be effective immediately upon adoption.

ADOPTED BY THE CITY COUNCIL ON JUNE 2, 1997


Linda P. Bird, Mayor

ATTEST:


Susan Matthew, City Clerk

CITY OF UNIVERSITY PLACE
PARKS & RECREATION CAPITAL IMPROVEMENT PLAN
1996 Through 2003

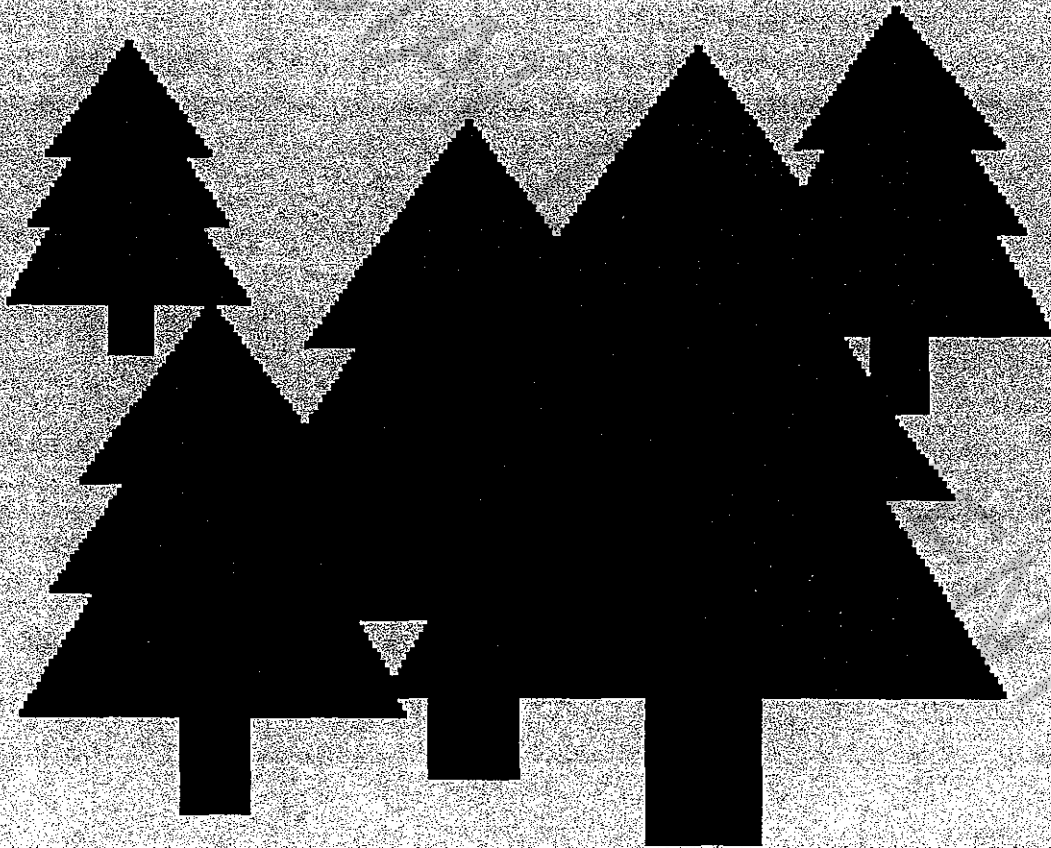
SOURCES/USES	1996	1997	1998	1999	2000	2001	2002	2003	Total
Financing Sources									
Beginning Fund Balance	\$ 92,924	\$ 703,349	\$ 1,033,230	\$ 419,230	\$ 289,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 92,924
G.O. Bonds (Note 1)	-	6,000,000	-	-	-	-	-	-	6,000,000
Pierce County Conservation Futures	-	-	-	-	-	-	-	-	-
Utility Taxes (2/3 of 2.5%) (Note 2)	190,614	234,500	-	-	-	-	-	-	425,114
IAC Grant-Giske/Stockman Property	-	-	500,000	-	-	-	-	-	500,000
IAC Grant-Hess Prop/Morrison Pond	-	-	100,000	-	-	-	-	-	100,000
ISTEA Grant	-	-	-	-	-	-	-	-	-
CDBG Grant-Community/Senior Ctr	-	171,881	-	-	-	-	-	-	171,881
Impact Fees	-	-	72,000	100,000	100,000	100,000	100,000	-	472,000
Donations	-	23,500	-	-	-	-	-	-	23,500
Trust (Hess Property)	-	20,000	20,000	20,000	20,000	20,000	20,000	-	120,000
1st 1/4% REET (Note 2)	209,906	200,000	-	-	-	-	-	-	409,906
2nd 1/4% REET	209,906	200,000	-	-	-	-	-	-	409,906
General Fund	-	-	-	-	-	-	-	-	-
Unfunded	-	-	-	-	-	-	-	-	-
Total Financing Sources	\$ 703,349	\$ 7,553,230	\$ 1,725,230	\$ 539,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 649,230	\$ 8,725,230
Park Projects									
Hess Property/Morrison Pond	\$ -	\$ 102,000	\$ 98,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	450,000
Community/Senior Center (Park Bldg)	-	190,000	-	-	-	-	-	-	190,000
Community/Senior Center-Parking Imp	-	10,000	-	-	-	-	-	-	10,000
Colgate Park Improvements	-	-	200,000	-	-	-	-	-	200,000
Giske/Stockman Property	-	-	1,000,000	-	-	-	-	-	1,000,000
Bridgeport Greenway	-	100,000	-	-	-	-	-	-	100,000
Cirque/Bridgeport (Community Ctr)	-	5,000,000	-	-	-	-	-	-	5,000,000
Towne Center Park	-	1,000,000	-	-	-	-	-	-	1,000,000
Gateway Parks	-	100,000	-	-	-	-	-	-	100,000
Sunset	-	8,000	-	-	-	-	-	-	8,000
Curran Orchard	-	10,000	-	-	-	-	-	-	10,000
Woodside Pond	-	-	8,000	-	-	-	-	-	8,000
Total Parks Projects	\$ -	\$ 6,520,000	\$ 1,306,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 8,076,000
Ending Fund Balance	\$ 703,349	\$ 1,033,230	\$ 419,230	\$ 289,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 649,230	\$ 649,230
Note 1: A proposed councilmanic bond issued in 1997 totaling \$6.0 million would fund parkland acquisition at Cirque/Bridgeport (\$5.0 mil) and Broback Property (\$1.0 mil) which is adjacent to Windmill Village. Annual debt service is estimated to total \$600,000, assuming an amortization period of 20 years. Funding sources are general fund moneys, utility taxes and 1st 1/4% REET (2nd 1/4% REET cannot be used for parkland acquisition). Note 2: Utility taxes and 1st 1/4% REET beyond 1998 are dedicated to debt service payments on the 1997 proposed bond issue (\$6.0 mil).									
BOND FINANCING									
Utility Taxes (2/3 of 2.5%)	-	-	236,845	239,213	241,605	244,021	246,461	248,926	1,457,071
1st 1/4% REET	-	-	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000
General Fund	-	-	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000
Total Parks Projects	\$ -	\$ -	\$ 636,845	\$ 639,213	\$ 641,605	\$ 644,021	\$ 646,461	\$ 648,926	\$ 3,857,071

Exh A (RES.)
150

City of University Place



Parks, Recreation and Open Space Plan



June 1997

City Council

Linda Bird, Mayor
Debbie Klosowski, Mayor Pro Tem
Jean Brooks
Stan Flemming
Ken Grassi
Lorna Smith
Ron Williams

Planning Commission

Pat Clifford, Chairperson
Mark Kahley, Vice Chairperson
Caroline Belleci
Sue Harwood
Gary Hochstrasser
Dr. Imad Al Janabi
Peggy Lingwall
Bonnie Lynn Meyer
Robert Miraldi

Citizens Park Advisory Group

Don Huston - Curtis High School
Dr. Imad Al Janabi - Planning Commission
Arnie Jensen - University Place School District
Vern Lange
Terry Larson
Vicki Matlock - Chairperson, Parks & Recreation Commission
Mike Mays - Parks & Recreation Commission
Debra Melleby - Chamber of Commerce
Dan Scamporrina
Charlotte Stevens

City Staff

Bob Jean, City Manager
Joann Smith, Planning & Community Development Director
Angie Feser, Parks & Recreation Manager
Ben Yazici, Public Works Director/Engineer
John Caulfield, Finance Manager

Consultants

Tom Beckwith AICP, Project Director/Planner
Collie Hough-Beck ASLA, Landscape Architect
Dick Anderson, Public Opinions Surveys

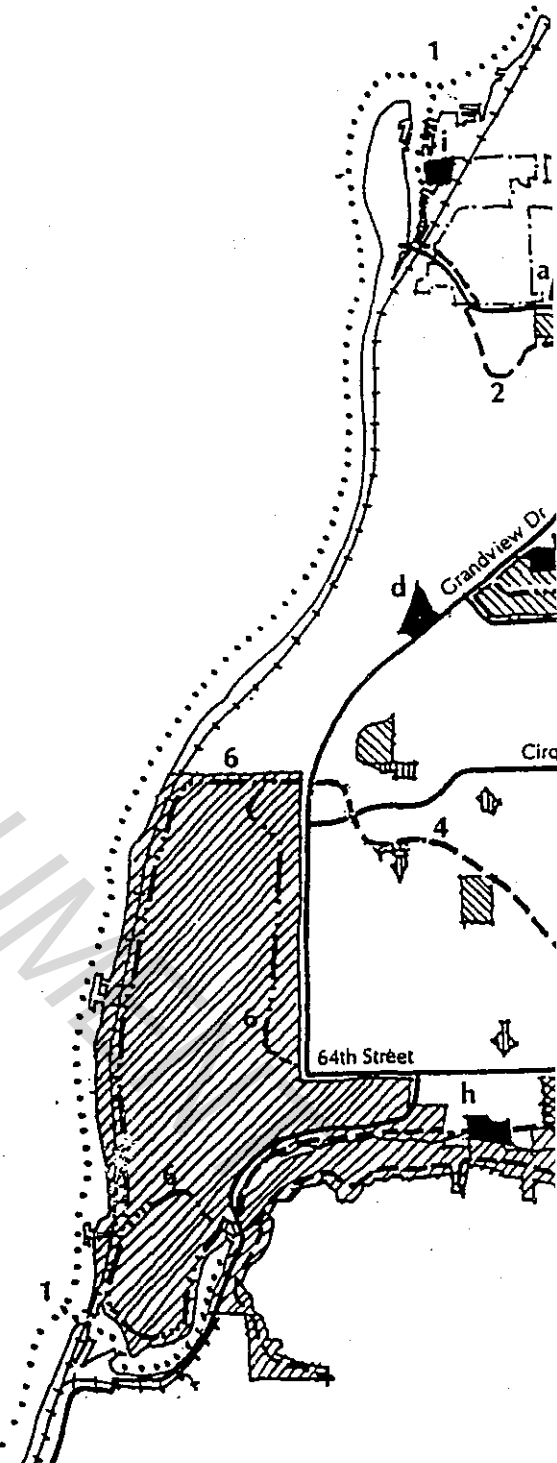
Univ Parks, Recreation

Existing park improvements

- a: Park District Headquarters - convert to a Senior Center.
- b: Sunset Terrace Park - add playground and picnic facilities.
- c: Adriana Hess Wetlands/Morrison Pond Park - add adjacent wetlands and an adjoining residential house, and develop viewpoints and trails.
- d: Curran Apple Orchard - add interpretive and picnic facilities.
- e: Colegate Park - add picnic and playground facilities.
- f: Woodside Pond Nature Park - add adjacent woodland and wetland properties, and develop neighborhood park facilities.
- g: Conservation Park - add gateway park improvements.
- h: Chambers Crest Wildlife Habitat - add trail to Chambers Creek Park.

Proposed park acquisitions/developments

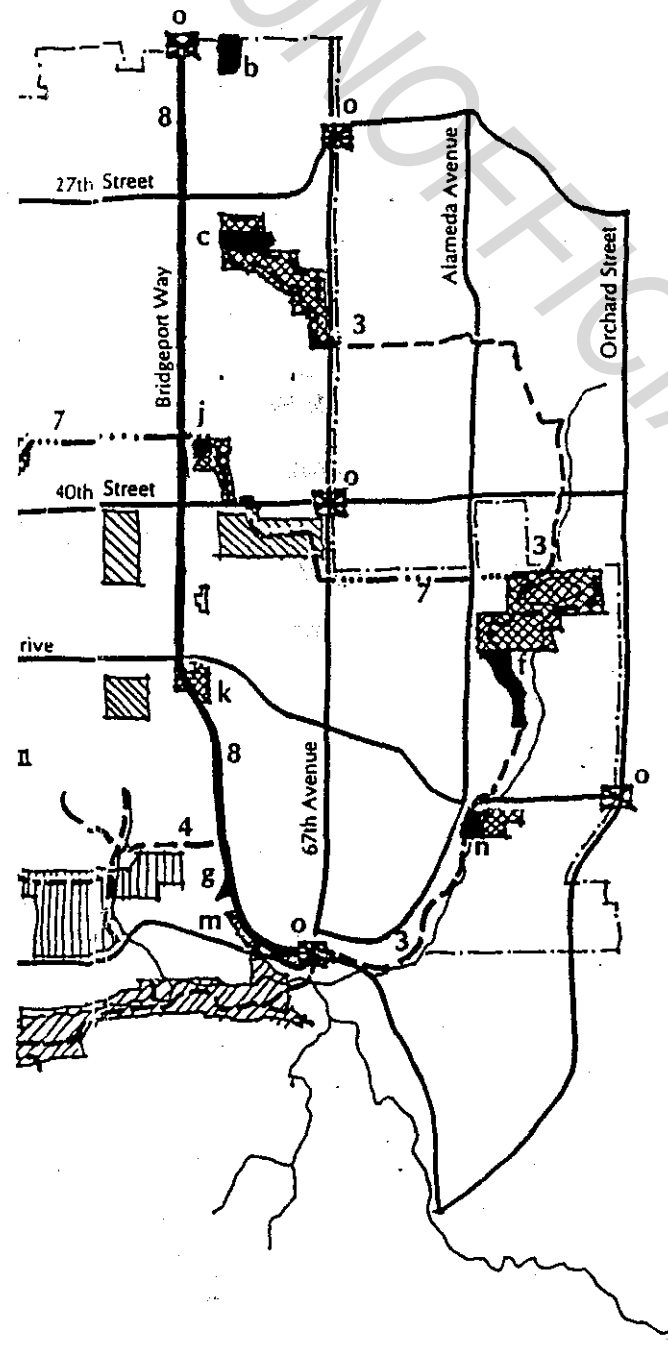
- i: Day Island Waterway Surface Water Management Site (located at the end of 20th Street West) - develop waterfront viewpoint and access facilities.
- j: City Hall Park - acquire/develop adjacent woodland and wetland properties for a community picnic and gathering facility.
- k: Cirque/Bridgeport Park - acquire/develop a community center and park facilities site.
- l: Chambers Creek Road Park - acquire/develop a neighborhood park site.
- m: South Bridgeport Gateway Park - acquire a conservation area and city gateway site.
- n: Cirque Road/Alameda Avenue Park - acquire/develop a neighborhood park site.
- o: Gateway Parks - on Bridgeport at 19th Street and 67th Avenue, on 67th Avenue at 27th and 40th Streets, on Orchard at Cirque Drive.



University Place Open Space Plan

Proposed trails

- 1: Water (kayak and canoe) Trail - from the Surface Water Management site on Day Island Waterway to Chambers Creek Bay.
- 2: Parkway Walking Trail - from Day Island Waterway through the historic university site to University Place Primary School.
- 3: Morrison Pond/Leach Creek/Chambers Creek Walking Trail - from Morrison Pond through Fircrest and down Leach and Chambers Creeks to Chambers Bay.
- 4: Peach Creek Walking Trail - from Chambers Creek around Wright Academy to Chambers Creek Properties, and north through Peach Creek to Bridgeport.
- 5: On-road Bicycle Routes - on Grandview Drive, 67th Avenue West, Alameda Avenue, Orchard Street, 27th Street West, 40th Street West, Cirque Drive West, and 64th Street/Chambers Lane West.
- 6: Pierce County Chambers Creek Properties Multipurpose Trail - along the shoreline, around Chambers Bay, and as an overlook along Grandview Drive.
- 7: Colegate/City Hall/Leach Creek Multipurpose Biking and Hiking Trail - from Curtis Junior and Senior High Schools through City Hall Park to the Woodside Pond Nature Park addition on Leach Creek.
- 8: Bridgeport Streetscape - from 19th Street to 67th Avenue.



- City parks - existing
- ▨ City parks - proposed
- ▧ Gateway parks - proposed
- ▩ County parks
- Schools
- ▤ Private facilities
- ... Water trails
- - - Hiking trails
- On-road biking routes
- ... Multipurpose trails
- Streetscapes

1000 feet

Executive summary

This plan analyzed the supply, demand, and need for public and private park and recreation facilities and services within University Place corporate limits and urban growth planning area.

Planning process

The planning process was overseen by a Citizens Park Advisory Committee and the University Place Planning and Community Development Department. The proposals contained within this report represent consensus opinions agreed upon by the committee and department staff, which were then forwarded to the Parks Commission and Planning Commission for recommendation to the City Council.

During the course of the planning process, the Committee and Department collected public opinions using public surveys at the Community Festival celebration in October 1996, a park and recreation public forum in January 1997, during 4 Neighborhood Advisory Committee (NAC) meetings in April 1997, and a telephone survey of 200 registered voter households in April 1997. Public comments were also obtained during public hearings on the plan by the Planning Commission and City Council in April and May 1997.

In general, the results of the telephone survey indicate resident voters will support growth impact fees, general obligation bonds, and higher user fees if proposed projects and programs are conceived along the lines indicated in the survey results.

Recommended role and responsibilities - this plan recommends the city perform a strategic role providing: 1) park, recreation, and open space facilities and programs that no other agency can or is willing to provide; 2) acting as a coordinator of local interests where facilities are provided by many other agencies; and 3) performing as a facilitator where unique acquisition or development opportunities may occur which could be implemented or operated by other agencies.

Park, recreation, and open space facilities

Existing facilities - University Place, Pierce County, the University Place School District, and various private organizations have assembled over 745.4 acres of land with park, recreation, and open space uses within city boundaries.

These lands provide a variety of park, recreation, and open space activities including waterfront beaches, picnic facilities, trail corridors, athletic fields and playgrounds, community facilities, and supporting administrative and maintenance facilities.

Approximately 653.6 acres or 88 percent of the total park, recreation, and open space land inventory are regionally significant sites and properties used by city and county residents regardless of their place of residence within the city or even the surrounding area.

Approximately 91.8 acres or the remaining 12 percent of the total park, recreation, and open space land inventory are locally significant sites and properties that are used by residents who reside within the immediate city area, usually on a neighborhood level.

Inventory implications - Pierce County, with the ultimate development of the park, recreation, and open space uses of the Chambers Creek Properties, will provide an

extensive and regionally oriented selection of waterfront, trail, environmental, and athletic oriented activities.

University Place School District facilities represent a significant portion of the more competitive and higher quality, capacity sites - and much of the smaller, more flexible facilities that are used on a local basis by neighborhood residents.

Opportunities - city, county, state, school, utility, private homeowner associations, and private commercial operators own or control strategically important sites with every kind of physical and socially valuable park, recreational, and open space characteristic.

A valuable park, recreation, and open space system includes lands and soils that may not be suitable for urban uses or even some kinds of developed recreational facilities, but which can provide unique preserves, habitats, cultural, and historical associations. These combined social and physical attributes provide a balanced dimension to the park and recreation experience.

A quality park and recreation system does not have to be implemented strictly by public monies or purchase, but by the creative interplay of public and private market resources using a variety of techniques including leases, easements, tax incentives, design and development innovations, and enlightened private property interests.

Past park and recreational approaches may have relied too heavily on purchases and not enough on lower cost, but possibly more cost effective alternatives.

Future growth requirements

The population of University Place will continue to grow in significant fashion increasing from 28,751 persons in 1996 to an estimated 33,000 persons by the year 2003 (or at buildout of available lands within the city) or by 4,249 more persons equal to an increase of 14.8 percent. The forecasted population increase will create significant requirements for all types of park, recreation, and open space lands and facilities.

Composite ELOS and requirements - under the composite city, county, school district, and private sponsor's existing level-of-service (ELOS) standard, the forecasted population increase will create a need for an additional 110.2 acres of land by the year 2003. The forecasted population increase will create additional requirements for all types of lands, but particularly for resource conservancies, athletic fields and playgrounds, and special use facilities - if the same ratio of land is maintained.

Composite ELOS facility requierments - under the composite city, county, school district, and private sponsor's existing level-of-service (ELOS) standards, the forecasted population increase will create a need for an additional 1 playground, 3 basketball courts, 1 tennis court, 1 regulation soccer field, 1 large and 2 practice baseball fields, 1 picnic table, 73 boat slips, 931 square feet of outdoor swimming pool, 466 square feet of indoor swimming pool, 5,099 square feet of indoor gymnasium, 74 square feet of physical conditioning space, 562 square feet of arts and crafts rooms, 650 square feet of meeting facility, 111 square feet of kitchen, 59 square feet of community administrative space, 2 outdoor gun range targets, and 111 square feet of park administration offices space by the year 2003 - if the same ratio of facilities is maintained.

However, urban developments may soon encroach upon or preclude the preservation and public accessibility of the more sensitive and appealing sites, particularly within the

remaining vacant or undeveloped environmental lands. And, urban developments may soon develop or otherwise preclude the purchase and development of close-in, suitable lands for athletic fields, recreation centers, and other more land intensive recreational facilities.

Consequently, if these land and facility needs are not addressed soon, some sensitive area lands and potentially all athletic field and recreation center sites may be lost to development or not be accessible to future city populations.

Financial implications

The forecasted population increase and thereby increased facility requirements in University Place will create significant cost investments if the city and all sponsoring agencies are to maintain, let alone improve upon, existing level-of-service standards.

Composite ELOS cost requirements - park, recreation, and open space land and facility needs for capital projects under the composite city, county, school district, and private agency existing level-of-service (ELOS) standard could require \$2,535,272 in land acquisitions and \$3,513,446 in facility developments or a total of \$6,048,717 by the year 2003 simply to stay current with present standards - not accounting for any maintenance, operation or repair costs.

The approximate cost of sustaining the composite city, county, school district, and private agency's existing level-of-service (ELOS) standard is equal to about \$1,423.56 per every new person added to the population or about \$3,544.67 for every new housing unit where an average housing unit is occupied by 2.49 persons per unit.

Composite PLOS cost requirements - the additional city, county, school district, and private agency land and facility developments to realize the proposed level-of-service (PLOS) standards determined to be necessary to satisfy unsatisfied needs within the existing city limits at the present time will require \$7,012,500 in land acquisitions and \$15,912,039 in facility developments or a total of \$22,924,539 - if accomplished within the next capital facility programming period (6 years).

These levels of facility investment can not be financed with the resources available to University Place, Pierce County, the University Place School District, and various private agencies if each jurisdiction pursues an independent delivery approach or uses traditional methods of funding. The city will not be financially able to develop, manage, and maintain a comprehensive, independent park, recreation, and open space system using traditional financing methods in light of the needs projected.

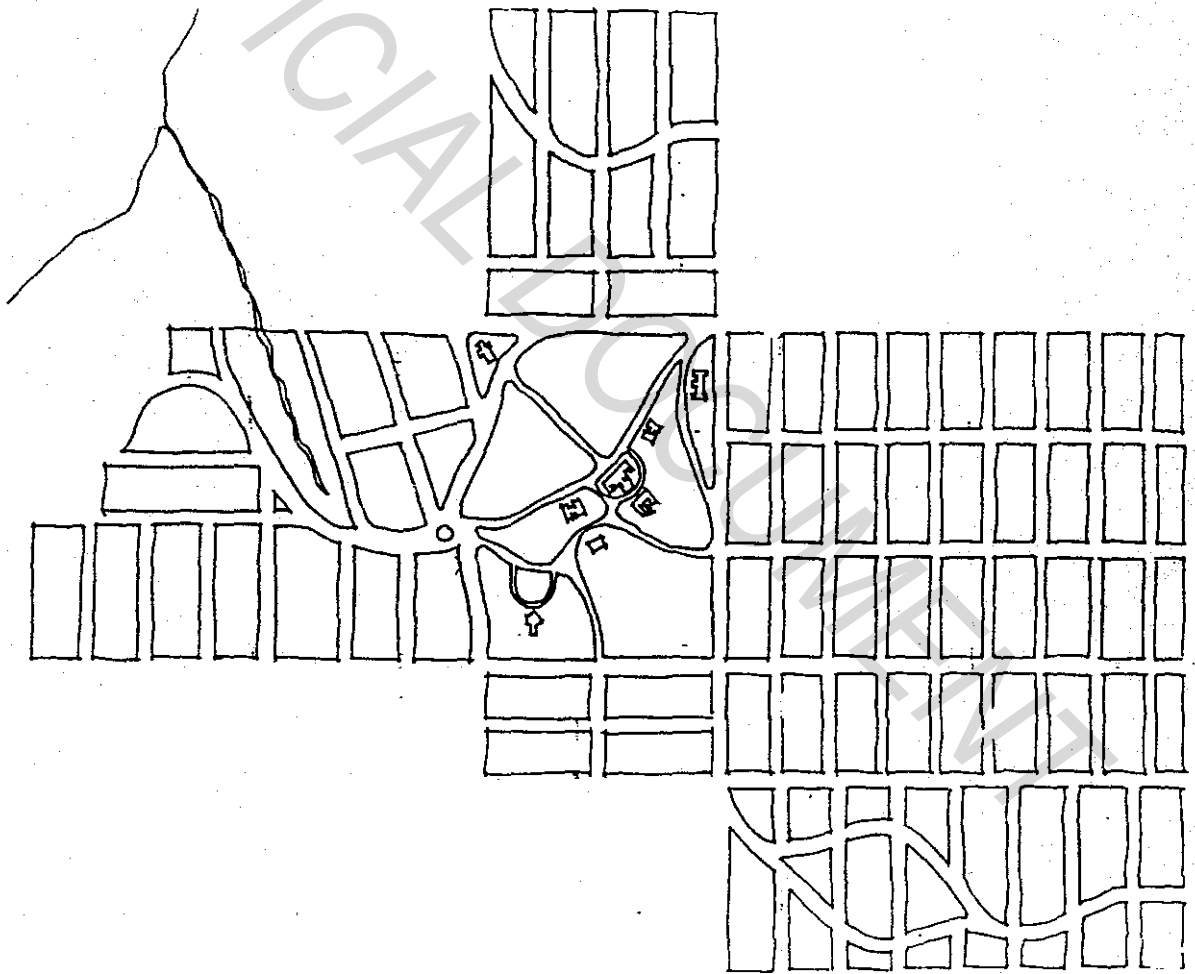
These needs require an areawide financing approach by University Place, Pierce County, the University Place School District, and possibly including some private agencies, using a combination of shared user fees, excise and utility taxes, joint grant applications, impact fees, voter approved general obligation bonds, and joint venture facility developments if levels-of-service are to be maintained and improved upon in the face of continued city population increases.

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Introduction



Map of Puget Sound University Lands - 1894

Introduction

University Place's first park and recreation plan was developed and adopted by the University Place Park & Recreation District in January 1990. University Place has seen substantial residential growth since the accomplishment of the first planning effort and even since the city's incorporation in 1995.

The choices that confront University Place at the present time are significant and could permanently define the character and quality of park and recreational facilities and services. The city's remaining larger parcels of vacant land could be developed over the next 5 years. If citizens want to expand the parks system and protect open space, this document outlines the choices that are available and the means for implementing preferred actions of most benefit to University Place residents.

Objectives

The specific objectives of this planning effort were to:

- 1: Identify and evaluate the existing public and private park and recreational facility inventory which has developed to-date within University Place by city, county, and school district actions.
- 2: Forecast future park and recreational facility demand and needs, particularly for facilities and services that may be provided within University Place corporate boundaries by the city, county, school district, or other agencies.
- 3: Determine the appropriate service areas and roles that should be undertaken by University Place to meet critical recreational facility and programming needs.
- 4: Estimate the financial costs and capabilities involved in maintaining and/or improving park and recreational levels-of-service (LOS), particularly the possible use of innovative financing tools or methods such as growth impact fees and general obligation bonds.
- 5: Survey public opinion to determine which issues are most important to University Place residents and which methods are most preferred for financing or realizing the plan's development.
- 6: Create the physical elements of a comprehensive development plan for developing and/or refurbishing needed park and recreational facilities including wildlife habitat and conservation areas, open spaces and natural resource areas, trails, athletic fields and facilities, indoor community and recreation centers, and other special purpose facilities.
- 7: Create an implementation program outlining the actions necessary to realize the comprehensive plan's development including supporting actions necessary to resolve interlocal agreements with the county or school district, adopt growth impact fees, and/or initiate general obligation bond referendums.

Approach

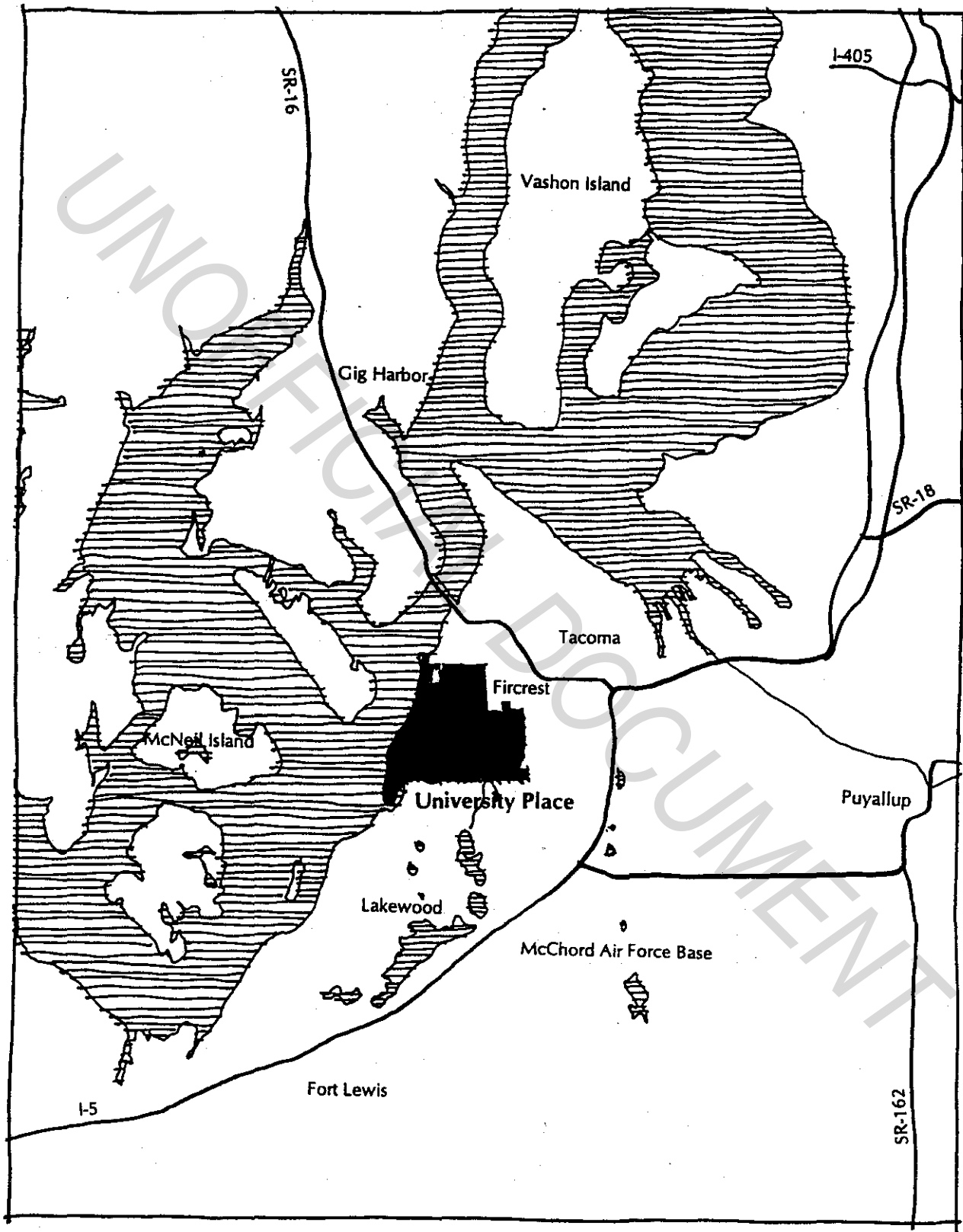
This study analyzed the supply, demand, and need for public and private park and recreation facilities and services within University Place corporate limits and urban growth planning area - consisting of Fircrest Acres, an approximately 40 acre older residential subdivision located east of 67th Avenue West between 35th and 37th Streets West with an estimated population of nearly 300 people. The proposed development strategies are the result of this comprehensive analysis.

Public involvement

The planning process was overseen by a Citizens Park Advisory Committee and the University Place Planning and Community Development Department. The proposals contained within this report represent consensus opinions agreed upon by the committee and department staff, which were then forwarded to the Parks Commission and Planning Commission for recommendation to the City Council.

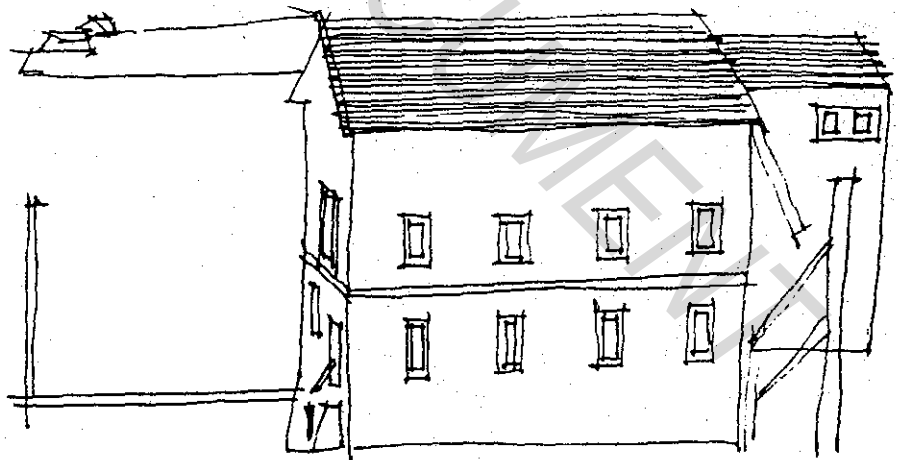
During the course of the planning process, the Committee and Department collected public opinions using public surveys at the Community Festival celebration in October 1996, a park and recreation public forum in January 1997, during 4 Neighborhood Advisory Committee (NAC) meetings in April 1997, and a telephone survey of 200 registered voter households in April 1997. Public comments were also obtained during public hearings on the plan by the Planning Commission and City Council in April and May 1997.

Vicinity map



11 mile

Goals and objectives



Thomas Chambers Grist Mill - 1850

Goals and objectives

The following goals and objectives are based on an analysis of existing park, recreation, and open space conditions and the results of workshop planning sessions.

Wildlife resources

Incorporate unique ecological features and resources into the park and open space system to protect threatened species, preserve habitat, and retain migration corridors that are unique and important to local wildlife.

1: Wildlife habitat

a: Identify and conserve wildlife habitat including nesting sites and foraging areas within or adjacent to natural areas, open spaces, and developed urban areas - such as the wetlands and woodlands surrounding Morrison Pond and Leach Creek.

b: Acquire and preserve wildlife migration corridors that link nesting sites and foraging areas - such as the riparian corridors along Leach, Chambers, Peach, Crystal, Day, Brookside, and Corbit Creeks, and surrounding Morrison Pond and Chambers Bay.

2: Natural areas

a: Preserve and protect significant environmental features including unique wetlands, open spaces, woodlands, shorelines, waterfronts and other characteristics that support wildlife and reflect University Place's natural heritage - such as the woodland stands adjacent to City Hall, Evergreen Primary School, Colegate Park, Leach, and Chambers Creeks.

b: Acquire and provide public access to environmentally sensitive areas and sites that are especially unique to the University Place area - such as Morrison Pond, Day Island Inlet, Leach, Peach, and Chambers Creeks, and Chambers Bay.

Open spaces and preserves

Develop a high quality, diversified park and open space system that preserves and enhances significant environmental resources and features.

3: Open spaces

a: Define and conserve a system of open space corridors or separators to provide definition between natural areas and urban land uses- especially at the city's southern gateway at Conservation Park, Leach, and Chambers Creeks.

b: Increase natural area and open space linkages within the developed area - including along Leach, Chambers, Peach, Crystal, Day, Brookside, and Corbit Creeks.

c: Acquire and/or preserve environmentally sensitive areas as natural area linkages and urban separators - particularly along the steep hillsides that define the sides of all creek corridors, and the shoreline along Day Island Inlet, Chambers Bay, and Puget Sound.

4: Urban growth preserves and set-asides

a: Cooperate with other public and private agencies, and with private landowners to set-aside land and resources necessary to provide high quality, convenient park and recreational facilities before the most suitable sites are lost to development - such as the wooded, undeveloped, and sensitive lands adjacent to Curtis Senior High School, Evergreen Primary School, and along the hillside of Charles Wright Academy and the Tacoma Rifle & Revolver Club.

b: Preserve unique environmental features or areas in future land developments and increase public use and access. Cooperate with other public and private agencies, and with private landowners to set aside unique features or areas as publicly accessible resources - similar to past efforts conserving the Curran Apple Orchard and Chambers Crest Wildlife Habitat.

Historical resources

Develop a high quality, diversified park and open space system that preserves significant historical opportunity areas and features.

5: Historical features and interests

a: Identify, enhance, and provide appropriate interpretation of University Place's multicultural heritage, traditions, and cultural features including historical sites, views, and monuments - such as the site of Stelle'lqub Village, the Hudson Bay Company's Puget Sound Agricultural Company, and the Methodist Episcopal Church's proposed Puget Sound University site.

b: Identify and incorporate significant historical and cultural lands, sites, artifacts, and facilities into the park system to preserve these interests and provide a balanced social experience - such as the Crystal Creek Pottery Shed (Stephens Grocery Store), Lemons Beach, and Lemons Beach/University Place Schoolhouse.

c: Work with Pierce County and University Place historical societies and other cultural groups to incorporate community activities into park and recreational programs.

6: Manmade environments and features

a: Incorporate interesting manmade environments, structures, activities, and areas into the park and open system to preserve these features and provide a balanced park and recreation experience - such as the Curran Apple Orchard, Tacoma Railway & Power Company Electric Railroad alignment along Chambers Creek, and the Pacific Bridge Company/Pierce County gravel pits and loading piers along Puget Sound.

b: Work with property and facility owners to increase public access and utilization of these special features - including the Pierce County Properties, Washington State Fish & Wildlife fish ladder on Chambers Bay, and the Tacoma Holding Basin at the headwater of Leach Creek in Fircrest.

Trail and corridor access systems

Develop a high quality system of park trails and corridors that access significant environmental features, public facilities, and developed local neighborhoods and business districts.

7: Trail systems

a: Create a water access system to saltwater and freshwater bodies of interest to kayaks, canoes, paddle boats, and other nonmotorized water craft users - especially into Day Island Inlet and Chambers Bay. Link local water trails with the Cascadia Marine Trail between Olympia and Vancouver, British Columbia, to provide opportunities for extended boating durations for local and regional enthusiasts alike.

b: Create an off-road walking trail system providing access to environmental corridors, natural areas, historic sites, scenic vistas, parks, public facilities, and local business districts for local resident hikers - particularly between Lemons Beach and University Place School, Morrison Pond, Leach Creek, Chambers Creek, Peach Creek, and the Chambers Creek Properties.

c: Create an on-road bicycle route system providing access to historic areas, scenic vistas, parks, public facilities, and business districts for local resident commuter and recreational biking enthusiasts - especially along Grandview Drive, Sunset Avenue, Bridgeport Way, Alameda Avenue, Orchard Street, 27th Street West, 40th Street West, Cirque Drive, and 64th Street West. Link local on-road bicycle routes with regional routes to provide opportunities for extended touring opportunities for local and regional enthusiasts alike - particularly along Bridgeport Way and Chambers Creek Road.

d: Create an off-road multipurpose hike and bike trail system providing access to major parks, schools, public facilities, business districts, and other trail corridors - especially between Colegate Park and Leach Creek, along the overlook of Grandview Drive, and around the Puget Sound and Chambers Bay shorelines of the Chambers Creek Properties.

8: Supporting furnishings and improvements

a: Create trailhead improvements that furnish trail systems with appropriate supporting services including interpretive and directory signage systems, rest stops, drinking fountains, restrooms, parking and loading areas, water and other services.

b: Where appropriate, locate trailheads at or in conjunction with park sites, schools, and other community facilities to increase local area access to the trail system and reduce duplication of supporting improvements - such as at University Place School, Morrison Pond, Colegate Park, Curran Apple Orchard, City Hall, Woodside Nature Pond Park extension, Leach Creek Park dedication, and the Chambers Creek Properties, among others.

c: Install telephones, emergency call boxes, or other means by which trail users can summon fire, emergency aid, police, and other safety and security personnel should the need arise.

d: Develop trail improvements of a design and development standard which is easy to maintain and access by maintenance, security, and other appropriate personnel, equipment, and vehicles.

Recreational facilities

Develop a high quality, diversified recreation system that provides for all age and interest groups, and enhances neighborhood resources and facilities equitably across the city.

9: Waterfront access and facilities

a: Cooperate with Pierce County, the Washington State Department of Fish & Wildlife, and other public and private agencies to acquire and preserve additional shoreline access for waterfront fishing, wading, swimming, and other related recreational activities and pursuits - particularly into Day Island Inlet, the Puget Sound shoreline, Chambers Bay, and the Chambers Creek impoundment pond.

b: Develop a mixture of watercraft access opportunities including canoe, kayak, sailboard, and other nonpower boating activities, as well as motor powered craft - especially into Day Island Inlet and Chambers Bay.

10: Athletic facilities

a: Develop athletic facilities that meet the highest quality competitive playing standards and requirements for all age groups, skill levels, and recreational interests.

b: Concentrate on field and court activities like soccer, football, baseball, basketball, tennis, and volleyball that provide for the largest number of participants.

c: Develop, where appropriate, a select number of facilities that provide the highest competitive playing standard, possibly in conjunction with Pierce County, University Place School District, and other public and private agencies - possibly using portions of the Chambers Creek Properties, Evergreen Primary School expansion site, and other lands.

11: Indoor facilities

a: Support the continued development and diversification by the University Place School District of special meeting, assembly, eating, health, and other community facilities that provide general support to school age populations and the community-at-large at primary, intermediate, junior, and senior high schools within the city.

b: In partnership with the University Place School District, maintain and expand multiple use indoor recreational centers that provide aquatic, physical conditioning, gymnasiums, recreational courts, and other athletic spaces for all age groups, skill levels, and community interests on a year-round basis - especially at Curtis Junior and Senior High Schools.

c: Develop a multiple use indoor community center that provides arts and crafts, music, video, classroom instruction, meeting facilities, eating and health care, daycare, latch key, and other spaces for all age groups including preschool, youth, teens, and seniors on a year-round basis.

d: Develop and operate special indoor and outdoor cultural and performing arts facilities in city and school facilities that enhance and expand music, dance, drama, and other audience and participatory opportunities for the community-at-large.

Special purpose facilities

Develop high quality facilities that meet the interests of all segments of the community.

12: Special enterprises

a: Where appropriate and economically feasible (self-supporting), develop and operate specialized and special interest recreational facilities of interest to the general population - such as a saltwater marina, handcarry boat access, and wooden boat activities center in Day Island Inlet and/or a golfing facility on the Chambers Creek Properties.

b: Where appropriate, initiate joint planning and operating programs with other public and private agencies to determine and provide for special activities on an areawide basis - like environmental interpretive centers at Morrison Pond, Curran Apple Orchard, and the Chambers Creek Properties.

Recreational programs

Develop high quality recreational programs and services that meet all community group needs.

13: Recreational programs

a: Provide arts and crafts, classroom instruction in music and dance, physical conditioning and health care, meeting facilities, daycare, latch key, and other program activities for all cultural, age, physical and mental capability, and income groups in the community - using city and school facility resources.

b: Provide soccer, baseball, softball, basketball, volleyball, tennis, and other instruction and participatory programs for all age, skill level, and income group in the community - using city, county, and school facility resources.

c: Assist historical and cultural societies with the development and display of artifacts, reports, and exhibits; and the conduct of lectures, classes, and other programs that document and develop awareness of University Place's heritage.

Cultural arts programs and resources

Develop high quality, diversified cultural arts including music and theatrical facilities and programs that increase community awareness, attendance, and participation opportunities.

14: Programs

a: Support successful collaborations between the Pierce County and University Place Historical Societies, Chamber of Commerce, business community, service groups, schools, arts patrons, and artists that optimally utilize artistic resources and talents.

b: Develop strategies that support and assist local artists and art organizations. Where appropriate, develop and support policies and programs that encourage or provide incentives that attract and retain artists and artworks within the University Place community.

15: Artworks

a: Acquire and install public artworks including paintings, sculptures, exhibits, and other media for indoor and outdoor display to expand resident access and appropriately furnish public places.

Design and access standards

Design and develop facilities that are accessible, safe, easy to maintain, with life-cycle features that account for long term costs and benefits.

16: Accessibility

a: Design outdoor picnic areas, fields, courts, playgrounds, trails, parking lots, restrooms, and other active and supporting facilities to be accessible to individuals and organized groups of all physical capabilities, skill levels, age groups, income, and activity interests - especially at sites with significant interpretive opportunities.

b: Design indoor facility spaces, activity rooms, restrooms, hallways, parking lots, and other active and supporting spaces and improvements to be accessible to individuals and organized groups of all physical capabilities, skill levels, age groups, income, and activity interests.

17: Maintenance

a: Design and develop facilities with low maintenance and high capacity design capabilities to reduce overall facility maintenance and operation requirements and costs.

b: Where appropriate, use low maintenance materials, settings or other value engineering considerations that reduce care and security requirements, and retain natural conditions and experiences.

18: Security and safety

a: Implement the provisions and requirements of the American Disabilities Act (ADA) and other design and development standards to improve park facility safety and security features for park users, city staff, and the public-at-large.

b: Develop and implement safety standards, procedures, and programs that provide proper training and awareness for city staff.

c: Define and enforce rules and regulations concerning park activities and operations that protect user groups, city staff, and the public-at-large.

d: Where appropriate, develop adopt-a-park programs, neighborhood park watches, park police patrols, and other innovative programs that increase safety and security awareness and visibility.

Financial resources and coordination

Create effective and efficient methods of acquiring, developing, operating, and maintaining facilities and programs that accurately distribute costs and benefits to public and private interests.

19: Finance

a: Implement innovative available methods, such as growth impact fees, land set-a-side or fee-in-lieu-of-donation ordinances, and interlocal agreements to finance facility development, maintenance, and operating needs in order to reduce costs, retain financial flexibility, match user benefits and interests, and increase facility services.

b: Enter into joint ventures with other public and private agencies such as Pierce County, University Place School District, regional, state, federal, and other public and private agencies including for-profit concessionaires where feasible and desirable.

20: Public and private resource coordination

a: Create a comprehensive, balanced park and recreational system that integrates University Place facilities and services with resources available from Pierce County,

University Place School District, and other state, federal, and private park and recreational lands and facilities in a manner that best serves and provides for local resident interests.

b: Cooperate with Pierce County, University Place School District, and other public and private agencies to avoid duplication, improve facility quality and availability, reduce costs, and represent local resident interests through joint planning and development efforts.

21: Cost/benefit assessment

a: Define existing and proposed land and facility levels-of-service (ELOS/PLOS) that differentiate requirements due to population growth impacts versus improved facility standards, neighborhood versus community nexus of benefit, city versus the combination of city, county, school, and other provider agency efforts in order to effectively plan and program park and recreation needs within existing city boundaries.

b: Create effective and efficient methods of acquiring, developing, operating, and maintaining park and recreational facilities in manners that accurately distribute costs and benefits to public and private user interests - including the application of growth impact fees where new developments impact existing level-of-service (ELOS) standards.

c: Develop and operate lifetime recreational programs that serve the broadest needs of the population recovering program and operating costs with a combination of registration fees, user fees, grants, sponsorships, donations, scholarships, volunteer efforts, and the use of general funding.

d: Where appropriate, provide recreational programs for those interested groups who are willing to finance the cost through user fees, registration fees, volunteer efforts or other means and methods.

Human resources

Develop, staff, train, and support a professional parks, recreation, and arts staff that effectively serves the community in the realization of the above listed goals and objectives.

22: Personnel

a: Employ a diverse, well trained work force that is motivated to achieve department and citywide goals.

b: Encourage teamwork through communications, creativity, positive image, risk taking, sharing of resources, and cooperation toward common goals.

c: Where appropriate, provide staff with education, training, and modern equipment and supplies to increase personal productivity, efficiency, and pride.

Strategies



Lemon Beach School - 1896

Strategies

Following is a brief accounting of strategies that can satisfy University Place's park and recreational needs along with a discussion of the policy issues involved in three alternative service roles.

Alternative service roles

University Place could provide park, recreation, and open space facilities and services under one of the following alternative service policies:

Alternative 1: Comprehensive role

University Place could provide a public facility and program for every type of park, recreation, and open space activity of interest to city and surrounding area residents. A comprehensive service approach, however, would have a number of drawbacks:

- 1) feasibility - there may not be a sufficient number of resident users within University Place city limits to economically support the development and operation of some specialized types of park, recreation, and open space facilities, such as regional competition athletic complexes, major indoor athletic and aquatic facilities, performing arts facilities, and the like.
- 2) duplication - other public and private agencies have already successfully developed some appropriate, publicly accessible facilities, such as indoor gymnasiums, classroom and meeting rooms, performing arts facilities, indoor swimming pools, gun ranges, golf courses, and marinas. University Place could spend considerable monies providing a facility that would duplicate and dilute the need for an existing facility service.
- 3) capacity - University Place may not have the financial resources to develop and operate a comprehensive list of facilities and services even if city residents elected to do so.

Alternative 2: Specialized role

University Place could pursue a limited, focused approach to park, recreation, and open space services - like providing developments with specific types of facilities (picnicking, playgrounds, and play areas) for residents on a neighborhood basis as opposed to providing sites for residents of the surrounding regional area. A narrow or specialized approach to park, recreation, and open space services, however, would have the following drawbacks:

- 1) balance - a quality park and recreation system should provide a choice of activities allowing for weather, season, and individual preferences. A narrow, focused inventory of facilities on a neighborhood or even site specific basis could become sterile or uninteresting. Residents would also be shortchanged if no other agency assumed responsibility for providing the other activity interests that University Place decided not to support.

2) representation - as the most comprehensive level of government, local residents depend on University Place to represent their interests with other governmental agencies. University Place has a responsibility to see that other agencies successfully provide facilities within the local area in the event University Place does not, and to offset the impact of regional park and recreational activity demands on local facilities.

3) opportunity - University Place may be aware or in a position to capitalize upon a land or facility opportunity when another agency may not be able to respond in time or alone. Examples include using utility or storm drainage corridors for trails, acquiring surplus or defunct facilities, and sometimes by mitigating project specific impacts through the subdivision and/or environmental impact review process.

Alternative 3: Strategic role - recommended action

University Place could perform a strategic role providing: 1) park, recreation, and open space facilities and programs that no other agency can or is willing to provide; 2) acting as a coordinator of local interests where facilities are provided by many other agencies; and 3) performing as a facilitator where unique acquisition or development opportunities may occur which could be implemented or operated by other agencies.

A strategic approach to services will require the following:

1) involvement - University Place must coordinate planning and development efforts with other agencies such as Pierce County, University Place School District, state, federal, and other public and private agencies to be aware of and have impact on these and other agency local programs and efforts.

2) planning - University Place must continually analyze long range needs and conditions for residents within city limits, as well as for surrounding area residents users who may use local facilities in order to recognize and be prepared to act on opportunities.

3) priorities - University Place must decide policies and outline actions to be undertaken should opportunities allow strategic developments.

4) commitment - University Place must provide appropriate staff expertise and budgets with which to implement strategic planning programs and projects when no other agency can or is able within a strategic time schedule.

Role responsibility by activity

By activity, this plan recommends University Place assume the following responsibilities:

Environmental conservation

University Place should assume a major responsibility for the planning, coordination, and preservation of unique wildlife habitat, ecological, wetland, environmental, and open space areas such as the Chambers, Leach, and Peach Creek corridors, Morrison Pond wetlands, and the Day Island Inlet.

University Place should work with all other public and private agencies, particularly Pierce County and Washington State Department of Fish & Wildlife to create an effective approach to these local conservation issues and proposals.

Outdoor facilities

University Place should assume a major responsibility for the planning, development, and operation of a variety of outdoor facilities including playgrounds, tennis and volleyball

Alternative role strategies

No action - present policies

Alternative 1: Comprehensive role

Alternative 2: Specialized role

Alternative 3: Strategic role - recommended action

Environments				Potential joint venture partners
wildlife habitat	X	X	X	
wetland and natural area preservation	X	X	X	
passive open space	X	X	X	
Outdoor facilities				
playgrounds	X	X	X	w/School District
skateboard courts		X	X	
basketball courts		X	X	w/School District
volleyball courts		X	X	w/School District
tennis courts	X	X	X	w/School District
football fields		X		
soccer fields	X	X	X	w/School District
baseball/softball fields	X	X	X	w/School District
jogging tracks		X		
picnicking areas		X	X	
swimming beach		X	O	w/Pierce County
fishing from a bank or dock		X	O	w/Pierce County
boat ramps and access		X	O	w/Pierce County
recreational vehicle camping		X		
walking in a park	X	X	X	
walking on a trail		X	X	w/Pierce County
bicycle trails		X	X	w/Pierce County
bicycle touring routes		X	X	
equestrian trails		X		
golf courses		X		
Indoor facilities				
indoor swimming pool/sauna		X	O	w/School District
exercise/physical conditioning		X	X	w/School District
indoor gymnasium (basketball/volleyball)		X	X	w/School District
indoor racquetball/handball courts		X		
arts/crafts/pottery rooms		X	X	w/School District
classroom/small meeting/training rooms	X	X	X	w/School District
auditorium/large meeting room		X	X	w/School District
kitchen facilities	X	X	X	w/School District
day care/preschool		X	X	w/School District
youth/teen center		X	X	w/School District
senior center	X	X	X	w/School District
cultural/performing arts		X	X	w/School District
Programs				
daycare and school child latch key		X	O	w/non-profit sponsors, School District
athletic leagues and sports programs	X	X	X	
swimming instruction and competition		X	O	w/School District
special population resources		X	O	w/School District
teen age group programs		X	X	w/School District
senior age group programs	X	X	X	w/School District
adult education and instruction		X	X	w/School District
cultural/performing arts		X	O	w/School District

X major role/responsibility

O minor role/responsibility

courts, informal athletic fields, picnicking areas, park and bicycle trails that are directly related to site opportunities within the city of most interest to local residents.

University Place should help coordinate and assist other public and private agencies, such as Pierce County and the University Place School District, to develop major competitive outdoor athletic facilities including football, soccer, baseball, and softball as well as pick-up play facilities for outdoor basketball and volleyball courts since these facilities will be provided by and directly service the clients of these agencies.

Special facilities

University Place may assume some responsibility, including enterprise operations and/or joint efforts where appropriate, for the development and operation of facilities that have special or unique interests, impacts or relevance - such as the creation and operation of natural and historical interpretive centers - to residents of University Place that may not be provided by another public or private agency.

Indoor facilities

University Place should assume a major responsibility for the planning, development, and operation of a principal indoor community center facility providing exercise and conditioning, gymnasiums, courts, arts and crafts, classrooms, small meeting rooms for special populations, youths and teens, seniors, and the general population since these facilities directly serve the local area and are of major interest to city residents of all ages

University Place should help coordinate and assist other public and private agencies, especially the University Place School District, to develop specialized indoor athletic facilities including swimming pools and aquatic facilities, gymnasiums, auditoriums, performing arts centers, libraries, kitchens, and large meeting facilities that service particular age groups within the community.

Recreation programs

University Place should assume a major responsibility for the planning, development, and operation of programs for athletic leagues and sports, teen and senior age groups, and special populations since these facilities directly serve the local area and are of major interest to city residents of all ages.

University Place should help coordinate and assist other public and private agencies, especially the University Place School District and potentially the Boys & Girls Clubs or YMCA, to initiate specialized programs for daycare and school child latch key services using city and school facilities where appropriate.

Role recommendations by function

This plan recommends University Place pursue a modified strategic approach to services where University Place assumes responsibility for those functions no other agency or organization can provide, and helps coordinate or support those functions and activities which have other viable sponsors. University Place would be the coordinator or planner of first resort, and the provider of last resort. For example:

Coordinating activities

University Place should provide central information and coordination services for park, recreation, and open space activities since the city alone has the local authority and resources to operate as a central facilitator. This role should include the maintenance and updating of future population growth estimates, inventories of existing and proposed

facility developments, the identification of probable local facility needs, and proposals of city and areawide facility solutions.

Planning and development assistance

University Place should provide more detailed planning and development assistance when:

- 1) there are no other designated agencies or organization who can,
- 2) the activity involves siting controversies or environmental consequences which may not be equitably resolved otherwise within the city, or
- 3) a proposed development will be within the University Place urban growth area and thus potentially annexed into corporate limits subject to city authority.

Development, operation, and maintenance

University Place should not develop, operate or maintain park, recreation, or open space facilities and activities unless:

- 1) the facility will have the broadest possible benefits for a large proportion of the local population and will be financed using resident approved methods, or
- 2) facility development and operating costs will be recaptured from direct charges of the populations who use the facility, or
- 3) facility development and operating costs will be compensated in some manner through interlocal agreements with the using agency, area or benefiting user group - particularly where the demands will originate from a regional service requirement, or
- 4) the site or facility has intrinsic value apart from traditional operation and maintenance needs, like a passive natural area or wetland preservation.

Public opinion



Sunset Beach Hotel - 1900

Public opinion

Public opinions were collected concerning park, recreation, and open space issues during the Community Festival in September 1996, a public forum in January 1997, and a telephone survey in April 1997.

Community festival

A public exhibit was displayed during the city's first community festival in September 1996 prior to the start of this park, recreation, and open space planning process. Festival participants were given an intercept survey asking questions concerning their utilization of area park and school sites, options concerning facility conditions, and priorities about general project proposals.

Surveys were completed and returned by 95 participants. The results are informational, and are not a representative sample of the festival participants or the residents of the city at large. Following is a summary of major survey findings.

Utilization

A principal objective of the festival survey was to determine what and how often festival participants use different park, recreation, and open space facilities in University Place on an annual basis (0, 1-2, 3-6, 6-12, and 12 or more).

Generally, the survey participants were frequent (7+ times per year) users of Colegate Park and school facilities including all of the primary schools and junior high. The use statistics were low to not at all for Morrison Pond and Woodside Pond Nature Park probably because these sites have not been improved with trails, trailheads, picnic or other supporting improvements.

Utilization factors

The survey participants were also asked why, if they never or seldom used park, recreation, and open space facilities, what the reasons were.

Generally, the survey participants indicated reasons for low utilization were primary that they didn't know what was available, where the facilities were, or that the programs were not convenient.

Conversely, very few participants indicated low utilizations were due to facility quality, safety, crowdedness, program quality, or lack of interest.

Facility conditions

Festival participants were asked to rank the overall quality of existing park, recreation, and open space facilities on a scale of 1 to 5 where 1 was the poorest rating and 5 the highest.

A rating was considered favorable if the participants selected ratings of 4 or 5 in high percentages, ok or neutral if the participants selected a 3 rating, and unfavorable if the participants selected ratings of 1 or 2 in high percentages.

Generally, the survey participants were most favorable about the condition of playgrounds, ballfields, soccer fields, and tennis courts - which are maintained by the University Place School District.

Conversely, the survey participants were least favorable about the condition of boating and fishing areas, trails, and picnic facilities.

Project proposals

Festival participants were asked to assign a priority rating between 1 and 5 where 1 was the highest and 5 was the lowest to a list of project choices.

A choice was considered critical or very important if the participants selected ratings of 4 or 5 in high percentages, nice-to-have or neutral if the participants selected a 3 rating, and not important if the participants selected ratings of 1 or 2 in high percentages.

Generally, the survey participants were most favorably inclined about proposals to develop more trails, indoor facilities, playgrounds, baseball and soccer fields. The participants were supportive of proposals to acquire more natural areas and picnic facilities.

Public Forum

A public forum was conducted at the Senior Center (the former University Place Park & Recreation District headquarters buildings) in January 1997. The participants were given a survey asking questions about preliminary development plan proposals in general, about specific park projects, and financing preferences.

Surveys were completed and returned by 10 participants. The results are informational, and are not a representative sample of the forum participants or the residents of the city at large. Following is a summary of major survey findings.

Development plan proposals

The public forum participants were asked to rank the quality of the proposed development plan elements on a scale of 1 to 5 where 1 was the lowest quality and 5 was the highest quality in regards to their preferences concerning the plan elements contents.

A choice was considered critical or very important if the participants selected ratings of 4 or 5 in high percentages, nice-to-have or neutral if the participants selected a 3 rating, and not important if the participants selected ratings of 1 or 2 in high percentages.

Generally, the survey participants were most favorably inclined (more than 60 percent indicating a score of 4-5) with the resource wildlife conserancy, resource activities, water trails, walking and hiking trails, on-road bicycle touring routes, athletic parks, recreation centers, and special use facilities element plans.

The survey participants were least impressed (over 50 percent indicating a score of 1-2) with the off-road mountain bike and preliminary multipurpose hike/bike trails. The mountain bike trail element was subsequently deleted from the plan, and the multipurpose trail system was curtailed within Leach Creek and Peach Creek corridors.

Illustrative park project proposals

The public forum participants were asked to rate illustrative park project proposals on a scale of 1 to 5 where 1 was of the lowest quality contents and 5 was the highest quality contents in regards to their preferences concerning the project contents.

The survey participants were most impressed (over 50 percent indicating a score of 4-5) with the Chambers Creek Properties (Grandview Drive overlook portion), Curran Apple Orchard, Woodside Pond Nature Park extensions, and Colegate/Curtis School project proposals.

The participants were less (but not unfavorably) impressed (up to 33 percent indicating a score of 1-2) with portions of the Day Island Yacht Club, Woodside Pond Nature Park, and City Hall project proposals.

Financing

The public forum participants were asked to define the extent to which they agreed/disagreed with alternative methods of financing recreational services and facilities on a scale of 1 to 5 where 1 was no or totally disagreed and 5 was yes or totally agreed with the proposal.

In rank order, the survey participants selected park user fees and charges, then growth impact fees, joint ventures with other public agencies, bond issues, joint ventures with private operators, and increased utility taxes.

Most survey participants indicated a willingness to pay between \$6-25 per month to help finance the acquisition and development of additional park and recreation facilities. Some (11 percent) indicated a willingness to spend more (\$51-75 per month), and some (22 percent) nothing at all.

Telephone survey

A random sample of resident voter households in University Place was contacted in early April 1997 to participate in a statistically controlled survey concerning park, recreation, and open space needs, priorities, and financial preference issues.

Approximately 250 households agreed to participate in the survey and were mailed a copy of a summary description of the plan and a copy of the questionnaire. 200 households completed the surveys by mail or by follow-up telephone call of which 105 or 53 percent were male voters and 95 or 47 percent were female voters. The remaining households decided not to participate once they received the materials, or for various reasons were unable to be contacted to complete the survey.

The resulting survey results are accurate to within 8 +/- percent of the opinions of the general population. The statistics may not add due to rounding and account for but do not include undecided responses which varied from 0 to 3.5 percent per question. Following is a summary of major survey findings.

Location of residence

Approximately 25 percent of the survey participants live west of Bridgeport Way and north of 40th Street compared with 46 percent to the south of 40th Street; and 8 percent live east of Bridgeport Way and north of 40th Street compared to 18 percent to the south of 40th Street.

Length of residence

Most survey participants are very long time residents of University Place (28 percent more than 25 years) or relatively long time residents (10 percent between 21-25, 15 percent between 16-20, 13 percent between 11-15, and 23 percent between 6-10 years). A relatively small percentage of the participants were newcomers (1 percent between 0-1 and 12 percent between 2-5 years).

Age groups

The largest proportion of the survey participants were middle aged (40 percent between 35-49), or older (31 percent between 50-64 and 24 percent over 65 years). A very small percentage of the participants were young adults (1 percent between 18-24 and 5 percent between 25-34).

Facility needs

Survey participants were asked to rate the need for park facilities within the city in general on a scale of 1 to 5 where 1 is the least important and 5 is the most important.

A choice was considered critical or very important if the participants selected ratings of 4 or 5 in high percentages, nice-to-have or neutral if the participants selected a 3 rating, and not important if the participants selected ratings of 1 or 2 in high percentages. Following is a rank-ordering of their selections.

- 1) Childrens playgrounds and play areas - 82 percent very important, 15 percent neutral, and 4 percent low importance.
- 2) Soccer, baseball, and softball fields - 63 percent very important, 26 percent neutral, and 11 percent low importance.
- 3) Off-road walking and hiking trails - 63 percent very important, 23 percent neutral, 15 percent low importance.
- 4) On-road bicycle lanes - 61 percent very important, 20 percent neutral, and 20 percent low importance.
- 5) Picnic tables and shelters - 58 percent very important, 27 percent neutral, and 17 percent low importance.
- 6) Wetland and wildlife habitat conservation areas - 57 percent very important, 26 percent neutral or nice-to-have, and 19 percent low importance.
- 7) Basketball, volleyball, and tennis courts - 54 percent very important, 35 percent neutral, and 13 percent low importance.
- 8) Daycare and child nursery facilities - 39 percent very important, 26 percent neutral, and 36 percent low importance.
- 9) Community classrooms and meeting facilities - 31 percent very important, 32 percent neutral, and 38 percent low importance.
- 10) Boat launch facilities - 27 percent very important, 25 percent neutral, and 50 percent low importance.
- 11) Indoor gymnasium and physical conditioning facility - 27 percent very important, 24 percent neutral, and 51 percent low importance.

12) Nature interpretive center - 25 percent very important, 29 percent neutral, and 47 percent low importance.

13) Museum and historical facilities - 18 percent very important, 31 percent neutral, and 52 percent low importance.

14) Arts, crafts, and pottery facilities - 18 percent very important, 30 percent neutral, and 53 percent low importance.

15) Skateboard court - 17 percent very important, 28 percent neutral, and 56 percent low importance.

Note - the overall results indicate the relative rank-order importance the survey participants gave these needs as a general population - and therefore, which needs would likely receive the highest general population approval ratings where general funds or general obligation bonds, for example, to be used to finance acquisition and improvements.

Conversely, a low rank-order does not mean the need should or does not need to be provided. Rather, that the need may appeal to a more limited age or interest group (skateboarding and daycare, for example) and may be funded by special means or discretionary revenue sources rather than general monies.

Project priorities

A principal objective of the telephone survey was to determine what resident voters thought about possible project priorities - especially which projects should be considered for general funding applications as opposed to special funding revenues or strategies.

Consequently, survey participants were asked to select project proposals on a scale of 1 to 5 where 1 was the lowest and 5 the highest priority. The responses were described exactly as defined below without the aid of illustrations or other materials. The results indicate how resident voters react in general to these concepts rather than to any project design or content particulars. Following is a rank-ordering of their priorities by project category.

Existing park improvements

1) Add a trail from Chambers Crest Wildlife Habitat to Chambers Creek Canyon - 65 percent very important, 20 percent neutral, and 15 percent low importance.

2) Add picnic and playground facilities to Colegate Park - 64 percent very important, 26 percent neutral, and 10 percent low importance.

3) Add a playground and picnic facilities to Sunset Terrace Park - 55 percent very important, 27 percent neutral, and 16 percent low importance.

4) Acquire adjacent wetlands and develop viewpoints and trails at Adriana Hess Wetlands Park on Morrison Pond - 55 percent very important, 25 percent neutral, and 20 percent low importance.

5) Convert the Park & Recreation District Headquarters to a Senior Center - 48 percent very important, 27 percent neutral, and 24 percent low importance.

6) Add interpretive and picnic facilities to Curran Apple Orchard - 48 percent very important, 26 percent neutral, and 26 percent low importance.

7) Add adjacent woodland properties and develop neighborhood park facilities at Woodside Pond Nature Park - 47 percent very important, 29 percent neutral, and 19 percent low importance.

8) Add benches, a bus stop, and plaza park improvements to Conservation Park - 32 percent very important, 35 percent neutral, and 27 percent low importance.

Proposed park acquisition and development projects

1) Acquire and develop picnic and playground facilities overlooking Chambers Creek Canyon - 51 percent very important, 29 percent neutral, and 19 percent low importance.

2) Acquire and develop a community center and park at the intersection of Cirque Drive and Bridgeport Way - 44 percent very important, 26 percent neutral, and 30 percent low importance.

3) Acquire and develop the Tacoma School District property along Leach Creek adjacent to Cirque Drive and Alameda Avenue and the Leach Creek Park Dedication for a neighborhood park - 41 percent very important, 32 percent neutral, and 26 percent low importance.

4) Acquire adjacent woodland property for a community picnic and playground facility at City Hall - 41 percent very important, 23 percent neutral, and 34 percent low importance.

5) Develop waterfront viewpoint and access facilities at the Day Island Inlet Surface Water Management Site - 33 percent very important, 33 percent neutral, and 33 percent low importance.

6) Acquire a conservation area and city gateway between Bridgeport and Chambers Creek Road - 29 percent very important, 34 percent neutral, and 35 percent low importance.

7) Add benches, signs, street trees, and landscaping to create gateways on Bridgeport Way, 67th Avenue, and Orchard Street - 27 percent very important, 29 percent neutral, and 43 percent low importance.

Proposed trails

1) Support development of a multipurpose trail on the Chambers Creek Properties along the Puget Sound shoreline, around Chambers Bay, and as an overlook along Grandview Drive - 66 percent very important, 23 percent neutral, and 11 percent low importance.

2) Develop on-road bicycle routes on Grandview Drive, 67th Avenue, Alameda Avenue, Orchard Street, 27th Street, 40th Street, Cirque Drive, and 64th Street/Chambers Lane - 56 percent very important, 25 percent neutral, and 20 percent low importance.

3) Develop a walking trail from Morrison Pond to Leach Creek to Chambers Creek Canyon to Chambers Bay - 48 percent very important, 27 percent neutral, and 22 percent low importance.

4) Develop walking trails from Chambers Creek west through Peach Creek past Wright Academy and Chambers Elementary School to the Chambers Creek Properties, and north through Peach Creek to Bridgeport Way - 48 percent very important, 27 percent neutral, and 25 percent low importance.

5) Develop a parkway walking trail from Day Island Inlet through the historic university site to University Place Primary School - 42 percent very important, 26 percent neutral, and 31 percent low importance.

6) Develop a multipurpose trail from Colegate Park through Curtis Junior and Senior High Schools, through City Hall and Evergreen Primary School to Leach Creek and the Woodside Pond Nature Park - 37 percent very important, 31 percent neutral, and 32 percent low importance.

7) Develop plazas, bus stops, green spaces, and other streetscape improvements to Bridgeport from 19th Street to 67th Avenue - 33 percent very important, 23 percent neutral, and 43 percent low importance.

8) Establish a kayaking trail from Day Island Inlet to Chambers Bay - 29 percent very important, 24 percent neutral, and 45 percent low importance.

Note - the overall results indicate the relative rank-order importance the survey participants gave these projects as a general population - and therefore, which projects would likely receive the highest general population approval ratings where general funds or general obligation bonds, for example, to be used to finance project developments.

Conversely, a low rank-order does not mean the project should or does not need to be accomplished. Rather, that the project may appeal to a more limited age or interest group (gateway beautifications or kayaking trails, for example) and may be funded by special means or discretionary revenue sources rather than general monies.

Growth management

A principal objective of the telephone survey was to determine resident voter opinions concerning growth management issues - particularly the requirements contained in the Washington State Growth Management Act (GMA). Consequently, all survey participants were asked a series of questions concerning how the proposed park, recreation, and open space plan should choose between policies dealing with facility standards and/or impact fees as a means of responding to additional population growth within the city.

Growth impacts - survey participants were advised that in the next 6 years the city's population could increase by another 5,000 persons. The participants were then asked whether there would be enough park, recreation, and open space facilities within the city, county, and school district systems to provide for this population increase.

Approximately 46 percent indicated the existing supply would not be sufficient, 33 percent indicated it would be, and 22 percent didn't know.

Facility standards - survey participants were asked whether the number or standard of park, recreation, and open space facilities should be reduced as a means of accommodating future population increases.

Less than 11 percent of all participants considered reducing standards to be a good or excellent, 20 percent were neutral, and 66 percent fair or poor idea.

Growth impact fees - survey participants were asked whether a growth impact fee should be collected from new developments to finance additional park, recreation, and open space facilities that would offset the impacts of this population increase.

Approximately 78 percent indicated collecting fees to be a good or excellent concept, 12 percent were neutral, and 11 percent indicate fair or poor idea.

Option preference - survey participants were asked if they had to choose between reducing standards or charging a growth impact fee, which options they would select first, second, or not at all.

1) 79 percent would collect a growth impact fee first, 11 percent second, and 8 percent not at all.

2) only 6 percent would reduce standards first, 34 percent second, and 56 percent not at all.

Facility standard reductions - survey participants were asked to select the proportion (between 5 and 20 percent) that they would reduce in the relationship between specific park, recreation, and open space facilities and the population if this method were selected as a means of controlling costs and growth impacts.

1) 61 percent would not reduce the current standard (0 percent) for walking, hiking, and biking trails, 33 percent would reduce the current standard between 5-15 percent, and 7 percent would reduce the standard by 20 percent or more.

2) 44 percent would not reduce the current standard (0 percent) for athletic fields and courts, 45 percent would reduce the current standard between 5-15 percent, and 11 percent would reduce the standard by 20 percent or more.

3) 42 percent would not reduce the current standard (0 percent) for picnic, swimming, fishing, camping, and boating facilities, 43 percent would reduce the current standard between 5-15 percent, and 16 percent would reduce the standard by 20 percent or more.

4) 29 percent would not reduce the current standard (0 percent) for indoor facilities including swimming pools, gyms, and meeting rooms, 43 percent would reduce the current standard between 5-15 percent, and 27 percent would reduce the standard by 20 percent or more.

Growth impact fee amount - survey participants were advised that the existing inventory of city, county, and school district park, recreation, and open space facilities were estimated to be worth about \$2,000 per house. All survey participants were then asked to indicate what amount should be collected (between \$2,000 equal to 100 percent of the value and \$0 equal to 0 percent of the value) for each new housing unit in the event a growth impact fee were to be collected from new housing developments.

Approximately 95 percent of all survey participants indicated a growth impact fee should be collected (compared with 5 percent who indicated \$0).

About 29 percent of all survey participants would charge 100 percent or \$2,000 per house, 5 percent \$1,500 per house, 20 percent \$1,000 per house, 13 percent \$500 per house, 5 percent \$300 per house, and 16 percent \$200 per house.

A plurality or 54 percent of all survey participants would charge a fee above \$1,000 or 50 percent of value.

General obligation bonds

Another objective of the telephone survey was to determine resident voter opinions concerning general obligation bonds - particularly proposals to submit bonds for park, recreation, and open space improvements. Consequently, all survey participants were advised that growth impact fees, if used, can only collect monies with which to build facilities to provide for additional population growth. Growth impact fees can not be used to expand or improve facilities that serve existing residents. Projects that would improve or develop the existing park, recreation, and open space system must be funded by other methods including the use of voter approved bonds.

Bond amount - survey participants were asked how much, if anything, their household would be willing to pay per year for park and recreation improvements that would benefit existing residents.

Approximately 89 percent of all survey participants indicated they would be willing to pay some amount per year to finance a general obligation bond for park, recreation, and open space improvements - compared with 11 percent who would not pay any amount.

The survey participants were asked to give an amount, rather than selecting from a list, and indicated \$119.17 as an average or mean response.

The amounts were then sorted into general categories to determine broad groupings. Approximately 20 percent of all survey participants selected \$100 per year, followed by 15 percent with \$25 per year, 12 percent with \$50 per year, 10 percent with \$200 per year, and 9 percent with \$250 per year.

A 50 percent plurality of all survey participants would pay more than \$100 per household per year.

Recreation programs

Another principal objective of the telephone survey was to determine resident voter opinions concerning the quality and content that should be provided in city recreational programs.

Program priorities - survey participants were asked to assign priorities to the programs that should be offered by the city on a scale of 1 to 5 where 1 was the lowest and 5 the highest priority. Following is a rank-ordering of their priorities by program category.

- 1) Provide teen programs - 67 percent very important, 23 percent neutral, and 9 percent low importance.
- 2) Provide athletic leagues and sports programs - 57 percent very important, 26 percent neutral, and 17 percent low importance.
- 3) Provide senior programs - 50 percent very important, 33 percent neutral, and 16 percent low importance.
- 4) Provide before and after school care and school child latch key programs - 50 percent very important, 24 percent neutral, and 26 percent low importance.
- 5) Provide aquatic instruction, recreation, and competition programs - 31 percent very important, 30 percent neutral, and 38 percent low importance.

6) Provide adult education and instruction programs - 22 percent very important, 38 percent neutral, and 49 percent low importance.

7) Provide physical conditioning and fitness classes - 16 percent very important, 37 percent neutral, and 47 percent low importance.

Note - the overall results indicate the relative rank-order importance the survey participants gave these programs as a general population - and therefore, which programs would likely receive the highest general population approval ratings where general funds are used to defray some or most of all operational costs.

Conversely, a low rank-order does not mean the program should or does not need to be provided. Rather, that the program may appeal to a more limited age or interest group (physical conditioning and fitness, for example) and may be financed with user fees or discretionary revenue sources rather than general monies.

Program costs - survey participants were advised that growth impact fees and voter approved bonds can not be used to finance recreational programs. Survey participants were asked to rate financing options on a scale of 1 to 5 where 1 was the poorest idea and 5 the best idea, assuming that present and/or future recreation programs could require more monies to operate. Following is a rank-ordering of their priorities by option.

1) Increase user fees to continue to provide the same program services - 55 percent thought this to be a good or excellent concept, 35 percent neutral, and 9 percent a fair or poor idea.

2) Increase city taxes to run needed program services - 24 percent thought this to be a good or excellent concept, 27 percent neutral, and 47 percent a fair or poor idea.

3) Reduce the number or quality of programs to control costs - 15 percent thought this to be a good or excellent concept, 32 percent neutral, and 51 percent a fair or poor idea.

Option preference - survey participants were asked if they had to choose between reducing the number or quality of programs, increasing user fees, or increasing the amount provided from city budgets, which options they would select first, second, third, or not at all.

1) 52 percent would increase the amount of user fees first, 32 percent second, 9 percent third, and 3 percent not at all.

2) 25 percent would increase the amount provided from city budgets first, 29 percent second, 25 percent third, and 19 percent not at all.

3) 12 percent would reduce the number or quality of programs first, 24 percent second, 26 percent third, and 35 percent not at all.

Conclusion

In general, the results of the telephone survey indicate resident voters will support growth impact fees, general obligation bonds, and higher user fees if the projects and programs are conceived along the lines indicated in the survey results.

Other public involvement events

The following public involvement events were conducted in addition to the community festival surveys, public forum surveys, and telephone surveys.

Neighborhood advisory committee meetings - were conducted at in the community at local gathering places at the beginning and end of the planning process. The public workshops were held by city staff and officials between 7:00-9:00 pm with interested neighborhood residents to discuss city policies, comprehensive planning proposals, this plan, and whatever else the participants were interested in.

The first round of workshops were conducted on the 11th, 19th, 24th, and 26th of September 1996. The second round were conducted on the 23rd, 24th, 30th of April and 1st of May 1997.

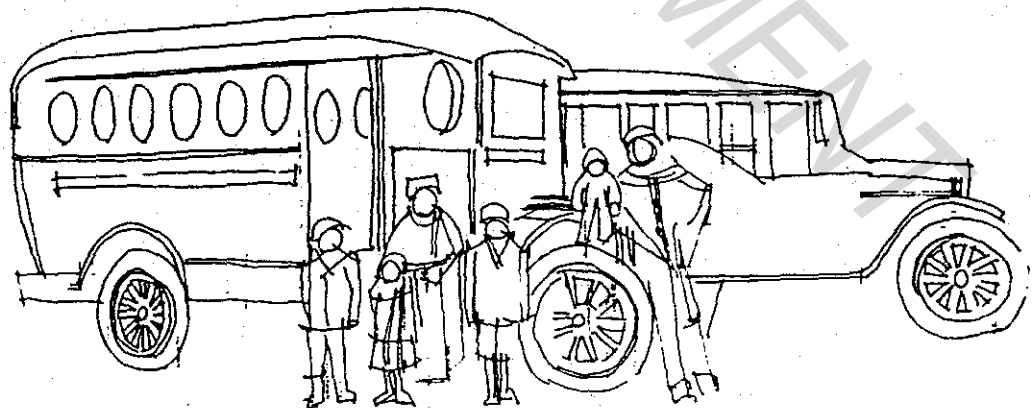
The city newsletter - included a double page presentation of the draft composite park, recreation, and open space plan in March 1997. The article provided text and graphics describing the location and contents of major existing park improvements, proposed new park acquisitions and developments, and trail improvements.

The newsletter was distributed to every mailbox address within city limits and to various public distribution locations about the community.

Local media - the draft plan proposals outlined in the city newsletter were also described in local newspapers. For example, the University Place Journal published the draft plan map with proposed site locations and related park improvement activities in the 10 April 1997 issue.

The Tacoma News Tribune published the draft plan map and major park system proposals in the 21 April 1997 issue. An accompanying article discussed the proposals and outlined the methods whereby local residents could meet and discuss the proposals with city staff at the series of neighborhood advisory committee meetings.

Community setting



Titlow Beach-Day Island Bus - 1903

Community setting

University Place is generally described as the lands bounded on the north by 19th Street West, on the east by 67th Avenue West between 19th and 44th Street West and Orchard Street from 44th Street West to 64th Street West, on the south by Chambers Creek, and on the west by Puget Sound. The area is also described as Range 2 East, Township 20 North, Sections 9-11, 14-16, and 20-29 within Pierce County, Washington.

The city's small 40 acre urban growth area is located east of 67th Street between 35th and 37th Streets West.

Climate

Washington State's climate is strongly influenced by moisture-laden air masses created in the Pacific Ocean. The air masses may move into the region any time of the year, but particularly during fall, winter and spring seasons. The air flows from the Pacific Ocean are interrupted first by the Olympic Mountains and then significantly by the Cascade Mountains. As a result of the mountain ranges, the west or windward side of the Cascades receive moderate to heavy precipitation, while the east or leeward side of the state in the "rain shadow" of the Cascades receives a light to moderate amount of precipitation.

The Cascades also affect temperature ranges in the state. The west or windward side is influenced by maritime air masses generally milder than those which sweep down from the Canadian Rockies on the east or leeward side of the state. Consequently, eastern Washington usually has colder winters and hotter summers, while western Washington is milder and more frost-free.

Within the western or windward regions, rainfall and temperatures rise dramatically from the lowlands which surround Puget Sound to the crest of the Cascade Mountains. University Place is located at the eastern edge of the Puget Sound Lowlands climatic region or at the transition point where the maritime influences of Puget Sound begin to be absorbed by the Cascades. As a result, University Place's climatic conditions are typical of conditions that occur within the Puget Sound Lowlands.

In University Place, mean temperatures vary from a high of 60 degrees in July to a low of 40 degrees Fahrenheit in January with extreme variations recorded at -3 to a high of 102 degrees Fahrenheit. Average annual precipitation is about 49 inches with a mean growing season with temperatures above 32 degrees Fahrenheit for about 170-190 days. Approximately 80 percent of the precipitation occurs from October through March with less than 6 percent falling during June, July, and August.

Earth

Washington is divided into three principal physiographic divisions - the Pacific Mountain System, the Rocky Mountain System, and the Intermontane Plateaus.

The Pacific Mountain System is defined by the Olympic peninsula (the Pacific Border province) and the Cascade Mountain range and includes all counties that contain portions of the Cascade Mountains (the Cascade Mountain province).

The Northern Rocky Mountain System is defined by the foothills of the Rocky Mountain ranges and includes all counties that are located north of the Columbia River and east of the Cascade Mountain system.

The Intermontane Plateau is defined by the high plateaus created by the uplift between the Cascade and Rocky Mountain ranges and includes all counties that are located along the southern drainage basins of the Columbia River.

University Place is located within the eastern edge of the Puget Trough section of the Cascade Mountain province of the Pacific Mountain System. The Cascade Mountains were created by continuous volcanic activity along the border of the underlying continental plates. The mountains were in turn, subject to the action of periodic glacial intrusions - the most recent being the Pleistocene glacial period more than 15,000 years ago. The Pleistocene glacial intrusion gradually carved and flooded Puget Sound, the lowland areas, and other valleys alongside the Cascade foothills.

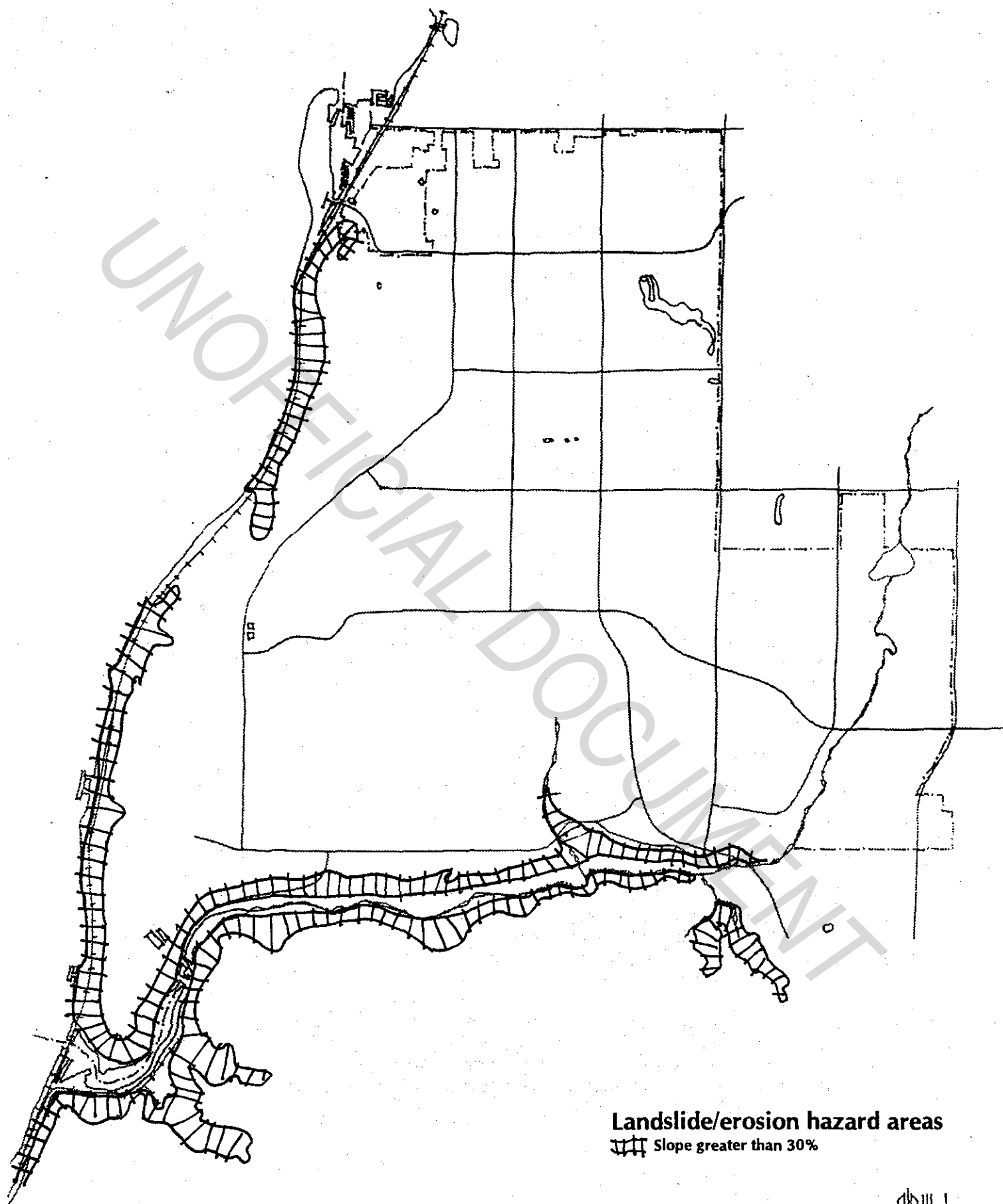
University Place is located on top of a plateau ranging from 0 to about 430 feet above Puget Sound. The edges of the plateau drop off abruptly in slopes ranging from 40 to 75 percent at the saltwater shoreline and along the Leach, Chambers, and Peach Creek drainage corridors.

Soil regions

The soils of Washington State were gradually created by a combination of elements including the nature of the parent material or rock type, climate, and the characteristics of the local terrain. These combined processes created 11 principal soil regions in the state ranging from deposits with high concentrations of organic matter created by glacial and marine actions along Puget Sound to deposits with very low organic matter located in the eastern arid portions of the state.

Inceptisol-mollisol-spodosol - Puget Sound is composed principally of gently to steeply sloping glacial plains, terraces, and foothills that were dominantly forested (inceptisol-mollisol-spodosol). These soils range from deposits with dark surface horizons and high organic contents (inceptisol) to deposits with dark, organically-enriched surface horizons (mollisol) to deposits with high organic matter and lime with clay leached from the surface layers (spodosol).

University Place includes soils with these characteristics. Within the higher elevations, receding glaciers left behind highly variable deposits ranging from porous sands and gravels to very impermeable glacial till. Between 5 and 100 feet of glacial till covers most of the upper plateaus and plains. A surface layer of about 3 feet of looser weathered material forms the surface soils.



Landslide/erosion hazard areas

 Slope greater than 30%

Inceptisol-mollisol-histosol - significant portions of the soils described above were further eroded by the action of major tributary drainage systems, such as Leach, Peach, and Chambers Creeks. The eroded soils are composed of nearly level to gently sloping alluvial lands.

The soils are located within creek valleys which were dominantly forested before being cultivated (inceptisol-mollisol-histosol). The soils range from deposits with dark surface horizons and highly organic content (inceptisol) to deposits with dark, organically-enriched surface horizons (mollisol) to deposits with highly organic soils found in bogs (histosol).

