

# BORNSTEDT AREA PARK Master Plan

City of Sandy, Oregon

May 2011



**GROUP**  
**MACKENZIE**

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## ACKNOWLEDGEMENTS

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Mike Walker, Public Works Director

### TECHNICAL ADVISORY COMMITTEE

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Byron Ball, Sandy High School Environmental Sciences  
Chris Cohen, Sandy High School Student  
Jason Dumont, The Nature Conservancy  
Kate Holleran, Metro  
Vicky Mills, Sandy Mountain Festival  
Shannon Montgomery, Sandy Mountain Festival  
Russ Plaeger, Sandy River Basin Watershed Council  
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### CONSULTANT TEAM

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## 1.0 INTRODUCTION

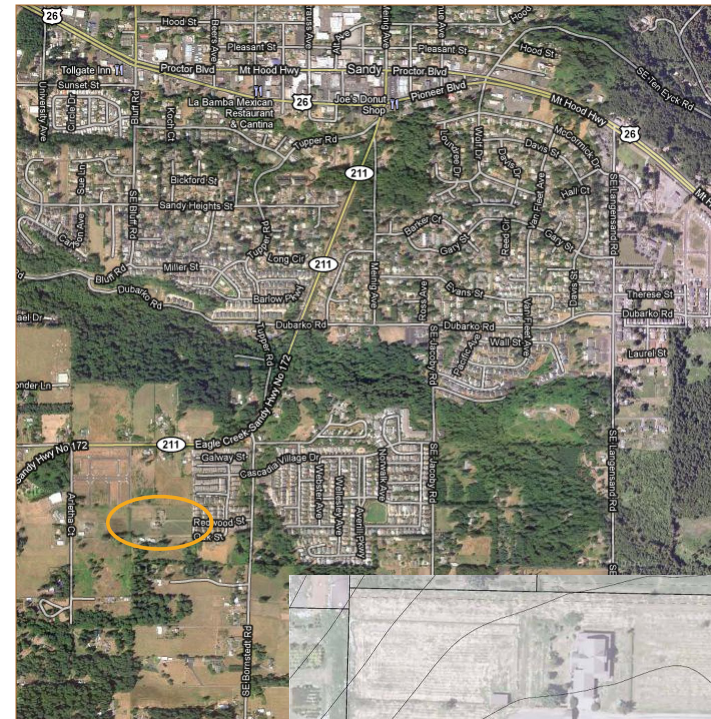
Bornstedt Park is a five-acre property in the center of Bornstedt Village, a relatively dense master-planned community located at the current south edge of the City of Sandy. It is the site of a former small ornamental plant nursery and existing, associated home. The City wishes to provide the residents of Bornstedt Village with a neighborhood park that features diverse, high recreation value improvements that serve all ages and abilities and to convert the existing home into a community center to serve residents beyond the immediate neighborhood.

Through an RFP and interview process, Group Mackenzie was retained to provide landscape architectural services for park and recreation projects for the City of Sandy, including the planning and design of Bornstedt Park as a major component of these efforts.

The project began with gaining an understanding of the background and current conditions of the site and progressed into a thorough, iterative design process. Regular meetings with the Technical Advisory Committee (TAC) and two major public outreach workshops were key to the success of this approach. City staff, Parks Board members, and neighbors all played a significant role in the evolution of the Bornstedt Park master plan.

The major existing features of Bornstedt Park include the afore mentioned home which will be converted into a community center, a view of Mt. Hood to the east, a gentle slope across the site to the northwest, and an open meadow-like character, which will facilitate relatively easy installation of the proposed improvements.

This booklet provides an overview of the efforts that resulted in the final, preferred Bornstedt Park master plan. A summary of the inventory and site analysis is followed by a chronological look at the planning and design process, including the TAC and public workshops. A thorough description of the preferred master plan and its components is included, with the cost opinion and public meeting summaries closing out the document.



Vicinity Map  
(courtesy of Google Maps)



Site Aerial Photo (City of Sandy)

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## 2.0 SITE BACKGROUND + INVENTORY (cont.)

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### 2.2 Bornstedt Park Existing Conditions

The Bornstedt Village Specific Area Plan had significant impact in shaping the early Bornstedt Park master plan process. This guide to the transition of a 230-acre rural area to a walkable, complete neighborhood in Sandy, Oregon intended to coordinate the separate actions of property owners, the City of Sandy, state agencies and developers into a cohesive, livable neighborhood.

These highlights are specific to parks, recreation and related interests:

1. Two new neighborhood parks; located to serve each of the new residential areas north and south of Hwy 211
2. A network of pedestrian and bicycle connections, featuring future paths along Hwy 211, the historic Barlow Road, and the “Market Road” right-of-way
3. A variety of housing that includes opportunities for large-lot, medium-lot and small-lot single-family homes, townhomes, apartments and senior housing

Project Principles, specific to parks, recreation and related interests:

1. Plan for a parks and open space – Provide parks that implement the City of Sandy Parks Master Plan, and other open space opportunities that enhance the livability of the village.
2. Protect, restore, and enhance natural resources in balance with creating an urban village – Plan for integration of land use, transportation, and natural resources in the village. This objective seeks to protect, restore and enhance key resources and implement appropriate green and sustainable development practices, all in balance with creating an urban village.
3. Create a livable village – Create a neighborhood-oriented village that fulfills the village definition in the Sandy Comprehensive Plan, and, responds to the unique opportunities and stakeholder perspectives identified for Bornstedt Village

The Open Space, Parks and Pedestrian Network Map, Figure 9, combines open space features with the illustrated network of walking and biking routes in the neighborhood. Key features include:

1. The Specific Area Plan recommends two new neighborhood parks, located on either side of Highway 211. These parks are intended as “walk-to” facilities that provide access to basic recreation opportunities for nearby residents of all ages. They also are intended to contribute to neighborhood identity and livability.
2. The specific location of each park is flexible – the locations shown on the plan are illustrative and are not binding upon the property owners. As described below, the park locations have been designed to integrate with other elements of the plan. In this sense, they are considered optimal park locations, but they are not the only locations. Actual sizing and siting of the parks will result from a combination of city acquisitions, land use reviews, and other public-private collaborations.
3. Bornstedt Village Park – This park is located adjacent to the neighborhood center, just south of Highway 211. It serves as:
  - A central village green next to the activity of the neighborhood center.
  - Open space near the adjacent high and medium density land uses.
  - A “crossroads” open space feature for the area south of Highway 211.
  - A relatively large pervious area located within one of the drainage basins of Bornstedt Village. As such, water quality features can be incorporated into a portion of the park.

### 2.3 Bornstedt Park Existing Conditions

Group Mackenzie completed several site visits to Bornstedt Park over the course of the project. These visits and research into site-specific conditions, including the platting of the surrounding properties, influenced the direction of our planning efforts.

The photographs of the existing site are included to assist in communicating our findings and observations, which was a focus of the first Technical Advisory Committee meeting and Public Workshop.



## 2.0 SITE BACKGROUND + INVENTORY (cont.)

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*Panorama from West to East*



*Future Community Center*



*View of Mt. Hood*



*Existing Bunk House to be Removed*



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## 3.0 PLANNING + DESIGN PROCESS

The planning and design process took place over the course of six months and included a series of three Technical Advisory Committee (TAC) meetings, two public workshops and progress meetings between the City and Group Mackenzie.

The following is a chronological account of the milestones reached in preparation for TAC and public meetings and the feedback that helped shape the process and resulting Bornstedt Park Master Plan.

### 3.1 Technical Advisory Committee & TAC Meeting #1



CITY OF SANDY ~ DEPARTMENT OF COMMUNITY SERVICES  
PHONE (503) 668-5569; FAX (503) 668-5891  
38348 PIONEER BOULEVARD • SANDY, OR 97055

Gateway to Mt. Hood

December 1, 2009

Dear Citizens and Friends of the City of Sandy:

The City of Sandy has retained the services of Group Mackenzie to complete **master plans for Meinig Park, Bornstedt Park and Sandy River Park and trail signage design services** for the City's trail system. The park master plans will help guide the future development of these sites, while the trail signage will provide an integrated signage system for all trail experiences in Sandy.

