

# KEY PENINSULA METROPOLITAN PARK DISTRICT VOLUNTEER PARK MASTER PLAN SUMMARY REPORT

February 8, 2010



# KEY PENINSULA METROPOLITAN PARK DISTRICT VOLUNTEER PARK MASTER PLAN SUMMARY REPORT

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## **KEY PEN PARKS**

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### **Board of Commissioners**

Greg Anglemyer	President
Bill Trandum	Vice President
Kip Clinton	Clerk
Mark Michel	Member-at-Large
Bruce Nicholson	Member-at-Large
Ed Robison	Member-at-Large

### **Park Staff**

Scott Gallacher	Executive Director
Chad Harvell	Recreation Coordinator
Laura Armstrong	Administrative Assistant
Mark Conniff	Maintenance Technician

## **AD-HOC COMMITTEE**

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Debbie Bailey	Pierce County Emergency Management
Kym Carpenter	Adult Softball
Chris Fitzgerald	Canine Interests
Scott Gallacher	Director, Key Pen Parks
Liz Gefre	Key Peninsula Community Council
John Glennon	On Site Gatekeeper
Jeri Goebel	Key Peninsula Middle School
Barb Heard	Key Peninsula Fair
Shanice Hrouda	Key Peninsula Youth Council
Ian McKnight	Key Peninsula Youth Council
Mark Michel	Equestrian Interests
Ed Robison	Key Peninsula Little League
Todd Rosenbach	Community Member
Kurt Self	Harbor Soccer
Sylvia Tinio	Older Adults
Chuck West	Key Peninsula Fire Department

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# KEY PEN PARKS VOLUNTEER PARK

## *Master Plan Summary Report*

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# EXECUTIVE SUMMARY

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## PROJECT BACKGROUND

Volunteer Park is located at approximately the middle of Key Peninsula, adjacent to Key Peninsula Middle School (KPMS) and Key Peninsula Highway. It is just over 20 acres and includes three youth baseball / adult softball fields, a horseshoe area, skate park, tennis courts, a restroom / concession / maintenance building, small children's play area, disc golf, and park office. The property was acquired from Pierce County and developed by volunteers in the community with donations of materials and time. Work has occurred without a master plan. Consequently, there are inefficiencies in the organization of facilities, and the utility infrastructure is inadequate to support current use.

The Key Pen Parks Board of Commissioners, recognizing the need for a long term plan, retained Bruce Dees & Associates, a landscape architecture firm in Tacoma, with the goal to develop a master plan for the site that would serve as a guide for future development, while respecting the volunteer efforts of the past.

## PUBLIC INVOLVEMENT

The Board of Commissioners established a citizens Ad-Hoc Committee to work with the design team to develop the master plan. The committee consisted of individuals representing stakeholders within the community who currently use the park or have an interest in expanding the park programs. The committee met five times over the course of three months. There were also three public meetings where the community was invited to provide input and to review the plan as it evolved. The Board of Commissioners reviewed the process with four separate presentations along the way.

### Ad-Hoc Committee

Debbie Bailey	Pierce County Emergency Management
Kym Carpenter	Adult Softball
Chris Fitzgerald	Canine Interests
Scott Gallacher	Director, Key Pen Parks
Liz Gefre	Key Peninsula Community Council
John Glennon	On Site Gatekeeper
Jeri Goebel	Key Peninsula Middle School
Barb Heard	Key Peninsula Fair
Shanice Hrouda	Key Peninsula Youth Council
Ian McKnight	Key Peninsula Youth Council
Mark Michel	Equestrian Interests
Ed Robison	Key Peninsula Little League
Todd Rosenbach	Community Member
Kurt Self	Harbor Soccer
Sylvia Tinio	Older Adults
Chuck West	Key Peninsula Fire Department

# EXECUTIVE SUMMARY

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## ELEMENTS OF THE PLAN

The Ad-Hoc Committee developed and prioritized a program of activities and facilities to address the recreation needs of the community, taking into account the results of a survey conducted as part of the Comprehensive Park Plan for the Peninsula, completed in 2007. A series of alternative plans were considered as the final plan evolved.

A key aspect of the plan is a cooperative partnership with the **Key Peninsula School District** for shared use of access, parking, and athletic facilities.

The primary elements of the plan include:

- ❖ Athletic fields (**Volunteer Park Site**):
  - One (1) combination high school baseball and adult softball field with 350' center and 300' left and right fields
  - One (1) combination youth baseball and adult softball field with 260' left field and 300' minimum center and right fields
  - One (1) youth baseball field with 225' outfield
  - One (1) t-ball field
  - One (1) soccer field approximately 195' x 300' overlapping the youth baseball / softball field
- ❖ Upper meadow area for informal recreational play, disc golf, regional emergency gathering area, community fairs, and potential overflow parking for approximately 180 cars
- ❖ Multi-purpose building that includes restroom / concession
- ❖ Children's play area
- ❖ Children's spray park
- ❖ Multi-use court
- ❖ Skate park
- ❖ Commons area with flagpole and memorials
- ❖ Paved parking areas for approximately 120 cars (154 with optional bay at Volunteer Park site)
- ❖ Maintenance building and yard
- ❖ Extensive improvements to the existing utility infrastructure including a 90,000 gallon water storage tank for fire protection and domestic use
- ❖  $\frac{3}{4}$  mile loop trail system (with an additional 1.15 mile loop within the KPMS site)
  
- ❖ Athletic fields (**KPM School Site**):
  - Three (3) combination youth baseball and adult softball fields with 300' minimum outfields
  - Six (6) soccer fields approximately 195' x 300' overlapping the baseball / softball fields
  - One (1) soccer field approximately 195' x 300' inside the existing track infield
- ❖ Restroom / concession to serve the KPM School site fields
- ❖ 1.15 mile loop trail system (with an additional  $\frac{3}{4}$  mile loop within the Volunteer Park site)
- ❖ Paved parking area for 266 cars within the KPMS site

# EXECUTIVE SUMMARY

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## HOW THE PLAN ADDRESSES RECREATION NEEDS

To meet all of the prioritized program elements and many of the medium and low priority elements, the northwest corner of the Peninsula Middle School property contains several fields and parking. This cooperative approach provides upgraded and additional athletic facilities for the school.

**Youth baseball** needs are met with a total of seven fields including a dedicated T-ball field (4 fields at Volunteer Park and 3 fields at KPMS).

**Adult softball** needs are met with a total of five fields overlapping the baseball fields (2 fields at Volunteer Park and 3 fields at KPMS).

**Youth soccer** needs are met with a total of eight fields also overlapping the baseball fields (1 field at Volunteer Park and 7 fields at KPMS).

The needs expressed by the **Key Peninsula Youth Council** are addressed with a multi-purpose building that could serve as a teen center. Improved multi-use court, skate park, and walking / jogging trails are also intended to serve as informal recreation opportunities that would be open to youth on a continual basis for young people not participating in organized sports.

The needs and interests of **older adults** are addressed by providing a continuous trail system of varying degrees of difficulty. The detailed design of these facilities will address their specific accessibility and needs. The multi-purpose building will also serve older adults by providing space for various classes and indoor recreation opportunities.

The Upper Meadow area will serve as a place for informal play for those young people not participating in an organized sports event, as well as a gathering area for **Pierce County Emergency Management**. The area itself, if enclosed by fencing, could be used for containing animals in an emergency. The site could also serve as an emergency heliport and the central gathering location for the community.

**Key Peninsula Fair**, which has made use of the site in the past, would continue to be served by the improvements to the park, including the greatly expanded parking and multi-purpose building, as well as the multi-use Upper Meadow. Open space at the fields on the school district property would be an ideal location for the fair, as would Fields 2 and 3 at Volunteer Park. Activities that could damage synthetic turf infields would have to be carefully managed.

To improve the safety of users entering both the park and the school, **Key Peninsula Middle School** and the park will share a single common vehicular access from Key Peninsula Highway. With a single point of access to both facilities, the parking improvements at the park will also serve the middle school for nighttime activities at the school. New infrastructure will include a 90,000 gallon water storage tank that will provide fire flow for both the **park and the school**, whose fire system is currently inadequate. All of the improvements to the park will serve the **fire district** and **community at large** for recreation and educational opportunities.



# **EXECUTIVE SUMMARY**

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The trail system circumscribing the park can also be extended into the adjacent 60-acre Pierce County land to the north. Preliminary discussions with Pierce County Public Works indicated this trail could be allowed. The trail will also do a large loop onto the school property for a total of 1.90 miles. The school district's future potential plans for developing an elementary school at the southeast corner of the site of the school district property would be minimally affected by the proposed improvements.

The committee determined that an equestrian center and off-leash dog area would be best accommodated at the future 360 Park at the north end of the peninsula.

## **PHASING PLAN**

The master plan would be implemented in multiple phases. Implementation would be funded through multiple sources, including grants, bonds, tax revenues, and again, volunteer work and donations. Following is a more detailed description of background information, master plan elements, and implementation for the plan.

## **MAINTENANCE AND OPERATIONS PLAN**

A separate maintenance and operations plan was developed in concert with the master plan. The purpose of the maintenance plan is:

1. Provide an inventory of the maintenance activities required for the proposed park. This includes a description of each of the activities for use in establishing a maintenance program for the park.
2. Estimate the time required to perform each maintenance task. This is to be used by Parks staff to establish a maintenance budget for the park.

# **I. BACKGROUND INFORMATION**

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## **PROJECT BACKGROUND**

### **KEY PENINSULA METROPOLITAN PARK DISTRICT – COMPREHENSIVE PARK PLAN 2007 - 2013**

#### **PUBLIC INVOLVEMENT**

Development of the Master Plan was completed through an extensive public involvement process. This sub-section describes that process.

- AD-HOC COMMITTEE
- PUBLIC MEETINGS
- KEY PEN PARKS BOARD OF COMMISSIONERS

#### **LAND USE / ZONING**

#### **NATURAL FEATURES**

Various natural elements discussed in this section present a framework of the natural environment around which the Master Plan was designed. The following features were examined:

- TOPOGRAPHY
- VEGETATION
- CRITICAL AREAS
- SOILS
- WILDLIFE HABITAT

#### **MAN-MADE FEATURES**

- EXISTING DEVELOPMENT
- UTILITIES

#### **SERVICES**

- TRANSIT
- LAW ENFORCEMENT
- FIRE AND EMERGENCY SERVICES

# I. BACKGROUND INFORMATION

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## PROJECT BACKGROUND

In 2007 Key Pen Parks completed a Needs Assessment Survey for the park comprehensive plan. That assessment determined specific needs for the entire Key Peninsula Parks system, including Volunteer Park.

While master planning is needed at all Key Pen Parks, Parks Commissioners chose Volunteer Park as the first park to be master planned because of the existing infrastructure and park amenities that can be expanded or improved upon with the least amount of capital investment. In addition, Volunteer Park lies at the approximate center of the Key Peninsula Park District, providing the most convenient access for the entire population within the district.