Portions of University Place, particularly portions of Morrison Pond, the Leach and Chambers Creek drainage corridors are located within soils with these characteristics. Historically, the floodwaters of Leach Creek deposited rich sediments within the drainage corridor that provided the basis for highly productive farmlands.

Composite risk soil conditions

In 1992, the Pierce County Department of Planning & Land Services developed criteria and mapped sensitive soil characteristic conditions that create specific severe composite risks for flood hazard, landslide, and erosion risks in accordance with the requirements of the Washington State Growth Management Act, Chapter 36.70A of the Revised Code of Washington (RCW).

Landslide hazards - are created on soils with permeable sand, gravel, and/or silt with clay layers exposed on slopes of 15 percent or more. Soils with severe landslide hazard characteristics are located along the steeper slopes overlooking Puget Sound and Chambers Creek.

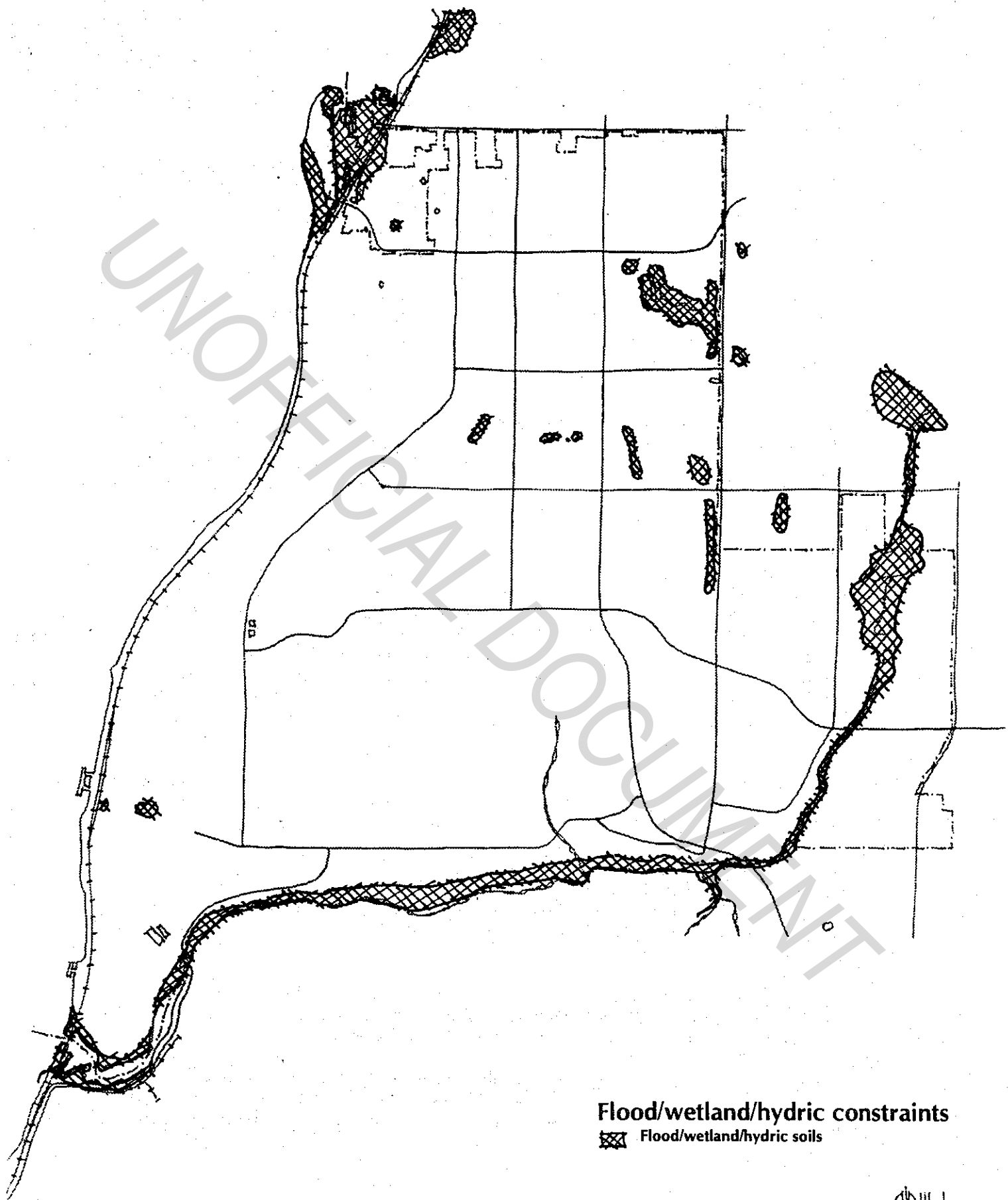
Seismic hazards - are created on poorly drained soils and/or impervious alluvium and organic soils on slopes of 15 percent or more. Soils with severe seismic hazardous characteristics are located within some of the low, wetland areas of some portions of the Leach and Chambers Creeks drainage corridors.

Erosion hazards - are fine sands, gravels, and silts subject to severe erosion hazards, particularly when present on steeper slopes. Most of the lands within University Place have characteristics that are subject to erosion hazard, particularly those located on the slopes and bluffs overlooking portions of Chambers, Peach, and Leach Creeks.

Water

Tributary drainage - University Place is located in the approximate center of the 7.18 square mile Leach Creek drainage subbasin. The subbasin is a portion of the larger Chambers Bay drainage basin that drains stormwater runoff from the top of the plateau north and east of University Place into Flett and Leach Creeks, and then into Chambers Creek, Chambers Bay, and eventually into The Narrows of Puget Sound.

During the early 1900s, Leach Creek and a number of contributing springs were intercepted to provide a domestic water supply for University Place and Fircrest. The intercepted water was also used to feed Spring Lake and a few small lakes that were artificially constructed for recreational purposes. By the mid-1900s, Spring Lake was filled and became the site of Fircrest Park.



Flood/wetland/hydric constraints
[Cross-hatch symbol] Flood/wetland/hydric soils

In 1923, the University Place Water Supply Company laid the first water supply pipes in the area using local spring-fed water supply sources. In 1940, the Company dug the first water supply well and began to rely on well water from underlying aquifers instead of surface spring waters as a source of public drinking water.

By 1995, all intercepted surface and subsurface waters from springs and the northern portion of Leach Creek were collected and conveyed to the Tacoma Public Works Department's Leach Creek Holding Basin located on Orchard Street just beyond the northeast city limits. The holding basin removes sediment, provides an opportunity for groundwater infiltration, and controls peak and outflow discharges into Leach Creek.

Stormwater that originates in the northern portion of the city is collected at Morrison Pond. Like the holding basin, Morrison Pond removes sediments and infiltrates some groundwater. Stormwaters that overflow Morrison Pond during peak events are conveyed to Leach Creek, and then into the lower Chambers Creek and Chambers Bay drainage systems.

Stormwaters that originate along the western boundary of the city flow west towards The Narrows of Puget Sound rather than east into Leach Creek. Stormwater runoff along the western boundary is managed within the Tacoma West drainage basin. The small number of stormwater facilities within the Tacoma West Basin do not have a significant impact on University Place stormwater facilities.

Permeable soils, the Leach Creek Holding Basin, and Morrison Pond stormwater retention facilities allow some quantity of stormwater to percolate into underground aquifers that supply potable water. In 1991, the aquifers underlying the Clover/Chambers Creek Basin supplied water for 268,000 of the county's residents including all of University Place.

Wetlands - are areas where surface water, stormwater, or groundwater inundates or saturates soils frequently and long enough to support vegetation adapted to existence in saturated soils. Wetlands serve as focused aquifer recharge areas that retain and filter stormwater before it percolates into groundwater aquifers. Wetlands also provide important fish and wildlife habitat.

Wetlands perform a variety of functions including: 1) providing habitat for fish and wildlife, 2) maintaining water quality by filtering pollutants, removing sediments, producing oxygen and recycling nutrients, 3) reducing floods, and 4) recharging ground water.

In 1987, the Pierce County Department of Planning & Community Development inventoried the wetlands within University Place urban area. The inventories identified and evaluated wetlands that included bogs, forested wetlands, scrub/shrub wetlands, wet meadows, shallow marsh wetlands, deep marsh wetlands, and open water wetlands (lakes or ponds).

Significant wetland areas were identified around Morrison Pond, in the upper north reaches of Leach Creek at about 44th Street West, along Bridgeport, within the Chambers Creek drainage corridor, and on the Chambers Creek Properties.

Floodplains and flooded areas - include alluvial soils - which are former stream beds, tidal pools, and retention ponds which fill during heavy rainfall, sometimes infrequently, often for extended periods during rainy seasons. There are numerous, flood prone areas located

along the boundaries of Leach Creek from the Leach Creek Holding Basin south to Chambers Creek, then west to Chambers Bay.

Floodplains are lands subject to high water inundation during heavy storms. Significant portions of the Leach Creek corridor are potentially affected by the floodwaters possible during the worst storm in an average 100 year period. In such a circumstance, floodwater depths would be shallow and not very extensive.

Soil permeability - most of the soils within the University Place urban area are relatively impermeable or unable to absorb significant quantities of rainfall during extended or heavy storms. Sizable areas are extremely impermeable, able to absorb less than 0.06 to 0.2 inches per hour within the first 4 to 60 inches of soil material due to high water tables, poor area drainage patterns, hard fragipan subsurface deposits or all of the above. Impermeable soils are wet or damp during most of the rainy season. Impermeable soils are high risk pollution areas - especially from septic systems, and often damaging of building foundations due to wetness.

Significant soil concentrations with severe impermeable characteristics are located within the southern sections of Leach Creek below the Leach Creek Holding Basin. The corridor, and some of the adjacent lands, are impermeable and incapable of supporting residential uses in urban densities without off-site sewer treatment and stormwater drainage systems.

Depth to seasonal high water table - water tables are relatively high when less than 2.5 feet from the surface during the rainy season. Soils with high water tables are generally poorly drained, subject to continual wetness with very high surface drainage pollution risks. The risk may be extreme if shallow water tables leak into deeper aquifer systems, adjacent well water sources or standing water bodies.

Significant soil concentrations within the University Place urban area have very shallow water tables, due in most instances, to the existence of hard fragipan deposits close to soil surfaces. Most of these soils are relatively impermeable due to fragipan deposits and high water table conditions.

In some instances, soils with fragipan deposits and poor permeability characteristics are also located within steep slopes. Soils with fragipan deposits in steep slopes will tend to create subsurface water flows between the soil materials and the fragipan deposits. These condition combinations create slumps and landslides, particularly if overbuilt or aggravated by inappropriate site improvements. Moderate risk combinations are located within the steeper slopes extending along Leach Creek from the Leach Creek holding basin south into Chambers Creek, and along Peach and Chambers Creeks west to Chambers Bay.

Plants and animals

Plants - natural plant communities are described in terms of broad vegetational patterns called vegetation zones. Washington plant communities are divided into 3 major vegetation groupings including: 1) forests, 2) grasslands and shrub/grass communities, and 3) timberline and alpine areas.

Pierce County supports 3 primary forested vegetation zones including the western hemlock, Pacific silver fir, and the mountain hemlock zone. The zones are defined by the different climates created by different elevations and the distinctive vegetation type that becomes dominant in a climax forest after the forest progresses through successive stages

Pierce County, Washington

Endangered, threatened, and sensitive plant species

	scientific name	common name
Endangered species	<i>Castilleja levisecta</i>	Golden Indian paintbrush*
Sensitive species	<i>Agoseris elata</i>	Tall agoseris*
	<i>Aster curtus</i>	White-top aster
	<i>Aster junciformis</i>	Rush aster
	<i>Botrychium lanceolatum</i>	Lance-leaved grape-fern
	<i>Botrychium pinnatum</i>	St. John's moonwort
	<i>Carex comosa</i>	Bristly sedge*
	<i>Castilleja cryptantha</i>	Obscure Indian-paintbrush
	<i>Chaenactis thompsonii</i>	Thompson's Chaenactis*
	<i>Cimicifuga elata</i>	Tall bugbane*
	<i>Erythronium revolutum</i>	Pink fawn lily*
	<i>Githopsis specularioides</i>	Common blue-cup*
	<i>Luzula arcuata</i>	Curved woodrush*
	<i>Lycopodium inundatum</i>	Bog clubmoss
	<i>Microseris borealis</i>	Northern microseris*
	<i>Montia diffusa</i>	Branching montia*
	<i>Pedicularis rainierensis</i>	Mt. Rainer lousewort
	<i>Polystichum californicum</i>	California sword-fern
	<i>Saxifraga debilis</i>	Pygmy saxifrage*
	<i>Trillium parviflorum</i>	Small-flowered trillium
	<i>Woodwardia fimbriata</i>	Chain-fern*
Possibly extinct or extirpated	<i>Arenaria paludicola</i>	Swamp sandwort*
	<i>Lathyrus Torreyi</i>	Torrey's peavine*

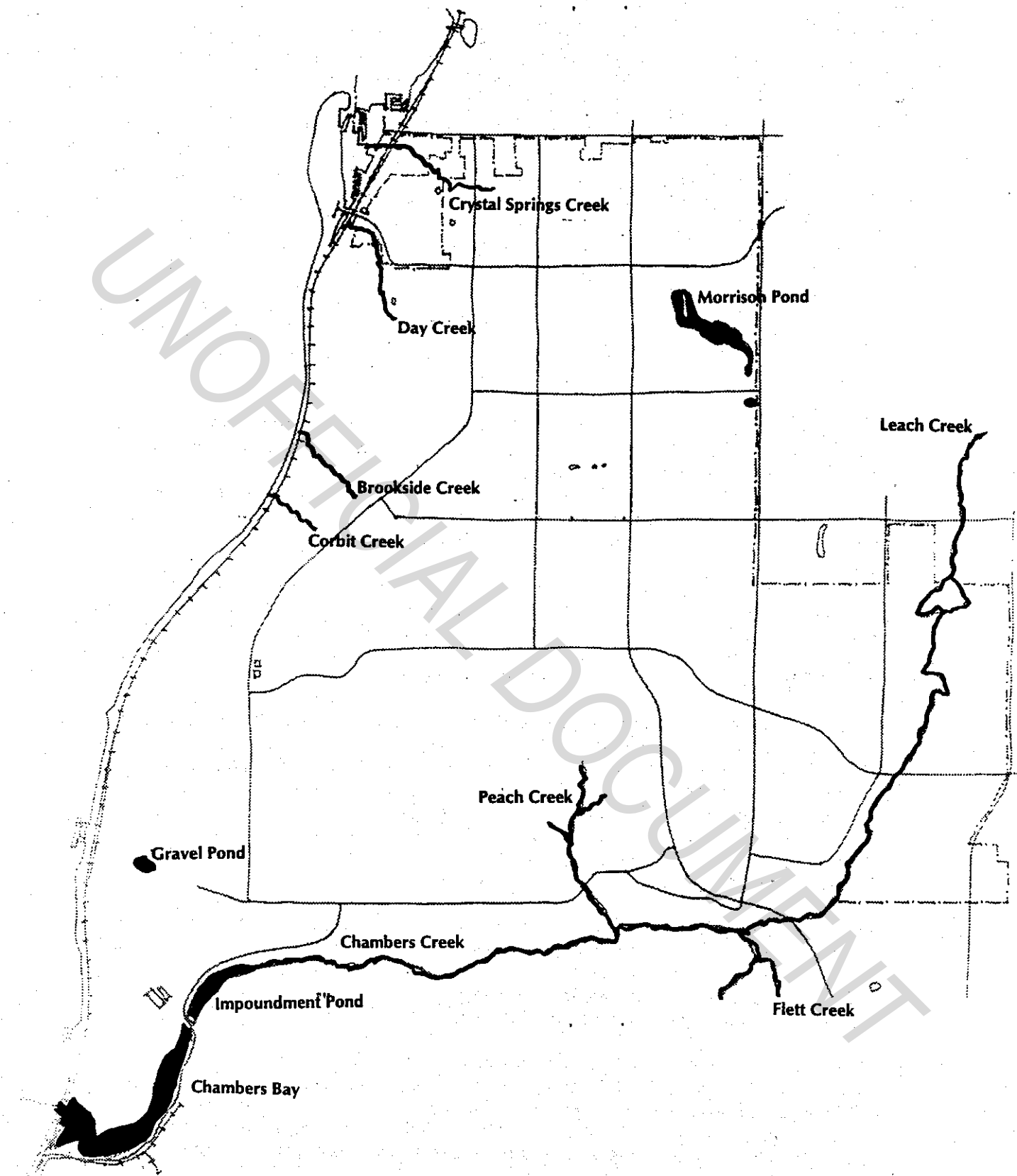
* Known from historical record only.

No state threatened species have been identified for Pierce County.

Endangered, threatened, sensitive, candidate, and monitor species

Endangered	Birds	Peregrine Falcon Spotted Owl
	Mammals	Gray Wolf
	Reptiles	Western Pond Turtle
Threatened	Birds	Bald Eagle Marbled Murrelet
	Mammals	Western Gray Squirrel
Candidate	Birds	Northern Goshawk Pileated Woodpecker Purple Martin Vaux's Swift Western Bluebird
	Mammals	Roy Prairie Pocket Golpher
Monitor	Birds	Great Blue Heron Osprey
	Mammals	Harbor Seal

Source: Washington State Department of Fish & Wildlife, 1993.



Freshwater systems

of natural development. The dominant species defined by the zone usually reproduces to maintain dominance until some disturbance, such as fire, alters the zone's environment.

University Place is located within the western hemlock (*Tsuga heterophylla*) vegetation zone. The western hemlock zone is the most extensive vegetation zone in western Washington extending from the Pacific coast to about 2,500 foot elevation on the slopes of the Cascade Mountains where the climate is mild and generally wet. The western hemlock zone is the major source of commercial harvested coniferous trees including the western hemlock, Douglas fir (*Pseudotsuga menziesii*), and western red cedar (*Thuja plicata*). Grand fir, western white pine, and lodgepole pine also occur within this zone although on a sporadic basis. Deciduous tree species such as red alder (*Alnus rubra*) or big leaf maple (*Acer macrophyllum*) or golden chinkapin are generally dominant on the lands that have been cleared for urban uses within the University Place urban area. Black cottonwood and Oregon ash, along with red alder and big-leaf maple, tend to grow along major water courses.

Vegetation inventories have recently been completed for portions of the state and county using a variety of aerial photos, landstat or infrared satellite photo imagery, and field reconnaissance. The inventories distinguished a wide variety of vegetation types at a greater level of detail than the vegetation zones described above. Forest areas, for example, were determined to be further divided into lowland and mountain forests, deciduous and coniferous forests, and second growth and old growth forests.

The inventories determined portions of the University Place urban area consist of several second growth lowland forested cover types including coniferous, deciduous, and mixed coniferous/deciduous forests. This forest type has marginal value as commercial timber or as unique vegetation. The majority of commercially important timber resources have been harvested, usually to allow residential land development.

Understory vegetation in the western hemlock zone varies substantially depending upon soils, wetness, and other environmental factors. Typical vegetation associations include: 1) Douglas-fir/creambush oceanspray association on the driest sites with a typical shrub layer including creambush oceanspray, California hazel, creeping snowberry, and salal; 2) the western hemlock/Pacific rhododendron/Oregon grape association in climax stands with a typical shrub layer including vine maple, red huckleberry, trailing blackberry, and Pacific rhododendron, and 3) the western hemlock/sword fern association on moist habitats with the understory dominated by sword fern and many species of herbs.

Lowland areas within portions of the Leach Creek corridor are covered by grasses and riparian vegetation - the latter being especially prevalent along the creek floodplains and at the edge of wetlands or open bodies of water. Deciduous hardwood trees including red alder, cottonwood (*Populus trichocarpa*), Oregon Ash (*Fraxinus latifolia*), willow (*Salix* sp.), and associated understory species are dominant within the wetland areas.

Wetlands are areas dominated by plants adapted to wet soil conditions, of soils that display characteristics typical of long-term saturation, and saturated or covered with water at some point during the growing season. Wetlands may form where the water table is at or near the soil surface, in depressions where the soil is saturated, in the floodplains of the many streams in the planning area, and on sloped areas where springs supply a constant source of water.

An inventory has been accomplished of wetland plant communities throughout the county using a process combining aerial photography and on-site field visits. The inventory determined there were 4 principal wetland types within the University Place urban area:

- 1) wet meadows with standing water from late fall to early spring characterized by reed canary grass, spike rushes, bulrushes, and sedges,
- 2) scrub/shrub wetlands with seasonal flooding, characterized by hardhack, willow, red alder or redosier dogwood,
- 3) forested wetlands not usually flooded but with saturated soils characterized by large trees of black cottonwood, red alder, Oregon ash, and western red cedar with an understory of vine maple, cascara, salmonberry, and devil's club, and
- 4) shallow marsh, deep marsh, and open water wetlands.

There are no endangered, threatened or sensitive plant species within the University Place urban area or Leach Creek corridor based on the results of the inventories. However, there are four threatened or endangered plants that could occur including a few flowered sedge (found in and near sphagnum bogs), choriso bog orchid (found in wet meadows and bogs), frinshed pinesap (found in deep shady woods at moderate to low elevations especially in old forest), and golden Indian paintbrush (found in moist lowland meadows and prairies).

Riparian and wetland vegetation provide significant food and cover for wildlife habitat. Generally, riparian zones and wetlands provide substantially more important wildlife habitat than forested areas. Riparian zones are also passageways for wildlife migrating between or around developed areas. Riparian vegetation also helps maintain optimum fish spawning conditions by providing shade, bank stabilization, a breeding ground for insects, and a source of organic material for the stream.

Riparian zones are located within the Leach Creek corridor and adjacent to Morrison Pond. These areas are covered with riparian vegetation and should be considered important wildlife corridors.

Animals - urban developments within University Place have substantially reduced wildlife habitat through the years. However, valuable habitat qualities still remain in the undeveloped, large native vegetation tracts and around the remaining wetlands and riparian (streamside) forests along the Leach, Peach, and Chambers Creek corridors.

These wooded areas support a wide variety of large and small mammals, birds, reptiles, and amphibians. The most common mammals within the wooded areas include chipmunks, rabbits, marmots, skunks, and raccoons. A small number of larger mammals possibly including black-tailed deer and coyote could occur along the southern edge of the University Place urban area where large contiguous forested areas remain adjacent to the Leach and Chambers Creek corridors.

The wetlands and riparian zones within the Leach and Chambers Creek corridors probably support muskrat, mink, otter, beaver, raccoon, and weasel.

Water bodies, wetlands, and adjacent open fields also provide suitable nesting and feeding habitat for mallard ducks, American widgeons, green-wing teal, common coot, common merganser, blue-wing teals and great blue heron, and lessor and greater Canadian goose.

Crows, jays, nuthatches, woodpeckers, sparrows, winter wrens, ruffed grouse, blue grouse, quality, band-tailed pigeon, Merriam's turkey, owls, hawks, Osprey, and eagles can find suitable habitat for feeding and nesting in the upland forested areas and stream valleys. Many of these species can tolerate adjacent urban developments so long as some habitat and connecting migration corridors remain undisturbed.

Portions of the University Place urban area that may adjoin the plateau overlooks onto The Narrows of Puget Sound may provide habitat for the bald eagle and osprey. The northern bald eagle is listed as a potentially threatened or endangered species on Washington State's endangered and threatened lists. No other endangered or threatened species are known to occur in the University Place urban area.

Other species of special concern under Washington State's Department of Wildlife endangered, threatened, sensitive, candidate, and monitor species programs in the University Place urban area may include the great blue heron, pileated woodpecker, purple martin, Vaux's swift, and western bluebird. Candidate and threatened mammals may include western gray squirrel along with the western pond turtle. Many of these remaining species can be found in close proximity to urbanized areas, although most need undisturbed vegetated areas large enough to maintain viable habitat.

Fisheries - chinook, coho, and chum salmon species spawn and rear in Leach and Chambers Creeks. Anadromous game fish that have been identified in the area include rainbow trout, cutthroat, dolly varden, eastern brook trout, whitefish, largemouth bass, perch, crappie, and catfish.

The Washington Department of Fish & Wildlife lists Leach Creek as supporting Coho salmon (*Oncorhynchus kisutch*) and Chum salmon (*Oncorhynchus keta*), with some Cutthroat trout (*Oncorhynchus clarkii*) present upstream of 40th Street West.

The stream corridor has a relatively unconstrained, meandering channel pattern with evidence of extensive over-bank flooding. The stream-bottom substrata is heavily sediment laden. No suitable spawning gravels are obvious in portions of the downstream corridor. Stream corridor vegetation cover is diverse and dense varying from deciduous-dominated forest community in the northern portions to conifer-dominated forest community in the southern portions. Blackberry and reed canarygrass (*Phalaris arundinacea*) minimally to moderately intrude into the stream corridor where the lands have been cleared.

A number of fish runs are considered endangered or threatened in Pierce County including the White River spring chinook, the Puyallup River fall chinook, and the sea-run cutthroat trout. The Puyallup River spring chinook run has been reported extinct by the American Fisheries Society.

These fish runs have developed genetic traits over the centuries that are best adapted to the environment conditions of these waterways. Consequently, diminishing runs can threaten the continued survival of the fish within these water bodies.

Factors which have caused the diminishment of the wild runs include: 1) forest clearcutting and land developments that create sediment loads increasing water turbidity and silting in gravel spawning beds; 2) clearcutting tree stands in riparian areas that removes natural shading increasing water temperatures; and 3) water diversions that restrict access from the upper reaches and spawning areas of river runs.

Historical development

Indian settlements

The arrival of Indian groups in the Pacific Northwest cannot be dated with great precision. However, archaeological investigations at the Manis mastodon site near Sequim on the Olympic Peninsula indicate man was in the area as early as 12,000 years ago.

There are more than 5,000 Indian sites on record in the state, only a few of which have been professionally evaluated. Generally, sites are located at river conjunctions within valleys and along the shoreline of Puget Sound. Known sites have been grouped into three rather broad time periods: 1) early sites approximately 12,000-8,000 years old, 2) middle-period sites between 8,000-3,000 years old, and 3) late-period sites about 3,000 years old.

A large number of different Indian tribes and bands inhabited the Pacific Northwest region with varied life-styles and different languages, dress, ceremonies, and adornments. Tribal characteristics are generally distinguished between the coastal tribes of western Washington and those of the interior. In general, the coastal tribes depended on the rivers and tidal waters for staple foods whereas the interior tribes relied more heavily upon plants and berries, as well as game and other animals.

Nisqually Indians lived on the Gig Harbor Peninsula in significant numbers as late as 1913. The Nisqually Tribe fished Puget Sound and the rivers, but also exhibited some agricultural and hunting characteristics common of eastern or interior tribes. The tribe spoke Salishan, a language family that may have been common from the coast through Puget Sound to the eastern Rockies and most of northern Canada. The tribe most likely spoke a subfamily dialect common of the Snoqualmie-Duwamish-Steilacoom-Nisqually Tribes territorial boundaries.

Chambers Creek was within the territory of the Steilacoom people, a group of Puget Salish speakers whose territory extended north and south of Chambers Bay. The Steilacoom were closely associated with the Nisqually and Puyallup tribes.

The Steilacoom people are not federally recognized as a tribe, and therefore, do not have fishing rights in Chambers Bay or Creek. The Medicine Creek Tribes (Nisqually, Puyallup, and Squaxin Island) have fishing rights in Chambers Bay, the Nisqually have exclusive rights in Chambers Creek. University Place and Pierce County acknowledge the Steilacoom people as a tribe or as operating like a federally recognized tribe for purposes of public notice, interested or affected parties, and like communications.

Indian encampments consisted of tribal groups which may have numbered more than 250 persons per group in densities of 4-10 persons per square mile. Village sites have been located at Wollochet Bay, at the north end of Gig Harbor, and possibly at Titlow Beach, on Day Island, along the shoreline of Chambers Bay, and at various sites throughout the extent of Chambers Creek Canyon.

University Place was not occupied by Indian peoples at the time settlement was initiated in the area. Indians probably used the upland areas primarily for hunting and foraging rather than habitation. The shoreline areas about Day Island and Chambers Bay and Creek, however, may have supported a variety of activities including village sites, fishing and foraging encampments, hunting blinds, and freshwater shellfish processing sites going back almost 10,000 years.

Stelle'lqub (anglicized into Steilacoom) - an important Steilacoom village site, was located on both ends of the sand spits defining the entrance to Chambers Bay. According to journals recorded by John Work in 1824, the village had 6 houses. Village inhabitants harvested a variety of salmon species from Chambers Creek and its tributaries with fish traps and wiers, or with spears and gaffs. The village also harvested large quantities of shellfish on the spits.

The Organic Act of 1848 established Oregon Territory and also provided the first guarantee of Indian rights. The first comprehensive Indian agreement was negotiated by the Indian Treaty Act of 1850. The act authorized negotiations with the tribes located west of the Cascades and surveyed public lands for the Oregon Donation Act.

Isaac Stevens, territorial governor of Washington, and Joel Palmer, superintendent of Indian affairs in Oregon Territory, concluded treaties with the Nisqually, Puyallup, and Steilacoom Tribes in 1854. The Treaty of Medicine Creek was negotiated in 1854, and set aside lands for the Nisqually, Puyallup, Steilacoom, and other groups.

The treaty reservations were small and isolated, however, causing some tribes to take military actions against the settlers resulting in the Indian War of 1855-1856. As a result of tension and distrust, the Indian Agent removed the Steilacoom peoples to a temporary reservation on Fox Island. After the Indian War, the Steilacoom people vacated the Fox Island reservation and settled with the Nisqually, Puyallup, or Squaxin Island reservations, or returned to the Chambers Bay site.

Early expeditions

1792 - the first exploration of Puget Sound was accomplished by British explorer Captain George Vancouver from his sloop, Discovery, and the smaller boat, Chatham. Vancouver sent several exploration parties out from Port Townsend, including one headed by the expedition botanist, Archibald Menzies, who sighted and named Mount Rainier.

Vancouver himself "completely explored every turning of the extensive inlet" south of Point Defiance from 27-29 May 1792 including the shoreline from Day Island to Chambers Bay.

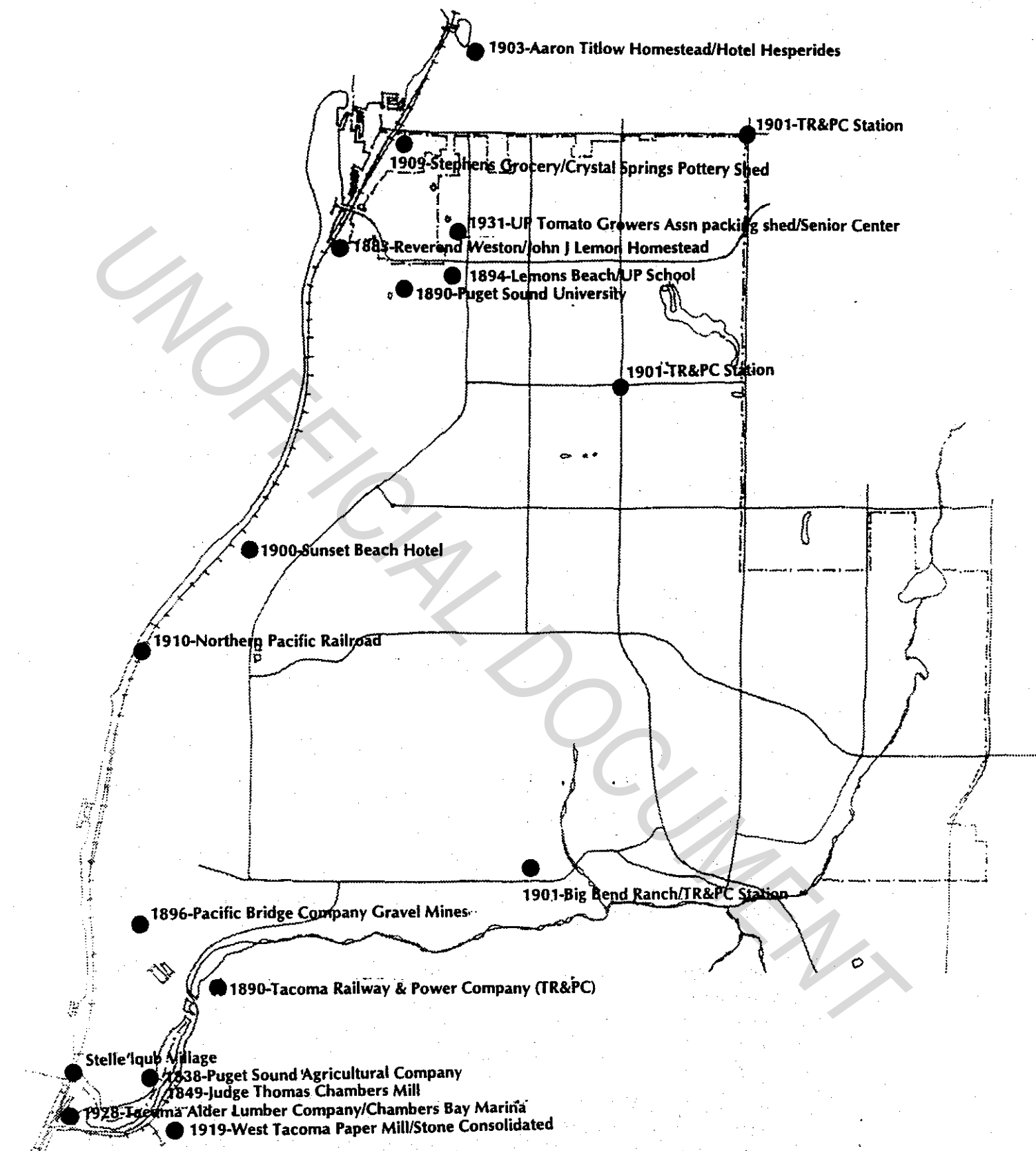
1838 - the United States Exploring Expedition or Wilkes Expedition under the direction of Lieutenant Charles Wilkes continued the exploration of the Puget Sound region. The expedition's purpose was to chart more accurate and detailed maps and to determine if the United States should acquire the Oregon country.

1841 - Wilkes sailed 2 ships for the Oregon Country entering the Strait of Juan de Fuca and anchoring in Port Discovery. The expedition explored the entire Puget Sound region and charted the entire area from an anchoring in Commencement Bay.

Wilkes named almost all of the physical features in south Puget Sound. Day Island was named after Surgeon Day who commanded one of the exploration ships.

University Place settlement

A comprehensive cultural resource inventory was accomplished for Pierce County between 1978 and 1983 by the Pierce County Department of Planning & Natural Resource Management, the County Preservation Officer, and the Washington State Office of Archaeology & Historic Preservation (OHAP). The results of the jointly funded survey are



Historical sites



kept in OHAP's files in Olympia and in the Pierce County Department of Planning & Natural Resource Management.

The survey identified a number of buildings in and around University Place as potentially important cultural and architectural resources. Following is a partial listing of significant events, sites, and structures within University Place that are listed in the cultural resource survey and various other records maintained by interested residents:

1838 - Hudson Bay Company established the Puget Sound Agricultural Company (PSAC) to include the territory between the Nisqually and Puyallup Rivers. The company claimed the lands adjoining the Steilacoom village on Chambers Creek and constructed a cabin within Chambers Bay.

The company conducted good relations with the local Indians recognizing established tribal territories and employing local peoples as farmhands, housekeepers, and herdsmen. Hudson Bay Company eventually abandoned the Puget Sound Agricultural Company when the surrounding lands were claimed by American settlers.

1849 - Judge Thomas M. Chambers staked a claim at the mouth of Heath Creek, known today as Chambers Bay. He may have temporarily inhabited the abandoned Hudson Bay Company Puget Sound Agricultural Company (PSAC) cabin on the site.

Judge Chambers built the first grist mill in 1850 in Pierce County, the sawmill in 1852, and the flour mill in 1855 on the south side of the Chambers Bay impoundment dam and fish ladder. In 1860, he built a massive new 4 story mill structure at the mouth of Chambers Bay near the site of the present Chambers Bay Marina.

1883 - Reverend Weston, a Baptist Minister, acquired a 167.5 acre tract within University Place located at the west end of present day 31st Street overlooking Day Island and Puget Sound.

1884 - John J. Lemon, a veteran of the Ohio Infantry's 86th Regiment from the Civil War, acquired Reverend Weston's 167.5 acre tract of land consisting of Lemons Beach and a part of University Place including Soundview. Lemon and his wife Mary Ann, operated a cattle ranch and holiday retreat on this property.

1890 - Methodist representatives from Willamette University in Salem, Oregon traveled north to Steilacoom to found Puget Sound University (now called the University of Puget Sound) on the encouragement of John J. Lemon. The campus was originally sited at South 21st and Yakima, though this location proved too small.

The Methodist Episcopal Church delegation subsequently procured a 420 acre site in 1893 through donation and purchase for a permanent college campus to be located on the hillside overlooking Puget Sound in the vicinity of Lemons Beach and Parkway Loop. Their intention was to develop a 60 acre campus and then sell adjacent lots through the University Land Company, an eastern enterprise, to finance building constructions.

Excavations were begun but abandoned along with the campus plans for this site in the financial panic of 1893. The land was eventually forfeited for taxes and sold in 1901. The name University Place, however, continued to be associated with the site and surrounding area.

1890 - the Tacoma Railway & Power Company constructed railroad tracks around the Chambers Bay shoreline. The railroad tracks encircled the bay ending on the north and south ends of the spit defining the entrance to Chambers Bay. The north line was never used for passenger service, though the tracks were apparently extended at one time to service the mines. The south line crossed the upper portion of the bay to provide passenger access into Steilacoom.

In 1901, the company converted the south track and laid streetcar tracks north along Bridgeport Way into Tacoma to create the Tacoma-Steilacoom Electric Interurban. The open-air electric streetcar stopped at the intersection of 19th and 67th, and 35th and Bridgeport. The line's Ferndale Station was conducted from the Drexler home located at 35th and Bridgeport.

Big Bend Ranch, which became Americo's Spaghetti house and eventually Charles Wright Academy, was a popular stop on the streetcar run. Extra cars were added on Saturday night to accommodate the roadhouse diners and dancers.

The streetcar operators conducted a late "freight run" that provided food, lumber, and water for area homesteads. The line was abandoned in 1916 when service costs exceeded revenues, and the line could not compete with the recently completed Northern Pacific Railroad line along the waterfront.

The narrow gauge tracks were removed in 1939 although portions of the original track bed alignments are still visible along Chambers Creek Canyon. The tracks along the south portion of Chambers Bay were replaced with standard gauge to provide service to the adjacent pulp and paper mills.

1894 - the first University Place school began operation in a rented, 2-room house on the southwest corner of 27th Street and Crystal Springs with an enrollment of 7 students. In 1895, University Place School District #83 was formed by petition.

1896 - Lemons Beach School, a one-room schoolhouse, was built at the behest of John J. Lemon and his wife Mary Ann. The building was located on 27th Street at about Elwood Avenue adjacent to the present day University Place Primary School.

1896 - David Williams, an employee of the Pacific Bridge Company - the builders of Fort Worden, Fort Flager, and Fort Casey, discovered and used the gravel deposit at the mouth of Chambers Bay in the construction of the forts. On completing construction of the forts, Pacific Bridge Company sold its mining interest to Martin Sand & Gravel in 1905.

In 1905 and 1907, Seattle Sand & Gravel Company and Independent Asphalt Paving Company also operated gravel mines on the site. In 1910, the 3 mines were consolidated into the Pioneer Sand & Gravel Company with David Williams presiding as Vice President and General Manager.

In 1910, Glacier Sand & Gravel also began operation of an adjoining mine on the site. In 1986, both mines were purchased by Lone Star Northwest. In 1992, Pierce County purchased the properties and now holds one of the oldest mining permits in the state for one of the largest open pit mines in the nation.

1900 - Sunset Beach Hotel, a 4 story edifice, was constructed on a 7 acre site at the end of Sunset Beach Road on Sunset Beach by John S. Baker. The hotel catered to passengers

aboard the Mosquito Fleet's light steamer boats. Supposedly, the hotel also catered to gamblers, ladies of the evening, and other ribald entertainments. The hotel burnt to the ground in 1904 even though the building complex had never been completely finished.

1903 - Aaron R. Titlow, an attorney and politician from Ohio, purchased the north half of the Wilton Land Donation which included nearly all of the property at the end of 6th Avenue to the end of 19th Street in University Place. Titlow operated a farm on the property.

Titlow constructed the Hotel Hesperides, a 30-room, 3-4 story tall, steam-heated tourist and summer hotel in 1911. He also operated The Lady of The Lake and The Folly boat launches for tourist and hotel guest excursions to Day Island, Fox Island, and Wollochet Bay.

The Titlow property was eventually acquired by the Tacoma Metropolitan Park District for the development of Titlow Beach Park in 1928. The Hotel Hesperides was reduced to a 1-2 story structure and renamed Titlow Lodge by a 1936 WPA project.

1909 - Stephens Grocery Store (now Crystal Springs Pottery Shed) was built at the west end of 19th Street on property known as the Belmarlow Addition. The west shoreline of Day Island Inlet was called Belmarlow Beach.

1910 - the Northern Pacific Railroad Company built railroad tracks along the waterfront to connect Olympia, Tacoma, and Seattle. In 1913, the 4,400 foot long Nelson-Beneath Tunnel was completed underneath the cliffs at Point Defiance connecting the waterfront railroad tracks between University Place and downtown Tacoma.

1910 - Day Island, a popular summer camping resort, was subdivided. The island was originally named for Surgeon Day who commanded one of the early exploration ships. Before being subdivided, the island beaches and timber stands were a popular summer camping resort.

1910 - Thomas Grocery store was built near its present location.

1912 - the Day Island bridge is built. The first telephone poles and rural mail service were also instigated in the area.

1915 - University Place Primary School, a 4-room, brick building was constructed on 5 acres of land located on the southwest corner of 27th Street and Grandview with the proceeds from a \$18,000 bond issue.

1915 - the Day Island Community Club was organized.

1919 - the West Tacoma Paper Mill was constructed on the south side of Chambers Bay inside the Town of Steilacoom. The mill site was built by sluicing away the surrounding hillside and filling much of the original Chambers Bay shoreline. Boise Cascade Corporation bought the mill in 1969 and enlarged the facility to its present size including the recycled ink paper mill. Boise Cascade Corporation's facility was purchased by Rainy River Forest Products in 1994, who sold it to Stone Consolidated Inc in 1996.

1920 - the first church was erected on the corner of 29th and Mountain View.

1923 - the newly formed University Place Water Supply Company laid the first water supply pipes in the area.

1928 - Coffman Grocery Store was constructed on the corner of 27th and Mountain View.

1928 - the Tacoma Alder Lumber Company constructed a mill on the south spit of Chambers Bay. The mill was leased to Phillip Gilbert during the Great Depression, who ran the facility until 1936. In 1936, Westbrook and Revelle took over the lease and renamed the mill Chambers Creek Lumber Company. Westbrook and Revelle operated the mill until it burned to the ground in 1954. The mill was rebuilt by the Tacoma Narrows Lumber Company who operated the facility until it was dismantled in 1978. Chambers Bay Marina is presently located on the old mill site.

1930 - Chambers Creek bridge was constructed to replace the original. The new bascule bridge was designed to allow passage of tugs hauling logs to the West Tacoma Newprint Company and Boise Cascade Mills located along the south shores of Chambers Bay.

1931 - the University Place Tomato Growers Association constructed a packing shed (now the University Place Senior Center) on Grandview Drive.

1939 - the Narrowsview Community Club was incorporated.

1940 - the Tacoma Airport Corporation acquired 40 acres of property on Mildred Street to begin construction of Oswald Flying Field. A Weyerhaeuser aircraft hanger was built at Oswald Flying Field in 1947.

1941 - the University Place Volunteer Fire Department was organized with 31 charter members with the cooperation of the University Place Improvement Club. In 1942, the University Place Volunteer Fire Department made the University Place Tomato Growers Association's packing shed (now the Senior Center) its fire headquarters building. In 1944, voters approved formation of the Pierce County Fire Protection District #3.

1954 - University Place School District #83 acquired a 37.5 acre site at the northeast corner of 40th Street and Grandview Drive for Curtis Junior High School.

Park and recreation history

1952 - The University Place Boosters Club was organized. The club sponsored community events, sports programs, holiday celebrations, and otherwise organized the recreational needs of the University Place Community.

The University Place Youth & Community Services took over many recreational and community functions when the University Place Booster's Club disbanded. The University Place Youth & Community Services organization was an independent, nonprofit corporation that functioned for several years making assessments of community needs and services. The organization petitioned and sponsored the special election to form a University Place Parks & Recreation District.

1978 - University Place Parks & Recreation District was validated by voters - the second district to be created in Washington State. The newly formed University Place Parks & Recreation District was governed by a 5 member board of commissioners composed of local community residents for staggered 4 year terms. The District was responsible for promoting the improvement and development of parks, recreational facilities, and activities

within the newly formed district's boundaries - which approximately equate with the boundaries of the University Place School District and present city limits.

The District received a \$10,000 startup contribution from Pierce County and another \$10,000 in 1986. Otherwise, District revenues were generated from recreational program user fees, the rental of the headquarter's building, occasional contributions from local service clubs, and private grant monies.

The Board placed a recreational levy on the ballot 8 times - twice in 1979, twice in 1982, twice in 1986, and twice in 1987. The measures received more than a 50 percent approval each time, but failed to achieve the required 60 percent voter turnout necessary for validation. The vote count in 1986 was 1 vote short of validation.

1979 - the University Place Park & Recreation District transferred title to the original University Place Booster's Club Hall on 40th Street West for the University Place Fire District property (the former packing shed for the University Place Tomato Growers Association and now the Senior Center) on Grandview Drive.

1982 - Colegate Park and Sunset Terrace were conveyed to the University Place Park & Recreation District from the Pierce County Parks & Recreation Department.

1985 - Chambers Crest Wildlife Habitat was donated to the University Place Park & Recreation District by developer Harmon Verbrugge of Coquitlam, British Columbia, Canada in exchange for approval for the development of the Chambers Crest subdivision.

1986 - the first comprehensive park planning process was initiated for University Place by the University Place Park & Recreation District using a \$6,400 donation from the Fuchs Foundation.

1989 - a master plan for Colegate Park was developed by the University Place Park & Recreation District using a \$6,000 donation from the Tacoma Narrows Rotary Club.

1994-1995 - in November 1994, residents approved cityhood by an 82 percent vote. On the 31st of August 1995, University Place was incorporated.

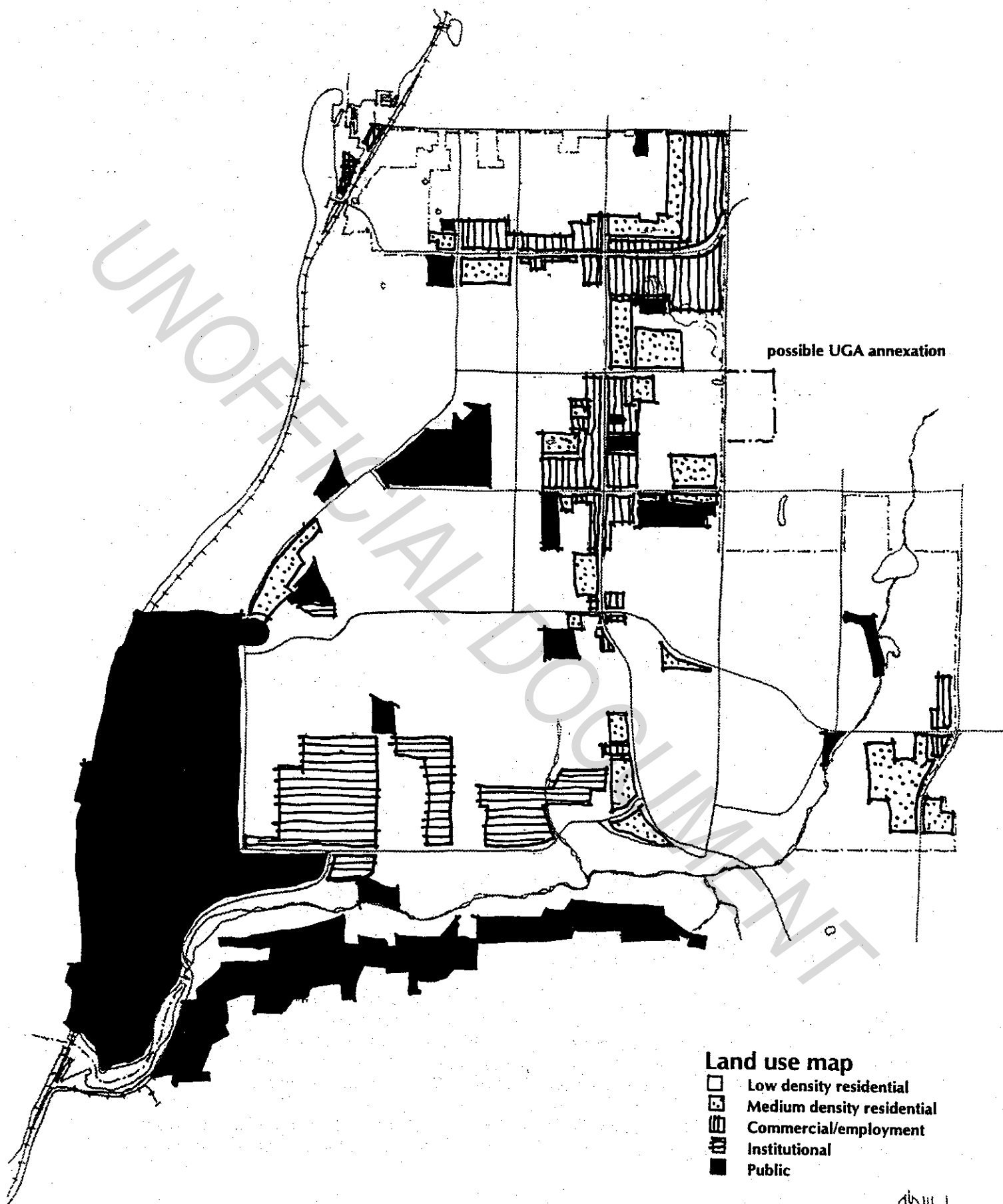
1996 - on the 4th of August, an interlocal agreement was signed merging the University Place Park & Recreation District with the City of University Place effective the 1st of January 1997.

Present development pattern

University Place is primarily developed for single family residential neighborhoods at an overall density of 4 dwelling units per acre. According to a city land use inventory in 1996, about 38 percent of the city's 12,500 dwelling units are multifamily structures.

A major employment district has developed in the north end of the city between 19th and 30th Streets, and Bridgeport Way and 67th Avenue. The district includes a variety of manufacturing, light industrial, warehouse, and general commercial activities that serve residents of University Place and the surrounding area.

A number of mixed use commercial and residential areas are clustered on 27th Street west of Bridgeport Way, on the east side of Bridgeport Way on both sides of 35th Street, and on the west side of Orchard Street north of Cirque Drive.



possible UGA annexation

Land use map

-  Low density residential
-  Medium density residential
-  Commercial/employment
-  Institutional
-  Public



The land use plan proposes to develop a concentrated city center composed of mixed use employment, retail, residential, and public uses on Bridgeport Way between 35th and 40th Streets.

Population and housing

In recent times, the resident population within the present incorporated boundaries of University Place increased on a gradual basis averaging 4.4 percent per year between 1970-1980, 2.7 percent between 1980-1990, and 0.7 percent between 1980-1990 resulting in an estimated population of 28,751 persons by 1995.

The resident population increased at a rate considerably higher than the surrounding region and county between 1970 and 1990 as the plateau was developed for suburban housing and light commercial uses. Residents were increasingly employed by manufacturing, service, and related enterprises located elsewhere in Pierce County.

The resident population continued to increase though at a slower rate between 1990 and 1995 as most of the larger property holdings were built out.

Population projections - according to the Washington State Office of Financial Management (OFM), Pierce County will increase in population by another 225,901 persons during the 1990 to 2012 time period or by an annual average rate of change declining from 1.5 to 1.2 percent.

The Washington State Office of Financial Management (OFM) and the Puget Sound Regional Council (PSRC) expect the population of University Place will continue to increase from 28,751 persons in 1995 to an estimated 31,000 persons by the year 2000 and 33,000 persons by the year 2005 equal to an annual average rate of change per year declining from 0.8 to 0.6 percent as the last remaining vacant lands build out.

Socioeconomic characteristics

The US Department of Census compiled demographic statistics for jurisdictional areas in 1990 including Washington State, Pierce County, and the University Place CDP. The statistical census information has been compiled in report format by the Puget Sound Regional Council (PSRC).

According to the statistical findings, the population within the 1990 University Place CDP had socioeconomic characteristics that were slightly different than the averages typical of the surrounding county. For example, the average household size was 2.49 persons within the city compared with 2.62 in Pierce County. Likewise, the median age was 33.0 years for residents within city limits and 31.3 years in Pierce County.

There were a comparable percentage of single person households (24.3 percent) in the city limits and Pierce County (23.4 percent). A sizable percent of the single person households in the incorporated area were female (59.4 percent) compared with Pierce County (55.6 percent). The incorporated area had a relatively large percent of married couples without children (42.4 percent) compared with Pierce County (39.6 percent).

Approximately 40.1 percent of all University Place residents over the age of 18 have obtained a college degree compared with 22.9 percent in Pierce County. Likewise, 71.6

Population projections by nation, state, region, county, city

	United States	Washington State	Puget Sound (Snohomish/King/Pierce/Kitsap Counties)	Pierce County	University Place
1900	76,094,000	518,100	196,285	55,515	
1910	92,407,000	1,142,000	482,306	120,812	
1920	106,466,000	1,356,600	634,254	144,127	
1930	123,077,000	1,563,400	736,996	163,842	
1940	132,594,000	1,736,200	820,202	182,081	
1950	152,271,000	2,379,000	1,196,172	275,876	
1960	180,671,000	2,853,200	1,512,979	321,590	
1970	204,879,000	3,413,300	1,934,628	411,027	13,230
1980	226,500,000	4,132,200	2,240,437	485,667	20,381
1990	250,410,000	4,866,692	2,748,895	586,203	26,714
1995	260,138,000	5,288,893	3,017,140	648,113	28,751
2000	268,266,000	5,611,216	3,219,742	696,572	31,000
2005	275,604,000	5,925,888	3,400,302	743,579	33,000
2010	282,575,000	6,244,311	3,580,407	792,179	
2012		6,372,930	3,653,653	812,104	
2015	288,997,000	6,568,146			
2020	294,364,000	6,890,119			

Annual average rate of change by increment

1900-1910	2.0%	8.2%	9.4%		
1910-1920	1.4%	1.7%	2.8%	1.8%	
1920-1930	1.5%	1.4%	1.5%	1.3%	
1930-1940	0.7%	1.1%	1.1%	1.1%	
1940-1950	1.4%	3.2%	3.8%	4.2%	
1950-1960	1.7%	1.8%	2.4%	1.5%	
1960-1970	1.3%	1.8%	2.5%	2.5%	
1970-1980	1.0%	1.9%	1.5%	1.7%	4.4%
1980-1990	1.0%	1.6%	2.1%	1.9%	2.7%
1990-1995	0.8%	1.7%	1.9%	2.0%	0.7%
1995-2000	0.6%	1.2%	1.3%	1.5%	0.8%
2000-2005	0.5%	1.1%	1.1%	1.3%	0.6%
2005-2010	0.5%	1.1%	1.0%	1.3%	
2010-2012		1.0%	1.0%	1.2%	
2010-2015	0.5%	1.0%			
2015-2020	0.4%	1.0%			

Sources:

US Bureau of the Census, Current Population Reports, Series P-25, Number 1018,

Mid Series 14: fertility=1.8 births/woman,

mortality=81.2 years, with 500,000 yearly net immigration.

Washington State OFM Forecasts of the State Population by Age, Sex, and County to 2012.

Washington State Data Book, Office of Financial Management, 1991

Puget Sound Regional Council (PSRC) Household, Population, and Employment Estimates, 15 March 1995.

percent of all University Place residents are active in the labor force compared with 66.4 percent in Pierce County. Median household income in University Place is \$34,576 compared with \$30,412 in Pierce County.

The city has a larger percentage of renters (45.4 percent) compared with Pierce County (39.7 percent) living in higher value renter-occupied units (\$415 per month median rent) compared with Pierce County (\$372). Overall, the city has a lower percentage of detached single family housing units (53.6 percent) compared with Pierce County (61.2 percent).

Overall, the statistics indicate residents of the University Place incorporated area are likely to be slightly older and living in childless or smaller households with more education and household income than typical of general county residents. Conversely, the statistics also indicate the city has a larger percentage of renting households living in attached and other multifamily housing units than is typical of other county urban areas.

Comparative social statistics – age and household status

	Washington State	Pierce County	University Place CDP
Persons	4,866,692	586,203	27,701
Households	1,872,431	214,652	11,094
Average household size	2.53	2.62	2.49
Families	1,264,934	151,672	7,730
Persons in group quarters	120,531	23,158	91
Age by sex			
0- 1	1.6%	1.5%	1.3%
1- 4	6.1%	6.8%	6.0%
5- 6	3.1%	3.3%	3.0%
7-11	7.5%	7.9%	7.5%
12-15	5.3%	5.3%	5.5%
16-17	2.5%	2.5%	2.7%
18-21	5.8%	6.5%	5.7%
22-24	4.3%	4.8%	4.7%
25-34	17.6%	18.2%	17.0%
35-44	16.5%	15.4%	16.8%
45-54	10.3%	9.7%	11.8%
55-59	3.9%	3.8%	4.4%
60-64	3.9%	3.7%	4.1%
65-69	3.8%	3.5%	3.3%
70-79	5.3%	4.8%	4.5%
80+	2.6%	2.2%	1.8%
Median age	32.5	31.3	33.0
Percent under 18	26.0%	27.2%	26.0%
Percent 65+	11.7%	10.5%	9.6%
Single person households	473,924	50,214	2,704
1 person, male	43.0%	44.4%	40.6%
1 person, female	57.0%	55.6%	59.4%
2 or more person households	1,401,584	164,438	8,390
Family household	1,276,227	151,672	7,730
married couple w/related child	38.4%	40.2%	38.0%
married couple w/o related child	43.8%	39.6%	42.4%
male only w/related child	2.4%	2.9%	2.2%
male only w/o related child	2.0%	1.8%	1.6%
female only w/related child	8.7%	11.3%	11.6%
female only w/o related child	4.6%	4.1%	4.2%
Non-family households	125,357	12,766	660
male householder	61.1%	62.9%	59.4%
female householder	38.9%	37.1%	40.6%
Total households	1,875,508	214,652	11,094

Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Comparative social statistics – education, occupation and income

	Washington State	Pierce County	University Place CDP
Educational attainment (persons 18 years+)			
less than 9th grade	5.1%	4.3%	2.1%
9th–12th grade, no diploma	11.9%	13.1%	6.6%
high school graduate	28.3%	34.0%	25.7%
some college, no degree	26.3%	25.6%	25.5%
associate degree	7.7%	7.4%	9.1%
bachelors degree	14.6%	10.9%	21.0%
graduate or professional degree	6.1%	4.6%	10.0%
Total	3,608,232	426,818	18,591
Total population	4,866,692	586,203	27,703
Total persons 16 years+	3,730,985	441,387	21,263
total in labor force	66.7%	66.4%	71.6%
total civilian employed	61.5%	61.0%	64.8%
total in armed forces	1.4%	0.0%	3.6%
Occupation			
managerial, professional	27.7%	24.5%	36.0%
technical, sales support	31.3%	31.4%	34.8%
service occupations	12.8%	14.3%	11.6%
farming, forestry, fisheries	3.4%	1.8%	0.7%
precision production, craft and repa	11.6%	13.2%	8.7%
operators and laborers	13.2%	14.8%	8.3%
Total	2,293,961	251,833	18,591
Median household income	\$31,183	\$30,412	\$34,576
Median family income	\$36,795	\$35,108	\$41,242
Per capita income	\$14,923	\$13,439	\$16,537
Family/nonfamily household income			
\$ 0– 9,999	12.9%	13.6%	8.7%
\$ 10– 14,999	8.5%	9.1%	7.3%
\$ 15– 19,999	8.9%	9.4%	8.9%
\$ 20– 24,999	9.0%	9.4%	9.8%
\$ 25– 29,999	8.4%	8.6%	8.1%
\$ 30– 34,999	8.4%	8.7%	8.0%
\$ 35– 39,999	7.5%	7.8%	8.4%
\$ 40– 44,999	6.6%	6.7%	7.0%
\$ 45– 49,999	5.5%	5.4%	4.7%
\$ 50– 54,999	4.7%	4.8%	4.5%
\$ 55– 59,999	3.6%	3.5%	4.7%
\$ 60– 74,999	7.5%	6.8%	10.5%
\$ 75– 99,999	4.8%	3.6%	5.6%
\$100–124,999	1.7%	1.3%	1.8%
\$125–144,999	0.7%	0.5%	0.8%
\$150,000+	1.3%	0.8%	1.2%
Total	1,875,508	214,795	11,211

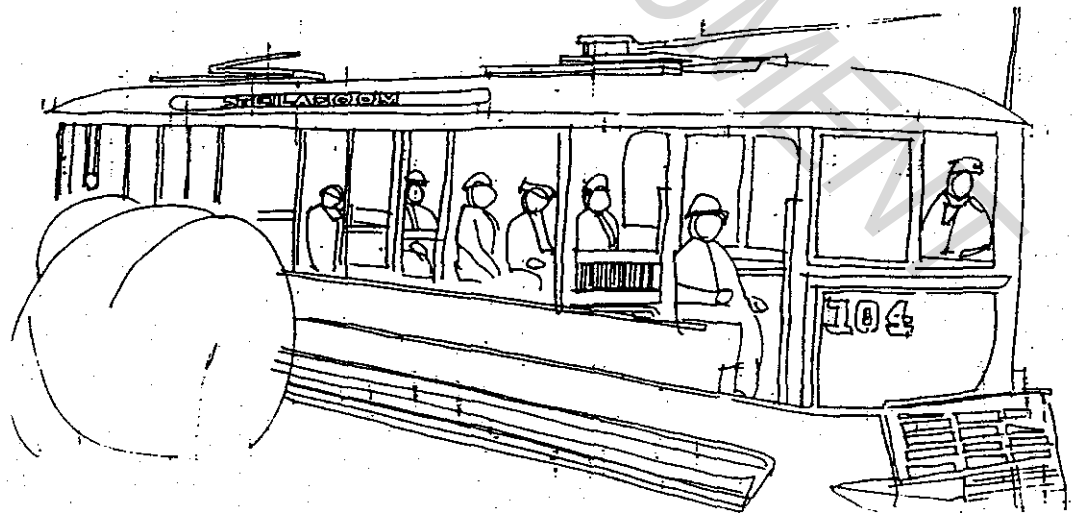
Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Comparative social statistics – housing characteristics

	Washington State	Pierce County	University Place CDP
Total housing units	2,032,378	228,842	11,546
Occupied housing units	1,872,431	214,652	11,094
percent owner occupied	57.6%	60.3%	54.6%
percent renter occupied	42.4%	39.7%	45.4%
Units in structure			
1, detached	62.6%	61.2%	53.6%
1, attached	2.4%	3.4%	3.9%
2	3.0%	3.4%	4.0%
3 or 4	3.8%	4.4%	8.2%
5-9	4.5%	4.7%	8.3%
10-19	5.8%	6.4%	11.1%
20-49	4.9%	4.5%	6.7%
50 or more	2.7%	2.3%	2.9%
mobile home/trailer	9.2%	8.9%	0.8%
other	1.0%	0.8%	0.6%
Total	2,032,378	228,842	11,546
Value (owner-occupied units)			
\$ 0- 30,000	3.1%	1.5%	0.2%
\$ 30- 39,999	4.4%	3.2%	0.3%
\$ 40- 49,999	6.3%	6.8%	1.0%
\$ 50- 59,999	7.8%	10.3%	2.6%
\$ 60- 74,999	13.6%	20.2%	12.8%
\$ 75- 99,999	20.0%	26.9%	32.9%
\$100-124,999	11.9%	11.8%	18.8%
\$125-149,999	9.6%	7.0%	13.2%
\$150-174,999	6.9%	4.1%	7.8%
\$175-199,999	4.4%	2.3%	3.8%
\$200-249,999	4.8%	2.5%	3.4%
\$250-299,999	2.7%	1.4%	1.5%
\$300-399,999	2.3%	1.1%	1.2%
\$400,000+	2.1%	0.8%	0.6%
Total	896,436	101,950	5,325
Median value	\$92,800	\$82,500	\$100,400
Rent (renter-occupied units)			
\$ 0-200	10.9%	7.1%	1.8%
\$ 200-299	17.2%	17.6%	5.9%
\$ 300-349	11.3%	14.3%	13.9%
\$ 350-399	13.0%	17.3%	21.4%
\$ 400-449	11.1%	13.7%	21.4%
\$ 450-499	9.0%	9.3%	12.0%
\$ 500-549	6.6%	5.5%	8.1%
\$ 550-599	4.8%	3.2%	3.6%
\$ 600-649	3.6%	2.2%	4.9%
\$ 650-699	2.6%	1.4%	2.7%
\$ 700-749	1.5%	0.7%	1.2%
\$ 750-999	3.1%	1.3%	1.9%
\$1,000+	1.1%	0.7%	0.2%
No contract rent	4.0%	5.6%	1.1%
Total	683,104	83,942	5,010
Median rent	\$382	\$374	\$415

Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Existing facilities



Tacoma Railway & Power Company Electric Railroad - 1916

Existing lands and facilities

University Place, Pierce County, the University Place School District, and various private organizations have assembled over 745.4 acres of land with park, recreation, and open space uses within city boundaries.

These lands provide a variety of park, recreation, and open space activities including waterfront beaches, picnic facilities, trail corridors, athletic fields and playgrounds, community facilities, and supporting administrative and maintenance facilities.

In addition, a number of private organizations own and operate park and recreational facilities of benefit to residents of the city and surrounding area.

Approximately 653.6 acres or 88 percent of the total park, recreation, and open space land inventory are regionally significant sites and properties used by city and county residents regardless of their place of residence within the city or even the surrounding area.

Approximately 91.8 acres or the remaining 12 percent of the total park, recreation, and open space land inventory are locally significant sites and properties that are used by residents who reside within the immediate city area, usually on a neighborhood level.

Inventory by agency

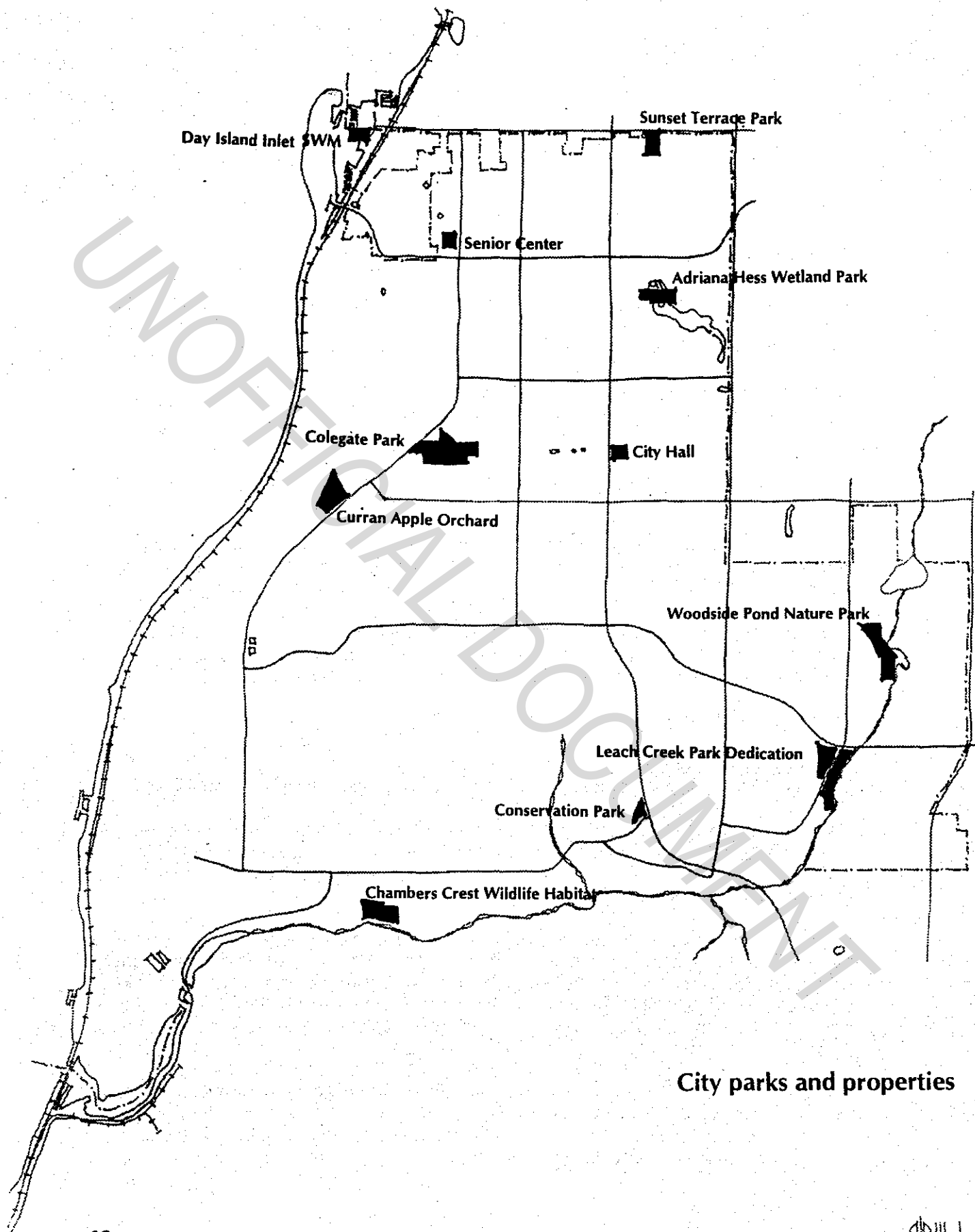
City of University Place

University Place owns 11 properties with 41.5 acres of land available for public use.

Day Island Surface Water Management (SWM) Site - this 2.5 acre property is located at the west end of 20th Street West on the east shore of Day Island Inlet adjacent to the Day Island Yacht Club. The east portions of the site were created by fill action. The west shoreline has gradually silted in recent years.

Portions of the surrounding site were once occupied by Lindahl Cedar Homes - who may have bulldozed portions of this site into the inlet. Lindahl sold a portion of their property holdings to the Day Island Yacht Club - who built the existing marina at the south end of the inlet. The original right-of-way for 19th Street was subsequently traded for an 80 foot right-of-way and public access just north of the existing yacht club's entry parking area and fence.

The property is presently improved with a stormwater drainage outlet pipe into Day Island Inlet and a pump station to manage overflow from the Crystal Springs Creek tributary drainage corridor. The shoreline and fill area are covered with scotch broom and other shrubs that provide cover for shoreline wildlife.



City parks and properties

Properties with park, recreation, and open space uses

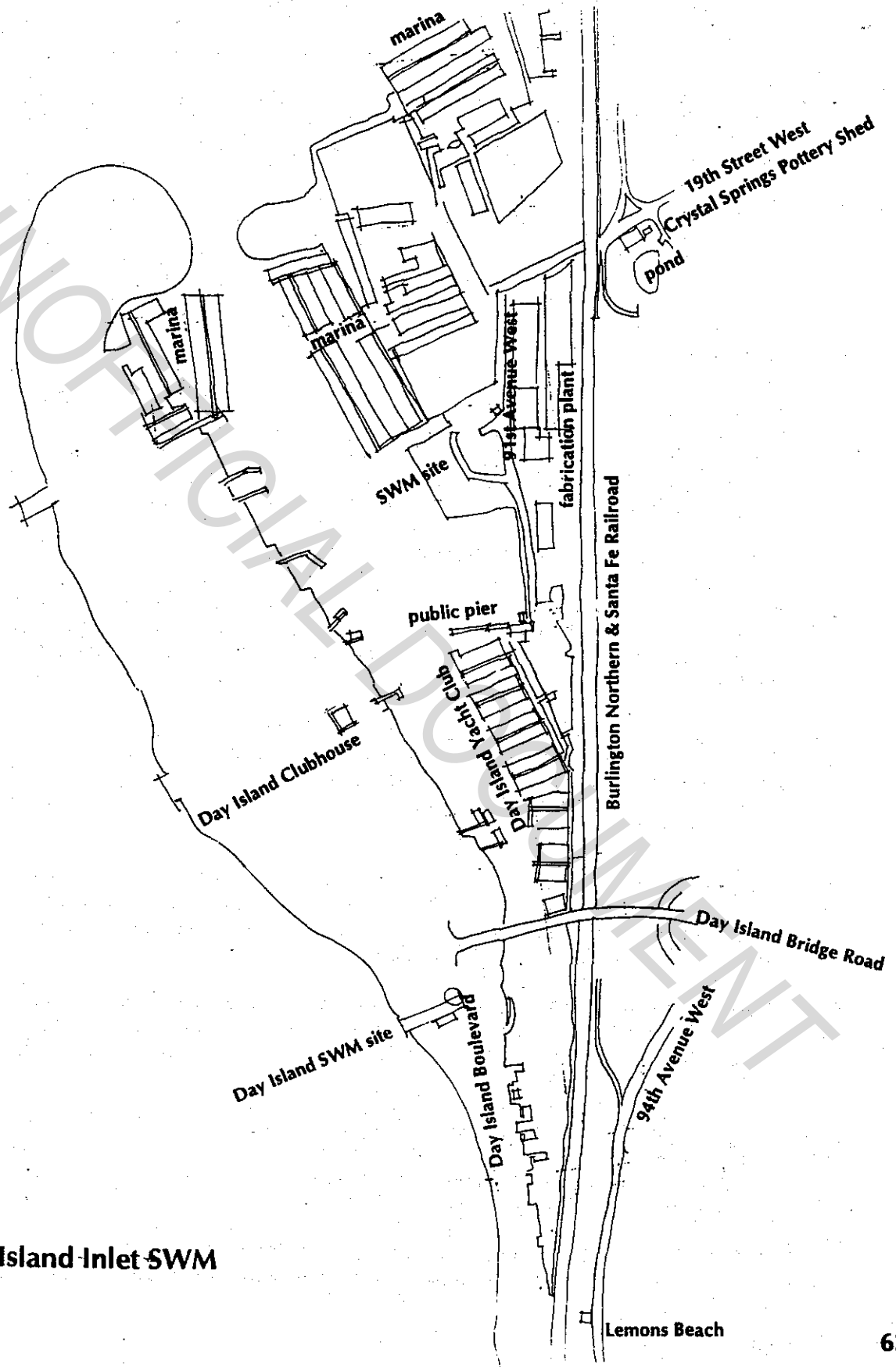
		Resource conservancy parks – dvpmnt rights/fee title									
		Resource activity parks – swim/camp/boat/fish									
		Linear parks/trails									
		Athletic parks/playgrounds – fields/courts/playgrounds									
		Recreation centers/pools									
		Special use facilities – gun/marina/golf									
		Support facilities/yards/buildings									
		school									
Local/regional park lands in acres		total								site	features
1	Day Island SWM site	lcl	–	2.5	–	–	–	–	–	2.5	w/shoreline
2	Sunset Terrace Park	lcl	–	–	–	2.1	–	–	–	2.1	
3	Adriana Hess Wetland Park	lcl	2.0	–	–	–	–	–	–	2.0	
4	Curran Apple Orchard	lcl	7.0	–	–	–	0.3	–	–	7.3	w/life estate
5	Woodside Pond Nature Park	lcl	3.6	–	–	–	–	–	–	3.6	
6	Leach Creek Park Dedication	lcl	2.0	–	1.0	–	–	–	–	3.0	
7	Conservation Park	lcl	1.0	–	0.5	–	–	–	–	1.5	
8	Chambers Crest Wildlife Habitat	lcl	7.5	–	–	–	–	–	–	7.5	
9	Senior Center – UPP&RD Hdqtrs	rgl	–	–	–	–	0.5	–	–	0.5	
10	Colegate Park	rgl	–	–	–	11.0	–	–	–	11.0	
11	City Hall–Administration	rgl	–	–	–	–	–	–	0.5	0.5	2.4 total site
Subtotal local parks			23.1	2.5	1.5	2.1	0.3	0.0	0.0	29.5	
Subtotal regional parks			0.0	0.0	0.0	11.0	0.5	0.0	0.5	12.0	
TOTAL			23.1	2.5	1.5	13.1	0.8	0.0	0.5	41.5	
PIERCE COUNTY											
12	Chambers Creek Properties	rgl	80.0	8.0	100.0	80.0	–	240.0	–	488.0	928.0 120 ac outside city
Subtotal local parks			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Subtotal regional parks			80.0	8.0	100.0	80.0	0.0	240.0	0.0	488.0	
TOTAL			80.0	8.0	100.0	80.0	0.0	240.0	0.0	488.0	
OTHER PUBLICLY ACCESSIBLE											
13	Day Island Clubhouse	lcl	–	–	–	–	0.1	–	–	0.1	
14	Pierce County Library	rgl	–	–	–	–	1.4	–	–	1.4	
Subtotal local parks			0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	
Subtotal regional parks			0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	
TOTAL			0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	
UNIVERSITY PLACE SCHOOL DISTRICT											
18	Chambers Primary	lcl	–	–	–	4.6	–	–	–	4.6	9.2
19	Evergreen Primary	lcl	–	–	–	21.6	–	–	–	21.6	26.9 w/expansion site
20	Sunset Primary	lcl	–	–	–	5.6	–	–	–	5.6	11.2
21	University Place Primary	lcl	–	–	–	5.0	–	–	–	5.0	8.3
22	Drum Intermediate School	lcl	–	–	–	4.5	–	–	–	4.5	11.2
23	Narrows Intermediate School	lcl	–	–	–	7.7	–	–	–	7.7	15.5
24	Curtis Junior High School	rgl	–	–	–	12.4	–	–	–	12.4	21.6
25	Curtis Senior High School	rgl	–	–	–	8.3	0.9	–	–	9.2	26.6 w/swim pool
Subtotal local parks			0.0	0.0	0.0	49.0	0.0	0.0	0.0	49.0	
Subtotal regional parks			0.0	0.0	0.0	20.7	0.9	0.0	0.0	21.6	
TOTAL			0.0	0.0	0.0	69.7	0.9	0.0	0.0	70.6	
PRIVATE FACILITIES											
26	Westwood Square Park	lcl	–	–	–	1.1	–	–	–	1.1	
27	Academy Terrace Park	lcl	0.5	–	–	1.6	–	–	–	2.1	
28	Beckonridge Park	lcl	0.5	–	–	–	2.3	–	–	2.8	w/swim/tennis club
29	Bristonwood Park	lcl	2.0	–	–	0.4	–	–	–	2.4	
30	Park Ridge Park	lcl	2.0	–	–	0.4	–	–	–	2.4	
31	Woodlake Park	lcl	1.5	0.5	–	–	0.4	–	–	2.4	w/swim club
32	Charles Wright Academy	rgl	43.4	–	–	17.9	2.3	–	–	63.6	68.3 w/soccer dome
33	Tacoma Rifle & Revolver Club	rgl	40.0	–	–	–	–	25.0	–	65.0	
34	Day Island Yacht Club	rgl	–	2.0	–	–	–	–	–	2.0	
Subtotal local parks			6.5	0.5	0.0	3.5	2.7	0.0	0.0	13.2	

Properties with park, recreation, and open space uses

	Resource conservancy parks – dvpmnt rights/fee title							
	Resource activity parks – swim/camp/boat/fish							
	Linear parks/trails							
	Athletic parks/playgrounds – fields/courts/playgrounds							
	Recreation centers/pools							
	Special use facilities – gun/marina/golf							
	Support facilities/yards/buildings							
	school site features							
Local/regional park lands in acres								total
Subtotal regional parks	83.4	2.0	0.0	17.9	2.3	25.0	0.0	130.6
TOTAL	89.9	2.5	0.0	21.4	5.0	25.0	0.0	143.8

CITY/COUNTY								
Local	23.1	2.5	1.5	2.1	0.3	0.0	0.0	29.5
Regional	80.0	8.0	100.0	71.0	0.5	240.0	0.5	500.0
TOTAL	103.1	10.5	101.5	73.1	0.8	240.0	0.5	529.5
CITY/COUNTY/OTHER PUBLIC								
Local	23.1	2.5	1.5	2.1	0.4	0.0	0.0	29.6
Regional	80.0	8.0	100.0	71.0	1.9	240.0	0.5	501.4
TOTAL	103.1	10.5	101.5	73.1	2.3	240.0	0.5	531.0
CITY/COUNTY/OTHER PUBLIC/SCHOOLS								
Local	23.1	2.5	1.5	51.2	0.4	0.0	0.0	78.6
Regional	80.0	8.0	100.0	91.7	2.8	240.0	0.5	523.0
TOTAL	103.1	10.5	101.5	142.8	3.2	240.0	0.5	601.6
ALL TOTAL INCLUDING PRIVATE								
Local	29.6	3.0	1.5	54.6	3.1	0.0	0.0	91.8
Regional	163.4	10.0	100.0	109.6	5.1	265.0	0.5	653.6
TOTAL	193.0	13.0	101.5	164.2	8.2	265.0	0.5	745.4

Day Island Inlet SWM



The site offers dramatic views of Day Island Inlet and the adjacent marinas, as well as wildlife that frequent the shorelines. Fragile salicornia (pickleweed) beds, a once threatened plant, thrive in the adjacent in the intertidal areas. Crystal Creek was once an important salmon run, and may still provide important salmonid feeding grounds.

Sunset Terrace Park - this 2.1 acre property is located on the southeast corner of Seaview and South 19th Street. The property was conveyed to the University Park & Recreation District by the Pierce County Parks & Recreation Department in 1982.

The site has been improved with grass soccer and softball fields, and an irrigation system.

Senior Center (former University Place Park & Recreation District Headquarters) - this 0.5 acre property is located at 2534 Grandview Drive West north of West 27th Street. The property was traded to the Park & Recreation District by the University Place Firefighters in 1978 in exchange for the building that formerly housed the University Place Booster's Club on 40th Street West.

The University Place Park & Recreation District renovated the present 2,800 square foot building to provide headquarters office space and a community meeting hall. The partially 2 story building contains a fully equipped kitchen, restrooms, storage areas, and a common assembly area. The building is presently used for senior citizen activities, an amateur artist group, Weight Watchers, and social events such as receptions and banquets.

In 1992 and 1994, the Park & Recreation District was awarded \$56,600 in Community Development Block grants from Pierce County to renovate the building to conform with the American Disabilities Act (ADA). An additional \$115,300 was awarded to the city in 1997. The projects will modernize restroom facilities, develop on-site parking, and make major improvements to the kitchen, electrical, doors and windows, heating and air conditioning systems.

Adriana Hess Wetland Park (Morrison Pond) - this 2.0 acre property is located adjacent to 2917 Morrison Avenue West on the west side of Morrison Pond. The property was purchased from Adriana and George Hess by Pierce County as an open space acquisition in 1995 using Conservation Future Funds. The site was conveyed to the city following incorporation.

The property extends across the north end of Morrison Pond - a 38.0 acre wetland complex that partially drains west towards Day Inlet and southeast towards Leach Creek. The east edge of the site extends to the pond edge offering views of the open pond, marsh, grassy and forested uplands, and wildlife habitat.

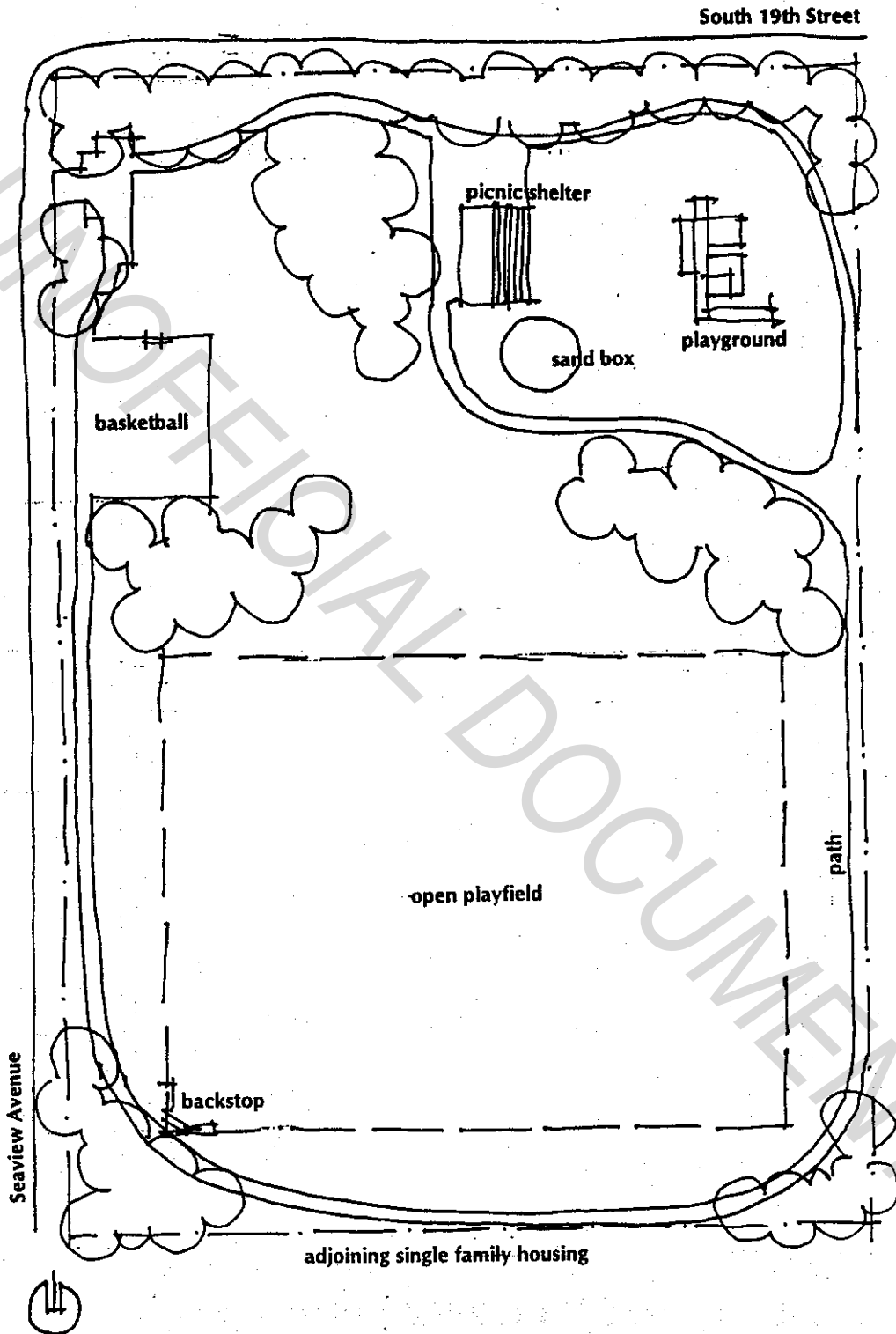
The property has a 50 foot wide access from Morrison Avenue West. The bulk of the site, however, is located behind a single family residence. Site improvement plans have been developed and submitted for permit approval to construct an access lane, small parking lot, trails, and a pond overlook.

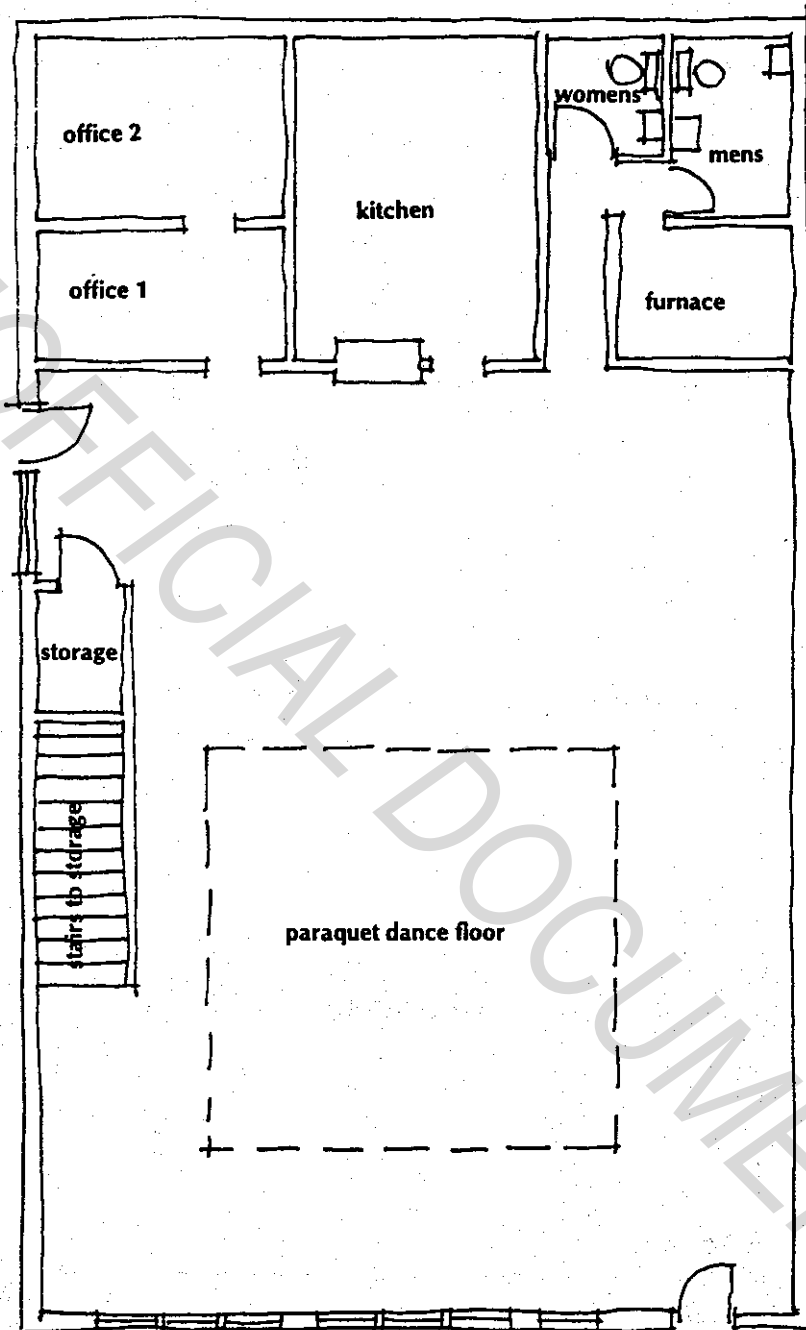
City Hall - this 2.4 acre property is located on the west side of Bridgeport Way West at 35th Avenue West. The former 5 building Windmill Village shopping complex was acquired to provide space for city hall, council chambers, and other public administrative functions following the city's incorporation.