The City and Group Mackenzie greatly value insight offered by both key stakeholders and the general public. We recognize your relevant expertise and involvement with related work as significant and invite you to share your thoughts as a member of the project's **Technical Advisory Committee (TAC)**.

The TAC is anticipated to meet formally two times during the process; your input will be welcome at all points. The first meeting will be early in the project so that your insight can be integrated appropriately in the initial phases of work. The second meeting will be held mid-way through to gain further feedback prior to moving into the final phases of the project. The overall schedule is attached for your reference.

The first TAC Meeting is tentatively scheduled for **Thursday, December 10, 2009**. The time will be based on committee members' availability—morning (breakfast provided); noon (lunch provided); or evening (dinner provided). Please contact Jenny Richmond, Group Mackenzie's project manager, at (503) 224-9560 or [jrichmond@grpmack.com](mailto:jrichmond@grpmack.com) with questions, time preference and/or to RSVP.

Sincerely,

Nancy Ream Enabnit, Community Services Director  
[nenabnit@cityofsandy.com](mailto:nenabnit@cityofsandy.com)

Enclosures: project schedule

c: Seth Atkinson, Byron Ball, Dennis Damici, Jason Dumont, Kate Holleran, Joe Knapp, Scott Lazenby, Linda Malone, Russ Plaeger, Joe Preston, Kathleen Walker

Participants in the TAC were invited to be part of this group based on their relevant expertise, involvement with related work and anticipation that they would actively contribute to the committee.

Using the past planning efforts as a starting point, TAC Meeting #1 presented attendees with the Site Analysis, possible objectives of the project, and amenities to prioritize to assist Group Mackenzie with developing draft concepts as our next step.

Clear goals emerged from this meeting and include:

- 1) Ensure best use of park for neighborhood and overall City park system
- 2) Include both active and passive uses that serve all ages and abilities
- 3) Create a distinctive identity specific to this site (i.e. take advantage of Mt. Hood views)
- 4) Coordinate with current and future adjacent properties as the Bornstedt Village continues to develop

### 3.2 Public Workshop #1

At Public Workshop #1, a more thorough site analysis was reviewed, principles of the Bornstedt Village Plan and goals specific to the park were discussed, and three distinctly different master plan concepts were presented.

#### Bornstedt Area Park Goals + Program

##### Bornstedt Village Specific Area Plan Principles:

- Create a livable village
- Provide transportation options and a local street network
- Plan for a new, village-oriented character
- Protect, restore and enhance natural resources
- Plan for parks and open space
- Provide housing choices
- Conduct an open process
- Coordinate with relevant plans and policies
- Create workable zoning and design guidelines

##### Bornstedt Area Park:

- Determine best use of park for both the neighborhood and the overall City park system
- Coordinate with current and future adjacent uses
- Create a distinctive identity specific to this site
- Include appropriate passive and active program

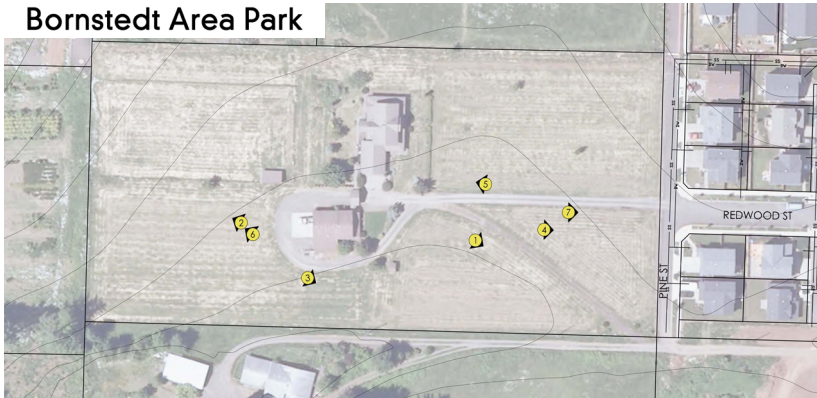
SANDY PARK DESIGN AND TRAIL SIGNAGE SERVICES

Public Workshop #1 – January 21, 2010

GROUP  
MACKENZIE

### 3.0 PLANNING + DESIGN PROCESS (cont.)

#### Bornstedt Area Park



The following summarizes the comments and discussion with the more than 20 attendees at Workshop #1. The Oak, Pine and Redwood concepts carry the names of adjacent roads within Bornstedt Village. Additional detailed comments are included in Appendix A of this booklet.

#### General Comments:

- Community garden should be placed away from house
- Area adjacent to house should be able to host events
- Active park with numerous elements for families and children is preferred
- Parking on-site is preferred
- Park plan must accommodate future neighborhood plats
- Prefer active spaces, not large areas of native landscape and tree groves

#### Preferred Program:

- Loop perimeter path
- Playground and view mound
- Picnic areas - group and single
- Gazebo or small shelter
- Community garden
- Court sports
- Dog area
- Flexible open lawn space for non-programed sports

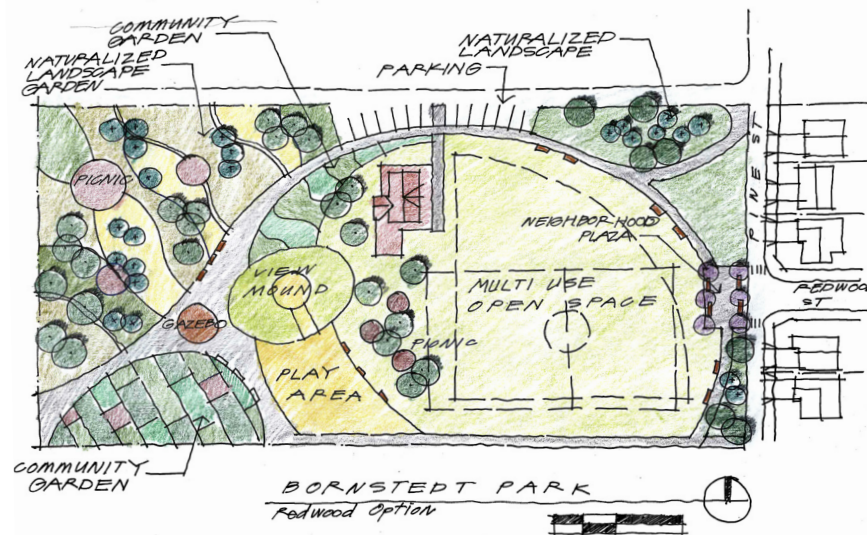
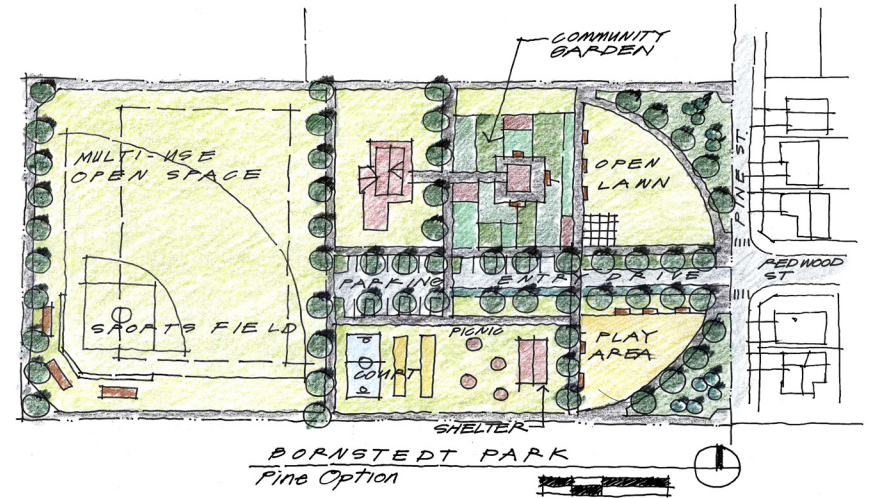
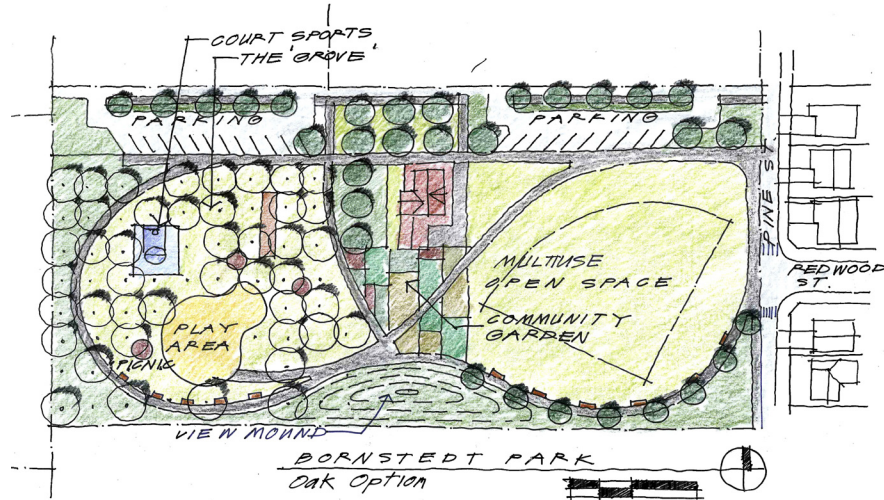
#### Preferred Plan:

- Redwood Option - 6 votes / preference for layout
- Pine Option - 3 votes / preference for number of activities
- Oak Option - 2 votes
- Preference for a curvilinear plan versus straight lines

Consensus - Combine Redwood layout of with Pine activities to achieve the draft preferred concept.



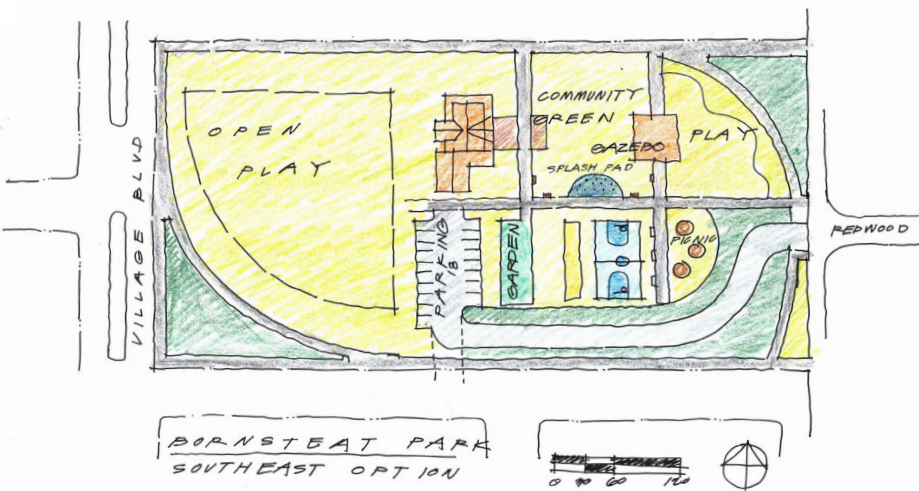
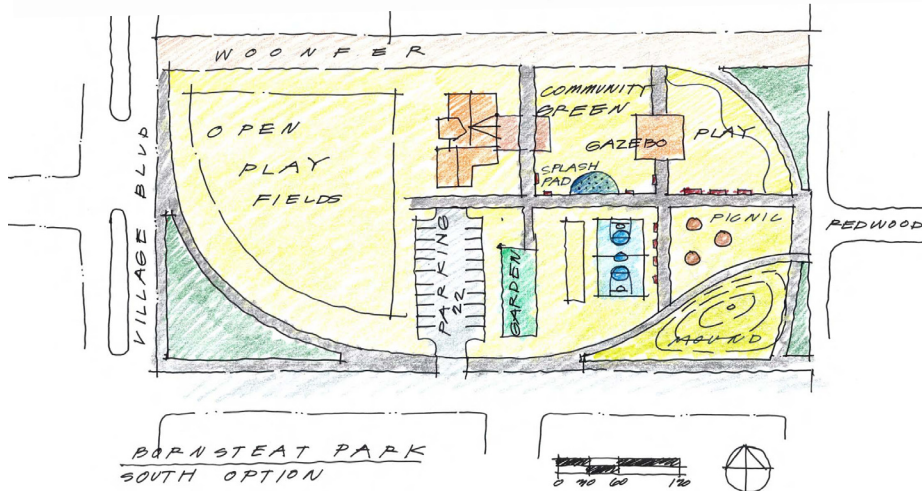
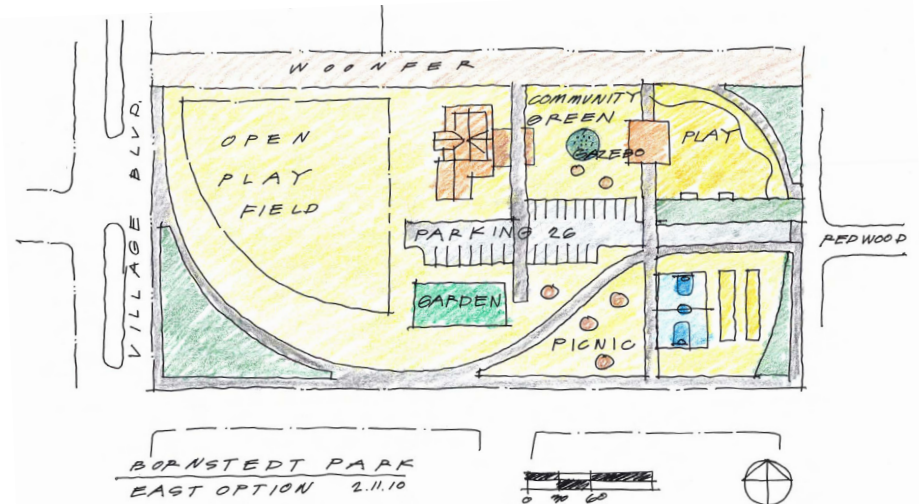
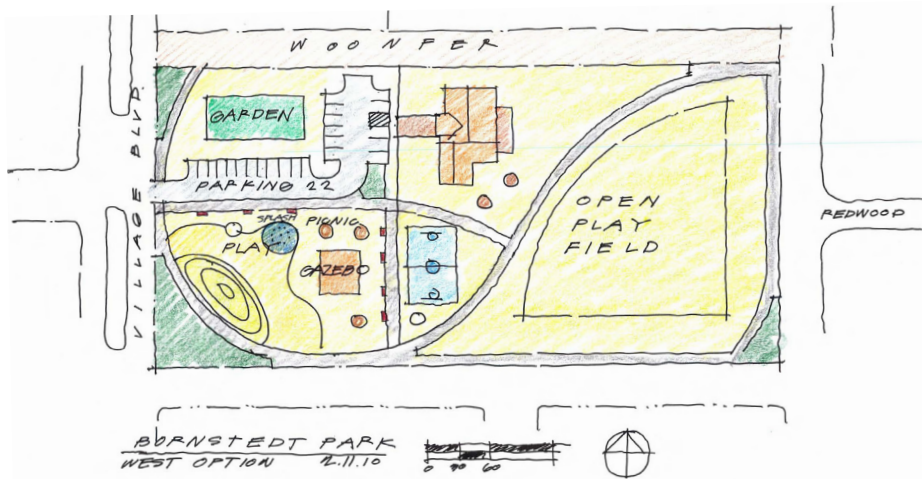
### 3.0 PLANNING + DESIGN PROCESS (cont.)





### 3.0 PLANNING + DESIGN PROCESS (cont.)

#### 3.3 Technical Advisory Committee Meeting #2



## 3.0 PLANNING + DESIGN PROCESS (cont.)

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Based on the input received at Public Workshop #1, Group Mackenzie developed four concepts for review by the TAC, shown on the previous page.