In August 2009, Key Pen Parks retained Bruce Dees & Associates, a landscape architecture firm to:

1. Develop an overall master plan for Volunteer Park to serve as a guide for ultimate development of the park that meets the needs identified in the previous Needs Assessment Study. At the same time, the plan was to take into account the previous efforts and investment by volunteers.
2. Prepare a master plan report that documents processes for developing the plan, as well as a detailed description of each of the plan elements, suggested phasing, and costs.
3. Prepare a separate maintenance and operations plan estimating the probable maintenance costs derived from:
  - ❖ An inventory and description of the maintenance activities required for the proposed park for use in establishing the maintenance program for the park.
  - ❖ Estimated required time to perform the required maintenance tasks.

# I. BACKGROUND INFORMATION

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## KEY PENINSULA METROPOLITAN PARK DISTRICT – COMPREHENSIVE PARK PLAN 2007 - 2013

The comprehensive park plan adopted December 10, 2007, identifies needed facilities within the entire park system. Needs were derived from public input and a survey as a part of the comprehensive plan generation process. Needed facilities specifically for Volunteer Park are listed below in order of ranking based on number of “votes” by responders (in parenthesis):

1. Kids playground & equipment (19)
2. Existing ball fields, improve and increase number (11)
3. Skate park / area (7)
4. Trails, walk / jog / bike (7)
5. Parking, more & improve (5)
6. Softball fields (4)
7. Basketball (4)
8. Bathrooms, improve quality and number (3)
9. Dugouts and batting cages (3)
10. More youth activities (3)
11. Soccer fields (2)
12. Expand to garbage dump (2)
13. More bleachers (2)
14. Picnic areas (2)
15. Better food (2)
16. Upgrade one tennis court (2)
17. Senior activities (1)
18. Sprinkler activity (1)
19. Dog park (1)
20. Gardens (1)
21. Water / lights / restroom back area (1)
22. Improve office and meeting areas (1)
23. More field space (1)
24. Ball fields on back area (1)
25. More trash cans (1)

The Commissioners and Ad-Hoc Committee determined that recreation activities that are either inappropriate for Volunteer Park or cannot be accommodated because of lack of space will be considered for development at 360 Park. Also, waterfront trail related activities that cannot be accommodated at Volunteer Park will be considered for development at the four existing waterfront parks on the peninsula. They include Minter Creek, Maple Hollow, Taylor Bay, and Dutcher Cove. Trail opportunities will also be considered at Rocky Creek and 360 Park.

# I. BACKGROUND INFORMATION

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## PUBLIC INVOLVEMENT

The Ad-Hoc process was the primary means of including the public in the park design. The following is a description of that process and the related informational gathering process.

### Ad-Hoc Meeting Process

An Ad-Hoc committee was established by Key Peninsula Metropolitan Park District (Key Pen Parks) staff with input from the Key Pen Park Commissioners at the beginning of the project to work with the consultant to develop the master plan. The committee consisted of various interest groups throughout the community.

The committee met five times at each of the major steps in the design process. Following is a summary of each meeting:

- ❖ Meeting 1: Discussed background information and to allow the committee to describe the needs and concerns of each interest group in order to establish a program of activities to consider in the master plan and to begin discussion of design criteria.
- ❖ Meeting 2: Refined and prioritized a program of activities and facilities along with design criteria for reviewing alternative design drawings.
- ❖ Meeting 3: The committee reviewed alternative design drawings and evaluated those based on the prioritized program and design criteria.
- ❖ Meeting 4: The committee reviewed the selected alternative plan, considered input from the second public meeting, reviewed preliminary cost estimates, and discussed potential phasing.
- ❖ Meeting 5: The refined preliminary master plan, phasing plan, and costs were reviewed and final input provided prior to the final presentation to the public and the Board of Commissioners.



*Ad-Hoc Committee Meeting,  
September 10, 2009*



*Ad-Hoc Committee Meeting,  
October 8, 2009*



# I. BACKGROUND INFORMATION

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## Public Meetings

A total of three public meetings were held.



*Public Meeting, September 24, 2009*

- ❖ Meeting 1: To explain the overall process to the public and to receive input prior to beginning design. Each individual present was invited to speak. A total of 21 people were present.
- ❖ Meeting 2: The alternative plans were reviewed. Each member present was invited to express their thoughts on the plans. A total of 27 people were present.
- ❖ Meeting 3: The complete work of the Ad-Hoc Committee was reviewed, including the preliminary master plan, suggested phasing, and costs. Again, each person present was invited to comment. A total of 9 people were present.

## Key Pen Parks Board of Commissioners

Presentations were made to the Board of Commissioners at four of the regular meetings. At each of the meetings, the commissioners were provided an update of the planning process at that stage. Some of the commissioners attended the Ad-Hoc Committee meetings and all of the public meetings. The commissioners provided additional input and made contacts with representatives of Pierce County and the Peninsula School District regarding cooperation and the potential for shared facilities.



*Public Meeting, October 22, 2009*



# I. BACKGROUND INFORMATION

## LAND USE / ZONING

### VOLUNTEER PARK

Volunteer Park is bounded on the North by property owned by Pierce County Public Works and Utilities, on the west by private property, on the south by Key Peninsula Middle School, and on the east by Key Peninsula Highway. The park is specifically zoned for park use.

### Legal Information

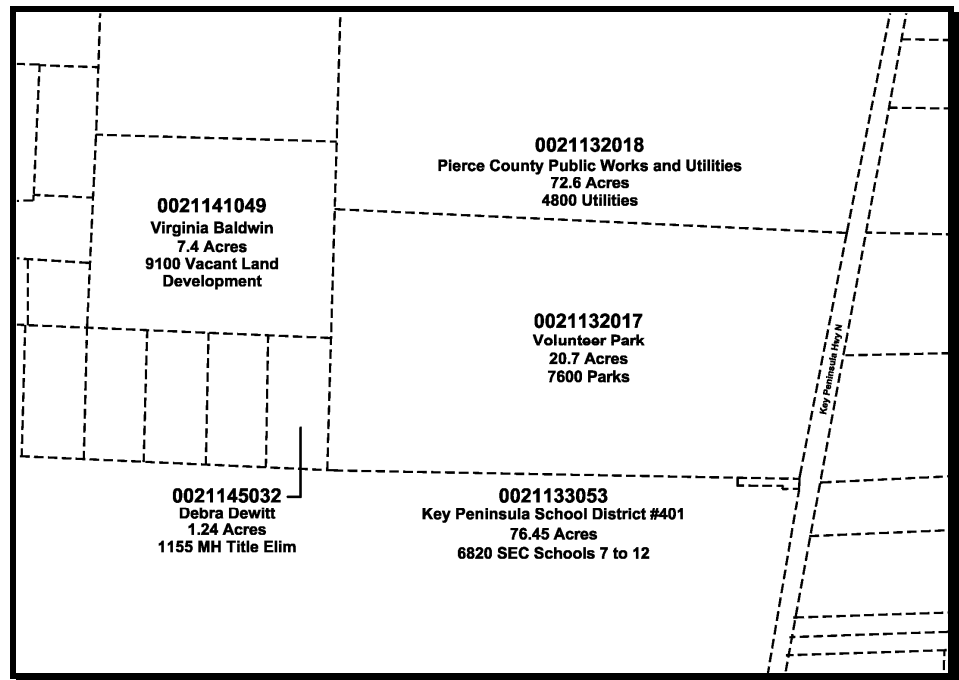
**Owner** – Key Peninsula Metropolitan Park District

**Parcel Number** – 0021132017

**Parcel Size** – 20.7 Acres

**Zoning** – 7600 Parks

**Legal Description** - Section 13 Township 21 Range 00 Quarter 23 : S 1/2 OF SW OF NW & THAT POR OF S 1/2 OF SE OF NW LY WLY OF GHLB HWY OUT OF 2-001 SEG S-0580 HB ES



*Adjacent Properties w/ Parcel Number*

### KEY PENINSULA MIDDLE SCHOOL

The middle school is located in the northwest quadrant of the site. There is an existing football field and track and informal ball fields at the northwest corner of the site. The majority of the site is undeveloped forest land. The school district is currently in the process of developing a long range plan for the district. Tentative plans for the middle school site include a future elementary school, probably adjacent to Key Peninsula Highway. Preliminary discussions between School District Representatives and the Key Pen Park Commissioners regarding shared use of School District land for recreation purposes have taken place during the master plan process.

# **I. BACKGROUND INFORMATION**

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## **PRIVATE PROPERTY TO THE WEST**

This property is developing as a single family residence.

## **PRIVATE PROPERTY TO THE NORTHWEST**

This property is currently undeveloped forested land.

## **PIERCE COUNTY PUBLIC WORKS**

This property is used as a solid waste landfill by Pierce County. The portion abutting Volunteer Park is forested with varying topography. The county critical areas mapping indicates the probable presence of wetlands. Preliminary conversations with Pierce County by the Key Pen Park Commissioners county representatives indicated that the county would consider allowing trails extending onto the property without acquisition, but more intense uses would require acquisition of the property at fair market value.

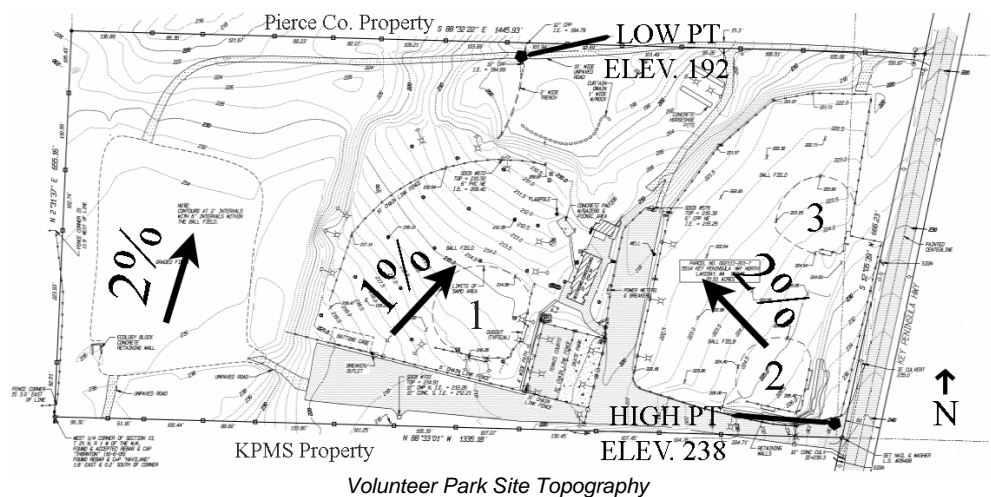


# I. BACKGROUND INFORMATION

## NATURAL FEATURES

### TOPOGRAPHY

In general, the site is divided into four distinct topographic areas defined primarily by the existing graded, generally flat field areas. The two existing ball fields on the east (Fields 2 & 3) slope from the east to the west at approximately 2%. The baseball field (Field 1) in the center slopes from the south to the northeast at approximately 1%. The rectangular upper meadow area on the west slopes from the south to north at approximately 2%. The lowest portion of this site, west of the existing horseshoe pits, is elevation 192', or 46' below the high point on the east side of the site.