The 3 buildings located on the north end of the complex are currently leased for restaurant and retail shops. The 2 buildings (about 0.5 acres of the site) located on the south end of

Sunset Terrace park - a proposal

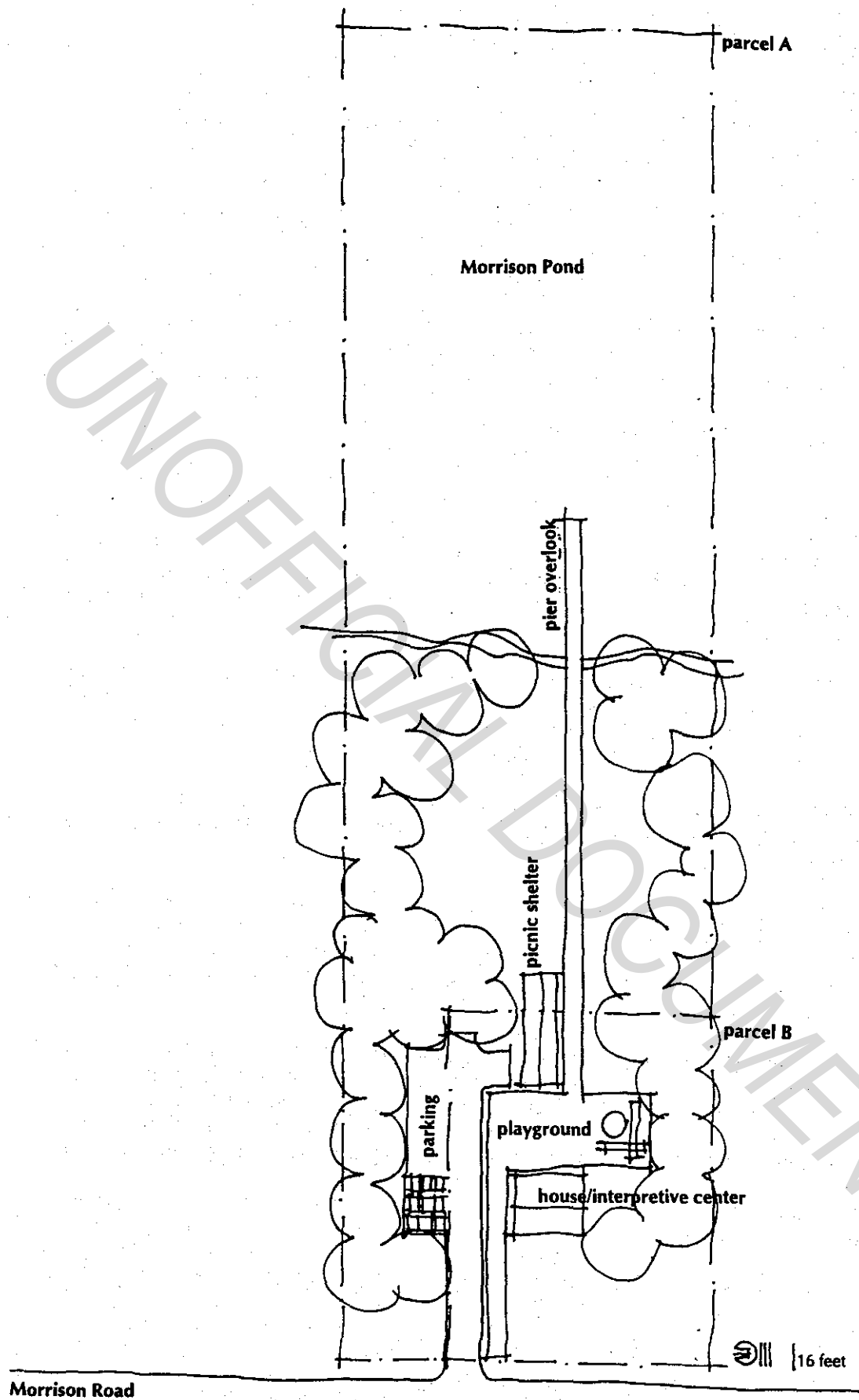
The following graphic depicts one a possible development concept for the park created by the University Place Park & Recreation District. Prior to development, the property may be master planned with a process involving public participation and comment.





||| 2 feet

Senior Center/UPP&RD Headquarters Building



Adriana Hess Wetlands Park - proposed

the complex house city administrative functions including the Park & Recreation Division's administrative offices and public meeting facilities.

Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools. The north boundary of the park site also partially adjoins 37th Street West. The property was conveyed to the University Park & Recreation District by the Pierce County Parks & Recreation Department in 1982.

Note - the site was conveyed to the city as "Colgate Park". A portion of the original park, however, may have been donated and/or developed for public use by the Colegate family. The site has been known to University Place residents as Colegate Park ever since.

In 1985, several acres of the park were leased to the University Place School District for a 25 year period in return for the School District's development of 3 tennis courts on the park site. In 1994, another interlocal cooperative agreement was made to allow joint development of 25 acres owned by both parties in the center of the park-school complex.

The site has since been improved to provide 6 tennis courts, a softball/soccer field, walking trails, picnic tables, and a shared use park/high school parking lot. The parking lot and south boundary of the park adjoin Curtis Junior High School's baseball and softball fields, and Curtis Senior High School's football field, track, and stadium.

The School District recently constructed a new administrative office building on the upper north portion of the park site to replace the temporary office building located on school property on 40th Street West. In exchange for this, the city will be provided access to the north and east 15-17 acre portion of the School District's property.

The north and east portions of the park and school district property have not been improved. Portions of this part of the property, however, are subject to periodic flooding during heavy rainstorms.

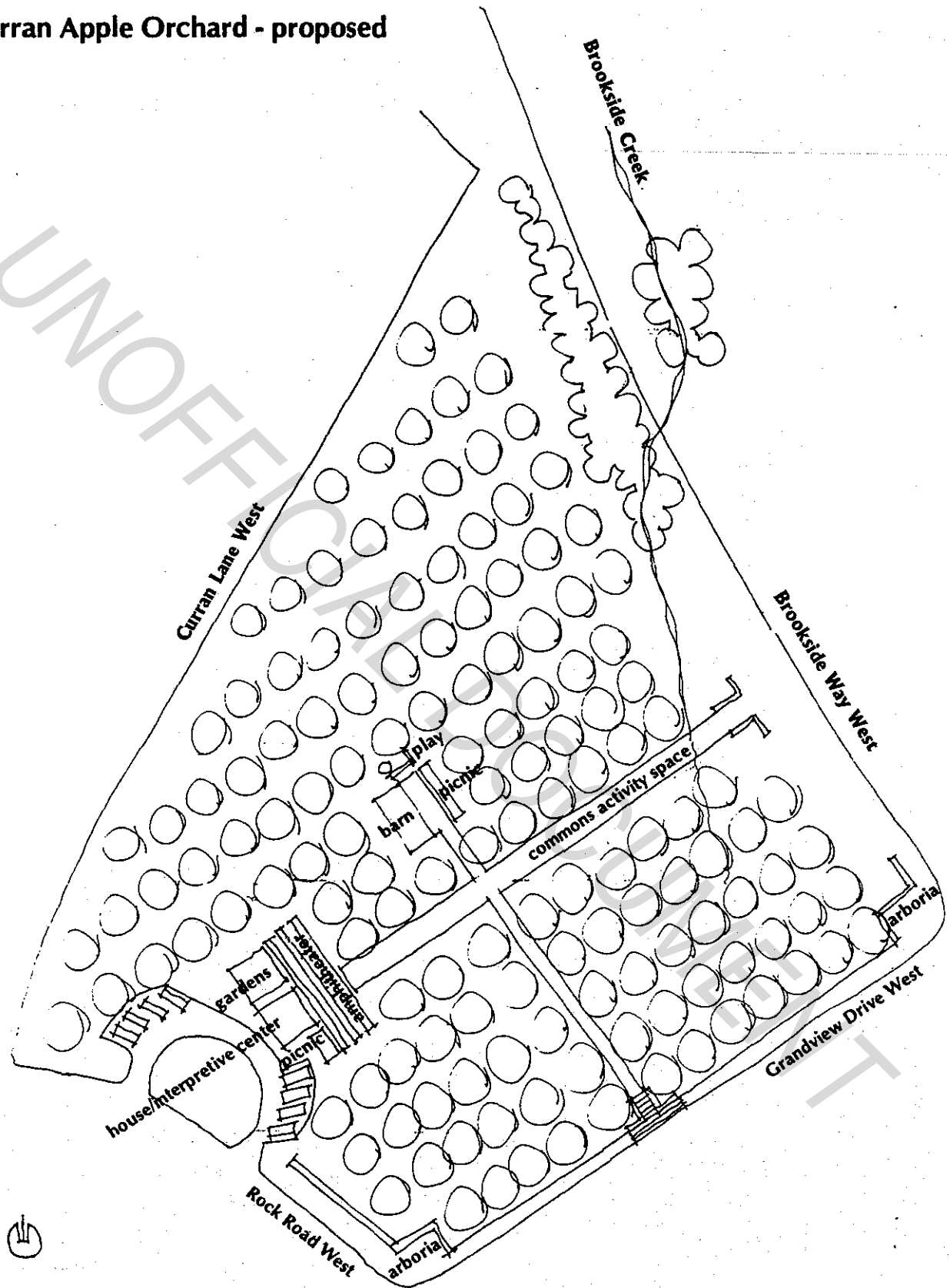
Curran Apple Orchard - this 7.3 acre orchard and residence is located in the city block bound by Grandview Boulevard, Rock Road, Curran Lane, and Brookside Drive. The property is being purchased by Pierce County as an open space acquisition using Conservation Future Funds from 1995 to the year 2000. The site was conveyed to the city following incorporation.

The acquisition conserved one of the last remaining working orchards in what was once a typical farming operation in this part of the county. The residence and a surrounding 0.33 acre plot are presently occupied by Charles and Mary Curran - the orchard's original owners. Under the acquisition terms, the Curran's will reside on the property under a lifetime estate - or until their death, when the house and plot will become part of the park.

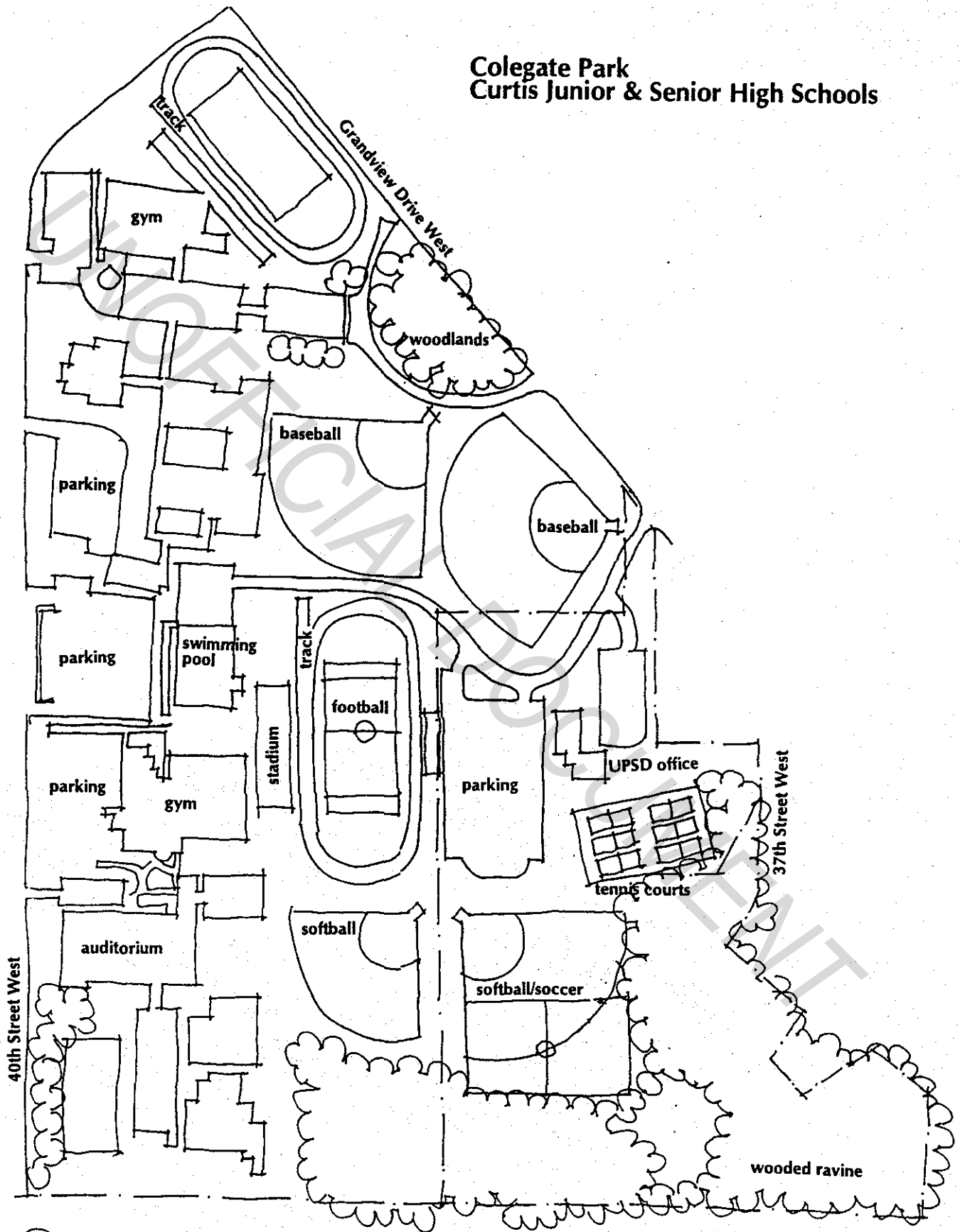
There are approximately 200 apple trees producing McIntosh, Gravenstein, and Golden Delicious Apples on the site. The orchard is presently managed by an advisory group as a 'working park' where visitors can experience grafting, pollinating, pruning, beekeeping, and other aspects of the orchards operations and harvesting through interpretive exhibits.

Woodside Pond Nature Park - this 3.6 acre property is composed of 2 parcels located east of 48th Street West behind a residential subdivision along the banks of Leach and Woodside Creeks. The parcels are separated by a 1.0 acre, fenced stormwater detention pond developed by the Pierce County Surface Water Management utility and recently conveyed to the city.

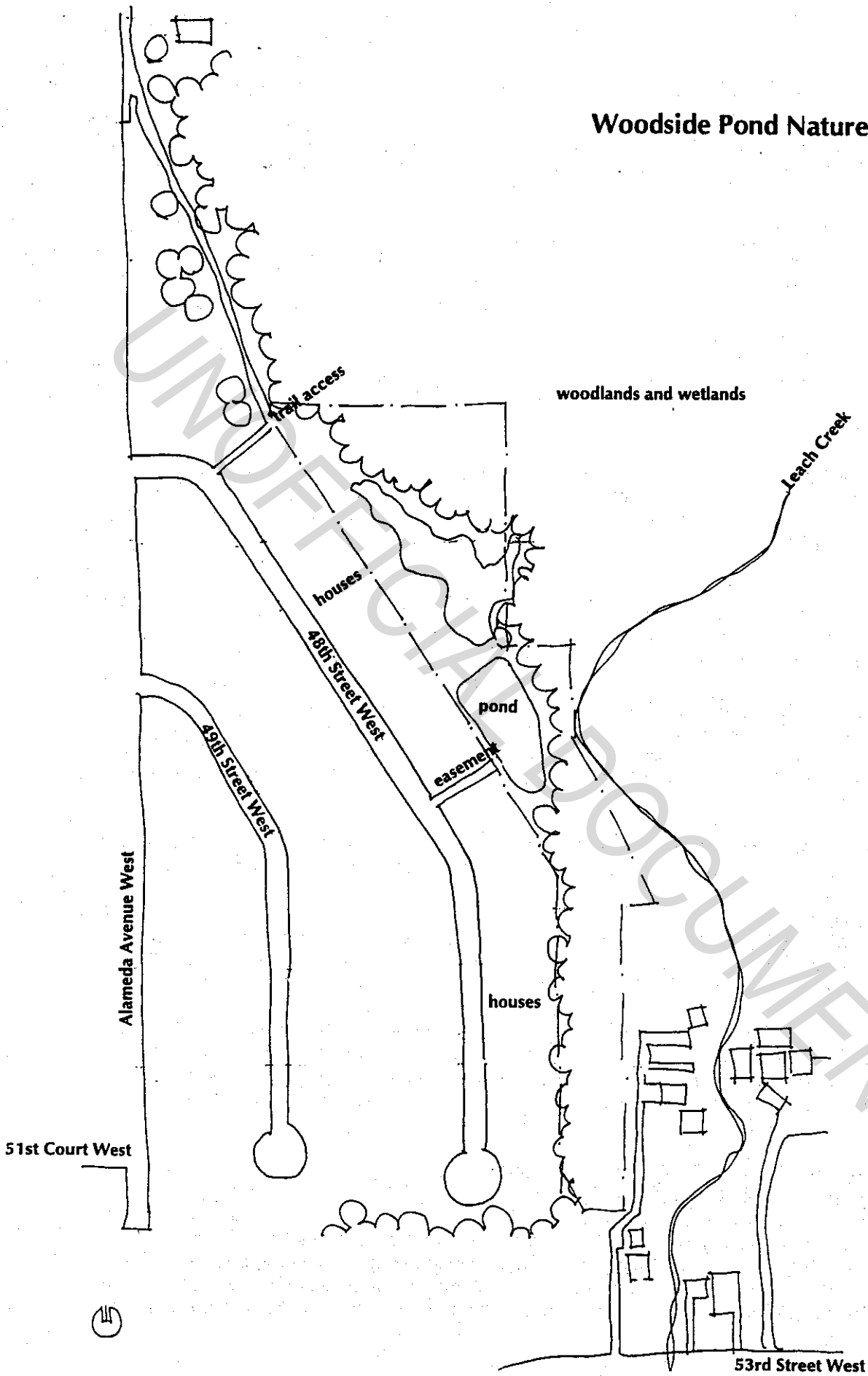
Curran Apple Orchard - proposed



Colegate Park Curtis Junior & Senior High Schools



Woodside Pond Nature Park



The northern parcel is accessible by way of a long timber stairway and crushed rock trail from 48th Street West. The southern parcel is accessed from a 20 foot wide easement off 48th Street West acquired by Pierce County and conveyed to the city.

Leach Creek Park Dedication - this 3.0 acre property dedication is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West. The dedicated wooded, wetland property extends south along the west banks of Leach Creek alongside the right-of-way extension of Alameda Avenue through a planned residential subdivision.

Another wetland dedication is located across Alameda Avenue from the Leach Creek parcel adjacent to the surface water management (SWM) holding pond. An adjacent hillside conservation parcel will be held in common ownership by the residential occupants of the subdivision tract.

Conservation Park - this 1.5 acre property is located on the northwest corner of Bridgeport Way West and Chambers Lane West just below a major residential development. The steep, undeveloped wooded hillside property was originally donated to and owned by the Save Our University Place (SOUP) Foundation for wildlife habitat and open space conservation.

A walking trail has been developed over time between the residential community and a transit stop on Bridgeport Way. Side trails have also been created to provide access and interpretive views of local native plant species.

Chambers Crest Wildlife Habitat - this 7.5 acre property is located to the south of Chambers Creek Road on the north slope of Chambers Creek behind the Chambers Crest subdivision. The site was originally donated by developer Harmon Verbrugge of Coquitlam, British Columbia, Canada in exchange for approval for the development of the Chambers Crest subdivision.

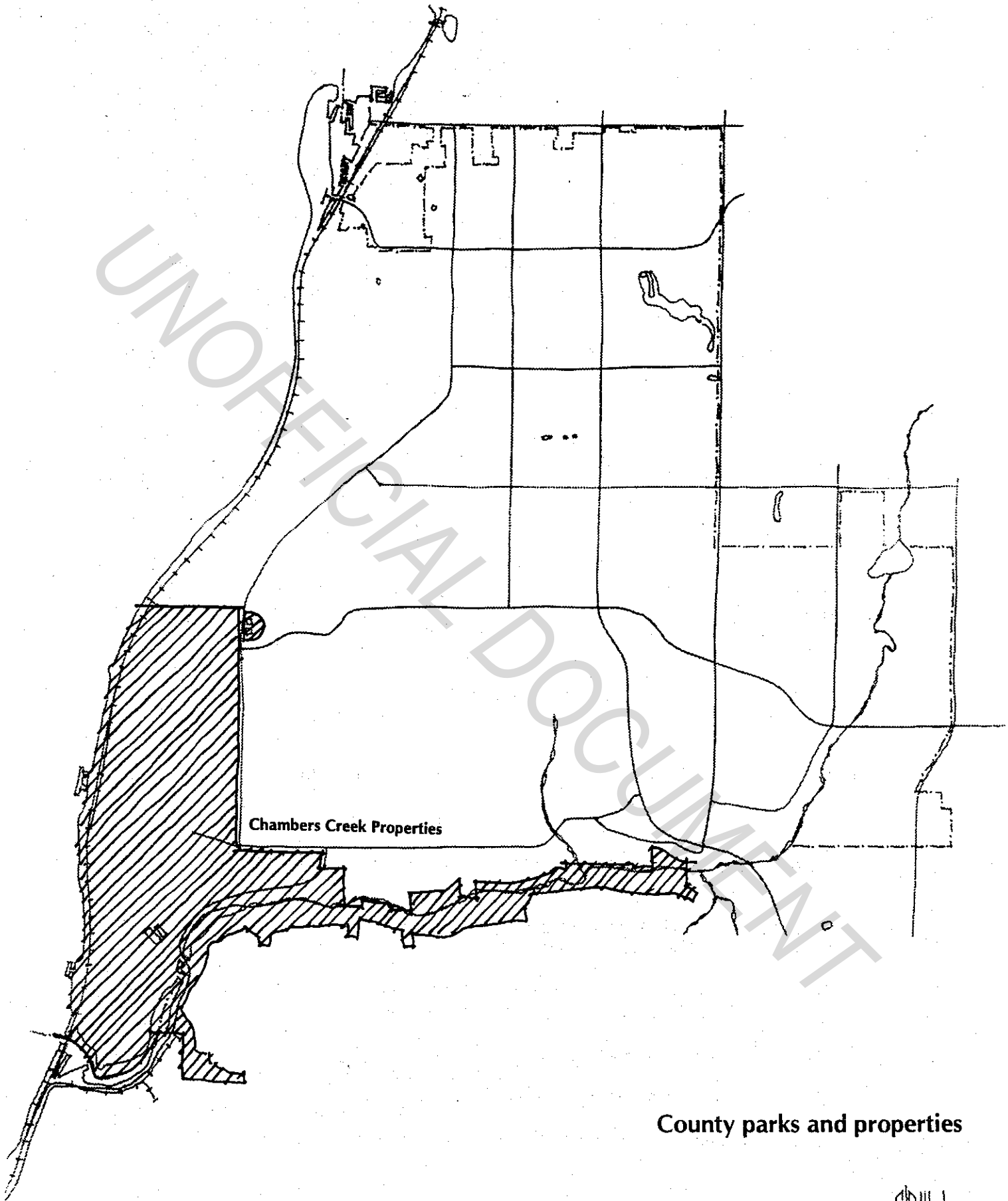
The steep, undevelopable wooded property conserves wildlife habitat and migration routes, and separates the Chambers Creek corridor from the adjacent residential subdivision.

Pierce County

Chambers Creek Properties - the Pierce County Departments of Parks & Recreation, and Public Works & Utilities own 928.0 acres of property of which 680.0 acres are located within University Place and 120.0 acres in Lakewood and unincorporated Pierce County.

The properties are located along the Puget Sound shoreline south of 48th Street West and west of Grandview Drive; and the north side of Chambers Bay south of 64th Street West and west of Chambers Creek Road West; and along Chambers Creek Canyon east from the Chambers Creek impoundment pond to the convergence of Chambers and Leach Creeks at about Phillips Road SW.

The properties were gradually acquired by the Pierce County Departments of Parks & Recreation, and Public Works & Utilities over the past 40 year period. The combined landholdings include an undeveloped park, 2 gravel mines, maintenance facilities, administrative offices, a wastewater treatment plant, and related facilities. The properties surround other landholdings including a fish ladder and counting facility located on the north shore of Chambers Bay owned by the Washington State Department of Fish & Wildlife (WDFW); and land under the impoundment pond owned by Stone Consolidated Corporation.



County parks and properties



Some portions of the county's landholding were acquired with dedicated revenues subject to specific land use purposes. For example, the eastern 200.0 acre portion of the property located in Chambers Creek canyon was acquired through a series of donations, grants, and matching fund purchases beginning in 1977 and including a recent purchase in September 1996. Some portions of the property were acquired with state matching fund grants for trails and may only be used for natural parks, open space, or public access.

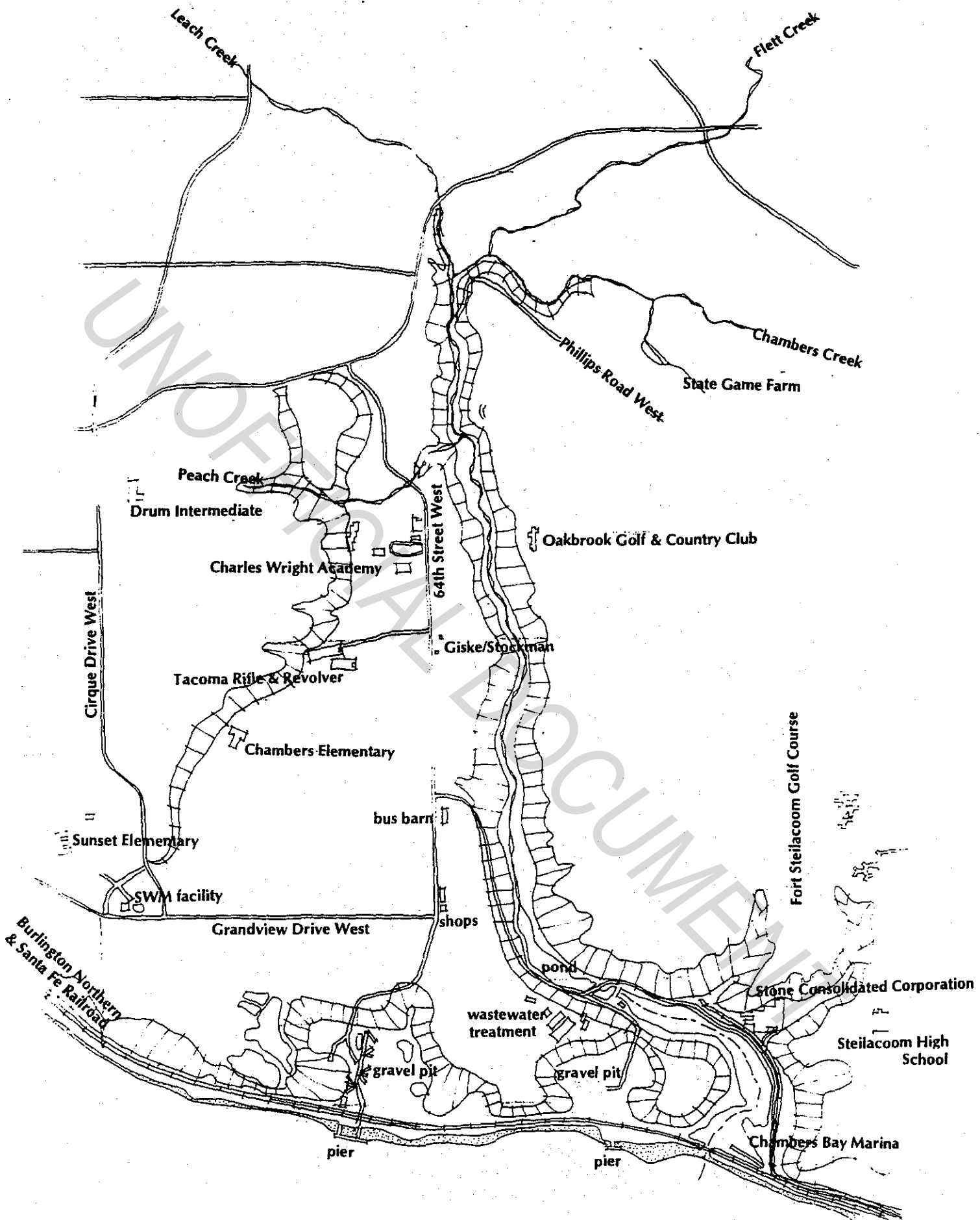
The northwest 600.0 acre portion of the site (the former Lone Star Northwest Gravel Mine property) was acquired in 1992 with \$33,000,000 in sewer utility funds "...to provide property for present and future public uses and (the) purposes of a wastewater utility". The county acquired all associated operating permits, mineral rights, and water rights to the property. Ultimately, some portions of the property will be required for further expansion of the Chambers Creek Regional Wastewater Treatment Plant (WWTP). In the short term, however, Lone Star Northwest Sand & Gravel Company will continue to operate the gravel mine under a lease-back agreement with the county effective through 1999.

Chambers Creek Properties Master Site Plan (CCPMSP) - the Departments of Public Works & Utilities and Parks & Recreation, in conjunction with a citizens committee and resource team composed of citizen groups and agency representatives, are presently developing a single, coordinated long range public use plan for the entire 928.0 acre property holding. Depending on the final resolution of the CCPMSP process, approximately 488.0 acres of the lands located within city limits are of possible park, recreation, and open space use.

Over the long term, the resulting county plan will reclaim the gravel mines, develop compatible land uses on the properties, and provide public access and recreational opportunities. The long range plan may require 50 years, depending on the remaining life of the gravel pits and the quantity of biosolids that are necessary to reclaim the depleted soils.

Potential long range park, recreation, and open space uses - in phased increments, the resulting county plan may develop public use and park, recreation, and open space facilities to include:

- 1) buffer landscape areas along the north and eastern edges of the former gravel mines,
- 2) public access to the north and south piers and beach with vendor activities,
- 3) boat launch ramp (4-lane) with administration, concession, restrooms, and maintenance facilities onto Chambers Bay,
- 4) multipurpose trails along the Puget Sound shoreline and along Grandview Drive and 64th Street with trailheads and activities,
- 5) walking and hiking trail through Chambers Creek canyon with trailheads at Phillips Road and Zircon Drive in Lakewood, and Chambers Lane in University Place,
- 6) picnic and children's play areas,
- 7) multipurpose lighted athletic fields (4-6),
- 8) visitor and environmental education center,



- 9) botanical garden, if feasible,
- 10) golf course with proshop, clubhouse, and maintenance facility,
- 11) commercial offices and restaurants with views of Chambers Bay and Puget Sound,
- 12) surface water management facility,
- 13) water production and reclamation facility,
- 14) regional wastewater treatment plant (WWTP) and biosolids demonstration site,
- 15) road and public works maintenance and administration facilities with an adjacent school bus barn,

The exact location of these improvements will depend on the contents of the final preferred plan alternatives under consideration and scheduled for adoption in 1997.

First phase improvements - will occur over the next 10 year period beginning in 1998. Phase 1 improvements will include:

- 1) multipurpose trail corridors along Grandview Drive and 64th Street with trailheads and activities,
- 2) improvements to the existing walking and hiking trail segment in Chambers Creek canyon with trailhead parking lot in the Chambers Creek bridge area,
- 3) public access to the south pier and beach with vendor activities, and the
- 4) boat launch ramp (4-lane) with administration, concession, restrooms, and maintenance facilities onto Chambers Bay.

Development areas - for planning purposes, the landholdings are divided into the following development areas:

1) North area - this 240.0 acre development area includes the northern boundaries of the 610.0 acre gravel pit (formerly owned by Lone Star Northwest Sand & Gravel Company). The predecessors of Lone Star began operating a gravel plant at this site beginning in 1896. The plant is one of the oldest mines in the state and the largest gravel mines in the nation.

The Northern Pacific (now Burlington Northern Santa Fe) Railroad Company built the existing railroad tracks across the property along the Puget Sound shoreline to connect Olympia, Tacoma, and Seattle in 1910. The railroad tracks were laid along the edge of the shoreline, sometimes on rock-filled embankments. The shoreline can not be traversed during high tides except for a small beach at the southern end of the site.

Mining activities have excavated a sizable extent of the property located east of the tracks between the railroad bridge across Chambers Bay to a buffer area located along the north boundary adjoining 48th Street West.

A large gravel barge loading pier is located in the center of the site shoreline across from the largest pit. The H-shaped pier is linked to the large pit by an elevated conveyor system. This pier is actively used by mining operations.

The site is presently accessed from the end of 64th Street West. The access road winds down the hillside to provide access to the conveyor system and loading bins adjacent to the northern H-shaped pier.

A biosolids demonstration program was established on a 20 acre portion of the wastewater treatment plant site in 1994 in conjunction with the University of Washington. The demonstration project tests and illustrates the value of biosolids as a soil amendment for areas depleted of nutrients and organic matter, as in the adjacent sand and gravel mines.

The proposed CCPMSP will develop a water production and reclamation facility in this development area with a planted buffer adjacent to the wastewater treatment plant to the south. The CCPMSP also envisions developing a variety of park, recreation, and open space uses in this development area possibly including a golf course with proshop, clubhouse, and maintenance facilities, a botanical garden, visitor/environmental education center, picnic and children's play area, a multipurpose trail along the shoreline, and public access to the north pier with concessions and other conveniences.

2) Wastewater Treatment Plant (WWTP) - this 160-180.0 acre development area is located on the north side of Chambers Bay and Chambers Creek Road. Portions of the property were acquired in 1978 for the development of a regional wastewater treatment plant (WWTP) facility.

The initial wastewater treatment plant facility began operating in 1984. The plant currently serves more than 162,000 people who reside within the Chambers Creek-Clover Creek drainage basin. The plant's treated effluent is discharged into Puget Sound by way of an outfall pipe that extends west under the gravel mine and railroad.

The plant is currently being expanded to provide a treatment capacity of 24,000,000 gallons per day (mgd) capacity to accommodate expected population growth within the service area and to meet increasingly stringent water quality standards. The plant will expand ultimately to a 48,000,000 gallon per day (mgd) capacity as area population and water quality measures require.

The wastewater treatment plant site is accessed from an entry road off Chambers Creek Road West above the impoundment dam, and another directly adjacent to the impoundment dam. A chainlink fence has been erected around the plant site.

The wastewater treatment plant will be composting biosolids in an on-site soil production facility to be used in the soil reclamation process of the gravel pits. The biosolids will reduce erosion and provide plant nutrients necessary to establish rootings. New man-made ponds (wetlands, etc) will treat and reclaim treated wastewater for plant irrigation and other site industrial uses.

The CCPMSP will reserve this development area for the future expansion and operational requirements of the wastewater treatment plant.

3) Grandview/64th Street Trail/Buffer - this 80-100.0 acre development area is located along the eastern boundary with Grandview Drive and the eastern end of 64th Street. This area constitutes a buffer between the surrounding residential neighborhoods and the gravel mining operations conducted in the center of the former Lone Star Northwest property. The area retains the original site grade and conserves an evergreen woodland stand at the edges of the right-of-way.

Mining operations are subject to federal regulations. The regulations require mine operators to maintain a stable slope between the mining pits and original site topography, and buffer areas with adjacent land uses. (Planning areas 1,2,3,4,6, and 8 are affected by these regulations.)

The CPMSP envisions a variety of park, recreation, and open space uses in this development area possibly including a multipurpose trail with scenic overlooks, trailheads at the north and south ends of the buffer, a children's playarea, and view restaurant.

4) Pierce County Surface Water Management (SWM) facility - this 4.0 acre development area is located on the east side of Grandview Drive West between Cirque Drive and Bristonwood Drive West. The site was acquired in 1993 by the Pierce County Surface Water Management (PCSWM) Division. Prior to its purchase, the property was owned and operated as a treatment plant by the Westside Sewer District.

The site includes offices, classrooms, a temporary city road shop, and other support facilities for the Surface Water Management (PCSWM) Division. The Division conducts interpretive classes and tours for local area school students and other public environmental educational groups.

The heavily wooded area around the site is not part of the Surface Water Management Utility's property holding. A private developer will soon begin excavating portions of this site surround for a proposed housing development.

The CCPMSP proposes to retain this development area for continued government service activities.

5) Maintenance facility - this 64.0 acre development area is located on both sides of Chambers Creek Road just south of 64th Street West. The property was acquired by the Pierce County Public Works Department in the 1950s for a gravel mine and road shop.

The northwest portion of the site has been improved with office, shop, vehicle maintenance, equipment storage, parts and materials bins, vehicle parking and storage areas, and other road and sewer maintenance yard facilities.

A 6.0 acre portion of the northeast section of the site is leased to the University Place and Steilacoom School Districts through the year 2030 for a bus barn and storage facilities.

The remaining southeast portion of the property is located across Chambers Road and includes frontage along Chambers Creek behind the control dam impoundment pond. This portion of the site adjoins the county's portion of the impoundment pond.

The southeast portion of the site also includes a portion of the original railroad track bed that is informally used to obtain access to the north shoreline of the impoundment pond for fishing and trail activities. This portion of the site is informally presumed to be an extended part of the Chambers Creek Canyon Regional Park open space system.

The CCPMSP proposes to retain a portion of this site for the long term functional requirements of the maintenance yard and bus barn lease area. The CCPMSP also envisions developing a variety of park, recreation, and open space uses in this development area possibly including a continuation of the multipurpose trail along the Grandview Drive buffer area, commercial buildings, and 4-6 multipurpose athletic fields.

6) South area - this 50-60.0 acre development area includes the hillsides overlooking Chambers Bay and the railroad bridge across the spits of the bay. This area is accessed from Chambers Creek Road past the Washington State Department of Fish & Wildlife fish ladder and counting facility, the wastewater treatment plant.

Mining activities excavated some portions of the eastern part of this development area. The original hillsides, however, are generally intact along the north bank of Chambers Bay.

The CCPMSP will stabilize portions of the original slope and establish buffers with the wastewater treatment plant. The CCPMSP also envisions developing a variety of park, recreation, and open space uses in this development area possibly including a 4-lane boat launch facility with administration, concession, restrooms, and maintenance facilities, a picnic and children's play area, and a multipurpose trail along the Puget Sound shoreline and around Chambers Bay.

7) Chambers Creek canyon park - this 200.0 acre development area (of which 80.0 acres are located within University Place city limits) conserves the steep, wooded hillsides for wildlife habitat and migration routes from Leach and Flett Creeks west through Chambers Creek to Chambers Bay. The southern portion of the park adjoins the south and east portions of the impoundment pond located behind the county's dam.

The steep, wooded hillsides conserve wildlife habitat and migration routes from Leach and Flett Creeks west through Chambers Creek to Chambers Bay. An informal trail system has evolved, but not been improved, using portions of the only usable old logging road alignments along the south bank. Three existing unimproved trail segments run from a roadside parking area at the edge of the Chambers Creek Road bridge east along the creekside to a small trailhead in the Oakbrook area of Lakewood.

Another roadside trailhead has been developed on the north side of Chambers Road West across from the Stone Consolidated Corporation (formerly Boise Cascade) mill by Indian fishing interests. The semi-improved site provides a limited number of parking spaces and sani-can services for fishing, handcarry boat launch, and trail activities along this portion of Chambers Bay subject to tribal approval.

The CCPMSP will conserve this development area as a natural wildlife habitat and migration corridor. The CCPMSP also envisions developing a continuous trail system through the corridor with possible trailheads at Phillips Road, Zircon, and Chambers Lane.

8) Beach and pier - this 8.0 acre development area includes the smaller gravel barge loading pier located at the southern end of the site shoreline across from the smallest spit. The T-shaped pier is no longer in use for gravel loading. The pier adjoins the only sandy beach area that is usable during high tides.

The natural spits that defined the original entry into Chambers Bay were bridged by the construction of the Northern Pacific Railroad tracks in 1910. The original bridge was replaced in 1930 by the existing and historic bascule bridge to allow passage of tugs and other larger boats into the bay. The railroad tracks occupy the complete spit shorelines. This portion of the site is no longer accessible for uses other than railroad.

The CCPMSP will conserve this development area as a beach activity. The CCPMSP will provide public access to the pier possibly including vendors, concessions, conveniences, and a pedestrian bridge across or under the railroad tracks.

University Place School District

The University Place School District owns 8 properties within the city of which 70.6 acres have been improved with gymnasiums, playgrounds, recreational courts, and fields of use to city residents.

University Place Primary - this 8.3 acre primary school property is located on the southwest corner of 27th Street West and Grandview Drive. The property adjoins the historic site of the 1893 proposal for the Puget Sound University (University of Puget Sound).

This complex was constructed beginning in 1915. The original portion - a 4 room, brick building faces onto Grandview Drive. The building has since been incorporated into subsequent facility additions to form the present school complex.

Approximately 5.0 acres of the southern portion of the site have been improved with a soccer fields with 3 softball backstops, a softball field, 4 half basketball courts, a tetherball pole, a playground with swings and a 5-piece play apparatus, and an asphalt play area and ball wall.

Sunset Primary - this 11.2 acre primary school property is located on the southwest corner of 97th Avenue West and Beckonridge Drive.

Approximately 5.6 acres of the southern portion of the property have been improved with 4 multipurpose softball/T-ball/soccer fields, a basketball court, 3 tetherball poles, a playground with swings, slide, and big toy, and an asphalt play area with a ball wall.

Chambers Primary - this 9.2 acre primary school property is located on the north side of 55th Court West.

Approximately 4.6 acres of the southern portion of the property have been improved with a small gymnasium, 3 softball/T-ball fields, a multipurpose soccer field with 3 backstops, a basketball court, a playground with swings, big toy, and fort/play structure, an asphalt play area, 3 picnic tables, and a gravel path.

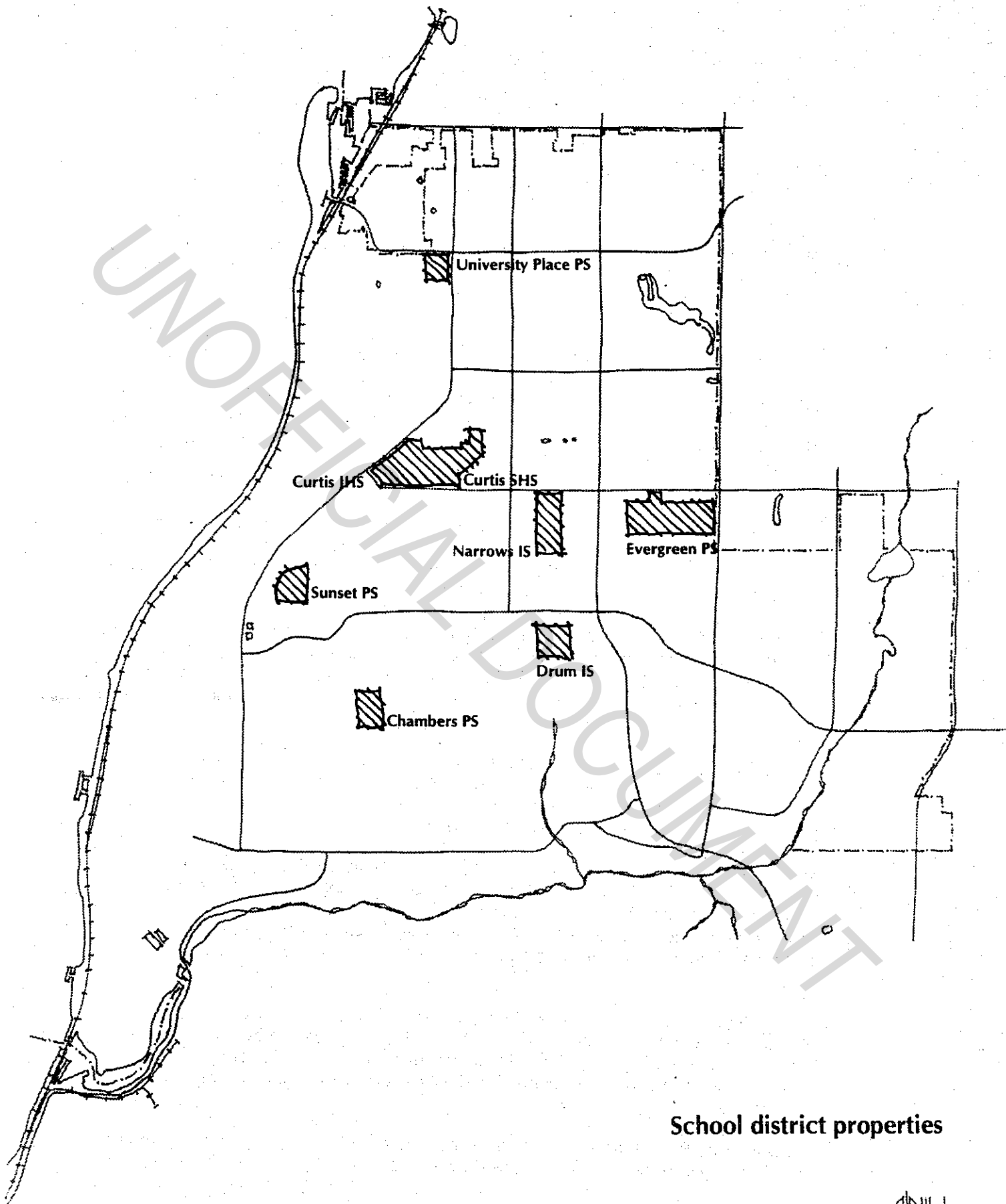
Evergreen Primary - this 26.9 acre primary school property is located on the south side of 40th Street West west of 67th Avenue. The eastern portion of the property has been graded and reserved for the potential development of another intermediate school.

Approximately 21.6 acres of the of the property have been improved with 2 softball/T-ball fields, a soccer field, a multipurpose soccer field with softball backstops, a basketball court, a playground with big toy, and an asphalt play area. The southwest corner of the site along 67th Avenue has been graded and fenced to provide a stormwater detention pond.

Narrows Intermediate - this 15.5 acre intermediate school property is located on the south side of 40th Street West west of Bridgeport Way.

Approximately 7.7 acres of the northern western portion of the property have been improved with a gymnasium, multipurpose soccer field with 3 softball backstops, 5 basketball courts, a playground with big toy, and an asphalt play area with a ball wall.

Drum Intermediate - this 11.2 acre intermediate school property is located on 79th Avenue West south of Cirque Drive.



School district properties

Approximately 4.5 acres of the southern portion of the property have been improved with a gymnasium, 2 softball/T-ball fields, a multipurpose soccer field with softball backstop, a grass playfield with a backstop, a basketball court, a playground with big toy, and an asphalt play area.

Curtis Junior High School - this 21.6 acre junior high school property is located on the northeast corner of 40th Street West and Grandview Drive adjoining Curtis Senior High School and Colegate Park.

Approximately 12.4 acres of the property have been improved with a gymnasium, cinder track, and grass football/soccer field in the south corner, and a grass baseball field and 2 basketball courts in the north corner of the site.

Curtis Senior High School - this 26.6 acre senior high school property is located on the north side of 40th Street West adjoining Curtis Junior High School and Colegate Park.

Approximately 9.2 acres of the property have been improved with an indoor swimming pool, gymnasium, stadium with a rubber-surfaced track and grass football/soccer/lacrosse field, a baseball/soccer field with spectator seating areas, 2 softball fields, and 2 practice and 4 regulation tennis courts.

Other publicly accessible

Day Island Clubhouse - this 0.1 acre property is composed of the right-of-way for 21st Street on the eastern shore of Day Island. This public property may have been leased or granted for island resident use by the county when the island was subdivided in 1910 or when the Day Island Community Club was organized in 1915.

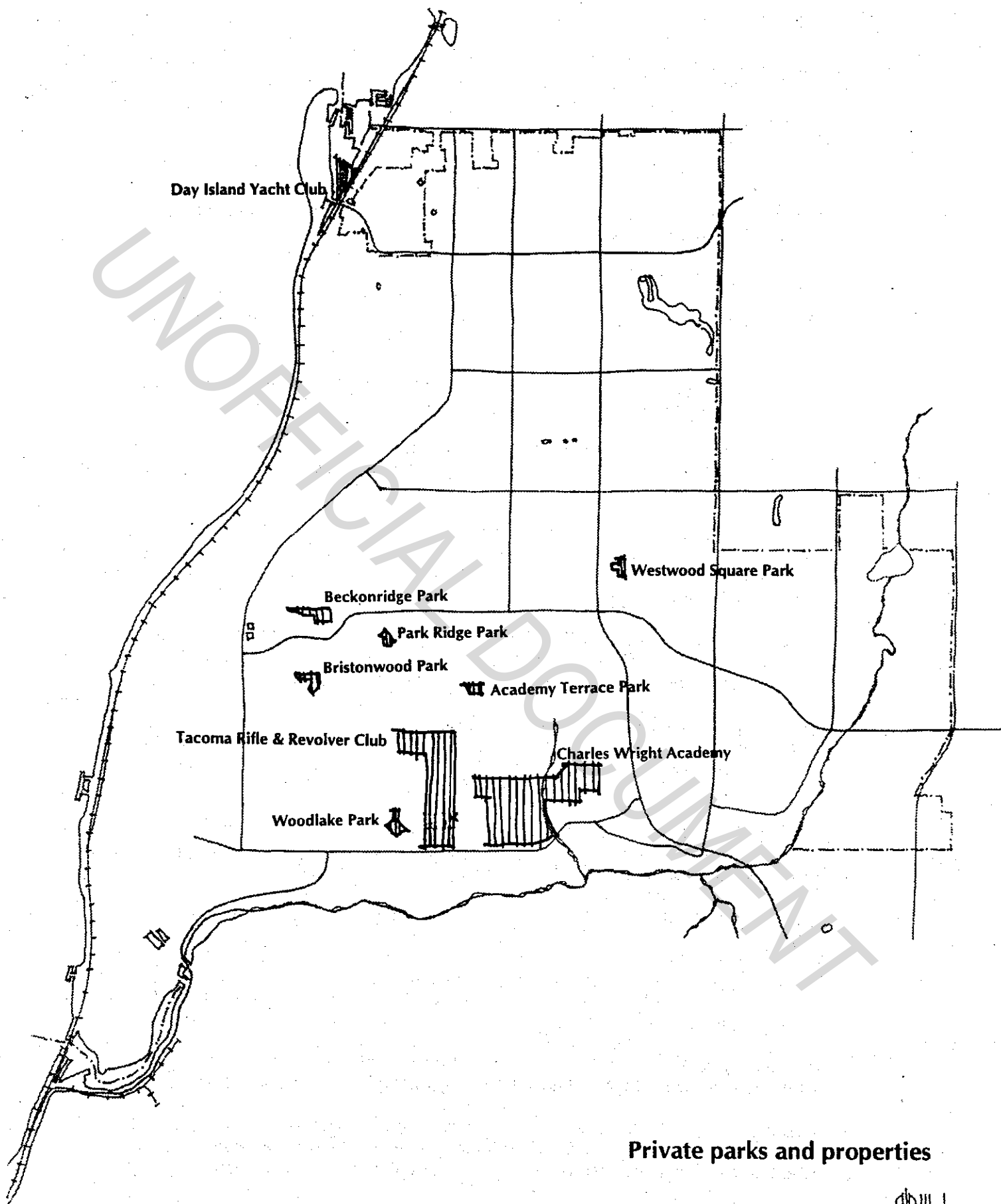
The property has been improved with a 2 story, wood 1,750 square foot structure housing a meeting room on the top floor level with East Day Island Boulevard and recreational spaces on the bottom floor level with and overlooking Day Island Inlet. A small boat landing and finger pier provide access to the lower portion of the building from the inlet side.

Pierce County Library - the Pierce County Library District owns this 1.4 acre property located on the east side of Bridgeport Way West at 31st Street West. The newly constructed 15,000 square foot building provides branch library functions for University Place, Fircrest, and the surrounding communities.

The Pierce County Library District is a county rural library district organized under the provisions of the Revised Code of Washington (RCW) Chapter 27.12. The district was created by a petition of the voters and a special election validated by majority vote. The district is governed by a board of trustees appointed by the Pierce County Council. District services and facilities are financed by property taxes, voter approved special levies, and bonds.

The district operates 17 facilities including a system facility in Lakewood (1 of 2), and this regional facility in University Place (1 of 4). The district also operates a bookmobile that stops at 59 service locations, 19 nursing and retirement homes, 100 daycare, and 65 individualized homebound residents. District cardholders can use any branch or the bookmobile.

The University Place library building houses a varied assortment of general, periodical, reference, and childrens books of interest to area residents. In addition, the building also



Private parks and properties



houses a meeting room facility that is available for public use. The site has been developed to provide on-site parking. Some portions of the site have not been developed, however, and could be considered for park or streetscape uses related to Bridgeport Way and/or the City Hall site to the south.

Church facilities - public recreational activities are also conducted within a number of private church facilities located throughout the city. These facilities include a variety of classrooms, meeting rooms, and auditoriums. A few also provide limited outdoor playgrounds, courts, and yards.

Private park facilities

Private entities own and operate a variety of parks, tennis and swim clubs, gun and rifle ranges, marinas, and other recreational facilities within University Place of interest to area residents.

Westwood Square Park - this 1.1 acre property is located in the center of a 9 house residential development north of 44th Street West and east of Bridgeport Way.

The commonly-owned grass-covered square park is accessed by a 10 foot wide path between the residential properties. The property conserves a single Fir tree in the center of the site.

Academy Terrace Park - this 2.1 acre property is located within the Academy Terrace residential subdivision at the east end of 55th Court West. The commonly-owned site is surrounded on three sides by homes, and on the south edge by the hillside overlooking Chambers Elementary School.

The park conserves a stand of Douglas Fir trees growing along the hillside. The site has been improved with a playground with swings, slide, and big toy, a small asphalt play area with basketball hoop, a bike rack, picnic tables and benches, and parking for 8 cars.

Bristonwood Park - this 2.4 acre property is located in the Bristonwood residential development off Bristonwood Avenue West. The commonly-owned property includes 3 different detached properties located off Bristonwood Drive at Oxalis Drive West and Columbine Drive West.

The largest park parcel is located slightly above Bristonwood Avenue adjacent to 5 houses. The park conserves a stand of Fir trees on the southern slopes of the site. The property has been improved with a grass field and 2 small big toy climbing structures.

The 2 corner parcels conserve some isolated tree stands, and provide open grassy playareas.

Park Ridge Park - this 2.4 acre property is located in the Park Ridge residential development at the end of Park Ridge. The commonly-owned site was dedicated by tSamuel V. Allen, the builder of Park Ridge in July 1993.

The park conserves a heavily wooded slope that abuts houses on 3 sides. The property has been improved with a playground with big toy, basketball court, and picnic tables.

Woodlake Park - this 2.4 acre property is located in the Woodlake residential development on the north side of 64th Street. The commonly-owned property conserves a stormwater detention pond that has been configured into a small irregular-shaped lake.

The park conserves woodlands and some wetland vegetation adjacent to the pond. The property has been improved with a path, pedestrian bridge, swimming pool and bathhouse, and parking for 18 cars.

Beckonridge Park - this 2.8 acre property is located adjacent to Sunset Elementary School at the end of 47th Street West.

The site conserves a grove of fir trees growing on a gently sloping hillside overlooking Sunset Elementary School. The property has been improved with a series of pedestrian trails, a recreation hall, outdoor swimming pool, wading pool, 2 tennis courts, a bike rack, and parking for 30 cars.

Charles Wright Academy - this 68.3 acre private middle/high school facility - the site of the former Big Bend Ranch roadhouse diner, is located on 64th Street West adjacent to Peach Creek.

The eastern and northern portions of the site conserve steep, wooded hillsides overlooking Peach Creek and the 64th Street/Chambers Lane West bridge across the canyon. The southern portion of the property has been improved with a Terrier Dome (air-inflated structure) and enclosed basketball court, a cinder track with football field, a soccer/baseball field, a soccer field with softball backstop, 2 outdoor basketball courts, and 2 tennis courts.

Other private recreational facilities

Tacoma Rifle & Revolver Club - this 65.0 acre property is located on the north side of 64th Street West. The heavily wooded property is adjoined on 3 sides by residential subdivisions.

The club has operated an outdoor gun and rifle range on the north end of the site at the foot of the slope since the early 1900s. The site is gated along 64th Street West to restrict public access.

Day Island Yacht Club - this 2.0 acre property is located on the east shore of Day Island Inlet or Lagoon at the end of 91st Avenue West.

Finger piers and boat slips extend into the waterway from the southern end of the site adjacent to the Day Island Bridge to provide moorage capacity for 491 craft. The southwest shoreline has been improved with a clubhouse and parking facility.

The site is gated to restrict public access to the clubhouse, piers, boat slips, and shoreline.

Inventory by park land type

Wildlife habitat/resource conservancy - approximately 193.0 acres have been acquired and conserved for open space purposes by University Place, Pierce County, and a variety of private homeowner, club, and school organizations. These conservancy lands include stream corridors, wetlands and floodplains, steep slopes and woodland areas, unique ecological and wildlife habitats, and other fragile environments.

Significant sites include Chambers Crest Wildlife Habitat, Conservation Park, Curran Apple Orchard, Adriana Hess Wetland Park, Woodside Pond Nature Park, Leach Creek Park Dedication, a portion of the Chambers Creek Properties, Charles Wright Academy, and the Tacoma Rifle & Revolver Club.

Resource activities - approximately 13.0 acres have been acquired and developed by University Place, Pierce County, and private concerns for outdoor recreational activities and pursuits including a mixture of beach swimming and sunbathing, and water craft access opportunities for canoe, kayak, rowboat, raft, and power boating. Portions of these lands also provide outdoor park resource facilities including group and individual picnicking, playgrounds, and open grassy play areas.

Significant sites include the Chambers Creek Properties along the Puget Sound and Chambers Bay waterfront, Morrison Pond, and Woodside Pond Nature Park.

Linear parks and trails - 101.5 acres have been acquired and conserved by University Place and Pierce County for a system of dedicated, separated trails to connect major environmental assets, park and recreational facilities.

Portions of the Chambers Creek Properties will be developed by Pierce County to provide trails along the Puget Sound and Chambers Bay shoreline, and east through the Chambers Creek canyon corridor.

Athletic fields and playgrounds - approximately 164.2 acres have been acquired and developed by University Place, Pierce County, and the University Place School District for athletic facilities including soccer, softball and baseball fields, active playgrounds and play areas for all ages, competitive standards, and skill levels.

Significant sites include Sunset Terrace Park, Colegate Park, Chambers, Evergreen, Sunset, and University Place Primary Schools, Drum and Narrows Intermediate Schools, Curtis Junior and Senior High Schools, and portions of the Chambers Creek Properties.

Recreation centers and swimming - a approximately 8.2 acres have been acquired and developed by University Place and the University Place School District for indoor recreational center facilities.

Significant sites include the former University Place Park & Recreation District headquarters building now used as a Senior Center, and a portion of the Curtis High School site has been developed by the University Place School District for a public multiple use indoor swimming pool.

Portions of most of the school properties also provide access to indoor gymnasiums, classrooms, arts and crafts facilities. Curtis Senior High School also provides access to an auditorium and performing stage facility.

Special use facilities - no public agency within University Place has developed archery, gun and rifle ranges, marina, or similar facilities for public play. Private agencies, however, have developed about 25.0 acres for special use facilities at the present time.

The Tacoma Rifle & Revolver Club developed and operate an outdoor shooting range. The range is open to members and any member of the public interested in becoming a member. The development and operation of this facility is financed with membership dues and user fees.

The Day Island Yacht Club developed and operate a saltwater marina. The marina is open to members and any member of the public interested in becoming a member. The development and operation of this facility is financed with membership dues and user fees.

Land and facility inventory summary

			Totals					Totals		
	unit		City	County	Other	UPSD	Private	City/Co	All/pblc	All/prvt
1	resource conservancy	acres	23.1	80.0	0.0	0.0	89.9	103.1	103.1	193.0
2	resource activity parks	acres	2.5	8.0	0.0	0.0	2.5	10.5	10.5	13.0
3	linear parks/trails	acres	1.5	100.0	0.0	0.0	0.0	101.5	101.5	101.5
4	athletic parks/playgrounds	acres	13.1	80.0	0.0	69.7	21.4	73.1	142.8	164.2
5	recreation centers/pools	acres	0.8	0.0	1.5	0.9	5.0	0.8	3.2	8.2
6	special use facilities	acres	0.0	240.0	0.0	0.0	25.0	240.0	240.0	265.0
7	support facilities	acres	0.5	0.0	0.0	0.0	0.0	0.5	0.5	0.5
Subtotal for land			41.5	488.0	1.5	70.6	143.8	529.5	601.6	745.4

Facilities

1 a	playgrounds covered	playground	0	0	0	0	0	0	0	0
b	playgrounds uncovered	playground	0	0	0	6	4	0	6	10
2 a	open play areas - not improve	acres	1.0	0.0	0.0	1.2	0.0	1.0	2.2	2.2
b	open play areas - improved	acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	skateboard court	court	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	handball-4 wall outdoor unco	court	0	0	0	0	0	0	0	0
5 a	basketball outdoor covered	court	0	0	0	0	1	0	0	1
b	basketball outdoor uncovered	court	0	0	0	13	4	0	13	17
6 a	volleyball-outdoor covered	court	0	0	0	0	0	0	0	0
b	volleyball-outdoor uncovered	court	0	0	0	0	0	0	0	0
c	volleyball-outdoor sand	court	0	0	0	0	0	0	0	0
7 a	tennis - indoor	court	0	0	0	0	0	0	0	0
b	tennis - outdoor lighted	court	0	0	0	0	2	0	0	2
c	tennis - outdoor unlighted	court	6	0	0	0	2	6	6	8
8 a	football - regulation	field	0	0	0	1	1	0	1	2
b	football - nonregulation	field	0	0	0	0	0	0	0	0
9 a	soccer regulation	field	1	0	0	6	2	1	7	9
b	soccer nonregulation	field	0	0	0	2	0	0	2	2
10	field hockey	field	0	0	0	0	0	0	0	0
11 a	baseball/softball-250+grass/lighted	field	0	0	0	0	0	0	0	0
b	baseball/softball-250+grass/unlight	field	0	0	0	4	0	0	4	4
c	baseball/softball-250+dirt/lighted	field	0	0	0	0	0	0	0	0
d	baseball/softball-250+dirt/unlighte	field	1	0	0	0	1	1	1	2
e	baseball/softball-nonregulation	field	1	0	0	12	2	1	13	15
f	baseball/softball-200 lighted	field	0	0	0	0	0	0	0	0
g	baseball/softball-200 unlighted	field	0	0	0	0	0	0	0	0
12	parcourse	stations	0	0	0	0	0	0	0	0
13 a	jogging track - surface	miles	0.00	0.00	0.00	0.50	0.25	0.00	0.50	0.75
b	jogging track - dirt	miles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 a	picnic tables	tables	2	0	0	3	0	2	5	5
b	picnic shelters	shelters	0	0	0	0	0	0	0	0
c	picnic barbeques	each	0	0	0	0	0	0	0	0
15 a	swimming at a beach	square feet	0	0	0	0	0	0	0	0
b	swimming at a beach	parking spa	0	0	0	0	0	0	0	0
16 a	boat launch ramps	each	0	0	0	0	0	0	0	0
b	trailhead parking	spaces	0	0	0	0	0	0	0	0
c	pier/dock platform	sq ft	0	0	0	0	0	0	0	0
d	boat slips	each	0	0	6	0	485	0	6	491
17	boat launch-power	parking spa	0	0	0	0	0	0	0	0
18 a	tent camping	campsites	0	0	0	0	0	0	0	0
b	vehicle camping	campsites	0	0	0	0	0	0	0	0
23 a	walking in a park-asphalt	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
b	walking in a park-dirt	miles	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.2
24 a	walking on a trail-asphalt	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
b	walking on a trail-dirt	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 a	backpacking/overnight camp	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26 a	bicycling on a trail-asphalt	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
b	bicycling on a trail-dirt	miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Land and facility inventory summary

			Totals					Totals		
unit			City	County	Other	UPSD	Private	City/Co	All/pblc	All/prvt
27	a	bicycling on a road--marked miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	b	bicycling on a road--unmarked miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	a	horseback riding on a trail miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	a	swimming at a pool--outdoor sq ft pool	0	0	0	0	6,300	0	0	6,300
	b	swimming at a pool--indoor sq ft pool	0	0	0	3,150	0	0	3,150	3,150
30		indoor gymnasium square ft	0	0	0	29,500	5,000	0	29,500	34,500
31		physical conditioning square ft	0	0	0	500	0	0	500	500
32		racquetball--indoor each/sq ft	0	0	0	0	0	0	0	0
33		handball--indoor each/sq ft	0	0	0	0	0	0	0	0
34		arts/crafts/pottery room square ft	0	0	0	3,800	0	0	3,800	3,800
35		classrooms/meeting facilities square ft	3,400	0	1,000	0	0	3,400	4,400	4,400
36		auditorium/staging/meeting ro square ft	0	0	0	0	0	0	0	0
37		kitchen facilities square ft	750	0	0	0	0	750	750	750
38		dining facilities square ft	0	0	0	0	0	0	0	0
39		daycare/nursery square ft	0	0	0	0	0	0	0	0
40		community center admin square ft	400	0	0	0	0	400	400	400
41		community center other square ft	0	0	0	0	0	0	0	0
42		nature interpretive centers square ft	0	0	0	0	0	0	0	0
43		museum/historical facilities square ft	0	0	0	0	0	0	0	0
44	a	golf--par 3/18 hole holes	0	0	0	0	0	0	0	0
	b	golf course clubhouse square ft	0	0	0	0	0	0	0	0
	c	golf course maintenance bldg square ft	0	0	0	0	0	0	0	0
45		gun range -- outdoor target	0	0	0	0	12	0	0	12
46		archery range -- outdoor target	0	0	0	0	0	0	0	0
47		ice hockey each	0	0	0	0	0	0	0	0
48	a	parks administration offices square ft	750	0	0	0	0	750	750	750
	b	parks maintenance buildings square ft	0	0	0	0	0	0	0	0
	c	parks shop yard/nursery square ft	0	0	0	0	0	0	0	0
	d	parks caretaker houses each/sq ft	0	0	0	0	0	0	0	0
	e	restrooms--permanent each/sq ft	0	0	0	0	0	0	0	0
	f	restrooms--temporary each	0	0	0	0	0	0	0	0
Subtotal facility units			5,312	0	1,006	36,999	11,816	5,312	43,317	55,133

Note - the proposed CCPMSP may develop a public golf course with proshop, clubhouse, and maintenance facility on a portion of the northern 240.0 acre development area of the Chambers Creek Properties.

The CCPMSP may also develop an environmental education center on the northern development area to provide public interpretive exhibits of the water production and reclamation activities to be accomplished for the former gravel mines.

Support facilities - approximately 0.5 acres have been developed by University Place to provide supporting facilities - principally the public meeting and park administrative functions in the city hall buildings. However, no properties have been developed to provide city park maintenance yards or landscape nurseries.

Inventory by facility type

University Place, Pierce County, the University Place School District, and other public and private agencies have also assembled an impressive inventory of recreational facilities.

Playgrounds and play areas - all public and private agencies combined provide 10 improved playgrounds and 2.2 acres of playfields within the city limits.

The facilities are located at Sunset Terrace Park, University Place Primary, Sunset Primary, Chambers Primary, Evergreen Primary, Narrows Intermediate, Drum Intermediate Schools, and Academy Terrace, Bristonwood, Park Ridge Parks, and Charles Wright Academy.

Outdoor basketball, volleyball and tennis courts - all public and private agencies combined provide 1 covered and 17 outdoor basketball courts, 2 outdoor lighted and 8 unlighted tennis courts within city limits.

The facilities are located at Colegate Park, University Place Primary, Sunset Primary, Chambers Primary, Evergreen Primary, Narrows Intermediate, Drum Intermediate, Curtis Junior and Senior High Schools, Academy Terrace Park, Park Ridge Park, Beckonridge Park, and Charles Wright Academy.

Football, soccer, baseball and softball fields - all public and private agencies combined provide 2 regulation football fields, 9 competition and 2 nonregulation soccer fields, 6 large and 15 nonregulation baseball/softball fields within city limits.

The facilities are located at Sunset Terrace Park, Colegate Park, University Place Primary, Chambers Primary, Evergreen Primary, Narrows Intermediate, Drum Intermediate, Curtis Junior and Senior High Schools, Bristonwood Park, and Charles Wright Academy.

Tracks - all public and private agencies combined provide 0.75 miles of track within city limits.

The facilities are located at Curtis Junior High, Curtis Senior High School, and Charles Wright Academy.

Picnicking - all public and private agencies combined provide 5 picnic tables within city limits.

The facilities are provided at Colegate Park, Chambers Primary School, Academy Terrace Park, and Park Ridge Park.

Swimming beach, fishing from a bank/dock, boat launch, and marina facilities - all public and private agencies combined provide 491 boat moorage slips within city limits of which 6 are reserved for transient boats.

The facilities are provided at the Day Island Yacht Club.

Walking, hiking, biking trails - all public and private agencies combined provide 0.2 miles of walking trails within city limits (an additional 3.0 miles of trail are proposed in the portion of the Chambers Creek Properties located outside city limits).

The facilities are provided at Woodside Pond Nature Park, Conservation Park, Colegate Park, and Beckonridge Park.

Swimming pools - all public and private agencies combined provide 3,150 square feet of indoor swimming pool and 6,300 square feet of outdoor swimming pool within city limits.

The indoor facilities are provided at Curtis Senior High School, the outdoor facilities at Woodlake Park and Beckonridge Park.

Indoor gymnasium and physical conditioning - all public and private agencies combined provide 34,500 square feet of indoor gymnasiums and 500 square feet of physical conditioning space within city limits.

The facilities are located at Chambers Primary, Narrow Intermediate, Drum Intermediate, Curtis Junior, and Curtis Senior High Schools, and Charles Wright Academy. The school facilities are available for use after school hours and in some instances on a commercial fee basis.

Arts/crafts/pottery rooms - all public and private agencies combined provide 3,800 square feet of arts, crafts, pottery, and related work spaces within city limits.

The facilities are located at Chambers Primary, Evergreen Primary, Narrows Intermediate, Drum Intermediate, Curtis Junior, and Curtis Senior High Schools. The school facilities are available for use after school hours and in some instances on a commercial fee basis.

Classrooms/meeting facilities - all public and private agencies combined provide 4,400 square feet of public meeting room facilities that are available during daytime hours (not including school classrooms).

The facilities are located at the Senior Center (former University Place P&RD Headquarters), Day Island Clubhouse, and the Pierce County Library.

In addition, the University Place School District also maintains a significant supply of classroom, meeting rooms, general auditorium, and stage production space at all primary, intermediate, junior, and senior high schools. These facilities are available for use after school hours and in some instances on a commercial fee basis.

Gun ranges - the Tacoma Rifle & Revolver Club provides an outdoor shooting range with a minimum capacity for 12 firing positions.

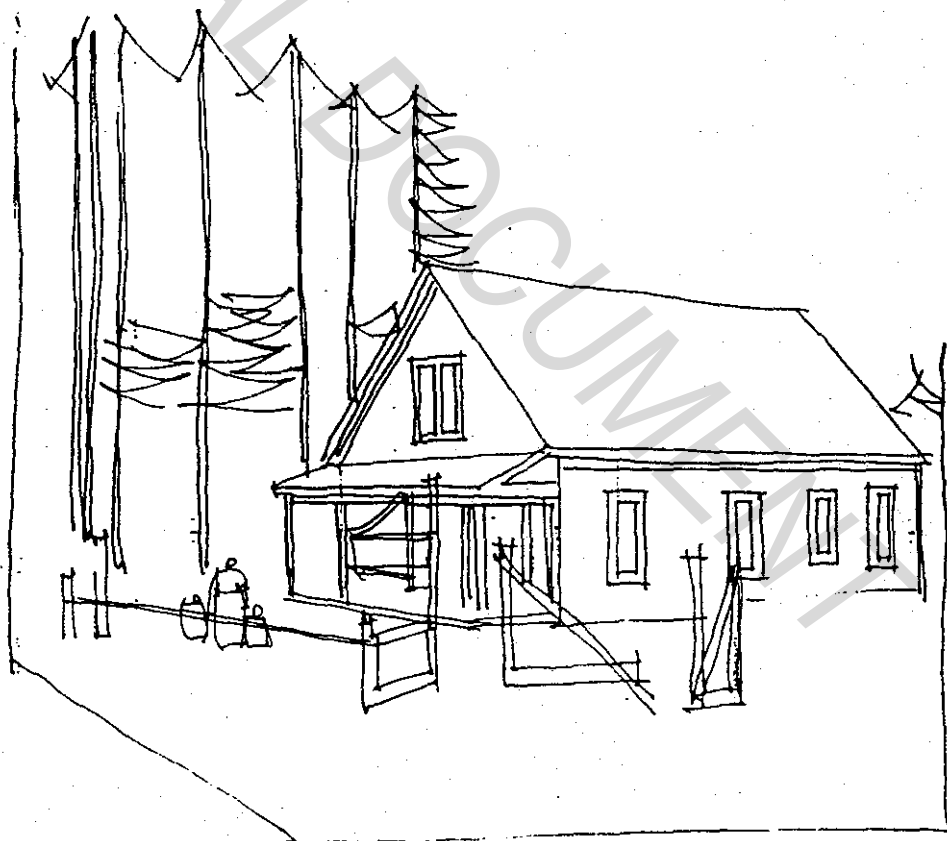
The facility is available to members and the general public who wish to join the club.

Support facilities - University Place provides 750 square feet of parks administration office space within City Hall. On a temporary basis, the city's public works shop operations are located on Pierce County's Chambers Creek Properties until a permanent facility is established.

Inventory implications

- 1) University Place, Pierce County, the University Place School District, and other public and private agencies have amassed an impressive amount of acreage that includes every conceivable kind of park, recreation, and open space land and facility within city limits.
- 2) Pierce County, with the ultimate development of the park, recreation, and open space uses of the Chambers Creek Properties, will provide an extensive and regionally oriented selection of waterfront, trail, environmental, and athletic oriented activities.
- 3) University Place School District has developed an extensive amount and significant percentage of the inventory of park and recreational related facilities including outdoor playgrounds and athletic fields, and indoor arts and crafts, meeting rooms, and gymnasiums.
- 4) School facilities represent a significant portion of the more competitive and higher quality, capacity sites - and much of the smaller, more flexible facilities that are used on a local basis by neighborhood residents.

Opportunities



Tacoma-Steilacoom Electric Railroad Ferndale Station - 1916

Opportunities - environmental, public, and private properties

A valuable park, recreation, and open space system may include lands and soils that may not be suitable for urban uses or even some kinds of developed recreational facilities - but which can provide unique preserves, habitats, cultural, and historical associations.

A strategic approach may also include lands which are owned for other purposes, but which may be used for park, recreation, and open space activities under some conditions. City, county, state, school, utility, private homeowner associations, and private commercial operators, for example, own or control a variety of strategically important sites with every kind of physical and socially valuable park, recreation, and open space characteristic.

Consequently, an inventory was accomplished of environmental features and other strategic public and privately owned properties that could provide park, recreation, and open space opportunities. Following is a summary of major findings.

Environmental resources

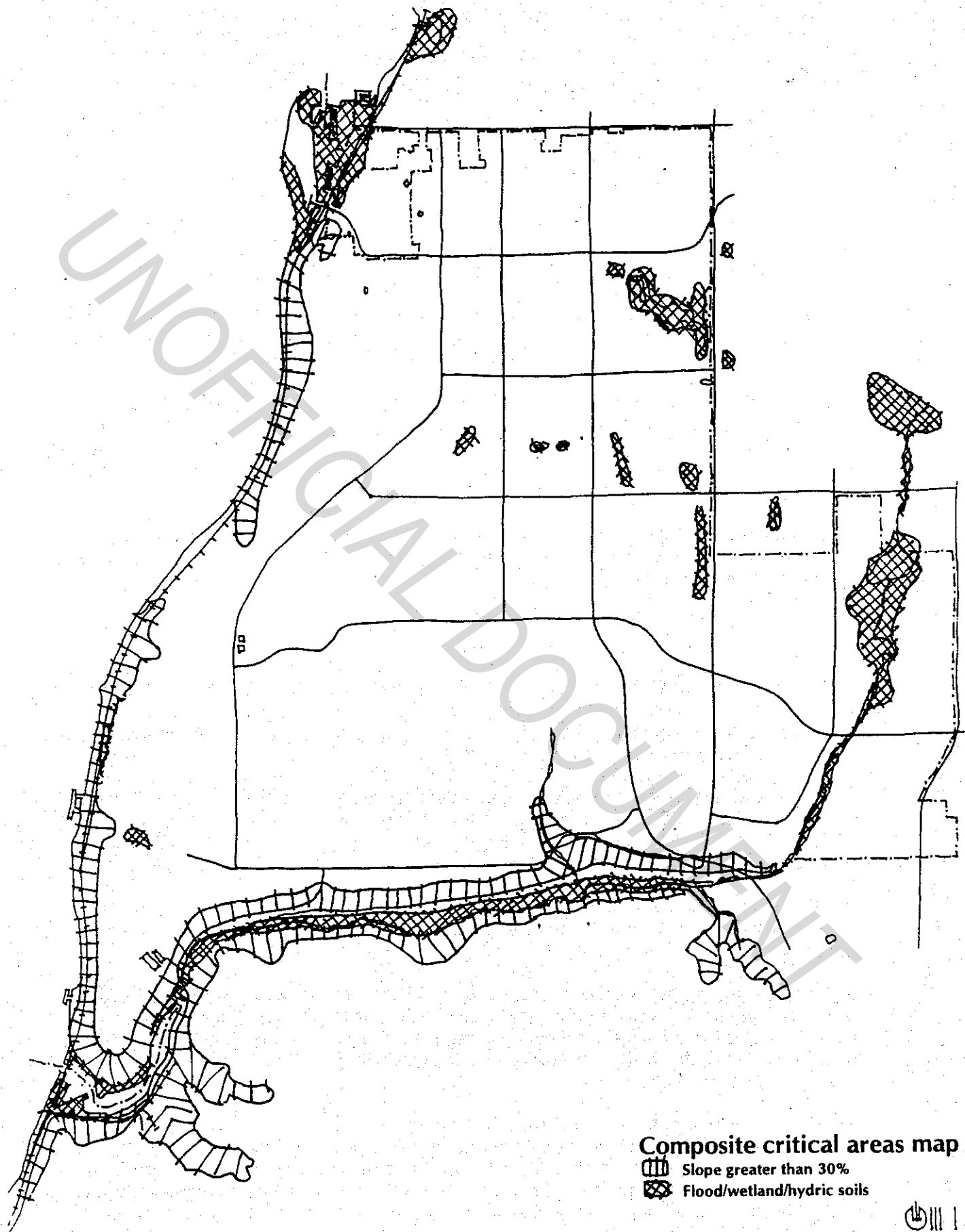
In 1990, the Washington State legislature adopted the Growth Management Act (GMA - Chapter 36.70A of the Revised Code of Washington (RCW)). The GMA defined critical environmental areas and resource lands to be lands or soils with characteristics that are not suitable for urban development, and in some instances, to any alteration without potential risk to the environment, ecology, public safety or other issues.

The GMA, and subsequent minimum guidelines published by the Washington State Department of Community, Trade, & Economic Development (WACTED), defined critical areas to include: 1) wetlands, 2) critical recharge zones for aquifers used for potable water, 3) fish and wildlife habitat conservation areas, 4) frequently flooded areas, and 5) geologically hazardous areas.

In addition, the GMA/WACTED guidelines identified resource lands that were to be provided special consideration including productive and/or unique: 1) agricultural lands, 2) forests, and 3) mineral lands.

Critical area ordinances - the GMA required local jurisdictions that were affected by rapid population growth (including Pierce County) to identify and adopt regulations to protect such areas. In accordance with the act's requirements, the Pierce County Department of Planning & Land Services completed comprehensive inventories and analyses of critical areas within the city's urban growth area in 1992.

Subsequent Pierce County and University Place comprehensive plans and critical area ordinances define and locate lands and soils subject to environmental hazards. City and county critical area and zoning ordinances further define the land use and design or development performance standards appropriate to each type of risk condition so that sensitive environments are protected. Generally, environmental protection measures conserve sensitive environmental areas in conditions that are appropriate to the land or soil's character.



Composite critical areas map

-  Slope greater than 30%
-  Flood/wetland/hydric soils



For example, the protecting measures retain, enhance, and sometimes expand wetlands in a permanent, natural state to recharge and filter stormwaters. Significant floodlands and wetlands are protected and conserved as open spaces that are located adjacent to Day Island, Morrison Pond, Leach Creek, Chambers Creek, and various scattered sites within the center of the city.

Likewise, environmental protection measures conserve steep slopes in a wooded natural state, particularly slopes with hazardous seismic combinations of erodible soil, underlying bedrock, and subsurface drainage features. Steep hillsides and bluffs are conserved as open space that are located along the Puget Sound shoreline, Chambers Creek, and Peach Creek Canyon.

Open space potentials - most critical or sensitive environmental areas are privately owned - usually as productive properties providing buffer, aesthetic, passive or other benefits to the developable portions of the adjoining lands. Private property owners may develop the suitable lands that adjoin sensitive environmental features for urban or other intensive land uses. As a consequence, although these privately-owned properties conserve permanent natural areas as open space features, these lands are frequently not accessible for public use.

Critical areas constitute private but significant open spaces, wildlife habitats, conservation preserves, and scenic overlooks. These lands can enhance and should be incorporated as integral, but passive components of the land use pattern and public park system in greenways, greenbelts, and urban separators.

Under some conditions, these private sites may be accessed with trails, exhibits, picnic facilities, water trails, and other suitable, and more active park pursuits where the use benefits the property owner and/or where a public access agreement can be negotiated.

Public ownerships

Various public agencies own a considerable amount of land within University Place. Some portions of these lands are presently provided for public park, recreation, and open space activities, though most are used primarily for other agency purposes. These lands may be available for multiple use, however, if a park, recreation, and open space activity does not interfere with the agency's primary use of the land - and if agreements can be negotiated with the property owner concerning use, development, operation costs, and responsibilities.

University Place Surface Water Management (SWM)

The Pierce County Surface Water Management Utility acquired and developed a series of surface water detention and retention ponds throughout the city - sometimes through dedication by developers, and sometimes through public action for stormwater management purposes.

These properties were conveyed to University Place upon incorporation and are now the management responsibility of the city. The properties include the strategically important Day Island SWM site located at the west end of 20th Street West - previously described in the preceding chapter on existing land and facilities.

Most of the other SWM sites are small, isolated parcels located within or adjacent to residential subdivisions and/or along drainage corridors at intersections with area roadways. The following sites, however, are relatively large property holdings with potential open space and park use applications:

Crystal Springs/19th Street West - this property is located behind the historic Crystal Springs Pottery Shed (Stephens Grocery Store) on the south side of 19th Street West adjacent to the Burlington Northern & Santa Fe Railroad (BN&SFR) tracks at Day Island. The property has been

improved with a detention pond to manage overflow from the Crystal Springs Creek drainage corridor.

The site provides interesting views of the pond and surrounding woodlands with direct access to the Crystal Springs Pottery Shed building complex and property.

Day Island/Day Island Boulevard - this property is located at the south end of Day Island on Puget Sound shoreline contiguous with a Washington State Department of Natural Resources (DNR) public tideland. The property has been improved with a stormwater drainage outlet pipe into Puget Sound and a pump station to manage overflow from Day Island basin. The site has been paved to provide access to the pump station and an adjacent, old waterfront cottage.

The site provides dramatic views of the Narrows, Anderson Island, and Gig Harbor Peninsula, with shoreline access to favorite scuba diving sites and kayaking routes.

67th Avenue West - this property is located on the southwest corner of 35th Street West and 67th Avenue West. The property has been improved with a detention pond and pump station to manage overflow from Morrison Pond.

The site provides interesting views of the pond and wildlife that frequent the location. Portions of the site may be subject to septic overflow, however, creating odors and other health hazards during hot summer months.

Leach Creek/48th Street West - this property is located along Leach Creek east of the residential lots located along 48th Street West between the parcels that comprise Woodside Pond Nature Park. The property has been improved with a detention pond to manage overflow along Leach Creek.

The site provides access to the stormwater pond, Leach Creek, and the Woodside Pond Nature Park trails located on both ends of the site.

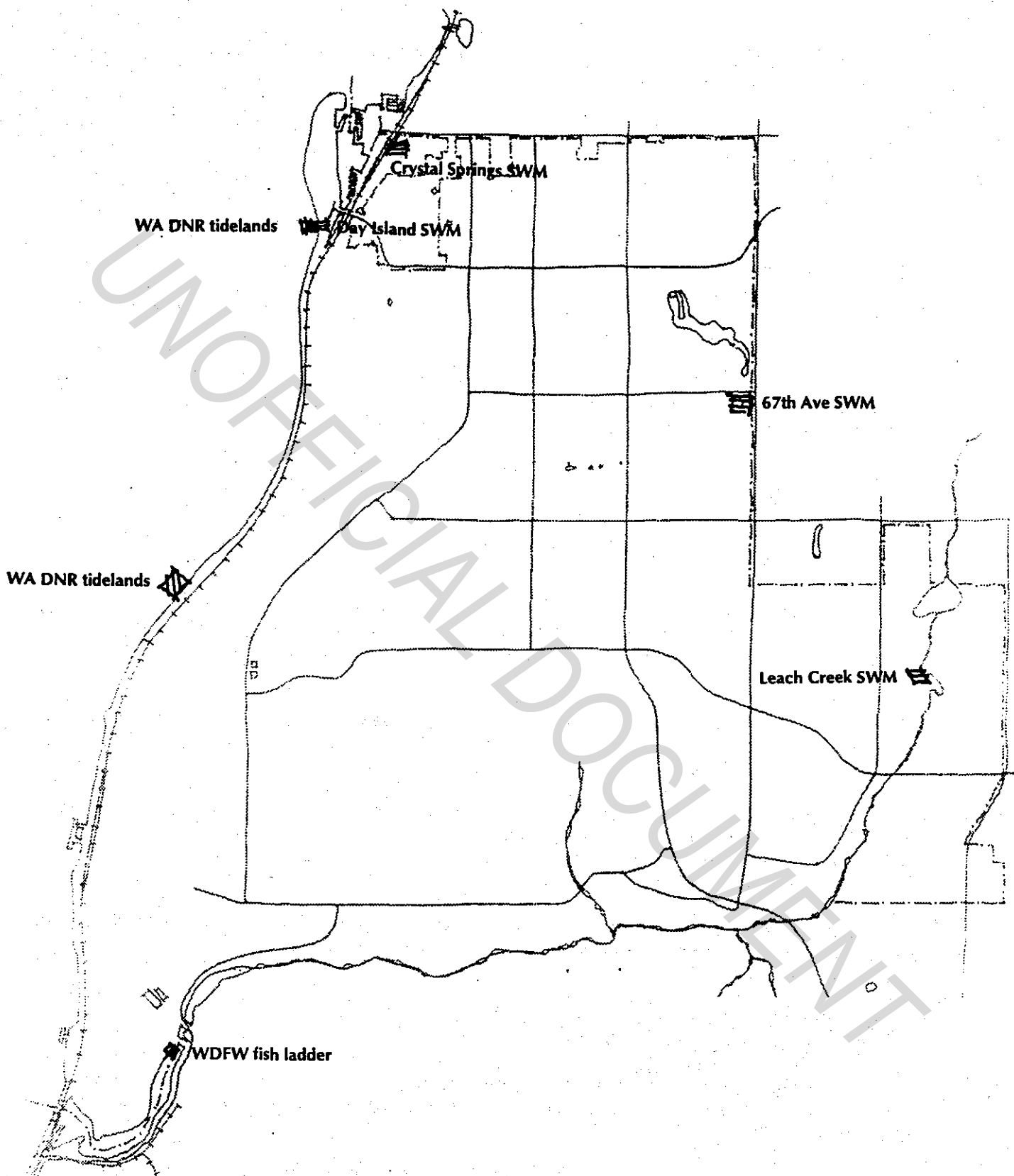
Washington State Department of Natural Resources (DNR) tidelands

Uplands are parts of the almost always dry beach area located above the high water tide mark - although portions may be covered by extremely high tides or during storms. Uplands may be barren of vegetation and may consist of sand dunes, gravel bars, tide pools, or log and storm debris covered earthen shorelines. Uplands are owned by private parties except where public agencies have acquired title for parks, state uplands, road right-of-way, or other public facilities.

Tidelands are the beach areas alternately covered and uncovered by the rising and falling tides. Tidelands are barren of vegetation and may consist of sand, gravel, or mud deposits and beaches. Tidelands may be publicly or privately owned. However, even when publicly owned, the upland property may be in private ownership - meaning some public tidelands may be landlocked or not be accessed from other public landholdings.

The boundary of the ordinary high tide is usually marked by the swash line - or small floating debris that has been left on the beach when the tide is out. On some waterfront properties, however, the upland ownership extends to the meander line - which is some distance offshore from the line of ordinary high tide. The property line in this instance, will be beyond the area normally indicated by the swash line.

When Washington State was established on 11 November 1889, the state claimed ownership of all beds and shores of navigable waters up to and including the line of ordinary high water (mean high tide) or the tidelands. This claim included the tidelands or beach between mean high tide and



Public ownerships



mean low tide that had been used for public access for centuries before the federal government granted these lands to the state.

The 1889 Washington State Legislature authorized the sale of public tidelands including the beach rights to private individuals and adjacent property landowners. From 1889 to 1971, when all sales were discontinued, the state sold approximately 60 percent of all public tidelands in the state to private owners.

Private ownership allows the owners to use the tidelands as private property which at times have included the right to erect structures, bulkheads, and other obstructions to public passage. Under state law, private property owners also have the right to control the use of privately owned tidelands - particularly for recreational uses such as picnicking, swimming, camping, fishing, clamming, boating, and other activities.

In the early 1970s, the state rescinded the option of selling tidelands and retained tidelands as public property for public use and/or revenue benefit. The Washington State Department of Natural Resources (DNR) manages the remaining public tidelands within the state.

DNR's public saltwater tideland holdings are classified and mapped by the department based on width of ownership and type of use. Generally, department maps include public use beaches, beaches leased to private parties, environmentally sensitive beaches, and beaches otherwise not suitable for public use. The department does not map tidelands less than 200 feet in length or freshwater ownerships.

DNR maps identify 2 public tideland parcels along the University Place saltwater shoreline including: 1) a segment at the south end of Day Island with upland access from Day Island Boulevard West, and 2) a segment along Sunset Beach in the location of Memory Lane West but without upland access.