### General Comments:

- Program elements in each are good and respond to public preferences
- Loop path may use woonerf (future housing plat element)
- Parking - Determine required number of stalls
  - must be open when park is open, street parking is limited
- Adjust adjacencies (such as basketball by community center and community garden by playground) in final option
- Existing neighbors would likely prefer the field on the east side of the park

### Plan Comments:

- West - Prefer the garden location, view mound at play, location of field
- East - Prefer basketball away from community center
- South - Like gazebo location, but may need two during events
- Southeast - Like flexible parking entry requiring no street improvements

### Consensus:

West Option is preferred, add second shelter and relocate basketball court away from future community center

## 3.4 Public Workshop #2

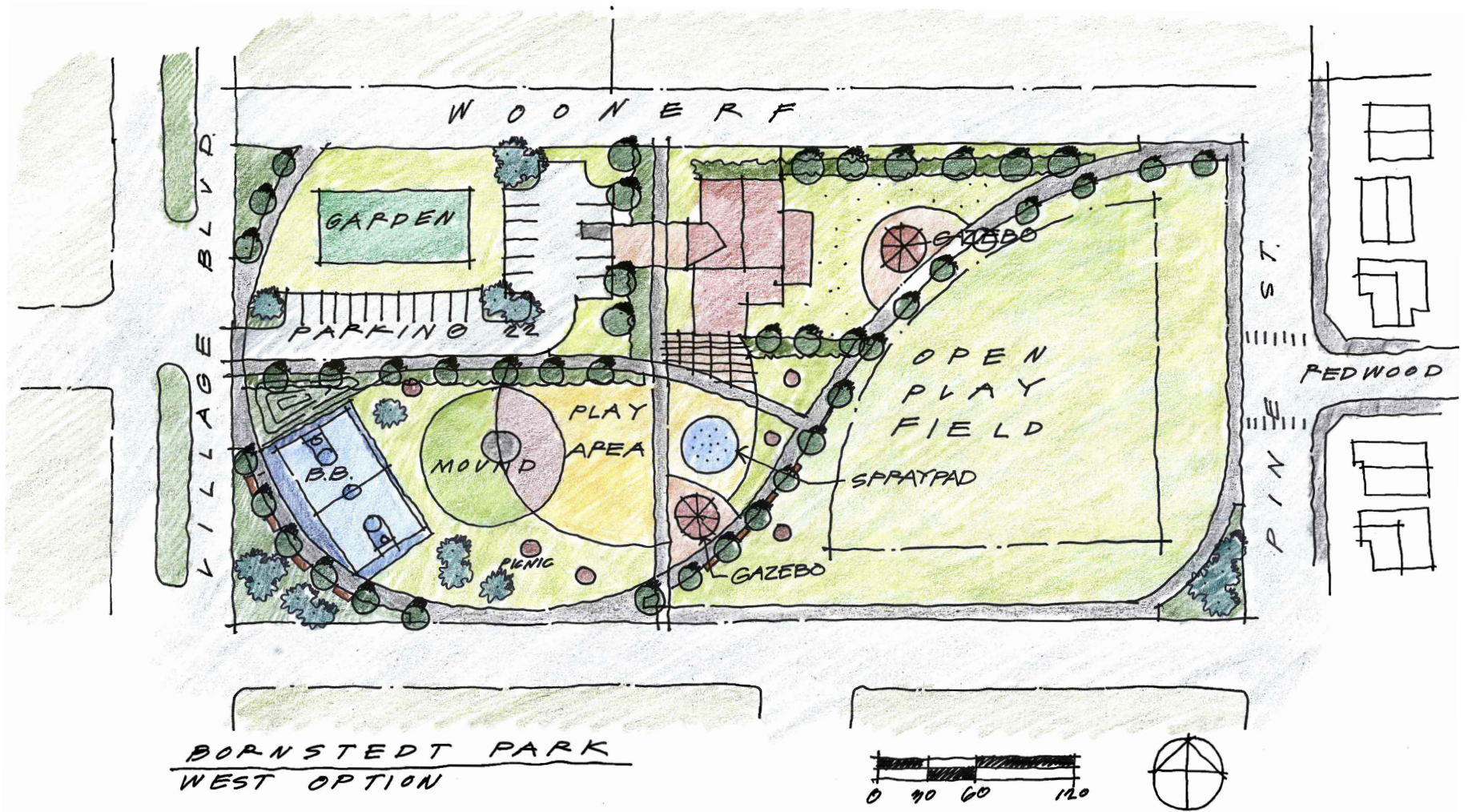
The single, preferred plan presented at Workshop #2 is shown on page 16 of this booklet. This plan was the result of all previous input received by public meeting attendees, the Technical Advisory Committee, City staff and other project stakeholders. A full listing of comments received during Workshop #2 is included in Appendix A.

In summary, the comments were consistent with the preliminary goals set forth for Bornstedt Park, including preferences for options that provide flexibility of uses, limited paving, added amenities for picnicking and seating, enhanced views of Mt. Hood and connections with the neighborhood, safety, sustainable materials, and community building features.





3.0 PLANNING + DESIGN PROCESS (cont.)





## 4.0 PREFERRED MASTER PLAN

### 4.1 Final Mater Plan

At the conclusion of TAC #3, direction for the Bornstedt Park final master plan was very clear. The plan on this page is both illustrative and as technically correct as possible given the base information available. Very few adjustments are anticipated during the construction document phase due to the high resolution aerial photography and GIS data provided. Following this page, detailed descriptions of focus areas in the park are provided.

Significant park features are evident in this plan. The looped path system was the highest priority of the public. Right-of-way improvements will be required, likely in the form of half-street depending upon the adjacent developments. Trees, lawn, stormwater and garden features will all add a great deal of character to the park, while contributing to the sustainable development of the site.



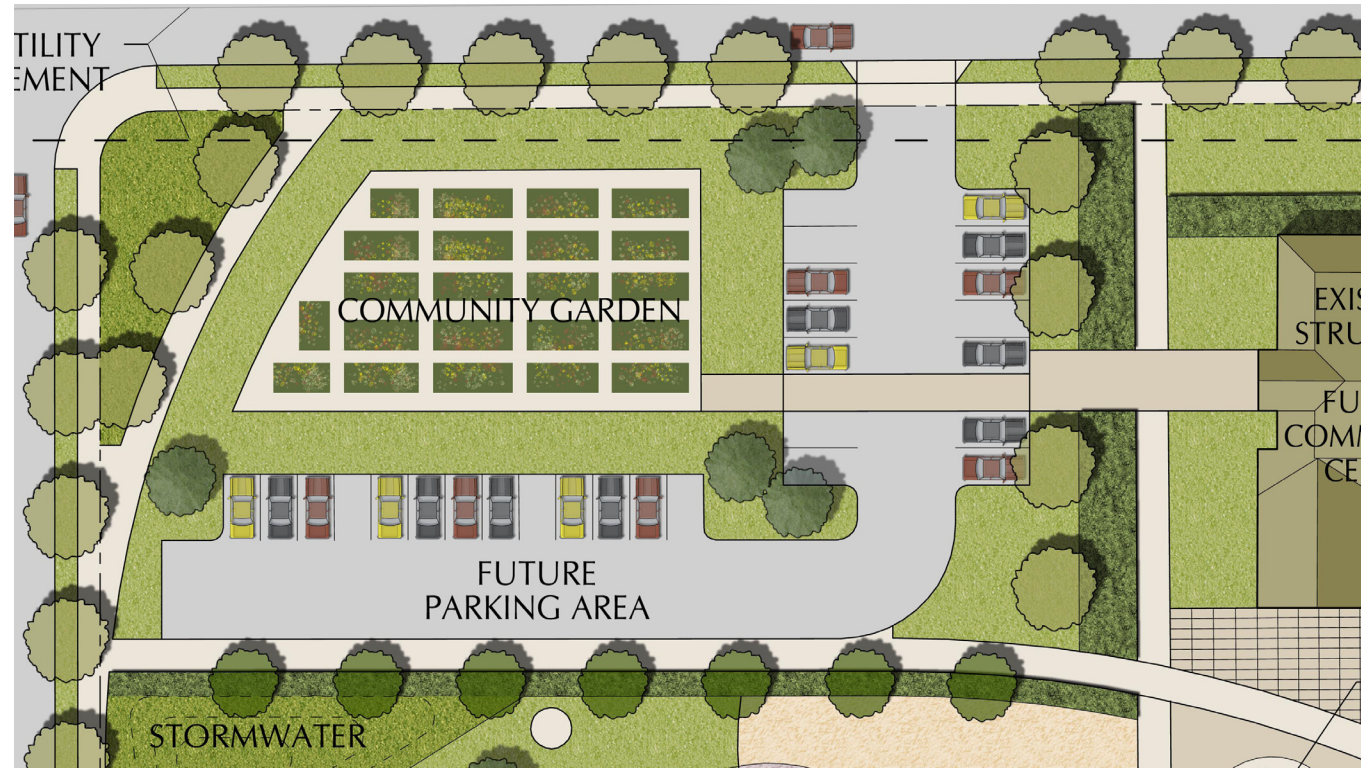
## 4.0 PREFERRED MASTER PLAN (cont.)