### SOILS

The USDA Natural Resource Conservation Service Web Survey indicates that there are three soil types within the project limits. These include:

Harstine Gravelly Sandy Loam – 6 to 15% slopes

Harstine Gravelly Sandy Loam – 15 to 30% slopes

Indianola Loamy Sand – 6 to 15% slopes

### Harstine Series

**Description:** The Harstine series consists of moderately deep to cemented pan, moderately well drained soils. Harstine soils formed in sandy glacial till on uplands.

**Drainage and Permeability:** Moderately well drained; slow to medium runoff; moderate permeability to the cemented pan and very slow below. Perched water table from 24 to 40 inches at times from January through April.

# I. BACKGROUND INFORMATION

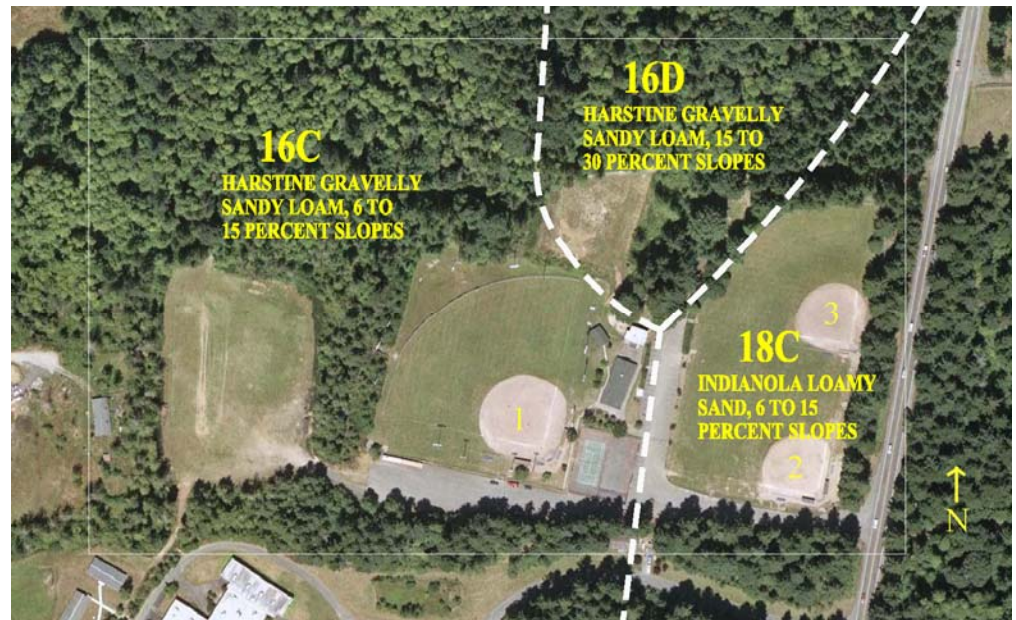
## Indianola Series

**Description:** The Indianola series consists of very deep, somewhat excessively drained soils formed in sandy glacial drift.

**Drainage and Permeability:** Somewhat excessively drained. Saturated hydraulic conductivity is very high and susceptible to erosion.

## Import Fill

Baseball field #1 contains a mix of poorly draining import fill of up to 12" thick.



*Soils Mapping Information*

## VEGETATION

The undeveloped portions of the site consist of second growth Douglas Fir forest. No portion of the site is classified as priority habitat.

## CRITICAL AREAS

No portion of the site is listed by Pierce County as being a "Critical Area". The potential for wetlands and associated buffers exists on the Pierce County solid waste site to the north. A potential for landslides may exist around the north slope of Field 3 where erosion has occurred in the past.

## WILDLIFE HABITAT

No priority habitats of wildlife species are known to be present. The forest, however, provides a habitat to support a wide variety of terrestrial and avian wildlife species.

# I. BACKGROUND INFORMATION

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## MAN-MADE FEATURES

### EXISTING DEVELOPMENT

The following is a description of the existing development at the Volunteer Park site:



*Park Entry*



*Ball Fields 2 & 3*



*Baseball Field 1*



*Upper Meadow Area*



*Horseshoe Pit Area*



*Picnic Shelter*

### Park Entry

The park entry is not well identified, and the wide paved area serves as both entry road and informal parking. Neither the road center line nor any parking stalls are marked. There is poor line of sight onto Key Peninsula Highway and the entry location does not meet the standard for separation distance from the entry to Key Peninsula Middle School.

### Ball Fields 2 & 3

Orientation of these ball fields is northwest, not northeast or southeast as is commonly considered optimal. Field 2 hits onto Field 3 and its backstop area. Access to restrooms and concessions is difficult with both facilities beyond the outfield and across a parking lot.

### Baseball Field 1

This field also has northwest orientation. The field was recently improved with new irrigation and drainage. Proximity to restrooms and concessions is good.

### Upper Meadow Area

This area, approximately 15' in elevation above Field 1 has the potential for field development as it is generally flat and cleared. The area was traditionally used as a tractor pull site during local fairs.

### Horseshoe Pit Area

This area is set apart from the more active recreation areas. The character of the area with mature Douglas Firs is appealing and very much desired by senior citizens that tend to use it the most.

### Picnic Shelter

Built by volunteers, the shelter has great character and quality. Its location, adjacent to the tree and grass area between Field 1 and the restroom / concession building, provides a nice setting for watching the games. The structure is well constructed and could be easily moved and re-erected.

# I. BACKGROUND INFORMATION

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*Children's Play Area*

## **Children's Play Area**

The play area adjacent to the picnic shelter is in a depression and not easily seen from other areas of the park.



*Skate Park*

## **Skate Park**

The skate park appears to be in good condition. It is well used and popular with teens. The location near the entry is easily supervised.



*Tennis Court*

## **Tennis Court**

The court is in poor condition and is in close proximity to the skate park.



*Park Offices*

## **Park Offices**

The office is a former recreation cabin that was donated and moved to the site. The building is functionally and structurally deficient and cannot be economically renovated to meet the District's needs for storage or public meeting space. It lacks insulation and is inadequate for office space for current staff. The location makes it difficult for park visitors to find and the lack of windows does not allow visibility by staff to other areas of the park.



*Maint./Restroom /Concession*

## **Maintenance / Restroom / Concession Building**

This building serves multiple and important functions for the park. Its location at the center of the park is convenient, though both the restrooms and concession are in need of renovations. The north end that serves as a maintenance building is convenient for access within the park, but is difficult to access by vehicles and is aesthetically inappropriate.



*Maint. and Storage Yard*

## **Maintenance and Storage Yard**

This area is too small as a maintenance facility. The location is convenient to the rest of the park for access, but is very visible to public view. It also lacks a hard surface for storage and is unsecured.



*Park Character*

## **Park Character**

Portions of the site have an appealing ambience and character. Especially attractive is the grass and tree area just west of the maintenance / restroom / concession building. The character of this area should be maintained and duplicated wherever possible.

# I. BACKGROUND INFORMATION

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## UTILITIES

### Water

#### Existing System



Existing Well

The park receives all water (for domestic and irrigation use) from a single water well registered with the Washington State Department of Health (WSDOH) as a “Group A” Transient Non-Community system. The well is located in the east-central portion of the site, in the parking lot east of the concessions/restroom building, just off the edge of pavement. The well was developed in 1977 to a depth of 214 feet with a 6-inch casing screened from 204 feet down to 214 feet. It is equipped with a 3 horsepower submersible pump; the wellhead is not enclosed in a shelter.

WSDOH currently considers the system to be operating at a “blue permit” compliance state; blue permits are generally defined by WSDOH as: “*Substantially in compliance. However system does not meet design approval nor has it exceeded the approved number of connections.*” Furthermore, WSDOH does not consider a blue permit compliance state as adequate for “growth”.

Recently, a new concessionaire applied for an operating permit. In response, the Tacoma-Pierce County Health Department (TPCHD) reviewed the system and noted the following needs in writing to Key Pen Parks:

- ❖ *Source meter must be installed.*
- ❖ *As-built drawings of the well, pumping, distribution, and irrigation facilities must be submitted for the potable and irrigation systems.*
- ❖ *An operation and maintenance manual for the potable and irrigation water systems must be prepared and submitted.*
- ❖ *A coliform monitoring plan must be prepared, submitted to WSDOH, and implemented.*
- ❖ *Backflow prevention must be addressed.*
- ❖ *A system capacity determination must be completed and submitted to WSDOH.*
- ❖ *A well covenant must be recorded and provided to TPCHD.*

No other “sanitary survey” has been performed according to Parks’ staff.

WSDOH lists the “Key Peninsula Volunteer Park Group A system” as having one (1) residential connection and four (4) total connections. The residential connection is the existing mobile home located at the south portion of the site. (TPCHD notes that only two of the connections are “approved” and both are approved for “residential use”.)

According to Parks staff, no water rights exist for this Group A system.

Water samples are routinely obtained by the Parks Department staff from rotating locations. Samples are analyzed by Spectrum Laboratories.

# I. BACKGROUND INFORMATION

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In 2004, the well experienced pump failure. The consultant, Nicholson Water Systems, reviewed the system and installed a new pump capable of providing 26 gallons per minute (GPM). At that time, Nicholson also recommended that the well either be redeveloped or replaced in order to accommodate park growth and expansion. A primary element of this recommendation is that during heavy park use, the domestic requirement exceeds the capacity of the existing system.

Domestic demand (such as flushing of toilets and urinals) is provided by storage in two 86-gallon bladder tanks located in the shop room of the concession / restroom building.

## Irrigation Water

The irrigation system, while relying on the well for its source of water, actually derives operational water from an underground cistern (approximately 40,000-gallons in size) located beneath the concessions / restroom building. This cistern is fed from the well with discharge piped through the concrete top slab of the cistern. The gap between the bottom of the pipe and the maximum water surface level of the cistern provides the only backflow prevention. When irrigation water is needed, a 30 horsepower Gould irrigation pump is used to energize the system. This cistern and pump irrigation supply system is currently “at capacity” to water the existing grass areas. The irrigation system has been installed or remodeled over the years with Field 1 having the most recent installation. The irrigation supply line out of the cistern is a 3-inch diameter pipe with other irrigation lines as small as 1.5-inches in diameter. The Field 1 system is automated; Fields 2 & 3 systems are manually operated.



*40,000 gallon cistern for irrigation water is beneath the north end of restroom / concession building.*

## Fire Protection

The site has no fire hydrants, nor are the existing buildings equipped with fire protection systems (sprinklers) or monitored by fire alarms. The buildings are considered “VB” type construction as defined under Section 6 of the International Building Code. The office building totals approximately 1,500 square feet (two stories) and the concession / restroom building is approximately 2,200 square feet.

