



DEVELOPMENT SERVICES DEPARTMENT  
ENVIRONMENTAL COORDINATOR  
450 110<sup>th</sup> Ave NE., P.O. BOX 90012  
BELLEVUE, WA 98009-9012

**OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS**

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 11-113555-LB & 11-122671-LO

Project Name/Address: Bellevue Botanical Garden Visitor Services Center

Planner: Kevin LeClair

Phone Number and Email: 425-452-2928 kleclair@bellevuewa.gov

**Minimum Comment Period:** November 24, 2011, 5 PM

Materials included in this Notice:

- Blue Bulletin
- Checklist
- Vicinity Map
- Plans
- Other: Project Plan Overview

**WAC 197-11-960 Environmental checklist.**

ENVIRONMENTAL CHECKLIST

*Purpose of checklist:*

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

*Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

*Use of checklist for nonproject proposals:*

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:  
**Bellevue Botanical Garden Visitor Services**

2. Name of applicant:  
**City of Bellevue Parks and Community Services  
Ken Kroeger, Project Manager**

3. Address and phone number of applicant and contact person:  
**Applicant: Ken Kroeger, Project Manager  
City of Bellevue Parks and Community Services Department  
P.O. Box 90012  
Bellevue, WA 98008**

**Agent: Kevin Kudo-King, Project Manager  
Olson Kundig Architects  
159 S. Jackson Ste. 600  
Seattle, WA 98117**

4. Date checklist prepared:  
**September 6, 2011**

**Project being reviewed  
concurrently under permits  
# 11-113555-LB and  
11-122671-LO**

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By Kevin LeClair at 1:38 pm, Sep 19, 2011

5. Agency requesting checklist:  
**City of Bellevue**

6. Proposed timing or schedule (including phasing, if applicable):  
**Begin Construction in Spring/Summer 2012**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

**There are other ongoing projects within the Bellevue Botanical Gardens. We are aware of two other projects which are either currently under review with the City or recently approved by the City: The Wetland Sun Terraced Garden and the Ravine Garden.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

**This project is in the Bellevue Botanical Garden (BBG) which is part of the Wilburton Hill Community Park. Wetland biologist review of the project area includes the following documentation:**

- **Wetland Delineation Report – Bellevue Botanical Gardens, Skillings Connolly Environmental, dated December 21, 2007.**
- **Wetland Delineation Report – Bellevue Botanical Gardens, Skillings Connolly Environmental, dated September 20, 2006.**
- **Wetland and Stream Delineation Report, Raedeke Associates, dated May 26, 2005.**
- **Bellevue Botanical Gardens – Wetland Delineation Study, The Watershed Company, dated June 3, 2011.**
- **Wetlands A Rating Revision – Bellevue Botanical Garden, The Watershed Company, dated August 18, 2011.**

This SEPA checklist was non-project action for the Master Plan update. The current proposal is consistent with that plan.

**Areas of steep slopes within the project area were delineated by Signature Surveying and mapping, PLLC dated October 5, 2010.**

**A previous version of this SEPA Checklist was submitted on April 28, 2010. A Masterplan update containing a SEPA checklist was prepared on March 31, 2008 by JGM Landscape Architects, submitted, and approved by the City of Bellevue.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

**Permit #11-113555-LB is currently under review by the City of Bellevue.**

10. List any government approvals or permits that will be needed for your proposal, if known.

- **Conditional Use Permit (LB)**
- **Critical Areas Land Use Permit (LO)**
- **Clearing and Grading Permit(GD)**
- **Major Building Project (BB) building Permit**
- **Minor Building Project (BW) building Permit**
- **Utility Developer Extension Agreement (UE)**
- **Detention Vault (UD)**
- **Right-of-Way Permit (TK)**
- **US Army Corps of Engineers - Section 404 Permit**
- **Washington Department of Ecology - Water Quality Certification**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal.

You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

**The Bellevue Botanical Garden is 53 acres. This project occurs within a 4.7 acre area of work. The project consists of the demolition of an existing residence currently used as administrative offices, the construction of a new visitor services building, the remodel of the existing Shorts House (currently used as the visitor center/gift shop), the relocation of the Sharp's Cabin, expansion of the parking area, the reconfiguration of the entry and exit driveways, the relocation of the Lake to Lake Trail, landscape/hardscape improvements to areas adjacent to these improvements, and wetland mitigation west of the project area.**

**The project encompasses the following:**

- **Parking Lot and integral Winter garden-2 acres**
- **Visitor Services Building (total is 8,500 square feet above grade), including**
  - **the covered main entry**
  - **the interior orientation space**
  - **the exterior orientation space**
  - **the gift shop/Visitor Orientation-1,201 square feet**
  - **the restroom and storage building-1,419 square feet**
  - **the restroom and storage building basement-1,419 square feet**
  - **administration/education building-2,682 square feet**
- **Shorts House-2,271 square feet**
- **Sharp's Cabin-427 square feet**
- **Fernery (Fern Plaza)**
- **Woodland Garden Path**
- **Spring Court and Tapestry Hedge Courtyard**
- **Iris Garden**
- **Sun Plaza**
- **Wetland mitigation**

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

**The Bellevue Botanical Gardens is located at 12001 Main Street, Bellevue, WA 98005.**

TO BE COMPLETED BY APPLICANT

EVALUATION FOR  
AGENCY USE ONLY

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

a. General description of the site:

**Rolling**

b. What is the steepest slope on the site (approximate percent slope)?

**40%+ in certain Ravine areas within the overall garden  
40%+within this projects area of work**

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c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

**According to the Geotechnical Engineering Study performed by Hayre McElroy and Associates dated November 4, 2010:**

- **Topsoil: Organic topsoil.**
- **Fill: The fill consisted of silty sand with some gravel.**
- **Weathered Glacial Lacustrine Deposits: Weathered Glacial Lacustrine deposits were encountered directly below the thin upper topsoil.**
- **Glacial Lacustrine Deposits: Glacial Lacustrine deposits were encountered directly below the Weathered Glacial Lacustrine deposit.**

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

**None have been identified.**

A clearing and grading permit is required to address the control of construction storm water pollution prevention per BCC 23.76.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

**We are cutting 3,997 CY and filling 4,424 CY. Fill will be imported.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**Yes. To mitigate erosion due to construction the project will implement a Temporary Erosion and Sediment Control Plan (TESC). Specific measures are listed below in the response to question h.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

**Impervious surfaces associated with this project will cover 14%-15% of the total site area.**

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

**The project will implement the following measures during construction: preserve existing vegetation for as long as possible, minimize disturbance to existing slopes, protect exposed surfaces with plastic sheeting and woodchip mulch, install catch basin inserts, install sedimentation barriers and swales to control runoff, and treat construction runoff using sedimentation tanks.**

a. **Air**

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

**Future phases of construction could generate short term dust and exhaust from construction vehicles. Additional parking area may generate additional short term vehicle exhaust after completion.**

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

**None known.**

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

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Appropriate control measures will be used during construction to reduce dust generated by grading operations.

3. Water

a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

**Wetlands have been identified throughout the Bellevue Botanical Garden property.**

**They include:**

- **Wetlands B and C (Skillings Connolly – 12/21/07) – Category III wetlands located southwest of the project area. Wetland B is to be expanded as part of wetland mitigation activities. Only temporary impacts resulting from wetland creation will occur within Wetland B; no impacts to Wetland C are proposed.**
- **Wetland ‘Native Discovery Garden’ (Skillings Connolly – 9/20/06) – wetland classification unknown. This wetland is located directly south of the project area. No impacts are proposed to this wetland.**
- **Unknown wetland types are located in the extreme southern portion of the park, over 1,000 feet from the project area (Raedeke Associates – 5/26/05).**
- **Wetlands A, B, C and Stream A (The Watershed Company – 6/3/11 and 8/18/11) are located within or near the project area:**

The filling of Wetland A and required mitigation is being reviewed under Critical Areas Land Use Permit # 11-122671-LO. The visitor center is considered a new or expanded city or public park facility and is an allowed use in critical areas or their buffers, as long as no feasible alternative exists and specific performance standards are met per LUC 20.25H.

**-Wetland A – Category IV, located west of the garden entrance, adjacent to the Lake-to-Lake Trail. The entirety of this wetland (5,423 sq. ft.) is to be filled to make room for the new Visitor Services Center.**

**-Wetland B – Category III, located southeast of the existing parking lot. No impacts to Wetland B are proposed.**

**-Wetland C – Category III, located east of the existing parking lot. No impacts to Wetland C are proposed.**

**-Stream A – Type N stream, located within and adjacent to Wetland B. No impacts to Stream A are proposed.**

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

**Yes.**

A revised wetland mitigation strategy has been proposed and is under analysis for feasibility. See attached mitigation strategy concept.

**-Wetland A is to be filled. Mitigation for the 5,423 sq. ft. of impact will occur by creating 8,224 sq. ft. of wetland adjacent to Wetland B (as named by Skillings Connolly – 12/21/07).**

**-382 square feet of the Wetland B (The Watershed Company – 6/3/11) buffer will be impacted by reconfiguration of the Lake-to-Lake Trail adjacent to the expanded parking lot;**

**-Wetland B (as named by Skillings Connolly – 12/21/07) and its buffer will be temporarily impacted by wetland creation activities.**

**-Additional project activities will occur within 200 feet of Wetlands A, B, and C, along with Stream A (The Watershed Company).**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**The current site plan includes a wetland fill area of 5,423 SF of Category IV wetland. The filled wetland area will be replaced at a minimum 1.5:1 ratio. Grading for the wetland creation area will consist of approximately 567 cubic yards of cut.**

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4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

**None proposed as part of this scope of work.**

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

**No.**

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

**No.**

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

**No withdrawal of ground water or discharge to groundwater is proposed as part of this project.**

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**None.**

The city requires that all new and replaced impervious surface meet storm and surface water utility code requirements per BCC 24.06.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**This project includes the expansion of the parking area. The storm water will be collected in detention vaults prior to connecting to the city system. Design of the vaults and connections will provide treatment and detention as required by the City of Bellevue. In addition, a portion of the stormwater collected from the parking area will be dispersed into an area of dense existing vegetation to the east of the parking area. Stormwater will also be collected from the roofs of the new building in a cistern to be used for flushing toilets. Additional water from the source which is not needed for this purpose will be diverted to a rain garden adjacent to the lecture hall.**

2) Could waste materials enter ground or surface waters? If so, generally describe.

**The system will be designed to prevent waste materials from entering the ground or surface waters.**

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

**The project is collecting roof top rainwater for use in toilets as part of our LEED strategy. New rain gardens are being provided. Poor soil infiltration prevents further LID measures.**

4. Plants

a. Check or circle types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

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- \_\_\_\_\_ crop or grain
- X   wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- X   water plants: water lily, eelgrass, milfoil, other
- X   other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

**The project will require the removal of some existing deciduous and evergreen trees, grasses, sedges, and shrubs. The city requires that 15% of total diameter of significant trees be retained, the project is retaining 62%. The city requires that the parking area provide 4165 square feet of landscape in the parking area, the project will provide 29,346 square feet. The project includes the planting of 143 new trees in the parking islands. See L2.31.**

c. List threatened or endangered species known to be on or near the site.

**None known at this time.**

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**The site is a botanical garden. The proposed project includes five new feature garden areas, the enhancement of three other major garden areas and the restoration of planting adjacent to all other areas of improvement.**

**Additionally, the project includes the creation of 8,224 square feet of wetland and 400 square feet of buffer enhancement. Proposed native species for wetland creation include red alder, lady fern, slough sedge, red-osier dogwood, black twinberry, black cottonwood, Douglas-fir, salmonberry, pacific willow, sitka willow, small fruited bulrush, bur-weed, snowberry, and western red cedar. Buffer plantings include red alder, beaked hazelnut, salal, oceanspray, sword fern, Douglas-fir, snowberry, and western red cedar.**

Wetland mitigation is proposed to be divided among multiple cells and will contain a variety of native plant communities to be determined.

**5. Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

- birds: hawk, heron, eagle, songbirds, other: ducks probable
- mammals: deer, bear, elk, beaver, other: coyote, bats, raccoon and other small mammals probable
- fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.  
**None known at this time.**

c. Is the site part of a migration route? If so, explain.

**Yes. The site is a large and forested area and is likely part of some migration route. However, migration species are not expected to be affected.**

d. Proposed measures to preserve or enhance wildlife, if any:

**Botanical Gardens serve to preserve and enhance habitat used by wildlife. Wildlife corridors are maintained throughout the Botanical Garden's Native Preserve areas.**

**6. Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

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**The project is seeking a LEED silver certification. Heating, cooling and lighting of the proposed structures will use electricity. High efficiency mechanical systems, efficient low energy use lighting, high performance thermal envelopes and passive design strategies are being implemented to reduce energy use.**

- b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.

**No.**

- c. What kinds of energy conservation features are included in the plans of this proposal?  
List other proposed measures to reduce or control energy impacts, if any:

**The project is seeking a LEED silver certification. Heating, cooling and lighting of the proposed structures will use electricity. High efficiency mechanical systems, efficient low energy use lighting, high performance thermal envelopes and passive design strategies are being implemented to reduce energy use.**

## 7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe.

**None known at this time.**

- 1) Describe special emergency services that might be required.

**None.**

- 2) Proposed measures to reduce or control environmental health hazards, if any:

**None.**

## b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

**Traffic noise from I-405 can be heard from some parts of the garden.**

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

**Short term construction noise will be limited to day time hours during the work week.**

- 3) Proposed measures to reduce or control noise impacts, if any:

**Not applicable.**

## 8. Land and shoreline use

- a. What is the current use of the site and adjacent properties?

**Site is a botanical garden including a native forest. Site is used for passive recreational purposes. The properties adjacent to the garden include residential, school administrative buildings, office park and power transmission line corridor. The properties adjacent to the area of work include school administrative buildings and office park.**

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b. Has the site been used for agriculture? If so, describe.

**No.**

b. Describe any structures on the site.

**Within our area of work:**

**A residence currently used as administrative offices, the Shorts House is currently used as the visitor center/gift shop, and the Sharp's Cabin.**

**Within the park:**

**There is also a structure (former house) within the southern part of the park used for storage.**

d. Will any structures be demolished? If so, what?

**Yes. The existing residence used as administrative offices will be demolished. The Sharp's Cabin will be relocated.**

e. What is the current zoning classification of the site?

**The property is zoned residential but the current use is as a park which is an acceptable and approved conditional use.**

f. What is the current comprehensive plan designation of the site?

**Open space.**

g. If applicable, what is the current shoreline master program designation of the site?

**Not applicable.**

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

**The park contains slopes in excess of 40%, along with numerous wetlands and seasonal streams (see Response 3.a.1).**

i. Approximately how many people would reside or work in the completed project?

**Staff on site: 8 (6 City of Bellevue and 2 Garden Staff)**

**Volunteers: 400 – 500 avg. per year, includes one-day work parties**

j. Approximately how many people would the completed project displace?

**None.**

j. Proposed measures to avoid or reduce displacement impacts, if any:

**None.**

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**The BBG is a public recreational and educational facility.**

**The current project use is an allowable and approved conditional use; there is no proposed change in this use included in this project.**

## 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**None.**

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- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**There are no structures on site currently being used for housing.**

- c. Proposed measures to reduce or control housing impacts, if any:

**Not applicable.**

## 10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

**Visitor Services Building:**

**The tallest structure is 21'-3" above average existing grade. The principal building materials are stained wood (predominant exterior finish material), galvanized metal, painted steel columns, stained wood roof beams, glass, and aluminum windows.**

**Shorts House and Sharps Cabin:**

**These structures are wood siding, brick, and wood windows. They will be repainted in colors that are more natural, earth toned to blend in to the garden.**

- b. What views in the immediate vicinity would be altered or obstructed?

**None.**

- c. Proposed measures to reduce or control aesthetic impacts, if any:

**Finish materials and paint colors have been selected to blend into the natural environment of the garden. The design of the visitor center incorporates landscaped courtyards within the structures which is intended to further integrate the structure into the garden.**

## 11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

**Glare: Selected building materials should minimize glare.**

**Light:**

**The existing parking area is currently lighted. The expanded parking area will also be lighted. The selected lighting will provide the minimal amount of light to create a safe environment for the public. The fixtures will be contained within enclosures that focus the light downward and control glare. These fixtures will be integrated into the landscape.**

**The park and buildings close at dusk. Lights will be off except minimal security lighting. The amount of vegetation around the building will greatly obscure this lighting.**

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

**No.**

- c. What existing off-site sources of light or glare may affect your proposal?

**None.**

- d. Proposed measures to reduce or control light and glare impacts, if any:

**Not applicable.**

## 12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

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**The project is a public visitor center within a botanical garden contained within a public park. It will expand a public gathering, recreational and educational amenity. The park contains trails which connect to the Lake to Lake Trail, a regional trail.**

b. Would the proposed project displace any existing recreational uses? If so, describe.

**No.** There will be a temporary impact during the construction phase of the project while the main garden area will be closed for the duration.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

**Not applicable.**

### 13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

**No.**

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

**Some foundations remain of structures with cultural significance within the park. The extent of work of this project includes cosmetic improvements to the existing mid century Shorts House and the relocation and reuse of Sharps Cabin.**

c. Proposed measures to reduce or control impacts, if any:

**Not applicable.**

### 14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

**Park Access:**

**Public vehicular access is from Main Street. Maintenance access will be from S.E. 5<sup>th</sup> Street. Pedestrian access will be from Main Street, the Lake to Lake Tail and S.E. 4<sup>th</sup> street.**

**Visitor Center Access:**

**Public vehicular access is from Main Street. Pedestrian access will be from Main Street and the Lake to Lake Tail.**

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

**No. The closest transit stop is approximately ½ mile away.**

c. How many parking spaces would the completed project have? How many would the project eliminate?

**On site parking will be expanded from 53 spaces to 119 spaces with an additional 155 spaces available at the nearby Wilburton Hill Park and 79 spaces available at the W.I.S.C.**

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

**The project includes improvements to the street front planting at Main Street and the relocation of existing streetlights.**

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e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

**No.**

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

**See traffic study submitted with 2008 Master plan.**

g. Proposed measures to reduce or control transportation impacts, if any:

**None.**

**15. Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

**No.**

b. Proposed measures to reduce or control direct impacts on public services, if any.

**Not applicable.**

**16. Utilities**

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**Existing utilities will be used for proposed improvements.**

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: **Kevin Kudo-King, project representative**.....  
**w/ amendments by Kenny Booth, AICP, The Watershed Company**

Date Submitted: **September 12, 2011** .....

**REVISED**  
9:05 am, Nov 03, 2011

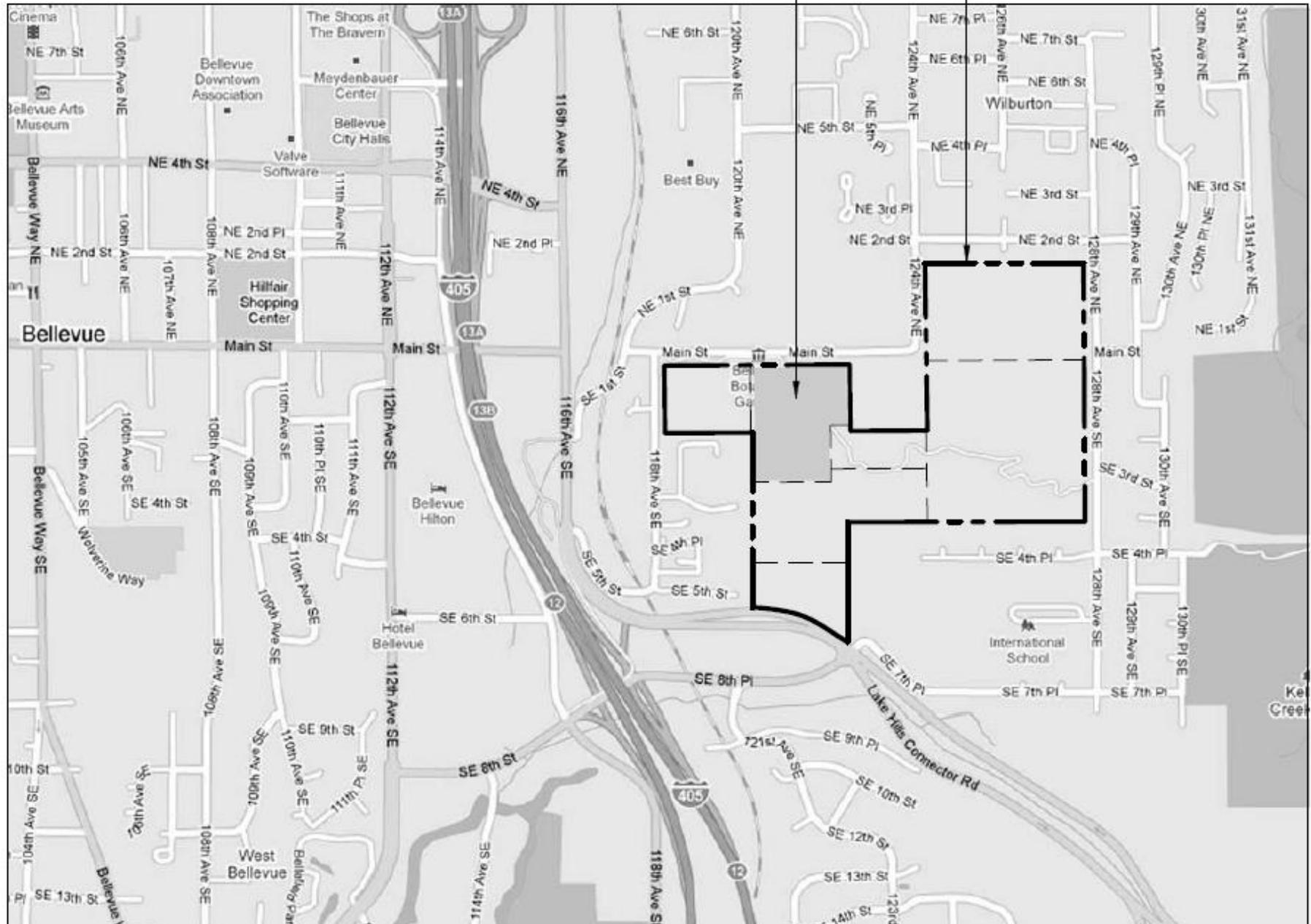
**REVIEWED**  
By Kevin LeClair at 1:42 pm, Sep 19, 2011

# NEIGHBORHOOD MAP

NOT TO SCALE



SITE  
PROPERTY LINE



**BUFFER ENHANCEMENT /  
MITIGATION AREA: 1**

≈ 5,000 SF

**WETLAND – A: 5,423 SF**

MAIN STREET

RELOCATED  
SHARP CABIN

**BUFFER ENHANCEMENT /  
MITIGATION AREA: 2**

**IRIS RAIN GARDEN**

≈ 1,200 SF

EXISTING  
SHORTS  
HOUSE

ADMINISTRATION/  
EDUCATION

RESTROOMS/  
STORAGE

VISITOR  
SERVICES

**BUFFER ENHANCEMENT /  
MITIGATION AREA: 3**

≈ 9,000 SF

**PROPOSED MITIGATION CONCEPTS**

- Re-direct surface hydrology to northwest of Sun Garden Meadow
- Capture runoff from new impervious surfaces at building
- Water passes thru Iris Rain Garden for treatment and temporary storage
- Wetland accepts surface and groundwater
- Water flows existing pathway to roadside and east downhill to wetlands
- Water flows into existing wetlands and thru proposed enhanced buffer

➡ WATER FLOW PATHWAY

■ MITIGATION AREA(S)

■ WETLAND

**BELLEVUE BOTANICAL GARDEN VISITOR CENTER – WETLAND MITIGATION**



# MEMORANDUM

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**DATE:** 23 August 2011  
**TO:** Kevin LeClair – Land Use Planner  
**FROM:** Ken Kroeger - Project Manager  
**SUBJECT:** **Bellevue Botanical Garden Visitor Center – Critical Areas Analysis**

The purpose of this correspondence is to respond to your memorandum dated July 12, 2001 related to the Bellevue Botanical Garden Visitor Center project – Critical Areas Analysis.