These public tideland ownerships are wide bands located between the extreme low tide which is -4.5 feet below the mean lower low tide of 0.0 feet to the mean high tide which is +13.0 feet above the mean lower low tide for a total range of 17.5 feet.

The southern parcel is located across the Burlington Northern & Santa Fe Railroad (BNSFR) tracks and can not be accessed from an upland roadway. The northern parcel, however, is located adjacent to the University Place Surface Water Management pump station and property with contiguous access from Day Island Boulevard West.

The northern parcel should be evaluated with the agency and the adjacent private property owners for use as a potential shoreline access site for scuba divers, and possibly for kayak and canoe water trail systems.

Washington State Department of Fish & Wildlife (WDFW)

Chambers Creek Fish Ladder - WDFW owns and operates a fish ladder and counting facility adjacent to Pierce County's impoundment dam on the north shore of Chambers Bay. The site is provided access from the north side of the service road from Chambers Bay Road by an easement agreement with the Pierce County Department of Public Works & Utilities that is accessible to the public.

The western portion of the facility adjoins an uplands area that offers dramatic views of the fish ladder, impoundment dam, Chambers Bay, hillsides, and surrounding marinas and developments.

Private properties

Private organizations

Various private organizations own a considerable amount of land within University Place. Some portions of these lands may be available for public use if a park, recreation, or open space activity does not interfere with the landowner's primary use of the land and if the city can negotiate local agreements with the property owners concerning use, development, and operation costs and responsibilities.

Day Island Yacht Club - the Yacht Club property is located on the east shore of Day Island Inlet or Lagoon at the end of 91st Avenue West. The east portions of the site were created by fill action. The west shoreline has gradually silted in recent years.

Portions of the surrounding site were once occupied by Lindahl Cedar Homes - who may have bulldozed portions of this site into the inlet. Lindahl sold a portion of their property holdings to the Day Island Yacht Club - who built the existing marina at the south end of the inlet. The original right-of-way for 19th Street was subsequently traded for an 80 foot right-of-way and public access just north of the existing yacht club's entry parking area and fence.

The Yacht Club subsequently developed the existing marina facility including a clubhouse, parking lot, finger piers, and boat slips extending into the waterway from the southern end of the site adjacent to the Day Island Bridge. The marina provides moorage capacity for 491 craft - including 6 slips for public transient boat use.

The Yacht Club's shoreline is gradually filling in. At present rates of infill, surface water mitigation efforts will either have to dredge this portion of the inlet to allow continued marina use, and/or allow the inlet to fill and convert to nonmarina uses which result from natural siltation processes. Fragile salicornia (pickleweed) beds, a once threatened plant, thrive in the adjacent intertidal areas. Crystal Creek was once an important salmon run, and may still provide important salmonid feeding grounds.

Charles Wright Academy - this private middle/high school facility - the site of the former Big Bend Ranch roadhouse diner, is located on 64th Street West adjacent to Peach Creek. The southern portion of the property has been improved with educational buildings and recreational facilities that support the private school curriculum.

The eastern and northern portions of the site, however, conserve extensive portions of the adjacent steep, wooded hillsides overlooking Peach Creek and the 64th Street/Chambers Lane West bridge across the canyon.

New Tacoma Cemetery - this private cemetery is located on the northeast corner of Grandview Drive and 64th Street West, and extending between 56th Street West and 64th Avenue West across from Chambers Creek Road. The southeastern portions of the site have been developed for burial plots and a mausoleum. A mortuary is located on a separate parcel on the south side of 64th Street West facing the main entry road into the cemetery.

The north portions of the cemetery site have not been developed, and conserve thick woodland stands that buffer the cemetery from the surrounding residential areas, Chambers Elementary School, and 64th Street West.

The southwest portion of the property has been cleared in the past for various nursery and yard activities. The University Place Soccer Club once proposed to develop temporary soccer fields on this portion of the property until such time as the property was required for additional burial plots.

Tacoma Rifle & Revolver Club - the Tacoma Rifle & Revolver Club owns this 65.0 acre property located on the north side of 64th Street West. The club has operated an outdoor gun and rifle range on the north end of the site at the foot of the slope since the early 1900s. The site is gated along 64th Street West to restrict public access.

The northern most portion of the site is not used for gun range operations, and conserves a steep, heavily wooded slope that adjoins Charles Wright Academy and the common spaces in the Beckonridge residential subdivisions.

Private properties

Important University Place park properties were donated or sold for less than full value by estate owners or developers. In some instances, such as the Curran Apple Orchard, the sites were dedicated or sold (gifted) by the original owners as a means of preserving the site's natural characteristics for public benefit.

In other instances, such as the Chambers Crest Wildlife Habitat and Woodside Pond Nature Park, the sites were donated to ensure long term preservation by a public agency in accordance with the requirements of the city's land development process under State Environmental Protection Act (SEPA) regulations. Under SEPA and subsequent Growth Management Act (GMA) provisions, private property owners may donate lands with significant park and recreation possibilities provided the land or facility can be used for a viable public activity; and/or suitable public/private agreements can be made concerning future development, operation, and maintenance costs.

Some strategic park or recreation sites may be secured by negotiated acquisition, particularly when a private use is terminated or when sale or tax advantages are most favorable to the landowner.

Private lands do not need to be acquired, however, to be usable for a variety of park and recreation purposes, especially as boat access ramps, trailheads or trail corridors, picnic or scenic overlook sites. Private and public uses can be compatible if the private owner's interests are properly accounted for and suitable public/private agreements can be made concerning facility development, operation and maintenance costs.

Private parties own the following strategic sites within University Place - portions or all of which may be developed for park, recreation, or open space activities through developer dedications and/or city acquisitions subject to suitable terms and conditions.

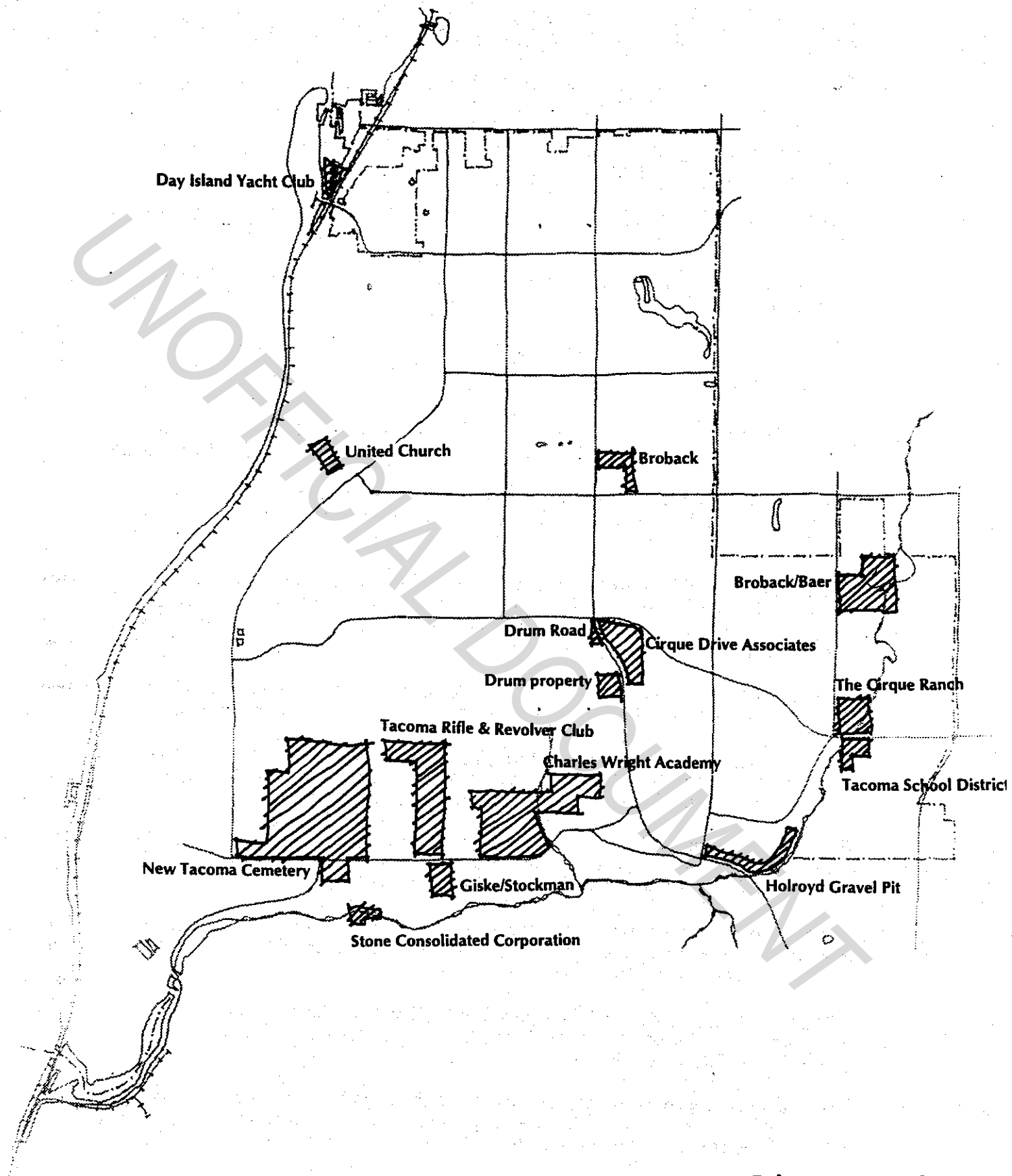
Broback/Baer Property on Leach Creek - the 11.0 acre Broback/Baer property is located north of Woodside Pond Nature Park between Alameda Avenue and Leach Creek. This and an adjacent property adjoin significant wetlands comprising both sides of Leach Creek from Woodside Pond Nature Park north to the unopened right-of-way for 44th Street West/Fordham Street.

The site conserves significant environmental areas with wildlife habitat characteristics, trail corridor, and neighborhood park potentials.

Broback Property on Bridgeport Way - the Broback property is located on the east side of Bridgeport Way between City Hall (the former Windmill Village) and the Albertson Supermarket complex at 40th Street West, and behind City Hall east to the edge of a residential subdivision.

The property conserves one of the last remaining woodland stands along Bridgeport Way, and a drainage corridor and ravine along the east boundary line with the adjoining residential neighborhood.

United Church - the church property is located west of the building on Brookside Way West at the upper end of Brookside Creek directly across from the Curran Apple Orchard.



Private properties



The property conserves the upper end of the drainage corridor and a wildlife migration route between the orchard and Puget Sound shoreline.

The Ranch on Cirque Drive - the 'Ranch' property is located on the north side of Cirque Drive on Leach Creek across from 57th Avenue West.

The east portion of the site conserves wetlands on the east bank of Leach Creek, an old wooden bridge, and farm homestead.

Tacoma School District - this neighborhood school site is located on the south side of Cirque Drive across Leach Creek from the Leach Creek Park Dedication.

The site includes riparian corridors along Leach Creek, wooded stands along Cirque Drive, and developable lands at the north end of 57th Avenue West with neighborhood park and trailhead potentials.

Holroyd Gravel Pit - this large gravel pit is located on the south side of 67th Avenue West east of the intersection with Chambers Creek Road. The site will eventually be developed for urban uses.

The southeastern portion of the property, however, conserves the riparian corridor along Leach Creek that defines the entry into University Place and a potential access into Chambers Creek Canyon.

Drum Road West - this triangular piece of property is located in former Drum Road right-of-way at the intersection of Cirque Drive West and Bridgeport Way. The property was made surplus by the realignment of Drum Road for a direct intersection with Bridgeport Way adjacent to the Westside Community Bank.

The triangular piece of property defines a visual axis and gateway with the southbound alignment of Bridgeport Way that may also be used for transit access or a streetscape park improvement.

Cirque Associates/Cirque Drive/Bridgeport Way - this 24.0 acre property is located behind the BP gas station on the southeast corner of Cirque Drive and Bridgeport Way. The owners have sought a rezoning of the property from its current residential single family designation to mixed use.

The strategic property is located on a hillside overlooking the Leach Creek valley with vistas of Mount Rainier. The site conserves a small wet area adjacent to the gas station, but is otherwise developable for a community center with athletic playing fields.

Drum property - this heavily wooded site is located on the west side of Bridgeport Way directly south of Westside Community Bank. The property conserves one of the last remaining woodland stands in the south end of the city.

Giske/Stockman property - the Alan and Victoria Giske and Lillian Stockman combined 10.0 acre properties are located on the south side of 64th Avenue West across from the entrance to the Tacoma Rifle & Revolver Club.

The combined properties conserve woodlands on the steep hillside slopes that access Chambers Creek. The northern portions of the site contain open fields and homesteads that could be used for neighborhood park and trailhead activities.

Stone Consolidated Corporation - owns and operates the former Boise Cascade pulp mill located on the south side of Chambers Bay inside the Town of Steilacoom. The company also owns land

covered by the south portions of the impoundment pond behind the Pierce County Public Works & Utilities Department's dam at the Chambers Creek Road crossing that are also located outside city limits.

Private open spaces

Private property owners, developers, and community homeowner associations, like the Beckonridge Homeowners Association, own a significant amount of land within the city as commonly-owned parks and open spaces. Some of these sites are accessible by members only, some by the public at-large on a user fee basis.

These properties contain some of the most valuable and unique environmental features, and strategically located sites in the city. While some of the properties may remain principally for the benefit of the private members or homeowners, portions of these commonly-owned properties could also provide perimeter public trail systems in adjacent road rights-of-way or even within the borders of the private commonly-owned property.

In most circumstances, the private commonly-owned trail systems and open spaces could link with other proposed public trails and corridors to provide opportunities of interest to the common property membership as well as the public.

For example, a walking trail could be developed from Chambers Chreek through Peach Creek and the wooded hillsides to Chambers Elementary School and eventually to the Chambers Creek Properties using portions of property owned by Charles Wright Academy, the Tacoma Rifle & Revolver Club, and the Beckonridge Homeowners Association.

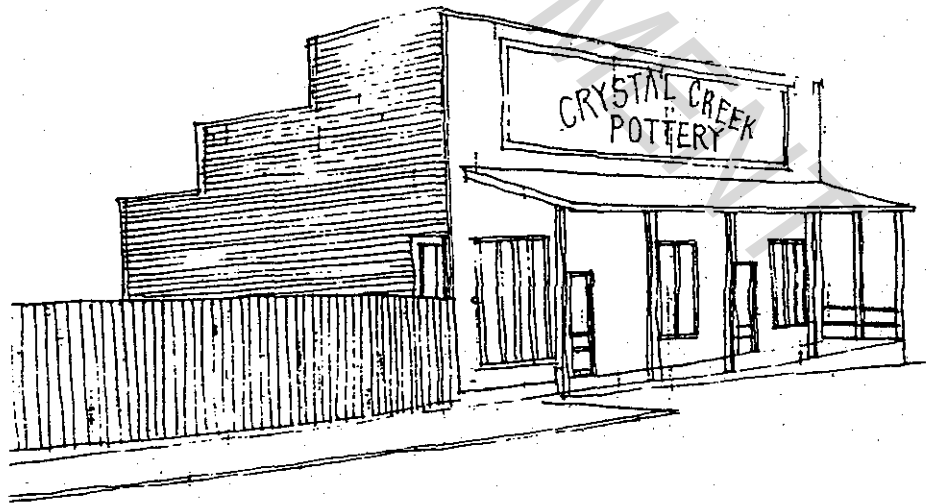
The combined public/private walking trail could provide an route of interest to the property owners and public that can not be created otherwise and that would not interfere or detract from the other private uses of the property.

Conclusions

- 1) City, county, state, school, utility, private homeowner associations, and private commercial operators own or control strategically important sites with every kind of physical and socially valuable park, recreational, and open space characteristic.
- 2) A valuable park, recreation, and open space system includes lands and soils that may not be suitable for urban uses or even some kinds of developed recreational facilities, but which can provide unique preserves, habitats, cultural, and historical associations. These combined social and physical attributes provide a balanced dimension to the park and recreation experience.
- 3) A quality park and recreation system does not have to be implemented strictly by public monies or purchase, but by the creative interplay of public and private market resources using a variety of techniques including leases, easements, tax incentives, design and development innovations, and enlightened private property interests.

Past park and recreational approaches may have relied too heavily on purchases and not enough on lower cost, but possibly more cost effective alternatives based on the conclusions of this opportunity analysis.

Land and facility demand



Crystal Springs Pottery Shed (Stephens Grocery Store) - 1909

Land and facility demand

Alternative methodologies that may be used to estimate park, recreation, and open space land and facility demands include population ratios, participation models, level-of-service (LOS) measurements, and questionnaire surveys. This chapter evaluates the demand for parks, recreation, and open space lands and facilities using national, state, and regional standards where appropriate.

Existing land requirements

The demand for park, recreation, and open space lands can be estimated using a ratio of a required acreage to a standard unit of population, like 3.1 acres of athletic fields and playgrounds per 1,000 residents. The ratio method is relatively simple to compute and can be compared with national, state, or comparable city park and recreation standards.

However, the ratio method cannot account for unique age, social or interest characteristics that may affect the park and recreation activity patterns within a specific community. Nor can the method compensate for unique climatic or environmental features that may cause seasonal or geographical variations in park and recreational use patterns.

The ratio method is frequently used to estimate land requirements. However, a number of factors may significantly influence the amount of land a community may wish to set-aside for park and facility purposes. Such factors may include the presence of unsuitable soils, scenic viewpoints, historical or cultural assets that may increase set-asides, but not affect the ratio of required land to facility requirements.

The most widely used park land ratios have been formulated by the National Recreation & Park Association (NRPA) using standards that have been developed over time by major park and recreation departments across the country. Depending on the agency arrangements within the participating cities, the ratios may or may not include the lands and facilities that are provided by all public sponsors including city, school, county, state, federal agencies, and private operators within each measuring jurisdiction.

According to National Recreation & Park Association (NRPA) standards, a park and recreation system should provide approximately 34.45 acres of all types of park land per every 1,000 persons in the population.

By comparison, University Place currently owns 41.5 acres of park lands or about 1.44 acres per every 1,000 residents of the city. All public agencies including Pierce County and the University Place School District own 601.6 acres with park, recreation, and open space potentials (not including their total landholdings) or about 20.92 acres per every 1,000 persons in the city. All public and private agencies combined own 745.4 acres or about 25.93 acres per every 1,000 persons within the city with park, recreation, and open space opportunities.

The total land requirement would also be partially satisfied by the availability of other public park lands that are within a one-hour driving distance - such as Pierce County's remaining acreage in the Chambers Creek Properties and Fort Steilacoom Golf Course and Park; Tacoma Metropolitan Park District's Titlow Beach Park - and the National Park Service's Mount Baker/Snoqualmie National Forest and Mount Rainier National Park.

Generally, the city, county, and school district provide a sufficient amount of land for park, recreation, and open space interests within the city with which to satisfy most local interests. However, the present allocation may not necessarily be balanced between different types of park, recreation, and open space land requirements.

Wildlife habitat/resource conservancies

Open space preservation or resource conservancies are designed to protect and manage a natural and/or cultural feature, environment or facility - such as a wetland or unique habitat, a natural landmark or a unique cultural setting. By definition, resource conservancies are defined by areas of natural quality for nature-oriented outdoor recreation, such as viewing and studying nature, wildlife habitat, and conservation. Open space preservations or resource conservancies should be located to encompass diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, and topography. Recreational use may be a secondary, nonintrusive part of the property - such as an interpretative trail, viewpoint, exhibit signage, picnic area or other feature.

According to the NRPA, the desired service area for an open space or resource conservancy is a one-hour driving distance. A suitable standard for resource conservancies is about 10.0 acres per every 1,000 residents. In practice, however, there are no minimum or maximum standards concerning conservancies - the park system should include whatever is necessary to protect the resource.

By comparison, University Place presently provides 23.1 acres of open space and resource conservancies consisting of Chambers Crest Wildlife Habitat, Conservation Park, the Curran Apple Orchard, Adriana Hess Wetland Park, and Woodside Pond Nature Park. These sites provide about 0.80 acres per every 1,000 residents within the city of resource conservancy lands.

University Place and Pierce County combined provide 103.1 acres of potential open space including the county's portion of Chambers Creek Properties within city limits which may be placed in conservancy or buffer use. These sites combined with city holdings provide about 3.59 acres per every 1,000 residents.

All public and private agencies combined - including private homeowners associations, the Tacoma Rifle & Revolver Club, and Charles Wright Academy, own 193.0 acres of properties that conserve open space equal to about 6.71 acres per every 1,000 residents.

Therefore, existing open space lands within the city's limits do not satisfy the resource conservancy objectives - particularly given the number of sensitive sites which are not currently conserved around Morrison Pond, along Leach Creek, Brookside Creek, and other significant natural areas in the city.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased within the city by another 80.0 acres or to a standard of 9.50 acres per 1,000 residents to allow for additional conservancy acquisitions.

Existing/proposed level-of-service standards (ELOS/PLOS - local/regional)

1996 population in city:

28,751

In UGA:

28,751

		Inventory 1997			Existing (ELOS)/1000 pop			Proposed (PLOS)			IAC participation model			NRPA
		City	All	All	City	All	All	City/	All	Pierce County				Stnds
units		public	pub/pvt		public	pub/pvt	UGA	pub/pvt	1990	2000	2010	1983		
		fcities	fcities		fcities	fcities	addns	fcities	586203	696572	792179			
1	open space/resource conserv	acres	23.1	103.1	193.0	0.80	3.59	6.71	80.0	9.50			10.00	
2	resource activities	acres	2.5	10.5	13.0	0.09	0.37	0.45		0.45			16.50	
3	linear trails	acres	1.5	101.5	101.5	0.05	3.53	3.53	20.0	4.23			4.85	
4	athletic fields/playgrounds	acres	13.1	142.8	164.2	0.46	4.97	5.71	45.0	7.28			3.10	
5	recreation centers/pools	acres	0.8	3.2	8.2	0.03	0.11	0.29	20.0	0.98				
6	special use facilities	acres	0.0	240.0	265.0	0.00	8.35	9.22		9.22				
7	support facilities	acres	0.5	0.5	0.5	0.02	0.02	0.02	0.5	0.03				
Subtotal for land			41.5	601.6	745.4	1.44	20.92	25.93	165.5	31.68			34.45	

Facilities

1 a	playgrounds covered	playgrou	0	0	0	0.00	0.00	0.00		0.00				
1 b	playgrounds uncovered	playgrou	0	6	10	0.00	0.21	0.35	10	0.70	0.60	0.56	0.53	
2 a	open play areas - not improve	acres	1.0	2.2	2.2	0.03	0.08	0.08		0.08				
2 b	open play areas - improved	acres	0.0	0.0	0.0	0.00	0.00	0.00	6.0	0.21				
3	skateboard court	each	0.0	0.0	0.0	0.00	0.00	0.00	1.0	0.03				
4	handball-4 wall outdoor unco	court	0	0	0	0.00	0.00	0.00		0.00				
5 a	basketball outdoor covered	court	0	0	1	0.00	0.00	0.03		0.03				
5 b	basketball outdoor uncovered	court	0	13	17	0.00	0.45	0.59	5	0.77	0.10	0.10	0.09	0.30
6 a	volleyball-outdoor covered	court	0	0	0	0.00	0.00	0.00		0.00				
6 b	volleyball-outdoor uncovered	court	0	0	0	0.00	0.00	0.00		0.00				0.20
6 c	volleyball-outdoor sand	court	0	0	0	0.00	0.00	0.00	4	0.14				
7 a	tennis - outdoor lighted	court	0	0	2	0.00	0.00	0.07		0.07				
7 b	tennis - outdoor unlighted	court	6	6	8	0.21	0.21	0.28	4	0.42	0.24	0.23	0.22	0.50
7 c	tennis - indoor	court	0	0	0	0.00	0.00	0.00		0.00				
8 a	football - regulation	field	0	1	2	0.00	0.03	0.07		0.07				0.05
8 b	football - nonregulation	field	0	0	0	0.00	0.00	0.00		0.00				
9 a	soccer regulation	field	1	7	9	0.03	0.24	0.31	2	0.38	0.32	0.31	0.29	0.10
9 b	soccer nonregulation	field	0	2	2	0.00	0.07	0.07	2	0.14				
10	field hockey	field	0	0	0	0.00	0.00	0.00		0.00				0.05
11 a	baseball/softball-250+grass/lighted	field	0	0	0	0.00	0.00	0.00	4	0.14	0.53	0.52	0.49	0.40
11 b	baseball/softball-250+grass/unlight	field	0	4	4	0.00	0.14	0.14	2	0.21				
11 c	baseball/softball-250+dirt/lighted	field	0	0	0	0.00	0.00	0.00		0.00				
11 d	baseball/softball-250+dirt/unlighte	field	1	1	2	0.03	0.03	0.07		0.07				
11 e	baseball/softball-nonregulation	field	1	13	15	0.03	0.45	0.52		0.52				
11 f	baseball/softball-200 lighted	field	0	0	0	0.00	0.00	0.00		0.00				
11 g	baseball/softball-200 unlighted	field	0	0	0	0.00	0.00	0.00	4	0.14				
12	parcourse	stations	0	0	0	0.00	0.00	0.00		0.00				
13 a	jogging track - surface	miles	0.00	0.50	0.75	0.00	0.02	0.03		0.03	0.02	0.02	0.02	0.05
13 b	jogging track - dirt	miles	0.00	0.00	0.00	0.00	0.00	0.00		0.00				
14 a	picnic tables	tables	2	5	5	0.07	0.17	0.17	48	1.84	1.77	1.71	1.67	na
14 b	picnic shelters	shelters	0	0	0	0.00	0.00	0.00	8	0.28				
14 c	picnic barbeques	each	0	0	0	0.00	0.00	0.00		0.00				
15 a	swimming at a beach	square fe	0	0	0	0.00	0.00	0.00		0.00				
15 b	swimming at a beach	parking s	0	0	0	0.00	0.00	0.00	62	2.16	2.14	2.09	1.99	na
16 a	boat launch ramps	each	0	0	0	0.00	0.00	0.00	2	0.07				
16 b	parking spaces	stalls	0	0	0	0.00	0.00	0.00	50	1.74				
16 c	docks/piers	sq ft	0	0	0	0.00	0.00	0.00		0.00				
16 d	boat slips	sq ft	0	6	491	0.00	0.21	17.08	10	17.43				
17	power boat trailheads	parking s	0	0	0	0.00	0.00	0.00		0.00				
18 a	tent camping	campsite	0	0	0	0.00	0.00	0.00		0.00	1.28	1.21	1.15	na
18 b	vehicle camping	campsite	0	0	0	0.00	0.00	0.00		0.00	2.00	2.02	2.03	na
23 a	walking in a park-asphalt	miles	0.0	0.0	0.0	0.00	0.00	0.00		0.00	0.13	0.13	0.13	na
23 b	walking in a park-dirt	miles	0.2	0.2	0.2	0.01	0.01	0.01	3.0	0.11				
24 a	walking on a trail-asphalt	miles	0.0	0.0	0.0	0.00	0.00	0.00	3.0	0.10	0.15	0.15	0.14	0.50
24 b	walking on a trail-dirt	miles	0.0	0.0	0.0	0.00	0.00	0.00	5.0	0.17				

Existing/proposed level-of-service standards (ELOS/PLOS - local/regional)

1996 population in city:

28,751 In UGA:

28,751

			Inventory 1997			Existing (ELOS)/1000 pop			Proposed (PLOS)		IAC participation model			NRPA
			City	All	All	City	All	All	City/	All	Pierce County			Stnds
units				public	pub/pvt		public	pub/pvt	UGA	pub/pvt	1990	2000	2010	1983
				fcities	fcities		fcities	fcities	addns	fcities	586203	696572	792179	
25	a	backpacking/overnight camp	miles	0.0	0.0	0.0	0.00	0.00	0.00	0.00				
26	a	bicycling on a trail-asphalt	miles	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.30	0.30	0.29	0.50
	b	bicycling on a trail-dirt	miles	0.0	0.0	0.0	0.00	0.00	0.00	0.00				
27	a	bicycling on a road-marked	miles	0.0	0.0	0.0	0.00	0.00	0.00	20.0	0.03	0.03	0.03	na
	b	bicycling on a road-unmarked	miles	0.0	0.0	0.0	0.00	0.00	0.00	0.00				
28	a	horseback riding on a trail	miles	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.12	0.11	0.11	na
29	a	swimming at a pool-outdoor	sq ft pool	0	0	6,300	0.00	0.00	219.12	219.12	540.82	527.15	502.81	0.05
	b	swimming at a pool-indoor	sq ft pool	0	3150	3150	0.00	109.56	109.56	109.56				
30		indoor gymnasium	square ft	0	29500	34500	0.00	1026.05	1199.96	22402	1979.13			
31		physical conditioning	square ft	0	500	500	0.00	17.39	17.39	2745	112.87			
32		racquetball-indoor	each/sq ft	0	0	0	0.00	0.00	0.00	0.00				
33		handball-indoor	each/sq ft	0	0	0	0.00	0.00	0.00	0.00				
34		arts/crafts/pottery room	square ft	0	3800	3800	0.00	132.17	132.17	1380	180.17			
35		classrooms/meeting facilities	square ft	3400	4400	4400	118.28	153.04	153.04	6624	383.43			
36		auditorium/staging/meeting ro	square ft	0	0	0	0.00	0.00	0.00	2760	96.00			
37		kitchen facilities	square ft	750	750	750	26.09	26.09	26.09	500	43.48			
38		dining facilities	square ft	0	0	0	0.00	0.00	0.00	0.00				
39		daycare/nursery	square ft	0	0	0	0.00	0.00	0.00	1610	56.00			
40		community center admin	square ft	400	400	400	13.91	13.91	13.91	3027	119.20			
41		community center other	square ft	0	0	0	0.00	0.00	0.00	7930	275.82			
42		nature interpretive centers	square ft	0	0	0	0.00	0.00	0.00	2000	69.56			
43		museum/historical facilities	square ft	0	0	0	0.00	0.00	0.00	2000	69.56			
44	a	golf-par 3/18 hole	holes	0	0	0	0.00	0.00	0.00	0.00	0.41	0.42	0.43	0.13
	b	golf course clubhouse	square ft	0	0	0	0.00	0.00	0.00	0.00				
	c	golf course maintenance bldg	square ft	0	0	0	0.00	0.00	0.00	0.00				
45		gun range - outdoor	target	0	0	12	0.00	0.00	0.42	0.42	0.14	0.13	0.13	0.02
46		archery range - outdoor	target	0	0	0	0.00	0.00	0.00	0.00	0.06	0.06	0.05	0.02
47		ice hockey	each	0	0	0	0.00	0.00	0.00	0.00				0.01
48	a	parks administration offices	square ft	750	750	750	26.09	26.09	26.09	2000	95.65			
	b	parks maintenance buildings	square ft	0	0	0	0.00	0.00	0.00	1000	34.78			
	c	parks shop yard/nursery	square ft	0	0	0	0.00	0.00	0.00	500	17.39			
	d	parks caretaker houses	each/sq ft	0	0	0	0.00	0.00	0.00	0.00				
	e	restrooms-permanent	each/sq ft	0	0	0	0.00	0.00	0.00	24	0.83			
	e	restrooms-temporary	each	0	0	0	0.00	0.00	0.00	0.00				
Subtotal facility units			5312	43317	55133	184.77	1506.62	1917.61	56757	3891.70				

Sources:

"Recreation, Parks & Open Space Standards & Guidelines", National Recreation & Park Association (NRPA), 1983.

Resource activities

Resource activities (or metropolitan and community parks) are defined by areas of natural or ornamental quality for outdoor recreation, such as picnicking, boating, fishing, swimming, and camping. The site may also include play areas, such as playgrounds and open grassy playfields, and local park trails as long as these areas support the primary outdoor recreational features. The site should be contiguous to or encompassing natural resources including resource conservancies and may be easily accessible to several neighborhoods.

According to NRPA standards, the desired service area for resource activities is a one-hour driving distance. A suitable standard for resource activities is 16.5 acres per 1,000 population.

By comparison, University Place presently provides 2.5 acres or about 0.09 acres per 1,000 city residents of resource activities consisting of the Day Island SWM site. Pierce County may provide another 8.0 acres on the Chambers Creek Properties for boating, fishing, and swimming beach uses or a combined total of 0.37 acres per 1,000 city residents. All public and private sponsors combined provide 13.0 acres or 0.45 acres per 1,000 city residents.

The ELOS (existing level-of-service) standard would be higher were the inventory to include nearby resource parks in Tacoma (Titlow Beach), Steilacoom (Sunnyside Beach), Lakewood (Fort Steilacoom, Harry Todd, and American Lake), and Mount Rainier National Park.

Consequently, the present supply (ELOS - existing level-of-service standard) is sufficient to meet resource activity objectives.

Linear trails

Linear trails are built or natural corridors, such as abandoned railroad lines and active utility rights-of-way or natural areas defined by drainage features, topographical changes, wooded areas or vegetation patterns that can link schools, libraries or commercial areas with parks. Generally, linear trails may be developed for one or more modes of recreational travel such as hiking, biking or horseback riding. The trail system may parallel established vehicular or other transportation systems, but apart from and usually within an adjacent or separate right-of-way. Linear trail corridors may also include active play areas or trailhead developments which are located in any of the other types of park lands described above.

Trail systems should be anchored by public facilities, like a school or park which may serve as a destination or trailhead, and extend into the surrounding residential areas using natural features or established roads, sidewalks or other safe travel corridors. Ideally, a minimum trail system should be at least 1-3 miles long and provide the ability to loop back to the point of origin. The trail should be sufficiently wide enough to provide for the type of trail user(s) that it is accommodating, preserve the features through which the trail is traveling, and buffer adjacent land use activities.

According to the NRPA, a suitable standard for linear park trails is about 0.5 miles of hiking and jogging trail and 0.5 miles of separate biking trail per 1,000 population, or the equivalent of 1.0 mile of linear park trail facility units (equal to 4.85 acres assuming a trail corridor averages 40 feet in width) per 1,000 population if the different types are provided within a combined multiuse corridor - assuming the trail is used primarily by local residents.

By comparison, University Place presently provides 1.5 acres or 0.05 acres per 1,000 city residents of linear trail parks consisting of Morrison Pond, Woodside Nature Park, and Colegate Park within the current system. Pierce County may provide 100.0 acres of linear

trail corridor on the Chambers Creek Properties or a combined total of 3.53 acres per 1,000 city residents.

Consequently, the present supply (ELOS - existing level-of-service standard) is somewhat deficient and should be increased by another 20.0 acres or by the equivalent of about 4.0 miles of trail to provide effective support to local resident interests.

Athletic fields and playgrounds

Athletic (or community and neighborhood parks) fields and playgrounds are designed for intense recreational activities like field and court games, playground apparatus areas, picnicking, wading pools, and the like. A suitable athletic field and playground site should be capable of sustaining intense recreational development. The site should be easily accessible to the using population and ideally should be linked to the surrounding area by walking and biking trails and paths. Typically, athletic fields and playgrounds may be included within or jointly developed in association with an elementary, middle or high school facility.

The desired service area for an athletic field or playground complex depends on the competitive quality to which the facility is developed and the resident using population that the site is intended to serve. Regionally oriented athletic sites may include 4 or more competitive, high quality soccer, baseball or softball fields serving older age organized youth and adult leagues drawn from a number of surrounding communities or areas - which may include the approximate service area for a high school.

Local (community or neighborhood) oriented athletic fields and playgrounds may consist primarily of a playground and a grassy play area, possibly including 2 or more smaller sized fields serving younger age youth leagues. Local athletic fields and playgrounds serve residents of an immediately surrounding residential area from a quarter to half-mile radius - which is the approximate service area for an elementary school.

According to the NRPA, a suitable standard for athletic fields and playgrounds is 3.1 acres per 1,000 population. By comparison, University Place presently provides 13.1 acres of athletic fields and playgrounds consisting of Sunset Terrace Park and Colegate Park. These sites provide about 0.46 acres per every 1,000 city residents of athletic fields and playgrounds within a short commute, including walking distance, of most residential areas.

University Place and Pierce County combined may provide 142.8 acres if the county develops regionally competitive athletic fields on the Chambers Creek Properties equal to about 4.97 acres per 1,000 city residents.

All agencies combined provide 164.2 acres or about 5.71 acres per 1,000 city residents including only the portions of Chambers Primary, Evergreen Primary, Sunset Primary, University Place Primary, Drum Intermediate, Narrows Intermediate, Curtis Junior High, and Curtis High School facilities that are devoted to fields and playgrounds.

However, the school facilities include a number of undersized fields that can not be used for competitive league games. And, the regionally competitive fields to be developed on the Chambers Creek Properties will likely be used by leagues drawn from inside and outside the city.

Consequently, the present supply (ELOS - existing level-of-service standard) is not sufficient and should be increased by another 45.0 acres to provide playable fields for local neighborhood activities, and additional competitive fields for community and regional game requirements.

Recreation centers/pools

Recreation centers and pools are indoor and outdoor facilities providing swimming pools, physical conditioning, gymnasiums, arts and crafts, classrooms, meeting rooms, kitchen facilities, and other spaces to support public recreation programs for school-age children (but not students), teens, senior, and other resident populations on a full-time basis. For the purposes of this study, recreation centers and pools are defined to include all city, county, and school-owned facilities that are available for public use. By definition, recreation centers do not include all other school buildings or private-for-profit enterprises.

The desired service area for a recreation center/pool depends on the extent of the recreational program services to be offered in the facility and the building's potential size and site relationships. Regionally oriented recreation centers may include a variety of competitive swimming or diving pools, gymnasiums or courts along with/or in place of a series of public classroom and meeting facilities, a teen and/or senior center and/or a daycare facility providing at least 7,500 square feet of indoor building space. And/or a regionally oriented recreation center may be jointly sited with an athletic park or playground, or in association with a library, civic center or other public meeting facility. Regionally oriented recreation centers may be jointly shared with school districts or a part of other city or county building complexes that serve a city or larger surrounding community area.

Local recreation centers may consist primarily of a single facility use - like a classroom or gymnasium complex that is less than 4,000 square feet in area and that may be sited as a lone building oriented to a single user group - like a teen or senior center. Local recreation centers serve residents of an immediately surrounding residential area from a quarter to half-mile radius - which is the approximate service area for an elementary school.

There are no NRPA standards for recreation centers or other indoor facilities. By comparison, University Place presently provides 0.8 acres at the Senior Center (former University Place Park & Recreation District headquarters building) on Grandview Drive and at City Hall equal to about 0.03 acres per 1,000 city residents.

All agencies combined, including Pierce County Library District, Day Island Clubhouse, University Place School District, and private homeowner tennis and swim clubs, provide 8.2 acres or 0.29 acres per 1,000 city residents of community building space or acreage.

The existing level-of-service would be closer to recreation center objectives were the inventory to include indoor gymnasium, arts and crafts, space provided by University Place School District facilities. However, these facilities are not available for use during school hours to meet the needs of seniors, parents, or preschool children.

Consequently, the present supply (ELOS - existing level-of-service standard) is not sufficient and should be increased by another 20.0 acres or by a full-service recreation/community center facility to meet local city resident needs.

Special use facilities

Special use facilities are single-purpose recreational activities like arboreta, display gardens, nature centers, golf courses, marinas, zoos, conservatories, arenas, outdoor theaters, and gun and archery ranges. Special use facilities may include areas that preserve, maintain, and interpret buildings, sites, and other objects of historical or cultural significance, like museums, historical landmarks, and structures. Special use areas may also include public plazas or squares or commons in or near commercial centers, public buildings or other urban developed areas.

There are no standards concerning the development of special use facilities - demand being defined by opportunity more than a ratio standard. Nor are there minimum or maximum facility or site sizes - size being a function of the type of facility rather than a separately established design standard.

University Place does not provide any special use facilities within the inventory. Pierce County may provide an estimated 240.0 acres on the Chambers Creek Properties for a golf course, water recharge facility, botanical garden, environmental interpretive center, and similar uses equal to about 8.35 acres per 1,000 city residents. However, the Chambers Creek Properties will be used by residents from the surrounding region as well as the city.

All public and private agencies combined provide 265.0 acres or 9.22 acres per every 1,000 city residents including the 481 boat slips at the Day Island Yacht Club, the gun range at the Tacoma Rifle & Revolver Club, and the indoor dome facility at Charles Wright Academy.

The existing level-of-service is probably sufficient were the inventory to also account for the Fircrest Golf Course, Meadow Park Golf Course, Oakbrook Golf & Country Club, and Pierce County Fort Steilacoom Golf Course facilities located adjacent to city limits.

Since the demand for these facilities is generally determined by user fees and other special interest population revenues, any increase will be determined by market conditions. Consequently, the existing level-of-service (ELOS) standard is more than sufficient to meet city resident requirements.

Support facilities

Support facilities include administrative office space, indoor meeting rooms, shop and equipment maintenance yards, plant nurseries, and other buildings and sites necessary to service the park system.

There are no standards concerning the development of support use facilities - demand being defined by functional operating requirements more than a ratio standard. Nor are there minimum or maximum facility or site sizes - size being a function of the type of facility space required and whether the facility space is shared with other municipal support functions rather than a separately established design standard.

University Place presently provides 0.5 acres of park supporting facilities consisting of a portion of City Hall meeting and administrative spaces or about 0.02 acres per 1,000 city residents - not including the public works yard space the city currently leases from Pierce County. No other agencies maintain local park supporting facilities within the city.

This existing level-of-service is not sufficient to provide maintenance equipment and facility space or plant nurseries necessary to maintain and operate the city park, recreation, and open space inventory. Consequently, the existing level-of-service (ELOS) standard should be increased by another 0.5 acres of land in a city public works yard to meet present and future city requirements.

Facility requirements

Park, recreation, and open space facility requirements can be determined using variations of participation models - which are refined, statistical variations of a questionnaire or survey method of determining recreational behavior. Participation models are usually compiled using activity diaries, where a person or household records their participation in

specific recreational activities over a measurable period of time. The diary results are then compiled to create a statistical profile that can be used to project the park and recreational behavior of comparable persons, households or populations.

Participation models are most accurate when the participation measurements are determined for a population and area that is local and similar enough to the population to be projected by the model. The most accurate participation models are usually controlled by climatic region and age, and are periodically updated to measure changes in recreational behavior in specific activities or areas over time.

Properly done, participation models can be very accurate predictors of an area's facility requirements in terms that are specific and measurable. However, though accurate, participation models can be somewhat abstract, and if not combined with other methods of gathering public opinion, the method can fail to determine the qualitative issues of an area's facility demands in addition to a facility's quantitative requirements.

For example, an area might provide the exact facility quantities that are required to meet the resident population's park, recreation, and open space demands, such as a mile of walking trail. However, the facility might not be provided with the quality, program service or other important, but less measurable aspects, that make the facility quantity effective and the activity a pleasurable experience. The walking trail, for example, might be located in an area of uninteresting scenery and/or in an inaccessible location.

In 1976, the State of Washington Interagency for Outdoor Recreation (IAC) conducted a detailed diary survey of the park and recreational behaviors of persons residing within different areas of the state. Each participant recorded the frequency, schedule, number of participants, and other use characteristics for 82 specific outdoor park and recreation activities (1: water activities, 2: nature study, 3: hiking, camping and picnicking, 4: recreation vehicle driving, 5: hunting and shooting, 6: sports and games). The survey results were collated and statistically compared for six male/female age control groups (0-9, 10-19, 20-34, 39-49, 50-64, and 65+) and four regions (northwest, southwest, northeast, and southeast) of the state.

In 1983, the IAC accomplished a similar diary participation survey for the same six age groups and four regions for 24 specific outdoor park and recreation activities (1: water, 3: hiking, camping and picnicking, and 4: recreational vehicle activities). The survey also asked the participants to record the reasons why certain facilities were or were not used, and their desires concerning future facility developments.

In 1982, the Washington, Idaho, and Oregon State Park and Recreation Commissions jointly commissioned the Tri-State Recreation Study to determine the facility and locational patterns of park and recreation activity in and between the 3 states. The study determined that residents of the 3 states have definite behaviors concerning whether public versus private facilities are used for different types of park and recreation activities.

This planning effort utilizes the results of the 1976 and 1983 IAC surveys, and the 1982 Tri-State survey for each of the six age groups (male and female) for the northwest region of the state (west of the Cascade Mountains and north of Olympia). Estimates were developed for 21 park and recreation activities that were determined to be of most interest to the residents of the University Place and Pierce County service areas.

The estimates were developed for each activity demand for the peak season periods that would most impact facility capacities and thereby, the level of service to local residents. The estimated demands were calculated in facility unit terms based on an assumed

capacity and turnover rate common to the findings of the diary surveys. The projected facility unit requirements were then converted into a simple facility unit per 1,000 residents ratio to allow comparison with similar standards developed by the NRPA and found to be the existing facility level-of-service (ELOS) for each activity.

A number of organizations maintain ratio standards concerning park and recreational facilities - including the National Recreation & Park Association (NRPA). National population ratio standards are not as accurate as regionally based participation models since the national ratios do not account for differences in region, climate, age or other characteristics that can be controlled under the participation model. In addition, the participation model can also account for facility capacity standards that may be expressed through management policies or local population preferences concerning volume of use or the degree of crowding that is satisfactory.

Nonetheless, a comparison was made of the results of the participation model projections and common ratio standards maintained by various industry sources. Generally, the results indicate that Pierce County's existing (1990) and projected (year 2000 and 2010) age characteristics will create a unique set of facility standards. (The projections are made for Pierce County because reliable age projections can not be made for the University Place urban area.)

Playgrounds

The participation model projections indicate public agencies should be providing a ratio of 0.60 playgrounds of all types per every 1,000 city residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of younger playground age children declines as a percent of the total resident population.

By comparison, University Place does not presently provide any playground facilities. On a citywide basis, all agencies provide a total of 10 facilities or a ratio of 0.35 facilities per 1,000 city residents and 2.2 acres of improved playarea or a ratio of 0.08 acres per 1,000 city residents. The present supply of playgrounds and playareas is not adequate and is heavily overused, particularly the few facilities located at local school sites.

Consequently, the existing supply (ELOS - existing level-of-service standard) should be increased by another 10 playgrounds.

Skateboard court

There are no participation model standards for skateboard courts or parks - or similar rollerblade court activities. These are recent recreational phenomena for which there are no established service standards.

At the present time, a number of communities in Puget Sound (including Bellingham, Bellevue, Issaquah, and Kirkland, to name a few) are developing central citywide facilities able to provide informal and organized skateboard and rollerblade activities and competitions.

Assuming a similar interest in University Place, a competition quality facility should be developed in the city at a central location that can be supervised by parks staff.

Outdoor basketball/volleyball courts

The participation model projections indicate public agencies should be providing a ratio of 0.10 basketball and volleyball courts of all types per every 1,000 city residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of court playing children declines as a percent of the total resident population.

By comparison, University Place does not presently provide any outdoor recreational courts. All agencies combined provide a total of 17 facilities or a ratio of 0.59 facilities per 1,000 city residents.

When school courts are included, existing facilities are closer to standards but are not located within a geographically dispersed pattern throughout the city that is accessible to all neighborhood residents - particularly in the east and south city neighborhoods.

Consequently, the supply (ELOS - existing level-of-service standard) should be increased by another 5 outdoor basketball and 4 outdoor sand volleyball courts in neighborhood park locations.

Tennis courts

The participation model projections indicate public agencies should be providing a ratio of 0.24 tennis courts of all types per every 1,000 city residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of court playing youth and adults declines as a percent of the total resident population.

By comparison, University Place provides a total of 6 tennis courts or a ratio of 0.21 courts per 1,000 city residents. However, the court inventory is concentrated in a single location (Colegate Park/Curtis High School) that is used during the daytime by school students.

All agencies combined provide a total of 2 lighted and 8 unlighted courts or a ratio of 0.35 courts per 1,000 city residents. However, most of this inventory is provided at privately owned schools or clubs that are not available for general public use.

Consequently, the supply (ELOS - existing level-of-service standard) should be increased by another 4 outdoor unlighted courts at a recreational/community center location in the south part of the city to meet local resident interests during day and evening hours.

Soccer fields

The participation model projections indicate public agencies should be providing a ratio of 0.32 soccer fields of all types (regulation and practice or junior sized) per every 1,000 residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of soccer playing youth declines as a percent of the total resident population.

By comparison, all agencies combined provide a total of 9 regulation or competition and 2 practice fields or a ratio of 0.38 fields per 1,000 residents. However, the competitive quality, size, and geographical distribution are not sufficient to meet local needs - particularly for younger age youth leagues and older age regional competition requirements.

Consequently, the supply (ELOS - existing level-of-service standard) should be increased by another 2 regulation or competition fields located at a central community or regional athletic park and another 2 nonregulation or younger age youth playing fields located in neighborhood park locations - particularly in the south and east city neighborhoods.

In addition, University Place should participate in a regional facility planning effort to ensure that additional competitive fields are developed on the Chambers Creek Properties and/or Fort Steilacoom Park to satisfy competition field requirements on a regional basis.

Baseball/softball fields

The participation model projections indicate public agencies should be providing a ratio of 0.53 baseball and softball fields of all types (adult, bronco, and little league regulation and practice) per every 1,000 residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of baseball/softball playing youth declines as a percent of the total resident population.

By comparison, all agencies combined provide 4 unlighted large grass fields, 2 unlighted large dirt field, and 15 nonregulation or small fields or a ratio of 0.73 fields per 1,000 residents. However, the competitive quality, size, and geographical distribution are not sufficient to meet local needs - particularly for younger age youth leagues and older age regional competition requirements.

Consequently, the supply (ELOS - existing level-of-service standard) should be increased by 4 lighted and 2 unlighted large fields for older age league competitions at a community or regional complex, and another 4 smaller sized fields in neighborhood parks for younger age youth play - particularly in the south and east city neighborhoods.

In addition, University Place should participate in a regional facility planning effort to ensure that additional competitive fields are developed on the Chambers Creek Properties and/or Fort Steilacoom Park to satisfy competition field requirements on a regional basis.

logging tracks

The participation model projections indicate public agencies should be providing a ratio of 0.02 quarter mile jogging tracks of all types (special and dirt surface) per every 1,000 residents. The projections for Pierce County indicate this ratio will likely remain constant in the future as the ratio of jogging enthusiasts remains constant as a percent of the total resident population.

By comparison, all agencies combined presently provide 0.75 miles of track or a ratio of 0.03 miles of track per 1,000 residents.

Consequently, the present supply (ELOS - existing level-of-service standard) is sufficient to meet local requirements.

Picnic tables and shelters

The participation model projections indicate public agencies should be providing a ratio of 1.77 picnic tables of all types (open and under shelters) per every 1,000 residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of picnic enthusiasts declines as a percent of the total resident population.

By comparison, all agencies combined provide a total of 5 tables or a ratio of 0.17 tables per 1,000 residents, and no picnic shelters.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased by another 48 picnic tables and 8 picnic shelters dispersed throughout the city at neighborhood and community park sites.

Swimming at a beach (waterfront access)

The participation model projections indicate public agencies should be providing a ratio of 2.14 swimming beach (waterfront access) parking spaces per every 1,000 residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of beach enthusiasts declines as a percent of the total resident population.

At the present time, no agencies provide a swimming beach or waterfront access facilities at the present time - although Pierce County plans to provide a beach access to the south pier on the Chambers Creek Properties.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased to provide at least 62 car parking spaces to meet local swimming or waterfront beach access when the Chambers Creek Property is developed by Pierce County.

Fishing/boating

There are no participation model standards for boat launch ramps, floating piers, boat moorage slips, dock and overlook structures, handcarry, sail or power boat launch ramp trailer parking spaces.

At the present time, no public agencies provide boat launching ramps, piers, slips, or other boating facilities - although Pierce County proposes to provide access to the 2 docking piers, and a 4-lane boat launch ramp and facility into Chambers Bay when the Chambers Creek Property is developed. The Day Island Yacht Club maintains 6 public transient boat slips or a ratio of 0.21 slips per 1,000 residents.

Facilities are available (outside city limits) at a roadside parking area on Indian tribal properties on Chambers Creek Road on the south side of Chambers Bay in the Town of Steilacoom, at the Chambers Bay Marina, at Tacoma Metropolitan Park District's Titlow Beach Park, and Steilacoom's Sunnyside Beach Park that provide waterfront facilities or access parking for persons seeking to fish or boat with canoe, kayak, raft or other cartop means. Consequently, the actual number of parking stalls and access sites that are available for fishing and cartop boating activities that can access University Place shoreline is larger than the inventory indicates.

However, these facilities are used on a regional basis by populations who reside outside of the University Place urban area - sometimes on a regular basis due to a lack of similar access opportunities and facilities in the city.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased to provide 2 boat launch ramps, 50 parking spaces, and 10 additional transient boat slips to meet local requirements.

Tent and vehicle camping

The participation model projections indicate public agencies should provide a ratio of 1.28 tent campsites and 2.00 vehicle campsites per every 1,000 residents. The projections for Pierce County indicate these ratios will decline for tent camping but increase for vehicle camping as the ratios of enthusiasts change as a percent of the total resident population.

By comparison, no agencies provide campsites of any kind nor are local park sites suitable for this type of activity within the city limits. Pierce County does provide camping opportunities at Sunset Beach Park; and the Washington State Parks & Recreation Commission presently maintains camping facilities at Kopachuck and Cutts Island State Parks on the Gig Harbor Peninsula within a 30 minute commuting time. In addition, the Gig Harbor RV Resort, a commercial operation, provides 40 tent and 100 recreational vehicle campsites at a facility on Burnham Drive in Gig Harbor.

Consequently, the present supply (ELOS - existing level-of-service standard) is sufficient to meet local requirements.

Local park trails

The participation model projections indicate public agencies should be providing a ratio of 0.13 miles of park contained walking trails per every 1,000 residents. The projections for Pierce County indicate this ratio will remain constant as the ratio of park walking enthusiasts remains a constant percent of the total resident population.

By comparison, University Place presently provides 0.2 miles of local park trails or a ratio of 0.01 miles of local park trail per 1,000 city residents. The trails are located at Woodside Pond Nature Park and Colegate Park - or widely dispersed locations in the city.

Pierce County will develop a 3.0 mile trail system through Chambers Creek Canyon when the Chambers Creek Properties are developed - although most of the trail corridor will be located outside of city limits and will service populations from Lakewood, Steilacoom, and surrounding areas as well as University Place.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased by another 3.0 miles of trail to complete systems within existing parks, and between existing and potential parks and adjacent neighborhoods.

Walking/biking on a multipurpose trail

The participation model projections indicate public agencies should be providing a ratio of 0.15 miles of walking or hiking trails and 0.30 miles of bicycling trails within a separated multipurpose trail corridor per every 1,000 residents. The projections for Pierce County indicate these ratios will slightly decline as the ratio of hiking and biking trail enthusiasts declines as a percent of the total resident population.

By comparison, University Place and Pierce County do not presently provide any miles of hiking or biking trails outside of existing park sites, or between park sites and local schools, community facilities, or neighborhood residential areas.

Pierce County will develop a multipurpose trail system along the Puget Sound and Chambers Bay shoreline, and along the Grandview Drive overlook when the Chambers Creek Properties are developed - although some of these trail corridor will service populations from Lakewood, Steilacoom, and surrounding areas as well as University Place.

Consequently, the present supply (ELOS - existing level-of-service standard) should be enhanced by 3.0 miles of hard surface and 5.0 miles of soft surface trails to meet local trail requirements.

Bicycling on a road

The participation model projections indicate public agencies should be providing a ratio of 0.03 miles of designated and shoulder improved roadways per every 1,000 residents - assuming local roads provide routes with interesting viewpoints and other characteristics preferred by bike touring enthusiasts. The projections for Pierce County indicate these ratios will remain constant as the ratio of bike touring enthusiasts remains constant as a percent of the total resident population.

Note - bicycle touring is a specialized form of bicycling activity and is not the same as bicycling on a trail or bicycling on a road for commuter or other more functional purposes. Bicycle touring is usually accomplished by an organized group of cyclists on scenic roads or along scenic shoreline routes on designated road shoulders or sometimes in traffic on designated roadways.

By comparison, University Place and Pierce County roadways are sometimes listed and are presently being improved with expanded and marked bicycle shoulders and lanes for bicycle touring routes within city limits - particularly along the Grandview Drive and Orchard Street routes.

Bicycling interest groups and commuting school children unofficially use area roadways of various conditions and standards along the most scenic roadways or between residential neighborhoods and local park and school facilities. Most of the routes favored by enthusiasts and school children will be improved and designated to correct inadequate pavements, shoulder widths, and other safety standard concerns using roadway improvement funds and other non-motorized trail development monies.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased to provide 20.0 miles of improved biking roadways along scenic routes and within residential areas to meet local needs.

In addition, University Place should participate in surrounding area planning efforts to ensure that cross-city/county touring routes are provided that will be of interest to local cycling enthusiasts.

Horseback riding on a trail

The participation model projections indicate public agencies should be providing a ratio of 0.12 miles of horseback riding trails per every 1,000 residents. The projections for Pierce County indicate these ratios will slightly decline as the ratio of equestrian riders declines as a percent of the total resident population.

By comparison, University Place and Pierce County facilities do not presently provide any miles of equestrian trail within city limits nor are local sites suitable for this activity. Pierce County does host equestrian events, however, including local riding trails at Fort Steilacoom Park.

Consequently, the present supply (ELOS - existing level-of-service standard) is sufficient to meet local requirements.

Swimming at a pool

The participation model projections indicate public agencies should be providing a ratio of 540.82 square feet of swimming pool and related area per every 1,000 residents. The projections for Pierce County indicate this ratio will likely decline in the future as the ratio of swimming enthusiasts declines as a percent of the total resident population.

By comparison, the University Place School District provides 3,150 square feet of indoor pool and related area or a ratio of 109.56 square feet per 1,000 residents at Curtis Senior High School. The pool is used for school educational instructions, athletic competitions, and public activities.

Another 6,300 square feet of outdoor swimming pools or a combined total of 328.68 square feet per 1,000 residents are also provided at Beckonridge Park and Woodlake Park - though these pools can only be used by local homeowners and residents.

Assuming the Curtis High School pool is readily available for public use, the present supply (ELOS - existing level-of-service standard) may be sufficient to meet the requirements of most school student and city residents in general.

However, University Place should participate in school and surrounding area planning efforts to ensure that additional swimming facilities are built to meet all age group interests in the population - and/or that existing school pool facilities are made available to meet public demands on a frequent and continuous basis.

Indoor recreation centers

There are no comparable participation model data with which to project the demand for public indoor recreation and community center facilities.

University Place facilities presently provide 3,400 square feet of indoor meeting facilities, 750 square feet of kitchen, and 400 square feet of community center administration space at the Senior Center (former University Place Park & Recreation District headquarters building) and City Hall or a ratio of 158.26 square feet of indoor center space per 1,000 residents.

All agencies combined provide a total of 34,500 square feet of gymnasium, 500 square feet of physical conditioning, 3,800 square feet of arts and crafts, 4,400 square feet of meeting rooms (not including classrooms), 750 square feet of kitchen (not including school cafeteria), and 400 square feet of park administration space or a ratio of 1,542.56 square feet of indoor center space per 1,000 residents.

Most of the school inventory, however, is used during the school day and not available for public activities that would support age groups that participate during peak school and business hours - such as seniors, preschool children, and at-home parents.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased by another 52,978 square feet of building space to provide facilities preschool, teens, senior, at-home parents, and other special population groups can use on a daytime and evening basis.

In addition, University Place should participate in school and surrounding area planning efforts to ensure that indoor facilities are made available for public use - and/or that school and surrounding jurisdictions participate in some form to operate programs for senior, preschool, and other special population needs.

Golf course

The participation model projections indicate public agencies should be providing a ratio of 0.41 holes of golf and related facilities per every 1,000 residents. The projections for Pierce County indicate this ratio will likely increase in the future as the ratio of golfing age enthusiasts increases as a percent of the total resident population.

By comparison, no public agencies presently provide golf facilities within city limits - although Pierce County may develop a golf course with proshop, clubhouse, and maintenance facilities on the Chambers Creek Properties.

In addition, the immediately adjacent area includes the Pierce County Steilacoom Golf Course, Fircrest Golf Course, Meadow Park Golf Course, and Oakbrook Golf & Country Club.

Consequently, the present market arrangement (ELOS - existing level-of-service standard) is sufficient to provide the golfing needs of the local area.

Gun and archery ranges

The participation model projections indicate public agencies should provide a ratio of 0.14 gun range and 0.06 archery range targets per every 1,000 residents. The projections for Pierce County indicate these ratios will gradually decline as the ratios of gun and archery enthusiasts change as a percent of the total resident population.

By comparison, no public agencies presently provide gun or archery range facilities of any kind nor are park facilities suitable for this type of activity. However, gun and archery range facilities are provided on a private fee or membership basis by the Tacoma Rifle & Revolver Club.

Consequently, the present market arrangement (ELOS - existing level-of-service standard) is sufficient to provide the gun and archery range needs of the local area.

Support facilities

There are no participation model standards with which to project supporting administrative office, equipment and shop maintenance yards, plant nursery or even park restroom requirements.

University Place presently provides 750 square feet of park administrative offices at City Hall but no park yard or plant nursery facilities or park restroom facilities for a ratio of 26.09 square feet per every 1,000 residents.

Consequently, the present supply (ELOS - existing level-of-service standard) should be increased by another 2,000 square feet of office, 1,000 square feet of park maintenance building, 500 square feet of shop yard and plant nursery, and 24 permanent restroom spaces at local park sites to meet expanding park operational requirements within the urban area.

Future growth implications

The Washington State Office of Financial Management (OFM) and the Puget Sound Regional Council (PSRC) expect the population of corporate University Place will continue to grow in significant fashion increasing from 28,751 persons in 1996 to an estimated 33,000 persons by the year 2003 (or at buildout of available lands within the city) or by 4,249 more persons equal to an increase of 14.8 percent.

The forecasted population increase will create significant requirements for all types of park, recreation, and open space lands and facilities.

ELOS land requirements by 2003

City ELOS standards - under the city's existing level-of-service (ELOS) standards, the forecasted population increase will create a citywide need for an additional 6.1 acres of land by the year 2003. The forecasted population increase will create additional requirements for all types of lands, but particularly for resource conservancies and athletic fields and playgrounds - if the same ratio of land is maintained.

Composite agency ELOS standards - under the composite city, county, school district, and private sponsor's existing level-of-service (ELOS) standard within the city, the forecasted population increase will create a need for an additional 110.2 acres of land by the year 2003. The forecasted population increase will create additional requirements for all types of lands, but particularly for resource conservancies, athletic fields and playgrounds, and special use facilities - if the same ratio of land is maintained.

Existing level-of-service (ELOS) requirements for city facilities

Population in development 1
 Population in city 1997 28,751
 Population in city 2003 33,000

	units	Inventory		ELOS standard		Year 2003		Facility	Project/	Year 2003
		1997	1997	fcity	standard	facility	eficit	cost	er capita	funding
		exist	unded	total	/1000	rqmnt		/unit	fee	deficit
1 resource conservancy	acres	23.1		23.1	0.80	26.5	3.4	\$10,000	\$8.03	\$34,139
2 resource activities	acres	2.5		2.5	0.09	2.9	0.4	\$25,000	\$2.17	\$9,237
3 linear trails	acres	1.5		1.5	0.05	1.7	0.2	\$15,000	\$0.78	\$3,325
4 athletic fields/playgrounds	acres	13.1		13.1	0.46	15.0	1.9	\$75,000	\$34.17	\$145,200
5 recreation centers/pools	acres	0.8		0.8	0.03	0.9	0.1	\$125,000	\$3.48	\$14,779
6 special use facilities	acres	0.0		0.0	0.00	0.0	0.0	\$100,000	enterprise	enterprise
7 support facilities/yards/buildin	acres	0.5		0.5	0.02	0.6	0.1	\$75,000	\$1.30	\$5,542
Subtotal for land impact		41.5	0.0	41.5	1.44	47.6	6.1		\$49.95	\$212,221

Facilities

1 a playgrounds covered	playgrou	0		0	0.00	0	0	\$100,000	\$0.00	\$0
b playground uncovered	playgrou	0		0	0.00	0	0	\$82,900	\$0.00	\$0
2 a open play area-not improved	acre	1.0		1.0	0.03	1.1	0	\$25,000	\$0.87	\$3,695
b open play area-improved	acre	0.0		0.0	0.00	0.0	0	\$97,054	\$0.00	\$0
3 handball uncovered-outdoor	court	0		0	0.00	0	0	\$50,000	\$0.00	\$0
4 b handball uncovered-outdoor	court	0		0	0.00	0	0	\$19,723	\$0.00	\$0
5 a basketball covered-outdoor	court	0		0	0.00	0	0	\$75,000	\$0.00	\$0
b basketball uncovered-outdoor	court	0		0	0.00	0	0	\$53,383	\$0.00	\$0
6 a volleyball covered-outdoor	court	0		0	0.00	0	0	\$50,000	\$0.00	\$0
b volleyball uncovered-outdoor	court	0		0	0.00	0	0	\$29,224	\$0.00	\$0
c volleyball sand	court	0		0	0.00	0	0	\$10,000	\$0.00	\$0
7 a tennis - indoor	court	0		0	0.00	0	0	\$150,000	\$0.00	\$0
b tennis lighted-outdoor	court	0		0	0.00	0	0	\$95,320	\$0.00	\$0
c tennis w/o lights-outdoor	court	6		6	0.21	7	1	\$52,481	\$10.95	\$46,536
8 a football regulation	field	0		0	0.00	0	0	\$226,436	\$0.00	\$0
b football practice field	field	0		0	0.00	0	0	\$100,000	\$0.00	\$0
9 a soccer regulation	field	1		1	0.03	1	0	\$453,535	\$15.77	\$67,026
b soccer practice field	field	0		0	0.00	0	0	\$100,000	\$0.00	\$0
10 field hockey/lacrosse-grass	field	0		0	0.00	0	0	\$500,000	\$0.00	\$0
11 a baseball 250+ adult grass light field	field	0		0	0.00	0	0	\$403,612	\$0.00	\$0
b baseball 250+ adult grass/unli	field	0		0	0.00	0	0	\$325,000	\$0.00	\$0
c baseball 250+ adult dirt/lighte	field	0		0	0.00	0	0	\$250,000	\$0.00	\$0
d baseball 250+ adult dirt/unligh	field	1		1	0.03	1	0	\$175,000	\$6.09	\$25,863
e baseball/softball practice field	field	1		1	0.03	1	0	\$100,000	\$3.48	\$14,779
f baseball/Little League-grass	field	0		0	0.00	0	0	\$203,449	\$0.00	\$0
g baseball/Little League-dirt	field	0		0	0.00	0	0	\$105,729	\$0.00	\$0
12 parcourse	stations	0		0	0.00	0	0	\$25,982	\$0.00	\$0
13 a jogging track w/special surfac	miles	0.00		0.0	0.00	0.00	0	\$61,388	\$0.00	\$0
b jogging track w/dirt surface	miles	0.00		0.0	0.00	0.00	0	\$30,000	\$0.00	\$0
14 a picnic tables w/o shelter	table	2		2	0.07	2	0	\$7,609	\$0.53	\$2,249
b picnic shelter-group use	shelter	0		0	0.00	0	0	\$10,694	\$0.00	\$0
c picnic barbeques	each	0		0	0.00	0	0	\$500	\$0.00	\$0
15 a swimming at a beach	sq feet	0		0	0.00	0	0	\$0	\$0.00	\$0
b swimming at a beach	pkng sp	0		0	0.00	0	0	\$4,388	\$0.00	\$0
16 a boat launch ramps	each	0		0	0.00	0	0	\$25,000	\$0.00	\$0
b floating platforms	sq ft	0		0	0.00	0	0	\$32	\$0.00	\$0
c boat slips	each	0		0	0.00	0	0	\$10,000	\$0.00	\$0
d dock/overlook structures	sq ft	0		0	0.00	0	0	\$50	\$0.00	\$0
17 power boat - launch	pkng sp	0		0	0.00	0	0	\$4,241	\$0.00	\$0
18 a tent camping	campsite	0		0	0.00	0	0	\$30,935	\$0.00	\$0
b vehicle camping	campsite	0		0	0.00	0	0	\$30,454	\$0.00	\$0
23 a walking in a park-asphalt	trail mile	0.0		0.0	0.00	0.0	0	\$162,641	\$0.00	\$0
b walking in a park-dirt	trail mile	0.2		0.2	0.01	0.2	0	\$109,631	\$0.76	\$3,240

Existing level-of-service (ELOS) requirements for city facilities

Population in development 1
 Population in city 1997 28,751
 Population in city 2003 33,000

			Inventory		ELOS standard		Year 2003		Facility	Project/	Year 2003
			1997	1997	fcity	tandard	facility		cost	er capita	funding
units			exist	unded	total	/1000	rqmnt	eficit	/unit	fee	deficit
24 a	day hiking on a trail-asphalt	trail mile	0.0		0.0	0.00	0.0	0	\$178,000	\$0.00	\$0
b	day hiking on a trail-dirt	trail mile	0.0		0.0	0.00	0.0	0	\$142,197	\$0.00	\$0
c	day hiking on a trail-trailhead	pkng sp	0		0	0.00	0	0	\$4,241	\$0.00	\$0
25 a	backpacking/overnight camp	trail mile	0.0		0.0	0.00	0.0	0	\$47,399	\$0.00	\$0
b	backpacking-trailhead	pkng sp	0		0	0.00	0	0	\$4,241	\$0.00	\$0
26 a	bicycling on a trail-asphalt	trail mile	0.0		0.0	0.00	0.0	0	\$149,980	\$0.00	\$0
b	bicycling on a trail-dirt	trail mile	0.0		0.0	0.00	0.0	0	\$119,984	\$0.00	\$0
c	bicycling on a trail-trailhead	pkng sp	0		0	0.00	0	0	\$4,241	\$0.00	\$0
27 a	bicycling on a road-marked w/	trail mile	0.0		0.0	0.00	0.0	0	\$51,306	\$0.00	\$0
b	bicycling on a road-designate	trail mile	0.0		0.0	0.00	0.0	0	\$5,131	\$0.00	\$0
28 a	horseback riding on a trail	trail mile	0.0		0.0	0.00	0.0	0	\$31,996	\$0.00	\$0
b	horseback trail head	parking	0		0	0.00	0	0	\$10,865	\$0.00	\$0
29 a	swimming at a pool-outdoor	square ft	0		0	0.00	0	0	\$218	\$0.00	\$0
b	swimming at a pool-indoor	square ft	0		0	0.00	0	0	\$450	\$0.00	\$0
30	indoor gymnasium	square ft	0		0	0.00	0	0	\$125	\$0.00	\$0
31	physical conditioning	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
32	racquetball (1600 each/sf ft)	each/sq ft	0		0	0.00	0	0	\$95	\$0.00	\$0
33	handball (1200 sf)	each/sq ft	0		0	0.00	0	0	\$95	\$0.00	\$0
34	arts/crafts/pottery room	square ft	0		0	0.00	0	0	\$115	\$0.00	\$0
35	classrooms/meeting facilities	square ft	3,400		3,400	118.26	3,902	502	\$105	\$12.42	\$52,760
36	auditorium/staging/meeting fa	square ft	0		0	0.00	0	0	\$200	\$0.00	\$0
37	kitchen facilities	square ft	750		750	26.09	861	111	\$200	\$5.22	\$22,168
38	dining facilities	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
39	day care/nursery	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
40	community center administrati	square ft	400		400	13.91	459	59	\$150	\$2.09	\$8,867
41	community center other space	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
42	nature interpretive centers	square ft	0		0	0.00	0	0	\$75	\$0.00	\$0
43	museum/historical facilities	square ft	0		0	0.00	0	0	\$150	\$0.00	\$0
44 a	golf-par 3/18 hole	hole	0		0	0.00	0	0	\$111,111	enterprise	enterprise
b	golf course clubhouse	square ft	0		0	0.00	0	0	\$150	enterprise	enterprise
c	golf course maintenance facili	square ft	0		0	0.00	0	0	\$45	enterprise	enterprise
45	gun range - outdoor	range	0		0	0.00	0	0	\$20,000	\$0.00	\$0
46	archery range - outdoor	range	0		0	0.00	0	0	\$10,000	\$0.00	\$0
47	ice rink	square ft	0		0	0.00	0	0		\$0.00	\$0
48 a	parks admin facilities	square ft	750		750	26.09	861	111	\$125	\$3.26	\$13,855
b	parks maintenance fcities	square ft	0		0	0.00	0	0	\$60	\$0.00	\$0
c	park shop yard	square ft	0		0	0.00	0	0	\$15	\$0.00	\$0
d	parks caretaker	each/sq ft	0		0	0.00	0	0	\$31	\$0.00	\$0
e	restrooms-permanent	fixture	0		0	0.00	0	0	\$17,392	\$0.00	\$0
f	restrooms-temporary	each	0		0	0.00	0	0	\$1,000	\$0.00	\$0
Subtotal for facility impact			5,312	0	5,312	184.77	6,097	785		\$61.43	\$261,037
Total impact for land and facilities - per capita										\$111.38	\$473,258
Total impact for land and facilities - per household of 2.49 persons/unit										\$277.34	

Total value of existing park lands	\$1,436,000
Total value of existing park facilities	\$1,766,315
Total value of existing park lands and facilities	\$3,202,315

Existing level-of-service (ELOS) for city/county/school/private facilities

Population in development 1
 Population in city 1997 28,751
 Population in city 2003 33,000

	units	Inventory		ELOS standard		Year 2003		Facility cost /unit	Project/ per capita fee	Year 2003 funding deficit
		1997 exist	1997 ended	fcity total	standard /1000	facility rqmnt	deficit			
1	resource conservancy acres	193.0		193.0	6.71	221.5	28.5	\$10,000	\$67.13	\$285,227
2	resource activities acres	13.0		13.0	0.45	14.9	1.9	\$25,000	\$11.30	\$48,031
3	linear trails acres	101.5		101.5	3.53	118.5	15.0	\$15,000	\$52.95	\$225,004
4	athletic fields/playgrounds acres	184.2		184.2	5.71	188.5	24.3	\$75,000	\$428.33	\$1,819,987
5	recreation centers/pools acres	8.2		8.2	0.29	9.4	1.2	\$125,000	\$35.65	\$151,481
6	special use facilities acres	285.0		285.0	9.22	304.2	39.2	\$100,000	enterprise	enterprise
7	support facilities/yards/buildin acres	0.5		0.5	0.02	0.6	0.1	\$75,000	\$1.30	\$5,542
Subtotal for land impact		745.4	0.0	745.4	25.93	855.6	110.2		\$596.67	\$2,535,272

Facilities

1 a	playgrounds covered	playgrou	0	0	0.00	0	0	\$100,000	\$0.00	\$0
1 b	playground uncovered	playgrou	10	10	0.35	11	1	\$62,900	\$21.88	\$92,957
2 a	open play area-not improved	acre	2.2	2.2	0.08	2.5	0	\$25,000	\$1.91	\$8,128
2 b	open play area-improved	acre	0.0	0.0	0.00	0.0	0	\$97,054	\$0.00	\$0
3	skateboard court	court	0	0	0.00	0	0	\$50,000	\$0.00	\$0
4 b	handball uncovered-outdoor	court	0	0	0.00	0	0	\$19,723	\$0.00	\$0
5 a	basketball covered-outdoor	court	1	1	0.03	1	0	\$75,000	\$2.61	\$11,084
5 b	basketball uncovered-outdoor	court	17	17	0.59	20	3	\$53,383	\$31.58	\$134,118
6 a	volleyball covered-outdoor	court	0	0	0.00	0	0	\$50,000	\$0.00	\$0
6 b	volleyball uncovered-outdoor	court	0	0	0.00	0	0	\$29,224	\$0.00	\$0
6 c	volleyball sand	court	0	0	0.00	0	0	\$10,000	\$0.00	\$0
7 a	tennis - indoor	court	0	0	0.00	0	0	\$150,000	\$0.00	\$0
7 b	tennis lighted-outdoor	court	2	2	0.07	2	0	\$95,320	\$6.63	\$28,174
7 c	tennis w/o lights-outdoor	court	8	8	0.28	9	1	\$52,481	\$14.80	\$62,048
8 a	football regulation	field	2	2	0.07	2	0	\$228,436	\$15.75	\$66,928
8 b	football practice field	field	0	0	0.00	0	0	\$100,000	\$0.00	\$0
9 a	soccer regulation	field	9	9	0.31	10	1	\$453,535	\$141.97	\$603,236
9 b	soccer practice field	field	2	2	0.07	2	0	\$100,000	\$6.96	\$29,557
10	field hockey/lacrosse-grass	field	0	0	0.00	0	0	\$500,000	\$0.00	\$0
11 a	baseball 250+ adult grass light	field	0	0	0.00	0	0	\$403,612	\$0.00	\$0
11 b	baseball 250+ adult grass/unli	field	4	4	0.14	5	1	\$325,000	\$45.22	\$192,122
11 c	baseball 250+ adult dirt/lighte	field	0	0	0.00	0	0	\$250,000	\$0.00	\$0
11 d	baseball 250+ adult dirt/unligh	field	2	2	0.07	2	0	\$175,000	\$12.17	\$51,725
11 e	baseball/softball practice field	field	15	15	0.52	17	2	\$100,000	\$52.17	\$221,679
11 f	baseball/Little League-grass	field	0	0	0.00	0	0	\$203,449	\$0.00	\$0
11 g	baseball/Little League-dirt	field	0	0	0.00	0	0	\$105,729	\$0.00	\$0
12	parcourse	stations	0	0	0.00	0	0	\$25,982	\$0.00	\$0
13 a	jogging track w/special surfac	miles	0.75	0.8	0.03	0.86	0	\$61,388	\$1.60	\$6,804
13 b	jogging track w/dirt surface	miles	0.00	0.0	0.00	0.00	0	\$30,000	\$0.00	\$0
14 a	picnic tables w/o shelter	table	5	5	0.17	6	1	\$7,609	\$1.32	\$5,623
14 b	picnic shelters-group use	shelter	0	0	0.00	0	0	\$10,694	\$0.00	\$0
14 c	picnic barbeques	each	0	0	0.00	0	0	\$500	\$0.00	\$0
15 a	swimming at a beach	sq feet	0	0	0.00	0	0	\$0	\$0.00	\$0
15 b	swimming at a beach	pkng sp	0	0	0.00	0	0	\$4,388	\$0.00	\$0
16 a	boat launch ramps	each	0	0	0.00	0	0	\$25,000	\$0.00	\$0
16 b	parking spaces	stalls	0	0	0.00	0	0	\$2,500	\$0.00	\$0
16 c	docks/piers	sq ft	0	0	0.00	0	0	\$50	\$0.00	\$0
16 d	boat slips	each	491	491	17.08	564	73	\$10,000	\$170.78	\$725,630
17	power boat - launch	pkng sp	0	0	0.00	0	0	\$4,241	\$0.00	\$0
18 a	tent camping	campsite	0	0	0.00	0	0	\$30,935	\$0.00	\$0
18 b	vehicle camping	campsite	0	0	0.00	0	0	\$30,454	\$0.00	\$0
23 a	walking in a park-asphalt	trail mile	0.0	0.0	0.00	0.0	0	\$162,641	\$0.00	\$0
23 b	walking in a park-dirt	trail mile	0.2	0.2	0.01	0.2	0	\$109,631	\$0.76	\$3,240

Existing level-of-service (ELOS) for city/county/school/private facilities

Population in development 1
 Population in city 1997 28,751
 Population in city 2003 33,000

			Inventory		ELOS standard		Year 2003		Facility	Project/	Year 2003
			1997	1997	city	standard	facility		cost	per capita	funding
			exist	nded	total	/1000	rqmnt	deficit	/unit	fee	deficit
units											
24 a	day hiking on a trail-asphalt	trail mile	0.0		0.0	0.00	0.0	0	\$178,000	\$0.00	\$0
b	day hiking on a trail-dirt	trail mile	0.0		0.0	0.00	0.0	0	\$142,197	\$0.00	\$0
25 a	backpacking/overnight camp	trail mile	0.0		0.0	0.00	0.0	0	\$47,399	\$0.00	\$0
26 a	bicycling on a trail-asphalt	trail mile	0.0		0.0	0.00	0.0	0	\$149,980	\$0.00	\$0
b	bicycling on a trail-dirt	trail mile	0.0		0.0	0.00	0.0	0	\$119,984	\$0.00	\$0
27 a	bicycling on a road-marked w/	trail mile	0.0		0.0	0.00	0.0	0	\$51,306	\$0.00	\$0
b	bicycling on a road-designate	trail mile	0.0		0.0	0.00	0.0	0	\$5,131	\$0.00	\$0
28 a	horseback riding on a trail	trail mile	0.0		0.0	0.00	0.0	0	\$31,996	\$0.00	\$0
29 a	swimming at a pool-outdoor	square ft	6,300		6,300	219.12	7,231	931	\$218	\$47.77	\$202,970
b	swimming at a pool-indoor	square ft	3,150		3,150	109.56	3,616	466	\$450	\$49.30	\$209,487
30	indoor gymnasium	square ft	34,500		34,500	1,199.96	39,599	5,099	\$125	\$149.99	\$637,328
31	physical conditioning	square ft	500		500	17.39	574	74	\$100	\$1.74	\$7,389
32	racquetball (1800 each/sf ft)	each/sq ft	0		0	0.00	0	0	\$95	\$0.00	\$0
33	handball (1200 sf)	each/sq ft	0		0	0.00	0	0	\$95	\$0.00	\$0
34	arts/crafts/pottery room	square ft	3,800		3,800	132.17	4,362	562	\$115	\$15.20	\$64,583
35	classrooms/meeting facilities	square ft	4,400		4,400	153.04	5,050	650	\$105	\$16.07	\$68,277
36	auditorium/staging/meeting fa	square ft	0		0	0.00	0	0	\$200	\$0.00	\$0
37	kitchen facilities	square ft	750		750	26.09	861	111	\$200	\$5.22	\$22,168
38	dining facilities	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
39	day care/nursery	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
40	community center administrati	square ft	400		400	13.91	459	59	\$150	\$2.09	\$8,867
41	community center other space	square ft	0		0	0.00	0	0	\$100	\$0.00	\$0
42	nature interpretive centers	square ft	0		0	0.00	0	0	\$75	\$0.00	\$0
43	museum/historical facilities	square ft	0		0	0.00	0	0	\$150	\$0.00	\$0
44 a	golf-par 3/18 hole	hole	0		0	0.00	0	0	\$111,111	enterprise	enterprise
b	golf course clubhouse	square ft	0		0	0.00	0	0	\$150	enterprise	enterprise
c	golf course maintenance facili	square ft	0		0	0.00	0	0	\$45	enterprise	enterprise
45	gun range - outdoor	range	12		12	0.42	14	2	\$20,000	\$8.35	\$35,469
46	archery range - outdoor	range	0		0	0.00	0	0	\$10,000	\$0.00	\$0
47	ice rink	square ft	0		0	0.00	0	0		\$0.00	\$0
48 a	parke admin facilities	square ft	750		750	26.09	861	111	\$125	\$3.26	\$13,855
b	parke maintenance fcities	square ft	0		0	0.00	0	0	\$60	\$0.00	\$0
c	park shop yard	square ft	0		0	0.00	0	0	\$15	\$0.00	\$0
d	parke caretaker	each/sq ft	0		0	0.00	0	0	\$31	\$0.00	\$0
e	restrooms-permanent	fixture	0		0	0.00	0	0	\$17,392	\$0.00	\$0
f	restrooms-temporary	each	0		0	0.00	0	0	\$1,000	\$0.00	\$0
Subtotal for facility impact			55,133	0	55,133	1,917.61	63,281	8,148		\$826.89	\$3,513,446
Total impact for land and facilities - per capita										\$1,423.56	\$8,048,717
Total impact for land and facilities - per household of 2.49 persons/unit										\$3,544.67	
Total value of existing park lands											\$17,155,000
Total value of existing park facilities											\$23,773,848
Total value of existing park lands and facilities											\$40,928,848

However, urban developments may soon encroach upon or preclude the preservation and public accessibility of the more sensitive and appealing sites, particularly within the remaining vacant or undeveloped environmental lands. And, urban developments may soon develop or otherwise preclude the purchase and development of close-in, suitable lands for athletic fields, recreation centers, and other more land intensive recreational facilities.

Consequently, if these land requirements are not addressed soon, some sensitive area lands and potentially all athletic field and recreation center sites may be lost to development or not be accessible to future city populations.

ELOS facility requirements by 2003

City ELOS standards - under the city's existing level-of-service (ELOS) standard, the forecasted population increase will create a citywide need for an additional tennis court, 502 square feet of meeting rooms, 111 square feet of kitchen, 59 square feet of kitchen, and 111 square feet of park administration office space by the year 2003 - if the same ratio of facilities is maintained.

Composite agency ELOS standards - under the composite city, county, school district, and private sponsor's existing level-of-service (ELOS) standards, the forecasted population increase will create a need for an additional 1 playground, 3 basketball courts, 1 tennis court, 1 regulation soccer field, 1 large and 2 practice baseball fields, 1 picnic table, 73 boat slips, 931 square feet of outdoor swimming pool, 466 square feet of indoor swimming pool, 5,099 square feet of indoor gymnasium, 74 square feet of physical conditioning space, 562 square feet of arts and crafts rooms, 650 square feet of meeting facility, 111 square feet of kitchen, 59 square feet of community administrative space, 2 outdoor gun range targets, and 111 square feet of park administration offices space by the year 2003 - if the same ratio of facilities is maintained.

However, the present rate of urban development may soon preclude the acquisition and development of some of the larger, more capable properties that could support these active outdoor and indoor recreational and supporting park facilities.

Consequently, if these special facility needs are not addressed soon, residents could be forced to commute to available facilities in other jurisdictions and/or programs may have to be curtailed to prevent severe overcrowding conditions in the facilities that do provide such services within the city. Such actions would be to the detriment of the local residents who have paid the costs of developing and operating these facilities.

Financial implications

The potential development costs (and existing value) for each type of land and facility were estimated using a replacement cost estimating methodology. The methodology estimated the costs required to develop prototype improvements for each of facility including direct costs such as utilities, parking, and supporting site furnishings or equipment - and indirect costs including design fees, sales taxes, permit fees, and financing.

In some instances, the prototype facility development cost estimates were varied to account for different field sizes, trail surfaces, or other quality assumptions. The total development costs were then divided by an appropriate unit of measure (square foot, mile, picnic table, parking stall) to determine a pro rata cost or value rate.

Based on the prototype facility costs per unit, the forecasted population increase and thereby increased facility requirements in University Place will create significant cost

All facilities within city by all agencies

Proposed level-of-service (PLOS) additions summary

	units	PLOS facility addtn	Facility cost /unit	PLOS required funding	Site/facility comments
1	resource conservancies acres	80.0	\$10,000	\$800,000	Broback/TSD/Giske
3	linear trails acres	20.0	\$15,000	\$300,000	Broback/TSD/Giske
4	athletic fields/playgrounds acres	45.0	\$75,000	\$3,375,000	Broback/TSD/Giske/Cirque
5	recreation centers/pools acres	20.0	\$125,000	\$2,500,000	Cirque Recreation Center
7	support facilities/yards/buildings acres	0.5	\$75,000	\$37,500	Public Works Yard
Subtotal for land impact		185.5		\$7,012,500	

Facilities

1	b playground uncovered	playground	10	\$62,800	\$628,000	Broback/TSD/Giske/Cirque
2	b open play area-not improved	acre	8.0	\$25,000	\$150,000	Broback/TSD/Giske/Cirque
3	skateboard court	court	1	\$50,000	\$50,000	
5	b basketball uncovered-outdoor	court	5	\$53,383	\$266,915	Broback/TSD/Giske/Cirque
6	c volleyball sand	court	4	\$10,000	\$40,000	Broback/TSD/Giske/Cirque
7	c tennis w/o lights-outdoor	court	4	\$52,481	\$209,924	Cirque Recreation Center
9	a soccer regulation	field	2	\$453,535	\$907,070	Evergreen PS/Chambers Creek
	b soccer practice field	field	2	\$100,000	\$200,000	Cirque Recreation Center
11	a baseball/softball-250+grass/lighted	field	4	\$403,612	\$1,614,448	Chambers Creek/Fort Steilacoom
	b baseball/softball-250+grass/unlighted	field	2	\$325,000	\$650,000	Evergreen PS
	g baseball/softball-200 unlighted	field	4	\$105,729	\$422,916	Broback/TSD/Giske/Cirque
14	a picnic tables w/o shelter	table	48	\$7,609	\$365,232	
	b picnic shelters-group use	shelter	8	\$10,694	\$85,552	
15	b swimming at a beach	pkng ep	62	\$4,388	\$272,056	
16	a boat launch ramps	each	2	\$25,000	\$50,000	Chambers Creek Properties
	b parking spaces	each	50	\$2,500	\$125,000	Chambers Creek Properties
	d boat moorage slips	each	10	\$10,000	\$100,000	Chambers Creek Properties
23	b walking in a park-dirt	trail mile	3.0	\$109,631	\$328,893	Morrison Pond
24	a day hiking on a trail-asphalt	trail mile	3.0	\$178,000	\$534,000	Chambers Creek Properties
	b day hiking on a trail-dirt	trail mile	5.0	\$142,197	\$710,985	Leach Creek
27	a bicycling on a road-marked w/sh	trail mile	20.0	\$51,306	\$1,026,120	
30	indoor gymnasium	square ft	22,402	\$125	\$2,800,250	Cirque Recreation Center
31	physical conditioning	square ft	2,745	\$100	\$274,500	Cirque Recreation Center
34	arts/crafts/pottery room	square ft	1,380	\$115	\$158,700	Cirque Recreation Center
35	classrooms/meeting facilities	square ft	6,624	\$105	\$695,520	Cirque Recreation Center
36	auditorium/staging/meeting	square ft	2,780	\$200	\$552,000	Cirque Recreation Center
37	kitchen facilities	square ft	500	\$200	\$100,000	Cirque Recreation Center
39	day care/nursery	square ft	1,610	\$100	\$161,000	Cirque Recreation Center
40	community center administration	square ft	3,027	\$150	\$454,050	Cirque Recreation Center
41	community center other spaces	square ft	7,930	\$100	\$793,000	Cirque Recreation Center
42	nature interpretive centers	square ft	2,000	\$75	\$150,000	Cirque Recreation Center
43	museum/historical facilities	square ft	2,000	\$150	\$300,000	Cirque Recreation Center
48	a parks admin offices	square ft	2,000	\$125	\$250,000	City Hall
	b parks maintenance facilities	square ft	1,000	\$60	\$60,000	Public Works Yard
	c park shop yard	square ft	500	\$15	\$7,500	Public Works Yard
	e restrooms-permanent	fixture	24	\$17,392	\$417,408	Broback/TSD/Giske/Cirque
Subtotal for facility impact			56,757		\$15,912,039	

Total impact for land and facilities

\$22,924,539

investments if the city and all sponsoring agencies are to maintain, let alone improve upon, existing level-of-service standards.