Food preparation for concessions is generally limited to deep frying of french fries and frying of hamburgers. There is a “hood” above the frying area equipped with a chemical fire suppression system. If not for the frying operations (which could generate “grease laden vapors”), current Pierce County fire codes allow “VB” type buildings under 2,400 SF in “rural” areas to have only 750 GPM fire flow (per Title 17C, Table 17C.60-3); and fire protection credits up to 750 GPM are allowed for rural fire flow provided:

- Buildings have “monitored” fire flow (250 GPM reduction).
- Offsite water (from fire engines) is available (250 GPM reduction).
- 30 foot building setbacks are provided from property lines and buildings on the same property (250 GPM reduction).

Because no hydrants are nearby, the existing buildings are not “monitored”, and operations have potential for “grease laden vapors”, the buildings would not be considered compliant with current fire codes.

# I. BACKGROUND INFORMATION

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## Potential Upgrades

Based on information gathered for this master plan study, we strongly recommend that Key Pen Parks pursue a new water supply system. This would include:

- ❖ Obtaining appropriate water rights.
- ❖ Development of a new WSDOH and TPCHD compliant well.
- ❖ Providing a well house and distribution system that: incorporates a source meter and appropriate backflow prevention; results in as-built drawings and an Operation and Maintenance Manual; and includes a detailed coliform monitoring plan.
- ❖ Increasing the irrigation water storage capacity.
- ❖ Adding fire flow capacity (storage).

Immediate measures needed just to address current park operations are:

- ❖ Housing the well head in a secure pump house.
- ❖ Installing a source meter.
- ❖ Preparing as-built drawings of the existing system based on the best available information.
- ❖ Preparing an Operation and Maintenance Manual.
- ❖ Preparing a detailed coliform monitoring plan.
- ❖ Providing for appropriate backflow prevention.
- ❖ Replacing all hose bibs.
- ❖ Providing a monitored fire alarm system for the buildings.

## Sanitary Sewer

### Existing System

There is no current or foreseeable public or private sanitary sewer service to this rural site. Thus, the park must rely on its own on-site septic system, which is currently comprised of:

- ❖ Two approximately 1,500-gallon septic tanks (located immediately west of the restrooms, placed in series).
- ❖ Gravity (conventional) drainfield (length and size unknown) located just west of the septic tanks and east of the right field foul line of the baseball field 1.
- ❖ 4-inch diameter gravity building sewer conveyance lines from the office and concession / restroom building to the septic tanks.

A review of TPCHD records indicates no as-built drawing is available for this site's septic system. TPCHD records indicate the property "*had existing O&M (manual) # ON 0136529 (6/26/98)*". Records indicate the septic system was built in 1980 (at 5514 Key Peninsula Highway on Parcel # 0021132017).

According to Parks staff, the septic tank and drainfield system has never experienced failure during heavy use or extended rainfall.

The existing 4 inch building sewer conveyance line from the office to the septic tank is believed to be at a sub-standard gradient resulting in frequent clogging of the line due to lack of cleansing flow / velocity to carry solids.



Existing Septic Drain Field

# I. BACKGROUND INFORMATION

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The existing buildings' fixture units are tabulated below:

Type of Fixture	Number
Hose Bibs	17 +/-
Tank Type Water Closet	1
Pressure-Type Water Closet	6
Lavatory Sink	6
Urinal	2
Mop Sink	1
Prep Sink	1
Floor Drain	3 +/-
Dishwasher	0
Three Compartment Sink	1
Drinking Fountain	0



*Recent Field Drainage Improvements Should Benefit the Septic Drain Field*

The restroom / concession building has a kitchen that allows some food preparation. Primarily, this is the deep frying of french fries and grilling of hamburgers. Greasy effluent from the three-compartment sink drains to an exterior grease interceptor located on the west side of the building. Thus, there is some grease separation prior to discharge to the septic tank.

Historically, the right field area of Field 1 (which is adjacent to the septic drainfield) experienced historic drainage problems due to poorly draining sub-grade material. Recently, a shallow under drain system was installed in the entire outfield area with discharge to the low area north of the right field fence. This improvement should benefit the septic drainfield as well.

## Potential Upgrades

Future expansion of the park will lead to increased daily park users resulting in the need to increase the sewage disposal capacity.

No future reserve or primary drainfield areas have been identified. Reviewing site topography, possible drainfield areas would be in the currently undisturbed areas north and northeast of the current improved/graded area. Placement of drainfields in these areas would require pressure systems.

For expansion of park operations, especially with respect to expanded concessions operations and additional park users using restroom facilities, the entire grease interceptor, building sewer conveyance, septic tank, and drainfield systems need to be evaluated, replaced / improved, and / or expanded in accordance with current TPCHD rules and regulations. At this point, it is recommended that food preparation resulting in greasy waste or food waste discharged to the septic system be reviewed for impacts to the drainfield.



# I. BACKGROUND INFORMATION

## Storm Drainage

### Existing Conditions and Facilities

For the most part, the fields currently infiltrate precipitation with the exception of:

- ❖ The outfield area of the baseball field (Field 1): This historically wet area was retrofitted with under drains recently that discharge water to the low area beyond the right field fence.
- ❖ The easterly fields (primarily Field 2): Although underlain by well draining soils, these fields do have some sheet flow west to the parking lot during significant storm events. Staff indicates this is a minor issue.
- ❖ The parking area east of the restroom / concession building: This area is paved and drains north to a catch basin. Staff indicates there are no adverse issues with this system.
- ❖ The large parking / driveway area on the south end of the site: This area drains south to a catch basin which then drains via a 12-inch diameter pipe north (under Field 1) with discharge to an open area eventually leading to a significant gully / gulch draining to the north. Staff indicates that this collection system receives a significant flow from the adjacent school site with leaves and debris frequently clogging the parking lot catch basin.



*Recent Drainage Improvements to Field 1*



*Some Sheet Flow on the Parking Lot from Field 2 Occurs During Significant Storm Events*



*Leaves & Debris Frequently Clog the South Parking Lot Catch Basin*

Roof drainage is discharged directly off the roofs to the adjacent ground surface.

### Potential Upgrades

Expansion of the park will require storm drainage improvements per the Pierce County 2009 Stormwater Management Manual. If improvements are significant, the County can require the entire park storm system to be retrofitted to meet current standards for treatment and control (retention or detention) of runoff.

Immediate needs just to address current park operations are:

- ❖ Installation of a roof gutter, downspout, and tightline pipe system along the west side of the restroom / concession building to direct water from the roof away from the adjacent septic drainfield area.
- ❖ Placement of a “beehive” type cover on the existing catch basin that serves the south parking / driveway area.

## Power

### Existing System

The existing power at the site consists of a 277 \ 480 volt, three phase service with a 400 amp electrical panel. The max load for the existing panel is 109 KW at 135 ams. There is enough capacity for two additional single purpose lighted fields.

### Potential Upgrades

It is expected that the existing service would need to be upgraded to 600A to handle the new programming. This would mean replacing the electrical panels and secondary electrical service.

# **I. BACKGROUND INFORMATION**

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## **SERVICES**

### **TRANSIT**

#### **Current Bus Routes**

Currently, Pierce Transit bus route #113 operates from Key Center to Borgen Blvd. & 51<sup>st</sup> Ave NW. There are a variety of Bus Plus locations along this route that allow potential passengers more access to the transit system. Bus Plus routes are used by passengers when they call in and schedule a pick up time at specific locations rather than scheduled stops on a fixed route. There is no bus service available south of Key Center.

#### **Previous Bus Routes**

Previously, bus route #113 operated as far south as Home, however in July 2009 this route was shortened to Key Center due to lack of passengers rather than budget shortfalls. The typical standard used by Pierce Transit is 15 passengers per hour of service. The route south of Key Center did not meet this requirement and was therefore suspended.

#### **Funding for Future Expansion**

Because of current budget constraints, there is no plan to extend the current bus line any farther south than the current bus route #113 to Key Center. If money becomes available and ridership forecasts rise, future expansion to areas of Key Peninsula currently without service may be possible. Pierce Transit is currently working on a partnership with the City of Auburn and King County in which the City and County share costs associated with bus routes serving those areas with Pierce Transit providing the equipment. This type of partnership has been proven elsewhere to benefit a large number of passengers and may be possible on Key Peninsula with Pierce County and Key Pen Parks.

## **LAW ENFORCEMENT**

#### **Current Enforcement**

The Pierce County Sheriff Detachment office for Key Peninsula is located at: 6006 133<sup>rd</sup> St. NW, Gig Harbor WA 98332

There are currently eighteen (18) deputies assigned to the Key Peninsula Detachment that patrol from the Narrows Bridge to the Kitsap County line and all of Key Peninsula. Due to budget restraints and shift scheduling, there are currently only three (3) deputies per shift assigned to patrol all of Gig Harbor and Key Peninsula. One deputy patrols the area from the Purdy Spit to the southernmost tip of Key Peninsula. Volunteer Park is located within this patrol area. There are three shifts every 24-hour period, so this could increase the number deputies in the area during shift change, but only for a brief time. Due to County budget shortfalls, there are currently no plans to add more deputies at this time.

# I. BACKGROUND INFORMATION

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## Crime Rate

The following crime statistics are reports that were filed with the Pierce County Sheriff's Office within a ½ mile radius of Volunteer Park for 2008 and 2009. Not all calls responded to resulted in a written report. The following reports are tracked by the FBI from January through August of each year:

2008 – 23 Incidents were filed within ½ mile of Volunteer Park

2009 – 10 Incidents were filed within ½ mile of Volunteer Park

*(2009 Crime rate within ½ mile of Volunteer Park is down 57% from previous year)*

## **FIRE AND EMERGENCY SERVICES**

The park is served by the Key Peninsula Fire Department, Pierce County Fire District #16. The closest station is located approximately two miles north in Key Center.

## **II. DESIGN CRITERIA AND FINAL PROGRAM**

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**DESIGN CRITERIA**

**FINAL PROGRAM**

## II. DESIGN CRITERIA AND FINAL PROGRAM

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### DESIGN CRITERIA

Design criteria were established to guide and evaluate the Master Plan and improvements at any of the other Key Peninsula park sites as it evolved. The design criteria was developed based on input from the Ad-Hoc Committee, public meetings, Key Pen Parks Board of Commissioners, and the Key Peninsula Comprehensive Parks Plan. Design criteria were established in five general categories: safety, accessibility, availability, park policy, and aesthetics. Following is the final design criteria:

#### Safety

- ❖ The park must have adequate safety lighting.
- ❖ Vehicle access points must be safe.
- ❖ Provide better ingress and egress at Volunteer Park.

#### Accessibility

- ❖ Provide access for the entire community, including older people, and not just meet the minimum ADA requirements.
- ❖ Site furnishings should be easy to use for all park visitors, including the elderly, such as accessible picnic tables.
- ❖ Design parks to serve families with young children.
- ❖ Provide good parking accommodations and restroom facilities.
- ❖ Provide walking trails that will accommodate strollers.
- ❖ Design trails with varying levels of difficulty.