As required, Parks will be formally applying for a Critical Areas Land Use Permit (LO) to locate a public facility with a critical area or critical area buffer. However, this response is being submitted to your attention as a precursor to our permit application.

The decision to relocate the visitor center to a new location resulted from the dramatic increase in the number and scale of activities which the original master plan did not adequately anticipate. It will enable staff to monitor and control Garden access in a way that is not currently possible.

Multiple options were reviewed for locating the Visitor Center, as well as, programming needs, such as education/meeting rooms, operational efficiencies, future expansion, cost and additional parking. After careful analysis, a recommendation was made for the Visitor Center to be located west of the garden entry drive, close to the current location of the garden offices and Caretaker's House.

This location and layout meets the needs of the Botanical Garden and there is no alternative site or design that successfully meets these needs. It is our standpoint that there is no technically feasible alternative for the Visitor Center that will meet the needs of the Botanical Garden, Parks, and/or of the BBG Garden Society; be more cost-effective; or would be as politically or ecologically supported as the current plan.

I thank you for your time and assistance with this process and information provided regarding the applicable regulations and Comprehensive Plan.

## Background

Since its conception as part of the Wilburton Hill Park in 1992, the Bellevue Botanical Garden (BBG) has become an exceedingly popular destination. The garden is managed by the City of Bellevue in partnership from the Bellevue Botanical Garden Society (BBGS). In 1997, the master plan was updated with Bellevue's Park Board approval and shortly afterwards, adopted by the City Council.

Since that time, many gardens, features, and additional land have been added to the BBG. The 2008 BBG Master Plan Update was initiated to reassess and update the

1997 Master Plan Update in order to reconsider garden needs and goals; develop plans for the recently acquired 17-acre Wilburton Hill Property; and to plan for future growth and expanded use.

### Original Master Planning

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The original master plan was based on a program developed by the BBG Advisory Committee (a group of public garden professionals constituted by the Parks Department to advise the planning of the proposed garden). This committee started by considering broadly the range of functions those botanical gardens typically serves. These were classified into four broad areas:

- Scientific research - with associated plant collections that are typically but not always taxonomically based.
- Conservation/Stewardship - with associated biological reserves that may be undisturbed natural areas or replicated habitats
- Display/Amenity/Recreation - with associated demonstration/display gardens and collections, an aesthetic structure or organization to the garden and associated public open space for passive recreation.
- Education/Teaching - with associated collections and garden exhibits, and suggesting the need for building space for educational programs.

The greatest failing of the original master plan was that it did not provide a sufficiently strong physical 'structure' within which specific interest groups could be accommodated. This has resulted in much of the new development being attached, "barnacle-like," to existing features - principally the Visitor Center (VC). Additionally these new developments fail to create associated open spaces, with plant beds or physical structures, which fit comfortably within the circulation system of the Garden as a whole.

### 2008 Master Plan Update

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Starting in 2007, the City, with assistance from the BBG Society Board of Directors, conducted a Master Plan Update. The BBG's success is a result of addressing the needs and interests of the citizens of the City and the region. The 2008 updated plan reaffirms the BBG's original mission and purpose; thus, changes in the updated plan clarify and improve upon the original purpose rather than alter it.

Although details of the plan have been altered, the Garden's basic structure, as expressed by the circulation and the types of garden exhibits and experiences, remains substantially the same. The Garden retains developed or ornamental garden features and exhibits in proximity to the Visitor Center. Progressively less intensively developed, more natural garden experiences are located with increasing distance from the Center.

The plan's major changes respond to the Garden's success over its lifespan - including the need to expand built facilities for visitors and increase visitor parking. In addition, the plan simplifies and clarifies the proposed garden features and links these together into a more coherent and unified whole.

Several goals remain fitting for BBG and have been retained as the basis for the revised master plan, and define a unique mission appropriate to the BBG's needs:

- Demonstrate the value of being sensitive to and working with native vegetation and natural features of the site
- Be appropriate to the climate and environmental conditions
- Explore and promote aesthetic styles that result from the above considerations, (i.e. develop new aesthetics rather than copy current or historic design styles. The new aesthetics should arise out of an understanding of the unique qualities of the site and the region.)
- Demonstrate maintenance and horticultural techniques that conserve materials such as water and energy resources.
- Fit the scale, resources and needs of typical residential property owners in Bellevue.
- Meet the increase program space and needs for the BBG, including much needed expanded parking.

One of the Master Plan's guiding philosophies was that BBG would be most useful as an educational institution if it developed facilities and gardens that were of a scale comparable to the sizes of lots owned by visitors and maintained a less disturbed and managed biological reserve which could explore and demonstrate alternative management approaches to natural and semi-natural sites in urban locations.

The scale of the Shorts' house, which became the Visitor Center and the entry courtyard, further emphasized the residential scale of the Garden. This goal has been carried throughout all the planning steps, and is sensible for educational, as well as, experiential purposes.

Maintaining or expanding the open, expansive scale of the lawns that flank the Shorts' residence is important if BBG is to avoid becoming a 'tight' and congested experience for visitors. Contrasting small-scale, intimate and enclosed places with the larger scale of lawns and woods is an important design goal. The revised plan expands the scale of the Garden by extending views from the VC into portions of the Garden that are currently developed thus increasing the sense of expansiveness of the current lawns. (SEE ATTACHMENT A - 2008 MASTER PLAN UPDATE SITE PLAN)

#### Wetland A –

The critical area that the proposed VC project is impacting is noted as "Wetland A." Wetland A is a small depressional wetland that developed due to changes in topography associated with construction of the adjacent roadway and trail system. Recent wetland studies and rating noted this wetland as a Category IV wetland (SEE ATTACHMENT B - Wetland A Rating Letter).

The Lake to Lake Trail, Main Street, existing maintenance paths, and the existing Alpine Rock Garden are all located immediately adjacent to Wetland A within its buffer. This wetland is located within a developed portion of the BBG and is surrounded by area that

can best be described as a manicured park setting. Its position in the landscape and relatively small size provide low to moderately low function in regards to Water Quality and Hydrologic functionality. In addition, fragmentation from other undisturbed and aquatic areas limits habitat availability.

### Visitor Center Development

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The principle issues, which the previous BBG master plans dealt with, were responses to the affects of the Garden's success and the development of new 'needs' that the Garden has generated. BBG has evolved into a nucleus for numerous horticulture-related interest groups in the region, as a popular educational location, and as an amenity for the general public. As a result, the current developed areas and VC are too small to accommodate all visitors comfortably.

Thus, there is a clear need for additional building space in excess of the capacity of the current VC or any conceivable expansion of that building (with its small-scale, residential character). In addition to the many horticultural organizations and their use of the BBG, other non-horticultural needs are being asked of the BBG to accommodate related uses such as community meetings, active recreation, weddings, and photo shoots.

The VC planning and design continues to be based on the following concepts:

- simple, conceptually comprehensible,
- garden development proposals that respond to existing site conditions,
- developing varied experiences that are integrated into a coherent whole,
- creating residential-scaled experiences,
- emphasizing 'garden' or 'experienced-based' collections
- maximize ability to located new development to previously disturbed/developed areas
- maintain more pristine portions of the existing garden and garden "rooms"

The 1997 Master Plan proposed the VC to be located in the area occupied by the Caretaker's House immediately west of the Garden's existing parking lot entrance. A new VC location in the proposed zone provides greater flexibility than would be possible if the Shorts House is expanded to accommodate identified needs. Not only would it preserve the pleasing character of that house and its domestic scale, which fits the scale and character of the surrounding lawns and gardens nicely, but it would provide more accessible and flexible space for use and locates it where it can serve the Garden with minimal disruption to its character.

In 2002, the BBGS selected the architectural firm, Miller/Hull Partnership, to prepare a conceptual design for a new Visitor Center. The design sited the VC over the western end of the existing parking lot. This plan included a gift shop, administrative spaces and classroom/meeting space for groups up to 100 people. The plan also included some administrative space additions to the Shorts' House. The existing Caretaker's House, located near the parking lot entrance, remained. The Alpine Garden, however, was severely impacted and would have been relocated, reduced in size or eliminated.

In the evaluation by Miller/Hull, a conflict surrounding programming of space for general garden visitors (who freely visit the garden daily from dawn to dusk, year-round) versus people visiting the garden for a class, meeting or other special events was noted. Spatially separating these functions seems prudent for both groups of users to enjoy the Garden and not interfere with each other's experience. (SEE ATTACHMENT C - MILLER/HULL VC STUDY)

This concept of separating visitor functions vs. event/educational functions is supported by the 1997 Jones and Jones Interpretive Master Plan for the Bellevue Parks system. That document suggests interpretive programming for a "Botanical Garden Center" (aka Visitors Center), as well as for a "Botanical Learning Center" that would house conference, exhibit, classroom and lecture space.

#### Proposed Visitors Center Project

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In late 2009, Parks contracted with Olson Kundig Architects (OKA) to complete the design and permitting for the VC project. The OKA design was based on the previous planning schemes and documents, but has been slightly modified to bring the program up to current needs of the Garden.

The new VC facility and its supporting amenities have been designed to minimize their impact on the garden's natural setting in a number of ways. First, the Visitor Center building and supporting functions have been minimally sized to meet the growing number of visitors. Second, the new facilities have been located within the disturbed and developed portion of the BBG. Third, the building and the parking area are integrated into the existing and new gardens.

During the planning phases, several conceptual alternatives were developed and presented to the community. The most significant contrasts between the alternatives had to do with the placement and size of the VC facility, and the expansion of the parking area. (SEE ATTACHMENT D - VC STUDY OPTIONS)

The VC was originally proposed to be a structure of approximately 12,000 square feet, and would have a major footprint on the site. This was scaled down to approximately 9,000 square feet, and the current VC project is approximately 8,500 square foot facility. (SEE ATTACHMENT E - VC FLOOR PLAN)

The VC program provides the following list of proposed physical improvements:

#### Visitor Services Center

- Function: Visual/Physical Sense of Entry, Greeting and Orientation
- Components: Tour gathering place; way-finding; interpretation, small exhibition; donor recognition; gift shop (and shop support); restrooms
- Description: Located at the desired entrance to the BBG, this building, staffed by volunteer greeters and docents, gives visitors their first impression of the Garden. It is visually stunning, well integrated into the topography of the site, and fully accessible. Visitors are welcomed, oriented, and encouraged to visit the facility and gardens. They

have access to garden guides, maps and other print materials. A small exhibition space allows rotation of interpretive displays consistent with BBG education program objectives and areas of current special interest within the garden. This is where all garden tours begin and end, with room for docents to greet and orient their tour groups before heading into the garden.

The revised plan proposes major changes in the size and location of the Garden's visitor service buildings and parking. The original plan proposed expanding the Shorts' residence and clustering new buildings around the entry courtyard. The Garden's success has generated a need for building space far in excess of what was originally anticipated and it is doubtful that all of these activities can be comfortably accommodated in the originally proposed location without major changes to the pleasant, domestic scale of the house or the surrounding gardens.

The amount of building space required by all of the proposed activities would either require a complete transformation of the house and surrounding site or the construction of a much larger building on that, or another, site. Developing a new VC building is preferable, as it would preserve the character and scale of the existing house and garden features while accommodating new building needs in a positive way.

Additionally, the VC project includes the substantially expanded parking improvements on site. The proposed parking expansion will require extensive re-grading, and will occur in conjunction with the expansion of the visitor center.

As there are currently no public transit routes serving the site, most visitors travel to and from the garden by automobile. The design accommodates the VC parking needs, while providing for bus pullouts and loading.

The parking lot is the first point of contact for many Garden visitors and must create an exceptional first impression for the Garden. The expanded parking lot design will be executed with the same care and attention given to any other Garden Room. The design integrates and interprets environmental sustainability from storm water collection and treatment, to plant selection.

### Shorts House

- Function: Visitor Amenity
- Components: Restrooms; food service; resource center (reference library, computer stations)
- Description: We envision a comfortable, welcoming space for visitors to enjoy the Garden. This space is not suitable for major exhibitions, lectures or interpretive displays. Rather, it is a "sweet spot" from which to enjoy views of the garden, seek shelter, linger over horticultural and botanical publications, and access our searchable on-line database. We anticipate very limited modifications to the existing Shorts house.

### Education Center

- Function: Education, Special Event, Administrative
- Components: Classroom/workshop/meeting; administrative offices; restrooms; storage; catering kitchen
- Description: We envision a space that is as modular and flexible as possible to accommodate a broad spectrum of multipurpose use, beautifully designed to be in keeping with large-residential scale, and which opens out onto courtyard space to blur the line between indoor/outdoor and gives the sense of meeting "in the garden". Administrative offices and storage to support education and event programming will be housed here.

We anticipate a broad spectrum of mission-based programming to include adult education programs, workshops, and expanded Living Lab children's education programs. The assembly room would accommodate approximately 120 people in a lecture-style seating configuration; though a modular design will allow multiple concurrent uses for smaller groups in either - workshop, conference, or lecture-style configurations within partitioned spaces. The ability to open the room onto a courtyard will allow some flexibility to host small exhibitions, fund-raising events, plant shows and sales, and public events. We intend to provide flexibility to allow for potential expansion to accommodate future programming needs.

### Sharps Cabin

- Function: Staff Resource
- Components: Staff/Volunteer multi use space (break room, informal meetings) and storage closets
- Description: Sharps' Cabin – The Cabin, will be relocated from its present location and incorporated into an appropriate area within the Garden adjacent to the existing Waterwise Garden and Sun Garden lawn area. It will be a flexible space for staff, workgroups, volunteers, and other garden personnel to use as an auxiliary meeting or break room, along with providing storage closets for hand tools and other gear. This will not be used by the general public. However, it displays how a small, residential structure can be surrounded and incorporated into the landscape – specifically the Waterwise Garden.

### Lawn Garden Experience

- Function: Visitor Amenity, "welcome mat", open space
- Components: Open green, lawn space
- Description: Modify the shape of the lawns around the VC to give a bolder and stronger structure to the small scale garden experiences "Lawn Rooms" or "The Lawns", to integrate lawn sun gardens with the wooded areas beyond, to resolve scale problems resulting from the small garden exhibits constructed around the VC, and to maintain the goal of residential scaled garden rooms within a larger park-like scale context.

The plan proposes that it be actively reshaped, and in places re-graded, to create distinct spaces that are linked together into a unified whole by their common lawn surface. This structure provides the needed unity for the Garden, but also allows

different garden experiences to be developed around, and to contain, individual lawn spaces.

The plan proposes that the lawn be conceived of and consciously shaped as a positive element of the Garden, serving visual as well as circulation needs. As a unifying feature of developed ornamental areas of BBG, lawns will extend beyond their current confines, to link the new Visitor Center to include the wetland lawn and gardens. Lawns will be shaped to provide large and small gathering spaces in the midst of gardens or plant collections. They are designed to encourage visitors to circulate from one part of the Garden to another in a smooth, flowing manner. They are also designed as room-like spaces to encourage visitors to stop and rest and observe gardens and collections more closely.

The main lawn area has been preserved over the years and is an integral portion of the Garden. It provides for the largest open area for gatherings, events, and functions. There is no other area in the Garden that can provide for this open setting.

#### Visitor Center Location Options

Several locations for this facility were considered as part of the design process (SEE ATTACHMENT F - VC SITE OPTIONS). These decisions were presented to the community, Park Board, and members of the BBG Society.

Additional sites were explored during the various project steps. These included:

- The 1997 Update recommended the future VC to be located west of the main garden entry in the area that is now the garden office. This location would enable staff to monitor and control Garden access in a way that is not currently possible. Its less prominent location than the hilltop site of the Shorts' House is desirable.
- In 2002, the Miller/Hull conceptual plans located the new VC at the current main pedestrian entry. This location would have limits to controlling access to the Garden and would compete with the Shorts' House. To the point that the house would not be able to function in its historical context or setting.
- On or near the existing Wilburton Hill Park soccer field, west of the Garden along the Lake to Lake trail system. Although this site is open and level (ideal topography for construction), it would eliminate a lighted sportsfield, a valuable City asset in which there is a shortage. As well as, potential habitat impacts, and not providing a clear route for safety and security vehicles to access the building. Distance and proximity to the Garden, Park boundary issues, and other potential roadblocks removed this option from discussion.
- The south end of the existing parking lot between the Yao and Ground Cover Gardens (now the Rhododendron Glen Garden) was considered for a location, however eliminated due to pedestrian access issues, need to relocate an existing mature Garden, and the likely need to remove significant trees.
- The east edge of the existing parking lot. This site was quickly dismissed due to the topographic challenges, potential wetland impacts, and set back issues from

the adjacent property. As well, this location did not provide for security and control of the Garden and set the stage for pedestrian conflicts.

- Utilizing the existing Shorts' House was contemplated. This would mean either a complete teardown of the structure or a significant remodel/addition. This choice was deleted, as it took too much away from the existing historical house, as well as, impacting the Garden spaces around it. This option eliminated the historical context of the site and residential structure.
- A Koh property site (existing residential structure site) was not included past concept, as this site has limited access. Additionally, there is no ability to control access to the Garden, it would be hidden from use, it would remove significant large trees and vegetation, and would be located in a critical area(s).

Site selection factors which influence the choice of location for the new VC include:

- proximity to the Shorts' house and Garden entrance,
- grade changes which can make access to the Garden less difficult, especially for accessibility issues
- vehicular service & visitor drop off, including emergency vehicles,
- parking access & area of parking,
- visibility from Main Street,
- noise blockage,
- Garden access monitoring and control
- Desire to retain residential scale
- Preservation of existing, mature Gardens – including, but not limited to the Sun Garden (open lawn space), Alpine Rock Garden, or Yao Garden.

The existing developed area, which we are proposing to stay within for the new development, is surrounded by various existing natural and man-made elements. These elements restrict the possible locations for the building and the parking area.

To the east are existing wetlands and steep slopes which are protected and more pristine and larger than Wetland A. To the south are densely vegetated existing parts of the garden including the Rhododendron Glen, Yao garden and the forest garden containing many mature trees. To the west are the existing Shorts House, Spring Court and Alpine Rock Garden. And to the north are Main Street and the Lake to Lake Trail.

We are also attempting to keep as many of the existing larger, mature trees within this area as possible while still meeting the Garden's needs.

The proposed facilities are as small as they can be and still provide their required function. The proposed development has been located away from the many acres of pristine garden and undeveloped forest. Existing site elements limit the possible location for the Visitor Center facility to the proposed location. Wetland A is compromised by its existing surroundings – proximity to the roadway, streetlights, noise, lack of vegetation, and lack of habitat. The mitigation that will be provided as part of the VC project will provide more pristine and isolated habitats and greater value to the environment and local ecosystem in a more appropriate area.

*PROPOSAL LOCATION PERFORMANCE STANDARD - LUC 20.25H.055.C.3.g*  
*New or expanded permanent public use structures, including interpretative centers, community centers, and other structures designed for public use and access are allowed in the critical area or critical area buffer only if no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:*

*(1) The location of existing infrastructure;*

There are several key items and existing infrastructure that have been used to determine the appropriate location for the VC:

- Program development, adjacencies, and size – Many of the earlier studies developed do not reflect the current needs for programmatic sizes, technical spaces (electrical, mechanical, plumbing), or miscellaneous spaces such as hallways. Once the VC program had been updated for current needs, the size of the facility changed slightly to the current 8,500 approximate square feet.
- Survey and topography – The earlier studies were also done without a technical survey in hand, and were based on rough calculations. Once the topographic survey was applied to the plans, it was clear the parking lot and entry drive(s) would be the key factor on where the elements could be placed.
- Parking and access – The size and shape of the parking lot is based on the required capacity, saving as many significant trees as possible, and avoiding steeper grading in the parking lot area. After applying transportation codes for sight lines, stall widths, drive aisle, slopes, and other vehicular needs, the layout was limited, which helped define the linear shape and location of the building to the west of the parking lot.
- Existing Garden “Rooms” – A critical component to all planning work performed at the BBG was to respect and maintain the existing Gardens. Any changes must not decrease the existing Garden success, and not negatively impact their functions. The placement of the individual garden “rooms” has been thoroughly designed and layout to take advantage of the various site opportunities.
- Security and Control – It is critical to manage security and control/monitor access of the Gardens, especially as the program increases. Security is a constant concern for all botanical gardens and sensitive areas cannot be protected without taking measures to control access. Additionally, there needs to be a clear area for the staff and volunteers to coordinate use and functions, without disrupting users. With this in mind, it would not be practical to separate these program spaces into various, “unconnected” structures.

As previously stated, the current BBG VC plan would replace the existing 2,250 square foot office building with a new 8,150 square foot multi-purpose visitor center, while retaining the existing Shorts’ House.

After careful analysis, the proposed structure(s) have been located between the new parking area and the main garden spaces, in the area of the existing garden office. The linear quality and separate structures will allow the visitor to make an intentional

decision to either access the education/multi-purpose space for a planned class or activity, or to enter into the main Garden experience.

This linear layout will help reduce the potential for congestion or confusion that could affect visitor experiences while classes or activities are scheduled during normal hours of operation.