### 4.2 Northwest Quadrant

This portion of Bornstedt Park features the on-site parking area and community garden.

Public comments overwhelmingly supported a community garden at Bornstedt Park. A limited number of plots are currently available to test the potential success of a larger installation. This improvement also relates well to the history of the site as a plant nursery. The garden is strategically located to be an integral part of the character of the park, but separated enough from active recreation that gardeners will feel confident their hard work will remain secure. A safe connection through the parking to the community center provides gardeners access to additional facilities. The proximity to parking allows for easy delivery of materials.

The parking area is sized to provide the proper number of spaces to serve the community center. Access will be from the north, with flexibility to add a connection to the west. If the park is installed in phases, the parking will be part of a later phase that is coordinated with the conversion of the existing house to the community center.





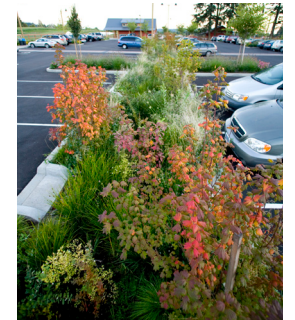
## 4.0 PREFERRED MASTER PLAN (cont.)

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### Community Garden



### Parking





## 4.0 PREFERRED MASTER PLAN (cont.)

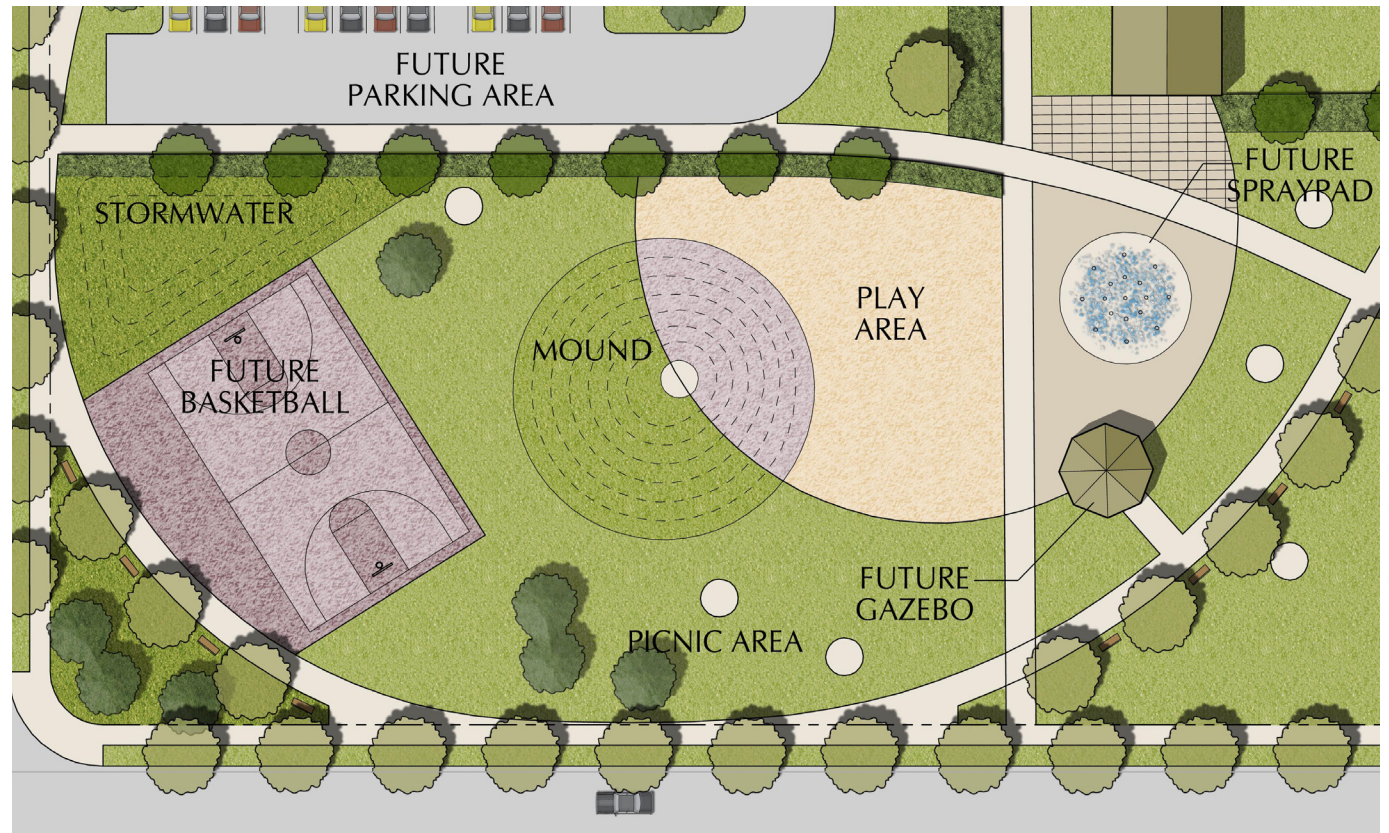
### 4.3 Southwest Quadrant

The full basketball court, view mound and play area with spray pad dominate this portion of the park. An open picnic area, stormwater area and gazebo provide secondary features.

Enhancing the view of Mt. Hood was an early priority for Bornstedt Park. Accomplishing this via the viewing mound will also provide a strong identity for the park and a unique play feature. The play area will serve a wide range of ages, with focus areas on 2-5 year olds, 5-12 year olds and 12+ year olds. The splash pad will be integrated with the play area to add another landmark feature. The preference for nozzles that are flush with the plaza surface will allow for a more flexible use of the space than fixed, above grade features.

Careful consideration was given to the size and configuration of the basketball court. The majority of stakeholders and TAC members preferred the full court to serve a wider age range and provide an amenity different from other parks in the system.

The gazebo and picnic area are located to provide seating and cover near the active play areas and the stormwater feature will capture water from both the parking and basketball surfaces.