#### Availability

- ❖ Restroom facilities should be adequate and conveniently located.
- ❖ All facilities should be multiuse as much as is practical.
- ❖ Park improvements should take advantage of partnership opportunities.
- ❖ Provide casual drop-in opportunities, such as at Home Park.
- ❖ Activities and facilities should be made available to all of the residents of the Key Peninsula.

#### Park Policy

- ❖ The facilities should be open to the public throughout the day and evenings.
- ❖ Require that all dogs be on a leash in areas used by the general public.
- ❖ Construct new facilities using sustainable building practices.
- ❖ Keep parks natural.

#### Aesthetics

- ❖ Preserve existing forest areas within the parks wherever possible.
- ❖ Relocate the existing maintenance facility to a more appropriate location.

## II. DESIGN CRITERIA AND FINAL PROGRAM

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### FINAL PROGRAM

The final program of activities and facilities to consider in the plan was developed by the Ad-Hoc Committee with consideration for input from the public meetings and the Board of Commissioners. The program was prioritized by the committee, taking into account priority issues for the general public and consideration for the community survey conducted as a part of the comprehensive park plan. Following is the prioritized park program:

#### High Priority

- ❖ Athletic fields

<u>Total Baseball</u>	<u>Youth Soccer</u>	<u>Adult Softball</u>
2 – 250' Fields	10 – 300 x 195' Fields	3 – 300' Fields
2 – 225' Fields	(3 minimum)	
1 – 300-350' Field		
1 – T-Ball		

- ❖ Multi-purpose building
- ❖ Concession / restroom improvements
- ❖ Trails
- ❖ Children's play area
- ❖ Open air stage \*
- ❖ Disc golf
- ❖ Floodlighting
- ❖ Multi-purpose space \*
- ❖ Adequate parking
- ❖ Upgrade infrastructure

\* Location could be other than Volunteer Park

#### Medium Priority

- ❖ Dugouts and batting cages
- ❖ Spray park
- ❖ Trails connecting parks
- ❖ Community garden \*
- ❖ Bird habitat \*
- ❖ Tanker refill area \*
- ❖ Equestrian facilities \*
- ❖ Off leash dog area \*

\* Location could be other than Volunteer Park

#### Low Priority

- ❖ Picnic areas (integrate individual tables and / or small shelters within all parks)
- ❖ Skate park \*
- ❖ Upgrade one tennis court (convert to multi-use court)

\* Location could be other than Volunteer Park

# **III. MASTER PLAN ELEMENTS**

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## **PARK CHARACTER**

### **PROGRAM ELEMENTS**

- BUILDINGS
- ATHLETIC FIELDS
- OTHER ACTIVE RECREATION FACILITIES
- INFORMAL RECREATION
- PARKING AND ACCESS
- UTILITIES
- STORM WATER FACILITIES

## **MASTER PLAN GRAPHICS**

# III. MASTER PLAN ELEMENTS

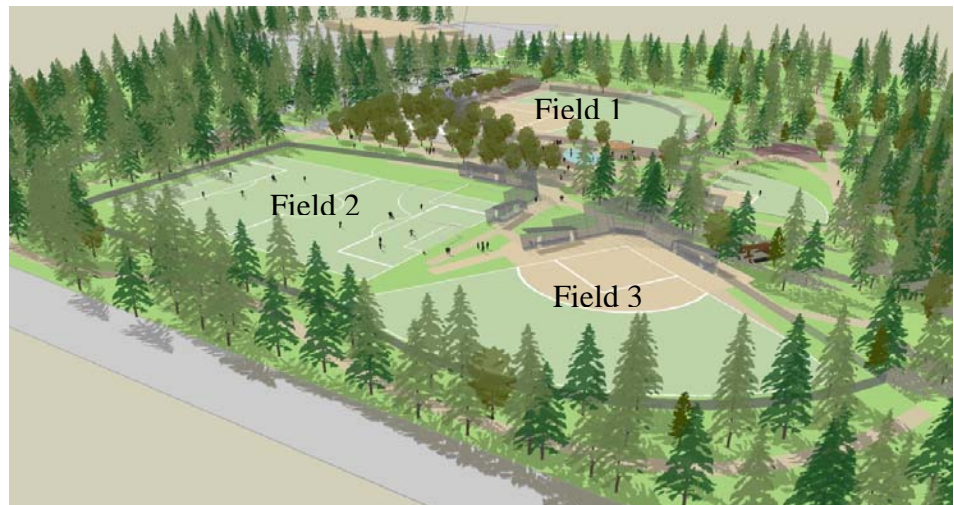
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## PARK CHARACTER

Consensus of the Ad-Hoc Committee, the public, and the Commissioners is that Volunteer Park should continue to emphasize athletic facilities since the precedent was already established, its location is central to Key Peninsula, and it also provides the opportunity for shared recreational facilities with Key Peninsula Middle School.

There is also consensus that the existing vegetation and wooded area should be retained with minimal tree removal to maintain the character important to the Key Peninsula community. Fields 1, 2, and 3 are existing ball fields. Therefore, the plan addresses key design criteria by retaining those areas as ball fields and only minimally developing the “upper area” to the west, in keeping with the goal of the project to “respect the volunteer efforts of the past” and preserving the forest outside those areas.

Those criteria, however, cannot be met with development of fields on the school district property. In general, most high priority program elements can be accommodated on the existing Volunteer Park site, with overlapping use of the athletic fields. For other non-athletic field activities (off leash dog area and equestrian facilities), the consensus was that the 360 Park site would better accommodate uses that require large areas of land.





# III. MASTER PLAN ELEMENTS

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## PROGRAM ELEMENTS

Following is a summary of the program elements and improvements included in the Volunteer Park Master Plan:

## ATHLETIC FIELDS

### Baseball Field 1

Youth baseball up through high school will be accommodated at baseball Field 1, which will remain in its current location with only minor modifications to the outfield fence and backstop area. Improvements to the field in 2009 included irrigation and subdrainage utilizing Green Shield, a proprietary design build system. Other improvements included a new backstop, fencing to enclose the field, netting, and ADA compliant access. Currently the field slopes from south to northeast at approximately 1%. With the recent improvements to the field, it was deemed appropriate to leave the field in its current location, even though orientation to the sun is less than ideal. No other improvements to the field are proposed.

### Ball Fields 2 & 3 and Overlapping Soccer Field 2a

The existing two fields would be reoriented with the backstops back to back at the center of the field at the west side. This provides optimum orientation for baseball to the northeast and southeast. Improvements will include regrading of the entire area to provide a 1% slope from home plate to the outfield. The two fields would be able to accommodate **youth baseball** with Field 2 at 260' and Field 3 at 225'. **Adult softball** could be accommodated on Field 2 which has a 300' center and right field with only the shorter 260' at left field. A **soccer field** of 195' x 300' is superimposed or overlaid over Field 2, which would have a synthetic turf infield. Each of the ball fields would include a new backstop, spectator seating, dugouts, and bullpens for each side. The periphery of the area would be fenced with 8' high chainlink fence to contain balls and also to define the limits of the designated ball field area. A higher screen netting section above the chainlink would be required at the short 260' left field section of Field 2. These fields would be irrigated, but would rely on the high porosity of the underlying Indianola soil for drainage.

### T-Ball

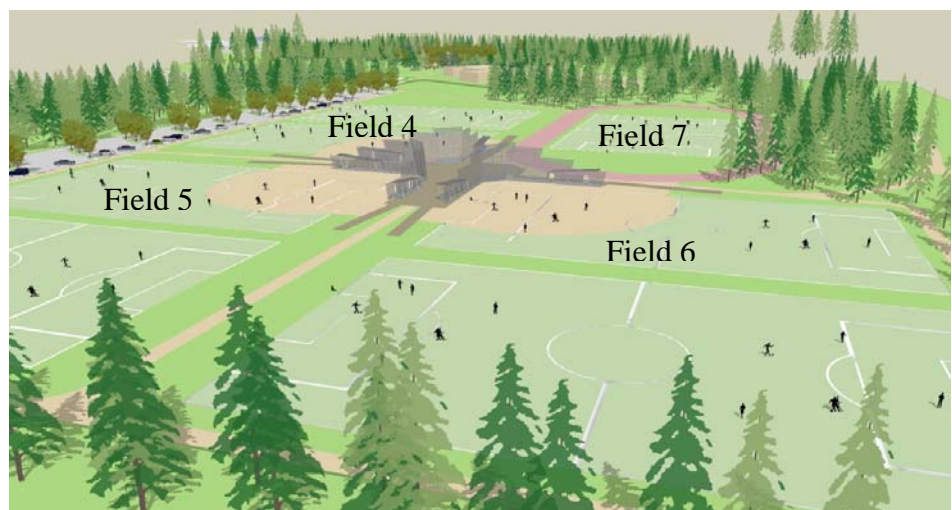
**Youth baseball's t-ball** is the final high priority requirement for a designated **t-ball field** and is located in the existing open space north of the spray park and play area. It also serves as an extension of open space for the open air stage.

### **III. MASTER PLAN ELEMENTS**

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#### **Ball Fields 4, 5, & 6 and Soccer Fields 4a, 4b, 5a, 5b, 6a, 6b, and 7 Utilizing School District Property**

These fields include three full size adult softball fields with synthetic turf infields at the northwest corner of the school district property with six overlaying soccer fields and a seventh soccer field in the infield of the existing track. Together with the Volunteer Park fields, full tournament capability is provided with a total of eight soccer fields and five adult softball fields. The school fields would also serve the needs of the school district for physical education and athletic teams. Each ball field would have synthetic turf infields, backstops and dugouts, and space for bleachers. The perimeter of the field would be fenced. All fields would be under drained and irrigated.



### **INFORMAL RECREATION**

#### **Children's Play Area and Spray Park**

A large children's play area of approximately 10,000 square feet is located at the center of the park near the restrooms and concessions end of the multi-purpose building. In this location, it is within line of sight from Fields 2 and 3 and from the Field 1 bleacher area. A variety of equipment for varying ages and skills would be provided, including access for disabled children. Associated with the play area is the children's spray park, multiple picnic tables at the periphery and a large open grass area that serves as a grade transition from the east and south. The spray park would likely be equipped with circulating water and treatment equipment.