Additionally, the layout was based on topographical limitations and was created to reduce the amount of site disturbance. This is especially true of the natural settings. The layout was coordinated to occur in areas that were impacted in the past.

*(2) The function or objective of the proposed new or expanded structure;*

In addition to the programmatic elements that serve as the foundation for the VC design, the proposed design has been created to meet the following objectives:

- Scale – The VC proposal is designed to retain the residential character of the BBG and to compliment its surroundings. The VC does not take away from the existing garden rooms or overwhelm the site. The Garden remains the focal point and the VC compliments the experience of the Garden.
- “Welcome Mat” – The total project has been developed for a cinematic progression through the entire site – from entry drive to parking to walking into the “garden proper” – It is critical for Positive First impressions and a welcoming character. There is an obvious progression to and through the visitor center. The layout has been developed to diminish confusion between the garden visitor and those utilizing the facility for meetings or events.
- Pedestrian Friendly - The design encourages places that can be enjoyed by visitors without fear of conflicts with automobiles. Where vehicle drives or parking areas are necessary, the layout has been designed with “pedestrian safety” in mind.
- Seamless Transition - The layout is seamless -blurring the line between “indoor” and “outdoor” spaces. It draws the user toward the garden, conveys a sense of excitement, and provides an interactive experience between the garden rooms and visitor center.
- Unique Setting – The design respect sand reflects on the unique and natural garden setting; incorporating best practices for sustainable building and land management. The building and landscaping demonstrates maintenance and horticultural techniques that conserve materials, such as water and energy resources.
- Education/Teaching – The VC and associated elements will be used as learning tools and be associated with the BBG collections and garden exhibits.
- Exceptional design - The visitor’s experience will be reinforced, communicated, and celebrated through the high quality design. It explores and promotes aesthetics that arise out of an understanding of the unique qualities of the BBG and its surroundings.

- History - The design recognizes the heritage of the BBG – especially of the current historical architecture on site. The design uses opportunities to preserve and reuse the Paul Kirk architectural form (Shorts' House) and incorporates means to animate the rich heritage through public art and interpretive programs.

*(3) Demonstration that no alternative achieves the stated function or objective;*

Site Selection factors which influenced the choice of location for the VC layout include:

- Proximity to the Shorts House
- Ability to form a gateway into the Garden
- Preserves the existing Gardens
- Creates grading changes which make access to the Garden less difficult
- Convenience of parking and access. Including a queuing lane for automobiles during larger activities (like Garden D'Lights) and drop off
- High visibility from Main Street with pleasant arrival procession
- Assists to block noise from Main Street
- Retains a residential scale

Other considerations included the need for administrative offices, education/meeting rooms, and other services like the gift shop to share facilities and functions and to promote operational efficiencies.

Projected program growth could not be accommodated within the existing structures, without major changes to the pleasant, domestic scale or the Shorts House or its surrounding gardens.

Throughout the planning processes, the community expressed its desire that the House remain integral and not dominated by a new addition or modification. This would additionally inform any new structures to remain in keeping with the residential scale, and allow the Garden to be the central focus for the visitor.

These desires, coupled with the needs of the parking, access, and program limited the areas in which the VC could be placed. The current plan is to develop a series of smaller structures, united under a singular roof. The plan creates independent spaces for staff and general visitors to function, while allowing for shared services and easy access. It provides a place for all services to work together, achieves the low profile, residential feeling, and eliminates an undesirable, congested area for the Garden entry.

The proposed location enables staff to monitor and control Garden access in a way that is not currently possible – it creates a distinct and direct gateway into the Garden. Through this slight separation of structures, it allows the visitor to make an intentional decision to either access the education center for a planned class or activity, or to enter the main Garden experience. Additionally, the “L” shape of the facility allows for this threshold into the Garden, while creating a physical presence along Main Street.

This approach provides the greatest flexibility, while maintaining the entire Garden's focus and core directives. It enhances the existing Gardens by providing a needed border and does not delete or jeopardize any existing Garden space.

The other studied plans are unsuccessful at meeting as many needs and desires of the Garden as the current proposal. The 2002 plan clustered the facilities around the main pedestrian path, immediately west of the Shorts House. While it achieved the residential feel, the clustered buildings created a highly undesirable congested area and did not provide the same level of visibility.

The location noted near the sportsfield in the Wilburton Hill Park provided an ideal site for construction, permitting, and shared parking. However, this site not only eliminated a highly used program (lighted sportsfield), but its distance from the main Garden space did not allow for security or safety to be monitored "on site,"

The Rhododendron site (between the Yao Garden and the Ground Cover Garden) created pedestrian challenges, removed significant trees, and relocated an entire, existing Garden.

The main lawn space (Sun Garden) was reviewed for a potential location for the entire VC. This option removed an entire garden which could not be relocated elsewhere on site. The lawn has been conceived of as a positive element of the BBG, serving visual, as well as, circulation needs.

Throughout the more developed parts of the site, the open space component of the garden is expressed through the lawn areas. All the planning stages considered locating elements within this area, however not removing it completely. The lawn area has been designed as a room like space, encouraging visitors to stop and rest. It has been integrated with the new VC and works together to be a "welcome mat" for the progression along Main Street.

In addition to removing the lawn space from the Garden, if this site were selected, the critical area (Wetland A) would be impacted by this strategy. Therefore, placing the VC in the lawn area and removing this garden space entirely has been dismissed as a feasible option.

*(4) Whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and*

The City has invested over \$900,000 in architectural and engineering services for the design of the new VC complex, not including the past investments for any of the master planning and update work. The mitigation from this project due to the impacts of the VC layout has been estimated to be in the range of \$200,000 to \$320,000.

The current VC design matches the needs and recommendations of the City, BBG Society, and more importantly, the community. Further project redesign will negatively impact the use of this facility, as the project will have significant scheduling impacts.

Redesigning the VC project at this point would require (approximately):

- VC Architectural/Engineering Redesign Fees:	\$750,000
- New Public Outreach Costs:	\$100,000
- Additional Site Analysis (geotechnical, survey):	\$ 80,000
- Additional COB Staff Time (Parks)	\$150,000
<hr/>	
- SUBTOTAL	\$1,080,000

As sites are limited, additional costs may also include:

- Master Plan Update for existing Garden relocation	\$150,000
- Outreach for existing Garden relocation	\$ 75,000
- Existing Garden A/E Redesign Fees	\$300,000
- Existing Garden(s) relocation development cost	\$450,000
- Relocation of existing Sportsfield	\$1,500,000

If a redesign is required, the costs for such would range from approximately \$1,000,000 to well over \$3,500,000 additional dollars, which does not reflect any additional cost increases for fee and material escalation costs (based on 2011 figures).

Therefore, in addition to the current \$900,000 of fees spent or committed to date, redesigning the VC project will be in excess of \$2,000,000, if not closer to \$4,000,000 in extra fees and capital improvements required.

*(5) The ability of both permanent and temporary disturbance to be mitigated.*

There will be no "Temporary Wetland Impacts," as the proposed VC project will be permanently filled to create the site necessary to adhere to the design intent.

The permanent impacts are being conducted as part of the building construction. The approximate 5,423 square feet of Class IV wetland ("A") which will be converted to building space will be offset by a combination of restoring, enhancing, and creating approximately 8,134 sf of new critical areas mitigation.

The majority of the mitigation will be to creating wetlands on disturbed sites such as those with vegetative cover consisting primarily of nonnative introduced species (SEE ATTACHMENT G - WETLAND MITIGATION PLAN. This has been planned where there is a consistent source of hydrology and that the surface and subsurface hydrologic regime is conducive for the wetland community that has been designed. Additionally in this area, the plan calls for enhancing significantly degraded wetlands.

The VC mitigation will be respectful to the sensitive nature of the existing area. Potential sites such as immediately adjacent (west) of the VC and existing Wetland A or the area around Wetland B,C, and D were studied for mitigation areas. However, these

locations did not provide the adequate mitigation needs. For example, the lawn area west of Wetland A would be impacted by noise and light from Main Street; the proximity to the VC would have increased conflicts with Park users and additional light spill from the building; and this area would have no direct connection to any other refuge area or relationship to existing watersheds.

Proceeding with the mitigation as planned, the project will be able to restore and enhance a wetland area that will provide a richer and safer environment, free from most conflicts with people.

The VC project's Mitigation Acreage Replacement Ratios include the creation or restoration that is in-kind, and that is on-site. However, the proposed areas of mitigation will be in a Class III wetland setting, resulting in a much greater enhancement.

The VC project will follow Bellevue's LUC - Category IV - 1.5-to-1 ratio of mitigation.

Monitoring of the project area will begin with water quality monitoring during construction and creation of an as-built report documenting site conditions immediately after all site work is complete and all plants installed. A Parks' representative will be responsible for maintaining a log that will document any permit or design issues requiring resolution and will include recommendations or corrective actions, if needed.

The construction monitoring will be conducted to ensure compliance with the TESC plan, associated BMPs, the SWPPP, and any other code or permit requirements.

Post construction, long term monitoring of the area will begin immediately following construction and will occur for a 5 year period to measure the success of the project components and evaluate whether performance standards are met.

The costs associated with this work include:

- Mitigation Report and Study	\$35,000
- Construction Monitoring	\$25,000
- Wetland Mitigation Construction	\$320,000
- 5 Year Post Construction Monitoring	\$110,000

Concluding the responses to your questions, we understand that wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions.

While wetlands generally include swamps, marshes, bogs, and similar areas, the BBG VC project is impacting an area which is considered an 'artificial' wetland, as it was unintentionally created from a non-wetland site: it comes from water supplied from an irrigation system and a grass-lined swales/ landscape amenities. This wetland (created

after July 1, 1990), was unintentionally created as a result of the construction of the Lake to Lake trail modifications (increased elevations of the pathway).

However, Park staff was requested to include these areas on the Botanical Garden site for the Visitor Center project, including the noted Wetland A. The Wetland A was classified as a category IV wetland based on the adopted Washington State Wetland Rating System for Western Washington, Washington State Department of Ecology.

Category IV Wetlands have the lowest levels of functions (scores less than 30 points) and are often heavily disturbed. These are wetlands that should be able to be replaced, and in some cases be improved.

As a result of the BBG VC project, the water quality, hydrologic, and habitat functions of the Wetland A in the Garden will be elevated from the existing conditions. The primary benefits of this project are anticipated to be:

- Improved water quality and hydrologic functions through increased density of unmowed, herbaceous plants and forest/scrub-shrub areas;
- Improved hydrologic function through increased width of wetland compared to the current restrictive nature of Wetland A;
- Improved vegetation structure and native plant richness through increased density of native plants;
- Decreased coverage by invasive species;
- Improved forage and cover for wildlife related to improved native plant diversity and improved complexity of vegetation structure;
- Improved interspersed habitats and increased downed wood and snags;
- Improved educational opportunities for the effects of growth and adaptation of wetlands.

The VC project's approach for the critical areas and buffers will follow the protocols outlined by Ecology and City Codes; implementing the standard sequence of avoidance, minimization, and compensation. However, in order to need the functions and objectives of the project, work must occur in the designated critical area and waters of the State and United States, including Wetland A, so complete avoidance is not possible.

Each aspect of the project has been carefully considered in light of the project's goals and objectives, and in keeping with an overall design strategy. Careful consideration was given during the design stages to minimize impacts, and/or thoughtfully mitigate any and all impacts that fall within any critical area or critical area buffer.

As explained in the previous sections, there are no technically feasible alternative(s) with less impact on the critical area or critical area buffer that exists, which will allow the goals and objectives of the project to be developed.

*If, after going through the criteria listed above, it is clear that no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the Critical Areas Land Use Permit material then needs to demonstrate compliance with the performance standards of LUC 20.25H.055.C.2.b.*

*If the applicant demonstrates that no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the applicant shall comply with the following:*

*i. Location and design shall result in the least impacts on the critical area or critical area buffer;*

Site Selection factors which influenced the choice of location for the VC layout include:

- Proximity to the Shorts House
- Ability to form a gateway into the Garden
- Preserves the existing Gardens
- Creates grading changes which make the access to the Garden less difficult
- Convenience of parking and access. Including a queuing lane for automobiles during larger activities (like Garden D'Lights) and drop off
- High visibility from Main Street with pleasant arrival procession
- Assists to block noise from Main Street
- Retains a residential scale, low profile structure

Other considerations included the need for administrative offices, education/meeting rooms, and other services like the gift shop to share facilities and functions and to promote operational efficiencies.

Projected program growth could not be accommodated within the existing structures, without major changes to the pleasant, domestic scale or the Shorts House or its surrounding gardens.

Throughout the planning processes, the community expressed its desire that the House remain integral and not dominated by a new addition or modification. This would additionally inform any new structures to remain in keeping with the residential scale, and allow the Garden to be the central focus for the visitor.

These desires, coupled with the needs of the parking, access, and program limited the areas in which the VC could be placed. The current plan is to develop a series of smaller structures, united under a singular roof. The plan creates independent spaces for staff and general visitors to function, while allowing for shared services and easy access. It provides a place for all services to work together, achieves the low profile, residential feeling, and eliminates an undesirable, congested area for the Garden entry.

The proposed location enables staff to monitor and control Garden access in a way that is not currently possible – it creates a distinct and direct gateway into the Garden. Through this slight separation of structures, it allows the visitor to make an intentional

decision to either access the education center for a planned class or activity, or to enter the main Garden experience. Additionally, the “L” shape of the facility allows for this threshold into the Garden, while creating a physical presence along Main Street.

This approach provides the greatest flexibility, while maintaining the entire Garden’s focus and core directives. It enhances the existing Gardens by providing a needed border and does not delete or jeopardize any existing Garden space.

The other studied plans are unsuccessful at meeting as many needs and desires of the Garden as the current proposal. The 2002 plan clustered the facilities around the main pedestrian path, immediately west of the Shorts House. While it achieved the residential feel, the clustered buildings created a highly undesirable congested area and did not provide the same level of visibility.

The location noted near the sportsfield in the Wilburton Hill Park provided an ideal site for construction, permitting, and shared parking. However, this site not only eliminated a highly used program (lighted sportsfield), but its distance from the main Garden space did not allow for security or safety to be monitored “on site,”

The Rhododendron site (between the Yao Garden and the Ground Cover Garden) created pedestrian challenges, removed significant trees, and relocated an entire, existing Garden.

The main lawn space (Sun Garden) was reviewed for a potential location for the entire VC. This option removed an entire garden which could not be relocated elsewhere on site. The lawn has been conceived of as a positive element of the BBG, serving visual, as well as, circulation needs.

Throughout the more developed parts of the site, the open space component of the garden is expressed through the lawn areas. All the planning stages considered locating elements within this area, however not removing it completely. The lawn area has been designed as a room like space, encouraging visitors to stop and rest. It has been integrated with the new VC and works together to be a “welcome mat” for the progression along Main Street.

In addition to removing the lawn space from the Garden, if this site were selected, the critical area (Wetland A) would be impacted by this strategy. Therefore, placing the VC in the lawn area and removing this garden space entirely has been dismissed as a feasible option.

*ii. Disturbance of the critical area and critical area buffer, including disturbance of vegetation and soils, shall be minimized;*

Conservation measures have been incorporated as part of the project to avoid or minimize potential impacts on the environment. The project will employ Standard

Development Codes and Best Management Practices to avoid impacts during construction activities.

Construction sequencing and scheduling will be used to specifically minimize the potential impacts – especially by limiting any site work to occur during non wet season restriction periods. Other BMPs and conservation measures will include:

- All material used to construct the mitigation measures will be clean of dirt, mud, and other materials that could temporarily degrade water quality in the action area
- Clearing limits will be marked with flagging and protected with appropriate TESC measures
- Construction equipment will be limited to the minimum access and construction footprint required for the project
- The contractor will be responsible for preparing a detailed SPCC Plan
- All heavy equipment will be daily inspected prior to operation and shall be free of external oil, fuel, or other potential pollutants
- The contractor will implement the previously approved TESC plan
- Water quality monitoring of the project will occur by an independent, 3<sup>rd</sup> party inspector, and will notify City staff of any water turbidity or other pollutant issue

See Criteria i. –In keeping with the City’s Critical Areas Ordinance (20.25H) and with Ecology’s guidance on wetland mitigation, the proposed project has been designed to mitigate for impacts associated with the placement of the VC structure(s). The VC mitigation will provide better water quality, hydrologic, and habitat functions that are currently limited by the restrictive nature of the wetland boundary.

No technically feasible alternative location exists on site to locate the VC project. However, construction of the proposed project and mitigation area will be conducted to minimize any impacts and all areas temporarily disturbed will be restored with dense native wetland and riparian vegetation.

Within the mitigation area, excavation and associated clearing will be oriented towards areas of nonnative vegetation and areas where enhancement will specifically benefit wildlife habitat functions.

*iii. Disturbance shall not occur in habitat used for salmonid rearing or spawning or by any species of local importance unless no other technically feasible location exists;*

All proposed and currently developed portions of the BBG does not contain any habitat used by salmonids or species of local importance. Therefore, no disturbance will occur to habitat or have negative impacts on this habitat.

*iv. Any crossing over of a wetland or stream shall be designed to minimize critical area and critical area buffer coverage and critical area and critical area buffer disturbance, for*

*example by use of bridge, boring, or open cut and perpendicular crossings, and shall be the minimum width necessary to accommodate the intended function or objective; provided, that the Director may require that the facility be designed to accommodate additional facilities where the likelihood of additional facilities exists, and one consolidated corridor would result in fewer impacts to the critical area or critical area buffer than multiple intrusions into the critical area or critical area buffer;*

The BBG VC project, including the new mitigation for all critical area and critical area buffers, does not entail any crossing over of a wetland or stream. If at any point an access way is required that crossed a critical area or area buffer, the layout will minimize disturbance.

*v. All work shall be consistent with applicable City of Bellevue codes and standards;*

Per City development requirements, the VC project will comply with all codes and standards, including:

- 2009 WA State Building Code (IBC)
- 2009 WA State Energy Code
- COB Construction Codes
- COB Land Use Codes
- COB Transportation Codes
- COB Utility Codes
- 2003 ICC/ANSI Accessibility Codes
- 2009 International Fire Code and Amendments
- 2009 International Mechanical Code
- 2009 International Plumbing Code
- 2008 National Electric Code

The BBG VC project will be subject to all permit review and approval. However, the design has been developed to meet the requirements and alleviate any conflicts of such Code requirements and City Standards.

*vi. The facility or system shall not have a significant adverse impact on overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod;*

The VC project civil engineer (and storm water engineer) has worked with the geotechnical engineer of record to ensure that the VC project will have no adverse impact on the overall aquatic area flow peaks; duration, volume, or flood storage capacity; or hydroperiod.

Additionally, the BBG VC project is employing LID approaches to the development that works with nature to manage stormwater as close to its source as possible. The LID principles help to preserve and recreate natural landscape features, while minimizing the effective imperviousness to create functional and appealing site drainage that treat

stormwater as a resource rather than a waste product - such as bioretention facilities, rain gardens, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within the watershed.

*vii. Associated parking and other support functions, including, for example, mechanical equipment and maintenance sheds, must be located outside critical area or critical area buffer except where no feasible alternative exists; and*

The BBG VC project's design conforms with this requirement and the parking and support functions for the VC project are not located in the mitigated or existing critical areas or buffers.

*viii. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.*

As directed and approved, the BBG VC project will conform with the following -

*WETLAND PERFORMANCE STANDARDS - 20.25H.100 Performance standards. Development on sites with a wetland or wetland critical area buffer shall incorporate the following performance standards in design of the development, as applicable:*

*A. Lights shall be directed away from the wetland.*

The BBG VC project shall comply with this standard by utilizing illumination strategies that avoid light spillover into critical areas and their buffers, using fixtures that are set for minimum amount of lumens that are necessary, and using an automatic lighting control system that will limit times for lighting to those times in which the Park is open (except for some safety/security lighting).

*B. Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the wetland, or any noise shall be minimized through use of design and insulation techniques.*

The BBG VC project shall comply with this standard by utilizing noise reduction strategies that avoid excessive noise within the critical areas. The VC design does not include any generators or other excessive noise producing devices, and the parking area has been pulled as far away as possible from this critical area. Additional vegetative planting area buffers will assist to shield the critical areas from excessive noise.

*C. Toxic runoff from new impervious area shall be routed away from the wetlands.*

The VC project will not allow for runoff from pollution generating surface to flow directly into the wetlands or their buffers. All runoff will be treated through various approved methods and documented in the permit drawings. The design meets all City storm and surface water standards.

*D. Treated water may be allowed to enter the wetland critical area buffer.*

The design of the water conveyance system does not allow for any untreated water to enter the wetland critical area buffer. All water conveyance will only allow for treated water to enter this area.

*E. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.*

The BBG VC design shall utilize dense native plantings/vegetation at the critical area edge to limit the ability of access to the site for use and deter human interference with the critical area.

*F. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.*

The BBG landscaping will be managed in accordance with the best management practices laid out in the BMP Manual. No pesticides, insecticides, or fertilizers will be used within 150 feet of any stream buffer.

ATTACHMENT A –

2008 MASTER PLAN UPDATE SITE PLAN

Figure 1



ATTACHMENT B –

WETLAND 'A' RATING LETTER

## TECHNICAL MEMORANDUM

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Date: August 18, 2011  
To: Ken Kroeger, City of Bellevue Parks  
From: H. Mortensen  
Project Number: 110408  
Project Name: Bellevue Botanical Garden

### **Subject: Wetland A –rating revision**

Upon receipt of new information we have revised the original Category III wetland rating to a Category IV. The revised rating form is attached to this memo. Below is a summary of the score changes:

Question D1.4: We understand from Ken Kroeger that the maintenance staff notes the ponding duration in Wetland A is less than two months. Therefore, the score is reduced from 4 to 0 points for this question.

Question D2: Mr. Kroeger's discussions with the site maintenance staff indicate that no pesticides, herbicides or fertilizers are ever used during maintenance of the lawn area surrounding the west and south sides of Wetland A. Also, the gravel pathways on the north and east side of Wetland A are maintained free of weeds by hand tools. Since the adjacent Main Street drainage is intercepted in a roadside ditch, pollutants from the roadway do not enter the wetland. Therefore, the multiplier is 1 rather than 2, lowering the water quality score from 24 to 8 points.

Question D3.2: Ponding was observed during fieldwork at just over 6 inches deep. Since there is no duration requirement, this score is as originally reported: 3 points.

Question D3.3: Per Kevin LeClair, the basin contributing to the wetland is about 85,000SF. Wetland size is 5,423SF. Therefore, the basin is more than 10 times, but less than 100 times the wetland size. That this is the correct way to answer this question was confirmed by Tom Hruby on 8/18/11. Therefore, the score is increased from 0 to 3 points for this question.