ELOS cost requirements

City ELOS standards - park, recreation, and open space land and facility needs for capital projects under the city's existing level-of-service (ELOS) standard could require \$212,221 in land acquisitions and \$261,037 in facility developments or a total of \$473,258 by the year 2003 simply to stay current with present standards - not accounting for any maintenance, operation or repair costs.

The approximate cost of sustaining the city's existing level-of-service (ELOS) standard is equal to about \$111.38 per every new person added to the city's population or about \$277.34 for every new housing unit where an average housing unit is occupied by 2.49 persons per unit.

Composite agency ELOS standards - park, recreation, and open space land and facility needs for capital projects under the composite city, county, school district, and private agency existing level-of-service (ELOS) standard could require \$2,535,272 in land acquisitions and \$3,513,446 in facility developments or a total of \$6,048,717 by the year 2003 simply to stay current with present standards - not accounting for any maintenance, operation or repair costs.

The approximate cost of sustaining the composite city, county, school district, and private agency's existing level-of-service (ELOS) standard is equal to about \$1,423.56 per every new person added to the population or about \$3,544.67 for every new housing unit where an average housing unit is occupied by 2.49 persons per unit.

PLOS cost requirements

Composite agency standards - the additional city, county, school district, and private agency land and facility developments to realize the proposed level-of-service (PLOS) standards determined to be necessary to satisfy unsatisfied needs within the existing city limits at the present time will require \$7,012,500 in land acquisitions and \$15,912,039 in facility developments or a total of \$22,924,539 - if accomplished within the next capital facility programming period (6 years).

These levels of facility investment can not be financed with the resources available to University Place, Pierce County, the University Place School District, and various private agencies if each jurisdiction pursues an independent delivery approach or uses traditional methods of funding. The city will not be financially able to develop, manage, and maintain a comprehensive, independent park, recreation, and open space system using traditional financing methods in light of the needs projected.

These needs require an areawide financing approach by University Place, Pierce County, the University Place School District, and possibly including some private agencies, using a combination of shared user fees, excise and utility taxes, joint grant applications, impact fees, voter approved general obligation bonds, and joint venture facility developments if levels-of-service are to be maintained and improved upon in the face of continued city population increases.

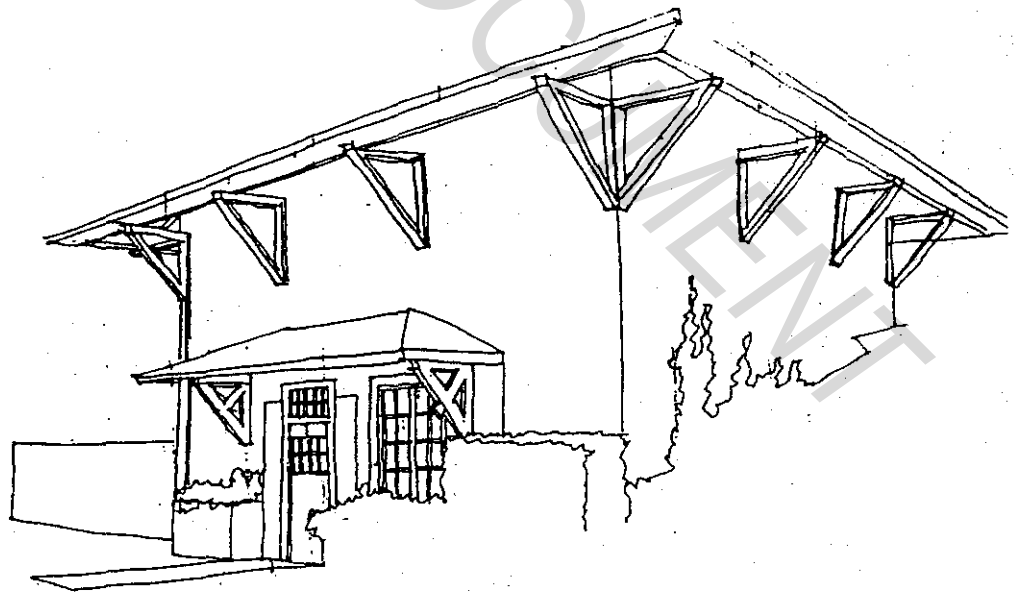
Development plan elements

The following proposals concerning development elements of the park, recreation, and open space plan are based on the results of the field analysis, environmental inventories, demand analysis, and workshop planning sessions.

The descriptions are organized by the major type of land or activity provided by a site or property. Any particular park may include one or all of the following features.

The descriptions provided in this section describe the improvements that will be accomplished under each major type of development plan element - see each element for a composite description for any particular site.

See also the chapters on existing land and facilities or opportunities for a description of each site's current conditions, ownership, and other particulars.



Day Island Community Clubhouse - 1915

Wildlife habitat/resource conservancies

Resource conservancy lands will be protected that retain significant wildlife habitat for threatened and endangered species throughout the city. Generally, conservancy lands will be acquired that conserve and provide access to the most significant and unique wildlife habitats including the wetlands, woodlands, foraging and nesting areas, migration corridors, and other unique ecological areas - especially about Morrison Pond, Chambers Bay, Day Island Inlet, and Leach, Chambers, Peach, Crystal Springs, Day, Brookside, and Corbit Creeks.

Lands will also be acquired that conserve viable wildlife habitat or migration corridors between and within the city's urban areas including occasional wetlands, bogs, woods, ravines, and other features within the Morrison Pond and Leach Creek systems.

To the extent possible and practical, conservancy lands will be linked with other preserved open spaces in adjacent municipal jurisdictions (even though these lands may not be publicly accessible) to create wildlife migration corridors, greenways, and open space networks that visually define and separate the developed urban areas from each other in accordance with the objectives of the Washington State Growth Management Act (GMA).

To the extent practical, some conservancy lands will also be accessed with nature and interpretive trails, exhibits, and interpretive facilities to increase public awareness and appreciation for significant and visually interesting wildlife features. Some supporting services may also be developed including limited wildlife viewing blinds, trailheads, parking lots, restrooms, and utilities.

Conservancy activities may be located on independent properties or include portions of other sites provided for resource activities, trail corridors, or other public facilities. Conservancies may also be developed on other publicly-owned lands subject to public use agreements or easements; or on lands acquired for other public purposes including stormwater management, groundwater recharge, and wastewater treatment.

Vision

As described herein, wildlife habitat/resource conservancies will be realized through: a) acquisition of title and/or development rights of habitat lands that would otherwise be developed for other land uses; b) provision for public access and interpretive use which would not be possible if the lands remained in private ownership; and c) conservation for wildlife migration corridors through developing urban areas and neighborhoods.

Existing conservancy sites

The following existing properties include lands that are considered conservancies:

1) Day Island Inlet SWM Site - this 2.5 acre property is located at the west end of 20th Street West on the east shore of Day Island Inlet adjacent to the Day Island Yacht Club - see the description under the chapter on existing facilities.

The shoreline and fill area are covered with scotch broom and other shrubs that provide cover for shoreline wildlife. Fragile salicornia (pickleweed) beds, a once threatened plant, thrive in the adjacent in the intertidal areas.

The silting action will be allowed to continue - subject to resolution of a remediation course concerning boat access into the inlet. The upland portion of the site will be improved with picnic tables, a handcarry boat launch, trailhead, parking lot, and other waterfront access facilities.

2) Adriana Hess Wetland Park on Morrison Pond - this 2.0 acre property is located adjacent to 2917 Morrison Road West on the west side of the pond - see the description under the chapter on existing facilities.

The site is part of the approximately 38.0 acre Morrison Pond wetland system that drains southeast into Leach Creek, then Chambers Creek, then into Puget Sound. The site provides access to the west edge of the pond where the open water, marsh, grassy uplands, and wildlife can be viewed.

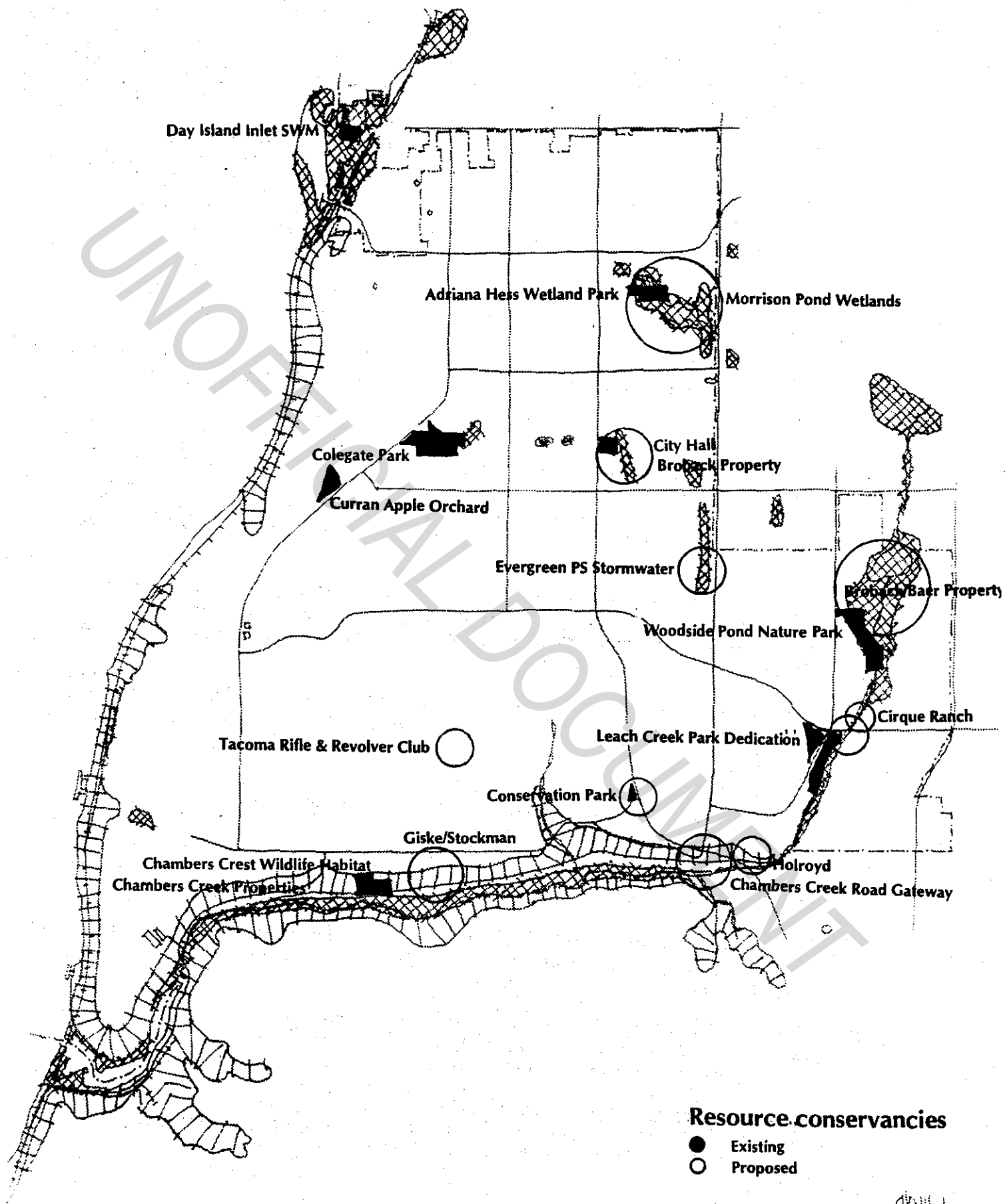
As a long range strategy, the city will define and preserve a sufficient buffer zone about the wetlands edges using the provisions of the Shoreline Management Program and subdivision regulations. Property developers will maintain and preserve the buffer zone in common private property ownership - and preferably as dedicated public open space. Property developers will also construct and dedicate a system of public access trails and wildlife viewing blinds along the pond and wetland edges.

Ideally, the city may acquire the complete pond and wetlands properties using monies from the Pierce County Conservations Future program, city general obligation bonds, or other sources.

3) Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools partially adjoining 37th Street West - see the description under the chapter on existing facilities.

The north and east portions of the park and school district property have not been improved. This portion of the properties include the hillsides and bottom lands of a steep ravine with sink holes and wetlands that extend east towards Bridgeport Way. The lower portion of the ravine located at the edge of Curtis Senior High School's property line floods onto portions of the athletic fields and parking lot during heavy rains.

This portion of the site will be replanted with native materials and conserved as wildlife habitat and buffer zone to the adjacent residential neighborhoods. Trails, picnic facilities, a playground, and other passive park features will be developed on the upper portions of the hillsides overlooking the ravine and athletic field complex.



4) Curran Apple Orchard - this 7.3 acre orchard and residence is located in the city block bound by Grandview Boulevard, Rock Road, Curran Lane, and Brookside Drive - see the description under the chapter on existing facilities.

The orchard drains to the north across Olympic Boulevard West into Brookside Creek then westerly into Puget Sound. Tree stands, underlying vegetation, and other plant materials provide riparian habitat along the banks of Brookside Creek. Wildlife that reside in the undeveloped hillsides overlooking Puget Sound forage up the creek corridor and into the orchard. Raccoon, deer, and a variety of other small mammals are regularly observed feeding in the orchard.

This portion of the site will be conserved as a transition zone between the cultured orchard plantings on the site and the riparian corridor alongside down Brookside Creek.

5) City Hall Park - this 2.4 acre property is located on the southeast corner of Bridgeport Way West and 35th Avenue West - see the description under the chapter on existing facilities.

This project will expand the city hall property to include the heavily wooded parcel located south along Bridgeport Way and east to the residential subdivision. The wooded site extends east across the drainage creek to the edge of the residential developments located behind the Albertsons building complex. Trails, picnic facilities, a playground, and other passive park elements will be developed at the site edge adjoining the city hall and other civic buildings.

6) Woodside Pond Nature Park - this 3.6 acre property is composed of 3 parcels located east of 48th Street West behind a residential subdivision along the banks of Leach and Woodside Creeks including a stormwater detention pond - see the description under the chapter on existing facilities.

The parcels will be merged into a single park holding. The fence may be removed around some or all portions of the holding pond. The existing trails will be linked around the site to provide viewpoints of the pond and adjacent Leach Creek riparian corridor.

Eventually, the trail system will be extended off-site to provide north and south access along Leach Creek to other proposed park sites with trailhead parking capabilities.

7) Leach Creek Park Dedication - this 3.0 acre property is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West - see the description under the chapter on existing facilities.

The wooded, wetland property, dedicated to the city by the property developer, extends south along the west bank of Leach Creek alongside the right-of-way extension of Alameda Avenue through a planned residential subdivision.

This project will acquire the surplus Tacoma School District property and extend the park east across Leach Creek. A trailhead, parking lot, paths, and a pedestrian bridge will be developed across the creek to join the 2 parcels.

8) Conservation Park - this 1.5 acre property is located on the northwest corner of Bridgeport Way West and Chambers Creek Road just below a major residential development - see the description under the chapter on existing facilities.

The site has been improved with a walking trail between the adjacent residential community and a transit stop on Bridgeport Way. Side trails have also been created to provide access and interpretive views of local native plant species.

The park will be expanded across Bridgeport Way to create a gateway into the city at the intersection with Chambers Lane West. The woodlands will be conserved on the west parcel and replanted on the east parcel to retain and define a green entry and linear park into the city.

9) Chambers Crest Wildlife Habitat - this 7.5 acre property is located to the south of Chambers Creek Road on the north slope of Chambers Creek behind the Chambers Crest subdivision - see the description under the chapter on existing facilities.

The landlocked, undevelopable property can not be improved with an access road, trailhead or other park services or improvements. Adjacent properties are developed or too narrow in dimension to add to the site's usable land area.

The property should be consolidated with Pierce County's Chambers Creek Properties in exchange for the county's participation in other local park and trail access projects of more direct benefit to city residents - see the proposed Giske/Stockman Park discussion.

10) Chambers Creek Properties - this 928.0 acres of property (of which 680.0 acres are located within University Place) are located along the Puget Sound shoreline south of 48th Street West and west of Grandview Drive; and the north side of Chambers Bay south of 64th Street West and west of Chambers Creek Road West; and along Chambers Creek Canyon east from the Chambers Creek impoundment pond to the convergence of Chambers and Leach Creeks at about Phillips Road SW - see the description under the chapter on existing facilities.

The properties conserve the steep, undevelopable wooded hillsides and wildlife migration routes along Puget Sound and from Leach and Flett Creeks west through Chambers Creek to Chambers Bay. The southern portion of the properties also contains the south and east portions of the impoundment pond located behind the county's control dam.

Proposed conservancy actions

The following actions will be pursued to establish and maintain resource conservancies within the city:

11) Critical area ordinance and overlay performance zone - a special environmental overlay performance zone will be incorporated into the city's new zoning ordinance and environmental policy codes. The overlay zone will identify the probable location of properties determined to be environmentally sensitive lands or critical areas not capable or suitable of being developed for urban uses in accordance with the provisions of the Washington State Growth Management Act (GMA).

Many properties will remain in private ownership. The critical environmental features will be appropriately conserved through critical area designations on the overlay zone. The environmental overlay zone will identify the uses to which the lands can be put that do not endanger the land or adjacent properties or other land uses within the city.

Overlay zone development standards may identify land use or density or cluster site development concepts or other performance tradeoffs whereby adjacent property could be

The site has been improved with a walking trail between the adjacent residential community and a transit stop on Bridgeport Way. Side trails have also been created to provide access and interpretive views of local native plant species.

The park will be expanded across Bridgeport Way to create a gateway into the city at the intersection with Chambers Lane West. The woodlands will be conserved on the west parcel and replanted on the east parcel to retain and define a green entry and linear park into the city.

9) Chambers Crest Wildlife Habitat - this 7.5 acre property is located to the south of Chambers Creek Road on the north slope of Chambers Creek behind the Chambers Crest subdivision - see the description under the chapter on existing facilities.

The landlocked, undevelopable property can not be improved with an access road, trailhead or other park services or improvements. Adjacent properties are developed or too narrow in dimension to add to the site's usable land area.

The property should be consolidated with Pierce County's Chambers Creek Properties in exchange for the county's participation in other local park and trail access projects of more direct benefit to city residents - see the proposed Giske/Stockman Park discussion.

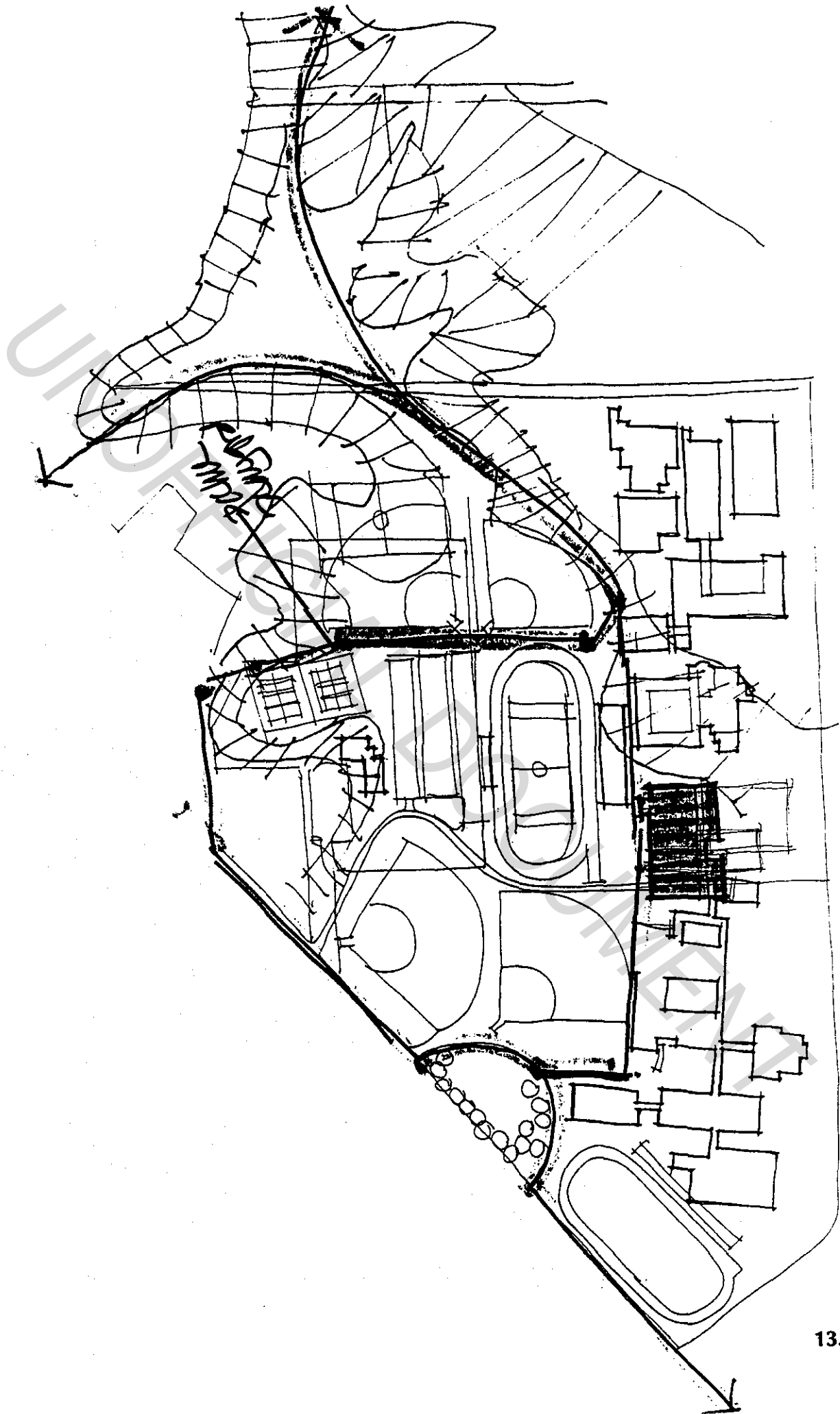
10) Chambers Creek Properties - this 928.0 acres of property (of which 680.0 acres are located within University Place) are located along the Puget Sound shoreline south of 48th Street West and west of Grandview Drive; and the north side of Chambers Bay south of 64th Street West and west of Chambers Creek Road West; and along Chambers Creek Canyon east from the Chambers Creek impoundment pond to the convergence of Chambers and Leach Creeks at about Phillips Road SW - see the description under the chapter on existing facilities.

The properties conserve the steep, undevelopable wooded hillsides and wildlife migration routes along Puget Sound and from Leach and Flett Creeks west through Chambers Creek to Chambers Bay. The southern portion of the properties also contains the south and east portions of the impoundment pond located behind the county's control dam.

The Departments of Public Works & Utilities and Parks, Recreation & Community Services, in conjunction with a resource team composed of citizen groups and agency representatives, are presently developing a single, coordinated long range public use plan for the entire 928.0 acre property holding. Depending on the final resolution of the CCPMSP process, approximately 488.0 acres of the lands located within city limits are of possible park, recreation, and open space use.

The long range plan may require 50 years, depending on the remaining life of the gravel pits and the quantity of biosolids that are necessary to reclaim the depleted soils. In phased increments, however, the resulting county plan may conserve and develop public open space facilities to include:

- 1) buffer landscape areas along the north and eastern edges of the former gravel mines,
- 2) walking and hiking trails through Chambers Creek canyon with trailheads at Phillips Road, Zircon, and Chambers Lane,
- 3) visitor and environmental education center,
- 4) botanical garden, if feasible,



Resource conservancies - historical/cultural sites and facilities

Resource properties will be protected that retain and preserve significant historical and cultural sites and facilities throughout University Place. Generally, historical conservancy properties will be acquired that conserve and provide interpretive access to the most significant sites including original homesteads or prominent building sites, commercial or public buildings of unique architectural characteristics, locations of important industrial or resource oriented activities, and other culturally important areas. Lands may also be acquired that conserve significant man-made constructions on the land including bridges, dikes, dams, and other features.

To the extent possible and practical, historical sites and buildings will be linked with other park lands to create activity centers or facilities that reflect the original cultural use. In some instances, the buildings or sites may be adapted to provide supporting services such as trailheads, parking lots, restrooms, and utilities.

To the extent possible and practical, historical buildings and structures will be conserved on their original sites. In some instances, however, the buildings or other improvements may be relocated to other public properties in order to better conserve, display, or provide interpretive access.

To the extent practical and protecting of archaeological significance, historical or archaeological sites may be marked or signed as part of the resource conservancy park element. Interpretive signs may be located off-site or in areas that do not risk exposure or possible vandalism of underlying archaeological resources or properties (including private lands).

Vision

As described herein, the historical conservancies will be realized through: a) acquisition of title and/or development rights of properties that would otherwise be destroyed or developed for other land uses; b) provision for public access and interpretive use which would not be possible if the properties remained in private ownership; and c) subject to appropriate security measures and underlying property owner agreements, provisions for signing and interpretation.

Proposed historical/cultural conservancy projects

The following projects will acquire and preserve, and/or appropriately sign and interpret the following historical and cultural resource properties within city limits or adjacent to but of historical significance to the area's development:

1) Crystal Springs Pottery Shed - this project will acquire the Stephens Grocery Store (now Crystal Springs Pottery Shed) that was built at the west end of 19th Street on property

north to Fordham Street/44th Street West then across Leach Creek almost to Orchard Street - see the description under the chapter on opportunities.

The acquisition will conserve Leach Creek, the adjacent wetland and floodplain area, adjacent riparian corridors, woodlands, and steep hillsides overlooking the creek valley. Trails, interpretive signage, wildlife blinds, and other passive park features will be installed alongside and across the creek, between 40th Street West/Fordham Street, with the existing access trail into Woodside Pond Nature Park, and north to connect to the end of the Fircrest trail system recently dedicated in the Haddow Estates cluster development.

Picnic facilities, a playground, a grassy playfield, trailhead, parking facilities, and other neighborhood park features will be developed on the portion of the site adjoining Alameda Avenue.

14) Cirque Ranch Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin both sides of Leach Creek in the property located on the northeast corner of Cirque Drive and Alameda Avenue - see the description under the chapter on opportunities.

The acquisition will conserve the riparian corridor for open space and wildlife habitat. Trails, picnic features, a playground, and other passive park features will be developed along the west bank overlooking the creek and the old wooden bridge. Parking facilities, restrooms, and other supporting improvements, possibly to include a meeting room and interpretive center, may be configured in the old ranch house and outbuildings that are located along the edge of the creek floodplain of these buildings are included within the dedication/acquisition.

15) Holroyd Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin Leach Creek within the old Holroyd Gravel Pit located in the northeast corner of Bridgeport Way and 67th/Alameda Avenues - see the description under the chapter on opportunities.

The acquisition will conserve the riparian corridor for open space and wildlife habitat, and define the southern entryway into the city. Trailheads, parking areas, picnic features, and other passive park features will be developed along the north bank overlooking the creek and woodlands.

A gateway improvement to the city, possibly including transit stops, a small plaza with benches, trail access points, and signage will be erected at the gateway entry into the city on the south end of this parcel adjacent to the intersection with 67th Avenue.

16) Chambers Creek Road West/Bridgeport Way Gateway - this project will acquire the heavily wooded hillsides located on both sides of the roadways between Chambers Creek Road West and Bridgeport Way - see the description under the chapter on opportunities.

The acquisition will conserve the natural topography, woodlands, and other open space and wildlife habitat features. A gateway improvement to the city, possibly including transit stops, a small plaza with benches, trail access points, and signage will be erected at the gateway entry into the city on the south end of these parcels.

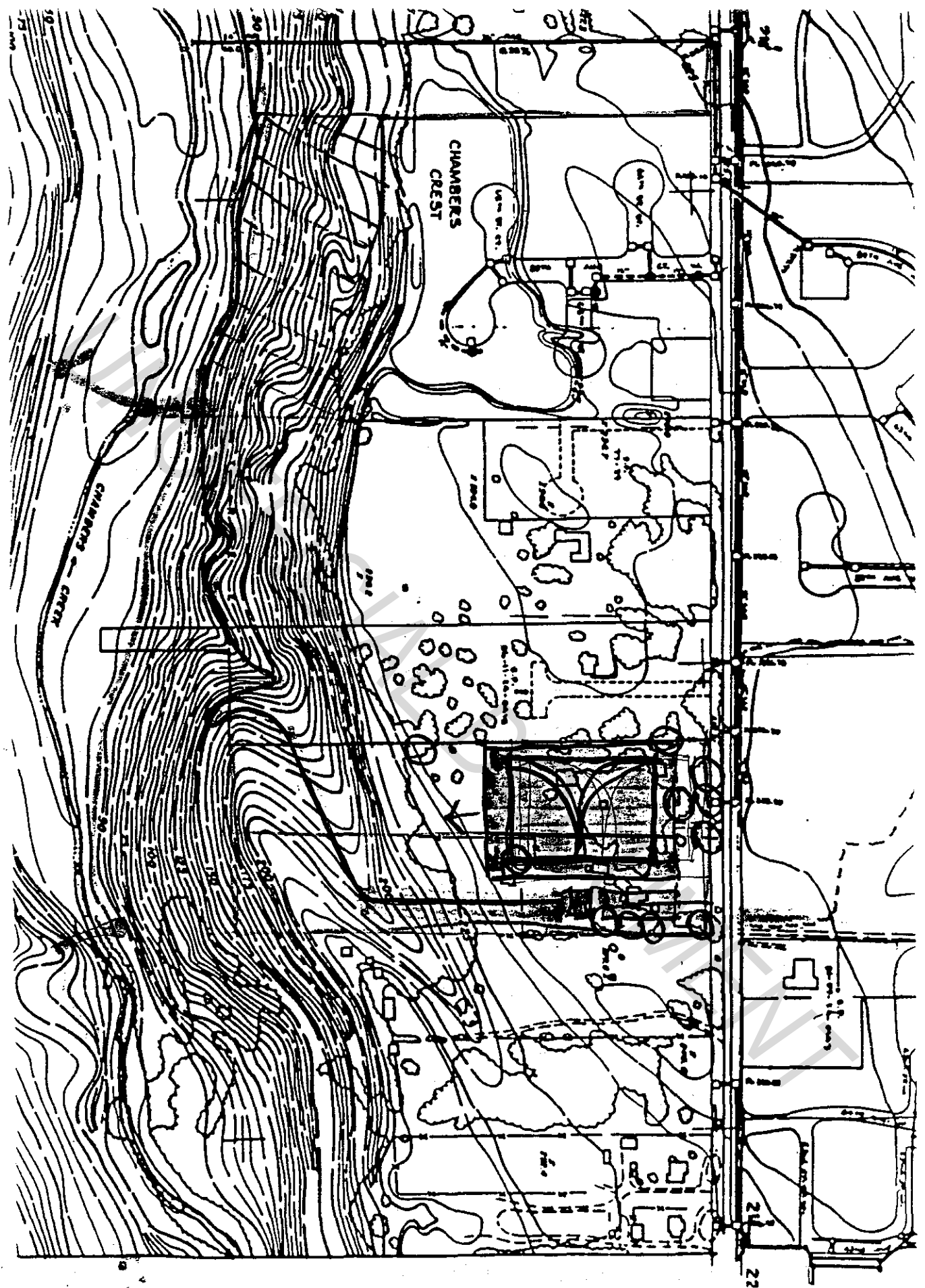
17) Giske/Stockman Park - this project will acquire the (Alan and Victoria Giske and Lillian Stockman) properties located on the south side of 64th Street West across from the Tacoma Rifle & Revolver Club entry and overlooking Chambers Creek - see the description under the chapter on opportunities.

The acquisition will conserve the open space, woodland stands, and canyon overlooks. A trailhead with parking areas, restrooms, and other supporting features will be developed on the south edge of the properties to provide access into Chambers Creek Canyon.

Picnic facilities, a playground, grassy playfield, and other neighborhood park features will be developed on the north end of the properties. Parking facilities, restrooms, and other supporting improvements, possibly to include a meeting room and interpretive center, may be configured in one or more of the houses and outbuildings that are located in the front portions of both properties.

18) Tacoma Rifle & Revolver Club - in the event the gun range should ever decide to sell this property, a project could acquire the wooded and steep hillside portions that access Peach Creek and Chambers Primary School - see the description under the chapter on opportunities.

The acquisition would conserve the open space, woodland stands, and Peach Creek canyon overlooks. Trails, interpretive signage, wildlife blinds, and other passive park features could be developed along the wooded hillside to provide access to trailhead improvements to be located at Chambers Primary School and Giske/Stockman Park.



Resource conservancies - historical/cultural sites and facilities

Resource properties will be protected that retain and preserve significant historical and cultural sites and facilities throughout University Place. Generally, historical conservancy properties will be acquired that conserve and provide interpretive access to the most significant sites including original homesteads or prominent building sites, commercial or public buildings of unique architectural characteristics, locations of important industrial or resource oriented activities, and other culturally important areas. Lands may also be acquired that conserve significant man-made constructions on the land including bridges, dikes, dams, and other features.

To the extent possible and practical, historical sites and buildings will be linked with other park lands to create activity centers or facilities that reflect the original cultural use. In some instances, the buildings or sites may be adapted to provide supporting services such as trailheads, parking lots, restrooms, and utilities.

To the extent possible and practical, historical buildings and structures will be conserved on their original sites. In some instances, however, the buildings or other improvements may be relocated to other public properties in order to better conserve, display, or provide interpretive access.

To the extent practical and protecting of archaeological significance, historical or archaeological sites may be marked or signed as part of the resource conservancy park element. Interpretive signs may be located off-site or in areas that do not risk exposure or possible vandalism of underlying archaeological resources or properties (including private lands).

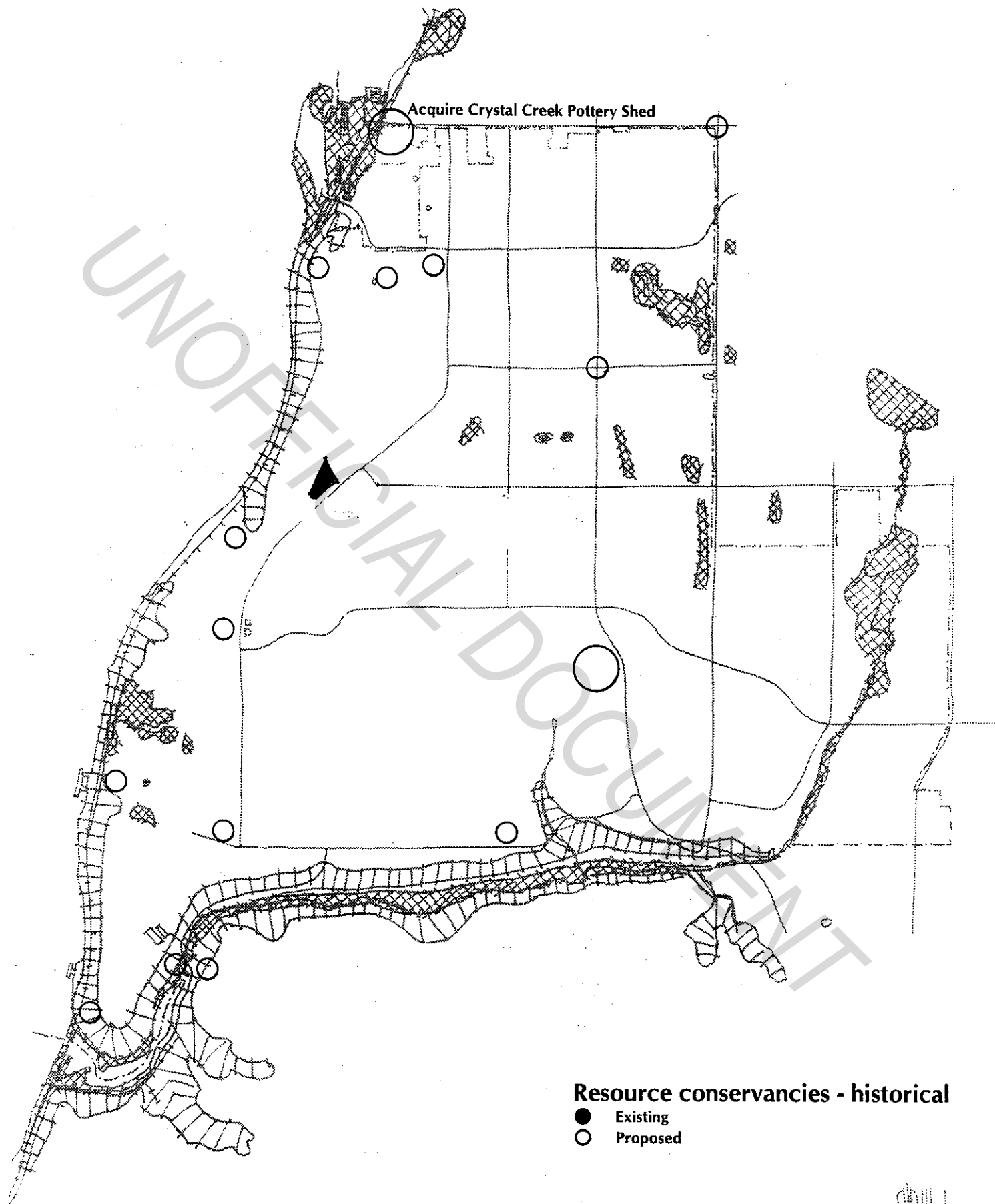
Vision

As described herein, the historical conservancies will be realized through: a) acquisition of title and/or development rights of properties that would otherwise be destroyed or developed for other land uses; b) provision for public access and interpretive use which would not be possible if the properties remained in private ownership; and c) subject to appropriate security measures and underlying property owner agreements, provisions for signing and interpretation.

Proposed historical/cultural conservancy projects

The following projects will acquire and preserve, and/or appropriately sign and interpret the following historical and cultural resource properties within city limits or adjacent to but of historical significance to the area's development:

1) Crystal Springs Pottery Shed - this project will acquire the Stephens Grocery Store (now Crystal Springs Pottery Shed) that was built at the west end of 19th Street on property



known as the Belmarlow Addition in 1909 - see the description under the chapter on community setting.

Depending on the level of community and/or interest group participation, this project could retrofit the building for an arts and crafts center, interpretive exhibit, and/or community meeting facility. Picnic tables, a playground, trailhead, parking facilities, and other supporting features could be installed about the building and stormwater pond.

The site could serve as a trailhead for an interpretive historic loop trail system linking Day Island Inlet, Day Island Bridge, the historic Puget Sound University site, University Place Primary School, and Crystal Springs.

2) Lemons Beach - this project will acquire a fragment of the original landholdings of John J. Lemon, a Civil War veteran. Lemon eventually interested Methodist representatives from Willamette University in Salem, Oregon in the site as a possible campus for Puget Sound University (now called the University of Puget Sound) - see the description under the chapter on community setting.

This project will develop a portion of the road right-of-way along 94th Avenue West overlooking Day Island and Puget Sound. Picnic tables, a trailhead, parking facilities, and other supporting features will be installed along the roadway to create an overlook of Day Island and Puget Sound.

The site will also serve as a trailhead for an interpretive historic loop trail system linking Day Island Inlet, Day Island Bridge, the historic Puget Sound University site, University Place Primary School, and Crystal Springs.

3) Puget Sound University - this project will erect markers on Parkway Loop at the site of the proposed Puget Sound University (now University of Puget Sound) campus that Methodist representatives from Willamette University in Salem, Oregon attempted to develop on the encouragement of John J. Lemon - see the description under the chapter on community setting.

Picnic tables, trailheads, parking facilities, and other supporting features will be installed along the western road right-of-way of Parkway West overlooking the ravine that was to be the central design axis of the campus.

The roadside improvements will also serve as trailheads for an interpretive historic loop trail system linking Day Island Inlet, Day Island Bridge, the historic Puget Sound University site, University Place Primary School, and Crystal Springs.

4) Lemons Beach/University Place School - subject to the approval of University Place School District, this project will erect markers at the site of Lemons Beach School, a one-room schoolhouse built at the behest of John J. Lemon and his wife Mary Ann in 1896 on 27th Street at about Elwood Avenue adjacent to the present day University Place Primary School - see the description under the chapter on community setting.

Interpretive markers, signage, a plaza, and other enhancements will be erected on the school grounds at the entrance to the old brick building.

Picnic tables, a trailhead, parking facilities, and other supporting features will also be installed on the property to support an interpretive historic loop trail system linking Day Island Inlet, Day Island Bridge, the historic Puget Sound University site, University Place Primary School, and Crystal Springs.

1) Day Island Inlet SWM Site - this 2.5 acre property is located at the west end of 20th Street West on the east shore of Day Island Inlet adjacent to the Day Island Yacht Club - see the description under the chapter on existing facilities.

The upland portion of the site will be improved with picnic tables, a handcarry boat launch, trailhead, parking lot, and other waterfront access facilities.

2) Adriana Hess Wetland Park on Morrison Pond - this 2.0 acre property is located adjacent to 2917 Morrison Road West on the west side of the pond - see the description under the chapter on existing facilities.

Using funds that had been established in trust for the park, a Morrison Pond advisory group previously developed and submitted a plan for permit review that would construct a small access drive, parking area, trails, and overlook on the pond's edge. Due to the existing L-shaped property's configuration and the location of the adjoining residential property, the plan would have cleared most of the eastern portion of the site to provide trails and a pond overlook pier.

In the interim, however, the adjoining residential property was offered for sale and will be acquired and absorbed into the park holding. The driveway, house, and shed facilities will be retrofitted to provide parking spaces, picnic facilities, a small playground, restrooms, trail, and small pier overlook of Morrison Pond. Portions of the house will be reconfigured to provide meeting facilities and some interpretive exhibits about the wetland complex. The revised plan will provide a more servicable park access and activities plan - and limit the extent of development improvements into the natural portions of the site.

As a long range minimal strategy, the city will acquire another trailhead access on the east side of the pond off 67th Avenue West. The city could acquire another residential property reusing the driveway, house, and other improvements for park trailheads, intrepertive facilities, and other supporting services similar to the scheme described for Adriana Hess Wetlands Park above.

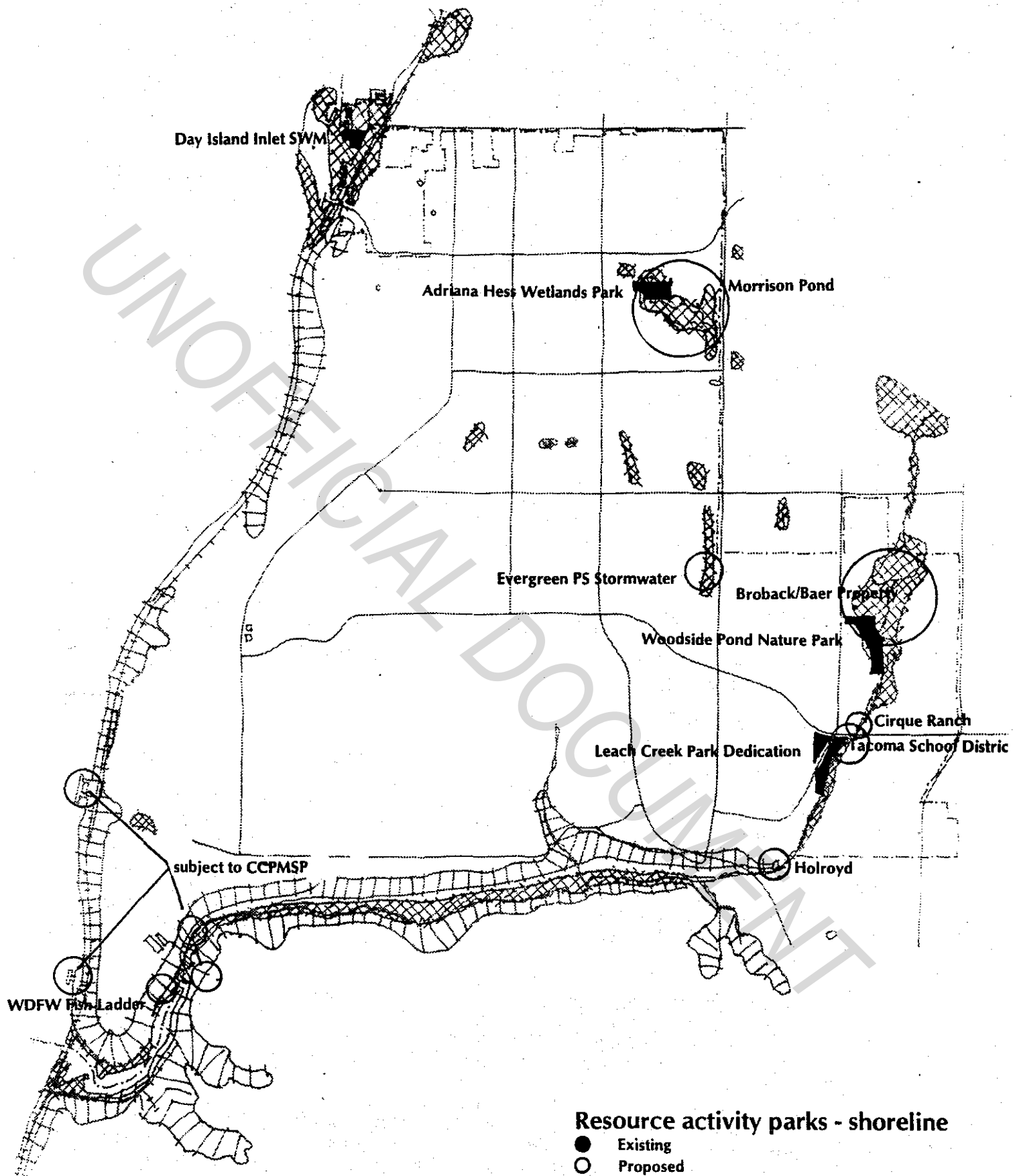
3) Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools partially adjoining 37th Street West - see the description under the chapter on existing facilities.

Trails, picnic facilities, a playground, and other passive park features will be developed on the upper portions of the hillsides overlooking the ravine and athletic field complex.

4) Curran Apple Orchard - this 7.3 acre orchard and residence is located in the city block bound by Grandview Boulevard, Rock Road, Curran Lane, and Brookside Drive - see the description under the chapter on existing facilities.

The original buildings will be reconstructed in the center of the orchard to support planting and harvesting activities. The buildings and this portion of the site will also be used to support farmers markets or other community activities during summer events.

Picnic tables and shelters, and a childrens playground will be located in the center of the orchard, and possibly adjacent to the Curran homestead. Parking areas and other supporting improvements will be constructed adjacent to the homestead.



5) City Hall Park - this 2.4 acre property is located on the southeast corner of Bridgeport Way West and 35th Avenue West - see the description under the chapter on existing facilities.

This project will expand the city hall property to include the heavily wooded parcel located south along Bridgeport Way and east to the residential subdivision. Trails, picnic facilities, a playground, and other passive park elements will be developed at the site edge adjoining the city hall and other civic buildings.

6) Leach Creek Park Dedication - this 3.0 acre property is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West - see the description under the chapter on existing facilities.

This project will acquire the surplus Tacoma School District property and extend the park east across Leach Creek. A trailhead, picnic facilities, playground, parking lot, paths, and a pedestrian bridge will be developed across the creek to join the park expansion.

7) Chambers Creek Properties - this 928.0 acres of property (of which 680.0 acres are located within University Place) are located along the Puget Sound shoreline south of 48th Street West and west of Grandview Drive; and the north side of Chambers Bay south of 64th Street West and west of Chambers Creek Road West; and along Chambers Creek Canyon east from the Chambers Creek impoundment pond to the convergence of Chambers and Leach Creeks at about Phillips Road SW - see the description under the chapter on existing facilities.

8) WDFW Chambers Creek Fish Ladder - this Washington State Department of Fish & Wildlife (WDFW) fish ladder and counting facility is located adjacent to Pierce County's dam on Chambers Bay off the north side of Chambers Bay Road - see the description under the chapter on opportunities.

Proposed parks

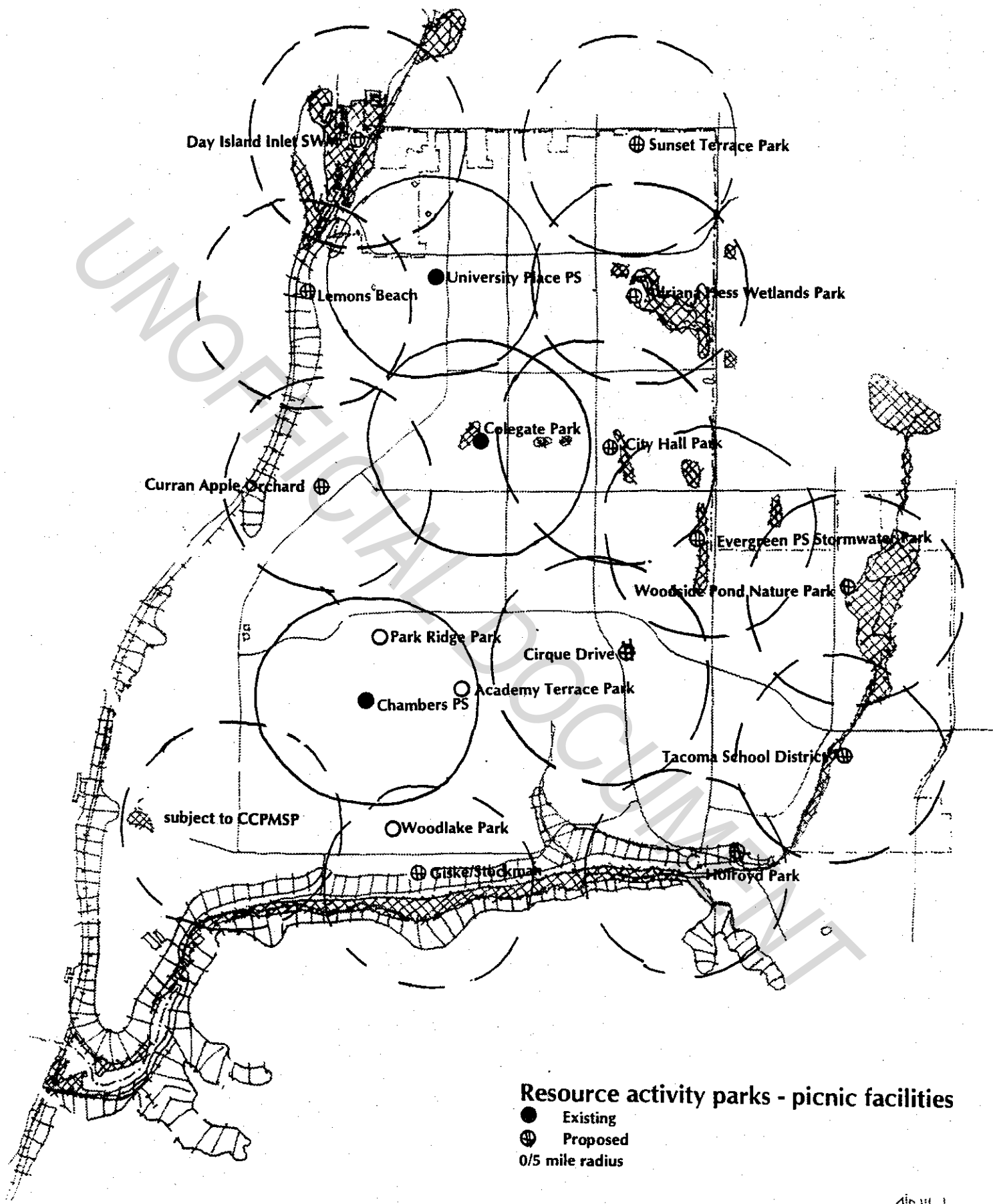
The following projects will be pursued to acquire and establish resource active parks:

9) Evergreen Primary School Stormwater Park - this project will acquire the heavily wooded hillside and drainage corridor located south of the School District's stormwater detention pond on 67th Avenue - see the description under the chapter on opportunities.

Trails, picnic facilities, a playground, and other passive park features will be developed along the hillside overlooking the pond and woodlands. Parking facilities will be located on the cleared uplands portion of the site presently reserved for possible intermediate school developments.

10) Woodside Pond Nature Park Expansion - this project will acquire the properties (Broback/Baer) located north of Woodside Pond Nature Park that extend from Alameda Avenue north to Fordham Street/44th Street West then across Leach Creek almost to Orchard Street - see the description under the chapter on opportunities.

Trails, interpretive signage, wildlife blinds, and other passive park features will be installed alongside and across the creek, between 40th Street West/Fordham Street, with the existing access trail into Woodside Pond Nature Park, and north to connect to the end of the Fircrest trail system recently dedicated in the Haddow Estates cluster development.



Picnic facilities, a playground, a grassy playfield, trailhead, parking facilities, and other neighborhood park features will be developed on the portion of the site adjoining Alameda Avenue.

11) Cirque Ranch Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin both sides of Leach Creek on the property located on the northeast corner of Cirque Drive and Alameda Avenue - see the description under the chapter on opportunities.

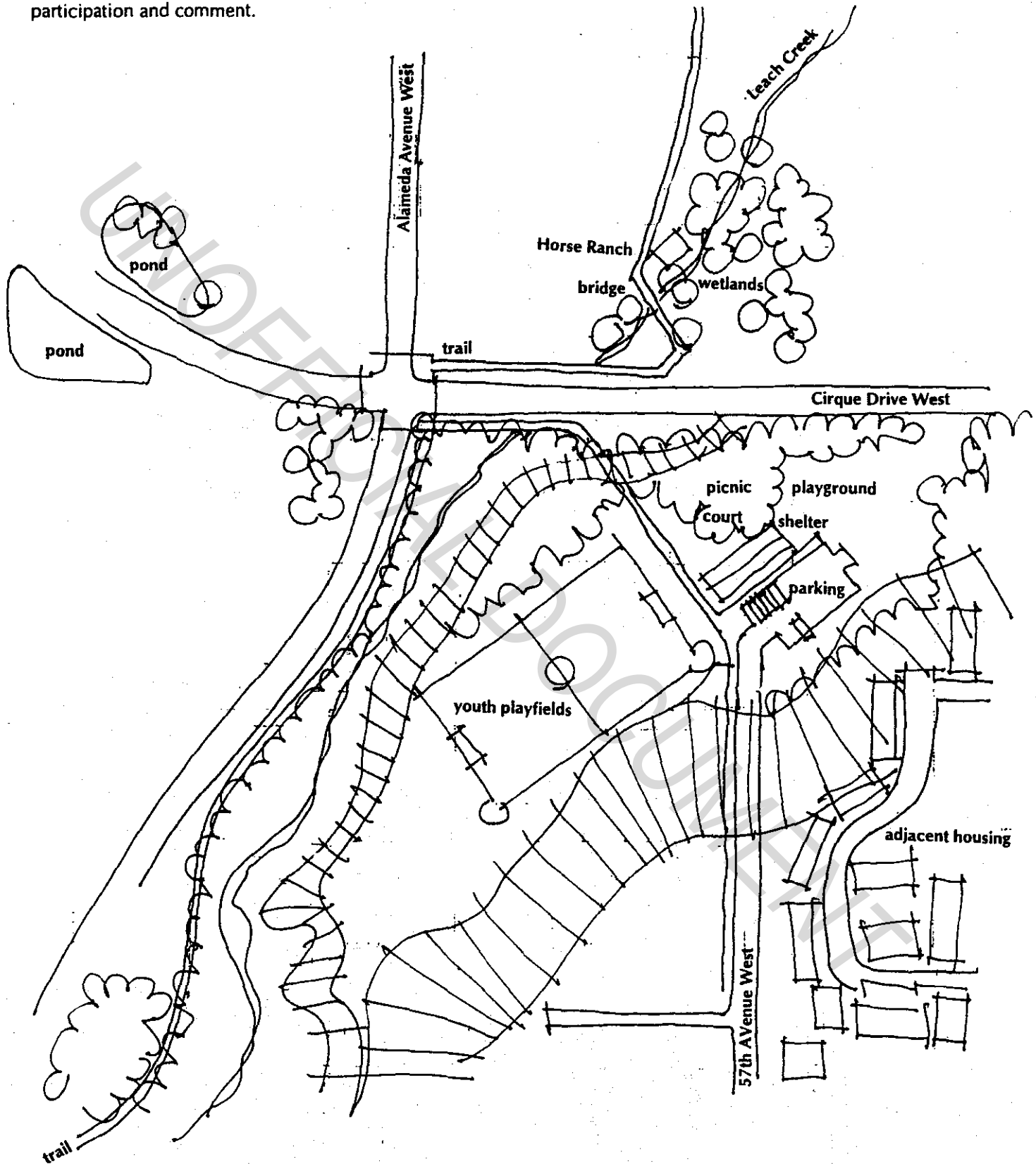
Trails, picnic features, a playground, and other passive park features will be developed along the west bank overlooking the creek and the old wooden bridge. Parking facilities, restrooms, and other supporting improvements, possibly to include a meeting room and interpretive center, may be configured out of the old ranch house and outbuildings that are located along the edge of the creek floodplain.

12) Holroyd Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin Leach Creek within the old Holroyd Gravel Pit located in the northeast corner of Bridgeport Way and 67th/Alameda Avenues - see the description under the chapter on opportunities.

Trailheads, parking areas, picnic features, and other passive park features will be developed along the north bank overlooking the creek and woodlands. A gateway improvement to the city, possibly including transit stops, a small plaza with benches, trail access points, and signage will be erected at the gateway entry into the city on the south end of this parcel adjacent to the intersection with 67th Avenue.

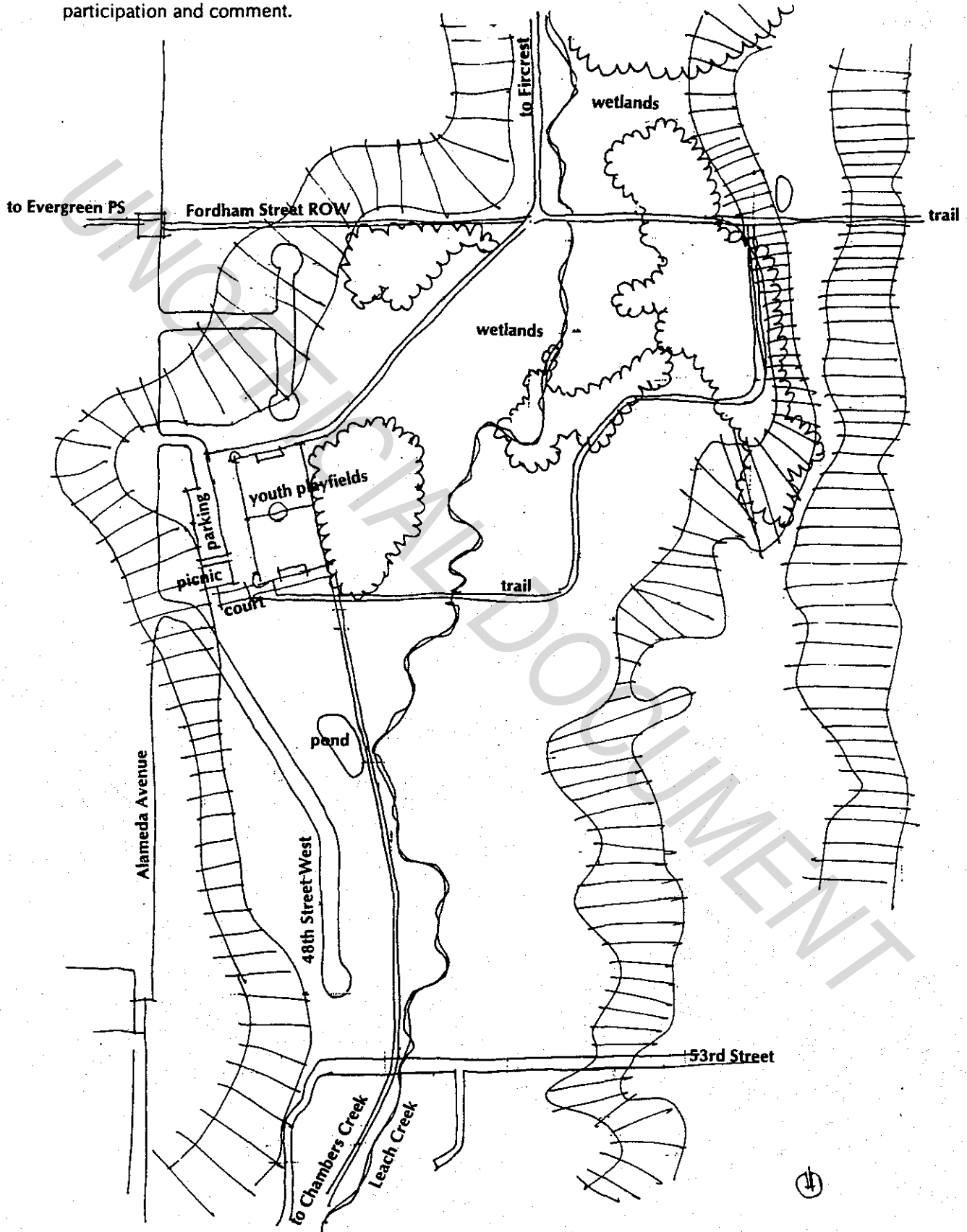
Leach Creek Park - an illustration

The following graphic depicts one example of a possible development concept for the proposed park site. Once acquired, the property will be master planned with a process involving public participation and comment.



Woodside Pond Nature Park - an illustration

The following graphic depicts one example of a possible development concept for the proposed park site. Once acquired, the property will be master planned with a process involving public participation and comment.



Water trails

A water access system will be developed for dory, sportyak, canoes, kayaks, and other cartop boating activities. The water trails will provide access to remote areas that are not readily accessible or suitable for power boats or other larger water craft.

Where possible, water trailheads will be located to coincide with and use other trail corridors, resource conservancies, and other park and recreational facility services including parking lots, restrooms, and utilities. When provided on separate sites, water trailheads may be improved with launch ramps or landings, parking lots, sani-cans, and other primitive services.

The water trails proposed in this plan along Colvos Passage and the Narrows shoreline have been identified by paddle boating enthusiasts working in conjunction with state, federal, and other boating interest groups including the Washington Water Trails Association and Puget Sound Marine Trail Organization. Water trail development projects may use the same cooperative, joint venture approach to formally designate and improve routes and trailheads and/or to develop new launching sites, landings, rest stops, camping areas, and other water trail services throughout the region.

Vision

As described, the water trail vision will: a) increase and promote public access to the area's significant fresh and saltwater resources - particularly for cartop boating enthusiasts, b) scenic natural areas and features of interest that can not be accessed from other trail systems, c) for boating enthusiasts of all skill levels, and d) for extended boating durations and trips.

Proposed trails

Cascadia Marine Trail - is a water trail being developed by the Washington Water Trails Association with the assistance of the Washington State Parks & Recreation Commission.

The Cascadia Marine Trail will extend along 150 miles of Puget Sound shoreline between Olympia and the British Columbia border including the shoreline along University Place. The trail is designed to provide kayak, canoe, paddle boat, sail, or other nonmotorized craft enthusiasts opportunities for day or even longer duration trips - potentially, the full length of the trail.

The water trail route will be serviced with water trailheads, including launch sites, stop overs, and in some instances, bad weather layover or campsites with appropriate parking, shelter, interpretive exhibits, and other supporting improvements.

Ideally, overnight trailheads will be located about 20 miles apart consisting of state parks, state forest lands, or other sites accommodating of camping boaters. Local access trailheads will be located 5 to 8 miles apart along urban shorelines or other developed areas - but will not provide overnight or extended stay durations.

At the present time, the trail has 35 designated recreational and educational sites including a series of state parks, state forest lands, and major county parks.

Day Island Inlet Water Access - this project will develop a water trail access segment around Day Island Inlet for local kayak, canoe, paddle boat, and sailing enthusiasts. The north water trailhead will be located at the Surface Water Management (SWM) site at the end of 20th Street West in Day Island Inlet - see the description under the chapter on existing facilities.

The site will be developed with a handcarry launching facility, parking lot, restroom, picnic area, and other supporting improvements for day use activities only. From the north trailhead, enthusiasts can paddle north past Titlow Beach to Point Defiance and/or around Day Island to Fox Island and Wollochet Bay - routes taken by Nisqually Indians and later by tourists and guests of the Hotel Hesperides at the beach resort developed by Aaron R. Titlow.

Chambers Bay Water Access - this project will develop a water trail access segment around Chambers Bay for local kayak, canoe, paddle boat, and sailing enthusiasts. The south water trailheads will be located adjacent to the control dam and WDFW fish ladder on the northeast end of Chambers Bay off Chambers Creek Road, and on the south shore of Chambers Bay on the roadside access point located across from the Stone Consolidated Inc mill by the Indian tribes.

The WDFW site will be developed with handcarry launching facilities, parking lot, restroom, picnic areas, and other supporting improvements for day use activities only. From the trailhead, enthusiasts can paddle the complete extent of Chambers Bay and/or into Puget Sound to Fox Island, Ketron Island, Steilacoom, or the Nisqually Delta - routes taken by the Steilacoom Indians, Hudson Bay Company employees, and early settlers of Chambers Bay and Steilacoom.

Chambers Impoundment Pond Water Access - this project will develop a water trail access segment to the impoundment pond located behind the county control dam on Chambers Creek for local kayak, canoe, and paddle boat enthusiasts. A water access will be designated as a joint use of the trailhead to be developed by the county of the existing roadside parking area on the southeast side of the dam off Chambers Creek Road - see the description under the chapter on existing facilities.

The site will be improved with a handcarry launching facility, parking area, restrooms, picnic facilities, and other supporting improvements.

Titlow Beach Park

Day Island Inlet SWM

WDFW Fish Ladder

Sunnyside Beach Park

Water trails

- Existing trailheads
- ⊗ Proposed trailheads



Walking and hiking trails

Walking and hiking trails will be developed to link major environmental assets, park and recreational facilities, community centers, and historical features throughout the city. Generally, walking and hiking trails will be developed as dirt or bark surfaced routes on interior alignments through environmental features. Portions of the system within the more densely settled portions of the urban area, however, may be developed as concrete sidewalks or boardwalks with urban streetscape furnishings and amenities.

Where possible, walking and hiking trails will be developed in alignments separate from vehicular or other motorized forms of transportation. For example, walking and hiking trails may be located within public tidelands, natural drainage corridors, wooded ravines, utility access roads, stormwater detention ponds, and water reservoirs. In some instances and for short durations, walking and hiking trail systems may be developed as improvements within the right-of-way of established vehicular or other transportation corridors.

Generally, walking and hiking trails will be developed to class 2-5 walking trail standards providing 2-way travel on a crushed rock, bark or compacted dirt base varying between 2 and 5 feet in width. The trails will be of a slope not more than 1:12 unless provided with stairs or other erosion controls. Class 2-3 trail segments will be handicap accessible and usable by all age and skill groups.

Within the most developed urban area alignments, walking and hiking trails may be developed to class 1 walking trail standards providing 2-way travel on an asphalt or concrete surface between 4 and 6 feet in width. Such sidewalk or boardwalk trails will be of a slope not more than 1:50. Class 1 trail segments will be handicap accessible and usable by all age and skill groups.

Walking and hiking trail corridors will be located to coincide with other park and recreational improvements or public facilities to access rest stops, parking lots, restrooms, and other services.

Walking and hiking trail corridors may be independent properties or include portions of other sites provided for resource activities, athletic facilities, and other park and recreational or public facility properties. Linked with conservation areas and resource activities, the walking and hiking trails will create a system of interconnected greenways to integrate and define the urban and natural portions of the city in accordance with the Growth Management Act's (GMA) provisions for urban separators.

Vision

As described, the walking and hiking trails vision will be realized by providing recreational trail opportunities within the city that: a) access natural features that may not be available otherwise, b) link open spaces and other conservation areas into a greenway system, c) serve persons with varied physical abilities and skills, d) establish high visibility and volume

pedestrian routes through the most developed urban areas, e) expand the park system to connect with public tidelands and other state properties, and f) expand roadway corridors to provide recreational and commuter trail opportunities.

Proposed trail projects

The following trails will be developed as part of a system of facilities, although supporting trailheads and services may be located within other park, school, or public facility sites:

1) Day Island/Puget Sound University Historic Trail Loop - this class 1-2 trail will provide walking and hiking opportunities between the historic sites and buildings located at University Place Primary School, the original site of Puget Sound University (now University of Puget Sound), Lemons Beach, Day Island Inlet (Belmarlow Beach), Crystal Creek Pottery Shed (the former Stephens Grocery Store), and the University Place Senior Center (the former Park & Recreation District office and before that the University Place Tomato Growers Association packing shed) on Grandview Drive - see the descriptions under the chapter on community setting.

The historic trail loop will provide scenic views and access to the original proposed university campus grounds, wooded tributary creeks and holding ponds, Puget Sound shoreline, woodlands, historic school and packing shed buildings, and nearby residential neighborhoods.

From the historic University Place Primary School, the trail will travel west on Parkway West to 89th Avenue then northwest to Lemons Beach Road then southwest to 94th Avenue West then south to the proposed roadside overlook of historic Lemons Beach.

From the Lemons Beach overlook on 94th Avenue West, the trail will backtrack to Lemons Beach Road, then continue north along the hillside above the Burlington Northern & Santa Fe Railroad tracks to 19th Street and the Crystal Springs Pottery Shed and stormwater detention pond, then west across the tracks to the Surface Water Management site at the end of 20th Street West.

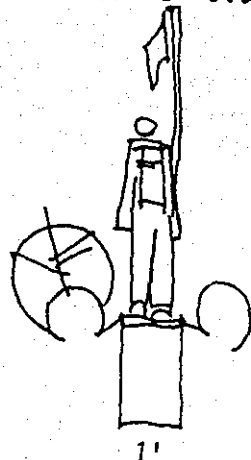
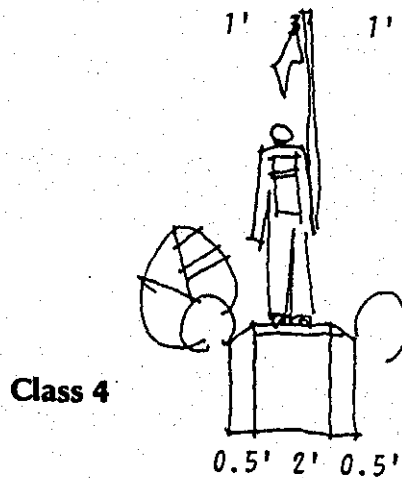
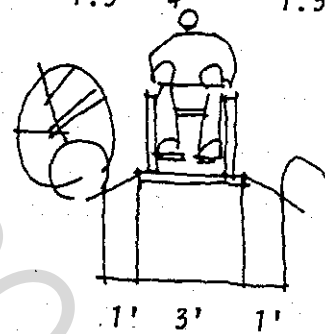
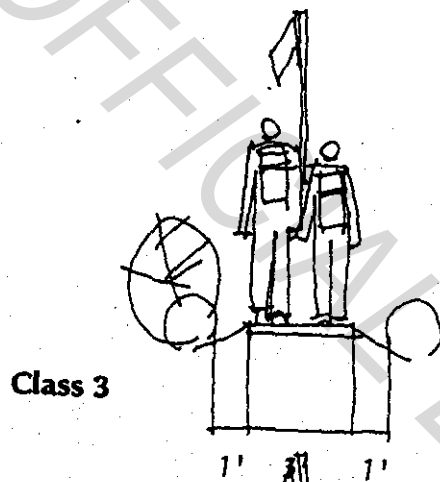
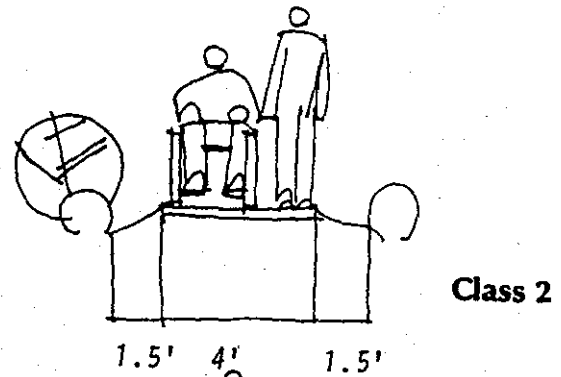
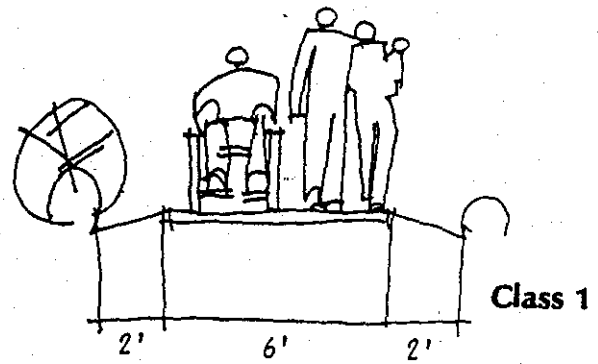
Another possible future alternative to this alignment would continue on 27th Street West onto Day Island Bridge, then climb down from the bridge on a pedestrian stairway or ramp into the Day Island Yacht Club, then continue north on 91st Avenue West to the Surface Water Management (SWM) site at the end of 20th Street West.

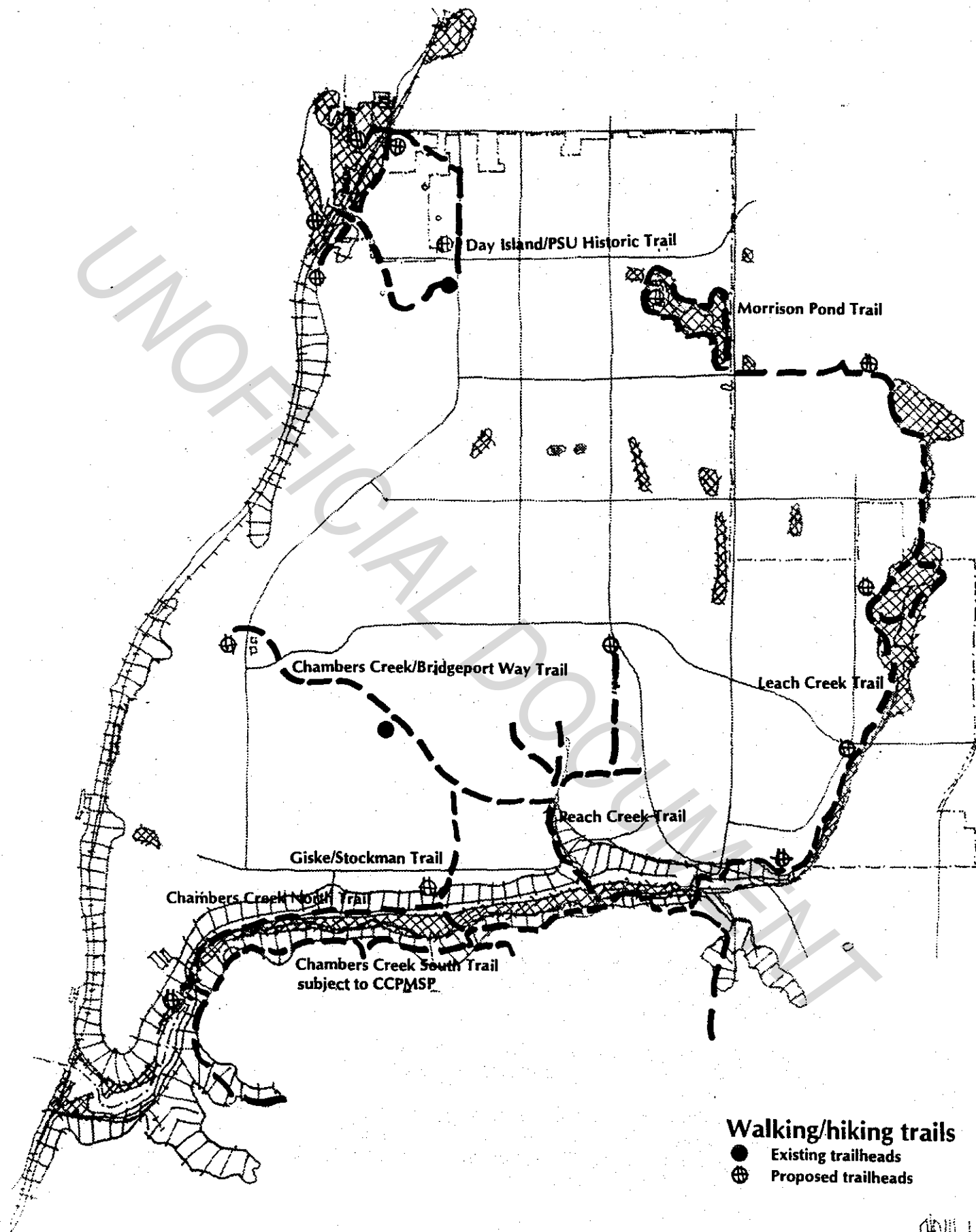
From the Crystal Springs Pottery Shed and stormwater detention pond, the trail will continue east through the Crystal Creek drainage corridor (or along 19th Street West) to Grandview Drive West, then south past the University Place Senior Center (the former Park & Recreation District offices) to the historic portion of the University Place Primary School fronting onto Grandview Drive.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be designated or developed at University Place Primary School, within the overlook on 94th Avenue West, at the Surface Water Management (SWM) site on 20th Street West, at the Crystal Creek Pottery Shed, and the University Place Senior Center.

2) Morrison Pond - this class 1-2 trail will provide walking and hiking opportunities around Adriana Hess Wetlands Park and the extensive ponds and wetlands encompassed by the Morrison Pond drainage system. The trail will provide scenic views and occasional shoreline access overlooks to the principal ponds, wetlands, riparian corridors, wildlife habitat, and adjacent residential neighborhoods.

Walking and hiking trails





Walking/hiking trails
● Existing trailheads
⊕ Proposed trailheads

Initially, the trail will be located within Adriana Hess Wetlands Park providing access to the open water of the west end of Morrison Pond from an overlook pier and wildlife viewing blind.

Eventually, the trail will continue south along the shoreline within a public access corridor to be acquired and/or developed by the adjacent property owner/developers to another shoreline access property to be donated and/or acquired at the east end of the Morrison Pond complex along 67th Avenue West.

Another trail segment will eventually continue north from Adriana Hess Wetland Park along the shoreline within a public access corridor to be acquired and/or developed by adjacent property owner/developers to the east shoreline access property to be donated and/or acquired along 67th Avenue West.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed in the residential property being acquired in front of Adriana Hess Wetlands Park and at the property to be acquired at the east end of the wetlands complex along 67th Avenue West. Additional signage, overlooks, picnic facilities, and other shoreline improvements may be developed by adjacent property owner/developers.

3) Morrison Pond/Leach Creek Trail - as a cooperative venture between University Place and Fircrest, this class 1-2 trail will provide walking and hiking opportunities from Morrison Pond east through the edge of Fircrest Golf Course to the upper reaches of Leach Creek and then south into University Place. In a joint cooperative trail planning and development effort with the Fircrest Parks Department, the trail will create extended walking and hiking opportunities the complete expanse of Fircrest and University Place from Morrison Pond to Chambers Bay and Puget Sound.

From the proposed trailhead at the east end of the Morrison Pond wetland complex, the trail will continue east on the unopened right-of-way of 35th Street West along the edge of Fircrest Golf Course to the edge of Broadview Drive and Bel Air Court.

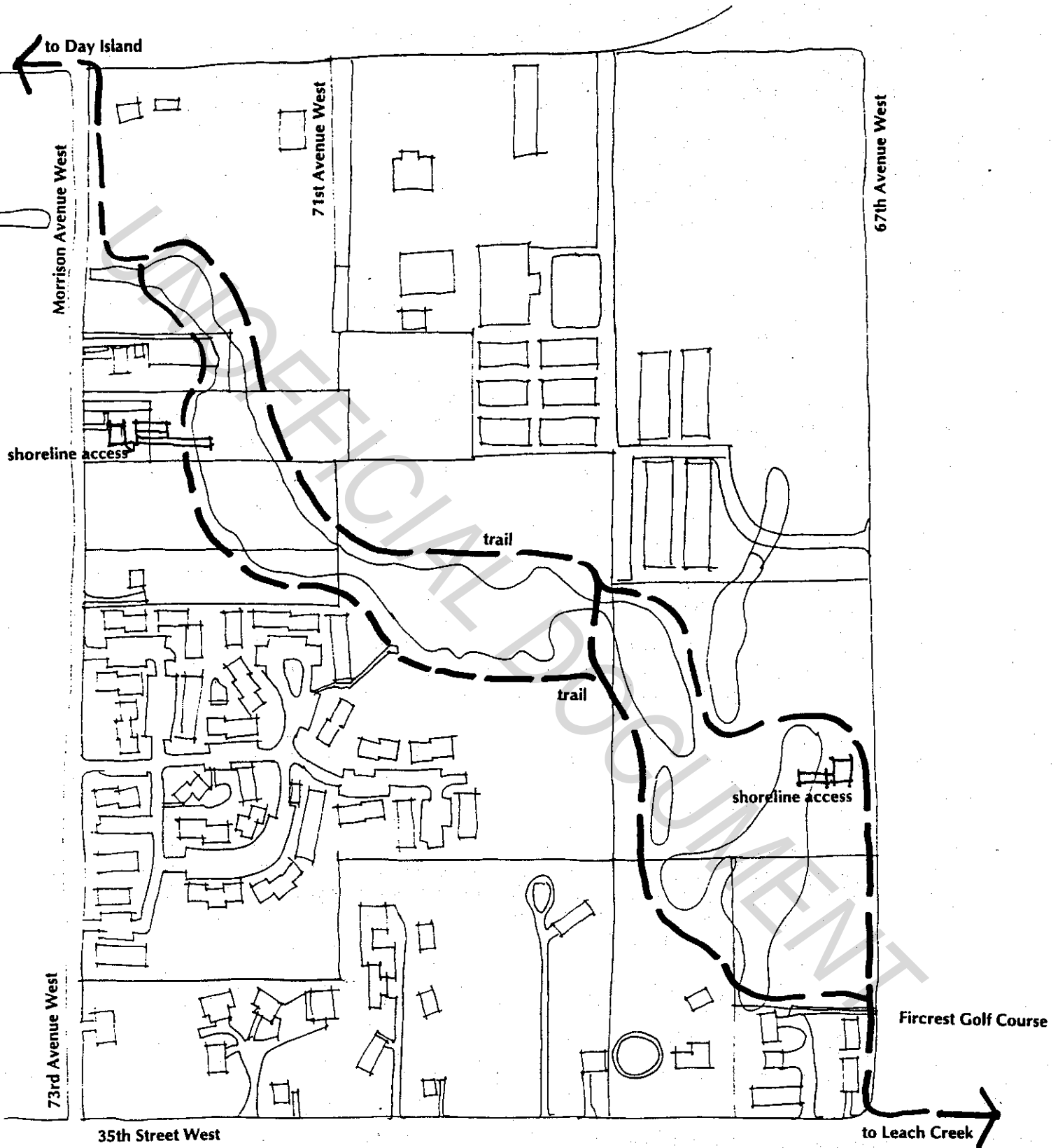
From Broadview Drive and Bel Air Court, the trail may continue east across the ends of private properties to Rosdwood Lane to Alameda Avenue West, then east on Annapolis Lane to Whittier Elementary School.

From Whittier Elementary School, the trail will continue east around the Tacoma Holding Basin to Orchard Street West, then south parallel to Orchard Street West to the existing trail along Leach Creek at 40th Street West.

From 40th Street West, the trail will continue south through the dedicated trail corridor along Leach Creek through Haddow Estates to the unopened right-of-way at 44th Street West/Fordham Street.

From Fordham Street, the trail will continue south within the creek corridor to the proposed expansion of Woodside Pond Nature Park north on the Broback/Baer properties.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed on the property to be acquired at the east end of the wetlands complex along 67th Avenue West, Whittier Elementary School, and the Broback/Baer property expansion of Woodside Pond Nature Park.



Adriana Hess Wetlands Park/Morrison Pond

4) Leach Creek Trail - this class 1-2 trail will provide walking and hiking opportunities from the upper reaches of Leach Creek through Woodside Pond Nature Park, Leach Creek Park, and the Holroyd Gravel Pit to the confluence with Chambers Creek. The trail corridor will provide scenic views of and access to the wetlands, riparian habitat, woodlands, and natural areas that comprise this unique drainage area.

At the end of the unopened right-of-way of 44th Street West/Fordham Street, the trail will continue east across the creek on a wooden bridge, then south along the lower edge of the hillside, then west back across the creek on a wooden bridge at the upper end of the existing Woodside Pond Nature Park property holding.

Another trail segment will continue south from the unopened right-of-way of 44th Street West/Fordham Street, through the Broback/Baer property holdings to a proposed trailhead at Alameda Avenue - thereby creating a loop trail of the Broback/Baer property acquisition.

From the Alameda Avenue trailhead, the trail will continue south past the existing stairway to Woodside Pond Nature Park from 48th Street West, then around the east side of the SWM stormwater detention pond, then south along the west bank of Leach Creek to the old wooden bridge across the creek at the proposed park site to be dedicated and/or acquired at the Cirque Ranch Park property on Cirque Drive.

From the proposed Cirque Ranch Park, the trail will continue south across Cirque Drive on Alameda Avenue, then east across the creek on a wooden bridge to the proposed expansion of Leach Creek Park onto the Tacoma School District property, then south along the east bank of the creek, then west across the creek on another wooden bridge onto the south end of the Leach Creek Park Dedication.

From the Leach Creek Park Dedication, the trail will continue south along the west bank of the creek to the proposed park site to be dedicated and/or acquired on the Holroyd Gravel Pit property adjacent to Bridgeport Way West and the intersection with 67th Avenue West.

From the intersection of Bridgeport Way and 67th Avenue West, the trail will cross Bridgeport Way then climb down the hillside and cross the creek on a wooden bridge to link with the east end of the trail along the south bank of Chambers Creek in the Chambers Creek Properties.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed on the Broback/Baer property to be acquired at the north end of Woodside Pond Nature Park at Alameda Avenue, the Leach Creek Park dedication, the expansion of Leach Creek Park into the Tacoma School District Property, and the park to be obtained at the south end of the Holroyd Gravel Pit.

5) Chambers Creek Canyon South Bank Trail - in accordance with Pierce County's Chambers Creek Properties Master Site Planning (CCPMSP) proposals, this class 1-2 trail will provide walking and hiking opportunities from the confluence with Leach Creek to Chambers Bay. The trail corridor will provide scenic views of and access to the creek shoreline, wetlands, wooded hillsides, historic railroad corridor, impoundment pond, Chambers Bay, and neighborhoods on the south plateau.

Subject to the final resolution of the CCPMSP process and plan contents, the trail may start at the east end of Chambers Creek Road West, then continue south down the hill and across the creek to the existing trail segment on the south bank of the creek at the end of Phillips Road SW.

From the end of Phillips Road SW, the trail may continue west along an existing trail segment to the edge of the creek, then across the creek on a new bridge, then south along a new trail segment on the north bank to the edge of the creek again, then across the creek on a wooden bridge to join again with an undeveloped segment of trail on an old logging road.

From the trail joining with the old logging road, the trail may continue west parallel to Zircon Drive SW on the plateau, then up the hillside on the existing access trail to a potential trailhead on Zircon Drive near the Oakbrook Golf & Country Club on the plateau.

From the trailhead on Zircon Drive, the trail may continue west along a new trail segment to join again with an existing access trail point at 91st Avenue SW.

From the existing trail access at 91st Avenue SW, the trail may continue west on an existing trail segment to the existing roadside parking area at the south bank of the impoundment pond on Chambers Creek Road.

From the existing roadside parking area on Chambers Creek Road, a trail segment may continue south up the hillside to access Fort Steilacoom Golf Course, Firwood School, Oak Grove Elementary School, Fort Steilacoom Park, and Tacoma Community College.

From the existing roadside parking area on Chambers Creek Road, the trail would allow connection to sidewalks in the Town of Steilacoom and continue along the south shoreline of Chambers Bay to the shoreline access point across from Stone Consolidated Inc mill. From the shoreline access point, the trail may continue west along the shoreline past Chambers Bay Marina (the site of Judge Thomas J. Chambers 1860 lumber mill), then west past the south sand spit (the site of Stelle'lqub - the Steilacoom peoples south village) and eventually to Sunnyside Beach Park in Steilacoom.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services may be developed at the east end of Chambers Creek Road West, Phillips Road SW, Zircon Drive SW, the south shoreline of the impoundment pond on Chambers Creek Road, the Indian tribal shoreline access point on the south shoreline of Chambers Bay, and in cooperation with Steilacoom, at Sunnyside Beach Park.

6) Chambers Creek Canyon North Bank Trail - this class 1-2 trail may provide walking and hiking opportunities from the top of the north plateau to Chambers Bay using portions of the historic Tacoma Railway & Power Company's north railroad trackbed and the University Place acquisition of the proposed Giske/Stockman Park properties. The trail corridor may provide scenic views of and access to the grassy playareas on the north plateau, north creek shoreline, wooded hillsides, historic railroad corridor, and impoundment pond.

From the proposed acquisition of the Giske/Stockman properties on 64th Street West, the trail may climb down the steep wooded hillside to the valley floor, then cross the creek on a wooden bridge to link with the CCPMSP trail along the south bank.

From the wooden bridge, the trail may also continue west along the old railroad trackbed past Chambers Crest Wildlife Habitat and along the north shoreline of the impoundment pond to Chambers Creek Road, to trails south of the wastewater treatment plant (WWTP) access road or eastward to the Chambers Creek south bank trails within the Chambers Creek Properties.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services may be developed at the proposed Giske/Stockman Park acquisition.

7) Chambers Creek Property/Bridgeport Way Trail - subject to participating property owner agreements, this class 3-4 trail will provide walking and hiking opportunities from the overlook park improvements to be provided in the buffer area adjacent to Grandview Drive to the streetscape plaza improvement to be developed in the rerouted intersection of Drum Road with Bridgeport Way and Cirque Drive. The trail corridor will provide scenic views and access to the Chambers Creek Properties overlooks, wooded hillsides, and natural areas that adjoin the Tacoma Revolver & Rifle Range, Charles Wright Academy, and Peach Creek ravine.

From the north end of the Chambers Creek Properties buffer area along Grandview Drive, the trail will continue east around the Chambers Creek Properties Surface Water Management (SWM) offices on Bristonwood Avenue West, then east through the dedicated common spaces at Bristonwood Park to Chambers Primary School.