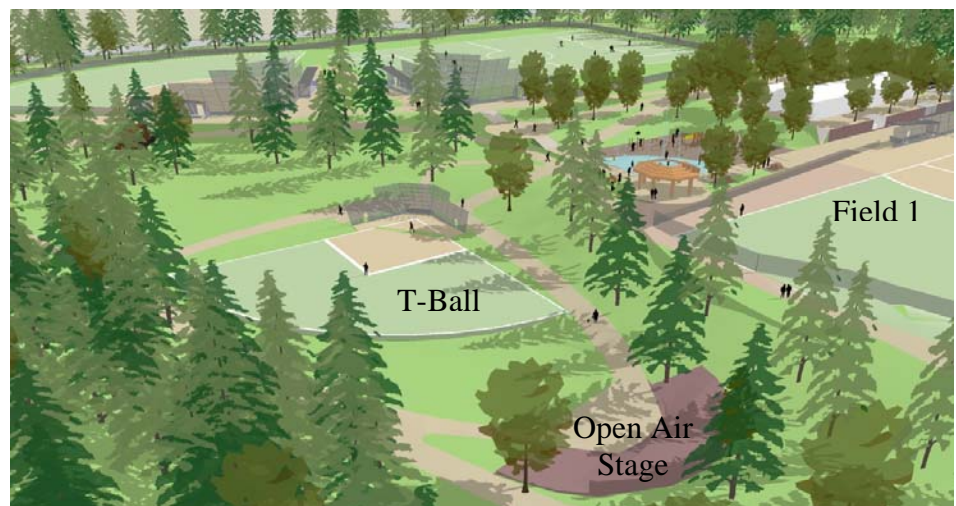
The desirable existing tree canopy between the existing restroom / concession building and Field 1 will be expanded. The existing rustic shelter will be relocated to the wooded horseshoe pit area and a new shelter provided for the spray park and play area users.

### III. MASTER PLAN ELEMENTS



#### **Public Commons**

A twenty-four (24) foot wide promenade next to the multi-purpose building connects the parking lot to amenities to the north with flag poles, memorials, and information kiosk at each end.



#### **Open Air Stage**

The open air stage is located at the end of a natural bowl shaped open space. In this location, separate small concerts or performances could be held without interference from the ball fields. Direct access is available from the parking lot and multipurpose building with restrooms in close proximity.

# III. MASTER PLAN ELEMENTS

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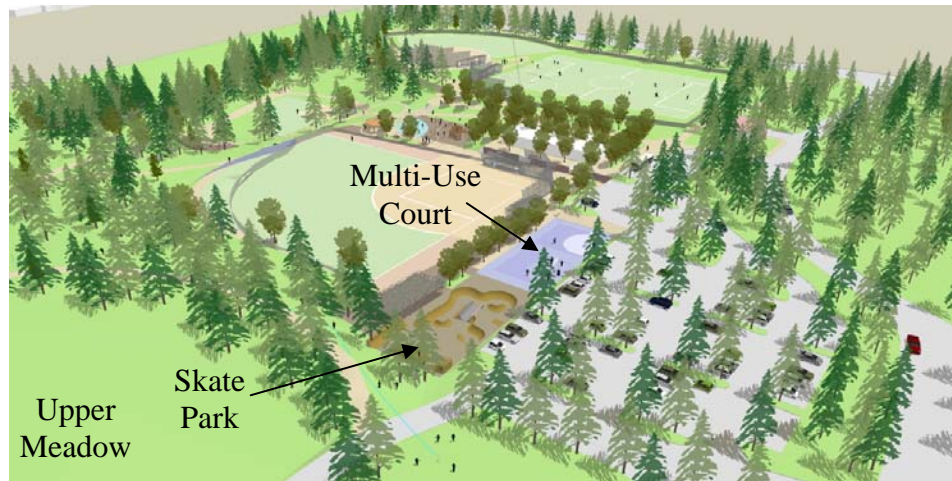
## OTHER ACTIVE RECREATION FACILITIES

### Multi-Use Court

The existing tennis court and skate park will be displaced by the new multi-purpose building. A multi-use court will be developed with basketball hoops and could be lined and sleeved for pickle ball and tennis nets. The surface will be coated asphalt. The sides of the courts would be fenced to contain balls.

### Skate Park

The skate park is relocated to the west of the multi-use court with expanded facilities for both novice and expert level skills. Located adjacent to the parking lot, it has easy access while still being away from the children's play area and spray park. The entire skate park would be fenced and lighted. Existing skate equipment could be relocated to the new facility.



### Multi-purpose Space – Upper Meadow

A key need in the community is a multi-purpose space that could be utilized for public gatherings during emergencies or for the local Key Peninsula Fair. The multi-purpose building itself could provide many of the needed service requirements for emergency gathering space and for a fair. The space also doubles as overflow parking or informal pickup games or practice. It would not be under drained or irrigated.

### Disc Golf

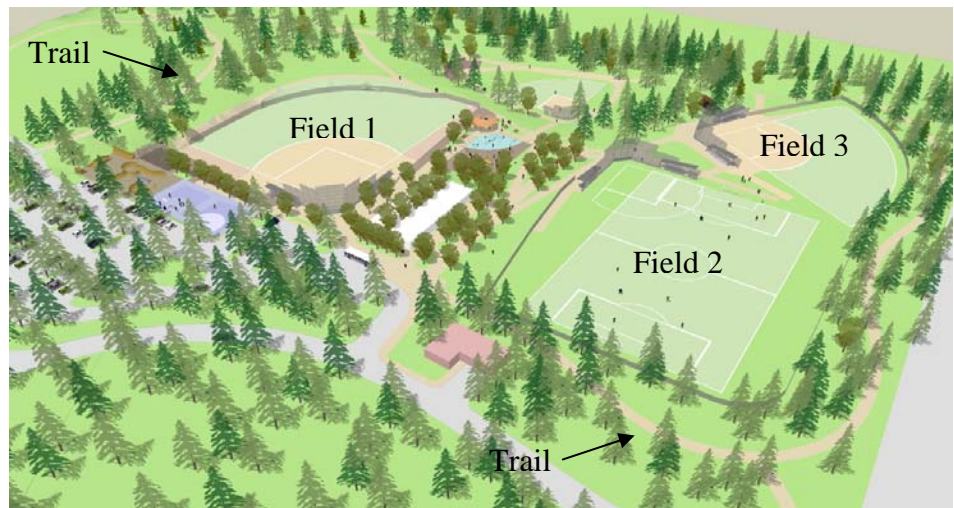
Disc golf is accommodated at the perimeter of the upper meadow. The course would be laid out to provide varying lengths and degrees of difficulty and interest. The layout can easily be changed to provide new challenges.

### III. MASTER PLAN ELEMENTS

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#### Trails

Trails will extend throughout Volunteer Park with a loop trail of approximately three-quarters of a mile. Trails circumscribe all of the improvements without crossing any roads or parking. The trails would have paved surfaces. There are intermediate loops around the fields providing a variety of routes and varying degrees of difficulty. Trails will be clearly marked for distance and difficulty of grade. There will be benches and picnic tables at strategic locations. Exercise or parcourse / parkour stations could be included as part of the improvements. Paved walks around Fields 4, 5, & 6 are joined by soft surface trails that circumscribe the School District property and could extend onto the County property to the north.



#### Miscellaneous Activities

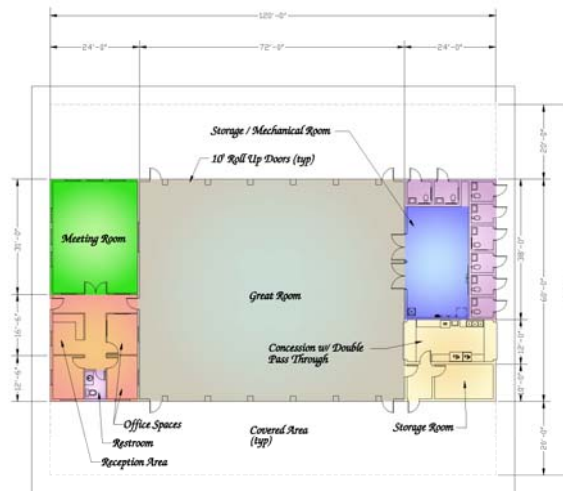
The grass area just east of the multi-purpose building will provide space for bocce ball and volleyball. Planters on each side of the building will provide opportunities for seasonal plantings as both educational and recreational activities. Interpretative signs will identify native vegetation and wildlife found in the park.

# III. MASTER PLAN ELEMENTS

## BUILDINGS

### Multi-purpose Building – Restrooms / Concession

The new multi-purpose building is located at what will be the main entry to the park between Fields 1 and 2. In this location it would be easily identifiable and easily accessible from other locations in the park as well as from the new parking area. The proposed building has approximately 7,000 square feet of indoor space with an additional 5,000 total square feet of outdoor covered space located on either side for a total of 12,000 square feet. The linear building will include restrooms and a concession at the north end, again, centrally located within the park and adjacent to the children’s play area and picnic area. Park Administrative offices and meeting rooms on the south end will be adjacent to parking and the main entry.

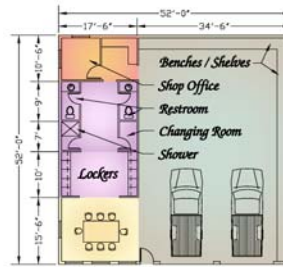


*Multi-Use / Restroom / Office  
Building at Plaza*

*Enclosed 7,200 s.f.  
Covered 4,800 s.f.  
Total 12,000 s.f.*

The indoor open space between the two will provide an opportunity for multiple uses including flexible classroom space, a teen center, exercise equipment, and indoor space for public meetings and gatherings. A roll-out stage would be stored in the storage room. A separate serving counter will be part of the concession / kitchen for serving the multi-purpose “great room”. The two sides of the building will be enclosed with roll-up glass doors making the space expandable into the covered outdoor spaces on either side. The two ends of the building will be enclosed with permanent walls. These walls could serve as a display area about the history of the park and key volunteers. Construction materials will likely be heavy timber to be in character with the wooded surroundings.

### III. MASTER PLAN ELEMENTS

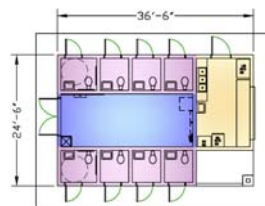


*Maintenance Building*  
2704 s.f.

#### **Maintenance Building and Yard**

The maintenance building will serve as an office, shop and materials storage area for the park. The architectural character could be similar to the other buildings on site or it could be a prefabricated metal building. It will be located in an unobtrusive location, adjacent to the upper meadow access road and parking lot, but will have convenient vehicle access for staff. Maintenance access throughout the park will be via the 10' wide paved trail system.

The refuse and recycling areas for the park are located in the main parking lot, where they will be easily accessible, but discretely screened.



*Restroom / Concession Building (905 s.f.)*

#### **Restroom / Concession Building at Fields 4, 5 & 6**

Since the building will serve three ball fields and up to seven soccer fields, it will include eight (8) unisex toilets and a concession space.

#### **Shelter at the Spray Park / Play Area**

This structure will provide shade and shelter for picnic tables or gathering place similar to the function of the shelter at Home Park.

#### **Existing Shelter – Relocated to Horseshoe Pit Area**

The existing shelter is in good condition and will be relocated to the existing horseshoe pit area. The shelters' rustic character will fit well and it would serve as a group picnic shelter or gathering place for those enjoying horseshoes. Preserving the shelter also respects the contribution of past volunteers.

#### **Gatekeeper Residence**

The gatekeeper residence would be relocated or replaced with a new structure near the park entrance for security and control.