Question D4: Per Kevin LeClair, water from the wetland enters other wetlands downstream (east) and a detention pond and therefore the wetland does not have the opportunity to reduce flooding or erosion downstream. The multiplier is 1 rather than 2, lowering the hydrologic score from 14 to 10 points.

Question H1.2: Saturation was noted during the fieldwork outside the ponded areas and extending into the lawn to encompass more than 10% of the total wetland area. This score is as originally reported: 1 point.

The result of the revised scoring totals 8 water quality points, 10 hydrologic points, and 11 habitat points for a total score of 29 points. Per the rating form, Category IV Wetlands score less than 30 points.

Wetland name or number Wetland A

**WETLAND RATING FORM – WESTERN WASHINGTON**

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users  
 Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland (if known): Bellevue Botanical Gardens, Wetland A Date of site visit: 5/17/11\*  
 N. Lund  
 Rated by: S. Sandstrom Trained by Ecology? Yes  No  Date of Training 10/2008  
 SEC: 33 TWNSHP: 25N RNGE: 5E Is S/T/R in Appendix D? Yes  No

\*Rating was revised 8/18/11 based on new information from City of Bellevue Parks and Planning departments.

**SUMMARY OF RATING**

**Category based on FUNCTIONS provided by wetland**

I  II  III  IV

Category I = Score >70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions	8
Score for Hydrologic Functions	10
Score for Habitat Functions	11
<b>TOTAL score for functions</b>	<b>29</b>

**Category based on SPECIAL CHARACTERISTICS of wetland**

I  II  Does not Apply

**Final Category (choose the “highest” category from above)**

<b>IV</b>
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Check the appropriate type and class of wetland being rated.

Wetland Type	Wetland Class	
Estuarine	Depressional	x
Natural Heritage Wetland	Riverine	
Bog	Lake-fringe	
Mature Forest	Slope	
Old Growth Forest	Flats	
Coastal Lagoon	Freshwater Tidal	
Interdunal		
None of the above	X Check if unit has multiple HGM classes present	

Wetland name or number Wetland A

**Does the wetland unit being rated meet any of the criteria below?**

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. <i>Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered <b>animal</b> or <b>plant</b> species (T/E species)?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state or federal database.		X*
SP2. <i>Has the wetland unit been documented as habitat for any State listed Threatened or Endangered <b>animal</b> species?</i> For the purposes of this rating system, “documented” means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X *
SP3. <i>Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?</i>		X *
SP4. <i>Does the wetland unit have a local significance in addition to its functions?</i> For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

**\*PHS data was not obtained from WDFW for this study.**

*To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.*

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

### Classification of Wetland Units in Western Washington

**If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in Questions 1-7 apply, and go to Question 8.**

1. Are the water levels in the wetland unit usually controlled by tides (i.e. except during floods)?  
  NO – go to 2                        YES – the wetland class is **Tidal Fringe**

If yes, is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? **YES – Freshwater Tidal Fringe**    **NO – Saltwater Tidal Fringe (Estuarine)**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is rated as an **Estuarine** wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term “Estuarine” wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p. ).*

2. The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit

NO – go to 3                        YES – The wetland class is **Flats**

If your wetland can be classified as a “Flats” wetland, use the form for **Depressional** wetlands.

3. Does the entire wetland unit **meet both** of the following criteria?

The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (8 ha) in size;

At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO – go to 4                        YES – The wetland class is **Lake-fringe (Lacustrine Fringe)**

4. Does the entire wetland unit **meet all** of the following criteria?

The wetland is on a slope (*slope can be very gradual*),

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.

The water leaves the wetland **without being impounded**?

NOTE: *Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot deep).*

NO – go to 5                        YES – The wetland class is **Slope**

Wetland name or number Wetland A

5. Does the entire wetland unit **meet all** of the following criteria?

The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

The overbank flooding occurs at least once every two years

*NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.*

NO - go to 6

YES – The wetland class is **Riverine**

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding. The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. **GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT** (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within your wetland. **NOTE:** Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

<i>HGM classes within the wetland unit being rated</i>	<i>HGM Class to Use in Rating</i>
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

If you are unable still to determine which of the above criteria apply to your wetland, or you have more than 2 HGM classes within a wetland boundary, classify the wetland as **Depressional** for the rating.

D	<b>Depressional and Flats Wetlands</b>	<b>Points</b>
<b>WATER QUALITY FUNCTIONS - Indicators that wetland functions to improve water quality</b>		
<b>D</b>	<b>D 1. Does the wetland have the potential to improve water quality?</b>	<i>(see p. 38)</i>
<b>D</b>	<b>D 1.1 Characteristics of surface water flows out of the wetland:</b> <input type="checkbox"/> Unit is a depression with no surface water leaving it (no outlet)..... points = 3 <input type="checkbox"/> Unit has an intermittently flowing, or highly constricted permanently flowing outlet..... points = 2 <input type="checkbox"/> Unit has an unconstricted, or slightly constricted, surface outlet ( <i>permanently flowing</i> ). points = 1 <input type="checkbox"/> Unit is a “flat” depression (Q.7 on key), or in the Flats class, with permanent surface outflow <b>and no obvious natural outlet</b> , and/or outlet is a man-made ditch ..... points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i>	3
<b>D</b>	<b>D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions).</b> YES points = 4 <input type="checkbox"/> NO points = 0	0
<b>D</b>	<b>D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class):</b> <input type="checkbox"/> Wetland has persistent, ungrazed, vegetation > = 95% of area ..... points = 5 <input type="checkbox"/> Wetland has persistent, ungrazed, vegetation > = 1/2 of area ..... points = 3 <input type="checkbox"/> Wetland has persistent, ungrazed vegetation > = 1/10 of area ..... points = 1 <input type="checkbox"/> Wetland has persistent, ungrazed vegetation <1/10 of area..... points = 0	5
<b>D</b>	<b>D1.4 Characteristics of seasonal ponding or inundation.</b> <i>This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs.</i> <input type="checkbox"/> Area seasonally ponded is > ½ total area of wetland..... points = 4 <input type="checkbox"/> Area seasonally ponded is > ¼ total area of wetland..... points = 2 <input type="checkbox"/> Area seasonally ponded is < ¼ total area of wetland..... points = 0 NOTE: See text for indicators of seasonal and permanent inundation.	0*
<b>D</b>	<b>Total for D 1</b> <i>Add the points in the boxes above</i>	8
<b>D</b>	<b>D 2. Does the wetland unit have the opportunity to improve water quality?</b> Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity. <input type="checkbox"/> <input type="checkbox"/> Grazing in the wetland or within 150 ft <input type="checkbox"/> <input type="checkbox"/> Untreated stormwater discharges to wetland <input type="checkbox"/> <input type="checkbox"/> Tilled fields or orchards within 150 ft of wetland <input type="checkbox"/> <input type="checkbox"/> A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging <input type="checkbox"/> <input type="checkbox"/> Residential, urban areas, golf courses are within 150 ft of wetland <input type="checkbox"/> <input type="checkbox"/> Wetland is fed by groundwater high in phosphorus or nitrogen <input type="checkbox"/> <input type="checkbox"/> Other _____ YES multiply score in D 1. by 2      NO multiply score in D 1. by 1	<i>(see p. 44)</i>  multiplier <u>1**</u>
<b>D</b>	<b>TOTAL - Water Quality Functions</b> Multiply the score from D1 by D2 <i>Add score to table on p. 1</i>	<b>8</b>

\*Per Bellevue Parks Staff, water drains out of wetland in less than two months.

\*\*Per Bellevue Parks Staff no pesticides, herbicides or fertilizers are ever applied to the lawn areas draining to the wetland. Gravel paths are hand maintained and road runoff does not enter wetland.

<b>D Depressional and Flats Wetlands</b>		
<b>HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and stream degradation</b>		
<b>D</b>	<b>D 3. Does the wetland have the potential to reduce flooding and erosion?</b>	<i>(see p. 46)</i>
<b>D</b>	D 3.1 Characteristics of surface water flows out of the wetland unit	4
	<input checked="" type="checkbox"/> Unit is a depression with no surface water leaving it (no outlet)..... points = 4 Unit has an intermittently flowing, or highly constricted permanently flowing outlet..... points = 2 Unit has an unconstricted, or slightly constricted, surface outlet ( <i>permanently flowing</i> ). points = 1 Unit is a “flat” depression (Q.7 on key), or in the Flats class, with permanent surface outflow <b>and no obvious natural outlet</b> , and/or outlet is a man-made ditch ..... points = 1 <i>(If ditch is not permanently flowing treat unit as “intermittently flowing”)</i> Unit has an unconstricted, or slightly constricted, surface outlet ( <i>permanently flowing</i> ). points = 0	
<b>D</b>	D 3.2 Depth of storage during wet periods	3
	<i>Estimate the height of ponding above the bottom of the outlet For units with no outlet measure from the surface of permanent water or deepest part (if dry).</i> Marks of ponding are at least 3 ft or more above the surface or bottom of outlet..... points = 7 The wetland is a “headwater” wetland” ..... points = 5 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet..... points = 5 <input checked="" type="checkbox"/> Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet ..... points = 3 Unit is flat (yes to Q.2 or Q.7 on key) but has small depressions on the surface that trap water ..... points = 1 Marks of ponding less than 0.5 ft..... points = 0	
<b>D</b>	D 3.3 Contribution of wetland unit to storage in the watershed	3*
	<i>Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i> <input checked="" type="checkbox"/> The area of the basin is less than 10 times the area of the unit ..... points = 5 <input checked="" type="checkbox"/> The area of the basin is 10 to 100 times the area of the unit ..... points = 3 The area of the basin is more than 100 times the area of the unit ..... points = 0 Entire unit is in the FLATS class ..... points = 5	
<b>D</b>	<b>Total for D 3</b>	10
<b>D</b>	<b>D 4. Does the wetland unit have the opportunity to reduce flooding and erosion?</b>	<i>(see p. 49)</i>
<b>D</b>	Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides <b>helps protect downstream property</b> and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur. Note which of the following conditions apply. <input type="checkbox"/> <input type="checkbox"/> Wetland is in a headwater of a river or stream that has flooding problems <input type="checkbox"/> <input type="checkbox"/> Wetland drains to a river or stream that has flooding problems <input type="checkbox"/> <input type="checkbox"/> Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems <input type="checkbox"/> <input type="checkbox"/> Other _____ <input type="checkbox"/> <input type="checkbox"/> YES multiplier is 2 <input type="checkbox"/> <input type="checkbox"/> NO multiplier is 1	multiplier <u>1**</u>
	<b>D</b>	<b>TOTAL - Hydrologic Functions</b> Multiply the score from D 3 by D 4 <i>Add score to table on p. 1</i>

\*Per Kevin LeClair, the basin contributing to the wetland is about 85,000SF. Wetland size is 5,423SF. Therefore, the basin is more than 10 times, but less than 100 times the wetland size. That one uses the contributing basin, as opposed to the overall drainage basin, was confirmed by Tom Hruby on 8/18/11.

\*\*Per Kevin LeClair, water from the wetland enters other wetlands and a detention pond and therefore the wetland does not have the opportunity to reduce flooding or erosion downstream.

<b>These questions apply to wetlands of all HGM classes.</b> <b>HABITAT FUNCTIONS - Indicators that wetland functions to provide important habitat</b>									
<b>H 1. Does the wetland have the potential to provide habitat for many species?</b>									
<p>H 1.1 <u>Vegetation structure</u> (see p. 72)                      Check the types of vegetation classes present (as defined by Cowardin) if the class is 1/4 acre or covers more than 10% of the area of the wetland if unit smaller than 2.5 acres.</p> <p> <input type="checkbox"/> Aquatic bed  <input type="checkbox"/> Emergent plants  <input checked="" type="checkbox"/> Scrub/shrub (areas where shrubs have &gt;30% cover)  <input checked="" type="checkbox"/> Forested (areas where trees have &gt;30% cover)  <input checked="" type="checkbox"/> Forested areas have 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon                 </p> <p>Add the number of vegetation types that qualify. If you have:</p> <table style="margin-left: auto; margin-right: 0;"> <tr> <td>4 structures or more .....</td> <td>points = 4</td> </tr> <tr> <td>3 structures .....</td> <td>points = 2</td> </tr> <tr> <td>2 structures .....</td> <td>points = 1</td> </tr> <tr> <td>1 structure .....</td> <td>points = 0</td> </tr> </table>	4 structures or more .....	points = 4	3 structures .....	points = 2	2 structures .....	points = 1	1 structure .....	points = 0	2
4 structures or more .....	points = 4								
3 structures .....	points = 2								
2 structures .....	points = 1								
1 structure .....	points = 0								
<p>H 1.2. <u>Hydroperiods</u> (see p. 73)                      Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or 1/4 acre to count. (see text for descriptions of hydroperiods)</p> <p> <input type="checkbox"/> Permanently flooded or inundated  <input checked="" type="checkbox"/> Seasonally flooded or inundated  <input type="checkbox"/> Occasionally flooded or inundated  <input checked="" type="checkbox"/> Saturated only  <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland  <input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland  <input type="checkbox"/> <b>Lake-fringe wetland = 2 points</b>  <input type="checkbox"/> <b>Freshwater tidal wetland = 2 points</b> </p> <table style="margin-left: auto; margin-right: 0;"> <tr> <td>4 or more types present .....</td> <td>points = 3</td> </tr> <tr> <td>3 types present .....</td> <td>points = 2</td> </tr> <tr> <td>2 types present .....</td> <td>points = 1</td> </tr> <tr> <td>1 types present .....</td> <td>points = 0</td> </tr> </table>	4 or more types present .....	points = 3	3 types present .....	points = 2	2 types present .....	points = 1	1 types present .....	points = 0	1
4 or more types present .....	points = 3								
3 types present .....	points = 2								
2 types present .....	points = 1								
1 types present .....	points = 0								
<p>H 1.3. <u>Richness of Plant Species</u> (see p. 75)                      Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. (different patches of the same species can be combined to meet the size threshold)                      You do not have to name the species.                      Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle</p> <p>If you counted:</p> <table style="margin-left: auto; margin-right: 0;"> <tr> <td>&gt; 19 species .....</td> <td>points = 2</td> </tr> <tr> <td>5 - 19 species .....</td> <td>points = 1</td> </tr> <tr> <td>&lt; 5 species .....</td> <td>points = 0</td> </tr> </table> <p>List species below if you want to:</p>	> 19 species .....	points = 2	5 - 19 species .....	points = 1	< 5 species .....	points = 0	1		
> 19 species .....	points = 2								
5 - 19 species .....	points = 1								
< 5 species .....	points = 0								

<p><b>H 1.4. Interspersion of habitats (see p. 76)</b>          Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.</p> <p>NOTE: If you have four or more vegetation types or three vegetation types and open water the rating is always "high".</p>	1
<p><b>H 1.5. Special Habitat Features: (see p. 77)</b>          Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <input type="checkbox"/> Large, downed, woody debris within the wetland (&gt;4in. diameter and 6 ft long).</li> <li><input type="checkbox"/> <input type="checkbox"/> Standing snags (diameter at the bottom &gt; 4 inches) in the wetland</li> <li><input type="checkbox"/> <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream for at least 33 ft (10m)</li> <li><input type="checkbox"/> <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt;30degree slope) OR signs of recent beaver activity are present</li> <li><input type="checkbox"/> <input type="checkbox"/> At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. (<i>structures for egg-laying by amphibians</i>)</li> <li><input checked="" type="checkbox"/> <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in each stratum of plants  <i>Note: The 20% stated in early printings of the manual on page 78 is an error.</i></li> </ul>	2
<p><b>H 1. TOTAL</b> Score - potential for providing habitat          Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5</p>	7

<b>H 2. Does the wetland have the opportunity to provide habitat for many species?</b>	
<p><b>H 2.1 Buffers</b> (<i>see p. 80</i>)  <i>Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed."</i></p> <p><input type="checkbox"/> <input type="checkbox"/> ..... 100 m                      (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water &gt;95% of circumference.                      No developed areas within undisturbed part of buffer.                      (relatively undisturbed also means no-grazing) ..... Points = 5</p> <p><input type="checkbox"/> <input type="checkbox"/> ..... 100 m (330                      ft) of relatively undisturbed vegetated areas, rocky areas, or                      open water &gt; 50% circumference..... Points = 4</p> <p><input type="checkbox"/> <input type="checkbox"/> ..... 50 m                      (170ft) of relatively undisturbed vegetated areas, rocky areas, or                      open water &gt;95% circumference..... Points = 4</p> <p><input type="checkbox"/> <input type="checkbox"/> ..... 100 m                      (330ft) of relatively undisturbed vegetated areas, rocky areas, or                      open water &gt; 25% circumference..... Points = 3</p> <p><input type="checkbox"/> <input type="checkbox"/> ..... 50 m                      (170ft) of relatively undisturbed vegetated areas, rocky areas, or                      open water for &gt; 50% circumference..... Points = 3</p> <p style="text-align: center;"><b>If buffer does not meet any of the criteria above</b></p> <p><input type="checkbox"/> <input type="checkbox"/> No paved areas (except paved trails) or buildings within 25 m (80ft)                      of wetland &gt; 95% circumference. Light to moderate grazing, or lawns are OK..... Points = 2</p> <p><input type="checkbox"/> <input type="checkbox"/> No paved areas or buildings within 50m of wetland for &gt;50% circumference.                      Light to moderate grazing, or lawns are OK..... Points = 2</p> <p><input type="checkbox"/> <input type="checkbox"/> Heavy grazing in buffer..... Points = 1</p> <p><input type="checkbox"/> <input type="checkbox"/> Vegetated buffers are &lt;2m wide (6.6ft) for more than 95% of the circumference                      (e.g. tilled fields, paving, basalt bedrock extend to edge of wetland ..... Points = 0</p> <p><input checked="" type="checkbox"/> Buffer does not meet any of the criteria above..... Points = 1</p>	1
<p><b>H 2.2 Corridors and Connections</b> (<i>see p. 81</i>)</p> <p>H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (<i>dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor</i>).</p> <p style="text-align: center;">YES = <b>4 points</b> (<i>go to H 2.3</i>)      NO = go to H 2.2.2</p> <p>H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? <b>OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above?</b></p> <p style="text-align: center;">YES = <b>2 points</b> (<i>go to H 2.3</i>)      NO = H 2.2.3</p> <p>H 2.2.3 Is the wetland:</p> <p style="padding-left: 40px;">within 5 mi (8km) of a brackish or salt water estuary OR                      within 3 mi of a large field or pasture (&gt;40 acres) OR                      within 1 mi of a lake greater than 20 acres?</p> <p style="text-align: center;">YES = <b>1 point</b></p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">Approx. 1.5 miles from Lake Washington</div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto; margin-top: 5px;">NO = <b>0 points</b></div>	0

<p>H 2.3 <u>Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report <a href="http://wdfw.wa.gov/hab/phslist.htm">http://wdfw.wa.gov/hab/phslist.htm</a>)</u></p> <p>Which of the following priority habitats are within 330ft (100m) of the wetland? (NOTE: the connections do not have to be relatively undisturbed)</p> <p><input type="checkbox"/> <input type="checkbox"/> <b>Aspen Stands:</b> Pure or mixed stands of aspen greater than 0.4 ha (1 acres).</p> <p><input type="checkbox"/> <b>Biodiversity Areas and Corridors:</b> Areas of habitat that are relatively important to various species of native fish and wildlife (full description in WDFW PHS report p. 152)</p> <p><input type="checkbox"/> <b>Herbaceous Balds:</b> Variable size patches of grass and forbs on shallow soils over bedrock.</p> <p><input type="checkbox"/> <b>Old-growth/Mature forests:</b> (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) &gt; 81 cm (32 in) dbh or &gt; 200 years of age. (Mature forests.) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less than 100%; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.</p> <p><input type="checkbox"/> <b>Oregon white Oak:</b> Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158.)</p> <p><input checked="" type="checkbox"/> <b>Riparian:</b> The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.</p> <p><input type="checkbox"/> <b>Westside Prairies:</b> Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161)</p> <p><input checked="" type="checkbox"/> <b>Instream:</b> The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.</p> <p><input type="checkbox"/> <b>Nearshore:</b> Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report: pp. 167-169 and glossary in Appendix A.)</p> <p><input type="checkbox"/> <b>Caves:</b> A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.</p> <p><input type="checkbox"/> <b>Cliffs:</b> Greater than 7.6 m (25 ft) high and occurring below 5000 ft.</p> <p><input type="checkbox"/> <b>Talus:</b> Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.</p> <p><input checked="" type="checkbox"/> <b>Snags and Logs:</b> Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of &gt;51 cm (20 in) in western Washington and are &gt; 2 m (6.5 ft) in height. Priority logs are &gt; 30cm (12 in) in diameter at the largest end, and &gt; 6m (20 ft) long.</p> <p style="padding-left: 40px;">If wetland has <b>3 or more</b> priority habitats = <b>4 points</b></p> <p style="padding-left: 40px;">If wetland has <b>2</b> priority habitats = <b>3 points</b></p> <p style="padding-left: 40px;">If wetland has <b>1</b> priority habitat = <b>1 point</b></p> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> <p style="padding-left: 40px;">No habitats = <b>0 points</b></p> </div> <p><i>Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.</i></p>	<p>0</p>
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Wetland name or number Wetland A

<p>H 2.4 <u>Wetland Landscape</u> (choose the <b>one</b> description of the landscape around the wetland that best fits) (see p. 84)</p> <p>There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. .... points = 5</p> <p>The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile ..... points = 5</p> <p>There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed ..... points = 3</p> <p>The wetland is Lake-fringe on a lake <b>with</b> disturbance and there are 3 other lake-fringe wetland within ½ mile ..... points = 3</p> <p>There is at least 1 wetland within ½ mile. .... points = 2</p> <p>There are no wetlands within ½ mile. .... points = 0</p>	3
<p><b>H 2. TOTAL Score</b> - opportunity for providing habitat Add the scores from H2.1, H2.2, H2.3, H2.4</p>	4
<p>TOTAL for H1 from page 14</p>	7
<p><b>Total Score for Habitat Functions</b> – add the points for H 1, H 2 and record the result on p. 1</p>	<b>11</b>

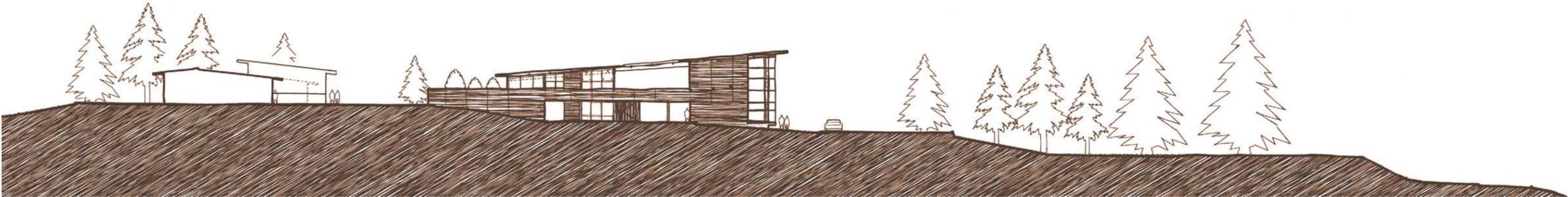
ATTACHMENT C –

MILLER/HULL VISITOR CENTER STUDY

Bellevue Botanical Garden  
Visitor Center Project Predesign Document  
December 2002

Table of Contents

- Project Team
- Project History
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- Shorts House
- Elevations
- Paths and Terraces
- Sharps Cabin
- Parking and Site Improvements
- Horticultural Service Center
- Horticultural Service Center Elevations





## Project Team

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Richard Whealan

Ruth Coates



Chimera Landscape Architects, LLP

Tom Atkins

Rich VanDeMark



David Evans & Associates, Inc.