From Chambers Primary School, the trail will continue east through the wooded hillsides preserved on the north side of the Tacoma Rifle & Revolver Club property, then east through the wooded hillsides preserved on the north side of Charles Wright Academy to Peach Creek ravine, then north up Peach Creek ravine to the end of Drum Road, then north on Drum Road to the portion of Drum Road right-of-way that has been rerouted at the intersection with Bridgeport Way and Cirque Drive.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed at the north trailhead of the Chambers Creek Properties, Chambers Primary School, and the rerouted portion of Drum Road to be developed into a streetscape plaza at Bridgeport Way and Cirque Drive.

8) Peach Creek Trail - subject to participating property owner agreements, this class 3-4 trail will provide walking and hiking opportunities from Chambers Creek Canyon north through Peach Creek ravine to Bridgeport Way and the residential neighborhoods overlooking the north reaches of the creek. The trail corridor will provide scenic views of and access to the waterfall, wooded hillsides, and natural areas that comprise this unique topographical feature.

From the trail located on the north bank of Chambers Creek in Chambers Creek Properties, the trail will continue north up the rocky ledges past the waterfall, then under the Chambers Lane bridge and through the preserved wooded hillsides of the eastern portions of Charles Wright Academy to Bridgeport Way at 57th Court West.

Another trail segment will extend north from Peach Creek ravine to connect to street ends in the residential neighborhoods at 75th-78th Avenue Courts West.

A trailhead with interpretive signage, sitting benches, plaza, pavings, and other streetscape furnishings will be developed on the rerouted north end of Drum Road at the intersection with Bridgeport Way and Cirque Drive.

8) Giske/Stockman/Chambers Creek Properties Trail - in the event the Tacoma Rifle & Revolver Club should close, this class 3-4 trail will provide walking and hiking opportunities between the Giske/Stockman Park access to the north bank of Chambers Creek Canyon and the Bridgeport Way trail to Chambers Creek Properties. The connection of these two systems will create a loop trail linking the residential neighborhoods in the southwest

portion of the city with Chambers Creek, Chambers Creek Properties, Bridgeport, and Peach Creek ravine.

From the Giske/Stockman Park acquisition, the trail will extend north across 64th Street West, then north along the east boundary of the Tacoma Rifle & Revolver Club property, then west through the preserved wooded hillside along the north side of the property to Chambers Elementary School and a link with the Chambers Creek Properties/Bridgeport Way Trail.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed at the Giske/Stockman Park acquisition and Chambers Primary School.

On-road bicycle touring routes

Cross-city bicycle touring and commuter routes will be developed to access major environmental assets, park and recreational facilities, historical features, scenic corridors and vistas, and other features of interest to experienced bicycle touring enthusiasts.

Where appropriate and to the extent practical and safe, bicycle touring routes will be extended into local neighborhoods to create an integrated on-road bicycling system. The local on-road bicycling system will provide access to local park and recreational facilities, schools and public facilities, community centers and business districts, places of employment, and transit transfer centers for adult and youth bike riders from the local area.

To the extent possible, bicycling touring routes will be developed to class 1-3 AASHTO (American Association of State Highway & Transportation Officials) standards with expanded, designated or marked road shoulders and lanes. In the less congested areas, bicycle touring routes may be simply designated for joint vehicular/bicycle use of a class 4 AASHTO standard.

Most of the bicycle touring routes proposed to be designated within this plan have already been identified by bicycling enthusiasts working in conjunction with city, county, and other cycling interest groups. Future public bicycle touring development projects may use the same cooperative, joint venture approach to formally designate and improve existing routes and trailheads and/or to develop new on-road routes, rest stops, and other bicycle touring or commuting services.

Vision

As described, the bicycle touring route vision will: a) increase on-road bicycle touring access for experienced riders to scenic areas and features, b) increase bicycle trail access for local residents, including commuters, to community facilities, schools, employment, and transit transfer centers, c) service persons with varied physical abilities and skills, and d) expand roadway corridors to provide recreational and commuter uses.

Proposed touring projects

The following touring routes will be developed as part of a system of facilities, although supporting trailheads and services may be located within other park, school, or public facility sites:

1) 27th Street West - this on-road class 3 touring route will be developed along both shoulders of 27th Street West from the merging of Regents Boulevard with 27th Street West at the city boundary with Fircrest to the proposed overlook of historic Lemons Beach on 94th Avenue West. The route will provide scenic vistas of Fircrest Golf Course, Morrison

Pond, the historic Puget Sound University site, Puget Sound, Day Island, and other landmark features unique to the city.

The route will begin at the intersection of 27th Street West/Regents Boulevard with 67th Avenue West at the city boundary with Fircrest, then continue west on 27th Street past Morrison Pond and Adriana Hess Wetlands Park to the historic facade of University Place Primary School fronting onto Grandview Drive.

From University Place Primary School, the route will continue west on 27th Street to Lemons Beach Road at the bottom of the hill, then west on Lemons Beach Road under Day Island Bridge to 94th Avenue West, then south on 94th Avenue West to the proposed roadside overlook of historic Lemons Beach and Day Island.

An alternative class 4 route alignment will follow Parkway West from University Place Primary School to 89th Avenue West, then west on 89th Avenue West past the ravine and the historical center of the original campus proposal for Puget Sound University to Lemons Beach Road.

A class 4 route segment will continue west on Day Island Bridge across the inlet to the Surface Water Management (SWM) site on Day Island Boulevard, then circle the island to return to Day Island Bridge.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed at the Adriana Hess Wetland Park, University Place Primary School, and overlook on 94th Avenue West.

2) 40th Street West - this on-road class 3 touring route will be developed along both shoulders of 40th Street West from Orchard Street to the Curtis Junior, Senior High Schools, and Colegate Park. The route will provide scenic vistas of Leach Creek, the woodlands and ravine adjacent to City Hall, and the woodlands adjacent to Colegate Park. The route will also provide neighborhood children access to the town center business district and Evergreen Primary, Narrows Intermediate, Curtis Junior and Senior High Schools.

From Orchard Street West, the route will continue west across Leach Creek and the Fircrest portion of the Leach Creek hiking trail to the front entryway into Evergreen Primary School.

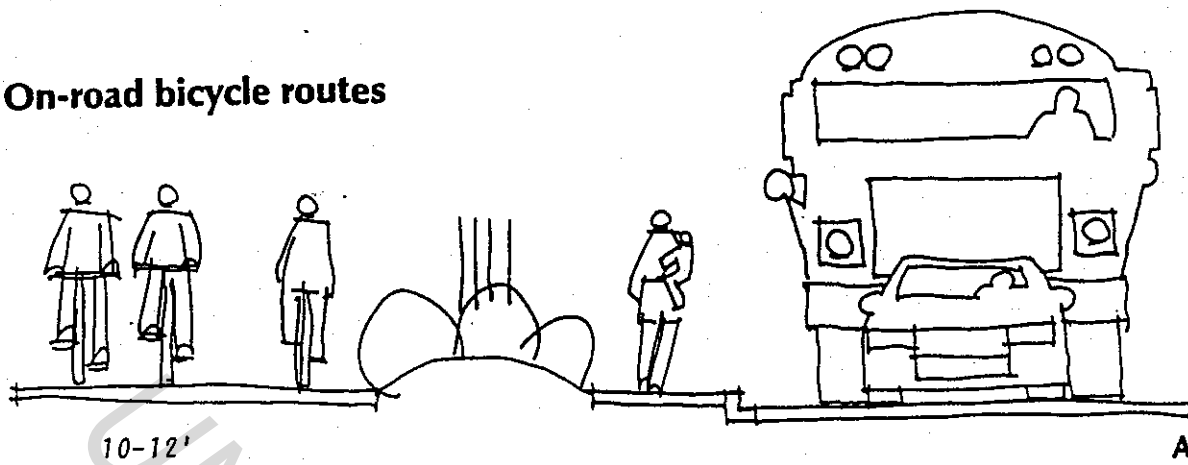
From Evergreen Primary School, the route will continue west across Bridgeport and through the town center to the back entryway into Narrows Intermediate School.

From Narrows Intermediate School, the route will continue west to Grandview Drive past the front entryways into Curtis Senior and Junior High Schools, and the indoor swimming pool.

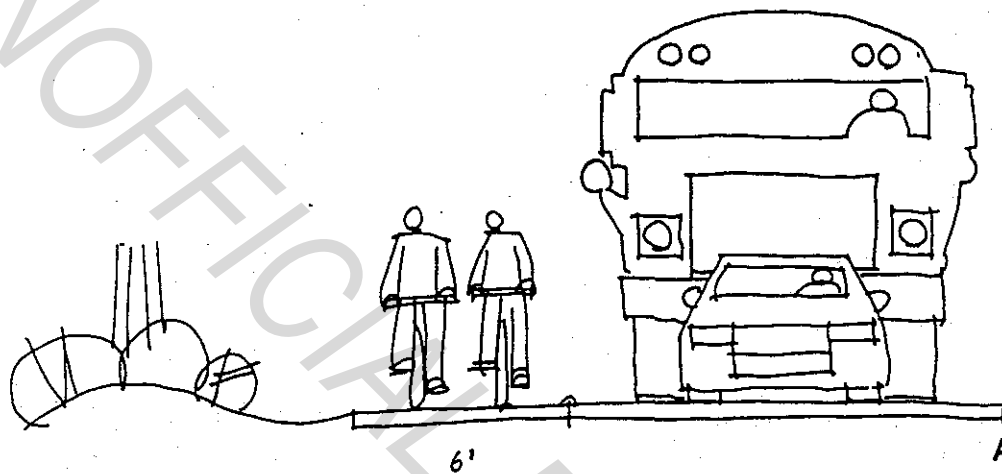
Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at Evergreen Primary School, Narrows Intermediate School, Curtis Senior High, and Curtis Junior High Schools.

3) Cirque Drive - this on-road class 3 touring route will be developed along both shoulders of Cirque Drive from Orchard Street to the north entry into the Chambers Creek Properties. The route will provide scenic views of Leach Creek at the Leach Creek Park dedication and Puget Sound from the overlook park improvements on Chambers Creek Properties adjacent to Grandview Drive. The route will also provide neighborhood children access to Drum Intermediate and Sunset Primary Schools.

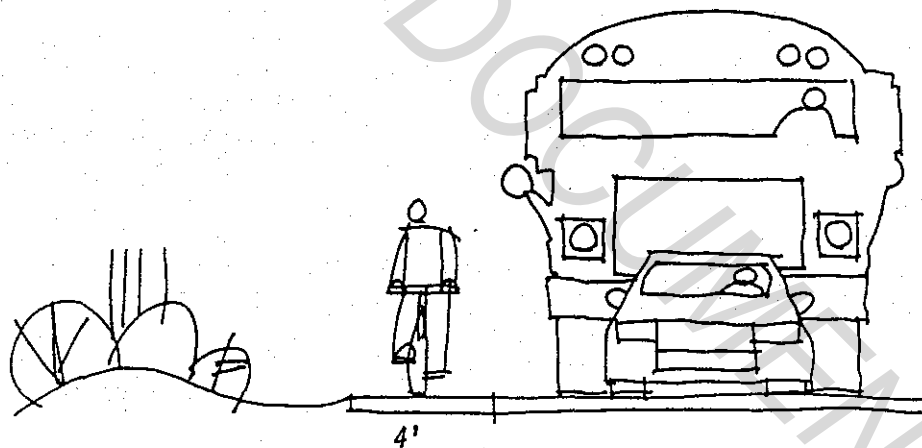
On-road bicycle routes



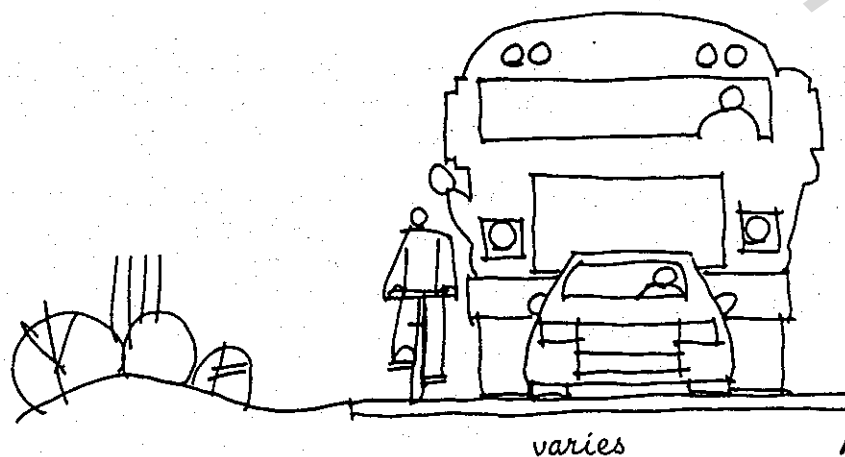
AASHTO Class 1



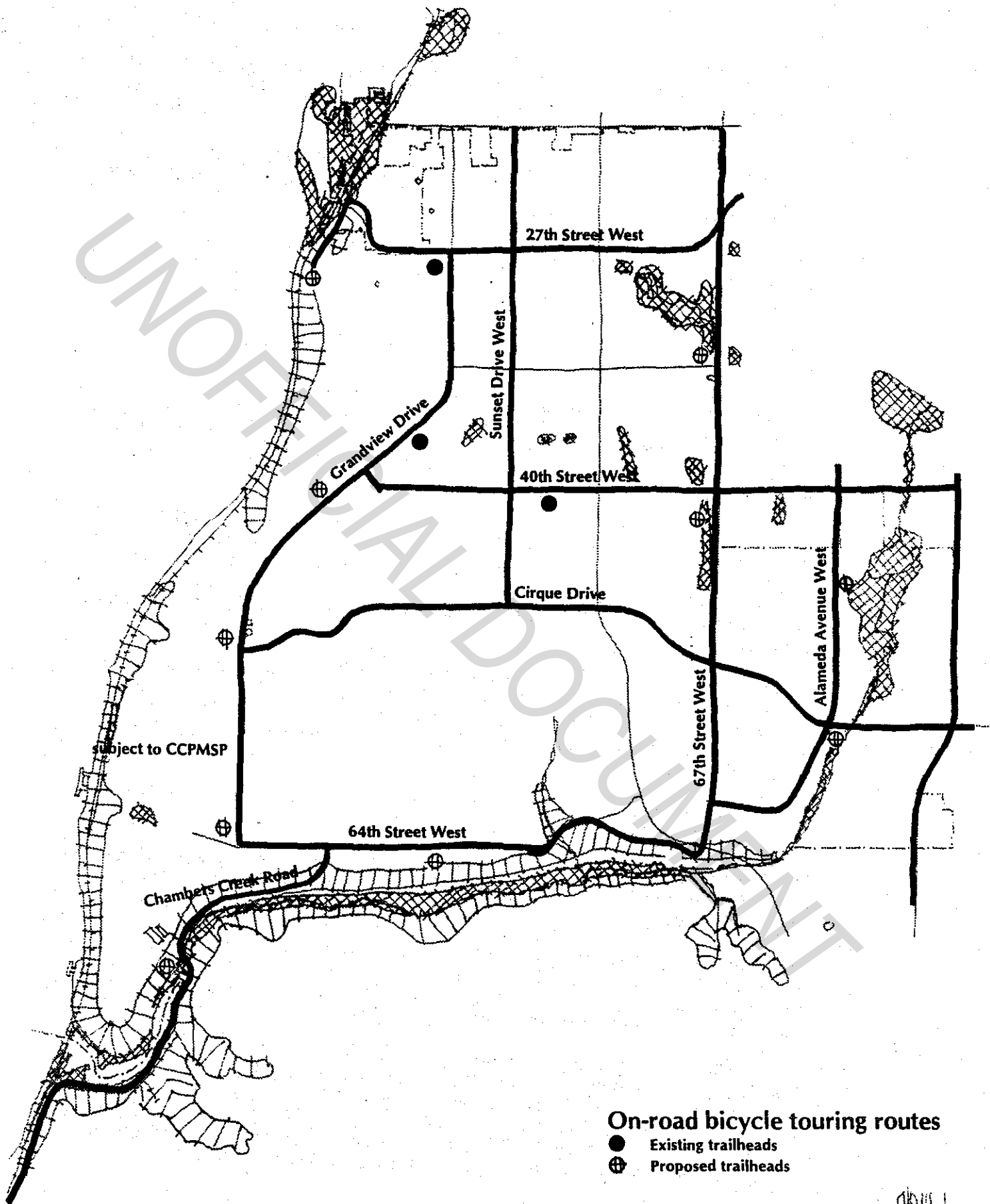
AASHTO Class 2



AASHTO Class 3



AASHTO Class 4



On-road bicycle touring routes

- Existing trailheads
- ⊕ Proposed trailheads

From the Orchard Street gateway park improvement, the route will continue west to the Leach Creek Park dedication and proposed donation and/or acquisition of the wooden bridge across Leach Creek at the Cirque Ranch property adjacent to Alameda Avenue West.

From Alameda Avenue West, the route will continue west to Bridgeport Way and the proposed streetscape improvement at the rerouted end of Drum Road at the intersection of Bridgeport Way and Cirque Drive.

From Drum Road, the route will continue west to Grandview Drive and access into the overlook park and trail system to be developed adjacent to Grandview Drive on Chambers Creek Properties.

Class 4 route segments will use 79th Avenue West to access Drum Intermediate School, and Bristonwood and 97th Avenue West to access Sunset Elementary School.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the gateway park improvement at Orchard Street, Leach Creek Park Dedication, Cirque Ranch Park donation/acquisition, Drum Road streetscape improvement, and Drum Intermediate School, Sunset Elementary School, and the Chambers Creek Properties trailheads.

4) 64th Street West - this class 3 touring route will be developed along both shoulders of 64th Street West from the Chambers Lane and Chambers Creek Road intersections with Bridgeport Way to Grandview Drive and the southern entry into the trailheads on the Chambers Creek Properties. The route will provide scenic views of Chambers Creek, Peach Creek, Chambers Bay, and the Puget Sound from the Chambers Creek Properties overlook park improvement.

From Conservation Park at Bridgeport Way, the route will continue west on Chambers Lane West across the bridge over Peach Creek past Charles Wright Academy to the proposed Giske/Stockman Park acquisition. Another segment of the route will begin at the proposed entryway park acquisition at 67th Avenue West, then continue on Chambers Creek Road to merge with 64th Street.

From the Giske/Stockman Park acquisition, the route will continue west along 64th Street to Woodlake/89th Avenue West to Woodlake Park.

From Woodlake Park, the route will return to 64th Street, then continue west to Grandview Drive and entry into the southern end of the proposed overlook park on the Chambers Creek Properties.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the gateway park improvement at Conservation Park, the gateway acquisition at 67th Avenue, the Giske/Stockman Park acquisition, Woodlake Park, and the Chambers Creek Properties overlook improvement.

5) Grandview Drive - this class 3 touring route will be developed along both shoulders of Grandview Drive from the University Place Senior Center to 64th Street West. The route will provide scenic views of historic buildings and sites, orchards, wooded hillside ravines and drainage corridors, and Puget Sound from the Chambers Creek Properties. The route will also provide neighborhood children access to University Place Primary, Curtis Junior and Senior High, and Sunset Elementary, and Chambers Elementary Schools.

From the University Place Senior Center (the former Park & Recreation District offices and before that the University Place Tomato Growers Association packing shed), the route will continue south to the historic building facade facing onto Grandview Drive at University Place Primary School.

From University Place Primary School, the route will continue south past the athletic fields and a portion of the original proposed campus grounds for Puget Sound University to the entry into Colegate Park and the Memorial Grove adjacent to Curtis Junior and Senior High Schools.

From the Memorial Grove at Curtis Junior High School, the route will continue south to the Curran Apple Orchard and the upper reaches of Brookside Creek.

From Curran Apple Orchard, the route will continue south past Corbit Creek to the Surface Water Management offices between Bristonwood and Cirque Drive, and the north entry to the trailheads on Chambers Creek Properties.

From the Surface Water Management offices at Cirque Drive, the route will continue south alongside the Chambers Creek Properties to 64th Street West and the south entry into the Chambers Creek Properties.

Class 3 or 4 route segments will use Bristonwood and 97th Avenue West to access Sunset Elementary School, and 56th Street West to access Chambers Elementary School.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the University Place Senior Center, University Place Primary School, Memorial Grove adjacent to Curtis Junior High School, Curran Apple Orchard, and the north and south portions of the Chambers Creek Properties.

6) Chambers Creek Road - as a joint planning and development effort, this class 3 touring route will be developed on one or both sides of Chambers Creek Road from 64th Street West across Chambers Bay into historic downtown Steilacoom. The route will provide scenic views of Chambers Creek and Bay, Puget Sound, and the historic buildings and sites in downtown Steilacoom as the city's portion of a regionally significant touring route.

From 64th Street West, the route will continue south down the hillside to the impoundment dam, then south across the impoundment dam to the proposed Chambers Creek Properties trailhead on the south shoreline of the impoundment pond.

From the trailhead at the south shoreline of the impoundment pond, the route will continue south along the south shoreline of Chambers Bay to the shoreline access provided across from the Stone Consolidated Corporation mill by the Indian tribes.

From the south Chambers Bay shoreline access site, the route will continue south past Chambers Bay Marina (Judge Thomas J. Chambers 1860 mill site), then west past the south sand spit (the site of Stelle'lqub - the Steilacoom peoples south village), west past Sunnyside Beach Park into historic downtown Steilacoom.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the shoreline access site adjacent to the WDFW fish ladder on the wastewater treatment plant access road, the Chambers Creek Properties trailhead on the south shore of the impoundment pond, the Indian tribes shoreline access site on the south shore of Chambers Bay, and in cooperation with Steilacoom, at Sunnyside Beach Park and the historic downtown district.

7) Sunset Drive West - this class 2 or 3 route will be developed on both shoulders of Sunset Drive West from 19th Street to Cirque Drive. The route will provide neighborhood children access to other on-road bike routes and thereby local parks, schools, and other conveniences in a less traveled vehicle corridor.

The route will begin at 19th Street, then continue south to the bike route on 27th Street West - and connections to Morrison Pond, University Place Primary School, and Day Island.

From 27th Street West, the route will continue south to the bike route on 40th Street West - and connections to Colegate Park, Curtis Junior and Senior High Schools, Narrows Intermediate, the town center, and Evergreen Primary School.

From 40th Street West, the route will continue south to the bike route on Cirque Drive - and connections to the Lone Star property, Sunset Elementary School, Drum Intermediate School, and Leach Creek Park dedication.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the sites accessible from 27th Street, 40th Street, and Cirque Drive.

8) 67th Street West - this class 2 route will be developed on both shoulders of 67th Street West from 19th Street to the intersection with Bridgeport Way. The route will provide neighborhood children access to other on-road bike routes and thereby local parks, schools, and other conveniences in a less traveled vehicle corridor.

The route will begin at 19th Street, then continue south to the bike route on 27th Street West - and connections to Morrison Pond, University Place Primary School, and Day Island.

From 27th Street West, the route will continue south past the shoreline access site to be acquired on the east end of the Morrison Pond wetlands to the bike route on 40th Street West - and connections to Colegate Park, Curtis Junior and Senior High Schools, Narrows Intermediate, the town center, and Evergreen Primary School.

From 40th Street West, the route will continue south past the stormwater access site to be acquired adjacent to Evergreen Primary School to the bike route on Cirque Drive - and connections to the Chambers Creek Properties, Sunset Elementary School, Drum Intermediate School, and Leach Creek Park Dedication.

From Cirque Drive, the route will continue south past the shoreline access site to be donated and/or acquired at the Holroyd Gravel Pit to the intersection with Bridgeport Way.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the east shoreline access site on Morrison Pond, the stormwater detention pond access site at Evergreen Primary School, and the shoreline access site to be donated and/or acquired at the Holroyd Gravel Pit.

9) Alameda Avenue West - this class 2 or 3 route will be developed on both shoulders of Alameda Avenue West from 40th Street to the intersection with 67th Avenue. The route will provide neighborhood children access to other on-road bike routes and thereby local parks, schools, and other conveniences in a less traveled vehicle corridor.

From 40th Street West, the route will continue south past the trailhead to be developed in the north expansion of Woodside Pond Nature Park into the Broback/Baer properties to the Leach Creek Park dedication and the bike route on Cirque Drive - and connections to the Chambers Creek Properties, Sunset Elementary School, and Drum Intermediate School.

From the Leach Creek Park dedication on Cirque Drive, the route will continue south to the intersection of Alameda and 67th Avenues at the Holroyd Gravel Pit - and connections to the shoreline access site to be donated and/or acquired at Holroyd Gravel Pit at the intersection with Bridgeport Way.

Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at the proposed trailhead in the Broback/Baer property expansion of Woodside Pond Nature Park, the Leach Creek Park dedication, and the shoreline access site to be donated and/or acquired at the Holroyd Gravel Pit.

Multipurpose trails

Multipurpose trails will be developed to link major environmental assets, park and recreational facilities, community centers, and historical features. Generally, multipurpose trails will be developed to provide for one or more modes of recreational and commuter travel use including hiking and biking where appropriate.

To the extent possible, multipurpose trails will be developed within corridors separate from vehicular or other motorized forms of transportation. For example, multipurpose trails may be located on utility easements or in separate property alignments. In some instances, the trail may developed as improvements within the right-of-way of established vehicular or other transportation corridors.

Typically, multipurpose trails will be developed to class 1 walking trail and class 1 AASHTO (American Association of State Highway & Transportation Officials) bicycle trail standards. The trails will provide 2-way travel on a concrete, asphalt or very fine crushed rock base between 8 and 12 feet in width. The trails will be of a slope not more than 1:50, handicap accessible, and usable by all age and skill groups.

Trail corridors will be improved with trailhead services including rest stops, parking lots, restrooms, water, and air utilities. Where the trail is located in association with another park and recreational improvement or public facility, the trailhead may be improved with active picnic, playgrounds, and play areas.

Multipurpose trail corridors may be independent properties or include portions of other sites provided for resource conservancies, resource activities, athletic facilities, and other park and recreational or public facility properties. Linked with resource conservancies and resource activities, the multipurpose trails element plans will create a system of interconnected greenways to integrate and define the developed portions of the urban area in accordance with the Growth Management Act's (GMA) provisions for urban separators.

Multipurpose trail corridors may be developed on other publicly-owned lands using public use agreements or special easements; or on lands owned as portions of road and highway right-of-way, stream corridor conservation or buffer zones of independent title.

Vision

As described, the multipurpose trails vision will be realized by providing recreational trail opportunities within the urban area that: a) conserve natural features, b) define neighborhood identities, c) link community facilities, d) serve persons with varied physical abilities and skills, and e) promote commuter and other more functional transportation methods.

Proposed multipurpose trails

The following multipurpose trails will be developed as part of a system of facilities, although supporting trailheads and services may be located within other park, school, or public facility sites:

1) Colegate Park/City Hall/Leach Creek - this multipurpose walking and biking trail will be developed from Colegate Park to City Hall to Evergreen Primary School to Woodside Pond Nature Park expansion on Leach Creek. The trail will link significant community facilities into a linear network of parks and trails through the center of the site with access to neighborhoods in all sectors.

From the Memorial Grove on Grandview Drive at Curtis Junior High, the trail will extend east through the school to the upper fields at Curtis Senior High, then through the east end of the property to be conserved for picnic and other passive activities to the east edge of Colegate Park.

From the east edge of Colegate Park, the trail will continue east within the ravine, across 82nd Court West to Sunset Drive, then across Sunset Drive West and up the ravine slope to 37th Street West to Bridgeport Way.

At Bridgeport Way, the trail will continue east across the road to City Hall (Windmill Village), then through city hall and the proposed woodland park expansion area, then south along the drainage corridor behind Albertsons to 40th Street West, then east along 40th Street to the main entry road to Evergreen Primary School.

At Evergreen Primary School, the trail will continue east through the school grounds to the stormwater retention pond on the east edge of the property at 67th Avenue West, then south through the proposed park acquisition of the drainage corridor below the pond to 44th Street West.

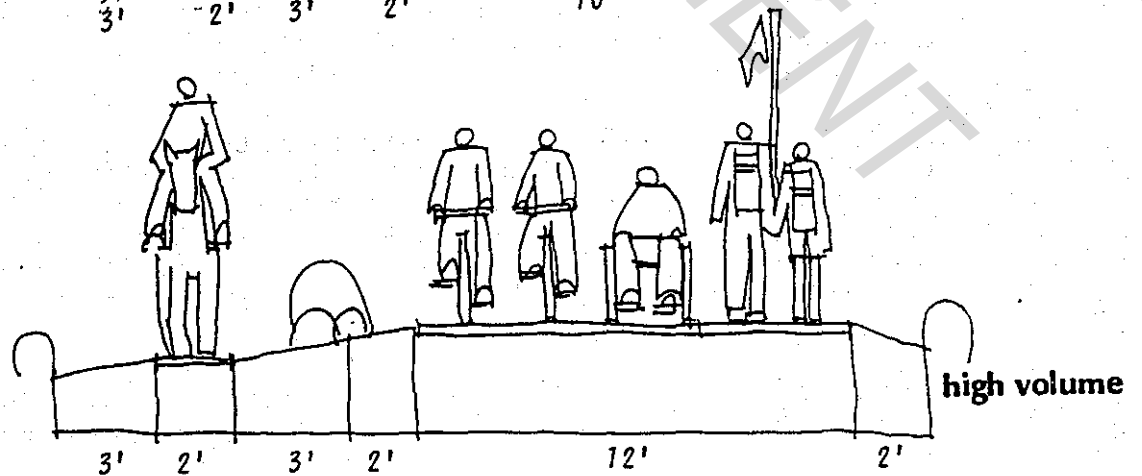
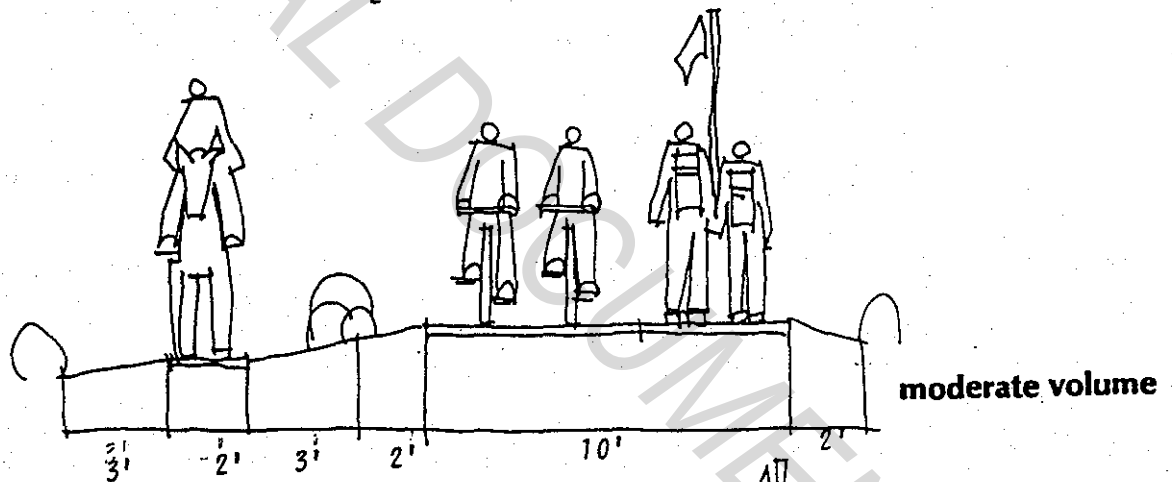
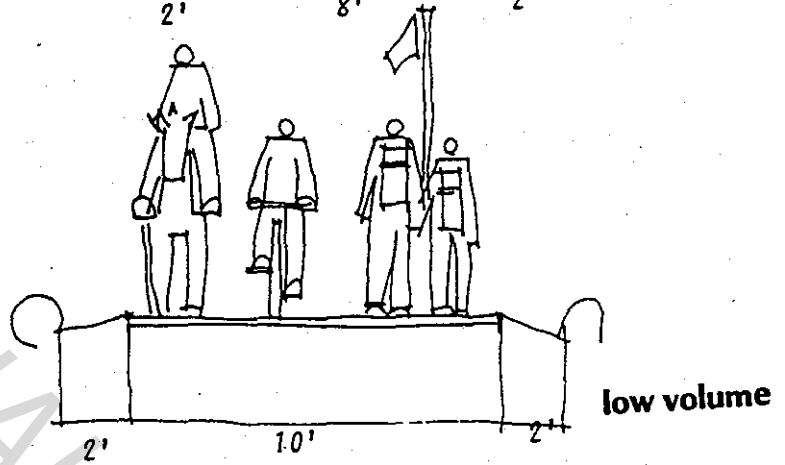
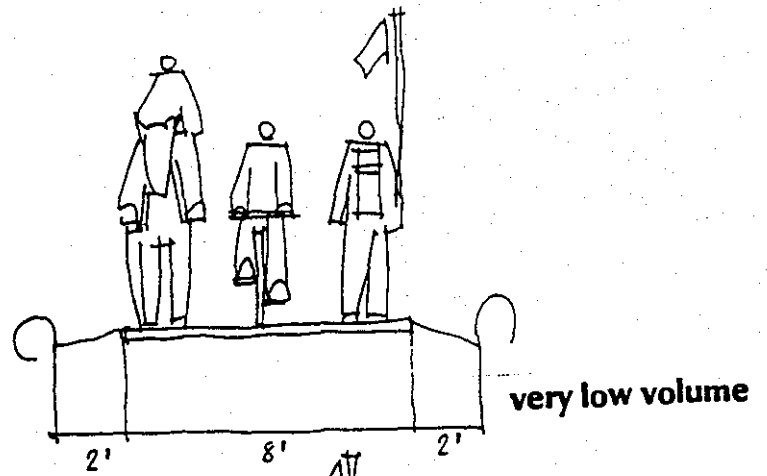
At 44th Street West, the trail will continue east on 44th Street West to Alameda Avenue, the east on the unopened right-of-way of 44th Street West/Fordham Street to the edge of the Broback/Baer property expansion of Woodside Pond Nature Park, then south to the trailhead to be developed along Alameda Avenue.

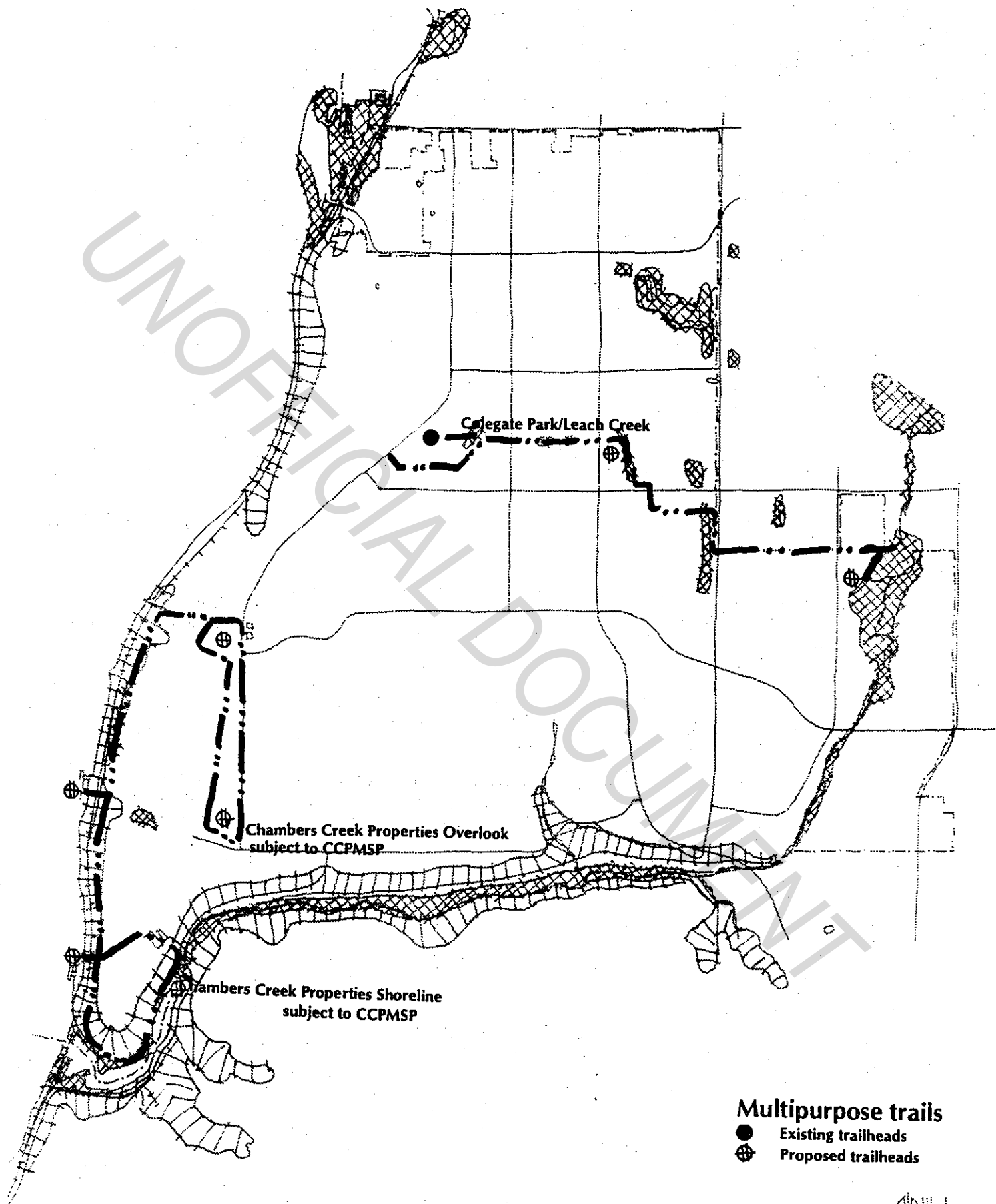
Trailheads with interpretive signage, picnic facilities, parking, and some restroom services will be developed or designated at Memorial Grove at Curtis Junior High School, the central parking lot in Colegate Park, City Hall, Evergreen Primary School, and Woodside Pond Nature Park's proposed trailhead on Alameda Avenue.

2) Chambers Creek Properties/Grandview/64th Street Trail - subject to the final resolution of the CCPMSP process and plan contents, this multipurpose walking, hiking, jogging, rollerblading, and biking loop trail will be developed on the overlook portions of the Chambers Creek Properties directly adjacent to and incorporating portions of the streetscape improvements along Grandview Drive. The loop trail will provide scenic vistas of Puget Sound, Chambers Bay, and the Chambers Creek Properties site in a setting conducive to family and organized group activities.

The trail will incorporate the walking and biking trail improvements on the east side of the buffer woodlands located along the Chambers Creek Properties boundary with Grandview Drive.

Multipurpose trails





Multipurpose trails

- Existing trailheads
- ⊕ Proposed trailheads

Trailheads with interpretive signage, picnic facilities, parking, and restroom services will be developed at the north end of the loop across from Bristonwood Avenue West and the Chambers Creek Properties Surface Water Management (SWM) facility, and at the south end of the loop at the end of 64th Street West.

3) Chambers Creek Properties Sound View Trail - subject to the final resolution of the CCPMSP process and plan contents, this multipurpose walking and hiking trail will encircle the Puget Sound and Chambers Bay shorelines about the Chambers Creek Properties. The trail will provide vistas and access to the piers, water reclamation ponds, historic overlooks of Chambers Bay, portions of the historic railroad alignment, and WDFW fish ladder and impoundment dam.

From the north trailhead of the Chambers Creek Properties overlook loop trail across from Bristonwood Avenue West, the trail may continue west down the slope within the woodlands stands that constitute the north buffer to the east edge of the Burlington Northern Santa Fe Railroad tracks, then south to the northern pier and an access bridge across the tracks onto the pier.

From the north pier, the trail may continue south on the east side of the railroad tracks to the south pier, then across the tracks on a pedestrian access bridge onto the pier and the adjacent sandy beach.

From the south pier and sandy beach, the trail may continue south on the east side of the railroad tracks to a possible overlook of Stelle'lqub - the Steilacoom peoples village site.

From the Stelle'lqub overlook, the trail may continue east along the shoreline of Chambers Bay on portions of Tacoma Railway & Power Company's north shore railroad track alignment to the shoreline access point to be developed adjacent to the WDFW fish ladder and impoundment dam at Chambers Creek Road.

From the viewpoint, the trail may continue west looping back to the south pier access through the playfields, picnic facilities, and other group activities tentatively proposed for this end of the Chambers Creek Properties or eastward into Chambers Creek canyon trails.

Trailheads with interpretive signage, picnic facilities, parking, and restroom services may be developed at the north end of the Chambers Creek Properties across from Bristonwood Avenue West and the Chambers Creek Properties Surface Water Management (SWM) facility, at the north and south piers, and the Chambers Creek canyon trailhead east of the impoundment dam.

Streetscapes

Streetscape improvements, which are a more urban form of multipurpose trail, will be developed to link neighborhoods with community facilities, public buildings, commercial business districts, and other major activity centers. Generally, streetscapes will provide for one or more modes of recreational and commuter travel use including hiking and biking where appropriate - linked with public transit and other vehicular conveyance systems.

To the extent possible, streetscape improvements will be developed within the right-of-way of established vehicular or other transportation corridors. Where appropriate or necessary, however, the right-of-way or the streetscape improvement may be aligned off the roadway to incorporate gateways, parks, storefront boardwalks or plazas, and other pedestrian spaces.

Typically, the bikeway portion of streetscape corridors will be developed to class 1 walking trail and class 1 AASHTO (American Association of State Highway & Transportation Officials) bicycle trail standards. The trails will provide 2-way travel on a concrete, brick paver or asphalt base between 8 and 12 feet in width. The trails will be of a slope not more than 1:50, handicap accessible, and usable by all age and skill groups.

Streetscape corridors will be improved with trailhead services including rest stops, parking lots, and transit connections. Where the streetscape is located in association with another park and recreational improvement or public facility, the corridor may be improved with active picnic, playgrounds, and play areas, restrooms, water, and air utilities. Where the streetscape is incorporated into adjacent retail spaces or plazas, the corridor may be improved with artworks and sculptures, water fountains, outdoor dining areas, amphitheaters and performing areas, and other activities of interest.

Streetscape corridors may be contained within or extensions of the public road right-of-way or include portions of other public sites acquired to define gateways or other linear park definitions. Streetscape improvements may also be developed and maintained on privately-owned lands subject to public use agreements or public access easements.

Vision

As described, the streetscape vision will be realized by providing recreational and commuter trail opportunities within the most urban developed areas that: a) conserve natural features, b) define gateway and commercial and/or institutional identities, c) link public facilities and commercial business centers, d) serve persons with varied physical abilities and skills, e) promote commuter and other more functional transportation methods, and f) create pedestrian-friendly access zones and activity areas that support the community's core areas.

Proposed streetscape projects

The following streetscapes will be developed as part of the multipurpose trail system of facilities, although supporting trailheads and services may be located within other park, school, or public facility sites:

1) Bridgeport Way Streetscape - this multipurpose walking and biking improvement will be developed along the Bridgeport Way right-of-way from 19th Street West on the north end of the city to the intersection with 67th Avenue and Leach Creek at the south end of the city. The streetscape improvement will visually define the city and link adjacent neighborhoods with on and off-road bike and hike trails, public facilities, commercial business districts, and transit collection points.

The streetscape improvement will provide transit stops and shelters, handicap access ramps and special alerting systems, bike lanes and racks, pedestrian sidewalks or boardwalks, street trees and landscaping, benches and sitting areas, interpretive signage and kiosks, drinking fountains, artworks, sculptures, and other pedestrian oriented furnishings.

Where the streetscape incorporates adjacent retail store facades, the building improvements may provide overhead canopies and awnings, outdoor eating and sitting areas, vendors and concessions, and other pedestrian oriented activities.

Trailheads with parking and restroom services will be developed or designated in public facilities or private commercial buildings at 27th Street West, the Library and City Hall buildings, the proposed community center at Cirque Drive, and at 67th Avenue West.

2) Linear Parks - or special accent areas, will incorporate tree stands, landforms, wetlands, historic sites or buildings, or other visual or cultural features that add interest, aesthetics, and variety to the streetscape corridor.

The sloping hillside will be incorporated into the streetscape improvement corridor between City Hall and 35th Street West. The streetscape sidewalks and biking lanes may be extended away from the street edge within this space to emphasize the roadway, control traffic patterns and consolidate parking areas, provide overlooks of the town center, and develop pedestrian access points to the front of the buildings.

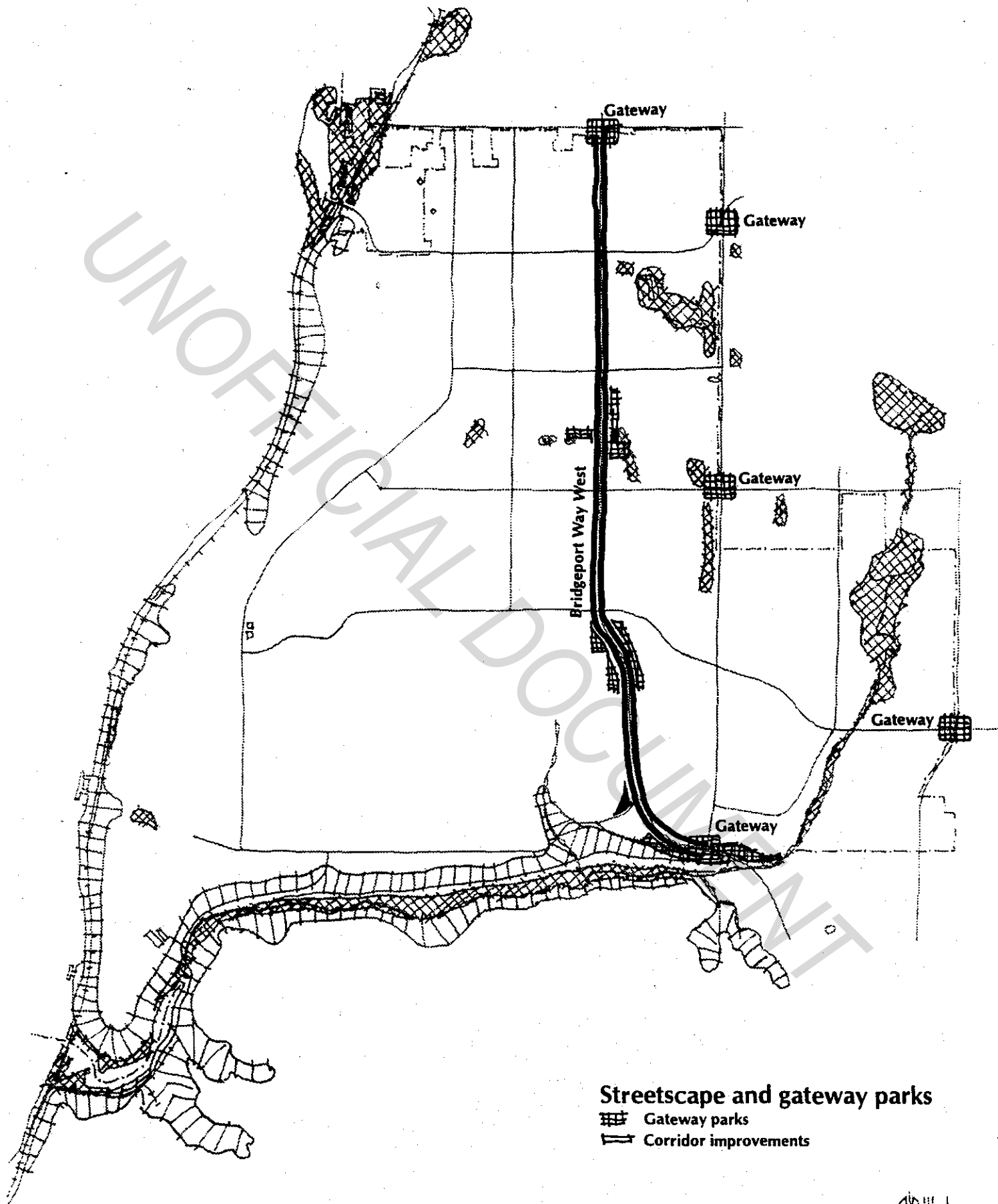
The rerouted north end of Drum Road at the intersection of Cirque Drive and Bridgeport will be developed into a pedestrian plaza with pavings, benches, landscaping, and other enhancements.

The woodland stands along Bridgeport Way at the curve south of Cirque Drive will be incorporated into the permanent roadway to retain this natural edge of the city.

Conservation Park will be expanded across Bridgeport Way to provide a natural edge and gateway into the city at the bottom of the sloping hillside.

The natural earth mounds and tree stands will be acquired and conserved in the roadway between Chambers Creek Road and Bridgeport Way, and about the Leach and Chambers Creeks confluence at the southern edge of the city.

3) Gateways - or expanded streetscape improvements, will be provided along the Bridgeport Way corridor at the intersections with 19th Street, 35th Street, 40th Street, Cirque Drive, Chambers Lane, and 67th Avenue. Additional gateway entries into the city



Streetscape and gateway parks

-  Gateway parks
-  Corridor improvements

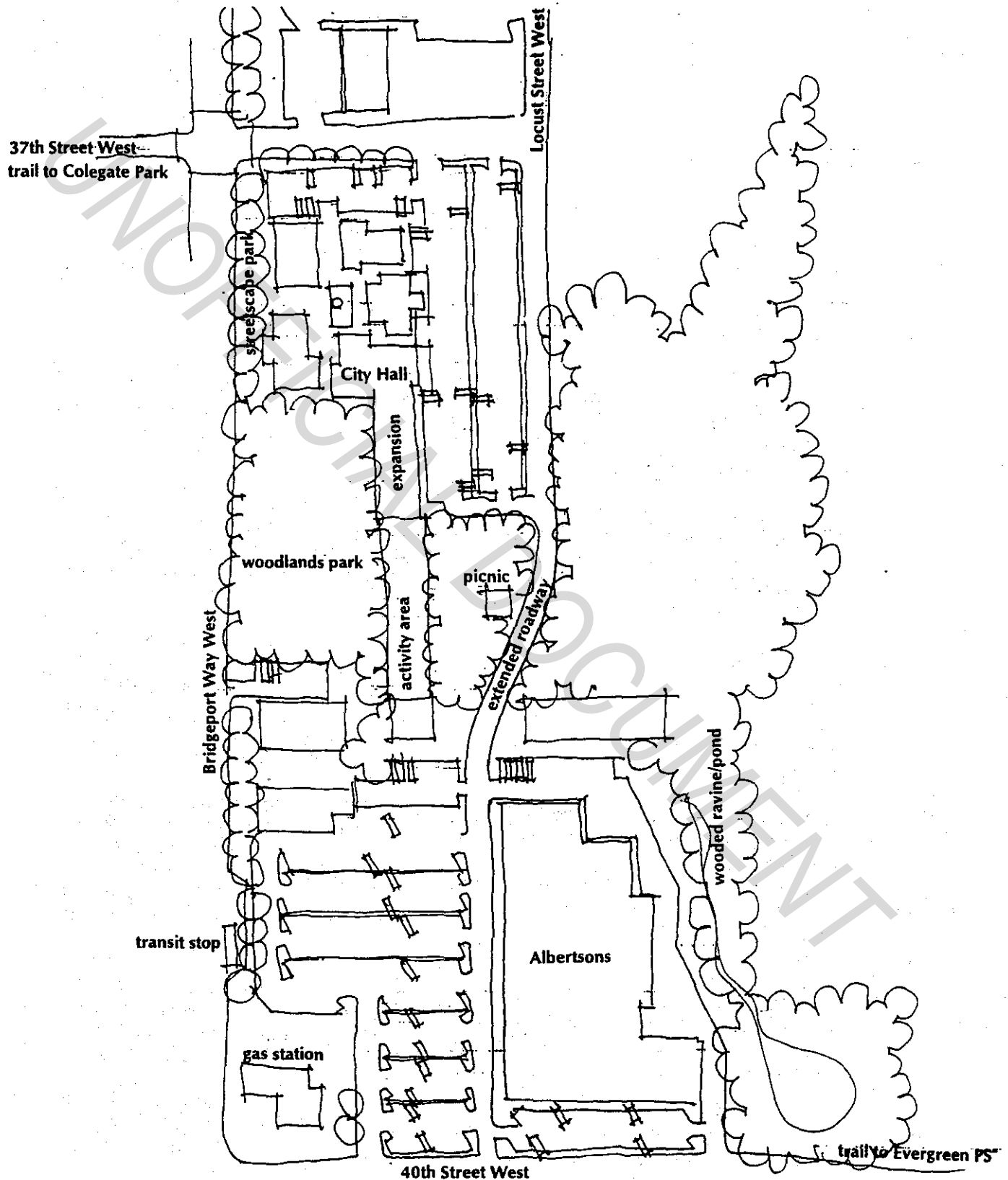
will be provided at the city limits on 27th Street West at 67th Avenue, 40th Street West at 67th Avenue, and Cirque Drive at Orchard Street.

The gateway improvements may include welcome signs or structures with city logos, artworks, or other enhancements. The gateways may also incorporate special plaza or rest areas, possibly combined with transit stops.

UNOFFICIAL DOCUMENT

City Hall Park - an illustration

The following graphic depicts one example of a possible development concept for the proposed park site. Once acquired, the property will be master planned with a process involving public participation and comment.



Recreational playgrounds, fields, and courts

Playgrounds and grassy field facilities will be developed on a local basis to provide pickup games, youth sports, and leagues of interest to neighborhood children and families. These local park improvements will be combined with picnic shelters and tables, trail systems, natural areas, local schools, and other facilities to create an accessible neighborhood service system.

More competitive athletic court and field facilities will be developed on a citywide basis to provide for the highest quality competitive playing standards and requirements. The competitive athletic facility complexes will provide field activities that satisfy the largest number of organized and older age recreational league participants - including soccer, football, rugby, lacrosse, softball, and baseball.

Generally, community or regional athletic facilities will be developed to provide for older youth and adult league tournaments and other peak competition days, events, and schedules - thereby freeing fields located at elementary schools, neighborhood parks, and other local sites for younger age league participant games, practices, and neighborhood resident pickup play.

Neighborhood playgrounds and competitive athletic facilities may be sited as independent properties or portions of other sites that include trail corridors, resource activities, multiuse indoor centers or other public facilities. Where practical, neighborhood playgrounds will be collocated with elementary and intermediate schools, and competitive athletic facilities with middle and high schools. Where feasible and appropriate, both types of facilities may also be sited on lands that are owned and operated for other public purposes.

Generally, neighborhood playgrounds will be located at sites serviced by trails and local bicycling streets that are convenient to younger age neighborhood youth and families. Competitive athletic facilities will be located at sites serviced by arterial roads that are convenient to older age youth and adult league organizations. Regional athletic facilities may also be located on sites that can accommodate relatively high traffic volumes, evening lighted field use, noise, and other activities without adversely impacting adjoining land uses.

Neighborhood playground sites will be developed to provide flexible play capabilities - typically providing 1 to 2 small to full-sized fields at one location. Some sites may be designed to provide high capacity, flexible configurations on large grass or dirt areas with portable goal and backstop stanchions to allow for varied age groups and activities.

Competitive athletic field complexes will be developed to provide sustained, high capacity play capabilities - typically providing at least 3 to 5 full-size competition fields at one location. Most sites will be designed to provide high capacity, fixed field configurations

including grass or dirt fields with permanent goals and backstops, perimeter fencing, spectator seating, and night-lighting systems.

Both types of sites will be improved with restrooms, concessions, and parking lots including grass overflow parking areas to accommodate peak events or schedules. Depending on the location, some sites may also be improved with tennis, basketball, volleyball courts, and other recreational facilities. Where appropriate, some regionally competitive athletic sites may also be furnished with group picnic kitchens and possibly even recreational vehicle services to support tournament events.

When practical and feasible, regional athletic facilities may also be defined to include school stadiums, particularly where the stadiums are located with other competition fields or when the stadium can be used for recreational league tournaments or special events.

Vision

As described, the neighborhood playground, courts, and fields facilities vision will: a) provide flexible, informal playgrounds and areas, b) suited to younger age and local neighborhood game activities, c) in sites convenient to neighborhood youth and families, d) at sites that co-locate with elementary schools and facilities.

a) provide the highest quality competitive play athletic facilities, b) of the highest capacity playing improvement designs, c) within convenient proximity to organized adult and older age recreational league playing populations, d) at sites that do not disrupt adjacent land uses, and e) at sites that collocate with schools and/or utilize other major public facilities. The strategy will alleviate overcrowding on smaller, more local park and elementary school fields so these sites can be used for younger age league participant games, practice sessions, and neighborhood resident pickup games.

Playgrounds on existing properties

The following properties provide and/or will be developed to provide playgrounds and playareas for neighborhood children and families:

1) Sunset Terrace Park - this 2.1 acre property is located on the southeast corner of Seaview and South 19th Street - see the description under the chapter on existing facilities. This project will develop a playground and picnic facilities for neighborhood children and families.

2) Adriana Hess Wetland Park on Morrison Pond - this 2.0 acre property is located adjacent to 2917 Morrison Road West on the west side of the pond - see the description under the chapter on existing facilities. This project will acquire the adjoining residential property and expand the park holding to potentially provide a small playground for neighborhood children and families.

This project will also acquire another trailhead access on the east side of the pond off 67th Avenue West for another small neighborhood playground facility similar to the scheme described above.

3) Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools partially adjoining 37th Street West - see the description under the chapter on existing facilities. This project will develop a playground and other park features on the upper portions of the hillsides for neighborhood children and families.

4) Curran Apple Orchard - this 7.3 acre orchard and residence is located in the city block bound by Grandview Boulevard, Rock Road, Curran Lane, and Brookside Drive - see the description under the chapter on existing facilities. This project will rebuild the original orchard barns and outbuildings in the center of the fields including space for a small playground.

When the homestead becomes available, this project will develop a small playground adjacent to the outdoor activity areas of the house.

5) City Hall Park - this 2.4 acre property is located on the west side of Bridgeport Way West at 35th Avenue West - see the description under the chapter on existing facilities. This project will develop a playground and other park elements for neighborhood children and families.

6) Leach Creek Park Dedication - this 3.0 acre property is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West - see the description under the chapter on existing facilities. This project will acquire the surplus Tacoma School District property holding and expand the park east across Leach Creek to include a playground for neighborhood children and families.

7) Chambers Creek Properties - this 928.0 acres of property includes 680.0 acres located within University Place - see the description under the chapter on existing facilities.

School district sites

8) University Place Primary - this 8.3 acre primary school property is located on the southwest corner of 27th Street West and Grandview Drive - see the description under the chapter on existing facilities. The southern portion of the site has been improved with a tetherball pole, a playground with swings and a 5-piece play apparatus, and an asphalt play area and ball wall used by neighborhood children and families.

9) Sunset Primary - this 11.2 acre primary school property is located on the southwest corner of 97th Avenue West and Beckonridge Drive - see the description under the chapter on existing facilities. The southern portion of the property has been improved with 3 tetherball poles, a playground with swings, slide, a big toy, and an asphalt play area with a ball wall used by neighborhood children and families.

10) Chambers Primary - this 9.2 acre primary school property is located on the north side of 55th Court West - see the description under the chapter on existing facilities. The southern portion of the property has been improved with a playground with swings, big toy, fort/play structure, and an asphalt play area used by neighborhood children and families.

11) Evergreen Primary - this 26.9 acre primary school property is located on the south side of 40th Street West west of 67th Avenue - see the description under the chapter on existing facilities. The western portion of the property has been improved with a playground with big toy and an asphalt play area used by neighborhood children and families.

12) Narrows Intermediate - this 15.5 acre intermediate school property is located on the south side of 40th Street West west of Bridgeport Way - see the description under the chapter on existing facilities. The northwest portion of the property has been improved with a playground with big toy and an asphalt play area with a ball wall used by neighborhood children and families.

13) Drum Intermediate - this 11.2 acre intermediate school property is located on 79th Avenue West south of Cirque Drive - see the description under the chapter on existing facilities. The southern portion of the property has been improved with a playground with big toy and an asphalt play area used by neighborhood children and families.

14) Curtis Junior High School - this 21.6 acre junior high school property is located on the northeast corner of 40th Street West and Grandview Drive adjoining Curtis Senior High School and Colegate Park - see the description under the chapter on existing facilities. This project will install a playground and other improvements in Memorial Grove - the wooded semi-circle site located alongside Grandview Drive overlooking the football field and track for neighborhood children and families.

Private park facilities

The following facilities are owned and may only be used by residents of the homeowner associations. Nonetheless, these facilities serve local residents and reduce the demands for public facilities within their immediate neighborhood areas.

15) Academy Terrace Park - this 2.1 acre property is located within the Academy Terrace residential subdivision at the east end of 55th Court West - see the description under the chapter on existing facilities. The site has been improved with a playground with swings, slide, and big toy.

16) Bristonwood Park - this 2.4 acre property is located in the Bristonwood residential development off Bristonwood Avenue West - see the description under the chapter on existing facilities. The largest park parcel has been improved with a grass field and 2 small big toy climbing structures.

17) Park Ridge Park - this 2.4 acre property is located in the Park Ridge residential development at the end of Park Ridge - see the description under the chapter on existing facilities. The property has been improved with a playground with big toy.

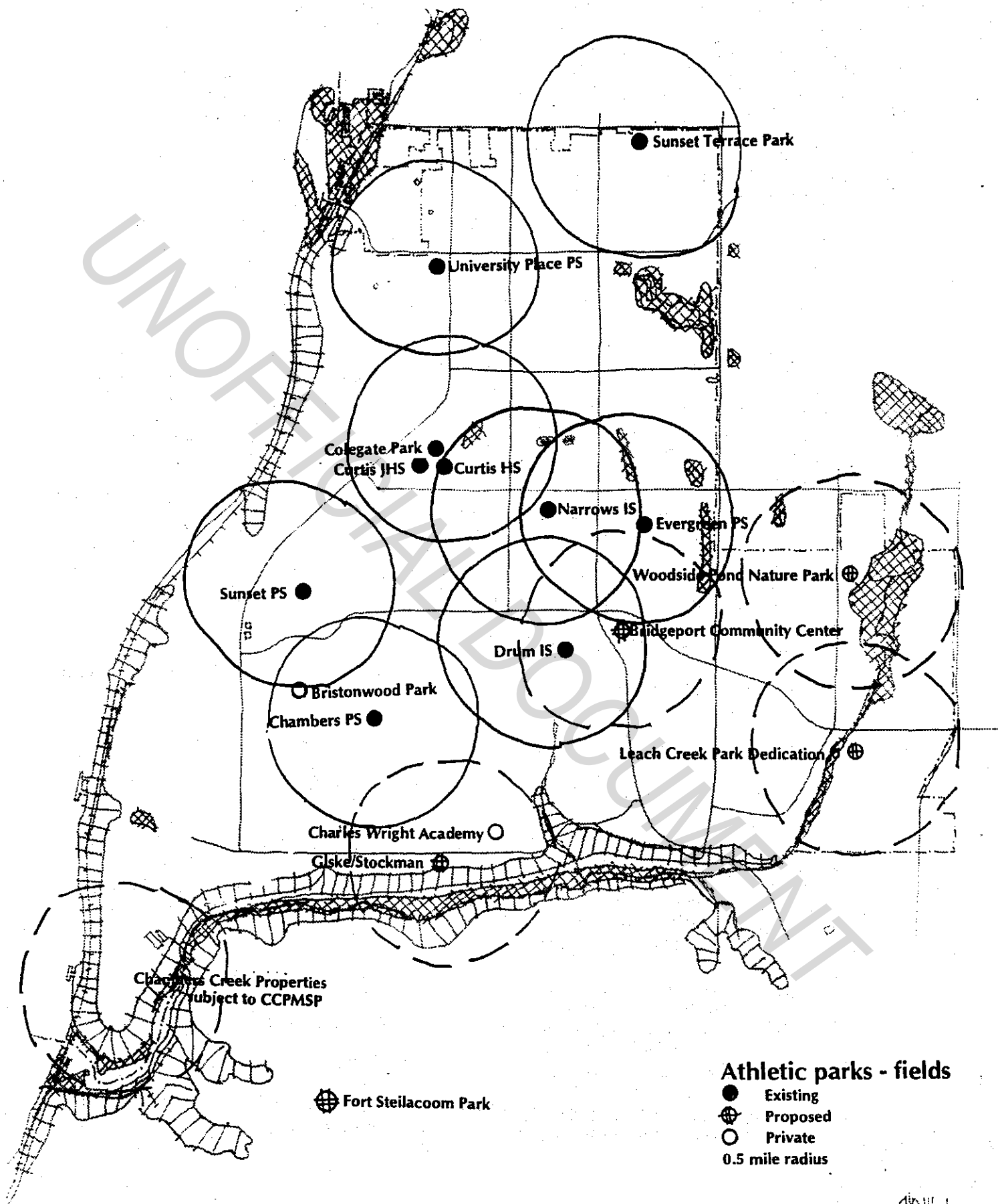
18) Woodlake Park - this 2.4 acre property is located in the Woodlake residential development on the north side of 64th Street - see the description under the chapter on existing facilities. The property has been improved with playareas.

19) Beckonridge Park - this 2.8 acre property is located adjacent to Sunset Elementary School at the end of 47th Street West - see the description under the chapter on existing facilities. The property has been improved with a play area.

Proposed playgrounds

20) Evergreen Primary School Stormwater Park - this project will acquire the heavily wooded hillside and drainage corridor located south of the School District's stormwater detention pond on 67th Avenue - see the description under the chapter on opportunities. This project will develop a playground along the hillside overlooking the pond and woodlands for neighborhood children and families.

21) Woodside Pond Nature Park Expansion - this project will acquire the (Broback/Baer) properties located north of Woodside Pond Nature Park that extend from Alameda Avenue north to Fordham Street/44th Street West then across Leach Creek almost to Orchard Street - see the description under the chapter on opportunities. This project will develop a playground on the portion of the site adjoining Alameda Avenue for neighborhood children and families.



22) Cirque Ranch Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin both sides of Leach Creek on the property located on the northeast corner of Cirque Drive and Alameda Avenue - see the description under the chapter on opportunities. This project will develop a playground and other passive park features along the west bank overlooking the creek and the old wooden bridge for neighborhood children and families.

23) Bridgeport Community Center - this project will acquire the property located on the southeast corner of Bridgeport Way and Cirque Drive for a community center and park - see the description under the chapter on opportunities. This project will develop a small playground and other outdoor activity areas behind the community center for neighborhood children and families.

24) Holroyd Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin Leach Creek within the old Holyroid Gravel Pit located in the northeast corner of Bridgeport Way and 67th/Alameda Avenues - see the description under the chapter on opportunities. This project will develop a playground, and other park features along the north bank overlooking the creek and woodlands for neighborhood children and families.

25) Giske/Stockman Park - this project will acquire the (Alan and Victoria Giske and Lillian Stockman) properties located on the south side of 64th Street West across from the Tacoma Rifle & Revolver Club entry and overlooking Chambers Creek Canyon - see the description under the chapter on opportunities. This project will develop a playground and other park features for neighborhood children and families.

Athletic fields on existing properties

The following properties provide and/or will be developed to provide neighborhood and/or competition athletic fields for all age groups:

1) Sunset Terrace Park - this 2.1 acre property is located on the southeast corner of Seaview and South 19th Street - see the description under the chapter on existing facilities. The site has been improved with a grass soccer and softball field used for neighborhood pickup games, youth sports, and leagues.

2) Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools partially adjoining 37th Street West - see the description under the chapter on existing facilities. The central portion of the site adjoining the schools has been improved to provide joint use competition athletic fields used by intermediate and older age league competitions.

3) Leach Creek Park Dedication - this 3.0 acre property is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West - see the description under the chapter on existing facilities. This project will acquire the surplus Tacoma School District property holding and expand the park east across Leach Creek. A grassy playfield will be developed for neighborhood pickup games, youth sports, and leagues.

4) Chambers Creek Properties - this 928.0 acres of property includes 680.0 acres located within University Place - see the description under the chapter on existing facilities.

School district sites

5) University Place Primary - this 8.3 acre primary school property is located on the southwest corner of 27th Street West and Grandview Drive - see the description under the chapter on existing facilities. The southern portion of the site has been improved with a soccer field with 3 softball backstops and a softball field used for neighborhood pickup games, youth sports, and leagues.

6) Sunset Primary - this 11.2 acre primary school property is located on the southwest corner of 97th Avenue West and Breckenridge Drive - see the description under the chapter on existing facilities. The southern portion of the property has been improved with 4 multipurpose softball/T-ball/soccer fields used for neighborhood pickup games, youth sports, and leagues.

7) Chambers Primary - this 9.2 acre primary school property is located on the north side of 55th Court West - see the description under the chapter on existing facilities. The southern portion of the property has been improved with 3 softball/T-ball fields and a multipurpose soccer field with 3 backstops used for neighborhood pickup games, youth sports, and leagues.

8) Evergreen Primary - this 26.9 acre primary school property is located on the south side of 40th Street West west of 67th Avenue - see the description under the chapter on existing facilities. The western portion of the property has been improved with 2 softball/T-ball fields, a soccer field, and a multipurpose soccer field with softball backstops used for neighborhood pickup games, youth sports, and leagues.

Another 2-4.0 acres of the eastern portion of the property have been graded and reserved for the potential development of another intermediate school. This project will develop a competition athletic field complex on this portion of the property for use by older age youth leagues pending the school district's requirement for the site, if ever, for intermediate school use.

9) Narrows Intermediate - this 15.5 acre intermediate school property is located on the south side of 40th Street West west of Bridgeport Way - see the description under the chapter on existing facilities. The northwest portion of the property has been improved with a multipurpose soccer field with 3 softball backstops used for neighborhood pickup games, youth sports, and leagues.

10) Drum Intermediate - this 11.2 acre intermediate school property is located on 79th Avenue West south of Cirque Drive - see the description under the chapter on existing facilities. The southern portion of the property has been improved with 2 softball/T-ball fields, a multipurpose soccer field with softball backstop, and a grass playfield with a backstop used for neighborhood pickup games, youth sports, and leagues.

11) Curtis Junior High School - this 21.6 acre junior high school property is located on the northeast corner of 40th Street West and Grandview Drive adjoining Curtis Senior High School and Colegate Park - see the description under the chapter on existing facilities. The western portion of the site has been improved with a competition level grass football/soccer field in the south corner and a grass baseball field used for intermediate and older age leagues.

12) Curtis Senior High School - this 26.6 acre senior high school property is located on the north side of 40th Street West adjoining Curtis Junior High School and Colegate Park - see the description under the chapter on existing facilities. The northern portion of the property has been improved with a competition stadium with a rubber-surfaced track and grass

football/soccer/lacrosse field, a baseball/soccer field with spectator seating areas, and 2 softball fields used for older age leagues.

Private park facilities

The following facilities are owned and may only be used by residents of the homeowner associations. Nonetheless, these facilities serve local residents and reduce the demands for public facilities within their immediate neighborhood areas.

13) Bristonwood Park - this 2.4 acre property is located in the Bristonwood residential development off Bristonwood Avenue West - see the description under the chapter on existing facilities. The largest park parcel has been improved with a grass field used for neighborhood pickup games.

14) Charles Wright Academy - this private middle/high school facility - the site of the former Big Bend Ranch roadhouse diner, is located on 64th Street West adjacent to Peach Creek - see the description under the chapter on existing facilities. The southern portion of the property has been improved with a competition cinder track with football field, a soccer/baseball field, and a soccer field with softball backstop used for older age leagues.

Proposed athletic fields

15) Woodside Pond Nature Park Expansion - this project will acquire the (Broback/Baer) properties located north of Woodside Pond Nature Park that extend from Alameda Avenue north to Fordham Street/44th Street West then across Leach Creek almost to Orchard Street - see the description under the chapter on opportunities. This project will develop a grassy playfield on the portion of the site adjoining Alameda Avenue for neighborhood pickup games, youth sports, and leagues.

16) Bridgeport Community Center - this project will acquire the property located on the southeast corner of Bridgeport Way and Cirque Drive for a community center and park - see the description under the chapter on opportunities. This project will develop a multipurpose athletic field complex along the eastern boundary for instructional clinics, after school games, and other events for younger age players.

17) Giske/Stockman Park - this project will acquire the (Alan and Victoria Giske and Lillian Stockman) properties located on the south side of 64th Street West across from the Tacoma Rifle & Revolver Club entry and overlooking Chambers Creek Canyon - see the description under the chapter on opportunities. This project will develop a grassy playfield on the north end of the properties for neighborhood pickup games, youth sports, and leagues.

Recreational courts on existing properties

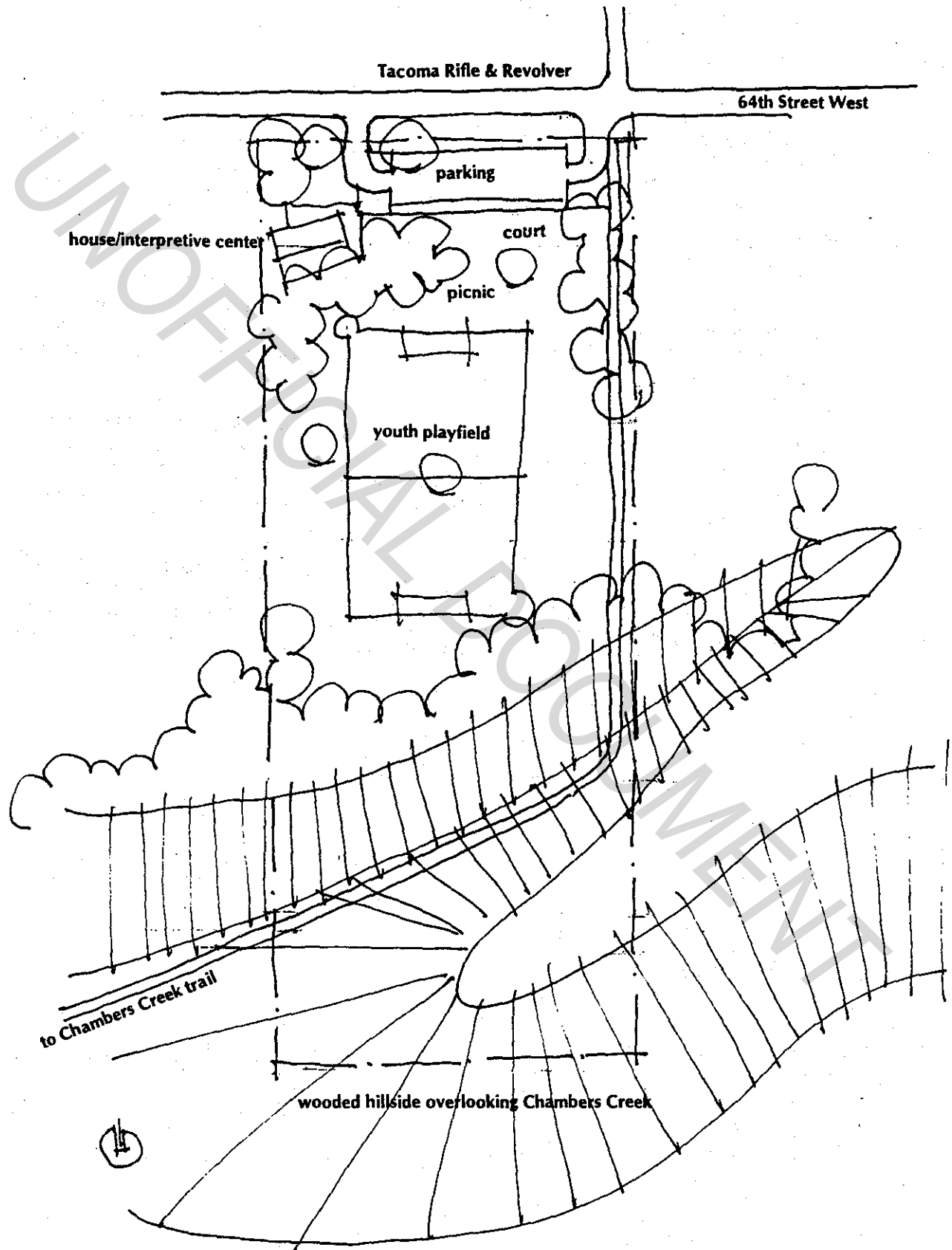
The following properties provide and/or will be developed to provide outdoor tennis, volleyball, and basketball courts:

1) Colegate Park - this 11.0 acre property is located on Grandview Drive West on the north boundary of Curtis Junior and Senior High Schools partially adjoining 37th Street West - see the description under the chapter on existing facilities. The central portion of the site adjoining the schools has been improved to provide 6 outdoor unlighted tennis courts.

2) Leach Creek Park Dedication - this 3.0 acre property is located on the southeast corner of the intersection of Alameda Avenue and Cirque Drive West - see the description under the chapter on existing facilities. This project will acquire the surplus Tacoma School

Giske/Stockman Park - an illustration

The following graphic depicts one example of a possible development concept for the proposed park site. Once acquired, the property will be master planned with a process involving public participation and comment.



13) Charles Wright Academy - this private middle/high school facility - the site of the former Big Bend Ranch roadhouse diner, is located on 64th Street West adjacent to Peach Creek - see the description under the chapter on existing facilities. The southern portion of the property has been improved with 2 outdoor basketball courts and 2 tennis courts.

Proposed recreational courts

14) Woodside Pond Nature Park Expansion - this project will acquire the (Broback/Baer) properties located north of Woodside Pond Nature Park that extend from Alameda Avenue north to Fordham Street/44th Street West then across Leach Creek almost to Orchard Street - see the description under the chapter on opportunities. This project will develop sand volleyball and outdoor basketball courts in the neighborhood park feature to be located on the portion of the site adjoining Alameda Avenue.

15) Cirque Ranch Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin both sides of Leach Creek on the property located on the northeast corner of Cirque Drive and Alameda Avenue - see the description under the chapter on opportunities. This project will develop sand volleyball and outdoor basketball courts.

16) Bridgeport Community Center - this project will acquire the property located on the southeast corner of Bridgeport Way and Cirque Drive for a community center and park - see the description under the chapter on opportunities. This project will develop a recreational court complex including tennis, basketball, volleyball, and other court games on the east side of the site.

17) Giske/Stockman Park - this project will acquire the (Alan and Victoria Giske and Lillian Stockman) properties located on the south side of 64th Street West across from the Tacoma Rifle & Revolver Club entry and overlooking Chambers Creek Canyon - see the description under the chapter on opportunities. This project will develop sand volleyball and outdoor basketball courts in the north end of the site.

Community centers

Community centers will be developed to provide indoor activities on a year-round basis throughout and/or centrally accessible to city residents for day and evening use. The facilities will be developed within a market oriented service concept that protects the specialized investments that have already been made in these facilities by the city, school district, county, and private organizations.

Indoor community or recreation facilities will provide space for swimming pools (including outdoor facilities), gymnasiums, physical conditioning, arts and crafts, class and instruction rooms, meeting facilities, kitchens and dining, daycare and latch key, teen and senior center, and special population resource activities. Community centers may also incorporate historic museums, interpretive nature exhibits, and other buildings or constructions.

To the extent practical, community or recreation centers will utilize and/or be developed in conjunction with local school facilities. Where practical, school facilities will be utilized for after school programs that provide swimming pools, indoor gymnasiums, class and instruction space, meeting facilities, kitchen and dining either as loaned or leased space.

New buildings or additions may be built on or in conjunction with school sites as a shared resource when existing school building spaces are not available or of sufficient size to accommodate local needs. As a last resort, independent community centers will be developed to provide suitable space only where schools are not able to share space and sites.

Independent community center buildings and sites may also be developed to provide space and services for adult, senior or teen center activities that occur during or conflict with school activities and sites. Generally, these facilities will provide space and services that are not suitably provided at school sites or that will not be duplicated by school facilities and programs.

Adult, senior, and teen center services may be provided by a variety of other public and private agencies such as the YMCA, Boys & Girls Club or Senior Center organizations in association with the city.

When community and recreation centers are developed independent of school facilities, the buildings may be independent properties or portions of other sites that include trail corridors, resource activities, athletic facilities or other public facilities such as civic centers and libraries.

Vision

As described, the community and recreation center vision will: a) provide a variety of indoor activities, b) within a convenient and serviceable proximity to using populations, c) within a facility and services concept that recognizes and supports the investments that

have already made in existing city, county, and school facilities and programs, and d) in cooperative ventures with the city and other interested and participating agencies.

Existing facilities

1) Day Island Clubhouse - this 0.1 acre property is composed of the right-of-way for 21st Street on the eastern shore of Day Island - see the descriptions under the chapter on existing facilities.

The property has been improved with a wood 2 story, 1,750 square foot structure housing a meeting room on the top floor level with East Day Island Boulevard, and recreational spaces on the bottom floor level with and overlooking Day Island Inlet. A small boat landing and finger pier provide access to the lower portion of the building from the inlet side.

2) University Place Senior Center (former Park & Recreation District Headquarters) - this 0.5 acre property is located at 2534 Grandview Drive West north of West 27th Street. The property was traded to the Park & Recreation District by the University Place Firefighters in 1978 in exchange for the building that formerly housed the University Place Booster's Club on 40th Street West - see the description under the chapter on existing facilities.

The 2,800 square foot building contains a fully equipped kitchen, restrooms, storage areas, and a common assembly area. The building is presently used for senior citizen activities, an amateur artist group, Weight Watchers, and social events such as receptions and banquets.

3) Pierce County Library - this 1.4 acre property is located on the east side of Bridgeport Way West at 31st Street West - see the description under the chapter on existing facilities.

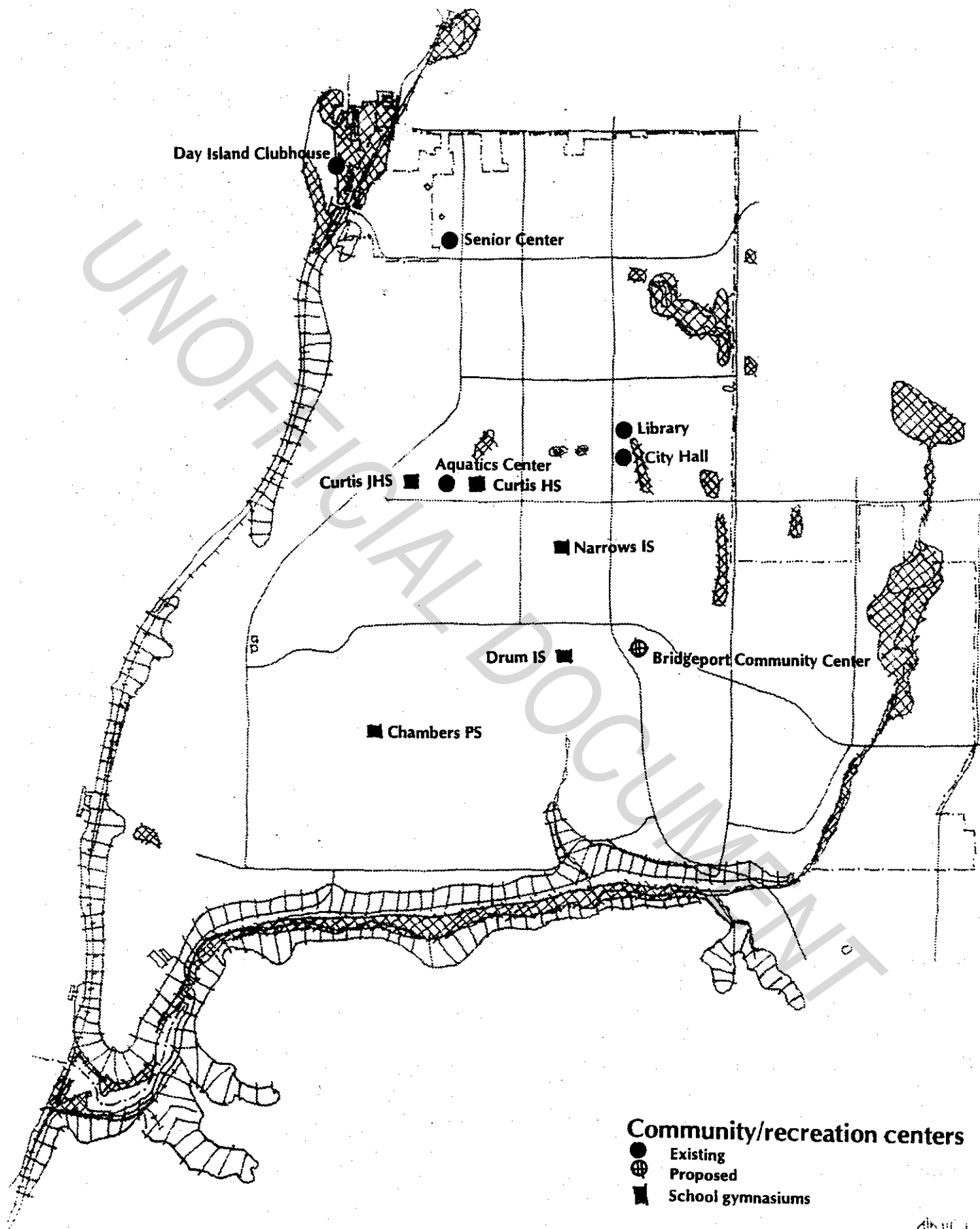
The newly constructed (10-15,000) square foot building provides branch library functions for University Place, Fircrest, and the surrounding communities. The building has a conference and public meeting room that can be used for public events and organizations.

4) City Hall - this 2.4 acre property is located on the west side of Bridgeport Way West at 35th Avenue West - see the description under the chapter on existing facilities.

The 2 buildings located on the south end of the complex were recently expanded to provide additional building spaces including the Parks Division's administrative offices. The complex has a council chamber and conference rooms that can be used for public events and organizations.

6) Curtis Senior High School Aquatics Center - this 26.6 acre senior high school property is located on the north side of 40th Street West adjoining Curtis Junior High School and Colegate Park - see the description under the chapter on existing facilities. A 0.9 acre portion of the has been improved with an indoor swimming pool that is used for education instruction, some competitions, and general public swimming recreational sessions after school hours.

The city and school district should undertake a joint planning study to determine aquatic requirements for school age children and community residents in general. If appropriate, the pool could be expanded to include warm pools for senior citizens and children, competition swimming lanes and diving platforms, wave ponds and other water recreation improvements.



Proposed projects

7) Bridgeport Community Center - this project will acquire the property located on the southeast corner of Bridgeport Way and Cirque Drive for a community center and park - see the description under the chapter on opportunities.

A controlled one-way in and out road will be developed to provide central access to the site in the center of the curve from Bridgeport Way and at the top of the hill from Cirque Drive. A multipurpose community and recreation center facility will be developed on the west side of the access road to provide daycare, arts and crafts, aerobics and dance classrooms, meeting facilities, a gymnasium, physical conditioning center, and other activities.

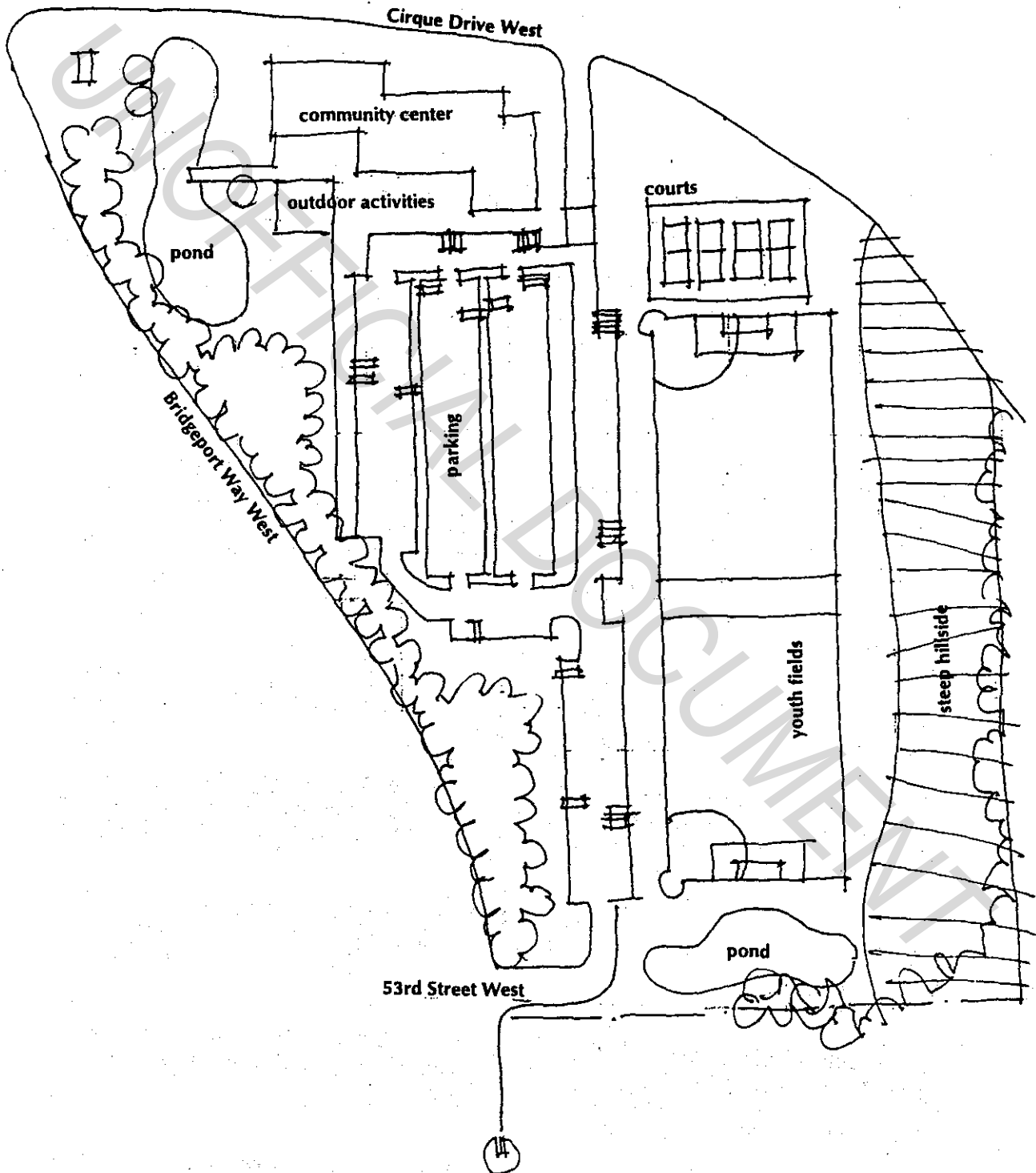
The wetlands in the corner of the site behind the BP Gas Station will be conserved as a natural area and vista. Picnic facilities, a small playground, and other outdoor will provide outdoor activity areas for the center.

A recreational court complex including tennis, basketball, volleyball, and other court games will be developed east across from the building.

A multipurpose athletic field complex will be developed along the eastern boundary. The grassy combination soccer and softball fields will be designed for instructional clinics, after school games, and other events for younger age players.