# III. MASTER PLAN ELEMENTS

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## PARKING AND ACCESS

### Vehicular Access

A key feature of the plan is to combine the park and school access. This will provide much safer ingress / egress for the park and the school with new left and right turn lanes. The existing school access road will be improved beyond the school to the parking and fields to the west.

### Parking

A new main parking lot between the school access road and Field 1 would include up to 154 stalls. It is located in a previously disturbed area and low point for collection of storm water. Islands in the new parking lot would be located to retain existing significant trees. The parking lot will afford continual vehicle circulation. The small 15 stall lot located adjacent to the upper meadow (with potential overflow parking for approximately 120 vehicles) is accessed via the existing school access road or through the main lot. A drop off area at the main parking will accommodate school buses and emergency vehicles. The west parking for 266 cars adjacent to Fields 4, 5, & 6 is angled parking in two bays for efficient use of space north-south and to accommodate efficient circulation.

### **Parking Summary**

- Main Parking 154
- Upper Parking 15 Paved  
120 Overflow
- West Parking 266  
**555 Total**

### Pedestrian Access

From the main parking lot, park visitors could enter along Field 1 or at the main entry adjacent to the multipurpose building. There is a primary walk on a north / south axis with flag poles or major features at each end. ADA compliant access to Fields 2 and 3 and to the children's play area and park facilities to the north and west is provided via ramps.





# III. MASTER PLAN ELEMENTS

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## UTILITIES

### Sanitary Sewer

Sanitary sewer will gravity flow to a pressure drainfield at the north edge of the site. A small restroom / concession building between Fields 4, 5 and 6 on the KPMS site will need to have its own septic tank and drainfield adjacent to those fields.

### Domestic and Irrigation Water

The existing well will be improved with the upgrade described under Background Information. The well will then serve a new 90,000 gallon tank which will also provide fire protection. The existing cistern under the existing CMU building could potentially be utilized for the recirculation of water for the spray park and possibly for limited irrigation water.

### Fire Protection

A new 90,000 gallon water storage tank will be erected just south of the upper meadow at the high point on park property. The tank may be supplied by both the park well and school well. Agreements and approvals for water rights and management of a joint system will have to be in place. The tank will provide fire flow requirements for the multipurpose building and park, as well as the middle school. To meet fire flow requirements, a booster pump will be required. The tank will also provide fire truck refilling from a new hydrant near the multipurpose building. Hydrants will also be located at the tank and near the Field 4, 5 and 6 restroom / concession building.

## STORM WATER FACILITIES

Storm drainage improvements must meet the requirements of the Pierce County 2009 Storm Drainage Manual.

- Storm water runoff from the large parking lot will be treated in a bioswale on the west and north sides of Field 1, then detained in a series of storm water chambers below the t-ball field area.
- Storm water from the multipurpose building and adjacent impervious areas need not be treated. Detention will be in storm water chambers below the t-ball area.
- Fields 2 & 3 will take advantage of highly permeable Indianola soil under the fields and will not need subdrainage systems for the fields.
- No new subdrainage or detention is proposed for Field 1, though it may be required by the County based on their interpretation of the fields pre-existing status.

### III. MASTER PLAN ELEMENTS

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- The peripheral areas will remain as undisturbed forest. The perimeter trail will be porous asphalt; therefore, stormwater detention will not be required.
- Storm water from the parking serving Fields 4, 5, 6, & 7 will be treated adjacent to the lots and detained below the lot. Storm water from the fields may be detained under the fields in the subdrainage system (a detailed existing topographic survey of the KPMS school site will be needed to determine final design).
- Low impact and sustainable design will characterize the storm drainage. The storm drainage design will be integrated into the park landscape to provide interest and interpretive opportunities.

#### **POWER**

The existing service will be upgraded from a 400 amp panel to 600 amps to handle the new programming. This will entail replacing the electrical panels and secondary electrical service. Primary power will be extended to Fields 4, 5, 6, & 7 for field floodlighting and parking lot lighting.

# **IV. IMPLEMENTATION**

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## **ESTIMATED PROBABLE CONSTRUCTION COST**

### **PHASING PLAN**

## IV. IMPLEMENTATION

### ESTIMATED PROBABLE CONSTRUCTION COST

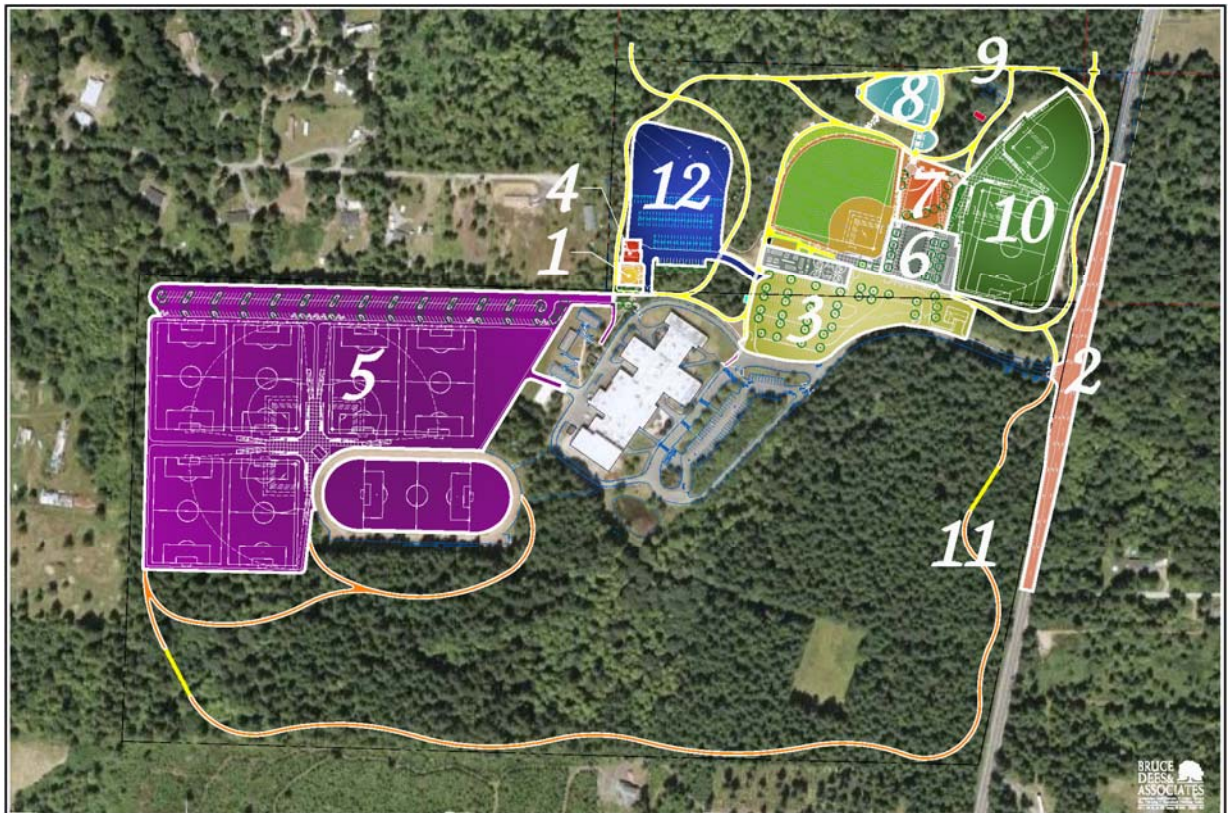
Estimated costs for the entire master plan are based on 2010 construction prices and will need to be adjusted annually for inflation. An additional 35% for design and construction contingency, engineering, inspection, testing, administration, and sales tax are incorporated in the estimated cost. Precise quantities of the various items cannot be determined until final design (for construction) is completed. Therefore, the contingency is intended to cover the unknowns inherent at the master plan stage. Sales tax (which is included in the cost) is currently 8.8%; however, this could change over time. Park District Administration costs and other costs yet to be determined must be added to this estimate.

Other costs yet to be determined:

- ❖ Traffic mitigation
- ❖ Park District Administration cost
- ❖ Permit fees

### PHASING

Due to the magnitude of the project, the park will likely be built in multiple phases over several years.



## **IV. IMPLEMENTATION**

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Phasing and eventual completion of the park will be dependent upon available funding, logical construction sequence, and what provides the greatest value for the investment. Following is a summary of possible phasing and the probable cost in 2010 dollars. Numbering designates neither priority nor sequencing, but potential stand alone project increments. Some elements do require completion of other elements in order to be feasible. Some phases may be divided into separate projects to facilitate completion.

### **1. 90,000 Gallon Storage Tank & Water System Upgrade**

**Estimated Cost: \$385,400**

This improvement is needed to serve the existing domestic needs of the park and will provide fire flow requirements for both the park and middle school. It will also serve as a filling point for fire trucks, thus providing a valuable improvement for the entire area surrounding the park.

### **2. Improvements to Key Peninsula Highway**

**Estimated Cost: \$215,400**

A key consideration of the plan is to improve vehicle access safety. This improvement will address the existing safety issue, thus should be considered and may be required prior to any additional traffic generating improvements.

### **3. Entry Road and Main Parking Lot**

**Estimated Cost: \$1,191,000**

This improvement is necessary to accommodate development of Fields 2 & 3, and the multi-purpose building. The improvement will also improve the ingress / egress safety for the park. This improvement will serve both the park and the middle school providing overflow parking for school events. Improvements include:

- ❖ Parking and entry improvements
- ❖ Relocating the gatekeeper residence

### **4. Maintenance Building & Yard**

**Estimated Cost: \$436,300**

As significant improvements occur, there will be an increased demand for maintenance. The maintenance building and yard should be in place before or along with those significant improvements.

## **IV. IMPLEMENTATION**

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### **5. Ball Fields 4, 5, & 6, Overlapping Soccer Fields, and Parking**

**Estimated Cost: \$7,374,000**

Constructing Fields 4, 5 & 6 will provide more fields and parking, and work could be done without interrupting other park uses. Improvements include:

- ❖ Youth baseball / adult softball Fields 4, 5 & 6 (synthetic turf infields)
- ❖ Six overlapping soccer Fields 4a, b, 5a, b, 6a, b, and Field 7
- ❖ Floodlight infrastructure
- ❖ Parking for 266 cars
- ❖ Restroom / concession building

*Notes:*

- *An agreement for access with the school district must be in place for this work.*
- *Floodlighting is included in the cost, but could be a separate phase.*

### **6. Multi-Purpose Building, Multi-Use Court and Skate Park Phase**

**Estimated Cost: \$2,590,800**

The multi-purpose building can be constructed with the existing restroom / concession / maintenance building remaining in place. The skate park and tennis court will be displaced; therefore, the two courts would be included in this work. Improvements include:

- ❖ Multi-purpose building
- ❖ Skate park
- ❖ Multi-use court

*Note: Improvements to the water system and expanded parking must be included with this phase, if not before.*

### **7. Children's Play Area, Spray Park, and Commons Phase**

**Estimated Cost: \$303,600**

To construct these improvements, the existing restroom / concession / maintenance building would be displaced. For this reason, construction of the new multipurpose building and maintenance building must precede this phase. Improvements include:

- ❖ Children's play area
- ❖ Spray park
- ❖ Commons promenade, flags, memorials, and kiosks
- ❖ Picnic tables
- ❖ Open lawn area
- ❖ Picnic shelter

## **IV. IMPLEMENTATION**

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### **8. T-Ball and Open Air Stage**

**Estimated Cost: \$257,000**

These improvements will be constructed over the storm water galleries serving the main parking lot and children's play area. Therefore, it must be constructed after or with those improvements.