Katherine Merkin



City of Bellevue

Parks & Community Services Department

Todd Mitchell

Tom Kuykendall

Jerry Nissley



Bellevue Botanical Garden Society

Patti Thompson

Denise Lane

Bill Willard

Tom Kraft

Bruce Allen

Lyle Hassebroek

Harry Andresen



Project  
Team





Left: Aerial of current gardens.



At right: Preliminary Site Analysis from Project Interview

## Project Summary

This document records the work completed to date on the Schematic Design for the Visitor Center Project which includes the new Visitor Center, an addition to the Shorts House, a Garden Operations Facility, and improvements to the pedestrian pathway system, vehicular entry, and parking areas.

The Visitor Center Project is a joint venture between the City of Bellevue Parks & Community Services Department and the Bellevue Botanical Garden Society. Fundraising efforts are currently underway, with the vision of continuing with the Design Development and Construction Documents phases of the project in the future.

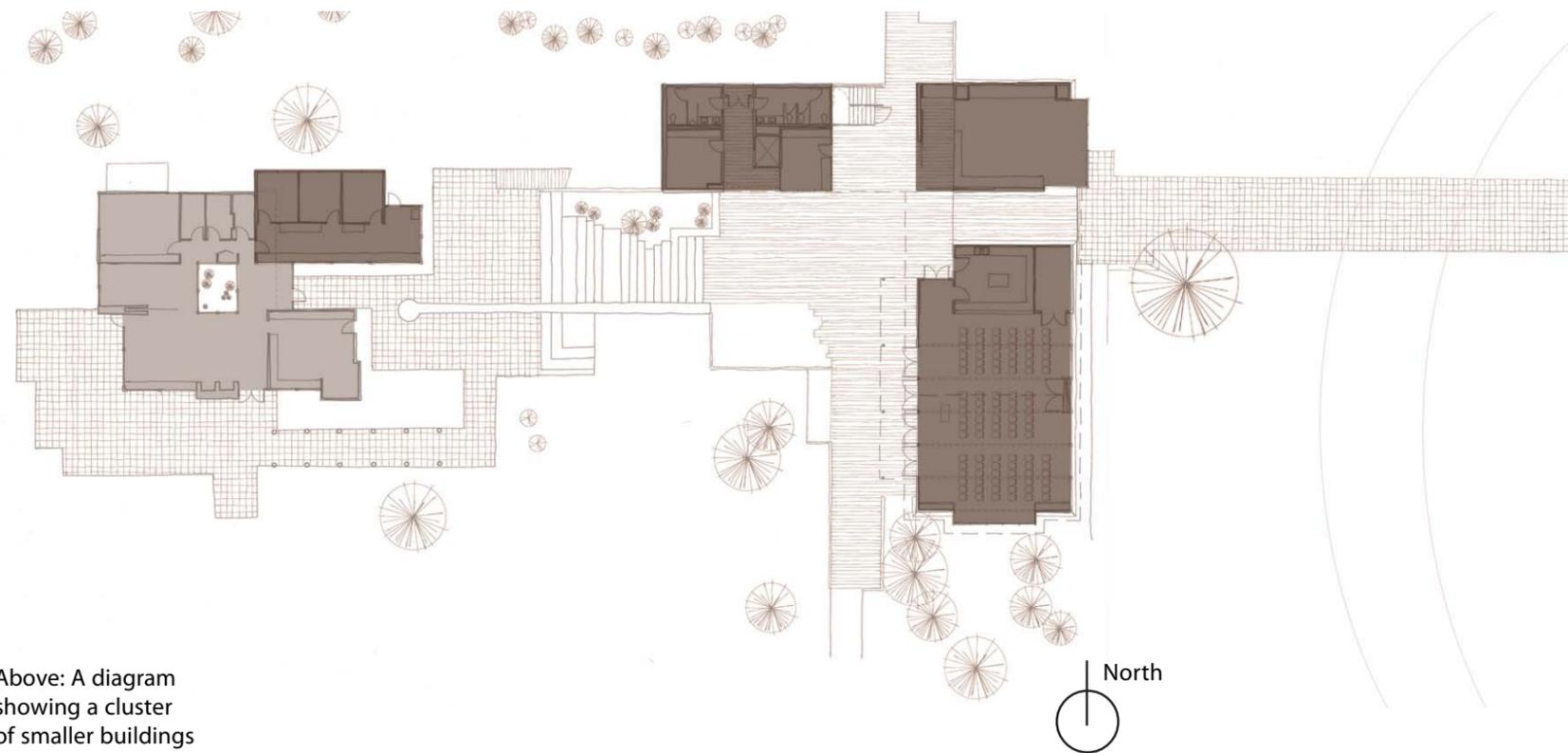
## Building Program

The original Request For Proposal from the City of Bellevue proposed to "...develop a unique 5,000 to 8,000 square foot facility to complement the gardens." The reports and plans, issued in 1990 and 1997, made some reference to space needs, but were incomplete.

Through a series of Programming Workshops with the City of Bellevue Parks & Community Services Department, the Bellevue Botanical Garden Society and input from other garden partners and users, and the design team (the Project Team), a list of space needs was generated. The primary needs for meeting space, garden orientation, gift shop, and basic visitor services were identified. In addition, office space for City staff, the Garden Society staff and volunteers, and other garden partners was clarified. The need for a separate facility for garden operations was also identified. The clarification of space needs and the addition of the Horticultural Service Center into the project scope resulted in a total initial program area of nearly 20,000 square feet.

Adjacencies and amenities for each program space were reviewed and validated for each of the major program spaces, and opportunities to combine program functions into shared flexible areas resulted in an overall reduction in program area. The final program document is included in the Appendix.





Above: A diagram showing a cluster of smaller buildings

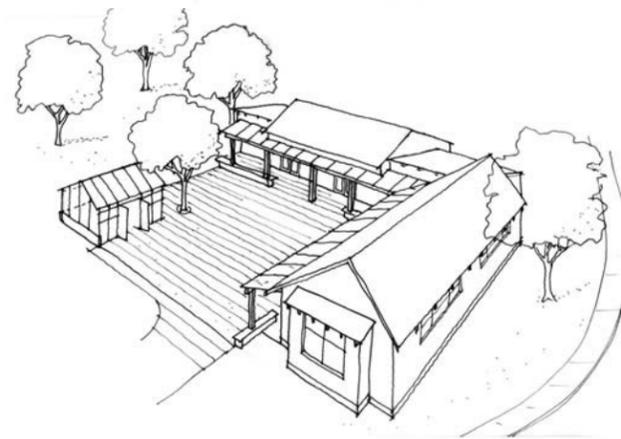
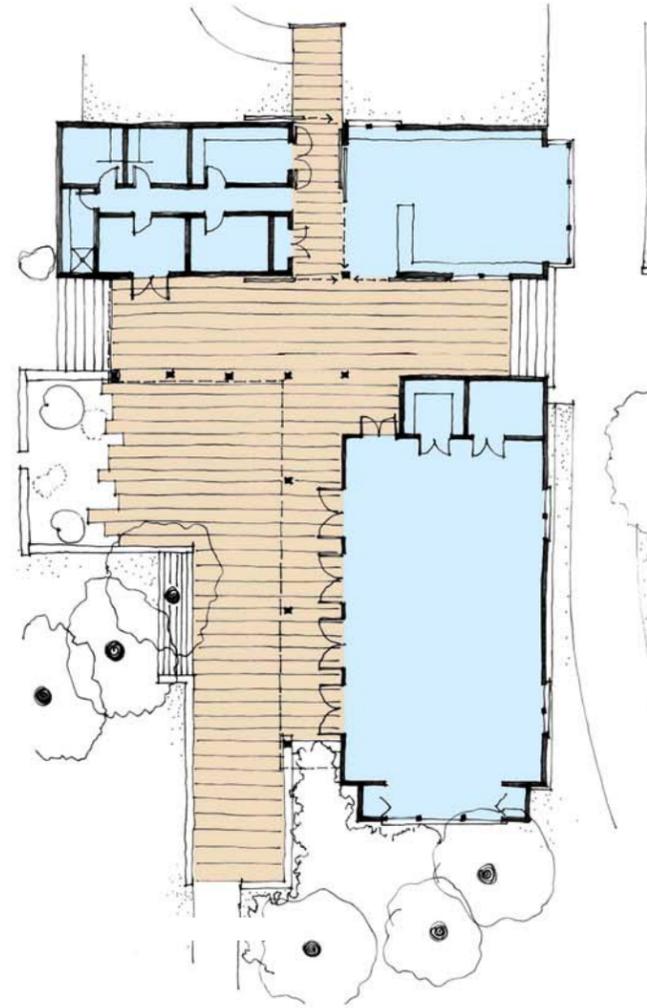
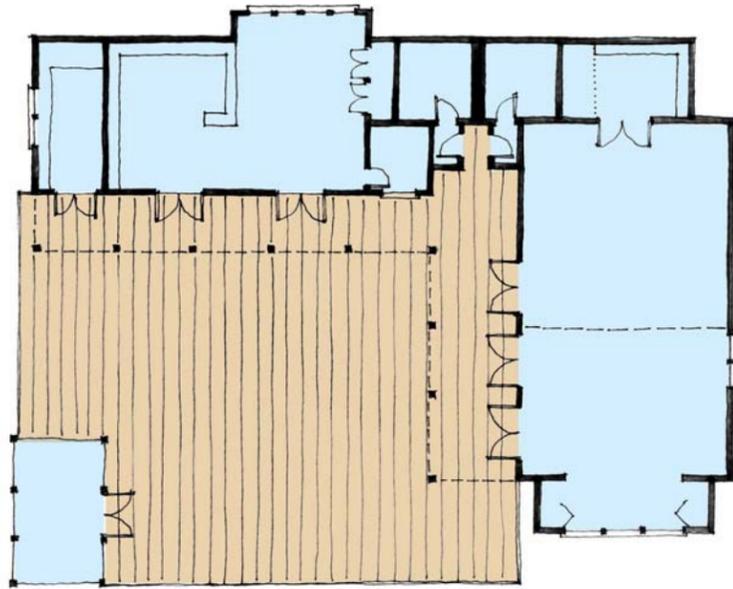
## Design Approach

The Bellevue Botanical Garden is about the experience of the gardens; the collection of plants, the themed gardens, the changing of the seasons, and the escape to the outdoors. The buildings that share the land are intended to support the gardens, and further the mission of The City, The Bellevue Botanical Garden Society, and other garden partners by providing a forum for education and community involvement. This hierarchy of gardens over buildings has been a critical design element since early programming meetings when the character of the new buildings was conceptualized as being “light on the land”, and requiring a proper “fit” with the gardens.

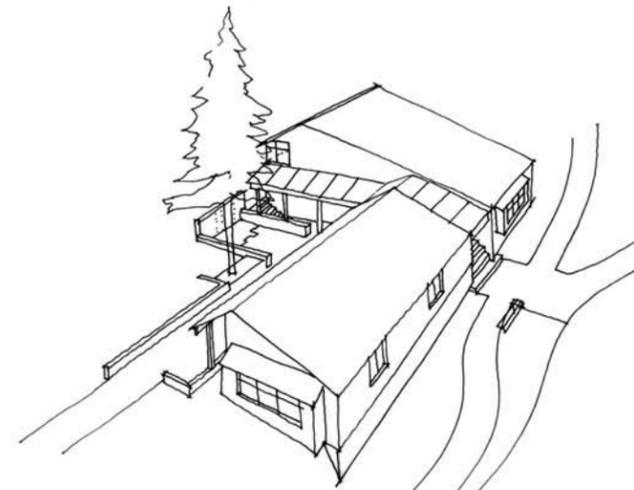
The existing Visitor Center, the Shorts House, was the residence of Cal and Harriet Shorts, given to the City of Bellevue along with 7 1/2 acres of land to establish the Bellevue Botanical Garden. The theme gardens, such as the Waterwise Garden and the Perennial Border, have been created to demonstrate gardening techniques that visitors can apply in their own gardens. This focus on residential scale has been extended to the Visitor Center program.

As program areas became more defined through group discussions, it became apparent that a cluster of small buildings rather than one large structure, would better suit the functions and needs of the Garden. This approach follows the Garden’s model with buildings of a more residential scale, and allows the grouping of these buildings around a central outdoor orientation space. It also ensures that the new buildings will fit comfortably in the Willburton Hill neighborhood.





Concept A



Concept B

## Concept Alternatives

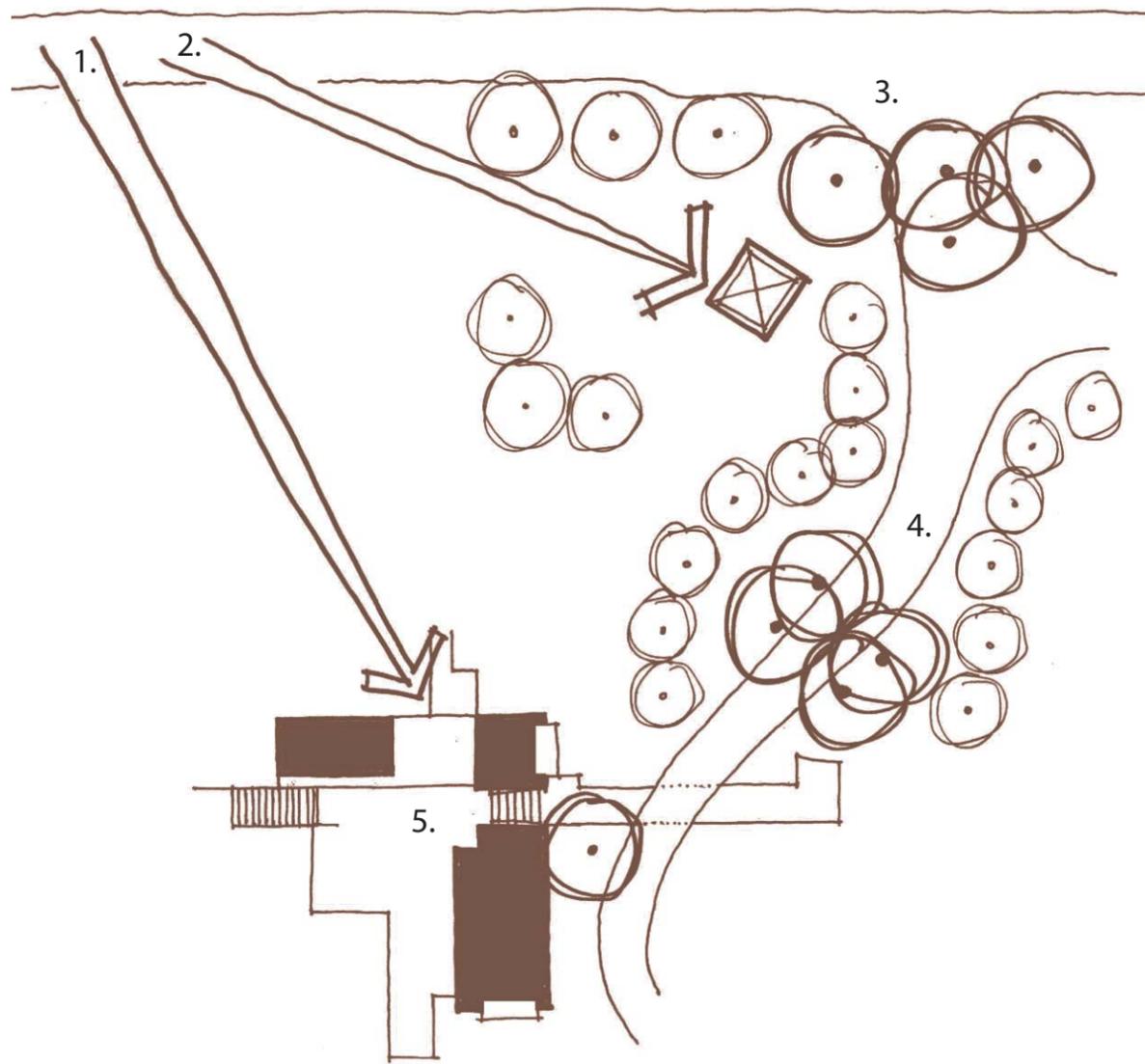
Two initial floor plan design concepts were presented to consider different areas on the site for the Visitor Center buildings, and to generate discussion about the relationships between program areas and integration with the gardens.

Concept A, focused the Visitor Center functions in an "L", framing two sides of a courtyard. The opposite end of the courtyard contained a small greenhouse. This concept was to be sited in the vicinity of the existing caretaker's house, to be visible from Main Street.

Concept B, arranged the Visitor Center functions in three small buildings joined by a common roof form, around a central courtyard. The outer limits of the courtyard would extend into the garden path system and be influenced by the existing trees. This concept was to be sited near the drop-off area at the base of the existing steps that lead to the rill plaza. The proximity of Concept B to the existing Shorts House presented the opportunity to incorporate the existing structure into the new Visitor Center cluster of buildings.

Concept B was unanimously preferred by the Project Team, as it provided the greatest opportunity to satisfy the goals established by the site analysis and design approach. This design was further refined in the Schematic Design phase, and is presented in this document.





## A Sense of Entry

To enhance the garden experience, movement through the site was explored. The current entry off of Main Street is difficult to identify for the new visitor, and somewhat unceremonious. The entry drive and parking area do not orient the visitor toward an entry to the garden. A kiosk has been added at the base of the steps to the Rill Plaza to help mark the entry, but presenting a clear point of entry remains a concern.

The proposed entry sequence begins with an approach from the west along Main Street, where the view from the street opens to the meadow, and the roofline of the Visitor Center can be seen above the Alpine Garden (1).

Selected clearing and limbing of the pine trees west of the vehicle entrance provides views through to the relocated Sharps Cabin and new theme garden (2).

A new deceleration lane on Main Street provides a safe approach to a widened garden entry, marked by a "signature" tree canopy (3).

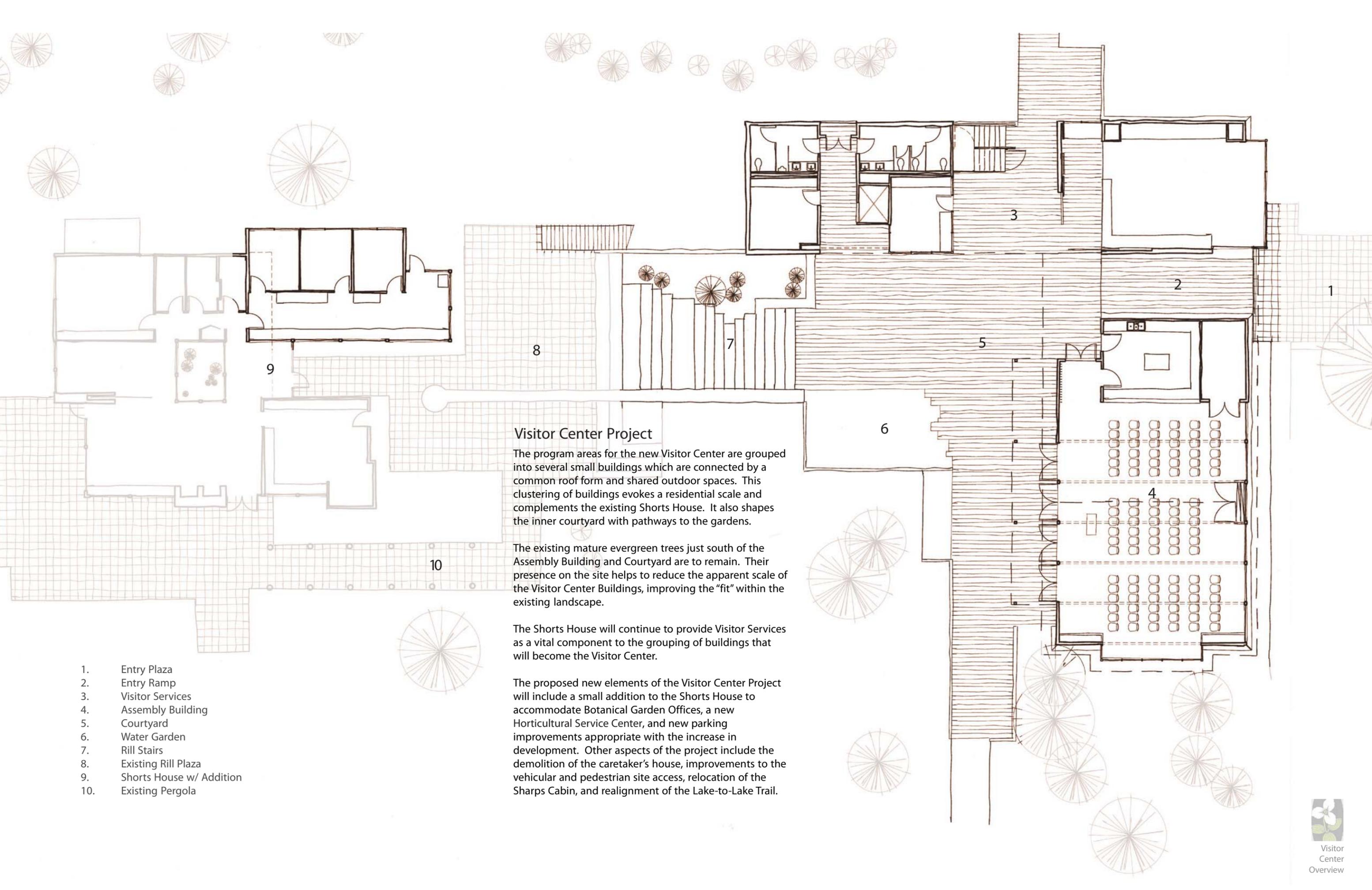
The tree-lined drive continues to a new and expanded drop-off area, with a view to the large windows of the Gift Shop marking the entry ramp to the garden (4). The Gift Shop windows can display event banners and act as a light beacon for evening functions. The drop-off area is designed to function as a turn-around area for cars in the event that the parking area is full.