Bridgeport Community Center - an illustration

The following graphic depicts one example of a possible development concept for the proposed park site. Once acquired, the property will be master planned with a process involving public participation and comment.



Special use facilities

Facilities may be acquired or developed to provide special activities for the general population on a limited or special event occasion and/or for special interest populations at appropriate sites throughout the city. Special use facilities may include historical or nature interpretive centers, marina and boating activities, and similar special interest services.

Special use facilities may be independent properties or portions of other sites that include trail corridors, resource activities, athletic facilities, indoor recreation centers or other public facilities.

Special use facilities may be sited on other publicly-owned lands or under lease agreements with private land owners or organizations or on purchased properties.

Vision

As described, the special use facilities vision will: a) provide specialized facilities for the general population for a special event or activity, b) for specialized user group interests that are able and willing to pay user fees and charges or donate labor, operation, and other services, c) in a manner that is cost effective, and d) equitable in regards to those activities that accommodate the general population.

Existing properties

1) Curran Apple Orchard - this 7.3 acre orchard and residence is located in the city block bound by Grandview Boulevard, Rock Road, Curran Lane, and Brookside Drive - see the description under the chapter on existing facilities.

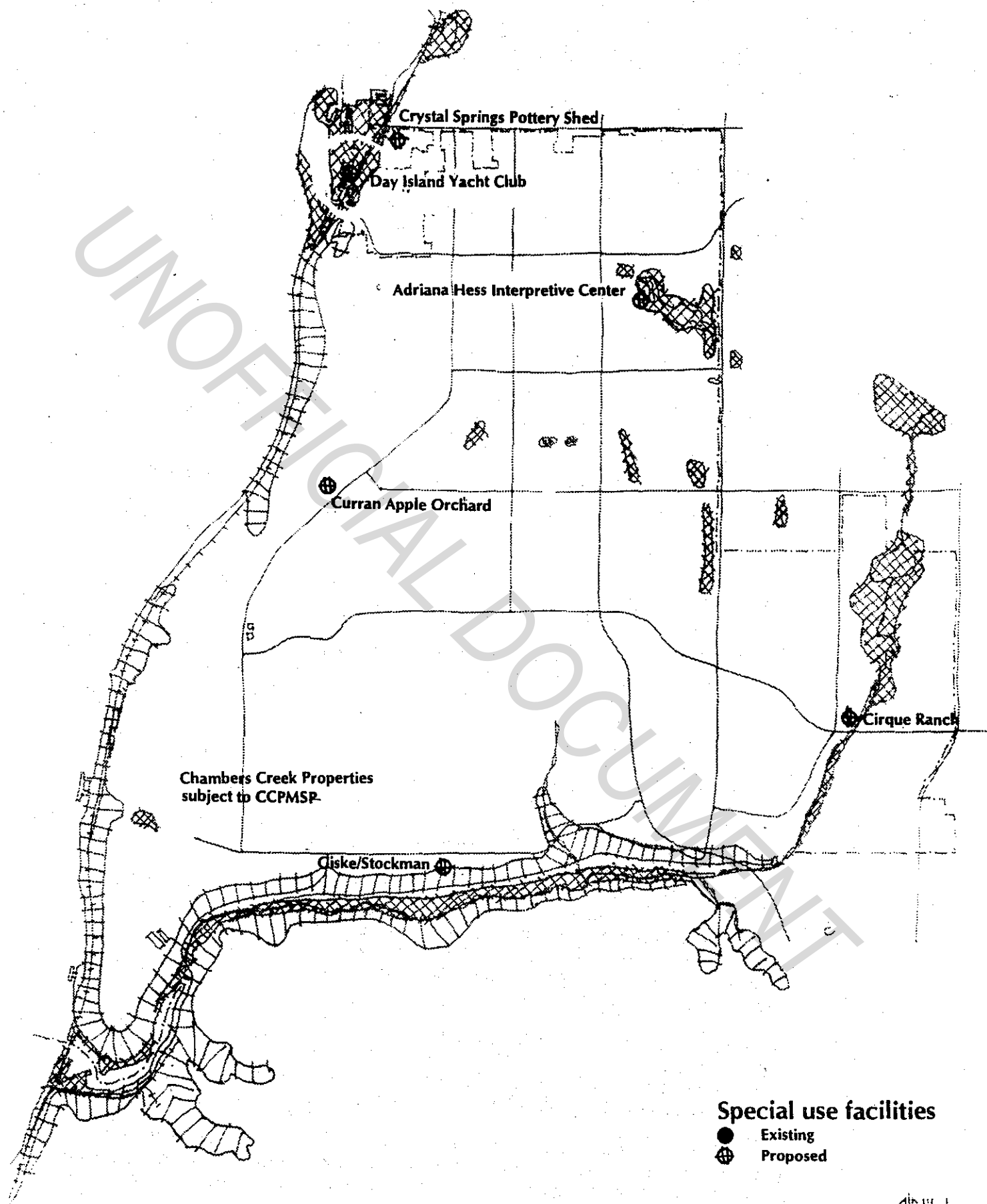
The residence and a surrounding 0.33 acre plot are presently occupied by Charles and Mary Curran - the orchard's original owners. Under the acquisition terms, the Curran's will reside on the property under a lifetime estate - or until their death, when the house and plot will become part of the park.

When the homestead becomes available, the building will be reconfigured to provide an interpretive center, meeting space, and special events area. Outdoor flower gardens, assembly spaces, and special event facilities will be developed as outdoor activity areas for the house.

2) Chambers Creek Properties - this 928.0 acres of property includes 680.0 acres located within University Place - see the description under the chapter on existing facilities.

Proposed projects

3) Crystal Springs Pottery Shed - this project will acquire the Stephens Grocery Store (now Crystal Springs Pottery Shed) that was built at the west end of 19th Street on property



known as the Belmarlow Addition in 1909 - see the description under the chapter on community setting.

Depending on the level of community and/or interest group participation, this project could retrofit the building for an arts and crafts center, interpretive exhibit, and/or community meeting facility.

4) Adriana Hess Interpretive Center on Morrison Pond - this 2.0 acre property is located adjacent to 2917 Morrison Road West on the west side of the pond - see the description under the chapter on existing facilities.

This project will acquire the adjoining residential property and convert the house and shed facilities to provide parking spaces, picnic facilities, a small playground, restrooms, trail, and small pier overlook of Morrison Pond. Portions of the house will be reconfigured to provide meeting facilities and some interpretive exhibits about the wetland complex.

As a long range minimal strategy, the city will acquire another trailhead access on the east side of the pond off 67th Avenue West and convert the house for interpretive facilities similar to the scheme described for Adriana Hess Wetlands Park above.

5) Cirque Ranch Park - this project will acquire through dedication or purchase the wetlands and woodlands that adjoin both sides of Leach Creek on the property located on the northeast corner of Cirque Drive and Alameda Avenue - see the description under the chapter on opportunities.

A meeting room and interpretive center may be configured out of the old ranch house and outbuildings that are located along the edge of the creek floodplain.

6) Giske/Stockman Park - this project will acquire the (Alan and Victoria Giske and Lillian Stockman) properties located on the south side of 64th Street West across from the Tacoma Rifle & Revolver Club entry and overlooking Chambers Creek - see the description under the chapter on opportunities.

A meeting room and interpretive center may be configured in one or more of the houses and outbuildings that are located in the front portions of both properties.

7) Day Island Yacht Club - this property is located on the east shore of Day Island Inlet at the end of 91st Avenue West - see the description under the chapter on opportunities.

Finger piers and boat slips extend into the waterway from the southern end of the site adjacent to the Day Island Bridge to provide moorage capacity for 491 craft including 6 public transient boat slips. The southwest shoreline has been improved with a clubhouse and parking facility that adjoins a 60 foot right-of-way dedicated to public water access. The yacht club portion of the site is gated to restrict public access to the clubhouse, piers, boat slips, and southerly shoreline.

Day Island Inlet is rapidly filling in from siltation. In the near future, the city and other parties to surface water issues, may resolve the future management of the inlet. Options under consideration could: 1) dredge the inlet to allow continued use for motorized water craft at the yacht club; or 2) allow the inlet to silt in under natural processes.

One option would be to acquire and reuse the yacht club site anticipating natural siltation and the eventual loss of access for most marine boating activities in the inlet. Hydropodics and other aquatic cultures could be introduced that would adapt to the reclamation of the

inlet. This option could retain access for handcarry craft, particularly shallow water kayaks and canoes. Some of the existing buildings could be retrofitted to support a wooden boat historical exhibit and crafts complex.

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Support facilities

Facilities will be developed to provide public works yard, plant nursery, and administrative activities necessary to support the park, recreation, and open space programs and facilities.

Support facilities may be independent properties or portions of other sites that include other administrative offices, public works yards and shops, as well as trail corridors, resource activities, athletic facilities, indoor recreation centers or other park and recreation facilities.

Vision

As described, the support facilities vision will: a) provide facilities necessary to service park, recreation, and open space programs and activities for the general population, and b) in a manner that is cost effective.

Proposed projects

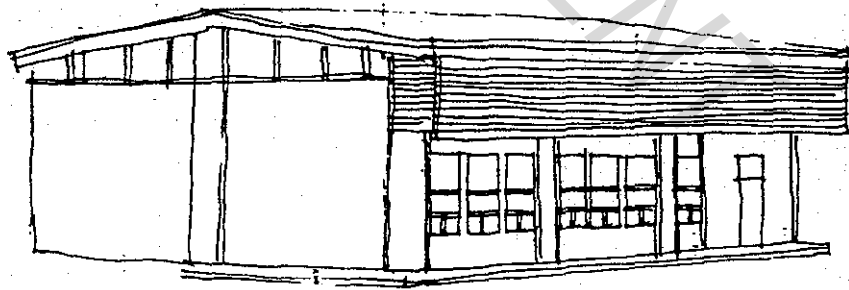
1) Park administration offices - will be housed in city hall in association with the Public Works, Planning & Community Development Departments.

2) Park yard - will be jointly acquired and developed in conjunction with a public works yard facility housing shops, vehicles, equipment, and materials.

3) Plant nursery - will be located within the Curran Apple Orchard and/or in the north portion of the proposed expansion of Adriana Hess Wetlands Park.

Finance

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Senior Center (University Place Tomato Growers Association packing shed) - 1931

Finance

An analysis was made of emerging financial trends in University Place and the impact federal and state program mandates, revenue sharing, growth management requirements, and other financial programs may have on the discretionary monies available for park, recreation, and open space expenditures. The analysis also reviewed trends in city revenues and the effect alternative revenue sources may have on financial prospects.

Expenditures - general government

Annual general governmental expenditures include each department's current operating expenses and major interdepartmental costs consisting of debt service, capital improvement programs, and general services, and debt service.

For 1997, University Place's projected total expenditures will be \$16,506,809 of which the city council, manager, attorney, community services, planning and community development, public works, and debt service will spend 39.7 percent and capital improvements for public works, parks, bonds, interfunds transfers, services, and other financing will spend the remaining 60.3 percent.

These expenditure patterns reflect federal and state program mandates and local Council priorities on infrastructure, public safety and other services. These factors will continue to impact the allocation of general government resources.

Capital facilities programming revenue - general government

General revenues are obtained from a combination of taxes, license and permit fees, intergovernmental state and federal grants, user service charges, fines and forfeits, and other miscellaneous interest earnings and sales. Following is a brief description of each revenue source based on trends shown for 1997.

Property taxes

Under the Washington State Constitution, cities may levy a property tax for general governmental purposes at a rate up to \$3.60 per \$1,000 on the assessed value of all taxable property within incorporation limits, provided the regular property tax of all taxing authorities does not exceed 1.0 percent of assessed valuation or \$10.00 per \$1,000 of value. If the taxes of all districts exceed the 1.0 percent or \$10.00 amount, each is proportionately reduced until the total is at or below the 1.0 percent limit.

In 1997, University Place's overall rate for city or general government was \$1.60 per \$1,000 of assessed valuation in property. The tax is expected to generate about \$2,205,889 in revenue for the city in 1997.

In 1975, Washington State law was amended by RCW 84.55.010, a statutory provision limiting the growth of regular property taxes to 6.0 percent per year after adjustments for

Governmental Funds

General revenues by source	1997 Budget	
	amount	percent
Property tax	\$2,205,889	13.4%
Sales tax	\$850,000	5.1%
Criminal justice sales tax	\$284,700	1.7%
Leasehold excise tax	\$500	0.0%
Utility tax	\$350,000	2.1%
Gambling excise tax	\$120,000	0.7%
Real estate excise tax (REET)	\$400,000	2.4%
Franchise fees	\$163,500	1.0%
Alarm permit fees	\$3,000	0.0%
State-shared revenues	\$1,551,403	9.4%
Equalization payments	\$1,800,000	10.9%
Fines and forfeits	\$8,000	0.0%
Sale of maps and periodicals	\$3,150	0.0%
Building permit fees	\$250,000	1.5%
Engineering and planning fees	\$100,000	0.6%
Recreation fees	\$100,281	0.6%
Surface water management (SWM) fees	\$505,785	3.1%
Admin fees from SWM fund	\$118,959	0.7%
Rents and leases	\$152,500	0.9%
Investment interest	\$197,000	1.2%
Miscellaneous	\$0	0.0%
Total operating revenue	\$9,182,667	55.5%
Other financing sources	\$468,951	2.8%
Interfund transfers	\$4,115,105	24.9%
Interfund charges	\$21,845	0.1%
Capital grants	\$2,740,241	16.8%
Total other financing sources	\$7,344,142	44.5%
Total revenues and other sources	\$16,506,809	100.0%

General expenditures by function

City Council	\$90,680	0.5%
City Manager's office	\$254,056	1.3%
City Attorney's office	\$256,564	1.3%
Community Services Department	\$4,518,417	22.9%
Planning & Commty Dvpmnt Dept	1078106	5.5%
Public Works	1147765	5.8%
Debt service	246528	1.2%
Contingency	\$250,000	1.3%
Total operating expenditures	\$7,842,116	39.7%
Capital imprvmnt projects - PW	\$5,721,671	28.9%
Capital imprvmnt projects - Parks	\$424,899	2.1%
Capital imprvmnt projects - Bonds	\$1,640,059	8.3%
Interfund transfers	\$4,115,105	20.8%
Interfund services	\$16,845	0.1%
Other financing uses	\$10,701	0.1%
Total other financing uses	\$11,929,280	60.3%
Total expenditures and other uses	\$19,771,396	100.0%

Net general bonded debt

Population	28,751
Assessed value	\$1,400,000,000
Councilmanic bond debt capacity (0.75%)	\$21,000,000
GO Bond debt capacity (2.5%)	\$35,000,000
Park/open space debt capacity (7.5%)	\$105,000,000
All present net indebtedness	

Margin of park/os indebtedness available

Net bonded debt per capita

new construction. This statute was intended to control local governmental spending by controlling the annual rate of growth of property taxes. In practice, however, the statute can reduce the effective property tax yield to an annual level far below a city's levy authorization often resulting in a severe impact on a city's ability to finance basic governmental needs, particularly when property values are increasing rapidly.

Sales taxes

Cities receive a portion of the sales tax collected by Washington State on the purchase of goods and services within corporate limits. The annual amount of tax received from retail sales may fluctuate from year to year depending on economic conditions and local business trends.

As a newly formed city, University Place does not have a history with which to project potential retail sales within city boundaries and, therefore, what the sales tax will generate in city revenues.

Some cities do not have retail enterprises within their limits that would create a source of retail revenues. Washington State law allows the state to allocate a portion of the motor vehicle excise tax (MVET) proceeds to cities where the proceeds from the retail sales tax, on a per capita basis, will be less than 70 percent of the statewide average. The sales tax equalization provision will replace the proceeds from MVET if and when locally-generated sales tax revenue rises to the 70 percent minimum statewide average amount.

In 1997, the city instituted a business registration requirement for local businesses. The registration requirement will correctly identify the city's new sales code for state use when collecting proceeds.

Sales tax receipts may be spent on any legitimate city purpose including capital facilities, public services, and operating and maintenance costs. In 1997, sales taxes are expected to generate \$850,000 in revenue for the city.

Limited general obligation (councilmanic) bonds

Councilmanic bonds may be issued without voter approval by the Council for any facility development purpose. The total amount of all outstanding unvoted general obligation debt may not exceed 1.5 percent of the assessed valuation of all city property, equal to a maximum 1997 debt capacity allowance of \$21,000,000 using the current assessed valuation of \$1,400,000,000 (assessed valuation times 0.015).

Limited general obligation bonds must be paid from general governmental revenues. Therefore, debt service on these bonds may reduce the amount of revenue available for current operating expenditures and the financial flexibility the Council may need to fund annual budget priorities. For this reason, councilmanic bonds are usually only used for the most pressing capital improvement issues.

Unlimited general obligation bonds

Unlimited general obligation bonds must be approved by at least 60 percent of the resident voters during an election which has a turnout of at least 40 percent of those who voted in the last state general election. The bond may be repaid from a special levy, which is not governed by the 6.0 percent statutory limitation on the property tax growth rate. Total indebtedness which may be incurred by limited and unlimited general obligation bonds together, however, may not exceed 2.5 percent of the assessed valuation of University Place, or \$35,000,000 using the current assessed valuation of \$1,400,000,000.

Monies authorized by limited and unlimited types of bonds must be spent within 3 years of authorization to avoid arbitrage requirements unless invested at less than bond yield. In addition, bonds may be used to construct but not maintain or operate facilities. Facility maintenance and operation costs must be paid from general governmental revenues, or by voter authorization of special annual or biannual operating levies, or by user fees or charges.

Capital facilities programming revenue prospects - general government

The following options could be used to deal with future capital improvement project needs:

General levy rate referendums

The 6.0 percent statutory limitation could be waived by referendum approval of a majority of University Place's registered voters. The referendum could establish a new levy rate at whatever amount residents prefer below the maximum authorization of \$3.60 per \$1,000 assessed valuation. The new rate would be subject to the 6.0 percent statutory limitation, however, and would ultimately decline in purchasing power requiring referendum adjustments at successive points in time.

Referendums are time consuming, expensive and difficult to communicate, especially when general fund issues are complex, somewhat statistical and abstract.

Special legislation

Local government representatives can seek state enabling legislation authorizing new or special revenue sources. Senate Bill 5972 (RCW 82.46) is an example of one possible legislative solution. The 1982 bill gave city governments the option of adding an additional 0.0025 percent increments to the real estate excise tax (REET) (up to 0.0050 in total) for the sole purpose of financing local capital improvement projects including parks, utilities and other infrastructure except governmental buildings.

Like bonds, Senate Bill 5972 funds may not be used to finance operation and maintenance requirements.

Real Estate Excise Tax (REET)

RCW 82.46.010 authorizes cities and counties to levy a real estate excise tax (REET) of 0.0025 percent on the sale of real estate. The real estate excise tax must be spent solely on capital facilities projects that are listed in the capital facilities element of the jurisdiction's comprehensive plan. In accordance with the authorizing act, capital facilities are those "...public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacements, rehabilitation, or improvement of streets...parks, recreational facilities." Tax proceeds can not be used for operation or maintenance.

RCW 82.46.010 authorizes an additional 0.0025 percent increment that may be collected or 0.0050 percent in total. However, RCW 82.46.035 limits the expenditure of funds to public works activities that do not include parks or municipal buildings.

In 1997, the first REET increment created an estimated \$400,000 for capital facility programming purposes.

Utility taxes

Subject to voter approval, cities may also levy taxes on the consumption of public utilities including cable television, cellular telephones, natural gas, refuse services, and regular telephone services. The city's utility tax does not apply to electric and water utilities since these services are provided by companies operated by the City of Tacoma.

Utility tax proceeds are imposed to offset the loss of property taxes paid by property owners prior to the city's incorporation. Utility taxes, or user fee proceeds, are estimated based on the volume of utility service that is used by the consumer. The revenue may be used for any purpose designated by the local jurisdiction, including capital facilities as well as operating and maintenance costs.

In 1996, City Council dedicated the current 2.5 percent utility tax to the development of parks, recreation, and open space projects, operations, and maintenance requirements. In 1997, the utility tax proceeds were \$234,500 for park, recreation, and open space needs.

Unlimited general obligation bonds

University Place may come to depend on voter referendums as a means of financing a larger portion of the capital improvement program, since unlimited obligation bonds are not paid from the property tax subject to the 6.0 percent limitation.

Voter approved capital improvements may be more representative of actual resident priorities than some other methods of validating capital expenditures, and will at the least, ensure referendum submittals provide widespread benefits.

Revenue bonds

As authorized in the Revised Code of Washington (RCW), a city council may issue nonvoter approved revenue bonds where principal and interest payments can be financed from a guaranteed source of revenue - such as utility taxes or real estate excise taxes.

Increased user fees and charges

University Place may elect to use an increasing array of special user fees, charges, and special assessments to pay facility operating and maintenance capital requirements. The user fee approach may be difficult to impose on facilities which don't have readily identifiable or chargeable users - like some passive park or trail systems.

The approach may be very responsive, however, for facilities and services which have an identifiable user group who receives a direct proportional benefit for the charge - as is the case of most indoor recreational facilities.

Revenue sources - parks and recreation

Besides general fund accounts, University Place can also receive revenue for park, recreation, and open space purposes from general obligation bonds, nondepartmental capital improvement allocations, and specialized federal and state grants. Following is a brief description of each source of revenue.

Federal park, recreation, and open space project grants

Land & Water Conservation Fund (LWCF) - federal monies are available for the construction of outdoor park facilities from the National Park Service's (NPS) Land and Water Conservation Fund (LWCF). The grants are administered by the Washington State Interagency Committee for Outdoor Recreation (IAC).

NPS grants usually do not exceed \$150,000 per project and must be matched for up to 50 percent (25 percent when used in combination with other grants) by the local jurisdiction. The IAC assigns each project application a priority on a competitive statewide basis according to each jurisdiction's need, population benefit, natural resource enhancements, and a number of other factors. In the past few years, project awards have become extremely competitive as the federal government has significantly reduced the amount of

federal monies available to the NPS program. The state has increased contributions to the program over the last few years using a variety of special funds, but the overall program could be severely affected by pending state and federal deficit cutting legislation.

Applicants must submit a detailed comprehensive park, recreation, and open space plan to be eligible for NPS funding. The jurisdiction's plan must demonstrate facility need, and prove that the jurisdiction's project proposal will adequately satisfy local park, recreation, and open space needs and interests.

Intermodal Transportation Efficiency Act (ISTEA) - the 1991 federal congress authorized a series of federal grants to enhance major traffic highways and corridors. The US Department of Transportation Intermodal Surface Transportation Efficiency Act (ISTEA) program fund grants may be used to finance on and off-road nonmotorized trail enhancements along major and minor arterial collector roads or sometimes, within separate trail corridors.

The grants, which may total up to 86.5 percent of a project's cost, are decided on a competitive basis on a regional level for the purpose of expanding the intermodal use of roadways for other than vehicular activities, including bicycle, pedestrian and transit.

Park, recreation, and open space project grants

Aquatic Land Enhancement Act (ALEA) - Washington State created a number of new programs in recent years for park, recreation, and open space development purposes using special state revenue programs. Recently enacted programs include the 1985 Aquatic Lands Enhancement Act (ALEA) using revenues obtained by the Washington Department of Natural Resources (DNR) from the lease of state owned tidal lands. The ALEA program is administered by the IAC for the development of shoreline related trail improvements and may be applied for the full cost of the proposal.

Referendum 39/Centennial Clean Water Fund (CCWF) - the Washington State Department of Ecology (DOE) administers a water quality program that provides state grants and loans for the design, acquisition, construction and improvement of Water Pollution Control Facilities, and related activities to meet state and federal water pollution control requirements and protect water quality.

Grants may be used for up to 75 percent of the cost of water quality/fish enhancement studies. Referendum 39 monies can also be applied to park developments that propose to restore, construct or otherwise enhance fish producing streams, ponds or other water bodies.

WAPR&C - the Washington State Parks & Recreation Commission (WAP&RC) has initiated a program that may be used for water craft sanitary pump-out facilities.

Pierce County Conservation Futures - under provisions provided in state legislation, counties can elect to levy up to \$0.065 per \$1,000 of assessed valuation of all county properties to acquire shoreline and other open space lands. The monies can be used to acquire, but not develop or maintain open space conservation lands that are acquired using Conservation Future Funds.

Conservation Futures revenues can be a major source of monies for the acquisition of wildlife habitat, resource conservancies, portions of resource activity lands, and possibly portions of linear trail corridors - particularly as the annual returns increase due to continued urban development and the associated increase in total county land value assessments.

Given the program's relatively specialized qualifications, however, the grants can not be a capital source for development projects. In addition; park and recreation project proposals must necessarily compete with other more open space land acquisitions across the county including proposals for storm drainage, farmland preservation, floodplain protections, and other qualifying programs.

Conservation Future funds were previously used by Pierce County to acquire Adriana Hess Wetlands Park and the Curran Apple Orchard.

Special revenue funds

A number of special revenue generating devices may be employed to create funds for park, recreation, and open space developments in University Place. Special revenue accounts include the proceeds (other than special assessments) or the finances of specified activities related to park, recreation, and open space development as required by law or administration regulations.

Paths and Trails Reserve - was established under State of Washington RCW 47.30 to provide for the establishment and maintenance of paths and trails within the right-of-way of city and county roads. The reserve is funded by 0.005 percent of the gas tax revenue collected within University Place on an annual basis. In 1997, the reserve fund will provide approximately \$7,181.

Special revenue funds can create a source of dedicated financing for specific activity or local area improvements. Generally, however, the reserves will not create the magnitude of funds necessary to implement facility projects of a scale needed throughout University Place. The concept must be employed on a wider scale, or the concept needs to be supplemented by other financing devices if University Place's needs are to be satisfied.

Funding implications

University Place has inherited a park, recreation, and open space inventory that was acquired using some land donations, grants, and project development mitigations.

However, these sources will not yield sufficient funds with which to initiate major facility development and/or with which to accomplish major cyclical maintenance requirements.

In addition, in light of the 6.0 percent statutory limit on local property tax yield's effect on discretionary funding in general, University Place can not depend entirely on traditional revenue sources as a means of funding capital improvement projects.

University Place must devise new financial strategies with which to develop facilities to meet resident park, recreation, and open space interests.

Park, recreation, and open space revenue prospects

The following options could be used to finance future program and project needs.

User fees and charges

University Place may charge user fees and use the proceeds to purchase land, develop, operate, and maintain facilities where all costs are reimbursed by the revenue obtained. User fees could be used to provide facilities for park, recreation, and open space activities whose profit margins are too low to sustain commercial operations or whose benefiting user group may extend beyond city boundaries. Essentially, University Place could become

a facility developer/operator providing whatever facilities or services the market will support from user revenue.

However, user fee administration, management, and collection costs can also be significant and consume from 25 to 75 percent of the gross proceeds for facilities that have low user volumes, turnover or fee charges - like group picnic facilities. Conversely, user fee charges may be relatively easy and efficient to collect on facilities that have very high user volumes, turnover or fee charges, or that are relatively easy to administer. High volume activities, in fact, may generate revenue sufficient to pay all facility operating and maintenance costs with some revenue surplus.

User fees and charges should be explored as one possible method of obtaining operational monies from facility users who most directly benefit and who may be most willing to pay for an activity facility and program.

University Place could charge fees for admission into recreational programs, such as youth athletic leagues, or the use of recreational facilities, such as athletic fields, indoor facilities like the Senior Center, and meeting rooms at City Hall.

Special use agreements

Special property agreements can often be used instead of property purchases to secure public use rights for land or property at no cost or a nominal fee, particularly where the possible public use is of benefit to the private landowner. Some forms of special use agreements can provide favorable tax benefits if the use agreement can be shown to have an assigned value.

University Place could expand the use agreement concept to include complete development, operation or maintenance responsibilities - like the renovation and operation of interpretive centers at Morrison Pond or the Curran House at the Apple Orchard. Package lease agreements may provide more effectively maintained facilities than is possible where University Place must staff specialized, small work crews.

Sometimes package lease agreements covering use and maintenance aspects may be the only way of resolving an equitable agreement with the private ownership.

Public/private service contracts

Private market skills and capital may be employed in a variety of ways including the use of public/private services contracts where a private party can be contracted to operate and maintain a facility for a fixed fee cost. Service contracts can be very efficient where the activities are small, scattered in location, seasonal, expert or experimental. Service contracts are also relatively easy to initiate or terminate if area demand fails to provide sufficient use or revenue to justify continued operation.

Service contracts may be very flexible and can include agreements with school districts, local user groups or commercial operators who can or would be interested in sustaining the activity on a subsidized or sweat-equity or loss-leader basis in exchange for the facility. Examples could include the operation of interpretive centers at Morrison Pond or the Curran Homestead at the Apple Orchard.

Public/private concessions

University Place could lease a portion of a site or facility to a private party in exchange for a fixed fee or a percentage of gross receipts. The private operator assumes operation and maintenance responsibilities and costs in exchange for a profit. University Place's portion

of the profits may be used to pay facility development costs at the same or for similar facility developments.

Concessions could save University Place monies where the activities are specialized, seasonal, experimental or unproven. Concessions can be easily initiated, provide direct user benefit/cost reimbursements and relieve University Place of a capital risk should market or user interest fail to materialize to a least break-even levels.

Examples include concessionaire operated bicycle and rollerblade rentals or food concessions on the Chambers Creek Properties or the Cirque Drive Recreation Center.

Public/private joint development ventures

University Place can enter into an agreement with a private or public developer to jointly own or lease land for an extended period of time to allow the development, operation, and maintenance of a major recreational facility or activity in exchange for a fixed lease cost or a percentage of gross receipts.

The developer assumes development, operation, and maintenance responsibilities, costs, and all market risks in exchange for a market opportunity providing a profitable return which may not otherwise be available. University Place realizes the development of a facility that may not be realized otherwise in exchange for a low minimum capital return and no or very little capital risk.

Joint development agreements represent an ultimate benefit/cost resolution which may also provide public revenue which University Place could use for other development opportunities. Examples include the possible joint development on city lands of indoor swimming pools, tennis courts, physical conditioning centers, and child care facilities, among others.

Self-help land leases

There are instances where an activity is so specialized in appeal or of a service area so broad in scope that it cannot be equitably financed using general public funds. Specialized user groups should be provided options for developing or maintaining facilities in ways which account for equitable public cost reimbursements. Examples include the use of land leases where University Place may lease land at low or no cost where a user group or club assumes responsibility for the development, operation, and maintenance of the facility. The club could provide volunteer help or use club finances to develop, operate, and maintain the facility as a means of meeting user benefit/cost objectives.

Land lease agreements could accommodate organized athletics like soccer, baseball, football, and softball; or very specialized facilities like skateboard parks, among others.

Self-help contract agreements

University Place can purchase land, develop, operate, and maintain a specialized facility under a negotiated contract agreement where a special interest group agrees to defray all costs in addition to or in lieu of a user fee as a means of meeting user benefit/cost objectives. The agreements can be quite flexible and University Place could contract the user group, another public agency or a private operator to be developer/operator.

Contract agreements could accommodate a range of more expensive special purpose facility developments including high quality athletic competition facilities for league organizations or schools; and specialized facility developments when and where the user organization can provide financial commitments.

Growth impact fee mitigations

University Place could develop and adopt park, recreation, and open space growth impact fee provisions in accordance with the Washington State Growth Management Act (GMA). A park impact fee could be applied to all proposed residential developments within the University Place corporate limits by the city as a means of maintaining existing park, recreation, and open space levels-of-service (ELOS). The ordinance could estimate the impact each development project would have on park, recreation, and open space facilities within the project's local service zone and make provisions for setting aside the resources, including lands or monies, necessary to offset the project's local or neighborhood and community or regional facility impacts.

The dollar value of the project's park, recreation, and open space impact could be offset by the project developer of an amount equal to the combined facility acquisition and development costs that University Place and/or another providing agency would incur to maintain the same existing level-of-service (ELOS).

A developer could be allowed to choose any combination of land or cash mitigation measures including credit for any park, recreation or open space facilities included within the project development. The ordinance could consider the following when determining the types of mitigation measures or development credits that could be made available to the developer:

- 1) Will the facilities be available to the public,
- 2) Will the facilities have a designated owner responsible for continuing operation and maintenance (the owner may be a common property owner's association, school district or other agency), and
- 3) Will the facilities correspond to and not exceed or vary from the types of park, recreation, and open space facilities that are being impacted (a developer could provide but should not be able to take full credit value for facilities for which there is no shortage, impact or local interest).

Land contributions could be accepted in lieu of monies if the lands would be suitable sites for future park, recreation or open space facilities. Land and monies accumulated under the proposed ordinance must be invested within a reasonable time of impact assessment or be returned to the contributing developer.

Interlocal agreements

University Place should work with the University Place School District to determine to what extent the agency can cooperatively finance shared or common park, recreation, and open space facility improvements, possibly using co-located school and park sites, commonly improved and scheduled fields and facilities, and the sharing of park and school growth impact fees - among other options.

General funding strategies

Using the strategies described above, funding sources should generally be matched to specific needs to avoid duplication and take advantage of each fund's specific possibilities. For example:

Program services

Fees and charges should be used to finance program services to the maximum extent possible and practical to provide cost/benefit equities and efficiencies. General funds

should be used to cover shortages where fees cannot be readily collected, as in most special events, or where fees may not be easily raised to cover all operating costs.

Facility operation, maintenance, and minor construction

General funds should be used to pay operation and maintenance costs for facilities and activities which cannot be financed with fees and charges or financed with other funding methods. General funds are flexible and can be adjusted to meet annual programming variations or priorities.

The funds collected from the excise tax on real estate sales (REET) should be used to finance minor construction improvements to existing properties. The money should also be used to help purchase sites when opportunities arise that cannot await other, less flexible funding methods. Like general funds, the money collected from excise taxes are flexible and can be adjusted to meet annual programming needs or sudden changes in priorities or opportunities.

Recreational facility development

Recreational facilities, athletic courts, and fields in particular, are important to University Place's park, recreation, and open space programs but satisfy relatively small proportions of the population compared with open space and trail facilities. Bonds and other fixed forms of financing should be used to pay for the development of parks, trails, and other facilities that residents assign high priorities. Recreational facilities should be financed with general funds, excise tax revenues, and other discretionary sources of financing.

University Place should investigate the possibility of implementing a wide range of joint recreational facility developments with Pierce County and the University Place School District where these agencies may finance acquisition and development costs using open space and school facility development bonds, or conservation futures and real estate excise taxes - and University Place may finance annual operating and maintenance needs using service charges and general funds. Joint venture agreements could better match costs/benefits with users, avoid duplication, save cost, increase service, and allow each agency to make the best use of available funds.

Parks, natural areas and trail development

Parks and trails benefit the largest percentage of the population and will probably be easier to obtain voted bond issues for than other more specialized park, recreation, and open space uses. General obligation bond packages could be put together to finance the conservancies and trail acquisition and development proposals contained within the development plan. The bond offering could also contain proposed recreational facilities, like the development of major athletic competition complexes and/or a community center for which there are major demands and likely to be broad based support throughout University Place.

When necessary and appropriate, councilmanic bonds could be used to purchase sites when opportunities require fast action, or to match possible State of Washington Interagency (IAC), National Park Service Heritage and Conservation Resource Service (HCRS), US Department of Transportation's ISTEA enhancement funds, Washington Department of Natural Resource's Aquatic Lands Enhancement Act (ALEA) or other state or federal grants for park and trail developments which may be available on an occasional basis.

Special developments

Some proposed projects represent unique facilities that may not be easily financed with conventional funding methods. University Place should explore the opportunities which

may be available for the development and funding of joint public/private facilities with private property owners or developers. Joint ventures could save costs, reduce annual program requirements and provide city residents park, recreation, and open space services and facilities which may not be available or provided otherwise in University Place.

Growth impact fee mitigations

Continued residential developments within University Place's existing corporate limits and future urban area will stress existing city, county, and school facilities and services. Consequently, University Place, Pierce County, and the University Place School District should institute environmental and growth impact fee mitigation measures in accordance with the Washington State Growth Management Act (GMA) as a means of preserving unique sites and of requiring land developers to help finance park, recreation, and open space facility developments that offset project impacts.

Financial strategies 1996-2003

Based on the land and facility demands projected in the proceeding chapter on land and facility demands, a University Place financial strategy for the next 6 year period (1996-2003) must generate:

- 1) \$160,016 in funds to finance estimated park repair and renovation requirements (estimated at 5 percent per year of the value of the current inventory), plus
- 2) \$472,962 to maintain the city's existing level-of-service (ELOS) through the expected population increase over the 6 year period, plus
- 3) \$20,229,035 to finance the city's cost share of adding land and facilities to realize the city's proposed level-of-service (PLOS) standard or a total of \$22,862,013.

Two alternative financial strategies illustrate the choices available a city strategy. The strategies combine possible scenarios concerning the forecasting of capital facility funds for park expenditures, the imposition of city growth impact fees and/or SEPA mitigations, and the possible use of a city general obligation bond.

The forecasts are conservative, based on the average trends indicated in capital fund expenditures by the city during the 1997. The projected city revenues have been adjusted to account for expected increases in the tax and revenue base valuations over the 6 year forecast period.

Alternative 1

This alternative would generate \$20,875,722 in total revenues if:

- 1) the amounts allocated to park, recreation, and open space capital facility requirements from utility taxes, real estate excise taxes (REET), state and federal grant revenues, donations and trusts, and SEPA mitigations remain in about the same proportions as in 1997,
- 2) a city growth impact fee were assessed at 100 percent of the cost of maintaining the city's existing level-of-service (ELOS) standards through additional population increases (equal to \$277.16 per dwelling unit where the unit averages 2.49 residents), and
- 3) an aggressive city park, recreation, and open space bond were approved to finance \$13,076,000 at a rate of \$0.00934 per \$1.00 valuation equal to an annual payment of \$86.46 for a \$100,000 house if the bond is financed at 6.75 percent interest for 20 years.

University Place Park, Recreation & Open Space Plan
Financial strategies 1996-2003

	Alternative 1 100 percent (1) Growth Impt Fee w/\$.00934 bond	Alternative 2 0 percent rowth Impt Fee w/\$.00967 bond
Proposed expenditures - ELOS/PLOS standards		
Renovations and repairs (5%/year of current value)	(\$160,016)	(\$160,016)
ELOS growth impact 1996-2003	(\$472,962)	(\$472,962)
SUBTOTAL	(\$632,978)	(\$632,978)
PLOS land and facility additions (city only)	(\$20,229,035)	(\$20,229,035)
TOTAL EXPENDITURES	(\$20,862,013)	(\$20,862,013)

Proposed revenues - 1997 trends projections

CAPITAL IMPROVEMENT REVENUES	Ave expnd	Allocate	Inflate		
Utilities Tax	\$234,500	100.0%	10.0%	\$1,809,311	\$1,809,311
Real Estate Excise Tax (REET)	\$400,000	100.0%	10.0%	\$3,086,244	\$3,086,244
Special Purpose Path	\$7,188	100.0%	10.0%	\$55,460	\$55,460
IAC, ALEA, ISTE.....(2)	\$80,000	100.0%	10.0%	\$617,249	\$617,249
Community Dvpmnt Block Grant	\$171,881	na	na	\$171,881	\$171,881
Pierce County Conservation Futures	\$0	100.0%	10.0%	\$0	\$0
Donations and trusts	\$43,500	na	na	\$43,500	\$43,500
SEPA mitigations (value in-kind)	\$200,000	100.0%	10.0%	\$1,543,122	\$1,543,122
CUMULATIVE CAPITAL REVENUE SOURCES				\$7,326,766	\$7,326,766

GROWTH IMPACT FEE/SEPA MITIGATION - CITY COLLECTIONS(4)

Additional population 1996-2003	2.3%	4,249	4,249
ELOS local/regional value/person	\$111.31	\$111.31	\$0.00
ELOS local/regional value/2.49 persons/du	\$277.16	\$277.16	\$0.00
Assessment rate	100.0%	100.0%	0.0%
TOTAL GROWTH IMPACT FEES	\$472,956	\$472,956	\$0
CUMULATIVE TOTAL GENERAL FUNDS+GROWTH IMPACT FEES		\$7,799,722	\$7,326,766

PARK, RECREATION & OPEN SPACE OBLIGATION BONDS

Park and open space facility debt capacity (7.5% of assessed)		
Assessed valuation 1997	\$1,400,000,000	\$1,400,000,000
Assessed rate per \$1.00 valuation	\$0.00934	\$0.00967
REVENUE GENERATED FROM BOND	\$13,076,000	\$13,538,000
CUMULATIVE TOTAL GENERAL FUNDS+GROWTH IMPACT+BOND	\$20,875,722	\$20,864,766
DIFFERENCE BETWEEN PROPOSED EXPENDITURES AND REVEN	\$13,710	\$2,753

Note:

(1) GMA does not allow growth requirements to be financed 100% with growth impact fees.

(2) Assumes at least 1 grant of \$250,000 every 6 years.

(3) Assumes an annual rate of increase of 10.0 percent between 1996 and 2003.

(4) University Place/Pierce County has not been assessing a growth mitigation fee.

(5) Alternative 1 equals \$934/\$100,000 house value with annual payment of:

\$86.46

Alternative 2 equals \$967/\$100,000 house value with annual payment of:

\$89.51

This strategy would finance the projected ELOS/PLOS capital facility program requirements of \$20,862,013 over the next 6 year period with a surplus of \$13,710.

Alternative 2

This alternative would generate \$20,864,766 in total revenues if:

1) the amounts allocated to park, recreation, and open space capital facility requirements from utility taxes, real estate excise taxes (REET), state and federal grant revenues, donations and trusts, and SEPA mitigations remain in about the same proportions as in 1997,

2) a city growth impact fee were not assessed, and

3) an aggressive city park, recreation, and open space bond were approved to finance \$13,538,000 at a rate of \$0.00967 per \$1.00 valuation equal to an annual payment of \$89.51 for a \$100,000 house if the bond is financed at 6.75 percent interest for 20 years.

This strategy would finance the projected ELOS/PLOS capital facility program requirements of \$20,862,013 over the next 6 year period with a surplus of \$2,753.

Implications

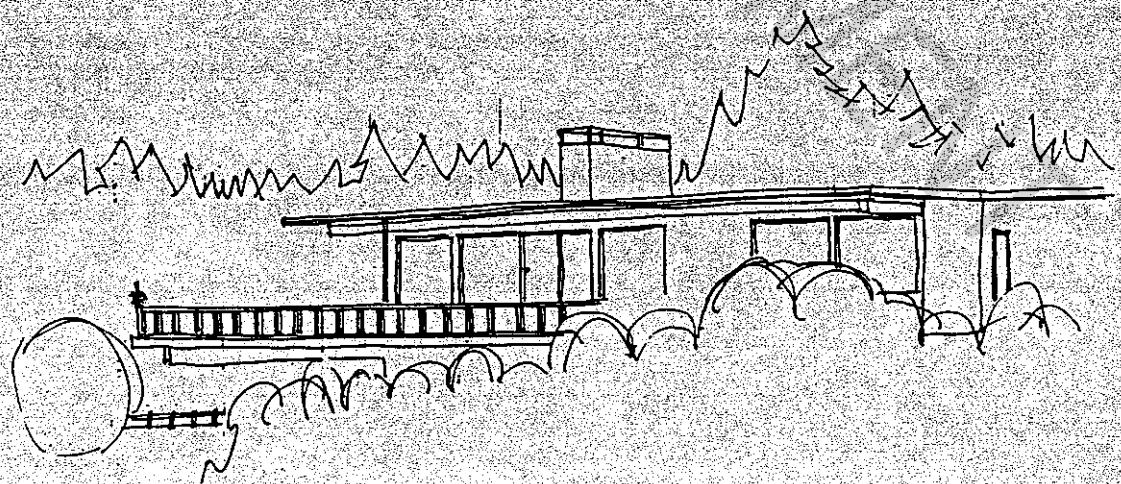
If the amount of monies provided from capital improvement revenues is increased above the trends shown in 1997 - then the amounts which must be generated from growth impact fee assessments and/or citywide bond amount and rate may be lower than shown in alternatives 1 and 2.

Conversely, if the amount of monies provided from capital revenues is decreased from the trends shown in 1997 and/or if the growth impact fee or citywide bond amount is lower than shown in alternatives 1 and 2 - then some or most of the proposed level-of-service (PLOS) enhancements will have to be reduced or extended beyond the next 6 year programming time period.

JFL SIT CE
PARKS & RECREATION CAPITAL IMPROVEMENT PLAN
1996 Through 2003

SOURCES/USES	1996	1997	1998	1999	2000	2001	2002	2003	Total
Financing Sources									
Beginning Fund Balance	\$ 92,924	\$ 703,349	\$ 1,033,230	\$ 419,230	\$ 289,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 92,924
G.O. Bonds (Note 1)	-	6,000,000	-	-	-	-	-	-	6,000,000
Pierce County Conservation Futures	-	-	-	-	-	-	-	-	-
Utility Taxes (2/3 of 2.5%) (Note 2)	190,614	234,500	-	-	-	-	-	-	425,114
IAC Grant-Giske/Stockman Property	-	-	500,000	-	-	-	-	-	500,000
IAC Grant-Hess Prop/Morrison Pond	-	-	100,000	-	-	-	-	-	100,000
ISTEA Grant	-	-	-	-	-	-	-	-	-
CDBG Grant-Community/Senior Ctr	-	171,881	-	-	-	-	-	-	171,881
Impact Fees	-	-	72,000	100,000	100,000	100,000	100,000	-	472,000
Donations	-	23,500	-	-	-	-	-	-	23,500
Trust (Hess Property)	-	20,000	20,000	20,000	20,000	20,000	20,000	-	120,000
1st 1/4% REET (Note 2)	209,906	200,000	-	-	-	-	-	-	409,906
2nd 1/4% REET	209,906	200,000	-	-	-	-	-	-	409,906
General Fund	-	-	-	-	-	-	-	-	-
Unfunded	-	-	-	-	-	-	-	-	-
Total Financing Sources	\$ 703,349	\$ 7,553,230	\$ 1,725,230	\$ 539,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 649,230	\$ 8,725,230
Park Projects									
Hess Property/Morrison Pond	\$ -	\$ 102,000	\$ 98,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	450,000
Community/Senior Center (Park Bldg)	-	190,000	-	-	-	-	-	-	190,000
Community/Senior Center-Parking Imp	-	10,000	-	-	-	-	-	-	10,000
Colgate Park Improvements	-	-	200,000	-	-	-	-	-	200,000
Giske/Stockman Property	-	-	1,000,000	-	-	-	-	-	1,000,000
Bridgeport Greenway	-	100,000	-	-	-	-	-	-	100,000
Cirque/Bridgeport (Community Ctr)	-	5,000,000	-	-	-	-	-	-	5,000,000
Towne Center Park	-	1,000,000	-	-	-	-	-	-	1,000,000
Gateway Parks	-	100,000	-	-	-	-	-	-	100,000
Sunset	-	8,000	-	-	-	-	-	-	8,000
Curran Orchard	-	10,000	-	-	-	-	-	-	10,000
Woodside Pond	-	-	8,000	-	-	-	-	-	8,000
Total Parks Projects	\$ -	\$ 6,520,000	\$ 1,306,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 8,076,000
Ending Fund Balance	\$ 703,349	\$ 1,033,230	\$ 419,230	\$ 289,230	\$ 409,230	\$ 529,230	\$ 649,230	\$ 649,230	\$ 649,230
Note 1: A proposed councilmanic bond issued in 1997 totaling \$6.0 million would fund parkland acquisition at Cirque/Bridgeport (\$5.0 mil) and Broback Property (\$1.0 mil) which is adjacent to Windmill Village. Annual debt service is estimated to total \$600,000, assuming an amortization period of 20 years. Funding sources are general fund moneys, utility taxes and 1st 1/4% REET (2nd 1/4% REET cannot be used for parkland acquisition). Note 2: Utility taxes and 1st 1/4% REET beyond 1998 are dedicated to debt service payments on the 1997 proposed bond issue (\$6.0 mil).									
BOND FINANCING									
Utility Taxes (2/3 of 2.5%)	-	-	236,845	239,213	241,605	244,021	246,461	248,926	1,457,071
1st 1/4% REET	-	-	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000
General Fund	-	-	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000
Total Parks Projects	\$ -	\$ -	\$ 636,845	\$ 639,213	\$ 641,605	\$ 644,021	\$ 646,461	\$ 648,926	\$ 3,857,071

Appendix



Curran Apple Orchard Homestead

Comparative social statistics - age and household status

	Washington State	Pierce County	University Place CDP
Persons	4,866,692	586,203	27,701
Households	1,872,431	214,652	11,094
Average household size	2.53	2.62	2.49
Families	1,264,934	151,672	7,730
Persons in group quarters	120,531	23,158	91
Age by sex			
0- 1	76,955	8,512	361
1- 4	297,401	39,820	1,663
5- 6	148,702	19,158	825
7-11	363,780	46,241	2,064
12-15	257,302	31,307	1,525
16-17	123,468	14,611	751
18-21	282,340	38,362	1,584
22-24	208,229	28,237	1,303
25-34	855,519	106,535	4,698
35-44	800,915	90,446	4,656
45-54	499,706	57,142	3,256
55-59	191,595	22,484	1,211
60-64	189,376	21,862	1,132
65-69	185,989	20,431	916
70-79	260,244	27,870	1,255
80+	125,171	13,185	501
Median age	32.5	31.3	33.0
Percent under 18	26.0%	27.2%	26.0%
Percent 65+	11.7%	10.5%	9.6%
Single person households	473,924	50,214	2,704
1 person, male	203,745	22,283	1,097
1 person, female	270,179	27,931	1,607
2 or more person households	1,401,584	164,438	8,390
Family household	1,276,227	151,672	7,730
married couple w/related child	490,703	60,981	2,936
married couple w/o related child	558,944	60,012	3,277
male only w/related child	30,774	4,449	170
male only w/o related child	25,818	2,799	126
female only w/related child	111,190	17,180	899
female only w/o related child	58,798	6,251	322
Non-family households	125,357	12,766	660
male householder	76,539	8,032	392
female householder	48,818	4,734	268
Total households	1,875,508	214,652	11,094

Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Comparative social statistics - education, occupation and income

	Washington State	Pierce County	University Place CDP
Educational attainment (persons 18 years+)			
less than 9th grade	183,405	18,432	
9th-12th grade, no diploma	429,693	56,051	
high school graduate	1,020,147	145,075	
some college, no degree	948,017	109,476	
associate degree	278,030	31,451	
bachelors degree	527,791	46,545	
graduate or professional degree	221,149	19,788	
Total	3,608,232	426,818	
Total population	4,866,692	586,203	27,703
Total persons 16 years+	3,730,985	441,387	
total in labor force	2,487,073	293,081	
total civilian employed	2,293,961	269,156	
total in armed forces	53,896	na	
Occupation			
managerial, professional	635,626	61,635	
technical, sales support	718,213	78,951	
service occupations	294,074	36,092	
farming, forestry, fisheries	77,707	4,502	
precision production, craft and repair	265,706	33,357	
operators and laborers	302,635	37,296	
Total	2,293,961	251,833	
Median household income	\$31,183	\$30,412	\$34,576
Median family income	\$36,795	\$35,108	\$41,242
Per capita income	\$14,923	\$13,439	\$16,537
Family/nonfamily household income			
\$ 0- 9,999	242,478	29,229	978
\$ 10- 14,999	158,603	19,489	821
\$ 15- 19,999	166,733	20,125	1,001
\$ 20- 24,999	168,471	20,243	1,097
\$ 25- 29,999	158,258	18,460	913
\$ 30- 34,999	157,736	18,754	900
\$ 35- 39,999	140,227	16,662	944
\$ 40- 44,999	124,002	14,395	780
\$ 45- 49,999	103,237	11,528	523
\$ 50- 54,999	88,846	10,236	501
\$ 55- 59,999	68,092	7,574	532
\$ 60- 74,999	140,031	14,676	1,178
\$ 75- 99,999	90,290	7,804	624
\$100-124,999	31,584	2,735	201
\$125-144,999	13,108	1,075	88
\$150,000+	23,812	1,810	130
Total	1,875,508	214,795	11,211

Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Comparative social statistics - housing characteristics

	Washington State	Pierce County	University Place CDP
Total housing units	2,032,378	228,842	11,546
Occupied housing units	1,872,431	214,652	11,094
percent owner occupied	57.6%	60.3%	54.6%
percent renter occupied	42.4%	39.7%	45.4%
Units in structure			
1, detached	1,272,721	140,162	6,188
1, attached	48,086	7,806	450
2	61,626	7,686	459
3 or 4	77,159	10,181	943
5-9	91,003	10,863	956
10-19	118,441	14,611	1,287
20-49	100,281	10,261	776
50 or more	55,864	5,184	330
mobile home/trailer	187,533	20,327	92
other	19,664	1,761	65
Total	2,032,378	228,842	11,546
Value (owner-occupied units)			
\$ 0- 30,000	28,076	1,550	9
\$ 30- 39,999	39,394	3,238	17
\$ 40- 49,999	56,488	6,944	52
\$ 50- 59,999	69,596	10,517	137
\$ 60- 74,999	122,298	20,543	680
\$ 75- 99,999	179,404	27,392	1,753
\$100-124,999	107,047	12,059	999
\$125-149,999	85,701	7,140	705
\$150-174,999	61,838	4,209	414
\$175-199,999	39,203	2,333	202
\$200-249,999	43,302	2,573	179
\$250-299,999	24,488	1,465	81
\$300-399,999	20,559	1,146	64
\$400,000+	19,042	841	33
Total	896,436	101,950	5,325
Median value	\$92,800	\$82,500	\$100,400
Rent (renter-occupied units)			
\$ 0-200	74,545	5,922	89
\$ 200-299	117,541	14,809	298
\$ 300-349	77,206	12,028	696
\$ 350-399	88,821	14,493	1,071
\$ 400-449	75,847	11,509	1,072
\$ 450-499	61,695	7,810	599
\$ 500-549	44,870	4,600	406
\$ 550-599	32,779	2,678	181
\$ 600-649	24,896	1,868	247
\$ 650-699	17,870	1,172	136
\$ 700-749	10,486	608	61
\$ 750-999	21,321	1,114	93
\$1,000+	7,824	619	8
No contract rent	27,403	4,712	53
Total	683,104	83,942	5,010
Median rent	\$382	\$374	\$415

Source: 1990 Census of Population & Housing, Puget Sound Regional Council
University Place CDP = census code 1343.

Park Intercept Survey University Place Comprehensive Park & Recreation Plan

This survey is a method of determining your concerns about possible park and recreational issues within University Place. Please return your survey to the volunteer or drop it in the mail when it is complete.

Behavior

How many times in the past 12 months has your household used the following parks and recreational facilities in University Place (circle the appropriate responses)?

times/year

- | | | | | |
|---|-----|------|-----|---|
| 0 | 1-6 | 7-12 | 12+ | 1: Morrison Pond? |
| 0 | 1-6 | 7-12 | 12+ | 2: Sunset Terrace Park? |
| 0 | 1-6 | 7-12 | 12+ | 3: Colgate Park? |
| 0 | 1-6 | 7-12 | 12+ | 4: Woodside Pond Nature Park? |
| 0 | 1-6 | 7-12 | 12+ | 5: Chambers Crest Wildlife Habitat? |
| 0 | 1-6 | 7-12 | 12+ | 6: Conservation Park? |
| 0 | 1-6 | 7-12 | 12+ | 7: University Place Park District Headquarters? |
| 0 | 1-6 | 7-12 | 12+ | 8: Westwood Square Neighborhood Park? |
| 0 | 1-6 | 7-12 | 12+ | 9: Academy Terrace Neighborhood Park? |
| 0 | 1-6 | 7-12 | 12+ | 10: Bristonwood Neighborhood Park? |
| 0 | 1-6 | 7-12 | 12+ | 11: Park Ridge Park? |
| 0 | 1-6 | 7-12 | 12+ | 12: Woodlake Neighborhood Park? |
| 0 | 1-6 | 7-12 | 12+ | 13: Beckenridge Neighborhood Park? |
| 0 | 1-6 | 7-12 | 12+ | 14: University Place Primary School? |
| 0 | 1-6 | 7-12 | 12+ | 15: Sunset Primary School? |
| 0 | 1-6 | 7-12 | 12+ | 16: Chambers Primary School? |
| 0 | 1-6 | 7-12 | 12+ | 17: Evergreen Primary School? |
| 0 | 1-6 | 7-12 | 12+ | 18: Narrows View Intermediate? |
| 0 | 1-6 | 7-12 | 12+ | 19: Drum Intermediate? |
| 0 | 1-6 | 7-12 | 12+ | 20: Curtis Junior High? |
| 0 | 1-6 | 7-12 | 12+ | 21: Charles Wright Academy? |
| 0 | 1-6 | 7-12 | 12+ | 22: Chambers Creek County Park? |
| 0 | 1-6 | 7-12 | 12+ | 23: Lone Star Property? |

If you never or seldom use park facilities or programs that are located in University Place, what are the reasons (circle the appropriate responses)?

reasons

- | | | | |
|-----|----|-------|---|
| yes | no | maybe | 24: don't know what is available? |
| yes | no | maybe | 25: don't know where the facilities are? |
| yes | no | maybe | 26: facilities or programs are not convenient? |
| yes | no | maybe | 27: facilities are poorly maintained or poor quality? |
| yes | no | maybe | 28: facilities aren't safe? |
| yes | no | maybe | 29: programs are too crowded? |
| yes | no | maybe | 30: program instruction is not of quality I prefer? |
| yes | no | maybe | 31: don't have facilities or programs I am interested in? |
| yes | no | maybe | 32: other (specify _____)? |

Facility conditions

On a scale of 1 to 5 where 1 is of the lowest and 5 is of the highest quality, how would you generally rate the following types of park facilities that are located in University Place compared with other communities you have frequented (circle the appropriate responses)?

lowest / highest

- | | | | | | |
|---|---|---|---|---|--------------------|
| 1 | 2 | 3 | 4 | 5 | 33: natural areas? |
|---|---|---|---|---|--------------------|

- | | | | | | |
|---|---|---|---|---|-----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 34: boating/fishing access? |
| 1 | 2 | 3 | 4 | 5 | 35: trails? |
| 1 | 2 | 3 | 4 | 5 | 36: picnic facilities? |
| 1 | 2 | 3 | 4 | 5 | 37: playground equipment? |
| 1 | 2 | 3 | 4 | 5 | 38: ballfields? |
| 1 | 2 | 3 | 4 | 5 | 39: soccer fields? |
| 1 | 2 | 3 | 4 | 5 | 40: tennis courts? |
| 1 | 2 | 3 | 4 | 5 | 41: swimming pools? |
| 1 | 2 | 3 | 4 | 5 | 42: restrooms/support facilities? |
| 1 | 2 | 3 | 4 | 5 | 43: meeting/activity rooms? |
| 1 | 2 | 3 | 4 | 5 | 44: recreation programs? |

Project proposals

If financing were available, how would your household rate the following proposals on a scale of 1 to 5 where 1 is of the lowest and 5 is of the highest priority (circle the appropriate responses)?

lowest / highest

- | | | | | | |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 45: acquire more natural areas? |
| 1 | 2 | 3 | 4 | 5 | 46: develop more trails? |
| 1 | 2 | 3 | 4 | 5 | 47: develop more picnic facilities? |
| 1 | 2 | 3 | 4 | 5 | 48: develop more playgrounds/tot lots? |
| 1 | 2 | 3 | 4 | 5 | 49: develop more baseball/soccer fields? |
| 1 | 2 | 3 | 4 | 5 | 50: develop more indoor recreation facilities? |
| 1 | 2 | 3 | 4 | 5 | 51: other (specify _____)? |

Respondent characteristics

52: Where do you live (check one)?

- [] 1: North of 40th and west of Bridgeport?
 [] 2: North of 40th and east of Bridgeport?
 [] 3: South of 40th and west of Bridgeport?
 [] 4: South of 40th and east of Bridgeport?
 [] 5: outside city limites (_____)?

53: How long have you lived within the city of University Place boundaries (circle one)?

0-1 2-5 6-10 11-20 21-40 40+ years

Thank you for providing your opinions. Your preferences will provide valuable information as we develop the University Place Park & Recreation Plan.

stamp

Recreation & Park Department
 3715 Bridgeport Way West, PO Box 64289
 University Place, WA 98464-0289

Public forum survey University Place Park, Recreation & Open Space Plan

Approximately 20 persons attended a public forum in January 1997 at the Senior Center to review and discuss preliminary development plan element proposals with the Park Planning Advisory Committee, city staff, and the consulting team.

At least 10 participants completed and returned the following survey concerning the preliminary plan proposals. The results are informational, but not a representative sample of the forum participants or the city at large.

Development plan proposals

Based on the materials you have reviewed at this forum, how would you rate the following development plan elements on a scale of 1 to 5 where 1 is of the lowest and 5 is of the highest quality contents (circle the appropriate responses)?

lowest / highest

1	2	3	4	5	
0%	10%	0%	50%	40%	1: Resource conservancies - wildlife habitat?
30%	10%	30%	30%	0%	2: Resource conservancies - historical?
0%	10%	20%	20%	50%	3: Resource activities - shoreline?
10%	10%	20%	10%	50%	4: Resource activities - picnicking?
10%	10%	20%	20%	40%	5: Water trails?
0%	10%	20%	50%	20%	6: Walk/hiking trails?
50%	20%	0%	20%	10%	7: Off-road mountain biking trails?
20%	0%	10%	30%	40%	8: On-road bicycle touring routes?
40%	10%	30%	10%	10%	9: Multipurpose hike/bike trails/streetscapes?
10%	0%	30%	40%	20%	10: Athletic parks - playgrounds?
10%	0%	0%	60%	30%	11: Athletic parks - fields?
0%	20%	20%	40%	20%	12: Recreation/community centers?
25%	13%	13%	25%	25%	13: Special use facilities?
10%	30%	20%	30%	10%	14: Support facilities?

Illustrative park project proposals

Based on the materials you have reviewed at this forum, how would you rate the following illustrative park project proposals on a scale of 1 to 5 where 1 is of the lowest and 5 is of the highest quality contents (circle the appropriate responses)?

lowest / highest

1	2	3	4	5	
44%	0%	22%	33%	0%	15: Day Island Yacht Club?
11%	22%	22%	11%	33%	16: Adriana Hess Wetland Park?
22%	0%	44%	22%	11%	17: City Hall Expansion?
14%	14%	14%	43%	14%	18: Colegate/Curtis Schools?
0%	11%	11%	44%	33%	19: Curran Apple Orchard?
25%	0%	13%	38%	25%	20: Woodside Pond/Horse Ranch?
0%	0%	0%	33%	67%	21: Lone Star/Chambers Creek?

Financing

On a scale of 1 to 5 where 1 means totally disagree and 5 means totally agree, how would you rate the following possible methods of financing recreational services and facilities?

no / yes

1	2	3	4	5	
20%	10%	10%	30%	30%	22: park user fees and charges?

20%	0%	40%	20%	20%	23: bond issues?
0%	0%	50%	20%	30%	24: joint venture with other public agencies?
20%	10%	30%	40%	0%	25: joint venture with private operators?
20%	10%	10%	10%	50%	26: assess growth impact fees?
50%	20%	10%	20%	0%	27: increase utility taxes?

28: How much would your household be willing to pay per month to help finance the acquisition and development of additional park and recreation facilities?

\$0	\$1-5	\$6-10	\$11-15	\$16-25	\$26-50	\$51-75	\$76-100	\$101+
22%	11%	33%	11%	11%	0%	11%	0%	0%

Respondent characteristics

41: Where do you live (check one)?

- 60% 1: North of 40th and west of Bridgeport?
 30% 2: North of 40th and east of Bridgeport?
 10% 3: South of 40th and west of Bridgeport?
 0% 4: South of 40th and east of Bridgeport?
 0% 5: outside city limites ()?

42: How long have you lived within the city of University Place boundaries (circle one)?

0-1	2-5	6-10	11-20	21-40	40+ years
20%	20%	20%	20%	20%	0%

Telephone survey results University Place Park, Recreation & Open Space Plan

A random sample of resident voter households in University Place were contacted in early April 1997 to participate in a controlled sample survey concerning park, recreation, and open space needs, priorities, and financial preference issues.

Approximately 250 households agreed to participate in the survey and were mailed a copy of a summary description of the plan and a copy of the questionnaire. 200 households completed the surveys by mail or by follow-up telephone call of which 105 or 53 percent were male voters and 95 or 47 percent were female voters. The remaining households decided not to participate once they received the materials, or for various reasons were unable to be contacted to complete the survey.

The resulting survey results are accurate to within 8 +/- percent of the opinions of the general population (the statistics are rounded and may not add to 100 percent. The statistics also account for undecided (ranged from 0 to 3.5% of the total but do not depict the percents in the tables shown. Following is a summary of the results for the total sample group.

Facility needs

On a scale of 1 to 5 where 1 is the least important and 5 is the most important, how would you rate the need for the following park facilities within the city in general?

lowest / highest need					
1	2	3	4	5	
7%	12%	26%	21%	34%	5: wetland/wildlife habitat conservation areas?
1%	3%	15%	25%	57%	6: children's playgrounds/play areas?
34%	22%	28%	12%	5%	7: a skateboard court?
5%	8%	35%	34%	20%	8: basketball, volleyball, tennis courts?
5%	6%	26%	31%	32%	9: soccer/baseball/softball fields?
7%	10%	27%	36%	22%	10: picnic tables and shelters?
25%	25%	25%	16%	11%	11: boat launch facilities?
7%	8%	23%	28%	35%	12: off-road walking and hiking trails?
7%	8%	17%	24%	45%	13: on-road sidewalks and walkways?
7%	13%	20%	36%	25%	14: on-road bicycle lanes?
31%	20%	24%	16%	11%	15: indoor gym and physical conditioning facility?
24%	29%	30%	10%	8%	16: arts/crafts/pottery facilities?
15%	23%	32%	23%	8%	17: community classrooms and meeting facilities?
17%	19%	26%	25%	14%	18: daycare and child nursery facilities?
24%	23%	29%	16%	9%	19: nature interpretive center?
31%	21%	31%	14%	4%	20: museum and historical facilities?

Project priorities

On a scale of 1 to 5 where 1 is the least important and 5 is the most important, how would you rate the following specific proposed improvements to existing parks?

Existing park improvements

lowest / highest					
1	2	3	4	5	
13%	11%	27%	26%	22%	21: Park & Rctn District Headquarters - convert to a Senior Center?
8%	8%	27%	39%	16%	22: Sunset Terrace Park - add playground and picnic facilities?
11%	9%	25%	26%	29%	23: Adriana Hess Wetlands/Morrison Pond - acquire adjacent wetlands and develop viewpoints and trails?
15%	11%	26%	29%	19%	24: Curran Apple Orchard - add interpretive and picnic facilities?

5%	5%	26%	38%	26%	25: <u>Colegate Park</u> - add picnic and playground facilities?
8%	11%	29%	28%	19%	26: <u>Woodside Pond Nature Park</u> - add adjacent woodland properties and develop neighborhood park facilities?
14%	13%	35%	24%	8%	27: <u>Conservation Park</u> - add benches, bus stop, plaza park improvements?
9%	6%	20%	33%	32%	28: <u>Chambers Crest Wildlife Habitat</u> - add trail to Chambers Creek Regional Park?

On a scale of 1 to 5 where 1 is the least important and 5 is the most important, how would you rate the following proposed park acquisition and development projects?

Proposed park acquisition/development projects

lowest / highest

1	2	3	4	5	
19%	14%	33%	20%	13%	29: <u>Day Island Inlet Surface Water Management Site</u> - develop waterfront viewpoint and access facilities?
17%	17%	23%	20%	21%	30: <u>City Hall Park</u> - acquire adjacent woodland property for a community picnic and playground facility?
16%	14%	26%	24%	20%	31: <u>Cirque/Bridgeport Park</u> - acquire/develop a community center and park at this intersection?
9%	10%	29%	30%	21%	32: <u>64th Street Park</u> - acquire/develop picnic and playground facilities overlooking Chambers Creek?
14%	21%	34%	17%	12%	33: <u>South Bridgeport Gateway Park</u> - acquire a conservation area and city gateway between Bridgeport and Chambers Creek Road?
12%	14%	32%	26%	15%	34: <u>Cirque Road/Alameda Avenue Park</u> - acquire/develop the Tacoma School District property along Leach Creek for a neighborhood park?
19%	24%	29%	16%	11%	35: <u>Gateway Parks</u> - add benches, signs, street trees, and landscaping on Bridgeport, 67th Avenue, and Orchard Street?

On a scale of 1 to 5 where 1 is the least important and 5 is the most important, how would you rate the following proposed trail projects?

Proposed trails

lowest / highest

1	2	3	4	5	
27%	18%	24%	18%	11%	36: <u>Kayaking Trail</u> - from Day Island Inlet to Chambers Bay?
15%	16%	26%	27%	15%	37: <u>Parkway Walking Trail</u> - from Day Island Inlet through the historic university site to University Place Primary School?
9%	13%	27%	24%	24%	38: <u>Morrison Pond/Leach Creek/Chambers Creek Walking Trail</u> - from Morrison Pond to Chambers Bay?
12%	13%	27%	31%	17%	39: <u>Peach Creek Walking Trail</u> - from Chambers Creek west past Wright Academy and Chambers Elementary School to Lone Star, and east to Bridgeport?
10%	10%	25%	27%	29%	40: <u>On-road Bicycle Routes</u> - on Grandview, 67th, Alameda, Orchard, 27th, 40th, Cirque, and 64th Chambers Lane?
7%	4%	23%	27%	39%	41: <u>Pierce County Chambers Creek Properties Multipurpose Trail</u> - along the waterfront, around Chambers Bay, and as an overlook along Grandview Drive?
12%	20%	31%	27%	10%	42: <u>Colegate Park/City Hall/Leach Creek Trail</u> - from Curtis Junior and Senior High Schools through City Hall to Woodside Pond Nature Park?
24%	19%	23%	18%	15%	43: <u>Bridgeport Streetscape</u> - with plazas, bus stops, green spaces from 19th to 67th Avenue?

Growth management

44: In the next 6 years the city's population could increase by another 5,000 people as vacant lands are developed for more housing and other properties annex into the city. In your opinion, will there be enough park and recreation facilities within the city, county, and school district systems to provide for these population increases?

yes	no	don't know
33%	46%	22%

How would you rate the following methods for dealing with the impact of population growth on a scale of 1 to 5 where 1 is the worst idea and 5 is the best idea?

poor / excellent

1	2	3	4	5
44%	22%	20%	6%	5%
6%	5%	12%	18%	60%

45: Set a lower standard for park facilities to be provided in the future?

46: Collect a growth impact fee from new developments to pay for some future facilities?

If you had to choose from among the 2 options, which option would you recommend that elected officials select first or second or not at all?

1st	2nd	not
6%	34%	56%
79%	11%	8%

47: Reduce the future number or standard of park facilities?

48: Collect a growth impact fee from new developments?

If the number or standard for park facilities were to be reduced as a method of controlling costs and growth impacts, which of the following facilities would you recommend be kept the same or be reduced by up to 5, 10, 15 or 20 percent or more compared to present ratios or standards?

reduce standard by

0	5%	10%	15%	20%+
42%	17%	19%	7%	16%
61%	14%	14%	5%	7%
44%	17%	20%	8%	11%
29%	13%	19%	11%	27%

49: Picnicking, fishing, and boating facilities?

50: Walking, hiking, and biking trails?

51: Athletic fields and courts?

52: Indoor facilities including swim pools, gyms, and meeting rooms?

53: The existing inventory of city, county, and school district park and recreational facilities within city limits is estimated to be worth about \$2,000 per house. If a growth impact fee were to be collected, what percent or dollar amount of this value would you recommend be charged to each new housing unit to be developed in the city?

\$2,000=100%	\$1,500=75%	\$1,000=50%	\$500=25%	\$300=15%	\$200=10%	\$0=0%
29%	5%	20%	13%	5%	16%	5%

General obligation bonds

Growth impact fees can not be used to pay for the expansion or improvement of currently needed park and recreation facilities to better serve existing residents. Growth fees can only be collected to pay for the development of additional facilities that will provide for additional population growth. Projects that improve or develop the existing park and recreation system must be paid by other methods, including the possible use of voter approved bonds.

54: If a park and recreation bond were to be put on the ballot, how much, if anything, would your household be willing to pay per year for additional park and recreation improvements that would benefit existing city residents?

\$119.17 amount per year

Recreational program priorities

What recreational programs do you think should be offered by the city on a scale of 1 to 5 where 1 is the least important and 5 is the most important?

least / most					
1	2	3	4	5	
16%	10%	24%	15%	35%	55: Before and after school care and school child latch key programs?
28%	19%	37%	13%	3%	56: Physical conditioning and fitness classes?
9%	8%	26%	31%	26%	57: Athletic leagues and sports programs?
13%	25%	30%	23%	8%	58: Aquatic instruction, recreation, and competition programs?
5%	4%	23%	30%	37%	59: Teen programs?
9%	7%	33%	32%	18%	60: Senior programs?
21%	18%	38%	15%	7%	61: Adult education and instruction?

Growth impact fees and voter approved bonds can not be used to pay for recreation programs. If it requires more money to provide present and/or future recreation programs, how would you rate the following methods of paying for them on a scale of 1 to 5 where 1 is the poorest idea and 5 is the best idea?

poor / excellent					
1	2	3	4	5	
37%	14%	32%	10%	5%	62: Reduce the number or quality of programs to control costs?
5%	4%	35%	24%	31%	63: Increase user fees to continue to provide the same program services?
30%	17%	27%	15%	9%	64: Increase city taxes to run needed program services?

If you had to choose from among the 3 methods, which method would you recommend that elected officials select first, second, third or not at all?

1st	2nd	3rd	not	
12%	24%	26%	35%	65: Reduce the number or quality of programs to control costs?
52%	32%	9%	3%	66: Increase the amount of user fees?
25%	29%	25%	19%	67: Increase the amount provided from city budgets?

Respondent characteristics

68: Which of the following statements best describes the city area you live in?

25%	west of Bridgeport Way and north of 40th Street?
46%	west of Bridgeport Way and south of 40th Street?
8%	east of Bridgeport Way and north of 40th Street?
18%	east of Bridgeport Way and south of 40th Street?

69: How long have you lived in University Place?

0-1	2-5	6-10	11-15	16-20	21-25	25+ years
1%	12%	23%	13%	15%	10%	28%

70: Which of the following age groups are you in?

18-24	25-34	35-49	50-64	65+ years
1%	5%	40%	31%	24%

Active recreational facilities – playgrounds and courts

		1a playgrounds covered – each	1b playgrounds uncovered – each	2a open play areas improved – acres	2b open play areas not improved lawns – acres	4 handball uncovered courts – each	5a basketball covered courts – each	5b basketball uncovered courts – each	6a volleyball covered courts – each	6b volleyball uncovered courts – each	6c volleyball sand courts – each	7a tennis indoor courts – each	7b tennis outdoor lighted courts	7c tennis outdoor unlighted features
	level													
1	Sunset Terrace Park	lcl	-	-	1.0	-	-	-	-	-	-	-	-	-
2	Colegate Park	rgl	-	-	-	-	-	-	-	-	-	-	-	6
UNIVERSITY PLACE			0	0	1.0	0.0	0	0	0	0	0	0	0	6
3	Chambers Creek Properties	rgl	-	-	-	-	-	-	-	-	-	-	-	-
PIERCE COUNTY			0	0	0.0	0	0	0	0	0	0	0	0	0
4	University Place PS	lcl	-	1	0.2	-	-	-	2	-	-	-	-	-
5	Sunset PS	lcl	-	1	0.2	-	-	-	1	-	-	-	-	-
6	Chambers PS	lcl	-	1	0.2	-	-	-	1	-	-	-	-	-
7	Evergreen PS	lcl	-	1	0.2	-	-	-	1	-	-	-	-	-
8	Narrows IS	lcl	-	1	0.2	-	-	-	5	-	-	-	-	-
9	Drum IS	lcl	-	1	0.2	-	-	-	1	-	-	-	-	-
10	Curtis JHS	rgl	-	-	-	-	-	-	2	-	-	-	-	-
11	Curtis HS	rgl	-	-	-	-	-	-	-	-	-	-	-	-
UNIVERSITY PLACE SCHOOL DIS			0	6	1.2	0.0	0	0	13	0	0	0	0	0
12	Academy Terrace Park	lcl	-	1	-	-	-	-	1	-	-	-	-	-
13	Bristonwood Park	lcl	-	1	-	-	-	-	-	-	-	-	-	-
14	Park Ridge Park	lcl	-	1	-	-	-	-	1	-	-	-	-	-
15	Beckonridge Park	lcl	-	-	-	-	-	-	-	-	-	-	-	2
16	Charles Wright Academy	rgl	-	1	-	-	-	1	2	-	-	-	2	-
PRIVATE			0	4	0.0	0	0	1	4	0	0	0	2	2
Local			0	0	1.0	0	0	0	0	0	0	0	0	0
Regional			0	0	0.0	0	0	0	0	0	0	0	0	6
CITY/COUNTY			0	0	1.0	0	0	0	0	0	0	0	0	6
Local			0	0	1.0	0	0	0	0	0	0	0	0	0
Regional			0	0	0.0	0	0	0	0	0	0	0	0	6
CITY/COUNTY/OTHER PUBLICLY			0	0	1.0	0	0	0	0	0	0	0	0	6
Local			0	6	2.2	0	0	0	11	0	0	0	0	0
Regional			0	0	0.0	0	0	0	2	0	0	0	0	6
CITY/COUNTY/OTHER PUBLIC/S			0	6	2.2	0	0	0	13	0	0	0	0	6
Local			0	9	2.2	0	0	0	13	0	0	0	0	2
Regional			0	1	0.0	0	0	1	4	0	0	0	2	6
ALL TOTAL INCLUDING PRIVATE			0	10	2.2	0	0	1	17	0	0	0	2	8

Active recreational facilities – fields

8a football regulation fields

8b football nonregulation/practice fields

9a soccer regulation/competition fields

9b soccer nonregulation/practice fields

10 field hockey/lacrosse regulation/competition fields

11a baseball/softball adult – 250+ ft grass/lighted field

11b baseball/softball adult – 250+ ft grass/unlighted field

11c baseball/softball adult – 250+ ft dirt/lighted field

11d baseball/softball adult – 250+ ft dirt/unlighted field

11e baseball/softball nonregulation/dirt practice field

11f baseball/little league – 200 ft lighted field

11g baseball/little league – 200 ft unlighted

12 parcourse – number of stations

13a jog surface track – miles

13b jog dirt track – mil

features

1	Sunset Terrace Park	lcl	-	-	-	-	-	-	-	1	-	-	-	-	-	-
2	Colegate Park	rgl	-	-	1	-	-	-	-	1	-	-	-	-	-	-
UNIVERSITY PLACE			0	0	1	0	0	0	0	0	1	1	0	0	0	0.00 0.00
3	Chambers Creek Proper	rgl	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PIERCE COUNTY			0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 0.00
4	University Place PS	lcl	-	-	1	-	-	-	-	1	-	-	-	-	-	-
5	Sunset PS	lcl	-	-	-	-	-	-	-	4	-	-	-	-	-	-
6	Chambers PS	lcl	-	-	1	-	-	-	-	3	-	-	-	-	-	-
7	Evergreen PS	lcl	-	-	1	1	-	-	-	2	-	-	-	-	-	-
8	Narrows IS	lcl	-	-	1	-	-	-	-	-	-	-	-	-	-	-
9	Drum IS	lcl	-	-	1	1	-	-	-	2	-	-	-	-	-	-
10	Curtis JHS	rgl	-	-	1	-	-	-	1	-	-	-	-	-	0.25	-
11	Curtis HS	rgl	1	-	-	-	-	-	3	-	-	-	-	-	0.25	-
UNIVERSITY PLACE SCHO			1	0	6	2	0	0	4	0	0	12	0	0	0	0.50 0.00
12	Bristonwood Park	lcl	-	-	-	-	-	-	-	1	-	-	-	-	-	-
13	Charles Wright Academ	rgl	1	-	2	-	-	-	-	1	1	-	-	-	0.25	-
PRIVATE			1	0	2	0	0	0	0	0	1	2	0	0	0	0.25 0.00
Local			0	0	0	0	0	0	0	0	1	0	0	0	0	0.00 0.00
Regional			0	0	1	0	0	0	0	0	1	0	0	0	0	0.00 0.00
CITY/COUNTY			0	0	1	0	0	0	0	0	1	1	0	0	0	0.00 0.00
Local			0	0	0	0	0	0	0	0	1	0	0	0	0	0.00 0.00
Regional			0	0	1	0	0	0	0	0	1	0	0	0	0	0.00 0.00
CITY/COUNTY/OTHER PUB			0	0	1	0	0	0	0	0	1	1	0	0	0	0.00 0.00
Local			0	0	5	2	0	0	0	0	0	13	0	0	0	0.00 0.00
Regional			1	0	2	0	0	0	4	0	1	0	0	0	0	0.50 0.00
CITY/COUNTY/OTHER PUB			1	0	7	2	0	0	4	0	1	13	0	0	0	0.50 0.00
Local			0	0	5	2	0	0	0	0	0	14	0	0	0	0.00 0.00
Regional			2	0	4	0	0	0	4	0	2	1	0	0	0	0.75 0.00
ALL TOTAL INCLUDING PRI			2	0	9	2	0	0	4	0	2	15	0	0	0	0.75 0.00

Outdoor recreational activities – picnic/camping

		14a picnic outdoor – tables (6 persons/each)											
		14b picnic shelters – tables (6 persons/each)											
		15a swimming at a beach – sq ft of bathing beach											
		15b swimming at a beach – designated parking spaces											
		16a boat launch ramps – each											
		16b fishing from a bank/dock/cartop boats – trailhead parking spa											
		16c pier/dock platform – square feet											
		16d boat slips – each, permanent or transitory											
		17 power boat launch – trailer parking spaces											
		18a tent camping – campsites w/o utilit											
		18b vehicle camping – camps											
		# toilet fixtures											
		per temp											
level													
1	Colegate Park rgl	2	-	-	-	-	-	-	-	-	-	-	-
	UNIVERSITY PLACE	2	0	0	0	0	0	0	0	0	0	0	0
2	Chambers Creek Proper rgl	-	-	-	-	-	-	-	-	-	-	-	-
	PIERCE COUNTY	0	0	0	0	0	0	0	0	0	0	0	0
3	Chambers PS lcl	3	-	-	-	-	-	-	-	-	-	-	-
	UNIVERSITY PLACE SCHO	3	0	0	0	0	0	0	0	0	0	0	0
4	Day Island Yacht Club rgl	-	-	-	-	-	-	6	-	-	-	-	-
	OTHER PUBLICLY ACCESSI	0	0	0	0	0	0	6	0	0	0	0	0
5	Academy Terrace Park lcl	X	-	-	-	-	-	-	-	-	-	-	-
6	Park Ridge Park lcl	X	-	-	-	-	-	-	-	-	-	-	-
7	Day Island Marina rgl	-	-	-	-	-	-	300	-	-	-	-	-
8	Day Island Yacht rgl	-	-	-	-	-	-	75	-	-	-	-	-
9	Day Island Yacht Club rgl	-	-	-	-	-	-	110	-	-	-	-	-
	PRIVATE	0	0	0	0	0	0	485	0	0	0	0	0
Local		0	0	0	0	0	0	0	0	0	0	0	0
Regional		2	0	0	0	0	0	0	0	0	0	0	0
CITY/COUNTY		2	0	0	0	0	0	0	0	0	0	0	0
Local		0	0	0	0	0	0	0	0	0	0	0	0
Regional		2	0	0	0	0	0	6	0	0	0	0	0
CITY/COUNTY/OTHER PUB		2	0	0	0	0	0	6	0	0	0	0	0
Local		3	0	0	0	0	0	0	0	0	0	0	0
Regional		2	0	0	0	0	0	6	0	0	0	0	0
CITY/COUNTY/OTHER PUB		5	0	0	0	0	0	6	0	0	0	0	0
Local		3	0	0	0	0	0	0	0	0	0	0	0
Regional		2	0	0	0	0	0	491	0	0	0	0	0
ALL TOTAL INCLUDING PRI		5	0	0	0	0	0	491	0	0	0	0	0

Linear parks and trails

23a walking in a park - miles of asphalt trail

23b walking in a park - miles of dirt/bark/other mtl trail

24a day hiking on a trail - miles asphalt trail

24b day hiking on a trail - miles of dirt/other mtl trail

25 backpacking trails/overnight camping - miles of designated trail

26a bicycling on a trail - miles asphalt trail

26b bicycling on a trail - miles dirt/other mtl

27a bicycling on a road - miles marked road sho

27b bicycling on a road - miles of designa

28 horseback riding - miles of desi

	level										handicap accessible
1 Adriana Hess Wetland	lcl	-	X	-	-	-	-	-	-	-	-
2 Woodside Pond Park	lcl	-	0.1	-	-	-	-	-	-	-	-
3 Conservation Park	lcl	-	X	-	-	-	-	-	-	-	-
4 Colegate Park	rgl	-	0.1	-	-	-	-	-	-	-	-
UNIVERSITY PLACE		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 Chambers Creek Proper	rgl	-	-	-	-	-	-	-	-	-	-
PIERCE COUNTY		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 Beckonridge Park	lcl	-	X	-	-	-	-	-	-	-	-
PRIVATE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.0 miles outside city											
Local		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regional		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CITY/COUNTY		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regional		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CITY/COUNTY/OTHER PUB		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regional		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CITY/COUNTY/OTHER PUB		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regional		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALL TOTAL INCLUDING PRI		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

29b swimming at an outdoor pool - sq ft of swimming pool

29b swimming at an outdoor pool - sq ft of swimming pool

29c wading pool - each

30 indoor gymnasium – sq ft of special floor area

31 physical conditioning facility - sq ft of equipment room

32 indoor racquetball courts – each

33 indoor handball courts – each

34 arts/crafts/pottery rooms - sq ft

35 classroom/meeting/small training rooms - sq ft

36 auditorium/staging/large meeting facilities - sq

37 kitchen facilities – sq ft

38 dining facilities/no other use - sq ft

39 day care/nursery rooms - sq ft

40 administrative/office space -

41 other center space - sq

Terrier dome

[illegible]

Prototype facility development costs

Playground – 10 child capacity

	unit	unit cost	qty	qty cost
a clear playground, parking, access road	acre	\$1,450.00	0.5	\$725
b earthwork for playground, parking, access road	cu yd	\$4.40	746	\$3,282
c site preparation, 12" sand or bark @100'diameter	sq ft	\$0.83	15,700	\$13,031
d medium play structure	each	\$10,000.00	1	\$10,000
e parent bench, 8"x8"x10'wood beams w/conc support	each	\$900.00	3	\$2,700
f trash receptacle w/concrete support	each	\$300.00	2	\$600
g drinking fountain, precast concrete	each	\$750.00	1	\$750
h bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
i parking, 2" asphalt concrete/4"crushed rock, 10 cars	sq ft	\$1.25	3,000	\$3,750
j wheel stops, 10"x6"x8'precast concrete	each	\$146.00	10	\$1,460
k access road, 2" asphalt concrete/4"crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
l water service, 8"service line	lr ft	\$15.00	100	\$1,500
m water meter, 2"size	each	\$4,400.00	1	\$4,400

Total construction cost per playground \$44,048

a construction sales tax (const)	8.2%	\$3,612
b design/engineering fees (const)	12.0%	\$5,286
c financing costs (const, tax, design)	8.0%	\$4,236
d contingency (const, tax, design, financing)	10.0%	\$5,718

Total development cost per playground \$62,900

Grassy playfield – 1 acre

	unit	unit cost	qty	qty cost
a clear field, structures, parking, access road	acre	\$1,450.00	1	\$1,450
b earthwork for field, structures, parking, road	cu yd	\$4.40	1,613	\$7,099
c restroom facility, sani-can w/concrete platform	each	\$100.00	2	\$200
d trash receptacles w/concrete support	each	\$300.00	2	\$600
e playfield, grass seed w/subdrain	sq ft	\$0.20	43,560	\$8,712
f irrigation system-quick coupler	sq ft	\$0.42	43,560	\$18,295
g drinking fountain	each	\$750.00	1	\$750
h bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
i parking, 2" asphalt concrete/4"crushed rock, 20 spaces	sq ft	\$1.25	6,000	\$7,500
j wheel stops, 10"x6"x8'precast concrete	each	\$146.00	35	\$5,110
k access road, 2" asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
l water service, 8"service line	lr ft	\$15.00	500	\$7,500
m water meter, 2"size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$67,966

a construction sales tax (const)	8.2%	\$5,573
b design/engineering fees (const)	12.0%	\$8,156
c financing costs (const, tax, design)	8.0%	\$6,536
d contingency (const, tax, design, financing)	10.0%	\$8,823

Total development cost per field \$97,054

Outdoor handball courts – 3 wall 20'x40'

	unit	unit cost	qty	qty cost
a earthwork for court and support area	cu yd	\$4.40	50	\$220
b 3" asphalt/4" aggreg/6" gravel	sq ft	\$2.50	1,000	\$2,500
c concrete side walls	lr ft	\$25.00	80	\$2,000
d trash receptacles w/conc support	each	\$300.00	1	\$300
e drinking fountain	each	\$750.00	1	\$750
f bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
g parking, 2" asphalt concrete/4"crushed rock, 2 spaces	sq ft	\$1.25	600	\$750

h	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	2	\$292
i	access road, 2" asphalt concrete/4" crushed rock, 24'x25'	sq ft	\$1.25	600	\$750
j	water service, 8" service line	lr ft	\$15.00	100	\$1,500
k	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per court \$13,812

a	construction sales tax (const)	8.2%	\$1,133
b	design/engineering fees (const)	12.0%	\$1,657
c	financing costs (const, tax, design)	8.0%	\$1,328
d	contingency (const, tax, design, financing)	10.0%	\$1,793

Total development cost per court \$19,723

Outdoor basketball - 70'x114'

		unit	unit cost	qty	qty cost
a	earthwork for court, parking, access road	cu yd	\$4.40	460	\$2,024
b	3" asphalt/4" aggreg/6" gravel	sq ft	\$2.50	7,980	\$19,950
c	standards w/hoop and net, 6" steel poles	each	\$700.00	2	\$1,400
d	trash receptacles w/conc support	each	\$300.00	1	\$300
e	drinking fountain	each	\$750.00	1	\$750
f	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
g	parking, 2" asphalt concrete/4" crushed rock, 10 spaces	sq ft	\$1.25	3,000	\$3,750
h	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	10	\$1,460
i	access road, 2" asphalt concrete/4" crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
j	water service, 8" service line	lr ft	\$15.00	100	\$1,500
k	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per court \$37,384

a	construction sales tax (const)	8.2%	\$3,065
b	design/engineering fees (const)	12.0%	\$4,486
c	financing costs (const, tax, design)	8.0%	\$3,595
d	contingency (const, tax, design, financing)	10.0%	\$4,853