### **9. Volunteer Park Loop Trail**

**Estimated Cost: \$239,700**

Portions of the trail may be completed along with other improvements or completed once preceding improvements are in place.

### **10. Fields 2 & 3 Phase**

**Estimated Cost: \$2,176,300**

The development of Fields 2 & 3 will displace the existing entrance road and parking south of Field 2. Therefore, this phase must follow road and parking improvements and will require development of at least some of the parking on school district property and intersection and traffic improvements to Key Peninsula Highway. Improvements include:

- ❖ Youth baseball / adult softball Field 2 with synthetic turf infield
- ❖ Youth baseball Field 3
- ❖ One overlapping soccer field (on Field 2)
- ❖ Floodlight infrastructure

*Note: Improvements to the water system should be in place or included in this work.*

### **11. Trails on School District Property**

**Estimated Cost: \$237,700**

The trail improvements will provide a key recreation amenity usable by all ages and abilities. Improvements include:

- ❖ 1.15 mile paved / soft surface loop trail on school district property
- ❖ Picnic tables and benches
- ❖ Exercise stations

### **12. Upper Meadow and Parking Lot**

**Estimated Cost: \$272,600**

The upper meadow area can serve its intended function as a multi-use area and overflow parking with little improvement. Paved limited parking will require storm water treatment and detention as well as lighting.

**GRAND TOTAL COST \$15,679,800**

# **V. INTERAGENCY COORDINATION AND PERMITS**

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**PIERCE COUNTY COORDINATION**

**STATE COORDINATION**

**FEDERAL COORDINATION**

**PERMIT SEQUENCE**



# V. INTERAGENCY COORDINATION AND PERMITS

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Following is a summary of the probable agency coordination and primary permits required:

## **PIERCE COUNTY COORDINATION**

Pierce County will be the lead agency for development guidelines and permits. Since both the park and the school are permitted outright in the current zoning, a conditional use permit will not be required.

## **SEPA**

State Environmental Policy Act (SEPA) requires a completed Environmental Checklist for all construction projects to determine their environmental impact. If the impacts are non-significant, then the reviewing agency issues a Determination of Non-significance (DNS) ending this review process and allowing other permit reviews to begin. If the project is found to have significant impacts an Environmental Impact Statement (EIS) must be prepared by the applicant. If impacts are identified, but they can be mitigated to make those impacts non-significant, a Mitigated Determination of Non-significance (MDNS) will be issued with specific conditions to be met for mitigation of the potential impacts. Pierce County will be the lead agency in processing the SEPA and EIS that may be required for the park project.

## **Site Development / Construction Permit**

This permit is administered by the Pierce County Roads and Transportation Services Department and reviewed by the Development Services Department. This permit covers storm drainage, access roads, and erosion control. A separate right-of-way permit will be required for work within the county right-of-way.

## **Health Department On-Site Disposal Permit**

Since the project will generate over 1,000 gallons / day of effluent, a commercial / community on-site disposal system review will be required. Generally, the permit review process takes about six weeks.

The timing of the required test pits for the on-site disposal system will need to be considered. For a fee, a major project review could be applied for to allow for preliminary review of test pits and system design concept. This fee may be later applied to the commercial / community system review fee when applied for.

## **National Pollutant Discharge Elimination System (NPDES) Permit**

According to the Department of Ecology (DOE), the specific rules of this regulation are currently being changed. Previously, only areas (cities, counties, etc.) over 100,000 in population had to apply. However, now a requirement that all cities and counties must apply regardless of population is being considered. Because unincorporated Pierce County has a

## V. INTERAGENCY COORDINATION AND PERMITS

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population of over 100,000 and because the construction site disturbs five or more acres, this permit is necessary.

The permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan. The main intent of these plans is to control erosion and sedimentation caused by construction activities. The permit application has a box that should be checked to indicate that stormwater and erosion control plans have been prepared. However, DOE will not need to see the plans unless a question or problem arises.

### **Grading & Building Permit**

A separate Building Permit will be required for each structure, including each gate. These include the multipurpose building, restroom / concession building, picnic shelter, and the maintenance building. The Grading & Building Permit Application should be submitted once the construction documents are complete and the SEPA Checklist has been processed. The construction drawings should be completed and the project bid only after all permits have been received.

## **STATE COORDINATION**

### **Priority Habitat Review**

Report contents include:

- ❖ Site inventory surveys regarding species habitat occurrences, identification, and mapping.
- ❖ Impact analysis for priority species and habitat due to playfield development.
- ❖ Proposed impact mitigation, which will include measures set forth in the Pierce County Code. All mitigation measures in the report will be drafted with the cooperation and review of the Washington Department of Fish & Wildlife.

### **Traffic Studies**

Traffic impact fees may be assessed for the impacts to Key Peninsula Highway produced by the expansion of the park. Currently, the fees are per P.M. hour trip generated by the facility. A traffic study will determine the actual peak hour trips generated by the park upon full development.

### **Other Issues & Coordination to be Addressed**

- ❖ Agreement with Peninsula School District for development on school property including water system improvements
- ❖ Agreement with Pierce County for use of their property for potential trail
- ❖ Septic tank approval and general facility charges for drain field
- ❖ Water right certificate from the Department of Ecology for the existing well and expansion

# V. INTERAGENCY COORDINATION AND PERMITS

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## FEDERAL COORDINATION

Due to the absence of wetlands and the identification of any endangered species on the site, no federal coordination is expected at this time.

## PERMIT SEQUENCE

Following is the sequence of which permit applications are recommended to be submitted along with an estimated time for approval. State law requires that no permits be issued until the SEPA process is completed.

<u>APPLICATION SEQUENCE</u>	<u>WHY REQUIRED</u>	<u>ESTIMATED TIME FOR APPROVAL</u>
1. SEPA Checklist	Required to assess if there are any significant impacts from the proposed development. This will include a priority habitat review and traffic study.	30-day comment period for DNS
2. NPDES	Required prior to beginning cleanup	6 months
3. Health Department On-Site Disposal Permit	Required for installation of an on-site septic system	1-2 months
4. Site Development / Construction Permit	Required prior to beginning of earthwork.	1-2 months
5. Grading / Building Permit	Required prior to beginning of vertical construction.	2 months

**PRESENT**

(P) Scott Gallacher, Director, Key Pen Parks	(P) Carla Vincent, PALS Resource Management
(P) Ed Robison, Key Pen Parks	(P) Mark Michel, Key Pen Commissioner
(P) Bruce Dees, Bruce Dees & Associates	(P) Rob Jenkins, PALS Planning Division
(P) Brian Patnode, Bruce Dees & Associates	(P) Steve McClain, PALS Building Division
(P) Lori Bischof, Fire Prevention	(P) Michael Jimenez, PALS Planning Division
(P) Steve Carstens, PALS Development Engineering	(P) Donna Believ, PALS

**PIERCE COUNTY COORDINATION AND PERMITS**

On February 3, 2010, a pre-application meeting was conducted with Pierce County Planning Services. Following is a summary of comments by County staff at that meeting.

**PLANNING DEPARTMENT – Rob Jenkins**

**Coordination Task Force between Pierce County and Key Pen Parks**

The County currently has a task force with Pen Met Parks and proposes to establish the same with Key Pen Parks. The purpose of the task force is to help facilitate permitting for any proposed park improvements.

**Conditional Use Permit**

Since both the park and the school are permitted outright within their existing zoning, a conditional use permit will not be required. There is also no requirement for a land use permit.

**Buffers and Setbacks**

A 50 foot minimum buffer setback is required along the Key Peninsula Highway right-of-way. A 15 foot setback is required between the property line and any parking where there is a single family residence. This would be applicable on the west property line and northwest property line of the school.

**Tree Retention Requirements**

20 units per acre are required for the park and 10 units per acre are required for the school. 1 unit constitutes a 6” diameter tree.

**Planting**

There is a requirement for 15% of the site to be devoted to native planting for the park. The square footage would be determined by multiplying the total developed park area (not including the existing ball field square footage) by 15%.

**Signage**

The park would be subject to Key Pen signage requirement 18B-60.

**Parking**

Parking space allocation will need to be justified by referencing a standard to ensure the facilities are not over parked or under parked. Parking lot planting standards must conform to 18J-90.

**Design Standards**

There is currently no design standard checklist for Key Peninsula.

**RESOURCE MANAGEMENT – Carla Vincent**

**Fish and Wildlife Buffer**

The County planning maps indicate the potential for a wetland and / or stream at the southwest corner of the school property and north of the park on Pierce County property. There is a 315 ft. setback requirement from

those features. However, buffer averaging can be implemented if the site improvements are within that buffer. A wetland analysis report, or at least a habitat assessment and possibly a habitat assessment study may be required. Both potential wetland areas could be reviewed in one study under one permit. Once issued, the permit is good for three years, with one year extensions. There is an exception for trail development through wetlands.

### **DEVELOPMENT ENGINEERING – Steve McClain**

#### **Traffic Impacts**

Traffic Impacts Analysis (TIA) will be required. A driveway approach permit will be required for modifications to the current entry. Permits are not required for the school; therefore, it would behoove the project to apply for the driveway approach permit through the school district.

#### **Storm Drainage Compliance**

The existing school site may be required to be brought into compliance with current storm drainage design standards if a portion of the school site is developed. No definitive decision was made.

#### **Entry Road**

Private road standards, including curb, gutter, and sidewalk will likely be a requirement. If the trails are pervious concrete or asphalt, storm water detention requirements would be reduced. Traffic impact fees will be imposed for each of the buildings. Traffic impact fees are currently estimated by the County at \$36,000.

#### **Gate Permits**

Separate permits will be required for each gate.

### **FIRE PREVENTION – Lori Bischof**

#### **Water Storage Tank**

1,500 gallons per minute for 1 hour is required for the multi-purpose building if it has sprinklers, which equals 90,000 gallons, the size of the proposed water tank. If there are no sprinklers, the requirement increases to 2,750 gallons per minute for 2 hours.

#### **Fire Hydrants**

An approved water system must be in place before any building permit applications will even be accepted. At least one fire hydrant and possibly two will be required for the multi-purpose building. Hydrants can be no closer than 50 feet from the building and hose pull no greater than 200 feet.

#### **Fire Truck Access**

Fire truck access to all buildings must be 24 foot minimum width. Any gates must have a knox box. Inside turning radius is 20 feet while outside turning radius is 45 feet.

*These are the minutes, as we understand them. If there are any additions or corrections, contact Bruce Dees & Associates immediately.*