## 4.0 PREFERRED MASTER PLAN (cont.)

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### Play



### Water



### Basketball





## 4.0 PREFERRED MASTER PLAN (cont.)

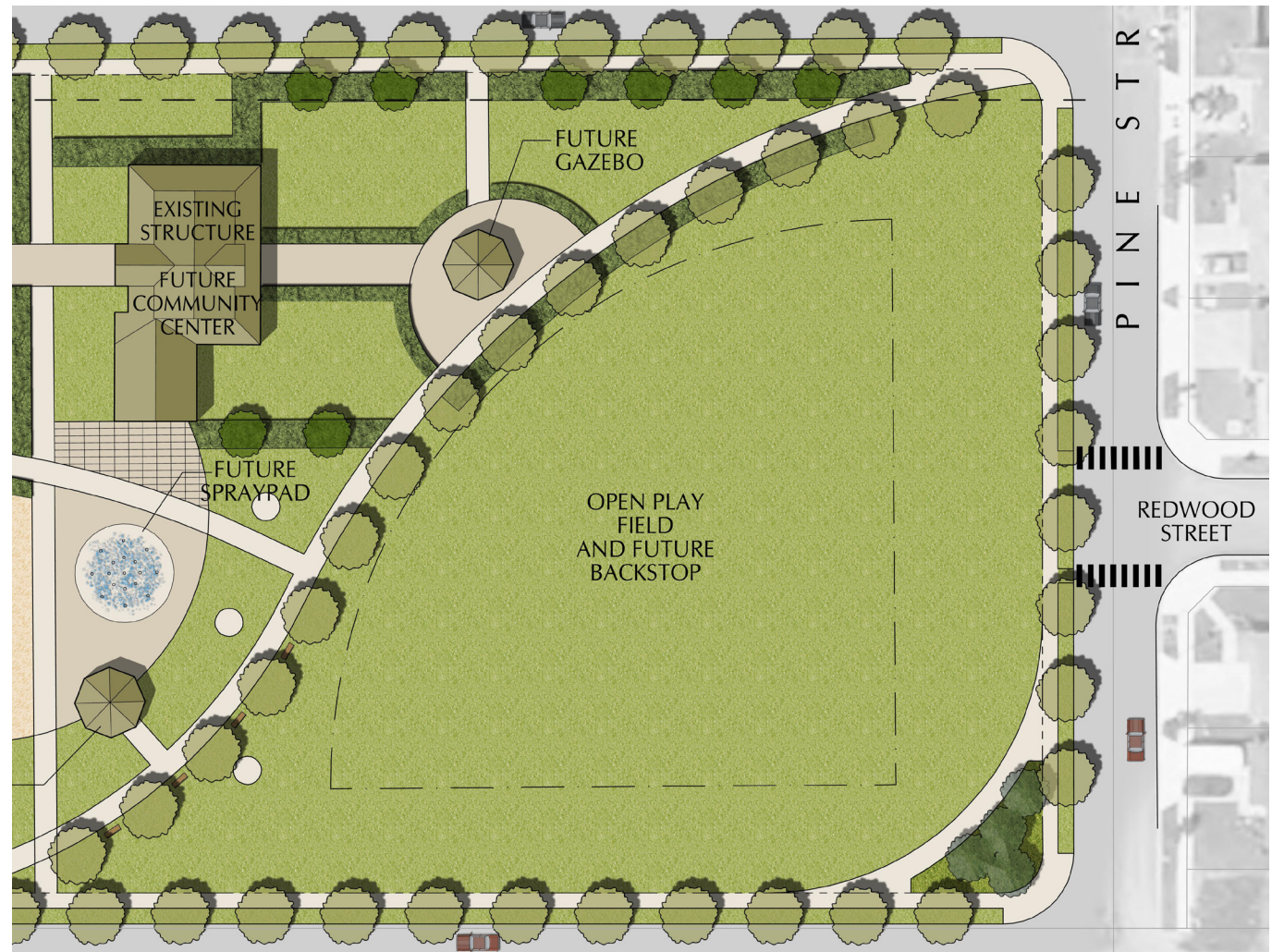
### 4.4 Eastern Quadrants

The east side of Bornstedt Park is dominated by the open play field, the community center and the features serving the community center.

The open play field is large enough for pick-up games of baseball, softball, soccer and many other activities such as frisbee and kite flying that require large, open spaces. The location allows for additional spill-over room if a large event is scheduled at the community center.

The vision for the community center includes various meeting rooms and reservation space for events such as weddings, family reunions and company picnics. The second gazebo within the park will ensure that these larger events will not preclude neighbors from continuing to use the park at these times.

The north-south connection at approximately the mid-point of the park is shown in this plan, as are additional picnic spots and major portions of the park-wide loop path.





## 4.0 PREFERRED MASTER PLAN (cont.)

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### Open Field



### Shelter



### Paths





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## 5.0 COST OPINION

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### Accuracy

The level of detail and accuracy of pricing in this estimate are consistent with the degree of completeness of the documents used for estimating purposes. The document used to prepare this estimate includes the preferred Master Plan with site base data from GIS and aerial photography provided by the City of Sandy. Additional information was obtained through discussion with the client and industry contacts.

### Bid Conditions

This project has been estimated as a complete project with separate subtotals for individual portions of work for informational purposes only. A phase 1 estimate has also been compiled to assist the City with budgeting and funding efforts. If the project is bid in phases, the total estimated cost of the overall project will be higher.

### Items Affecting the Cost Opinion

Items which may change the probable construction costs include, but are not limited to:

- Modifications to the scope of work included in this estimate.
- Restrictive technical specification or excessive contract conditions.
- Any specified item of equipment, material, or product that cannot be obtained from at least three different sources.

### Escalation

Unit costs included herein are reflective of current costs with no escalation included. A labor and material escalation factor will need to be added once a construction period has been determined.

### Exclusions

Items excluded from this estimate include any additional soft costs, permitting fees, testing and inspections.

### Cost Opinion Objective

This cost opinion is intended to be used as a tool for decision making and managing construction costs during the next phases of the project. It is prepared using industry contacts, experience, and the best judgement of the professional consultants. This estimate is intended to reflect an amount close to what would be the low bid of the project with respect to the present level of design and documentation with consideration given to the current market conditions. The consultant has no control over market conditions, wage rates, or any contractor's method of determining prices or quantities. Therefore, the consultant is relatively certain that there will be deviations between this estimate and the actual cost of construction.

## 5.0 COST OPINION (cont.)

### 5.1 Full Build-Out Cost Opinion

ITEM #	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	ASSUMPTIONS & NOTES
<b>GENERAL</b>						
1	Mobilization, Bond, Insurance	EA	1	\$ 20,000.00	\$ 20,000	
2	Traffic Control	LS	1	\$ 2,000.00	\$ 2,000	
3	Erosion and Sediment Control Measures	LS	1	\$ 2,000.00	\$ 2,000	
4	Earthwork (excavation)	CY	3268	\$ 8.00	\$ 26,146	6" across the site
5	Earthwork (embankment)	CY	0	\$ 8.00	\$ -	site does not require embankment
6	Earthwork (net export)	CY	0	\$ 20.00	\$ -	no export, earthwork will balance
<b>Subtotal</b>					<b>\$ 50,146</b>	
<b>DEMOLITION &amp; PROTECTION</b>						
7	Tree Protection Fence	LF	330	\$ 3.00	\$ 990	at existing home, not trees to save
8	Remove existing bunk house, other	LS	1	\$ 5,000.00	\$ 5,000	
<b>Subtotal</b>					<b>\$ 5,990</b>	
<b>SITE WORK</b>						
<b>Fencing</b>						
9	Fence Type 1: Community Garden	LF	322	\$ 15.00	\$ 4,830	
<b>Subtotal</b>					<b>\$ 4,830</b>	
<b>Pedestrian Paving Improvements</b>						
10	Concrete 4" Thick - Sidewalks	SF	2895	\$ 4.75	\$ 13,751	north/south connection west of community center
11	Concrete 4" Thick Specialty	SF	2083	\$ 8.00	\$ 16,664	splash pad and plaza south of community center
12	Vertical Curb at Parking	LF	0	\$ 16.00	\$ -	no curb, drain to stormwater treatment areas
13	Crushed Stone Walking Surface	SF	12400	\$ 2.75	\$ 34,100	
14	Basketball Court	SF	5044	\$ 4.10	\$ 20,680	4-6" subbase, 3" AC in 2 lifts, acrylic surface w/lines
<b>Subtotal</b>					<b>\$ 85,196</b>	
<b>Parking Areas</b>						
15	Class 3 HMAC (Hot Mix Asphalt Concrete) 3" thick, 2 lifts - Drive aisles	TON	149	\$ 75.00	\$ 11,175	
16	1"-0 Aggregate Base Course 7" thick - Drive aisles	CY	157	\$ 70.00	\$ 11,010	
17	Class 3 HMAC (Hot Mix Asphalt Concrete) 2.5" thick, 1 lift - Parking areas (14231 SF)	TON	76	\$ 75.00	\$ 5,700	
18	1"-0 Aggregate Base Course 6" thick - Parking areas	CY	83	\$ 70.00	\$ 5,784	
<b>Subtotal</b>					<b>\$ 33,669</b>	