Visitors proceed from the drop-off or parking areas to the Gift Shop display window and up the entry ramp to the Orientation area of the Visitor Center (5) and Courtyard. This focused entry provides clear and secure access to the gardens. The Orientation area provides information on garden features and events.

Right: View across meadow.  
Middle: View from drop off area.



Left: View of garden entry



### Visitor Center Project

The program areas for the new Visitor Center are grouped into several small buildings which are connected by a common roof form and shared outdoor spaces. This clustering of buildings evokes a residential scale and complements the existing Shorts House. It also shapes the inner courtyard with pathways to the gardens.

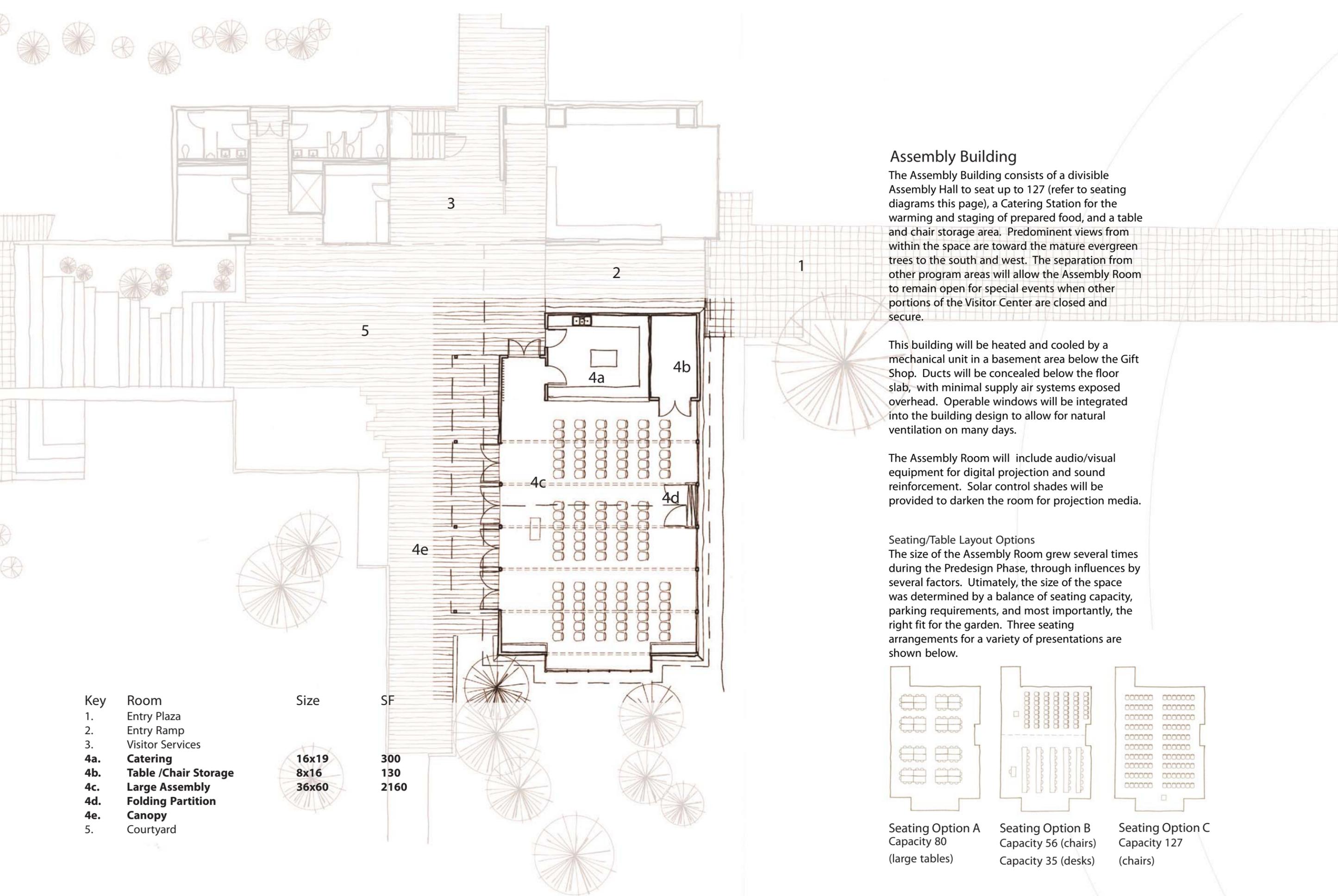
The existing mature evergreen trees just south of the Assembly Building and Courtyard are to remain. Their presence on the site helps to reduce the apparent scale of the Visitor Center Buildings, improving the "fit" within the existing landscape.

The Shorts House will continue to provide Visitor Services as a vital component to the grouping of buildings that will become the Visitor Center.

The proposed new elements of the Visitor Center Project will include a small addition to the Shorts House to accommodate Botanical Garden Offices, a new Horticultural Service Center, and new parking improvements appropriate with the increase in development. Other aspects of the project include the demolition of the caretaker's house, improvements to the vehicular and pedestrian site access, relocation of the Sharps Cabin, and realignment of the Lake-to-Lake Trail.

- 1. Entry Plaza
- 2. Entry Ramp
- 3. Visitor Services
- 4. Assembly Building
- 5. Courtyard
- 6. Water Garden
- 7. Rill Stairs
- 8. Existing Rill Plaza
- 9. Shorts House w/ Addition
- 10. Existing Pergola





## Assembly Building

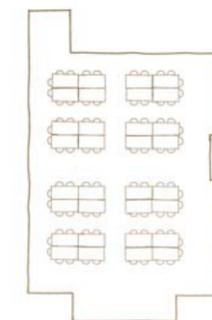
The Assembly Building consists of a divisible Assembly Hall to seat up to 127 (refer to seating diagrams this page), a Catering Station for the warming and staging of prepared food, and a table and chair storage area. Predominant views from within the space are toward the mature evergreen trees to the south and west. The separation from other program areas will allow the Assembly Room to remain open for special events when other portions of the Visitor Center are closed and secure.

This building will be heated and cooled by a mechanical unit in a basement area below the Gift Shop. Ducts will be concealed below the floor slab, with minimal supply air systems exposed overhead. Operable windows will be integrated into the building design to allow for natural ventilation on many days.

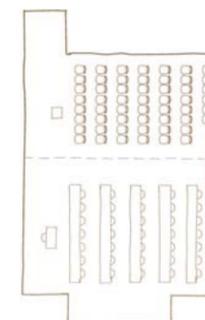
The Assembly Room will include audio/visual equipment for digital projection and sound reinforcement. Solar control shades will be provided to darken the room for projection media.

### Seating/Table Layout Options

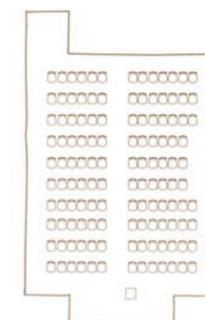
The size of the Assembly Room grew several times during the Predesign Phase, through influences by several factors. Ultimately, the size of the space was determined by a balance of seating capacity, parking requirements, and most importantly, the right fit for the garden. Three seating arrangements for a variety of presentations are shown below.



Seating Option A  
Capacity 80  
(large tables)

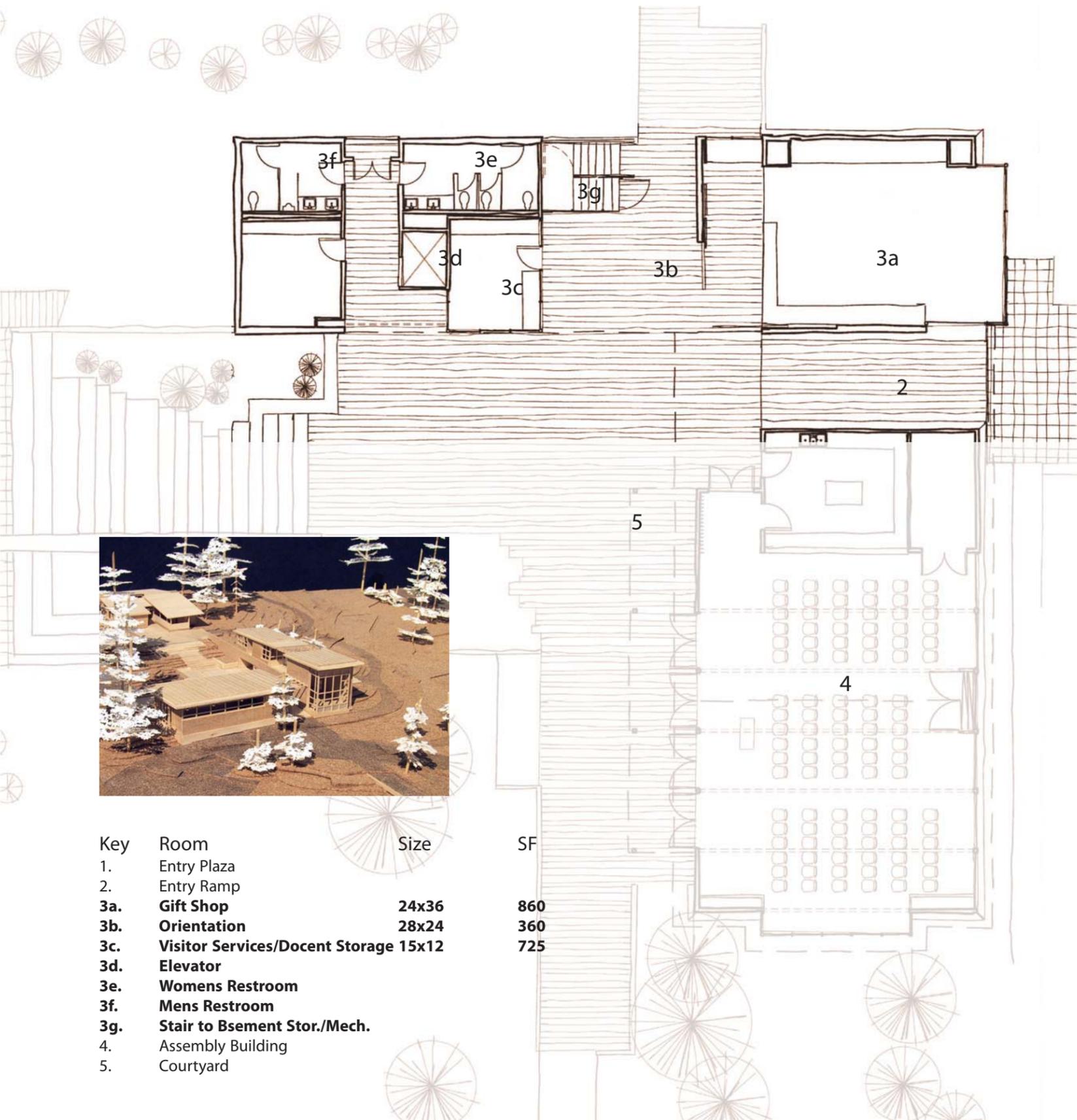


Seating Option B  
Capacity 56 (chairs)  
Capacity 35 (desks)



Seating Option C  
Capacity 127  
(chairs)

Key	Room	Size	SF
1.	Entry Plaza		
2.	Entry Ramp		
3.	Visitor Services		
4a.	Catering	16x19	300
4b.	Table /Chair Storage	8x16	130
4c.	Large Assembly	36x60	2160
4d.	Folding Partition		
4e.	Canopy		
5.	Courtyard		



Key	Room	Size	SF
1.	Entry Plaza		
2.	Entry Ramp		
3a.	<b>Gift Shop</b>	<b>24x36</b>	<b>860</b>
3b.	<b>Orientation</b>	<b>28x24</b>	<b>360</b>
3c.	<b>Visitor Services/Docent Storage</b>	<b>15x12</b>	<b>725</b>
3d.	<b>Elevator</b>		
3e.	<b>Womens Restroom</b>		
3f.	<b>Mens Restroom</b>		
3g.	<b>Stair to Bsement Stor./Mech.</b>		
4.	Assembly Building		
5.	Courtyard		

## Gift Shop, Orientation & Visitor Services

This building is comprised of two (2) two-story buildings above grade, connected by a common roof form.

The Gift Shop and Orientation Building, combined with the Entry Ramp, is the true gateway to the gardens. The large display windows of the Gift Shop along with the sunlit ramp will guide visitors approaching the site from the Lake-to-Lake Trail or parking area. This Entry Ramp focuses visitors to a single garden entry between the Gift Shop and Assembly Building; allowing glimpses to the courtyard and gardens beyond.

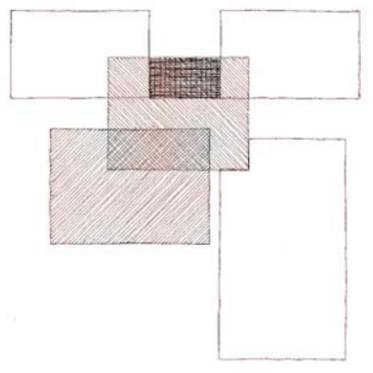
At the top of the Entry Ramp is the Orientation area. It is comprised of an expandable collection of indoor/outdoor spaces including display, self-help, and docent information services. Its expandable collection of indoor/outdoor spaces can be combined to accommodate a wide range of visitors.

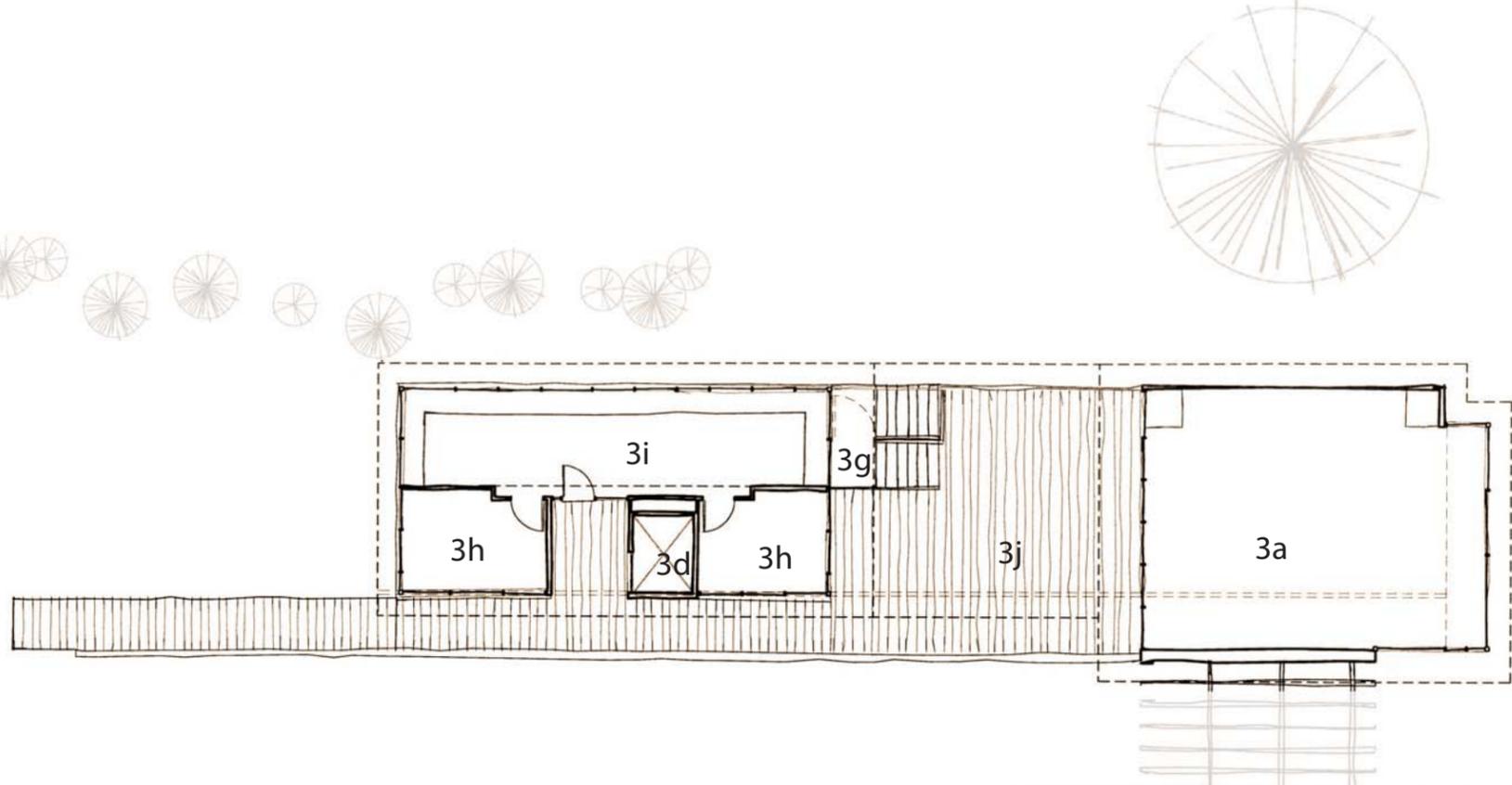
At the core of the Orientation Area is a covered exterior space with a garden locator map and basic information. The Orientation area will also include interior displays and a self-help computer station that are accessible when the Gift Shop is open. When large numbers of visitors are hosted, the Visitor Services Area could be staffed to provide additional information or materials. Finally on good weather days, when visitor attendance is higher, the Orientation area can expand further into the Courtyard where groups can gather before heading into the gardens.

The Visitor Services Building is comprised of the Visitors Services/Docent Storage area, public restrooms, storage areas, and a public elevator to the Rill Plaza Level and upper level of the Visitor Center.

Mechanical Heating, cooling, and ventilation systems will be provided in the basement under the Gift Shop. The basement will also contain several storage areas.

### Expandable Orientation Area Diagram

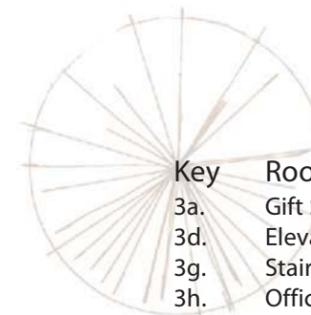




## Administrative Offices & View Deck

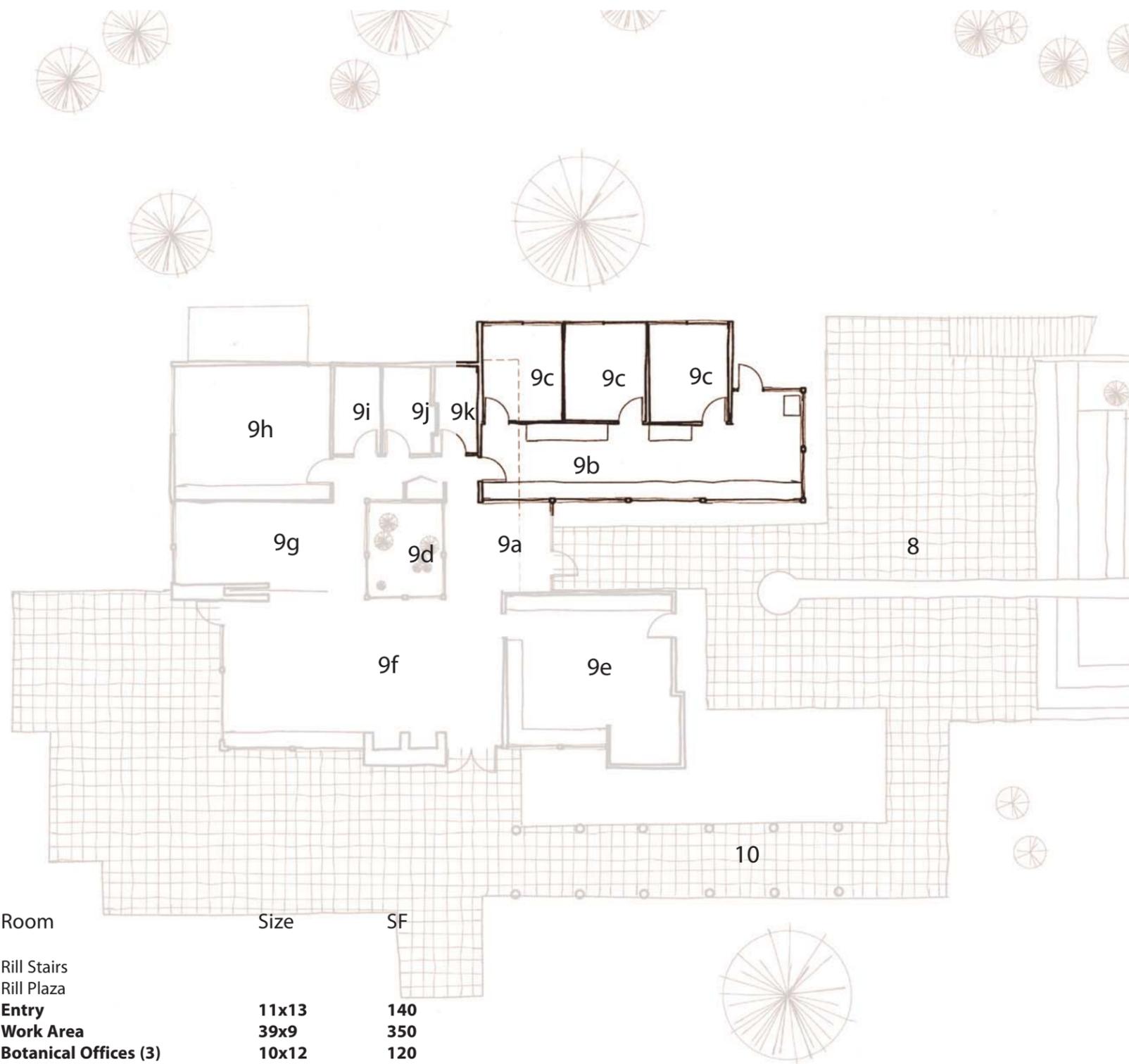
Above the Visitor Services area are the City of Bellevue Offices, providing a distinct presence during daily hours of operation. Key design elements are an open work area to the north, and partitioned offices to the south. All spaces have continuous view windows to maintain the connection to the garden landscape.