Total development cost per court \$53,383

Outdoor volleyball - 42'x72'

		unit	unit cost	qty	qty cost
a	earthwork for court, parking, access road	cu yd	\$4.40	276	\$1,214
b	playing surface, 6" sand/compacted subgrade	cu yd	\$19.00	56	\$1,064
c	boundary lines, imbedded 4"x4" cedar	lr ft	\$2.65	180	\$477
d	net and anchors, 6"x6" treated wood posts	each	\$500.00	1	\$500
e	line judges stand, galvanized pipe w/2"x4" frame	each	\$700.00	2	\$1,400
f	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	2	\$1,800
g	trash receptacles w/concrete support	each	\$300.00	1	\$300
g	drinking fountain	each	\$750.00	1	\$750
i	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j	parking, 2" asphalt concrete/4" crushed rock, 10 spaces	sq ft	\$1.25	3,000	\$3,750
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	10	\$1,460
l	access road, 2" asphalt concrete/4" crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
m	water service, 8" service line	lr ft	\$15.00	100	\$1,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per court \$20,465

a	construction sales tax (const)	8.2%	\$1,678
b	design/engineering fees (const)	12.0%	\$2,456
c	financing costs (const, tax, design)	8.0%	\$1,968
d	contingency (const, tax, design, financing)	10.0%	\$2,657

Total development cost per court \$29,224

Outdoor tennis - 60'x120' with lights

	unit	unit cost	qty	qty cost
a earthwork for court, parking, access road	cu yd	\$4.40	320	\$1,408
b colorcoat/1" asphalt/2" asphalt/4" crushed rock	sq ft	\$2.50	7,200	\$18,000
c perimeter fencing, 12' galvanized w/1.75" fabric	lr ft	\$16.00	360	\$5,760
d lighting system, 4 poles w/2 km projectors	ystem	\$30,000.00	1	\$30,000
e net and anchors, 3.5" galvanized pipe posts	each	\$700.00	1	\$700
f trash receptacles w/conc support	each	\$300.00	1	\$300
g drinking fountain	each	\$750.00	1	\$750
h bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
i parking, 2" asphalt concrete/4" crushed rock, 4 spaces	sq ft	\$1.25	1,200	\$1,500
j wheel stops, 10"x6"x8' precast concrete	each	\$146.00	4	\$584
k access road, 2" asphalt concrete/4" crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
l water service, 8" service line	lr ft	\$15.00	100	\$1,500
m water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost per court				\$66,752
a construction sales tax (const)	8.2%			\$5,474
b design/engineering fees (const)	12.0%			\$8,010
c financing costs (const, tax, design)	8.0%			\$6,419
d contingency (const, tax, design, financing)	10.0%			\$8,665
Total development cost per court				\$95,320

Outdoor tennis - 60'x120' without lights

	unit	unit cost	qty	qty cost
a earthwork for court, parking, access road	cu yd	\$4.40	320	\$1,408
b colorcoat/1" asphalt/2" asphalt/4" crushed rock	sq ft	\$2.50	7,200	\$18,000
c perimeter fencing, 12' galvanized w/1.75" fabric	lr ft	\$16.00	360	\$5,760
d net and anchors, 3.5" galvanized pipe posts	each	\$700.00	1	\$700
e trash receptacles w/conc support	each	\$300.00	1	\$300
f drinking fountain	each	\$750.00	1	\$750
g bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
h parking, 2" asphalt concrete/4" crushed rock, 4 spaces	sq ft	\$1.25	1,200	\$1,500
i wheel stops, 10"x6"x8' precast concrete	each	\$146.00	4	\$584
j access road, 2" asphalt concrete/4" crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
k water service, 8" service line	lr ft	\$15.00	100	\$1,500
l water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost per court				\$36,752
a construction sales tax (const)	8.2%			\$3,014
b design/engineering fees (const)	12.0%			\$4,410
c financing costs (const, tax, design)	8.0%			\$3,534
d contingency (const, tax, design, financing)	10.0%			\$4,771
Total development cost per court				\$52,481

Football field - 150'x300'

	unit	unit cost	qty	qty cost
a clear field, structures, parking, access road	acre	\$1,450.00	2	\$2,900
b earthwork, 1'depth	cu yd	\$4.40	1,667	\$7,333
c playing surface, grass turf/12" sand w/subdrain	sq ft	\$1.46	45,000	\$65,700
d irrigation system-quick coupler	sq ft	\$0.42	45,000	\$18,900
e spectator stands, movable metal (40 seats)	each	\$4,000.00	4	\$16,000
f restroom facility, sani-can on concrete platform	each	\$1,044.00	2	\$2,088
g trash receptacles w/conc support	each	\$300.00	2	\$600
h drinking fountain	each	\$750.00	1	\$750
i bike rack, prefab galvanized pipe	each	\$350.00	1	\$350

j	parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
l	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m	water service, 8" service line	lr-ft	\$15.00	500	\$7,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$158,571

a	construction sales tax (const)	8.2%			\$13,003
b	design/engineering fees (const)	12.0%			\$19,029
c	financing costs (const, tax, design)	8.0%			\$15,248
d	contingency (const, tax, design, financing)	10.0%			\$20,585

Total development cost per field \$226,436

Soccer field - 240'x330' with grass turf

		unit	unit cost	qty	qty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	2.1	\$3,045
b	earthwork for field, structures, parking, road	cu yd	\$4.40	5,094	\$22,414
c	playing surface, grass turf/12" sand w/subdrain	sq ft	\$1.46	79,200	\$115,632
d	irrigation system-quick coupler	sq ft	\$0.42	79,200	\$33,264
e	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
f	trash receptacles w/conc support	each	\$300.00	2	\$600
g	drinking fountain	each	\$750.00	1	\$750
h	restroom facility, sani-can w/conc platform	each	\$1,044.00	2	\$2,088
i	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j	parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
l	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m	water service, 8" service line	lr ft	\$15.00	500	\$7,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$232,093

a	construction sales tax (const)	8.2%			\$19,032
b	design/engineering fees (const)	12.0%			\$27,851
c	financing costs (const, tax, design)	8.0%			\$22,318
d	contingency (const, tax, design, financing)	10.0%			\$30,129

Total development cost per field \$331,423

Soccer field - 240'x330' with dirt surface

		unit	unit cost	qty	qty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	2.1	\$3,045
b	earthwork for field, structures, parking, road	cu yd	\$4.40	5,094	\$22,414
c	playing surface, cinder w/subdrain	sq ft	\$0.20	79,200	\$15,840
d	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
e	trash receptacles w/conc support	each	\$300.00	2	\$600
f	drinking fountain	each	\$750.00	1	\$750
g	restroom facility, sani-can w/conc platform	each	\$1,044.00	2	\$2,088
h	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
i	parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
j	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
k	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
l	water service, 8" service line	lr ft	\$15.00	500	\$7,500
m	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$99,037

a	construction sales tax (const)	8.2%			\$8,121
b	design/engineering fees (const)	12.0%			\$11,884
c	financing costs (const, tax, design)	8.0%			\$9,523

d contingency (const, tax, design, financing)	10.0%	\$12,857
Total development cost per field		\$141,422

Soccer field - regulation 300'x390' with grass turf

	unit	unit cost	qty	qty cost
a clear field, structures, parking, access road	acre	\$1,450.00	3.1	\$4,495
b earthwork for field, structures, parking, road	cu yd	\$4.40	5,094	\$22,414
c playing surface, grass turf/12" sand w/subdrain	sq ft	\$1.46	117,000	\$170,820
d irrigation system-quick coupler	sq ft	\$0.42	117,000	\$49,140
e goal posts, galvanized pipe	each	\$1,500.00	2	\$3,000
f spectator stands, movable metal (50 seats)	each	\$5,000.00	4	\$20,000
g trash receptacles w/conc support	each	\$300.00	2	\$600
h drinking fountain	each	\$750.00	1	\$750
i restroom facility, sani-can w/conc platform	each	\$1,044.00	2	\$2,088
j bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
k parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
l wheel stops, 10"x6"x8" precast concrete	each	\$146.00	50	\$7,300
m access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
n water service, 8" service line	lr ft	\$15.00	500	\$7,500
o water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost per field				\$317,607
a construction sales tax (const)	8.2%			\$26,044
b design/engineering fees (const)	12.0%			\$38,113
c financing costs (const, tax, design)	8.0%			\$30,541
d contingency (const, tax, design, financing)	10.0%			\$41,230
Total development cost per field				\$453,535

Soccer field - regulation 300'x390' with dirt surface

	unit	unit cost	qty	qty cost
a clear field, structures, parking, access road	acre	\$1,450.00	3.1	\$4,495
b earthwork for field, structures, parking, road	cu yd	\$4.40	5,094	\$22,414
c playing surface, cinder w/subdrain	sq ft	\$0.20	117,000	\$23,400
d goal posts, galvanized pipe	each	\$1,500.00	2	\$3,000
e spectator stands, movable metal (50 seats)	each	\$5,000.00	4	\$20,000
f trash receptacles w/conc support	each	\$300.00	2	\$600
g drinking fountain	each	\$750.00	1	\$750
h restroom facility, sani-can w/conc platform	each	\$1,044.00	2	\$2,088
i bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
k wheel stops, 10"x6"x8" precast concrete	each	\$146.00	50	\$7,300
l access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m water service, 8" service line	lr ft	\$15.00	500	\$7,500
n water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost per field				\$121,047
a construction sales tax (const)	8.2%			\$9,926
b design/engineering fees (const)	12.0%			\$14,526
c financing costs (const, tax, design)	8.0%			\$11,640
d contingency (const, tax, design, financing)	10.0%			\$15,714
Total development cost per field				\$172,852

Baseball field - 200' with grass turf

	unit	unit cost	qty	qty cost
a clear field, structures, parking, access road	acre	\$1,450.00	1.2	\$1,740
b earthwork for field, structures, parking, road	cu yd	\$4.40	2,586	\$11,378

c	infield mix w/subdrain	cu yd	\$18.00	133	\$2,400
d	outfield, grass turf/12" sand w/subdrain	sq ft	\$1.46	36,400	\$53,144
e	irrigation system-quick coupler	sq ft	\$0.42	36,400	\$15,288
f	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
g	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
h	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
i	trash receptacles w/conc support	each	\$300.00	2	\$600
j	drinking fountain	each	\$750.00	1	\$750
k	restroom facility, sani-can w/conc platform	sq ft	\$1,044.00	2	\$2,088
l	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
m	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125
n	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
o	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
p	water service, 8" service line	lr ft	\$15.00	500	\$7,500
q	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$142,473

a	construction sales tax (const)	8.2%	\$11,683
b	design/engineering fees (const)	12.0%	\$17,097
c	financing costs (const, tax, design)	8.0%	\$13,700
d	contingency (const, tax, design, financing)	10.0%	\$18,495

Total development cost per field \$203,449

Baseball field - 200' with dirt surface

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	1.2	\$1,740
b	earthwork for field, structures, parking, road	cu yd	\$4.40	2,586	\$11,378
c	infield mix w/subdrain	cu yd	\$18.00	133	\$2,400
d	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
e	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
f	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
g	trash receptacles w/conc support	each	\$300.00	2	\$600
h	drinking fountain	each	\$750.00	1	\$750
i	restroom facility, sani-can w/conc platform	sq ft	\$1,044.00	2	\$2,088
j	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
k	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125
l	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
m	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
n	water service, 8" service line	lr ft	\$15.00	500	\$7,500
o	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$74,041

a	construction sales tax (const)	8.2%	\$6,071
b	design/engineering fees (const)	12.0%	\$8,885
c	financing costs (const, tax, design)	8.0%	\$7,120
d	contingency (const, tax, design, financing)	10.0%	\$9,612

Total development cost per field \$105,729

Baseball field - 250' with grass/lights/concession

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	3.1	\$4,495
b	earthwork for field, structures, parking, road	cu yd	\$4.40	3,700	\$16,280
c	infield mix w/subdrain	cu yd	\$18.00	300	\$5,400
d	outfield, grass turf/12" sand w/subdrain	sq ft	\$1.46	44,700	\$65,262
e	irrigation system-quick coupler	sq ft	\$0.42	44,700	\$18,774
f	lighting system, 8 poles w/luminaires	ystem	\$91,000.00	1	\$91,000

g	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
h	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
i	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
j	trash receptacles w/conc support	each	\$300.00	2	\$600
k	drinking fountain	each	\$750.00	1	\$750
l	concession facility, warming and refrigeration	sq ft	\$100.00	250	\$25,000
m	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
n	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125
o	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
p	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
q	water service, 8" service line	lr ft	\$15.00	500	\$7,500
r	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$282,646

a	construction sales tax (const)	8.2%	\$23,177
b	design/engineering fees (const)	12.0%	\$33,918
c	financing costs (const, tax, design)	8.0%	\$27,179
d	contingency (const, tax, design, financing)	10.0%	\$36,692

Total development cost per field \$403,612

Baseball field - 250' w/o lights or concession

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	3.1	\$4,495
b	earthwork for field, structures, parking, road	cu yd	\$4.40	3,700	\$16,280
c	infield mix w/subdrain	cu yd	\$18.00	300	\$5,400
d	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
e	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
f	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
g	trash receptacles w/conc support	each	\$300.00	2	\$600
h	drinking fountain	each	\$750.00	1	\$750
i	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
l	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m	water service, 8" service line	lr ft	\$15.00	500	\$7,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$82,610

a	construction sales tax (const)	8.2%	\$6,774
b	design/engineering fees (const)	12.0%	\$9,913
c	financing costs (const, tax, design)	8.0%	\$7,944
d	contingency (const, tax, design, financing)	10.0%	\$10,724

Total development cost per field \$117,965

Baseball field - 300' w/grass/lights/concession

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	3.5	\$5,075
b	earthwork for field, structures, parking, road	cu yd	\$4.40	4,000	\$17,600
c	infield mix w/subdrain	cu yd	\$18.00	296	\$5,333
d	outfield, grass turf/12" sand w/subdrain	sq ft	\$1.46	38,000	\$55,480
e	irrigation system-quick coupler	sq ft	\$0.42	45,000	\$18,900
f	lighting system, 8 poles w/luminaires	ystem	\$91,000.00	1	\$91,000
g	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
h	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
i	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
j	trash receptacles w/conc support	each	\$300.00	2	\$600

k	drinking fountain	each	\$750.00	1	\$750
l	concession facility, warming and refrigeration w/pa system	sq ft	\$100.00	250	\$25,000
m	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
n	parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
o	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
p	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
q	water service, 8" service line	lr ft	\$15.00	500	\$7,500
r	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$280,448

a	construction sales tax (const)	8.2%	\$22,997
b	design/engineering fees (const)	12.0%	\$33,654
c	financing costs (const, tax, design)	8.0%	\$26,968
d	contingency (const, tax, design, financing)	10.0%	\$36,407

Total development cost per field \$400,473

Baseball field - 300' w/dirt w/o lights/concession

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	3.5	\$5,075
b	earthwork for field, structures, parking, road	cu yd	\$4.40	4,000	\$17,600
c	infield mix w/subdrain	cu yd	\$18.00	296	\$5,333
d	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
e	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
f	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
g	trash receptacles w/conc support	each	\$300.00	2	\$600
h	drinking fountain	each	\$750.00	1	\$750
i	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j	parking, 2" asphalt concrete/4" crushed rock, 50 spaces	sq ft	\$1.25	15,000	\$18,750
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
l	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m	water service, 8" service line	lr ft	\$15.00	500	\$7,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$90,068

a	construction sales tax (const)	8.2%	\$7,386
b	design/engineering fees (const)	12.0%	\$10,808
c	financing costs (const, tax, design)	8.0%	\$8,661
d	contingency (const, tax, design, financing)	10.0%	\$11,692

Total development cost per field \$128,615

Softball field - 200-300' w/grass/lights/concession

		unit	unit cost	qnty	qnty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	0.8	\$1,160
b	earthwork for field, structures, parking, road	cu yd	\$4.40	1,335	\$5,874
c	infield mix w/subdrain	cu yd	\$18.00	150	\$2,700
d	outfield, grass turf/12" sand w/subdrain	sq ft	\$1.46	15,950	\$23,287
e	irrigation system-quick coupler	sq ft	\$0.42	15,950	\$6,699
f	lighting system, 5 poles w/luminaires	ystem	\$41,250.00	1	\$41,250
g	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
h	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
i	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
j	trash receptacles w/conc support	each	\$300.00	2	\$600
k	drinking fountain	each	\$750.00	1	\$750
l	concession facility, warming and refrigeration	sq ft	\$100.00	250	\$25,000
m	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
n	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125

o	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
p	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
q	water service, 8" service line	lr ft	\$15.00	500	\$7,500
r	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$162,405

a	construction sales tax (const)	8.2%			\$13,317
b	design/engineering fees (const)	12.0%			\$19,489
c	financing costs (const, tax, design)	8.0%			\$15,617
d	contingency (const, tax, design, financing)	10.0%			\$21,083

Total development cost per field \$231,910

Softball field – 200–300' w/dirt w/o lights/concession

		unit	unit cost	qty	qty cost
a	clear field, structures, parking, access road	acre	\$1,450.00	0.8	\$1,160
b	earthwork for field, structures, parking, road	cu yd	\$4.40	1,335	\$5,874
c	infield mix w/subdrain	cu yd	\$18.00	150	\$2,700
d	backstop, 3" pipe posts w/supports, 2" chain link	each	\$5,000.00	1	\$5,000
e	players bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	4	\$3,600
f	spectator stands, movable metal (50 seats)	each	\$5,000.00	2	\$10,000
g	trash receptacles w/conc support	each	\$300.00	2	\$600
h	drinking fountain	each	\$750.00	1	\$750
i	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
j	parking, 2" asphalt concrete/4" crushed rock, 35 spaces	sq ft	\$1.25	10,500	\$13,125
k	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	35	\$5,110
l	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m	water service, 8" service line	lr ft	\$15.00	500	\$7,500
n	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per field \$66,169

a	construction sales tax (const)	8.2%			\$5,426
b	design/engineering fees (const)	12.0%			\$7,940
c	financing costs (const, tax, design)	8.0%			\$6,363
d	contingency (const, tax, design, financing)	10.0%			\$8,590

Total development cost per field \$94,488

Parcourse facility – 5 stations/0.25 mile

		unit	unit cost	qty	qty cost
a	clear/earthwork parcourse corridor	sq ft	\$1.40	8,070	\$11,298
b	crushed rock, 6" depth, 4' wide, 3/8" minus	sq ft	\$0.65	5,380	\$3,497
c	interpretative signs, 4"x4" cedar framed	each	\$200.00	5	\$1,000
d	bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	2	\$1,800
e	trash receptacles w/concrete support	each	\$300.00	2	\$600

Total construction cost per facility \$18,195

a	construction sales tax (const)	8.2%			\$1,492
b	design/engineering fees (const)	12.0%			\$2,183
c	financing costs (const, tax, design)	8.0%			\$1,750
d	contingency (const, tax, design, financing)	10.0%			\$2,362

Total development cost per facility (5 stations) \$25,982

Jogging track – 0.25 mile w/starting spur

		unit	unit cost	qty	qty cost
a	clear track, parking, access road	acre	\$1,450.00	0.9	\$1,305
b	earthwork for track, parking, access road	cu yd	\$4.40	1,532	\$6,741
c	12' track, 1" rubber/4" cinder/4" crushed rock	sq ft	\$1.02	18,464	\$18,833
d	bench, 8"x8"x10' wood beams w/conc support	each	\$900.00	2	\$1,800

e	trash receptacles	each	\$300.00	2	\$600
f	drinking fountain, precast concrete	each	\$750.00	1	\$750
g	bike rack, prefab galvanized pipe	each	\$350.00	1	\$350
h	parking, 2" asphalt/4" crushed rock, 10 spaces	sq-ft	\$1.25	3,000	\$3,750
i	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	10	\$1,460
j	access road, 2" asphalt/4" crushed rock, 24'x50'	sq ft	\$1.25	1,200	\$1,500
k	water service, 8" service line	lr ft	\$15.00	100	\$1,500
l	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per track \$42,989

a	construction sales tax (const)	8.2%	\$3,525
b	design/engineering fees (const)	12.0%	\$5,159
c	financing costs (const, tax, design)	8.0%	\$4,134
d	contingency (const, tax, design, financing)	10.0%	\$5,581

Total development cost per track \$61,388

Picnic site – 25 table capacity w/o shelter

		unit	unit cost	qty	qty cost
a	clear picnic sites, parking, access road	acre	\$1,450.00	2.3	\$3,335
b	earthwork for sites, parking, access road	cu yd	\$4.40	3,748	\$16,491
c	picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	25	\$27,500
d	barbecue stand, metal with iron grill	each	\$300.00	12	\$3,600
e	group barbecue, 3'x8' concrete w/iron grill	each	\$872.00	2	\$1,744
f	trash receptacle, galvanized metal can w/holder	each	\$300.00	12	\$3,600
g	drinking fountain	each	\$750.00	2	\$1,500
h	parking, 2" asphalt concrete/4" crushed rock (50 cars)	sq ft	\$1.25	15,000	\$18,750
i	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
j	access road, 2" asphalt concrete/4" crushed rock, 24'x1,000'	sq ft	\$1.25	24,000	\$30,000
k	water service, 8" service line	lr ft	\$15.00	1,000	\$15,000
l	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost for 25 tables \$133,220

a	construction sales tax (const)	8.2%	\$10,924
b	design/engineering fees (const)	12.0%	\$15,986
c	financing costs (const, tax, design)	8.0%	\$12,810
d	contingency (const, tax, design, financing)	10.0%	\$17,294

Total development cost for 25 tables \$190,235

Prorated per table \$7,609

Picnic site – 25 table capacity w/shelter

		unit	unit cost	qty	qty cost
a	clear picnic sites, parking, access road	acre	\$1,450.00	2.3	\$3,335
b	earthwork for sites, parking, access road	cu yd	\$4.40	3,748	\$16,491
c	picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	25	\$27,500
d	barbecue stand, metal with iron grill	each	\$300.00	12	\$3,600
e	group barbecue, 3'x8' concrete w/iron grill	each	\$872.00	2	\$1,744
f	picnic shelter (20'x30'), cedar pole w/shake roof	each	\$27,000.00	2	\$54,000
g	trash receptacle, galvanized metal can w/holder	each	\$300.00	12	\$3,600
h	drinking fountain	each	\$750.00	2	\$1,500
i	parking, 2" asphalt concrete/4" crushed rock (50 cars)	sq ft	\$1.25	15,000	\$18,750
j	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
k	access road, 2" asphalt concrete/4" crushed rock, 24'x1,000'	sq ft	\$1.25	24,000	\$30,000
l	water service, 8" service line	lr ft	\$15.00	1,000	\$15,000
m	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost for 25 tables \$187,220

a	construction sales tax (const)	8.2%	\$15,352
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b design/engineering fees (const)	12.0%	\$22,466
c financing costs (const, tax, design)	8.0%	\$18,003
d contingency (const, tax, design, financing)	10.0%	\$24,304
Total development cost for 25 tables		\$267,346
Prorated per table		\$10,694

Swimming beach – 100 swimmer capacity

	unit	unit cost	qty	qty cost
a clear site for improvements	acre	\$1,450.00	0.3	\$435
b earthwork for site improvements	cu yd	\$4.40	511	\$2,248
c beach sand, 6" depth of area 200'x50'	cu yd	\$19.00	200	\$3,800
d safety markers, pilings w/nylon ropes and buoys	each	\$1,100.00	4	\$4,400
e diving/swimming platform, 2"x6" wood over buoys	sq ft	\$28.00	80	\$2,240
f lifeguard stand, 8" cedar poles w/2"x4" framing	each	\$1,400.00	1	\$1,400
g exterior shower facilities	each	\$1,200.00	1	\$1,200
h drinking fountain	each	\$750.00	1	\$750
i restroom/changing facility, 6 stalls w/4 sinks	sq ft	\$100.00	600	\$60,000
j parking, 2" asphalt concrete/4" crushed rock (40 cars)	sq ft	\$1.25	12,000	\$15,000
k wheel stops, 10"x6"x8' precast concrete	each	\$146.00	30	\$4,380
l access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
m water service, 8" service line	lr ft	\$15.00	400	\$6,000
n sewer line, 8" service line	lr ft	\$17.00	400	\$6,800
o fire hydrants	each	\$2,675.00	1	\$2,675
p water meter, 2" size	each	\$4,400.00	1	\$4,400
q trash receptacles	each	\$300.00	4	\$1,200

Total construction cost per site \$122,928

a construction sales tax (const)	8.2%	\$10,080
b design/engineering fees (const)	12.0%	\$14,751
c financing costs (const, tax, design)	8.0%	\$11,821
d contingency (const, tax, design, financing)	10.0%	\$15,958

Total development cost per site \$175,539

Prorated per parking space (2.5 swimmers/car=40 spaces) \$4,388

Fishing from a bank or dock – 25 car capacity

	unit	unit cost	qty	qty cost
a clear site improvements	acre	\$1,450.00	0.3	\$363
b earthwork for site improvements	cu yd	\$4.40	550	\$2,420
c pier supported dock, treated wood 12'x100'	sq ft	\$50.00	1,200	\$60,000
d fishing platform, treated wood/styrofoam 12'x20'	sq ft	\$32.00	240	\$7,680
e parking, 2" asphalt concrete/4" crushed rock – 25 spaces	sq ft	\$1.25	7,500	\$9,375
f wheel stops, 10"x6"x8' precast concrete	each	\$146.00	25	\$3,650
g access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
h picnic tables and benches, 4'x6" wood beams w/concrete pla	each	\$900.00	8	\$7,200
i restroom facility, sanican w/concrete platform	each	\$1,044.00	2	\$2,088
j trash receptacles w/concrete support	each	\$300.00	2	\$600

Total construction cost per site \$99,376

a construction sales tax (const)	8.2%	\$8,149
b design/engineering fees (const)	12.0%	\$11,925
c financing costs (const, tax, design)	8.0%	\$9,556
d contingency (const, tax, design, financing)	10.0%	\$12,901

Total development cost per facility \$141,906

Prorated per parking space \$5,676

Boat launch – 25 boat capacity

	unit	unit cost	qnty	qnty cost
a clear site improvements	acre	\$1,450.00	0.4	\$507
b earthwork for site improvements	cu yd	\$4.40	2,400	\$10,560
c boat access ramp, precast concrete ramp units	each	\$17,500.00	1	\$17,500
d mooring platform, treated wood/styrofoam	sq ft	\$32.00	400	\$12,800
e bank stabilization/landscape plantings	each	\$6,000.00	1	\$6,000
f marker buoys and signage	each	\$250.00	4	\$1,000
g car/trailer parking, 2" asphalt concrete/4" crushed rock	sq ft	\$1.25	12,500	\$15,625
h wheel stops, 10"x6"x8' precast concrete	each	\$146.00	25	\$3,650
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.25	4,800	\$6,000
j trash receptacles	each	\$300.00	2	\$600

Total construction cost per site \$74,243

a construction sales tax (const)	8.2%	\$6,088
b design/engineering fees (const)	12.0%	\$8,909
c financing costs (const, tax, design)	8.0%	\$7,139
d contingency (const, tax, design, financing)	10.0%	\$9,638

Total development cost per ramp \$106,017

Prorated per boat trailer parking stall \$4,241

Handboat launch – 10 car capacity

	unit	unit cost	qnty	qnty cost
a clear site improvements	acre	\$1,450.00	0.3	\$363
b earthwork for site improvements/launching ramp	cu yd	\$4.40	2,400	\$10,560
c concrete launching ramp	each	\$17,500.00	1	\$17,500
d launching platform, treated wood/styrofoam 10'x20'	sq ft	\$32.00	200	\$6,400
e landscape/bank stabilization plantings	each	\$6,000.00	1	\$6,000
f parking, 2" asphalt concrete/4" crushed rock – 10 spaces	sq ft	\$1.25	3,000	\$3,750
g wheel stops, 10"x6"x8' precast concrete	each	\$146.00	10	\$1,460
h access road, 2" asphalt concrete/4" crushed rock, 24'x100'	sq ft	\$1.25	2,400	\$3,000
i restroom facility, sanican w/concrete platform	each	\$1,044.00	2	\$2,088
j trash receptacles w/concrete support	each	\$300.00	2	\$600

Total construction cost per site \$51,721

a construction sales tax (const)	8.2%	\$4,241
b design/engineering fees (const)	12.0%	\$6,206
c financing costs (const, tax, design)	8.0%	\$4,973
d contingency (const, tax, design, financing)	10.0%	\$6,714

Total development cost per facility \$73,856

Prorated per parking space \$7,386

Tent camping – 25 campsite capacity

	unit	unit cost	qnty	qnty cost
a clear camping area, parking, access road	acre	\$1,450.00	5.6	\$8,120
b earthwork in camping area, parking, access road	cu yd	\$4.40	9,157	\$40,291
c campsite parking, 2" asphalt concrete/4" crushed rock	sq ft	\$1.25	20,000	\$25,000
d picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	25	\$27,500
e barbecue pits, concrete with iron grill	each	\$300.00	25	\$7,500
f camp shelter (10'x6'), cedar pole w/shake roof	each	\$2,700.00	25	\$67,500
g trash receptacle, galvanized can w/4"x4" post	each	\$300.00	25	\$7,500
h restroom/showering fcilty, 6 stalls/4 sinks/4 show	sq ft	\$100.00	850	\$85,000
i camp directory signs, 4"x4" cedar pole framed	each	\$200.00	20	\$4,000
j access road, 6" crushed rock, 24'x5,380'	sq ft	\$1.25	129,120	\$161,400
k water service, 8" service line	lr ft	\$15.00	5,380	\$80,700
l sewage disposal, campgrnd septic tank drainfield	each	\$20,000.00	1	\$20,000

m	fire hydrant	each	\$2,675.00	1	\$2,675
n	water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost for 25 campsites					\$541,586
a	construction sales tax (const)	8.2%			\$44,410
b	design/engineering fees (const)	12.0%			\$64,990
c	financing costs (const, tax, design)	8.0%			\$52,079
d	contingency (const, tax, design, financing)	10.0%			\$70,307
Total development cost for 25 campsites					\$773,372
Prorated per campsite					\$30,935

Group daycamping facility - 100 person capacity

		unit	unit cost	qty	qty cost
a	clear camping site, parking, access road	acre	\$1,450.00	3.1	\$4,495
b	earthwork for sites, parking, access road	cu yd	\$4.40	5,134	\$22,590
c	group campfire/amphitheater, wood stage/benches	each	\$13,000.00	1	\$13,000
d	camp directory signs, 4"x4" cedar pole framed	each	\$200.00	20	\$4,000
e	group cooking, 4'x12' concrete w/iron grill	each	\$1,744.00	2	\$3,488
f	eating shelter (30'x30'), cedar pole w/shake roof	sq ft	\$45.00	900	\$40,500
g	picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	25	\$27,500
h	trash bin, metal dumpster w/wood fence screen	each	\$1,500.00	3	\$4,500
i	restroom facility, 6 stalls w/4 sinks	sq ft	\$100.00	600	\$60,000
j	drinking fountain	each	\$750.00	1	\$750
k	parking, 2" asphalt concrete/4" crushed rock, 50 cars	sq ft	\$1.25	15,000	\$18,750
l	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	50	\$7,300
m	access road, 2" asphalt concrete/4" crushed rock, 24'x1,000'	sq ft	\$1.25	24,000	\$30,000
n	water service, 8" service line	lr ft	\$15.00	1,000	\$15,000
o	sewage disposal, septic tank w/drainfield	system	\$20,000.00	1	\$20,000
p	fire hydrant	each	\$2,675.00	1	\$2,675
q	water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost per group camp					\$278,948
a	construction sales tax (const)	8.2%			\$22,874
b	design/engineering fees (const)	12.0%			\$33,474
c	financing costs (const, tax, design)	8.0%			\$26,824
d	contingency (const, tax, design, financing)	10.0%			\$36,212
Total development cost per group camp					\$398,330
Prorated per person					\$3,983

Recreational vehicle camping - 25 campsite capacity

		unit	unit cost	qty	qty cost
a	clear campsite, parking, access road	acre	\$1,450.00	10.1	\$14,645
b	earthwork for campsite, parking, access road	cu yd	\$4.40	16,460	\$72,424
c	campsite parking, 2" asphalt concrete/4" crushed rock	sq ft	\$1.25	30,000	\$37,500
d	picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	25	\$27,500
e	barbecue pits, concrete with iron grill	each	\$300.00	25	\$7,500
f	drinking fountain	each	\$750.00	1	\$750
g	trash receptacle, galvanized can w/4"x4" post	each	\$300.00	25	\$7,500
h	sanitary dump facility, 2 stalls	each	\$18,000.00	1	\$18,000
i	camp directory signs, 4"x4" cedar pole framed	each	\$200.00	20	\$4,000
j	access road, 2" asphalt concrete/4" crushed rock, 24'x8,070'	sq ft	\$1.25	193,680	\$242,100
k	water service, 3" service line	lr ft	\$12.00	8,070	\$96,840
l	water meter, 2" size	each	\$4,400.00	1	\$4,400
Total construction cost for 25 campsites					\$533,159
a	construction sales tax (const)	8.2%			\$43,719
b	design/engineering fees (const)	12.0%			\$63,979

c	financing costs (const, tax, design)	8.0%	\$51,269
d	contingency (const, tax, design, financing)	10.0%	\$69,213
Total development cost for 25 campsites			\$761,338
Prorated per campsite			\$30,454

Outdoor swimming pool – 75'x42'=3,150 sf of 294 person capacity

	unit	unit cost	qty	qty cost	
a	clear pool area, deck, parking, access road	acre	\$1,450.00	1.1	\$1,595
b	earthwork, 1' depth except pool @5' depth	cu yd	\$4.40	2,370	\$10,428
c	diving area, 1 meter board capacity = 3 in pool + 9 in line/board/10' radius = 12 divers/board	sq ft	\$41.00	628	\$25,748
d	swimming area, 50'x42' less diving area reqmnt capacity = 27 sq ft/swimmer with 75% of swimmers in pool = 54 in pool + 18 on deck = 72 swimmers	sq ft	\$41.00	1,472	\$60,352
e	nonswimming area, 25'x42' capacity = 10 sq ft/person with 50% in pool = 105 in pool + 105 on land = 210 persons	sq ft	\$41.00	1,050	\$43,050
f	pool deck, 10' on sides, 20' on ends, tile/concrete	sq ft	\$4.00	1,590	\$6,360
g	lifeguard stand, galvanized pipe w/2"x4" framing	each	\$700.00	2	\$1,400
h	drinking fountain	each	\$750.00	1	\$750
i	locker/shower facility, 20 showers w/50 lockers	sq ft	\$100.00	1,000	\$100,000
j	restroom facility, 10 stalls w/6 sinks	sq ft	\$100.00	1,000	\$100,000
k	concession facility, grill and refrigeration	sq ft	\$100.00	250	\$25,000
l	bike rack, prefab galvanized pipe	each	\$350.00	3	\$1,050
m	parking, 2" asphalt concrete/4" crushed rock, 128 spaces 2.5 swimmers/car = 118 cars + 10 employees = 128	sq ft	\$1.25	38,400	\$48,000
n	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	128	\$18,688
o	access road, 2" asphalt concrete/4" crushed rock, 24'x250'	sq ft	\$1.25	6,000	\$7,500
p	water service, 8" service line	lr ft	\$15.00	400	\$6,000
q	sewer service, 8" side sewer	lr ft	\$17.00	400	\$6,800
r	fire hydrant	each	\$2,675.00	1	\$2,675
s	water meter, 8" size	each	\$10,000.00	1	\$10,000
t	chainlink perimeter fence, 6'	lr ft	\$10.00	317	\$3,170
u	seed grass over 4" topsoil	sq ft	\$0.83	1,564	\$1,298

Total construction cost for 294 swimmers \$479,864

a	construction sales tax (const)	8.2%	\$39,349
b	design/engineering fees (const)	12.0%	\$57,584
c	financing costs (const, tax, design)	8.0%	\$46,144
d	contingency (const, tax, design, financing)	10.0%	\$62,294

Total development cost for 294 swimmers/3,150 sq ft pool) \$685,234

Prorated per square foot of total pool \$218

Community center – 250 person capacity

	unit	unit cost	qty	qty cost	
a	clear building site, parking, access road	acre	\$1,450.00	3	\$4,350
b	earthwork for structure, parking, access road	cu yd	\$4.40	1,613	\$7,099
c	gymnasium, 2 full basketball courts	sq ft	\$80.00	11,280	\$902,400
d	racquetball courts	sq ft	\$95.00	3,680	\$349,600
e	kitchen facility	sq ft	\$75.00	360	\$27,000
f	game/classroom	sq ft	\$65.00	960	\$62,400
g	exercise/aerobics room, 50 persons	sq ft	\$65.00	5,000	\$325,000
h	physical conditioning/hydro/wellness facility	sq ft	\$65.00	2,745	\$178,425
i	office and reception area	sq ft	\$65.00	1,000	\$65,000

j	multipurpose, restroom, locker room, showers	sq ft	\$110.00	3,400	\$374,000
k	bike rack	each	\$350.00	1	\$350
l	parking, 2" asphalt concrete/4" crushed rock, 175 cars	sq ft	\$1.25	52,500	\$65,625
m	wheel stops, 10"x6"x8' precast concrete	each	\$146.00	75	\$10,950
n	access road, 2" asphalt concrete/4" crushed rock, 24'x250'	sq ft	\$1.25	6,000	\$7,500
o	water service, 8" service line	lr ft	\$15.00	400	\$6,000
p	sewage disposal, 8" service line	lr ft	\$17.00	400	\$6,800
q	fire hydrant	each	\$2,675.00	1	\$2,675
r	water meter, 2" size	each	\$4,400.00	1	\$4,400
s	parking lot lighting, 10 poles	ystem	\$35,000.00	1	\$35,000
t	art sculpture	each	\$5,000.00	1	\$5,000

Total construction cost per center \$2,439,574

a	construction sales tax (const)	8.2%	\$200,045
b	design/engineering fees (const)	12.0%	\$292,749
c	financing costs (const, tax, design)	8.0%	\$234,589
d	contingency (const, tax, design, financing)	10.0%	\$316,696

Total development cost per center \$3,483,653

Prorated per square foot \$122.56

Restroom/support facilities

		unit	unit cost	qnty	qnty cost
a	restroom facility, 4 stalls w/2 sinks	sq ft	\$100.00	500	\$50,000
b	sewer service, 8" side sewer	lr ft	\$17.00	500	\$8,500
c	water service, 8" service line	lr ft	\$15.00	500	\$7,500
d	fire hydrant	each	\$2,675.00	1	\$2,675
e	water meter, 2" size	each	\$4,400.00	1	\$4,400

Total construction cost per facility/4 fixtures \$73,075

a	construction sales tax (const)	8.2%	\$5,992
b	design/engineering fees (const)	12.0%	\$8,769
c	financing costs (const, tax, design)	8.0%	\$7,027
d	contingency (const, tax, design, financing)	10.0%	\$9,486

Total development cost per 4 stall facility \$104,349

Source: the Beckwith Consulting Group with Hough Beck & Baird

Prototype trail development costs

Multipurpose trail – 8 foot wide crushed rock (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 12' wide	sq ft	\$0.35	322,800	\$112,980
b crushed rock, rolled to 4", 3/8" minus – 8' wide	sq ft	\$0.75	215,200	\$161,400
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$325,400
j construction sales tax (const)	8.2%			\$26,683
k design/engineering fees (const)	12.0%			\$39,048
l financing costs (const, tax, design)	8.0%			\$31,290
m contingency (const, tax, design, financing)	15.0%			\$63,363
Total development cost per 5 miles				\$485,784
Prorated per mile				\$97,157

Multipurpose trail – 8 foot asphalt (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 12' wide	sq ft	\$0.35	322,800	\$112,980
b 2" asphalt over 4" crushed rock – 8' wide	sq ft	\$1.80	215,200	\$387,360
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$551,360
j construction sales tax (const)	8.2%			\$45,212
k design/engineering fees (const)	12.0%			\$66,163
l financing costs (const, tax, design)	8.0%			\$53,019
m contingency (const, tax, design, financing)	15.0%			\$107,363
Total development cost per 5 miles				\$823,117
Prorated per mile				\$164,623

Multipurpose trail – 10 foot crushed rock (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 14' wide	sq ft	\$0.35	376,600	\$131,810
b crushed rock, rolled to 4", 3/8" minus – 10' wide	sq ft	\$0.75	269,000	\$201,750
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$384,580
j construction sales tax (const)	8.2%			\$31,536
k design/engineering fees (const)	12.0%			\$46,150
l financing costs (const, tax, design)	8.0%			\$36,981

m contingency (const, tax, design, financing)	15.0%	\$74,887
Total development cost per 5 miles		\$574,133
Prorated per mile		\$114,827

Multipurpose trail – 10 foot asphalt (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 14' wide	sq ft	\$0.35	376,600	\$131,810
b 2" asphalt over 4" crushed rock – 10' wide	sq ft	\$1.80	269,000	\$484,200
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$667,030
j construction sales tax (const)	8.2%			\$54,696
k design/engineering fees (const)	12.0%			\$80,044
l financing costs (const, tax, design)	8.0%			\$64,142
m contingency (const, tax, design, financing)	15.0%			\$129,887
Total development cost per 5 miles				\$995,798
Prorated per mile				\$199,160

Park walking trail class 1 – crushed rock (1 mile w/o services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork trail corridor – 10' wide	sq ft	\$0.35	53,800	\$18,830
b crushed rock, 6" depth, 3/8" minus – 6' wide	sq ft	\$0.65	32,280	\$20,982
c interpretative signs, 4"x4" cedar framed	each	\$1,000.00	5	\$5,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e trash receptacles w/concrete support	each	\$650.00	2	\$1,300
Total construction cost per mile				\$56,112
f construction sales tax (const)	8.2%			\$4,601
g design/engineering fees (const)	12.0%			\$6,733
h financing costs (const, tax, design)	8.0%			\$5,396
i contingency (const, tax, design, financing)	15.0%			\$10,926
Total development cost per mile				\$83,769

Park walking trail class 1 – asphalt (1 mile w/o services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork trail corridor – 10' wide	sq ft	\$0.35	53,800	\$18,830
b 2" asphalt over 4" crushed rock – 6' wide	sq ft	\$1.80	32,280	\$58,104
c interpretative signs, 4"x4" cedar framed	each	\$200.00	5	\$1,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e trash receptacles w/concrete support	each	\$650.00	2	\$1,300
Total construction cost per mile				\$89,234
f construction sales tax (const)	8.2%			\$7,317
g design/engineering fees (const)	12.0%			\$10,708
h financing costs (const, tax, design)	8.0%			\$8,581
i contingency (const, tax, design, financing)	15.0%			\$17,376
Total development cost per mile				\$133,216

Park walking trail class 2 – crushed rock (1 mile w/o services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork trail corridor – 8' wide	sq ft	\$0.35	43,040	\$15,064

b	crushed rock, 6" depth, 3/8" minus - 5' wide	sq ft	\$0.65	26,900	\$17,485
c	interpretative signs, 4"x4" cedar framed	each	\$1,000.00	5	\$5,000
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
Total construction cost per mile					\$48,849
f	construction sales tax (const)	8.2%			\$4,006
g	design/engineering fees (const)	12.0%			\$5,862
h	financing costs (const, tax, design)	8.0%			\$4,697
i	contingency (const, tax, design, financing)	15.0%			\$9,512
Total development cost per mile					\$72,926

Park walking trail class 2 - asphalt (1 mile w/o services)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork trail corridor - 8' wide	sq ft	\$0.35	43,040	\$15,064
b	2" asphalt over 4" crushed rock - 5' wide	sq ft	\$1.80	26,900	\$48,420
c	interpretative signs, 4"x4" cedar framed	each	\$200.00	5	\$1,000
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
Total construction cost per mile					\$75,784
f	construction sales tax (const)	8.2%			\$6,214
g	design/engineering fees (const)	12.0%			\$9,094
h	financing costs (const, tax, design)	8.0%			\$7,287
i	contingency (const, tax, design, financing)	15.0%			\$14,757
Total development cost per mile					\$113,137

Day hiking trail class 3 - crushed rock (5 miles w/services)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork along trail corridor - 6' wide	sq ft	\$0.35	161,400	\$56,490
b	crushed rock, rolled to 4", 3/8" minus - 4' wide	sq ft	\$0.75	107,600	\$80,700
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e	trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles					\$188,210
j	construction sales tax (const)	8.2%			\$15,433
k	design/engineering fees (const)	12.0%			\$22,585
l	financing costs (const, tax, design)	8.0%			\$18,098
m	contingency (const, tax, design, financing)	15.0%			\$36,649
Total development cost per 5 miles					\$280,976
Prorated per mile					\$56,195

Day hiking trail class 3 - asphalt (5 miles w/services)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork along trail corridor - 6' wide	acre	\$0.35	161,400	\$56,490
b	2" asphalt over 4" crushed rock - 4' wide	sq ft	\$1.80	107,600	\$193,680
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e	trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680

i	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles					\$301,190
j	construction sales tax (const)	8.2%			\$24,698
k	design/engineering fees (const)	12.0%			\$36,143
l	financing costs (const,tax, design)	8.0%			\$28,962
m	contingency (const, tax, design, financing)	15.0%			\$58,649
Total development cost per 5 miles					\$449,642
Prorated per mile					\$89,928

Day hiking trail class 4 – crushed rock (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor - 5' wide	sq ft	\$0.35	134,500	\$47,075
b crushed rock, rolled to 4" , 3/8" minus - 3' wide	sq ft	\$0.75	80,700	\$60,525
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	5	\$5,000
e trash receptacles w/concrete support	each	\$650.00	10	\$6,500
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$158,620
j construction sales tax (const)	8.2%			\$13,007
k design/engineering fees (const)	12.0%			\$19,034
l financing costs (const,tax, design)	8.0%			\$15,253
m contingency (const, tax, design, financing)	15.0%			\$30,887
Total development cost per 5 miles				\$236,801
Prorated per mile				\$47,360

Day hiking trail class 5 – compacted dirt (10 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 4' wide	sq ft	\$0.20	215,200	\$43,040
b finish grade compacted dirt trail – 2' wide	sq ft	\$0.15	107,600	\$16,140
c trail directory, 4"x4" cedar pole framed	each	\$350.00	40	\$14,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e trash receptacles w/concrete support	each	\$650.00	20	\$13,000
f restroom facilities, sanican w/concrete platforms	each	\$1,500.00	4	\$6,000
g parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
h wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
i access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 10 miles				\$131,700
j construction sales tax (const)	8.2%			\$10,799
k design/engineering fees (const)	12.0%			\$15,804
l financing costs (const,tax, design)	8.0%			\$12,664
m contingency (const, tax, design, financing)	15.0%			\$25,645
Total development cost per 10 miles				\$196,613
Prorated per mile				\$19,661

Shoreline hiking trail – access improvements only (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork for site improvements	sq ft	\$0.35	10,890	\$3,811
b landscape/bank stabilization plantings about access site	sq ft	\$2.50	2,723	\$6,806
c picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	3	\$3,300
d barbecue pits, concrete with iron grill	each	\$300.00	3	\$900
e trail shelter (10'x6'), cedar pole w/shake roof	each	\$2,700.00	1	\$2,700

f	trail directory signs, 4"x4" cedar pole framed	each	\$200.00	10	\$2,000
g	parking, 2" asphalt concrete/4" crushed rock - 10 spaces	sq ft	\$1.80	3,000	\$5,400
h	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	10	\$1,560
i	access road, 2" asphalt concrete/4" crushed rock, 24'x100'	sq ft	\$1.80	2,400	\$4,320
j	restroom facility, sanican w/concrete platform	each	\$1,500.00	2	\$3,000
k	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
Total construction cost per 5 miles					\$35,098
l	construction sales tax (const)	8.2%			\$2,878
m	design/engineering fees (const)	12.0%			\$4,212
n	financing costs (const, tax, design)	8.0%			\$3,375
o	contingency (const, tax, design, financing)	15.0%			\$6,834
Total development cost per 5 miles					\$52,397
Prorated per mile/access site					\$10,479

Off-road mountain biking trail class 1 - dirt (10 miles w/services)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork along trail corridor - 6' wide	sq ft	\$0.20	322,800	\$64,560
b	finish grade bike trail - 2' wide	sq ft	\$0.15	107,600	\$16,140
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	10	\$3,500
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	1	\$900
f	trash receptacles w/concrete support	each	\$650.00	5	\$3,250
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2" asphalt concrete/4" crushed rock (20 cars)	sq ft	\$1.80	6,000	\$10,800
i	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	20	\$3,120
j	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 10 miles					\$123,910
k	construction sales tax (const)	8.2%			\$10,161
l	design/engineering fees (const)	12.0%			\$14,869
m	financing costs (const, tax, design)	8.0%			\$11,915
n	contingency (const, tax, design, financing)	15.0%			\$24,128
Total development cost per 10 miles					\$184,983
Prorated per mile					\$18,498

Off-road mountain biking trail class 2 - dirt (20 miles w/services)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork along trail corridor - 5' wide	sq ft	\$0.20	538,000	\$107,600
b	finish grade bike trail - 1.5' wide	sq ft	\$0.15	161,400	\$24,210
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	15	\$15,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	2	\$1,800
f	trash receptacles w/concrete support	each	\$650.00	10	\$6,500
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2" asphalt concrete/4" crushed rock (20 cars)	sq ft	\$1.80	6,000	\$10,800
i	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	20	\$3,120
j	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 20 miles					\$187,670
k	construction sales tax (const)	8.2%			\$15,389
l	design/engineering fees (const)	12.0%			\$22,520
m	financing costs (const, tax, design)	8.0%			\$18,046
n	contingency (const, tax, design, financing)	15.0%			\$36,544
Total development cost per 20 miles					\$280,170
Prorated per mile					\$14,008

Off-road mountain biking trail class 3 – dirt (25 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 4' wide	sq ft	\$0.20	538,000	\$107,600
b finish grade bike trail – 1' wide	sq ft	\$0.15	134,500	\$20,175
c trail directory, 4"x4" cedar pole framed	each	\$350.00	25	\$8,750
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	20	\$20,000
e bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	3	\$2,700
f trash receptacles w/concrete support	each	\$650.00	15	\$9,750
g restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h parking, 2" asphalt concrete/4" crushed rock (20 cars)	sq ft	\$1.80	6,000	\$10,800
i wheel stops, 10"x6"x8' precast concrete	each	\$156.00	20	\$3,120
j access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 25 miles				\$194,535
k construction sales tax (const)	8.2%			\$15,952
l design/engineering fees (const)	12.0%			\$23,344
m financing costs (const, tax, design)	8.0%			\$18,706
n contingency (const, tax, design, financing)	15.0%			\$37,881
Total development cost per 25 miles				\$290,418
Prorated per mile				\$11,617

Off-road bicycling trail AASHTO class 1 – crushed rock (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 14' wide	sq ft	\$0.35	376,600	\$131,810
b crushed rock, rolled to 4", 3/8" minus – 10' wide	sq ft	\$0.75	269,000	\$201,750
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	1	\$900
f trash receptacles w/concrete support	each	\$650.00	10	\$6,500
g restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
i wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
j access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$390,480
k construction sales tax (const)	8.2%			\$32,019
l design/engineering fees (const)	12.0%			\$46,858
m financing costs (const, tax, design)	8.0%			\$37,549
n contingency (const, tax, design, financing)	15.0%			\$76,036
Total development cost per 5 miles				\$582,941
Prorated per mile				\$116,588

Off-road bicycling trail AASHTP class 1 – asphalt (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 14' wide	sq ft	\$0.35	376,600	\$131,810
b class 2 asphalt 2" crushed rock – 10' wide	sq ft	\$1.80	269,000	\$484,200
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	10	\$10,000
e bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	1	\$900
f trash receptacles w/concrete support	each	\$650.00	10	\$6,500
g restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
i wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
j access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles				\$672,930
k construction sales tax (const)	8.2%			\$55,180

l design/engineering fees (const)	12.0%	\$80,752
m financing costs (const, tax, design)	8.0%	\$64,709
n contingency (const, tax, design, financing)	15.0%	\$131,036
Total development cost per 5 miles		\$1,004,606
Prorated per mile		\$200,921

On-road bicycle touring AASHTO class 2 – bicycle lane both sides (10 miles w/o svcs)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along road shoulder – 8' wide	sq ft	\$0.35	860,800	\$301,280
b asphalt, 2" class 1/4" crushed rock – 6' wide	sq ft	\$1.80	645,600	\$1,162,080
c pavement markings, paint stripes and symbols	lr ft	\$1.00	107,600	\$107,600
d route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
Total construction cost per 10 miles				\$1,578,960
e construction sales tax (const)	8.2%			\$129,475
f design/engineering fees (const)	12.0%			\$189,475
g financing costs (const, tax, design)	8.0%			\$151,833
h contingency (const, tax, design, financing)	15.0%			\$307,461
Total development cost per 10 miles				\$2,357,204
Prorated per mile				\$235,720

On-road bicycle touring AASHTO class 3 – road shoulder both sides (10 miles w/o svcs)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along road shoulder – 6' wide	sq ft	\$0.35	645,600	\$225,960
b asphalt, 2" class 1/4" crushed rock – 4' wide	sq ft	\$1.80	430,400	\$774,720
c pavement markings, paint stripes and symbols	lr ft	\$0.50	107,600	\$53,800
d route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
Total construction cost per 10 miles				\$1,062,480
e construction sales tax (const)	8.2%			\$87,123
f design/engineering fees (const)	12.0%			\$127,498
g financing costs (const, tax, design)	8.0%			\$102,168
h contingency (const, tax, design, financing)	15.0%			\$206,890
Total development cost per 10 miles				\$1,586,159
Prorated per mile				\$158,616

On-road bicycle touring AASHTO class 4 – in lane (10 miles w/o services)

	unit	unit cost	qty	qty cost
a pavement markings, paint symbols and occasional strips	lr ft	\$1.00	107,600	\$107,600
b route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
Total construction cost per 10 miles				\$115,600
c construction sales tax (const)	8.2%			\$9,479
d design/engineering fees (const)	12.0%			\$13,872
e financing costs (const, tax, design)	8.0%			\$11,116
f contingency (const, tax, design, financing)	15.0%			\$22,510
Total development cost per 10 miles				\$172,577
Prorated per mile				\$17,258

Horse trail – separate trail (5 miles w/services)

	unit	unit cost	qty	qty cost
a clear/grade/earthwork along trail corridor – 6' wide	sq ft	\$0.20	32,280	\$6,456
b finish grade horse trail, compacted dirt – 2' wide	sq ft	\$0.15	10,760	\$1,614
c trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d hitching posts, galvanized pipe w/cedar posts	each	\$500.00	10	\$5,000
e trash receptacles w/concrete support	each	\$650.00	4	\$2,600
f restroom facilities, sanican w/concrete platform	each	\$1,500.00	2	\$3,000

g	trailer parking, 2" asphalt concrete/4" crushed rock (20 stalls)	sq ft	\$1.80	10,000	\$18,000
h	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	20	\$3,120
i	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles					\$55,430
j	construction sales tax (const)	8.2%			\$4,545
k	design/engineering fees (const)	12.0%			\$6,652
l	financing costs (const, tax, design)	8.0%			\$5,330
m	contingency (const, tax, design, financing)	15.0%			\$10,794
Total development cost per 5 miles					\$82,751
Prorated per mile					\$16,550

Water trailhead – access improvements for handboat launch and campsite (5 miles w/svs)

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork for site improvements	sq ft	\$0.35	10,890	\$3,811
b	landscape/bank stabilization plantings about site	sq ft	\$2.50	2,723	\$6,806
c	picnic tables and benches, 4"x6" wood beams w/conc suppo	each	\$1,100.00	3	\$3,300
d	barbecue pits, concrete with iron grill	each	\$300.00	2	\$600
e	camp shelter (10'x6'), cedar pole w/shake roof	each	\$2,700.00	1	\$2,700
f	camp directory signs, 4"x4" cedar pole framed	each	\$200.00	10	\$2,000
g	restroom facility, sanican w/concrete platform	each	\$1,500.00	2	\$3,000
h	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
i	parking, 2" asphalt concrete/4" crushed rock - 10 spaces	sq ft	\$1.80	3,000	\$5,400
j	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	10	\$1,560
k	access road, 2" asphalt concrete/4" crushed rock, 24'x100'	sq ft	\$1.80	2,400	\$4,320
Total construction cost per 5 miles					\$34,798
l	construction sales tax (const)	8.2%			\$2,853
m	design/engineering fees (const)	12.0%			\$4,176
n	financing costs (const, tax, design)	8.0%			\$3,346
o	contingency (const, tax, design, financing)	15.0%			\$6,776
Total development cost per 5 miles					\$51,949
Prorated per mile/access site					\$10,390

Trailhead – w/sanican services

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork for site improvements	sq ft	\$0.35	10,890	\$3,811
b	landscape/bank stabilization plantings about site	sq ft	\$2.50	2,723	\$6,806
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	2	\$700
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	3	\$3,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	1	\$900
f	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
i	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
j	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles					\$49,038
k	construction sales tax (const)	8.2%			\$4,021
l	design/engineering fees (const)	12.0%			\$5,885
m	financing costs (const, tax, design)	8.0%			\$4,715
n	contingency (const, tax, design, financing)	15.0%			\$9,549
Total development cost per site					\$73,208

Trailhead – w/permanent restroom facilities

		unit	unit cost	qty	qty cost
a	clear/grade/earthwork for site improvements	sq ft	\$0.35	10,890	\$3,811

b	landscape/bank stabilization plantings about site	sq ft	\$2.50	2,723	\$6,806
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	2	\$700
d	trail bench, 8"x8"x10' wood beams w/conc support	each	\$1,000.00	3	\$3,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$900.00	1	\$900
f	trash receptacles w/concrete support	each	\$650.00	2	\$1,300
g	restroom facility, 4 stalls w/2 sinks	sq ft	\$125.00	500	\$62,500
h	sewer service, 8" side sewer	lr ft	\$17.00	500	\$8,500
i	water service, 8" service line	lr ft	\$15.00	500	\$7,500
j	fire hydrant	each	\$2,675.00	1	\$2,675
k	water meter, 2" size	each	\$4,400.00	1	\$4,400
l	parking, 2" asphalt concrete/4" crushed rock (30 cars)	sq ft	\$1.80	9,000	\$16,200
m	wheel stops, 10"x6"x8' precast concrete	each	\$156.00	30	\$4,680
n	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$1.80	4,800	\$8,640
Total construction cost per 5 miles					\$131,613
o	construction sales tax (const)	8.2%			\$10,792
p	design/engineering fees (const)	12.0%			\$15,794
q	financing costs (const, tax, design)	8.0%			\$12,656
r	contingency (const, tax, design, financing)	15.0%			\$25,628
Total development cost per site					\$196,483

Source: Beckwith Consulting Group with Hough Beck & Baird, Landscape Architects

Participation model methodology

Following is a brief discussion of the major variables incorporated within the methodology used in this study:

Variables

Participation rates

The percent of the population that will participate in a park and recreation activity varies significantly by age group. In general, participation in park and recreation activities gradually declines as age increases though not in the same degree nor to the same magnitude for each type of activity.

Some activities, like picnicking, walking in a park and swimming, appeal to all age groups and retain high participation rates for all age groups. These activities generate a large number of users compared with athletic pursuits, like baseball and soccer, whose appeal is primarily concentrated within younger age groups.

Frequencies

The number of times a person will engage in a park and recreation activity will vary considerably depending on the specific activity and age group. The frequency differences between activities creates significantly different activity volumes and visibilities.

For example, an activity which is pursued on an occasional or infrequent basis, like springtime picnics, may have a low volume but create a high visibility when the activity is concentrated to occur during infrequent, favorable weather breaks.

By comparison, an activity which is pursued on a regular basis, like indoor swimming, may generate a large volume of use but the activity may not be readily apparent when the swimming season is extended over a number of months.

Seasons

Park and recreation behaviors are affected in significant ways by the seasons. Some activities, like picnicking and walks in urban parks, take place over extended periods of the year. Usually, the facilities which are developed for such activities represent good investments since the users are satisfied for a relatively long periods of the year.

Activities with short seasons, like swimming in outdoor pools or baseball, however, take place during relatively short periods of the year. Consequently, the facilities which are developed for these activities represent relatively high investments for the short periods of actual use.

Type of facility used

Generally, residents of the Pacific Northwest states tend to use public facilities for most athletic or recreational oriented activities, and private or 'unstructured' facilities for most park and outdoor oriented activities like fishing, camping and other pursuits. The actual facility behaviors in Pierce County, however, will depend on the type of private and 'unstructured' facilities that are available.

Location of use

Generally, the public will frequent the nearest available park and recreation facility. However, the surveys also determined residents may travel significant distances to use facilities with unusual characteristics or qualities, sometimes passing-by facilities which may be closer but less desirable. Consequently, quality, not convenience, is the critical variable affecting locational behaviors.

Facility capacities - use intensity

The number of persons who may be accommodated by a single facility at a time can vary significantly between specific park and recreational activities, and sometimes for the same type of facility. Facility capacity standards may be affected by safety considerations, and local residents opinions of what constitutes an acceptable or preferable degree of use or crowdedness.

The standards that are used in this plan were developed by the staff and consultant to the Pierce County Department of Parks, Recreation and Community Services. The standards reflect the results of a study of facility carrying capacities by the Bureau of Outdoor Recreation (BOR) of the US Department of Interior (Guidelines for Understanding and Determining Optimum Recreation Carrying Capacity, 1977). The standards generally assume facilities in Pierce County will be developed to accommodate user volumes which are typical of urban areas. In some instances, the standard may be less than the maximum number of users a facility can physically accommodate.

For example, the standard assumes a regional multipurpose trail should accommodate 15 walkers and 15 bicyclists per mile of trail representing an average distance of about 175 feet between persons during a heavy period of use. The standard is less than the 21 walker, 23 bicyclists standard determined from the Bureau of Outdoor Recreation (BOR) study, but is probably similar to the densities that are achieved during average summer days along the more suburban, and "crowded" portions of the Burke Gillman Trail in King County.

In actual practice, a mile of urban trail would probably accommodate an unlimited number of hikers if there were no other facility available. Consequently, facility capacities estimates are relative measurements that are used to qualify the type experience the user desires of the facility at peak use periods rather than the actual volume a facility may physically absorb and remain usable. The standards used in this plan assume Pierce County residents desire a density during peak hour use periods which is typical of lower density urban areas.

Facility capacity - developmental quality

A facility's capacity may also be affected by the type of materials and equipment that are incorporated into a facility's design and development. Generally, properly developed and maintained facilities accommodate a higher number of users than facilities which are designed and maintained to less exacting or finished standards. For example, outdoor tennis courts that are provided with high quality, well drained surfaces and lighting systems

accommodate twice the number of users than can be accommodated on an unlighted, improperly drained court.

The relationship is not always a direct one between facility capacity and development cost. For example, a properly developed dirt soccer field can accommodate twice as much use per week following all types of weather than can be accommodated on an expensive grass field.

This plan assumes Pierce County agencies will provide high performance, high capacity facilities that can sustain high volumes of use over extended schedules and following all types of weather.

Facility turnover

Facility capacities are also determined by scheduling and operating policies - ie., the amount of time a facility may be occupied by a single using group during a schedule in the peak season.

The 1976 IAC survey documented the average amount of time a user typically spent at each type of park and recreation facility. The recorded durations were fairly long for most activities and usually included some preparation or warm-up time. In most instances, the user was not pressured for time or restricted in the use of the facility.

This plan assumes durations are for as long as the user desires where this will not affect another group's ability to use the facility. The plan assumes public controls will be established, however, should a facility, like an athletic field, tennis court or swimming pool, be monopolized by a user group to the exclusion of others for time durations that extend beyond the standards assumed. In addition, should Pierce County facilities become overcrowded, this plan assumes public policy would shorten allowable use durations to increase facility turnovers to accommodate a larger number of users.

Quantitative limitations

The IAC participation methodology has the following quantitative limitations:

Behavioral influences

The methodology reflects actual behavior patterns, specific age relationships and the impacts of population change. However, the method cannot predict the affects income, transportation, physical capabilities or handicaps, cost or schedule conveniences may have on facility demands.

Community preferences

While the methodology is based on the behavioral patterns of residents of the Puget Sound region of the state, the method cannot account for unique differences which may be affected by local preferences, organizations, facility availabilities, or urban or rural lifestyles.

Locational differences

The methodology will not predict the location where residents may wish to use a facility with complete accuracy. The method may under or overestimate the demands which may actually occur within some of the Pierce County service areas due to tourist or nearby resident impacts, or from resident migrations to major facilities outside Pierce County service area boundaries.

Service quality and costs

The method may not be accurate for activities like indoor swimming, racquetball, health conditioning and similar club or center facilities which may be significantly affected by cost, quality, schedule and sponsor particulars.

Qualitative limitations

The IAC participation methodology also has the following qualitative limitations:

Environmental influences

The methodology projects demand in the abstract without considering the unique physical characteristics of the area where the activity will take place or the influence the environment can have on the quality or orientation of the park or recreational experience. Some physical attributes, like special landmarks, vistas, wildlife habitats or ecological environments, may be preserved for social reasons with no direct park or recreational activity relationship.

Intrinsic needs

Less quantifiable park and recreational pursuits, like outdoor park, cultural and even holiday driving excursions, may reflect social needs which may not even be associated with a park and recreational facility. Demand methodologies cannot project the intrinsic park and recreation needs which an effective plan must provide if the plan is to include a humane appreciation of social and environmental opportunities and desires as well as accurate statistical projections of potential facility use volumes.

Participation model demand formula

Facility demand

- (the number of persons/age group)
x (participation rate = the rate of participating in the activity/age group)
x (frequency = the average number of times a participant will engage in the activity/age group)
x (percent season week = the percent of the year's activity that will occur in a peak season period of time like a week or weekend)
x (percent public facility = the percent of all participants who will want to use a public or commercially operated facility - as opposed to a private household, organization or club facility; or an informal, undesignated area)
x (percent local area = the percent of all participants who will want to use the nearest facility within the local area - as opposed to traveling to a location outside of the region)

Facility capacity

- (person/facility capacity = the number of persons or users who can physically be accommodated by the facility during the peak use period (a peak season week or weekend) accounting for safety concerns and the local population's opinions of preferred crowdedness)
x (facility turnover/peak season use period = the number of hours per peak season use period (peak season week, weekend or day) during which the facility user will want to use the facility divided by the number of hours (duration) a typical user will want to use the facility (or be allowed to use the facility during peak capacity periods)

Facility requirement

- (persons/age group x participation rate/age group x frequency/age group participants x percent peak season period x percent public or commercially operated facility x percent local or next nearest facility)
/ (person or user/facility capacity at peak season period x facility turnover/facility at peak season period)

Example

Determine the facility requirement for an outdoor swimming pool (in square footage) for the population 0-9 years of age.

Facility demand

- (100,000 kids/0-9 age group)
x (0.5481 percent who will want to swim at an outdoor pool/0-9 age group)
x (an average of 9.82 swims/year of those who swim in the 0-9 age group)
x (0.085 percent of all annual swims that will occur during an average swimming season week)
x (0.85 percent who will want to swim in a public or commercially operated outdoor pool)
x (1.00 percent who will want to swim at the closest facility in the local area)
= 38,887 swims per peak season week at an outdoor pool/0-9 age group

Facility capacity

- (0.05 swimmers/square foot of outdoor swimming pool capacity/peak season week)
x (28 public swimming sessions/peak season week)
= 1.4 swimmers/square foot of outdoor pool capacity/peak season week

Facility requirement

- (38,887 swims per peak season week at an outdoor pool/0-9 age group)
/ (1.4 swimmers/square foot of outdoor pool capacity/peak season week)
= 27,777 square feet of public and commercially operated swimming pool in local area to meet demands of 0-9 age group

Participation model factors

activity	activity coefficient	% peak weekend day	% use fcity	% occur local area	persons/ fcity unit	fcity turn/ wkndy
1 using park playground equipment	1.0026	0.0150	0.90	0.9000	14.0	3.1
5 basketball/volleyball - outdoor	0.5665	0.0060	0.90	0.9000	10.0	3.0
7 tennis - outdoor	0.3387	0.0084	0.70	0.9000	2.5	3.0
9 soccer/football/rugby	0.3713	0.0209	0.98	0.9000	20.0	3.0
11 baseball/softball	0.6412	0.0076	0.98	0.9000	20.0	2.0
13 jogging	1.0091	0.0052	0.25	1.0000	12.0	4.8
14 picnicking	1.0000	0.0154	0.95	0.5460	4.0	2.0
15 swimming/wading on a beach	1.1564	0.0202	0.80	0.3410	4.0	3.5
16 boating - fishing from a boat	1.0000	0.0098	0.90	0.4370	3.0	2.8
fishing from a bank or dock	0.7349	0.0106	0.60	0.4370	2.5	2.0
18 tent camping	1.0000	0.0224	0.90	0.4130	4.0	1.0
vehicular camping	1.0000	0.0113	0.98	0.4130	3.0	1.0
23 walking in a local park	0.5700	0.0111	0.80	1.0000	15.0	4.0
24 walking on a trail	1.0000	0.0053	0.95	0.6950	12.5	2.4
26 bicycle riding on a trail	1.0009	0.0118	0.30	0.6410	10.0	3.4
27 bicycle touring on a road	0.0067	0.0666	0.60	0.5870	6.0	1.7
28 horseback riding on a trail	1.0000	0.0086	1.00	0.4230	8.0	2.0
29 swimming/wading in an outdoor pool	1.0000	0.018030	0.60	0.6590	0.0175	3.1
44 golf	1.0107	0.0074	0.90	0.9000	8.0	1.7
45 rifle/pistol shooting	0.5800	0.0082	0.80	0.3990	1.0	2.4
46 archery	0.2188	0.0060	0.80	0.3990	1.0	2.0

Comparison of US and Washington participation rates

activity	Percent who participate...			
	National	WA State	Western WA	Eastern WA
1 using park playground equipment	-	38.0%	34.2%	41.2%
5 basketball/volleyball - outdoor	(24.0%)	16.4%	17.2%	15.7%
7 tennis - outdoor	17.0%	13.8%	16.0%	12.0%
9 soccer/football/rugby	(24.0%)	10.7%	10.8%	10.7%
11 baseball/softball	(24.0%)	18.8%	18.9%	18.8%
13 jogging	26.0%	4.0%	-	-
14 picnicking	48.0%	68.0%	66.1%	69.7%
15 swimming/wading on a beach	32.0%	20.0%	17.1%	22.5%
16 boat launch - fishing from a boat	34.0%	32.8%	33.3%	32.4%
fishing from the bank or a dock	-	9.2%	-	-
18 tent camping	27.0%	25.0%	26.1%	24.1%
vehicular camping	-	28.9%	27.8%	29.7%
23 walking in local park	53.0%	6.2%	-	-
24 walking on a trail	14.0%	38.7%	37.3%	40.0%
26 bicycle riding on a trail	32.0%	31.8%	29.7%	33.7%
27 bicycle touring on a road	-	0.3%	0.3%	0.3%
28 horseback riding on a trail	9.0%	13.9%	12.0%	15.5%
29 swimming/wading in an outdoor pool	43.0%	17.7%	15.1%	19.9%
31 aerobics/exercising - indoor facilities	-	-	-	-
32 racquetball - indoor	-	2.0%	-	-
34 arts/crafts	-	-	-	-
36 performing arts	-	-	-	-
41 senior center	-	-	-	-
44 golf	13.0%	6.3%	-	-
45 rifle/pistol shooting	-	0.8%	-	-
46 archery	-	8.0%	-	-

Sources:

State of Washington Interagency Committee for Outdoor Recreation (IAC), 1976 Outdoor Recreation Survey.

US Department of the Interior, National Park Service, 1982-1983 Nationwide Recreation Survey.

- The indicated activities were not identified in survey findings.

Age specific activity participation, frequency and coefficient rates (total state)

activity	Percent participating in activity						Frequency of participation						Activity		
	Age groups						Age groups						fficient	mber	mber
	0-9	10-19	20-34	35-49	50-64	65+	0-9	10-19	20-34	35-49	50-64	65+			
1 using park playground e	83.83	40.00	48.29	25.89	19.05	7.81	14.32	10.10	9.67	7.57	4.89	1.93	1.0026	370	634
5 basketball/volleyball - o	9.79	38.11	36.75	17.15	6.59	1.04	6.00	11.43	6.51	5.86	2.97	23.20	0.5665	681	337
7 tennis - outdoor	4.26	30.94	22.83	11.97	4.76	1.04	2.97	10.34	9.57	10.57	5.63	1.73	0.3387	1125	231
9 soccer/football/rugby	22.98	58.49	42.52	27.83	8.42	7.29	13.32	16.24	14.43	13.74	5.97	11.52	0.3713	723	494
11 baseball/softball	22.98	58.49	42.52	27.83	8.42	7.29	13.32	16.24	14.43	13.74	5.97	11.52	0.6412	1270	-
13 jogging	1.23	6.52	6.51	5.21	2.77	1.43	49.69	23.59	34.86	36.21	24.15	16.11	1.0091	1601	-
14 picnicking	86.81	73.96	75.59	72.82	53.48	40.10	6.74	5.33	5.90	4.51	3.96	4.69	1.0000	1536	1136
15 swimming/wading on a	61.28	63.40	48.56	38.83	21.61	4.69	17.14	18.75	14.23	11.23	10.09	7.59	1.1564	534	-
16 boat launch - fishing fro	32.34	36.23	34.12	37.54	31.87	22.40	5.03	6.65	8.70	6.52	9.11	6.04	1.0000	1223	548
fishing from a bank or d	15.95	22.37	22.44	26.68	23.98	22.47	17.10	14.69	17.50	15.98	12.50	17.67	0.7349	844	-
18 tent camping	30.64	33.21	41.21	22.98	8.79	3.13	4.06	4.15	4.45	4.36	2.94	3.67	1.0000	538	418
vehicular camping	34.47	27.17	27.82	32.69	28.57	22.92	6.79	5.72	6.60	6.78	8.35	11.86	1.0000	2883	482
23 walking in local park	13.91	16.84	19.66	16.74	18.25	12.30	13.85	11.41	13.00	13.59	12.13	16.62	0.5700	650	-
24 walking on a trail	39.57	47.92	51.18	40.45	29.67	13.54	4.72	5.39	4.89	5.04	5.06	6.12	1.0000	1104	647
26 bicycle riding on a trail	42.13	61.13	34.38	31.72	13.92	4.17	29.23	26.23	15.67	12.05	14.71	24.64	1.0009	1636	536
27 bicycle touring on a roa	42.13	61.13	34.38	31.72	13.92	4.17	29.23	26.23	15.67	12.05	14.71	24.64	0.0067	14	-
28 horseback riding on a tr	7.66	16.23	8.14	6.15	2.93	1.04	14.88	9.47	17.57	9.73	10.44	6.40	1.0000	755	121
29 swimming/wading in an	61.28	63.40	48.56	38.83	21.61	4.69	17.14	18.75	14.23	11.23	10.09	7.59	1.0000	472	685
44 golf	1.58	2.41	6.50	9.01	8.60	6.80	20.91	13.69	24.89	19.30	22.40	26.47	1.0107	1689	-
45 rifle/pistol shooting	5.57	3.26	6.50	4.70	1.68	0.95	6.52	11.15	11.39	7.75	6.96	12.33	0.5800	227	-
46 archery	5.57	3.26	6.50	4.70	1.68	0.95	6.52	11.15	11.39	7.75	6.96	12.33	0.2188	94	-

Source:

State of Washington Interagency Committee for Outdoor Recreation (IAC), 1975/76 and 1983 surveys.

Activity participation schedules by peak month/day

Percent occurring in (based on actual diary records).....
month

activity	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 June	7 Jul	8 Aug	9 Sep	10 Oct	11 Nov	12 Dec
1 using park playground eqpmnt			12.09	17.07	11.81	17.27		9.02	11.57			
5 basketball/volleyball - outdoor	11.69	12.79	21.40	8.40							10.61	
7 tennis - outdoor			8.55	24.65	20.45	10.59	10.21					
9 soccer/football/rugby									31.64	42.99		
11 baseball/softball				30.90	27.36	13.00						
13 jogging			10.60	12.53	11.81				9.59	9.22	8.05	
14 picnicking				12.91	19.68	12.38	17.75	13.72	8.70			
15 swimming/wading on a beach					8.36		47.99	23.58	9.24			
16 boat launch - fishing				12.17	21.36		13.53	12.15	15.36			
fishing from a bank or dock				14.49	16.20		11.93	14.18				
18 tent camping					8.98	8.92	32.26	28.89				
vehicular camping				12.94	12.99	9.95	11.17	14.80	10.52			
23 walking in local park				14.08	18.06	18.53		12.90				
24 walking on a trail	10.81			10.14	9.51				9.54	11.44	9.59	11.10
26 bicycle riding on a trail					15.48	22.90		15.34	16.92	8.13		
27 bicycle touring on a road			24.71	24.71	50.58							
28 horseback riding on a trail		9.75	16.30	25.89	14.13		8.03		11.97			
29 swimming in a outdoor pool						36.57	19.04	24.74				
44 golf			11.49	20.26	15.40		10.14					
45 rifle/pistol shooting		8.67	15.20	14.70	11.88	8.26				15.83		
46 archery			8.97	26.09	16.19		9.28		9.59			
Total all combined												
days/month	31	29	31	30	31	30	31	31	30	31	30	31
weeks/month	4.43	4.14	4.43	4.29	4.43	4.29	4.43	4.43	4.29	4.43	4.29	4.43
wkend days/month	8.86	8.29	8.86	8.57	8.86	8.57	8.86	8.86	8.57	8.86	8.57	8.86

Note: Total where known may not add where the respondent did not indicate the month an activity took place and/or where the number of activities per month was statistically insignificant.

Source:

State of Washington Interagency Committee for Outdoor Recreation (IAC)
1976 Outdoor Recreation Survey

Activity participation schedules by peak month/day

activity	Percent occurring in (based on adjusted percentages)....									
	Total	Peak	Peak month	Peak month	Peak month	Peak month	Peak month	Peak month	Peak month	Peak month
	where known	month prcnt	all-----wkdays	-----wknds	average-----week	-----wkdays	-----wknd	-----wkdy	-----wknd	umber in
								day	day	ample
1 using park playground eqpmn	78.83	24.52	47.50	52.50	5.72	2.71	3.00	0.54	1.50	370
5 basketball/volleyball - outdoor	64.89	14.38	63.28	36.72	3.25	2.05	1.19	0.41	0.60	681
7 tennis - outdoor	74.45	20.93	65.63	34.37	4.88	3.20	1.68	0.64	0.84	1125
9 soccer/football/rugby	74.63	45.74	59.54	40.46	10.33	6.15	4.18	1.23	2.09	723
11 baseball/softball	71.26	28.63	77.32	22.68	6.67	5.16	1.52	1.03	0.76	1270
13 jogging	61.80	12.22	63.27	36.73	2.85	1.80	1.05	0.36	0.52	1601
14 picnicking	85.14	24.33	44.04	55.96	5.49	2.42	3.07	0.48	1.54	1536
15 swimming/wading on a beach	89.17	50.58	64.59	35.41	11.42	7.37	4.04	1.47	2.02	534
16 boat launch - fishing	74.57	19.10	54.44	45.56	4.31	2.35	1.96	0.47	0.98	1223
fishing from a bank or dock	56.80	21.16	55.77	44.23	4.78	2.66	2.11	0.53	1.06	844
18 tent camping	79.05	37.67	47.25	52.75	8.50	4.02	4.49	0.80	2.24	538
vehicular camping	72.37	21.75	54.14	45.86	4.91	2.66	2.25	0.53	1.13	2883
23 walking in local park	63.57	24.95	62.01	37.99	5.82	3.61	2.21	0.72	1.11	650
24 walking on a trail	72.13	11.50	58.81	41.19	2.60	1.53	1.07	0.31	0.53	1104
26 bicycle riding on a trail	78.77	30.46	66.89	33.11	7.10	4.75	2.35	0.95	1.18	1636
27 bicycle touring on a road	100.00	88.47	33.33	66.67	19.97	6.66	13.31	1.33	6.66	14
28 horseback riding on a trail	86.07	16.19	54.46	45.54	3.77	2.06	1.72	0.41	0.86	755
29 swimming in a outdoor pool	80.35	38.37	59.89	40.11	8.94	5.36	3.59	1.07	1.80	472
44 golf	57.29	16.03	60.45	39.55	3.74	2.26	1.48	0.45	0.74	1689
45 rifle/pistol shooting	74.54	17.49	58.71	41.29	3.95	2.32	1.63	0.46	0.82	227
46 archery	70.12	14.01	63.07	36.93	3.27	2.06	1.21	0.41	0.60	94
Total all combined			57.19	42.32						56153
days/month										
weeks/month										
wkend days/month										

Note: Total where known may not add where the respondent did not indicate the month an activity took place and/or where the number of activities per month was statistically insignificant.

Source:

State of Washington Interagency Committee for Outdoor Recreation (IAC)
1976 Outdoor Recreation Survey

Activity participation schedules by season

Percent occurring in.....

activity					average				
	ummr	fall	winter	spring	season wklys	season wknds	season week	season wknd	wknd day
1 playground	59.18	10.94	14.17	15.70	64.59	33.26	3.37	1.12	0.56
5 basketball/volleyball - outdoor	35.42	16.22	36.92	11.44	63.28	36.72	2.15	0.79	0.40
7 tennis - outdoor	64.79	9.60	7.91	17.71	72.82	26.91	3.69	0.99	0.50
9 soccer/football/rugby	20.75	66.48	7.51	5.26	77.83	22.17	7.63	1.69	0.85
11 baseball/softball	60.74	4.17	7.49	27.61	72.95	26.85	3.46	0.93	0.46
13 jogging track	40.75	18.12	29.92	11.21	74.43	24.97	2.32	0.58	0.29
14 picnicking	79.51	6.74	3.37	10.38	43.60	55.96	4.52	2.53	1.27
15 swimming beach	92.85	5.30	0.00	1.84	74.71	24.76	5.28	1.31	0.65
16 fishing from a boat	68.83	11.96	8.09	11.12	54.44	45.56	3.92	1.78	0.89
fishing from bank/dock	68.83	11.96	8.09	11.12	54.44	45.56	3.92	1.78	0.89
18 tent camping	89.73	6.12	0.87	3.28	47.25	52.75	5.11	2.69	1.35
vehicle camping	70.04	11.27	8.92	9.77	54.15	45.86	3.99	1.83	0.91
23 park trails	62.58	11.67	12.74	13.01	62.01	37.99	3.56	1.35	0.68
24 day hiking trails	41.02	17.03	32.41	9.53	58.37	41.19	2.33	0.96	0.48
26 bicycling	81.31	12.55	2.28	3.85	66.69	33.11	4.63	1.53	0.77
27 bicycle touring	79.51	0.00	0.00	20.49	33.33	66.67	4.52	3.02	1.51
28 horseback riding	40.15	8.95	25.21	25.69	66.84	31.00	2.28	0.71	0.35
29 swimming pool	89.39	4.60	4.03	1.90	64.38	35.41	5.09	1.80	0.90
44 golf	49.27	14.31	17.37	19.05	56.70	42.54	2.80	1.19	0.60
45 rifle/pistol shooting	39.57	22.59	23.82	14.03	39.90	60.10	2.25	1.35	0.68
46 archery	39.39	13.55	26.82	20.24	51.47	48.53	2.24	1.09	0.54
days/season	123	61	120	61					
weeks/season	17.6	8.7	17.1	8.7					
weekend days/season	35	17	34	17					

summer: 16 May-15 Sep, fall: 16 Sep-15 Nov, winter: 16 Nov-15 Mar, spring: 16 Mar-15 May 1975

Source:

Diary survey in 1976, the Washington Interagency Committee for Outdoor Recreation

Percent of users who will use a public and/or private facility

activity	Facility type	Percent.....			source
		use fcity	local area	outside area	
1 using park playground equipment	public/commercial playgrounds	90%	90.0%	10.0%	swimming
5 basketball/volleyball - outdoor	public/commercial competition court	90%	90.0%	10.0%	swimming
7 tennis - outdoor	public/commercial competition court	70%	90.0%	10.0%	swimming
9 soccer/football/rugby	public/commercial competition field	98%	90.0%	10.0%	swimming
11 baseball/softball	public/commercial competition field	98%	90.0%	10.0%	swimming
13 jogging	public/commercial running tracks	25%	100.0%	0.0%	
14 picnicking	public/commercial tables/parking	95%	54.6%	45.4%	
15 swimming/wading on a beach	public/commercial beach facilities	80%	34.1%	65.9%	pnrb78-reversed
16 boating - fishing from a boat	public/commercial launch/parking	90%	43.7%	56.3%	reversed
fishing from the bank or a dock	public/commercial piers and ponds	60%	43.7%	56.3%	reversed
18 tent camping	public/commercial campsites	90%	41.3%	58.7%	pnrb78
vehicular camping	public/commercial campsites	98%	41.3%	58.7%	pnrb78
23 walking in local park	public nature trails	80%	100.0%	0.0%	
24 walking on a trail	public hiking trails	95%	69.5%	30.5%	
26 bicycle riding on a trail	public trails	30%	64.1%	35.9%	
27 bicycle touring on a road	marked roads and highway shoulder	60%	58.7%	41.3%	camping-reversed
28 horseback riding on a trail	approved public/private trails	100%	42.3%	57.7%	Nash-reversed
29 swimming/wading in an outdoor pool	public outdoor pool	60%	65.9%	34.1%	pnrb78
44 golf	public/commercial courses	90%	90.0%	10.0%	
45 rifle/pistol shooting	public/commercial shooting ranges	80%	39.9%	60.1%	
46 archery	public/commercial archery ranges	80%	39.9%	60.1%	

Source:

State of Washington Interagency Committee for Outdoor Recreation (IAC), 1975/76 and 1983 surveys.

PNRBC78 = Pacific Recreational data program (Pacific Northwest River Basis Committee)

(output from Tri-State (Idaho, Washington, Oregon) data program

IAC83 = Origin-destination model output base on distance decay curve used to reallocate demand by planning area.

Nash78/79 = The 1978/79 Washington Off-Road Recreation Survey, A.E. Keir Nash.

Facility capacity assumptions

Activity	peak month	Hours available peak month/average					Hours of actvty	Fclty use olicy	Facility turnover peak month/average				pref'd ersons /fclty	facility unit
		-----							-----					
		wk	wkdy	wkn	wkn	actvty			wk	wkdy	end	ndy		
1 swimming/wading on a beach	july	54	40	14	7	2.27	2.00	27.0	20.0	7.0	3.5	4.0	parking space	
2 boating - fishing from a boat	may	54	40	14	7	4.84	2.50	21.6	16.0	5.6	2.8	3.0	boat trailer parking	
3 walking in a local park	june	54	40	14	7	1.56	1.75	30.9	22.9	8.0	4.0	15.0	mile of trail in park	
4 walking on a trail	oct	47	35	12	6	2.20	2.50	18.8	14.0	4.8	2.4	12.5	mile of trail	
5 bicycle riding on a trail	june	54	40	12	6	1.46	1.75	30.9	22.9	6.9	3.4	10.0	mile of trail	
6 bicycle touring on a road	may	54	40	12	6	3.10	3.50	15.4	11.4	3.4	1.7	6.0	mile of marked road	
7 horseback riding on a trail	april	47	35	12	6	2.41	3.00	15.7	11.7	4.0	2.0	8.0	mile of trail	
8 tent camping	jul	54	40	14	7	19.95	7.00	7.7	5.7	2.0	1.0	4.0	campsite	
9 vehicular camping	aug	54	40	14	7	17.23	7.00	7.7	5.7	2.0	1.0	3.0	campsite	
10 picnicking	may	54	40	14	7	3.22	3.50	15.4	11.4	4.0	2.0	4.0	table/parking space	
11 swimming in an outdoor pool	june	54	40	14	7	2.00	2.25	24.0	17.8	6.2	3.1	0.0175	sq ft of pool	
12 soccer/football/rugby	oct	47	35	12	6	1.33	2.00	23.5	17.5	6.0	3.0	20.0	competitive field	
13 baseball/softball	april	47	35	12	6	2.29	3.00	15.7	11.7	4.0	2.0	20.0	competitive field	
14 tennis - outdoor	april	47	35	12	6	1.84	2.00	23.5	17.5	6.0	3.0	2.5	competitive courts	
15 basketball/volleyball - outdoor	arch	47	35	12	6	1.80	2.00	23.5	17.5	6.0	3.0	10.0	competitive courts	
16 jogging	april	47	35	12	6	1.16	1.25	37.6	28.0	9.6	4.8	12.0	miles of track/cours	
17 using park playground equip	june	54	40	14	7	1.97	2.25	24.0	17.8	6.2	3.1	14.0	improved facilities	
18 fishing from the bank or dock	may	54	40	14	7	3.56	3.50	15.4	11.4	4.0	2.0	2.5	parking space	
19 golf	april	47	35	12	6	3.35	3.50	13.4	10.0	3.4	1.7	8.0	par 3+ hole/hour	
20 archery	april	47	35	12	6	2.47	3.00	15.7	11.7	4.0	2.0	1.0	target	
21 rifle/pistol shooting	oct	47	35	12	6	2.18	2.50	18.8	14.0	4.8	2.4	1.0	target	

Source:

State of Washington Interagency Committee for Outdoor Recreation (IAC), 1976 Outdoor Recreation Survey

National capacity standards from "Optimum Recreation Carrying Capacity", Bureau of Outdoor Recreation, US Department of Inte

Notes:

Summer (16 May-15 Sept) = 8 hrs saturday + 6 hrs sunday = 14 hrs available/weekend

+ 8 hrs/day monday-friday = 40 hrs available/weekdays

14 + 40 = 54 hrs/week

Fall (16 Sept-15 Nov) = 7 hrs saturday + 5 hrs sunday = 12 hrs available/weekend

+ 7 hrs/day monday-friday = 35 hrs available/weekdays

12 + 35 = 47 hrs/week

Winter (16 Nov-15 Mar) = 6 hrs saturday + 4 hrs sunday = 10 hrs available/weekend

+ 6 hrs/day monday-friday = 30 hrs available/weekdays

10 + 30 = 40 hrs/week

Spring (16 Mar-15 May) = 7 hrs saturday + 5 hrs sunday = 12 hrs available/weekend

+ 7 hrs/day monday-friday = 35 hrs available/weekdays

12 + 35 = 47 hrs/week