**UTILITIES**

**Storm System Improvements**

<b>19</b>	Area Drain (including frame, cover, and pipe connections)	EA	0	\$ 600.00	\$ -	
<b>20</b>	Catch Basin (including frame, cover, and pipe connections)	EA	1	\$ 1,000.00	\$ 1,000	for parking area
<b>21</b>	6" Storm Pipe (including pipe collar, trench excavation and backfill)	LF	300	\$ 40.00	\$ 12,000	for parking area
<b>Subtotal</b>					<b>\$ 13,000</b>	

**Sanitary System Improvements**

<b>22</b>	6" Private Sanitary Sewer Pipe (including pipe collar, trench excavation and backfill)	LF	288	\$ 50.00	\$ 14,400	connect community center to city system; splash pad and drinking fountain drain to waste but could be added to the 6" line
<b>23</b>	Connect Sanitary Sewer to Existing Manhole	EA	1	\$ 2,000.00	\$ 2,000	connect community center to city system
<b>24</b>	Repair public street to County standards	LS	0	\$ 3,000.00	\$ -	completed with 1/2 street (ROW) improvements
<b>Subtotal</b>					<b>\$ 16,400</b>	

**Fire and Water Improvements**

<b>25</b>	Fire Hydrant Assembly	EA	0	\$ 4,000.00	\$ -	no fire line needed
<b>26</b>	Domestic Water Meter with Backflow - irrigation	EA	1	\$ 2,000.00	\$ 2,000	
<b>27</b>	Domestic Water Meter with Backflow - splash pad	EA	1	\$ 2,000.00	\$ 2,000	
<b>28</b>	2" Water Line - irrigation	LF	10	\$ 20.00	\$ 200	connections, etc. included in Pine Street 1/2 street (ROW) improvements
<b>29</b>	2" Water Line (including connections, bends, caps, trenching and backfill) - splash pad	LF	115	\$ 20.00	\$ 2,300	from street on south edge; assumes pressure will be adequate to eliminate need for a pump
<b>Subtotal</b>					<b>\$ 6,500</b>	

**Electric Improvements**

<b>30</b>	Upgrade Residential Panel at Community Center	AL	1	\$ 2,500.00	\$ 2,500	
<b>31</b>	Light at Gazebos and Signage	AL	1	\$ 1,400.00	\$ 1,400	
<b>Subtotal</b>					<b>\$ 3,900</b>	

**TRAFFIC SIGNING AND STRIPING**

<b>32</b>	On-site Striping and HC signs	LS	1	\$ 2,500.00	\$ 2,500	
<b>33</b>	Accessible Parking Signs	EA	2	\$ 150.00	\$ 300	
<b>34</b>	Fire Lane - No Parking	EA	4	\$ 150.00	\$ 600	
<b>Subtotal</b>					<b>\$ 3,400</b>	

**LANDSCAPING**

<b>35</b>	Fine Landscape Grading & Soil Prep	SF	124323	\$ 0.10	\$ 12,432	
<b>37</b>	2" Caliper Trees	EA	40	\$ 200.00	\$ 8,000	+52 in ROW
<b>38</b>	7-8 Ft. Evergreen Trees	EA	16	\$ 150.00	\$ 2,400	
<b>39</b>	Lawn - seeded	EA	110420	\$ 0.04	\$ 4,417	
<b>40</b>	Planting - focus areas	EA	10128	\$ 1.00	\$ 10,128	
<b>41</b>	Planting - stormwater	SF	3775	\$ 1.50	\$ 5,663	
<b>42</b>	Hedge	EA	576	\$ 8.00	\$ 4,608	double row, 30" o.c., 2 gallon
<b>43</b>	Community Garden	SF	5815	\$ 0.10	\$ 582	fine grading only, gardeners will provide improvements
<b>Subtotal</b>					<b>\$ 48,229</b>	

## 5.0 COST OPINION (cont.)

### IRRIGATION

44	Landscape Irrigation to include valves, piping, heads and controller	SF	124323	\$ 0.60	\$ 74,594
45	Community Garden - stand pipes	EA	10	\$ 200.00	\$ 2,000
<b>Subtotal</b>					<b>\$ 76,594</b>

### PLAY AREA

49	Play Equipment	AL	1	\$ 45,000.00	\$ 45,000
50	Splash Pad	AL	1	\$ 36,000.00	\$ 36,000
51	12" Thickened Edge	LF	260	\$ 20.00	\$ 5,200
52	Transition Ramp	EA	1	\$ 500.00	\$ 500
53	Bark Fiber Play Surface	SF	5614	\$ 2.50	\$ 14,035
<b>Subtotal</b>					<b>\$ 100,735</b>

water line sized so no pump needed; incl. elec connections, materials and install

### SITE FURNISHINGS

54	Bench	EA	8	\$ 1,400.00	\$ 11,200
55	Picnic Tables	EA	6	\$ 1,800.00	\$ 10,800
56	Trash Receptacles	EA	3	\$ 1,200.00	\$ 3,600
57	Bike Racks	EA	6	\$ 300.00	\$ 1,800
58	Backstop	EA	2	\$ 3,500.00	\$ 7,000
59	Basketball Hoop, Backboard, Pole	EA	2	\$ 2,600.00	\$ 5,200
60	Drinking Fountain	EA	1	\$ 2,500.00	\$ 2,500
61	Wheel Stops	EA	27	\$ 50.00	\$ 1,350
62	Park Entry Sign	AL	2	\$ 3,000.00	\$ 6,000
<b>Subtotal</b>					<b>\$ 49,450</b>

### PARK STRUCTURES

63	Gazebo	AL	2	\$ 16,000.00	\$ 32,000
64	Concrete Foundation	SF	884	\$ 5.50	\$ 4,862
65	Installation of Building	EA	2	\$ 4,800.00	\$ 9,600
<b>Subtotal</b>					<b>\$ 46,462</b>

Full Project Cost	<b>\$ 544,501</b>
10% Contingency	<b>\$ 54,450</b>
11% Overhead & Profit	<b>\$ 65,885</b>
<b>Total</b>	<b>\$ 664,835</b>



## 5.0 COST OPINION (cont.)

### 5.2 Phase 1 Cost Opinion

The City will likely not have full funding initially to complete the installation of Bornstedt Park in one phase. Thus, a strategic examination of which improvements would be both economical and provide high recreation value in

a Phase 1 installation led to the option shown on this page, with the associated cost opinion following. The amenities shown under a green “mask” are intended as Phase 2 improvements, with open lawn space installed in their place during Phase 1 to provide the most flexible use of the park until full funding is available.



## 5.0 COST OPINION (cont.)

ITEM #	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	ASSUMPTIONS & NOTES
<b>GENERAL</b>						
1	Mobilization, Bond, Insurance	EA	1	\$ 16,000.00	\$ 16,000	
2	Traffic Control	LS	1	\$ 2,000.00	\$ 2,000	
3	Erosion and Sediment Control Measures	LS	1	\$ 2,000.00	\$ 2,000	
4	Earthwork (excavation)	CY	3268	\$ 8.00	\$ 26,146	6" across the site
5	Earthwork (embankment)	CY	0	\$ 8.00	\$ -	site does not require embankment
6	Earthwork (net export)	CY	0	\$ 20.00	\$ -	no export, earthwork will balance
<b>Subtotal</b>					<b>\$ 46,146</b>	
<b>DEMOLITION &amp; PROTECTION</b>						
7	Tree Protection Fence	LF	330	\$ 3.00	\$ 990	at existing home, not trees to save
8	Remove existing bunk house, other	LS	1	\$ 5,000.00	\$ 5,000	
<b>Subtotal</b>					<b>\$ 5,990</b>	
<b>SITE WORK</b>						
<b>Fencing</b>						
9	Fence Type 1: Community Garden	LF	322	\$ 15.00	\$ 4,830	
<b>Subtotal</b>					<b>\$ 4,830</b>	
<b>Pedestrian Paving Improvements</b>						
10	Concrete 4" Thick - Sidewalks	SF	2895	\$ 4.75	\$ 13,751	north/south connection west of community center
11	Concrete 4" Thick - ROW Sidewalk	SF	3069	\$ 4.75	\$ 14,578	at north side to complete loop path
12	Crushed Stone Walking Surface	SF	12400	\$ 2.75	\$ 34,100	
<b>Subtotal</b>					<b>\$ 62,429</b>	
<b>UTILITIES</b>						
<b>Sanitary System Improvements</b>						
13	6" Private Sanitary Sewer Pipe (including pipe collar, trench excavation and backfill)	LF	288	\$ 50.00	\$ 14,400	connect community center to city system; splash pad and drinking fountain drain to waste but could be added to the 6" line
14	Connect Sanitary Sewer to Existing Manhole	EA	1	\$ 2,000.00	\$ 2,000	connect community center to city system
15	Repair public street to County standards	LS	0	\$ 3,000.00	\$ -	completed with 1/2 street (ROW) improvements
<b>Subtotal</b>					<b>\$ 16,400</b>	
<b>Fire and Water Improvements</b>						
16	Fire Hydrant Assembly	EA	0	\$ 4,000.00	\$ -	no fire line needed
17	Domestic Water Meter with Backflow - irrigation	EA	1	\$ 2,000.00	\$ 2,000	
18	2" Water Line - irrigation	LF	10	\$ 20.00	\$ 200	connections, etc. included in Pine Street 1/2 street (ROW) improvements
<b>Subtotal</b>					<b>\$ 2,200</b>	