The viewing deck is accessible via the public elevator or by using the stairs from the Orientation area or via a ramp from the Rill Plaza. Views to activities in the Courtyard below, or to the gardens beyond make it an ideal location for observation. Programmatically, the View Deck offers a distinct place for visiting groups to convene prior to touring the gardens.



Key	Room	Size	SF
3a.	Gift Shop Below		
3d.	Elevator		
3g.	Stair		
3h.	Office	10x13	130
3i.	Open Work Area	40x9	360
3j.	Viewing Deck	25x29	725





Key	Room	Size	SF
7.	Rill Stairs		
8.	Rill Plaza		
9a.	<b>Entry</b>	<b>11x13</b>	<b>140</b>
9b.	<b>Work Area</b>	<b>39x9</b>	<b>350</b>
9c.	<b>Botanical Offices (3)</b>	<b>10x12</b>	<b>120</b>
9d.	<b>Atrium</b>	<b>7x11</b>	<b>80</b>
9e.	<b>Kitchen</b>	<b>21x19</b>	<b>400</b>
9f.	<b>Exhibit/Gallery</b>	<b>35x18</b>	<b>630</b>
9g.	<b>Library</b>	<b>24x11</b>	<b>260</b>
9h.	<b>Meeting/lunchroom</b>	<b>19x17</b>	<b>320</b>
9i.	<b>Womens Restroom</b>	<b>11x6</b>	<b>66</b>
9j.	<b>Mens Restroom</b>	<b>11x6</b>	<b>66</b>
9k.	<b>Storage</b>	<b>11x6</b>	<b>66</b>
10.	Existing Pergola		

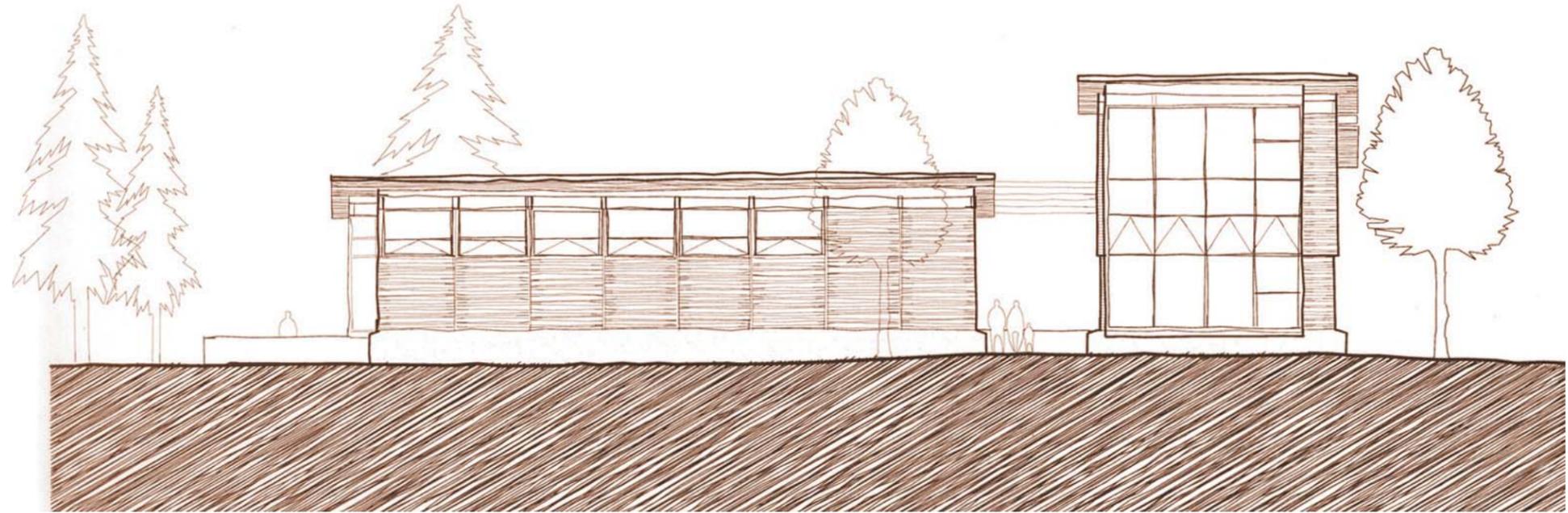
## Shorts House

The Shorts House functions as the current Visitor Center. Retaining and improving this facility was critical to the Project Team. Therefore, many of its amenities will remain, though the new Visitor Center building will relieve some of the burden; thus restoring the residential character of the house.

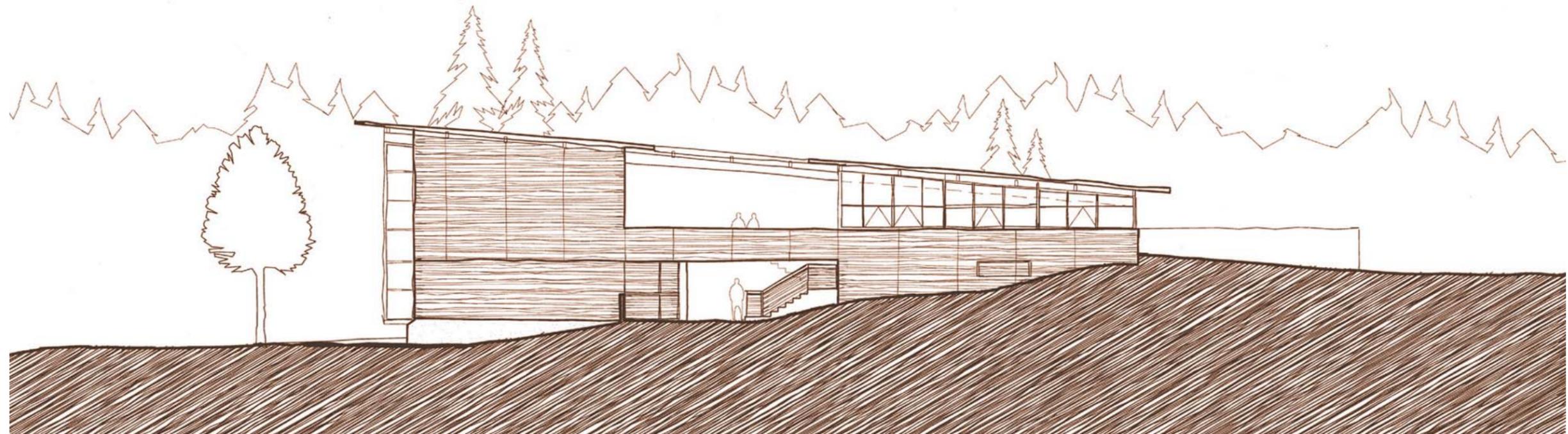
The main room in the Shorts House, which overlooks the garden, will be used as an Exhibit/ Gallery space with areas for soft seating and reflection. The existing Kitchen and Resource Room will remain. Likewise, the public restrooms and Meeting Rooms will remain.

The existing gift shop will be incorporated into the new addition with Botanical Offices and Volunteer Administration.

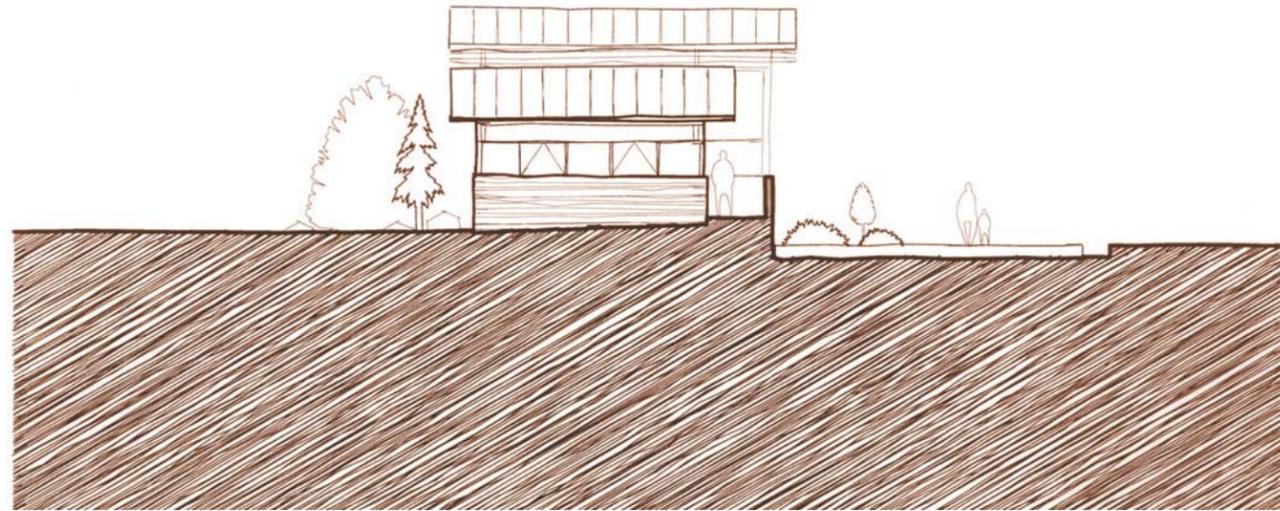




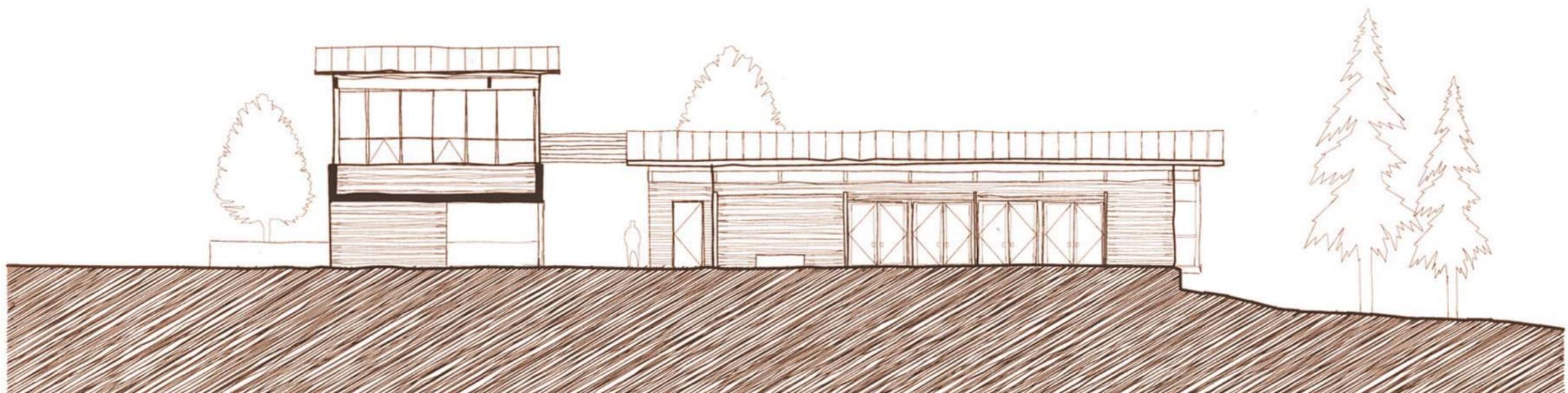
East Elevation-view from entry drive



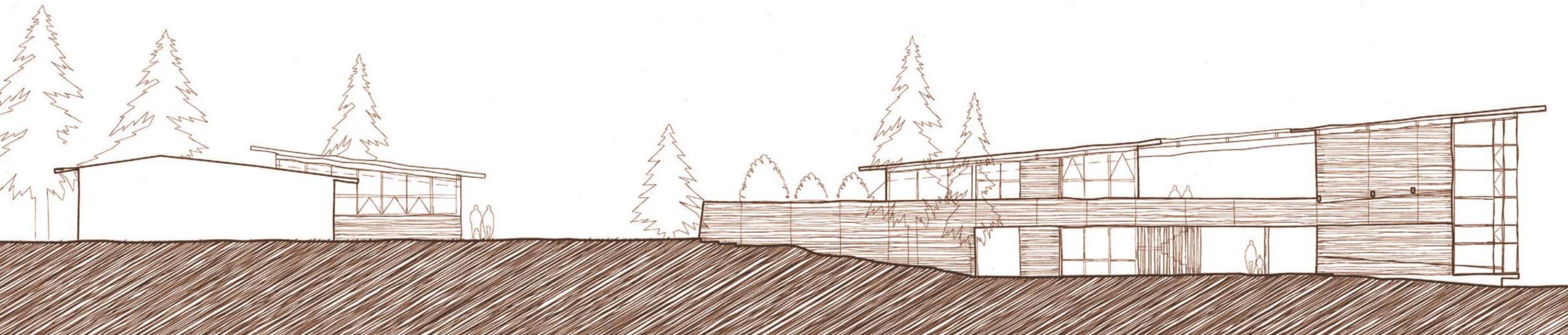
North Elevation-view from Alpine Garden



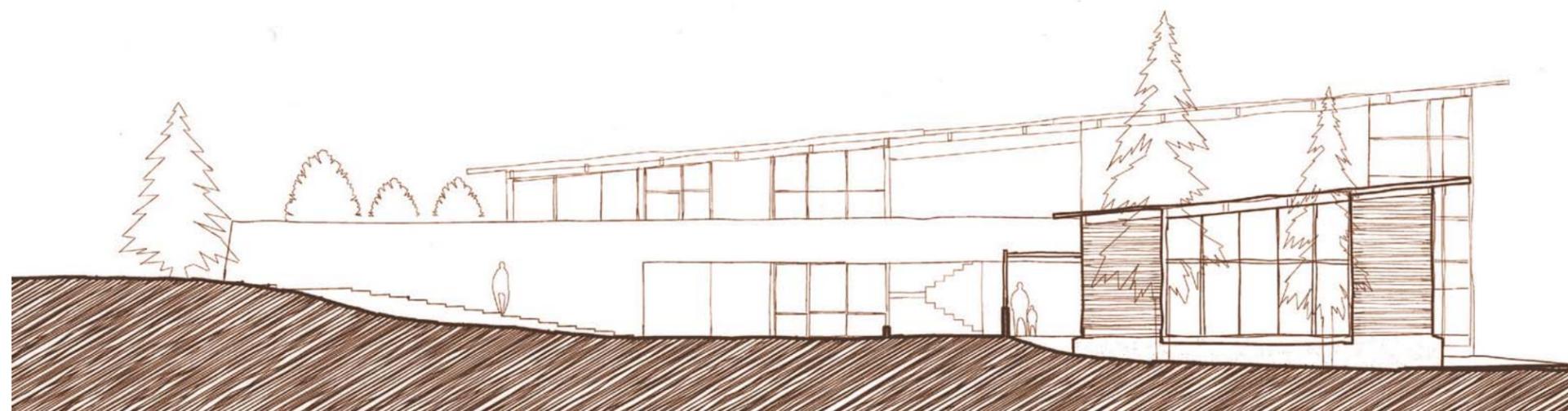
West Elevation-view from Rill Plaza



West Elevation-view from Courtyard



South Elevation-view at Entry Ramp



South Elevation-view from south of Courtyard



## Paths and Terraces

Paths meeting the requirements of the Americans with Disabilities Act (ADA) to the north and south of the Visitor Center will provide access to the Courtyard, Orientation area and Assembly Building, as well as the gardens beyond.

### Pathways

A majority of the paths in the immediate vicinity of the Visitor Center, entry drive and parking lot will be paved. Paths that connect to garden trails will be soft surface (compacted, crushed aggregate surface). The Lake-to-Lake Trail will proceed along the existing trail alignment until it intersects with the north/south trail that leads to the Shorts House. From that point the trail will proceed on a new path to the southwest of the Sharps Cabin and new theme garden. It will cross the entry drive at the drop-off area and then proceed through the entry green to the existing exit point to the east of the parking lot. The path will be gravel, except for locations where the trail intersects or is combined with paved paths at the parking area. The proposed routing is intended to keep the trail at the perimeter of the garden in order to minimize the impact of trail users on the garden experience.

### Outdoor spaces

East of the entry drive will be an area for picnic and passive recreation functions for garden visitors.

### Entry plaza

A small paved area (approximately 600 SF) with seat walls will define the entry area. Here visitors can wait for the rest of their party before proceeding to the Visitor Center entry ramp. A large specimen tree and other plantings will accent this plaza.

### Courtyard

This outdoor room (approximately 2,100 SF) connects the Gift Shop/Orientation and Office Buildings to the Assembly Building. The paved court will include benches and or seat walls providing seating for outdoor functions. This area will also allow large meetings in the Assembly Building to spill out onto the decks and patio. A portion of the court adjacent to the existing trees (to the west) will be decked to protect the tree root systems. A themed garden (approximately 400 SF) will provide a focal point within the courtyard. This garden could be a water garden, moss or rock garden. Views from the courtyard to the forest to the south will also enrich this space.

### North Plaza

This space is an extension of the orientation space and provides a secondary (ADA accessible) entry from the north garden area. Seat walls and specimen plantings will define the plaza.

### Rill Plaza

Portions of the existing Rill Plaza paving and steps will be extended to the east to connect with the Visitor Center development.

### Service Access

Service access will use the ADA accessible paths to enter the interior courtyard. Refuse/garbage storage will be temporarily stored in the building. From that point, refuse will be moved to a dumpster in the Garden Operations Facility.

## Sharps Cabin

The cabin will be relocated to the northeast of the Visitor Center, near the site of the existing caretaker's house. It will be programmed for garden meetings as well as public functions which are in keeping with the mission of the gardens. To provide for these activities, a small restroom will be added near the cabin. Separated from the cabin, the restroom will be connected by a covered walkway.

A lawn area in front of the cabin will be enclosed by a theme garden and provide the entry experience and a separate outdoor space at the cabin. This will improve the experience of the cabin as a unique space within the garden. Service access to the cabin will be on the compacted aggregate path.

Refuse/garbage storage will be temporarily stored in a small-enclosed storage area adjacent to the cabin. From that point refuse will be moved to a dumpster in the Garden Operations Facility. Building systems will be located in the basement or adjacent to the cabin





## Parking & Site Improvements

### Improved Entry/Exit Configuration

The sight lines along Main Street will be improved by demolishing the existing caretaker's residence and cutting back the existing rockery and earth slope to the east and west of the entry drive. A view of the Visitor Center will define the entry experience.

### Vehicle Circulation

Vehicles will enter the garden at the existing entry point and proceed to a drop-off area to the northeast of the Visitor Center. The drop-off area is the west half of a vehicle turn-around circle. The turn-around will consist of reinforced grass on each side of a central drive that will reduce the amount of paving and allow continuous vehicle flow during special events. Removable bollards will be used to control the traffic path.

From the drop-off area, vehicles will proceed to the parking area. Vehicles will exit the parking lot at the north end and proceed to the entry/exit drive. The exit drive turning radius will be improved for both right and left turns.

Parking capacity is approximately 83 vehicles (including 4 disabled parking spaces).

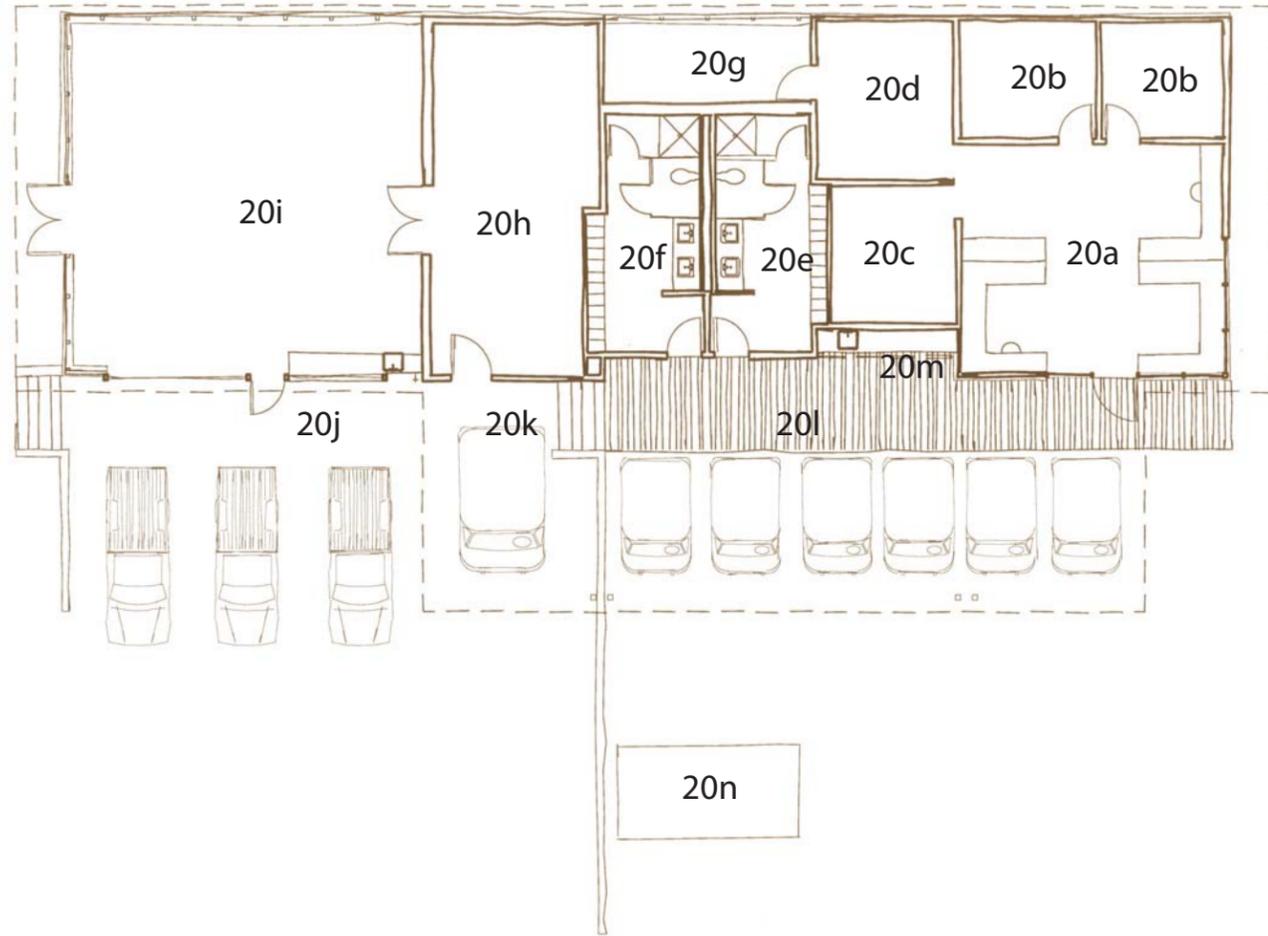
### Pedestrian Circulation

The parking lot is connected to the Visitor Center by a series of paved paths located adjacent to the parking spaces and in the entry green. These pathways lead directly to the Entry Plaza immediately in front of the Visitor Center. Visitors will have the opportunity to either enter the Visitor Center or continue up a series of steps to the Rill Plaza and then to the Shorts House. Visitors also have the opportunity to proceed through the spaces between the Visitor Center buildings to the garden pathways to the north, west and south.