**Electric Improvements**

<b>19</b>	Upgrade Residential Panel at Community Center	AL	1	\$ 2,500.00	\$ 2,500
<b>Subtotal</b>					<b>\$ 2,500</b>

**LANDSCAPING**

<b>20</b>	Fine Landscape Grading & Soil Prep	SF	124323	\$ 0.10	\$ 12,432	
<b>22</b>	2" Caliper Trees	EA	40	\$ 200.00	\$ 8,000	
<b>23</b>	7-8 Ft. Evergreen Trees	EA	16	\$ 150.00	\$ 2,400	
<b>24</b>	Lawn - seeded	EA	110420	\$ 0.04	\$ 4,417	
<b>25</b>	Planting - focus areas	EA	10128	\$ 1.00	\$ 10,128	
<b>26</b>	Hedge	EA	576	\$ 8.00	\$ 4,608	double row, 30" o.c., 2 gallon
<b>27</b>	Community Garden	SF	5815	\$ 0.10	\$ 582	fine grading only, gardeners will provide improvements
<b>Subtotal</b>					<b>\$ 42,567</b>	

**IRRIGATION**

<b>28</b>	Landscape Irrigation to include valves, piping, heads and controller	SF	124323	\$ 0.60	\$ 74,594
<b>29</b>	Community Garden - stand pipes	EA	10	\$ 200.00	\$ 2,000
<b>Subtotal</b>					<b>\$ 76,594</b>

**PLAY AREA**

<b>30</b>	Play Equipment	AL	1	\$ 45,000.00	\$ 45,000	
<b>31</b>	Splash Pad	AL	1	\$ 36,000.00	\$ 36,000	connections, materials and install
<b>31</b>	12" Thickened Edge	LF	260	\$ 20.00	\$ 5,200	
<b>32</b>	Transition Ramp	EA	1	\$ 500.00	\$ 500	
<b>33</b>	Bark Fiber Play Surface	SF	5614	\$ 2.50	\$ 14,035	
<b>Subtotal</b>					<b>\$ 100,735</b>	

**SITE FURNISHINGS**

<b>34</b>	Bench	EA	4	\$ 1,400.00	\$ 5,600	phase 2 = 4 more
<b>35</b>	Picnic Tables	EA	6	\$ 1,800.00	\$ 10,800	
<b>36</b>	Trash Receptacles	EA	1	\$ 1,200.00	\$ 1,200	phase 2 = 2 more
<b>37</b>	Bike Racks	EA	6	\$ 300.00	\$ 1,800	
<b>38</b>	Drinking Fountain	EA	1	\$ 2,500.00	\$ 2,500	
<b>39</b>	Park Entry Sign	AL	1	\$ 3,000.00	\$ 3,000	phase 2 = 1 more
<b>Subtotal</b>					<b>\$ 24,900</b>	

**PARK STRUCTURES**

<b>40</b>	Gazebo	AL	1	\$ 16,000.00	\$ 16,000
<b>41</b>	Concrete Foundation	SF	442	\$ 5.50	\$ 2,431
<b>42</b>	Installation of Building	EA	1	\$ 4,800.00	\$ 4,800
<b>Subtotal</b>					<b>\$ 23,231</b>

Phase 1 - Project Cost	<b>\$ 408,522</b>
10% Contingency	<b>\$ 40,852</b>
11% Overhead & Profit	<b>\$ 49,431</b>
<b>Total</b>	<b>\$ 498,805</b>

## APPENDIX A

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### Workshop #1 Summary:

Exhibits: goals, location map and existing conditions site photos, Oak, Redwood, Pine

Handouts: invitation, press release, agenda, sign-in, questionnaire, summary

### Preferred program:

- flexible open lawn space that is large enough for softball and youth soccer
- loop perimeter path
- picnic areas- group and single
- gazebo or small shelter
- dog area- (not dedicated park)
- playground
- court sports
- community garden

### Preferred plan (layout):

- redwood option - 6 votes / preference for layout
- pine option - 3 votes / preference for number of activities
- oak option 2- 1 votes
- preference for a more curvilinear plan vs. grid type layout
- consensus to combine forms of redwood with activities of pine

### Common Plan Comments:

- community garden should be placed away from house
- area adjacent to house should be able to host community and special events
- preference for viewing mounds
- preference for an active park with numerous activities for families and children
- equal preference for parking at north edge of park and within park at south edge of house
- need to review proposed housing plan for road type north of park, may not accommodate parking lot access
- grove in option 2 not a preferred idea
- large areas of native landscape not preferred, should be more active
- softball backstop not necessary

## APPENDIX A (cont.)

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### Workshop #2 Summary:

Exhibits: Oak/Redwood/Pine, East/West/South, Kit of Parts (hand drawing), Photoshop (draft final)

Handouts: agenda, sign-in, questionnaire, summary

### Summary:

- Large Group Presentation:
  - What is the viewing mound?
  - Can the basketball court be flexible and provide multiple uses such as volleyball?
  - What is the spray pad?
  - The location of the house (future community center) seems too far north. Likely due to the need to accommodate the woonerf...
  - What's a woonerf? Will it be safe to walk on the woonerf? Will it accommodate on-street parking?
  - How much parking is available on-site and off-site?
- Small Group Comments:
  - Mound
    - Multiple uses to serve lots of visitor types.
    - Make it as large as possible with no sand.
    - Turf and slide are preferred.
  - Spray Pad
    - Keep it simple with the least amount of concrete/paving as possible.
    - Seating, benches, and wall are preferred.
- Path
  - Asphalt and gravel are preferred.
  - No concrete except in formal areas.
- Woonerf
  - Need to be more clear about what is included in this “street” and how it can/will be used.
  - Since the workshop, we’ve been informed that the woonerf will not be implemented.
- Parking
  - Screen with grasses and plantings, but don’t compromise safety.
  - Stormwater swales and pavers at pedestrian areas are preferred.
  - Eyes on the park from higher use that on-site parking will bring is desired.
- Play
  - Equipment should accommodate older kids (10+ years old).
  - Mix of play types is preferred.
- Basketball Court
  - Full court is preferred.
  - Design to “fit” into the park, rather than just put it in the park.
- Garden
  - Fencing is a must for both the gardeners’ benefit and to help screen the view during fallow times.
  - Raised beds are preferred.
- Event Space
  - Needs more screening.
  - Nice, traditional plantings should be added for event photographs.





'GATEWAY TO MT. HOOD'

39250 Pioneer Boulevard  
Sandy, OR 97055  
503-668-5569 (phone)  
503-668-5891 (fax)  
[www.cityofsandy.com](http://www.cityofsandy.com)



Please return these Guidelines  
to the City of Sandy or to  
Group Mackenzie for re-use.

**GROUP**  
**MACKENZIE**

1515 SE Water Avenue, Suite 100  
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