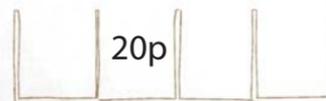
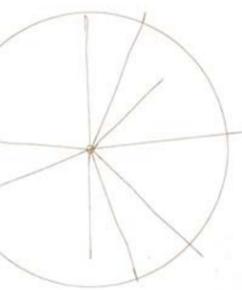
### Information Kiosk

The information kiosk will be relocated to the east end of the entry court, and will continue to display information about the gardens.





Key	Room	Size	SF
20a.	Open Office Area	20x23	460
20b.	Office (2)	10x12	120
20c.	Work Room	11x12	130
20d.	Lunch Room	14x12	170
20e.	Mens Restroom	8x21	170
20f.	Womens Restroom	8x21	170
20g.	Terrace	7x18	130
20h.	Storage	14x31	430
20i.	Unheated Storage	30x30	900
20j.	Uncovered Vehicle Area		
20k.	Covered Vehicle Area		
20l.	Covered Holding/Teaching Area		
20m.	Outdoor Sink		
20n.	Yard Waste		
20p.	Soil Bins		



## Horticultural Service Center

This facility is to be located at the site of the existing materials storage area. It will fulfill the needs for outdoor storage and service access, as well as staff and volunteer work space. The following list comprises the proposed building's amenities.

### Outdoor functions:

- Recycling bins
- Garbage bins
- Yard waste dumpster
- Plant Holding Area, to include a work & demonstration area (500 SF)
- Materials bins - 3-5 (10-yard capacity) for soil, compost, gravel, etc.

### Service accessibility:

- Dump truck access to materials bins.
- Dumpster truck access for drop-off and pickup of yard waste dumpster.
- Dump truck and tractor access to the materials bins.
- Garbage truck access

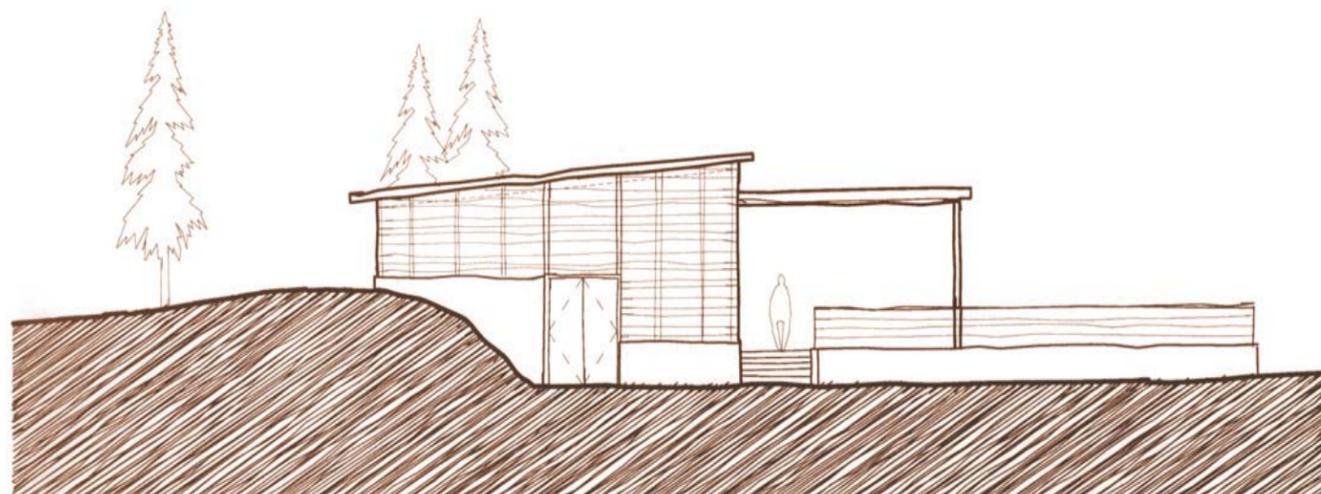
### Access:

- Staff and volunteers will be accessing both indoor and outdoor areas.

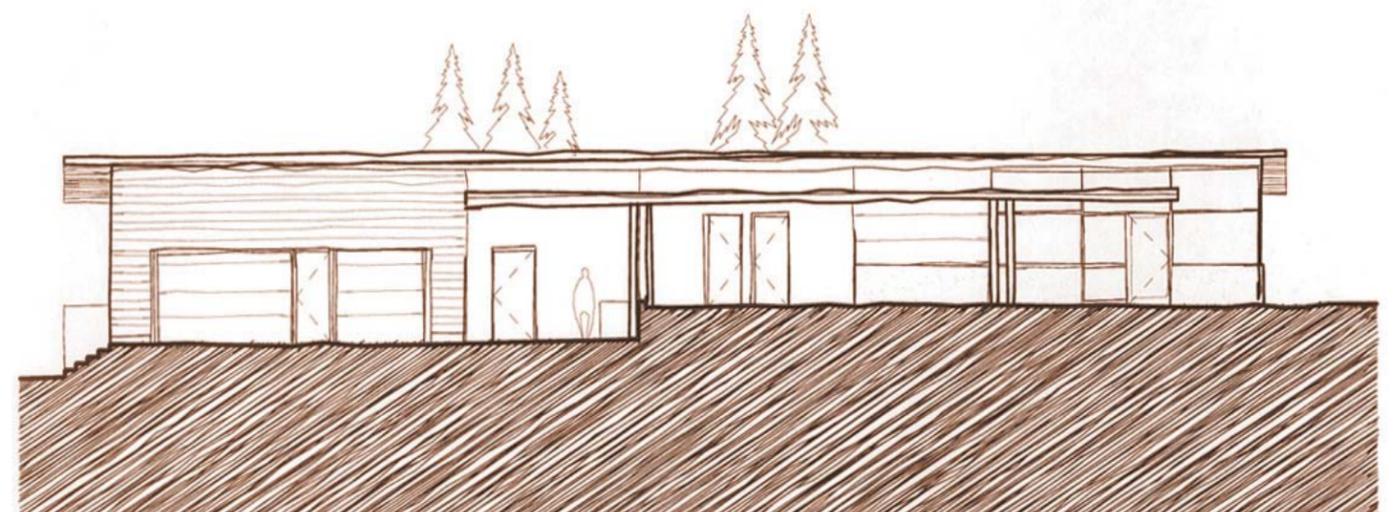


Left: The new Service Center will provide storage space for extra materials and plantings.





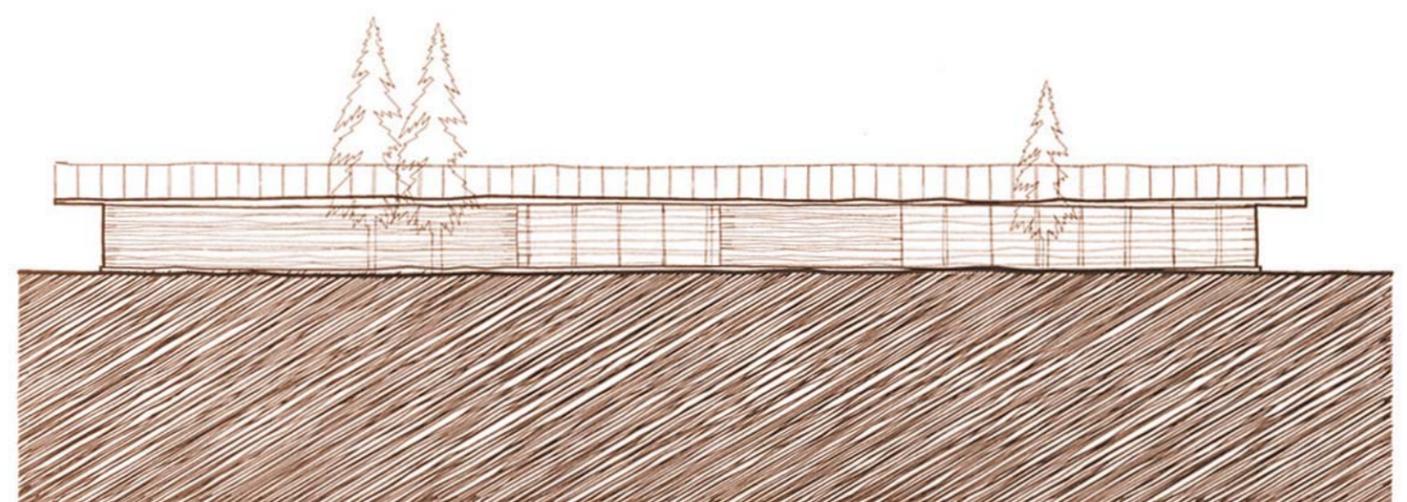
West Elevation of Horticultural Service Center



South Elevation-view from covered teaching area



East Elevation of Horticultural Service Center



North Elevation-low view from Main Street

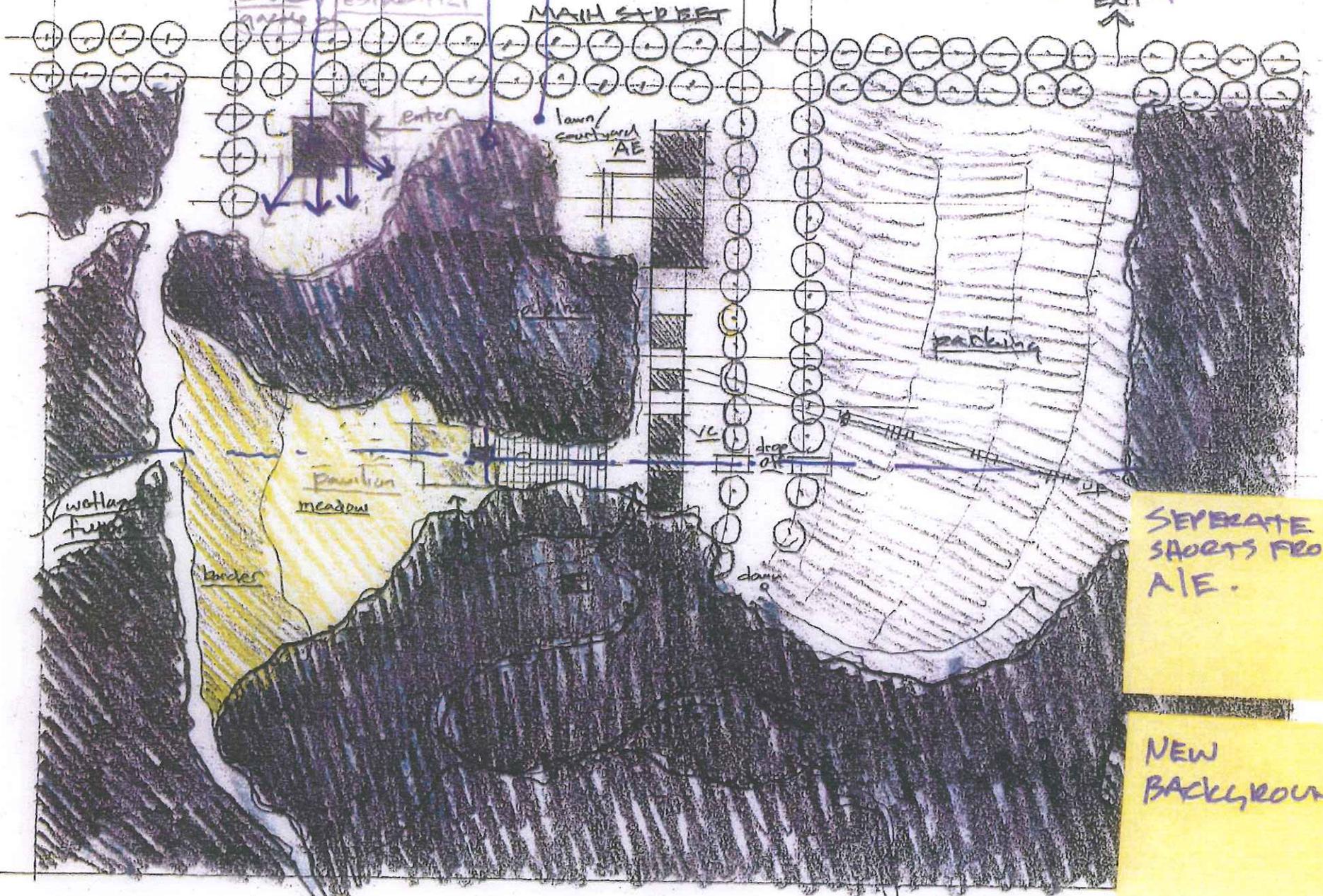


ATTACHMENT D –

VISITOR CENTER STUDY OPTIONS

Residential 'forest'  
Garden

Smaller scale  
lawn/courtyard.....



SEPERATE  
SHORTS FROM  
A/E.

NEW  
BACKGROUND

B.B.G.  
SITE PLAN: C

0 20 40 80 160 260

OKA 3 of 5

small wa  
road 1

ENTER (PORTAL)

SERVICE

MAIN STREET

LAKE TO LAKE TRAIL

EXIT

GARDEN MOUND (FUTURE)

WATER LAKE

B  
HOUSE

EXHIBITION

← EVERYTHING  
MOVES WEST.  
PARKING TOO  
SMALL -  
PARKING

← PERENNIAL  
BEDDING

HILL

TERRACE

← PORTAL

PREVIOUS  
ITERATION  
PREFERRED  
OPTION!...

WETLAND  
GARDEN  
(FUTURE)

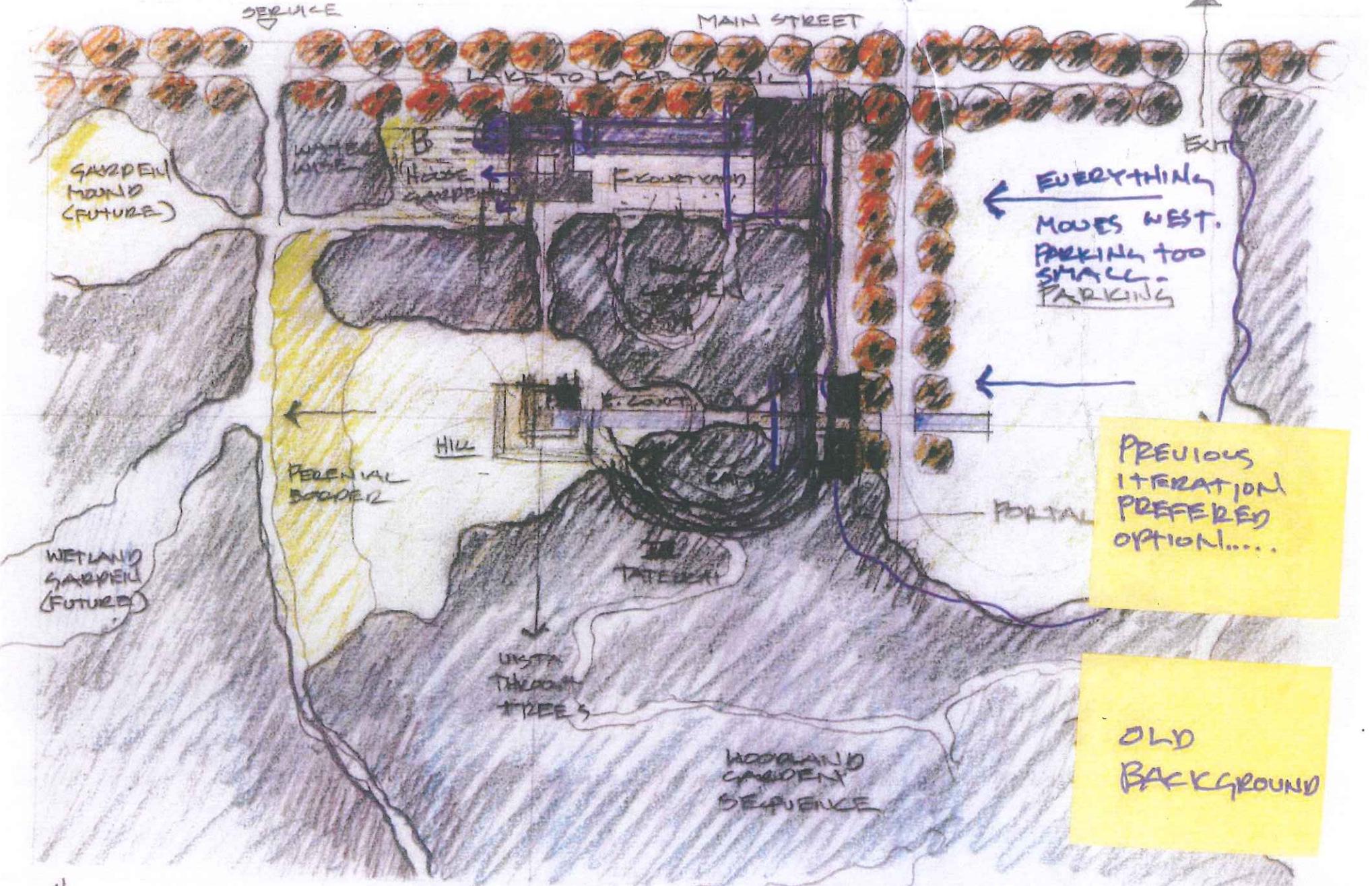
↓ USTA  
THROUGH  
TREES

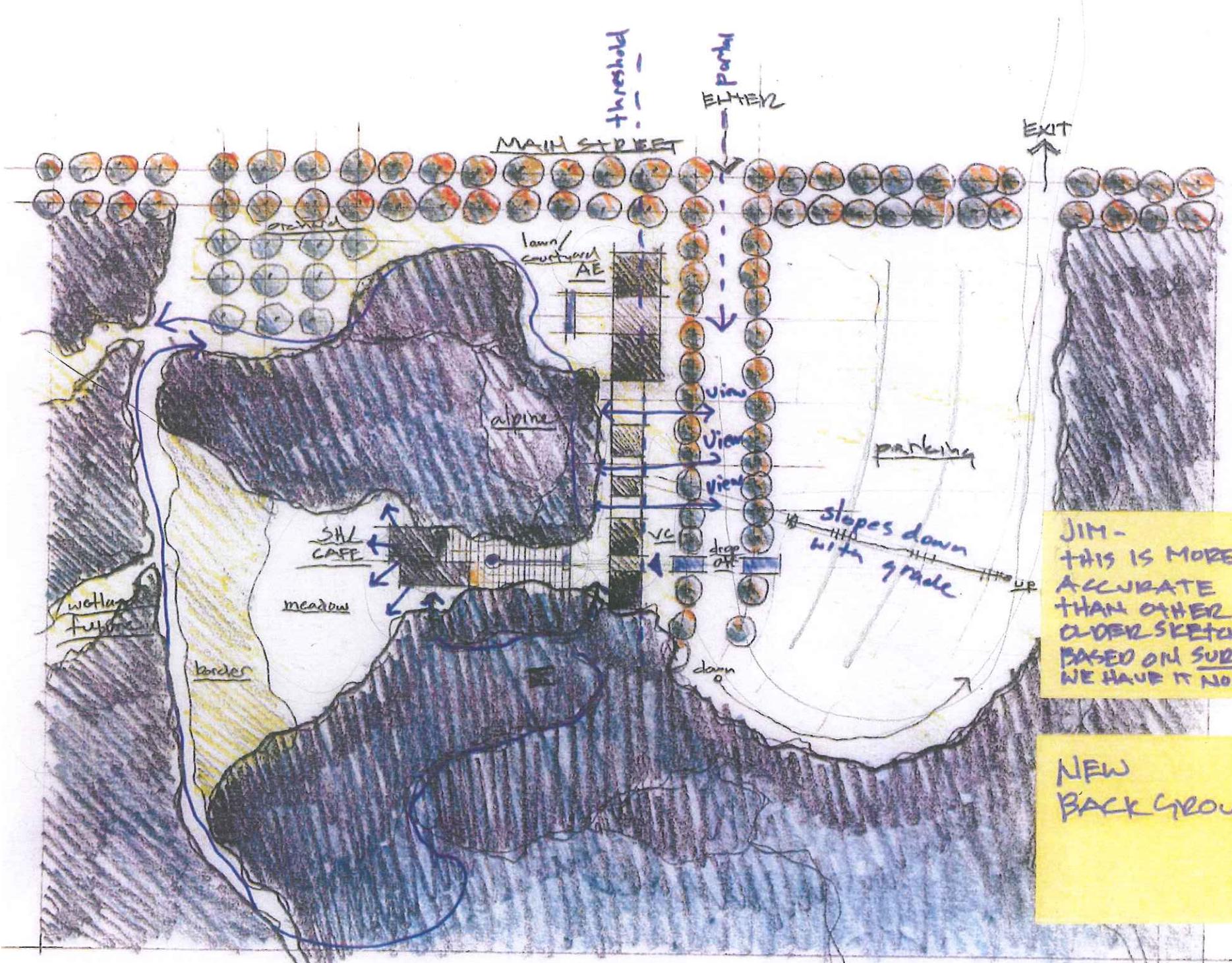
WOODLAND  
GARDEN  
SEQUENCE

OLD  
BACKGROUND

N  
SITE PLAN: B

20ft





JIM -  
 THIS IS MORE  
 ACCURATE  
 THAN OTHER  
 OLDER SKETCHES.  
 BASED ON SURVEY  
 WE HAVE IT NOW.

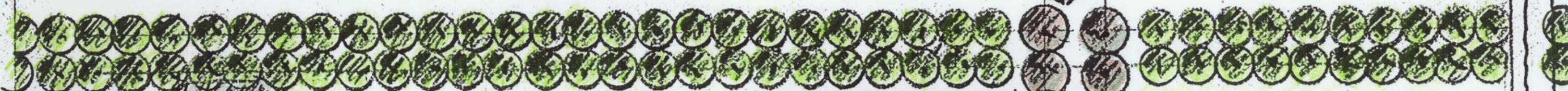
NEW  
 BACKGROUND

B.B.G.  
 SITE PLAN: A

North

MAIN STREET ENTER

EXIT



cafe

court

admistration  
education

parking

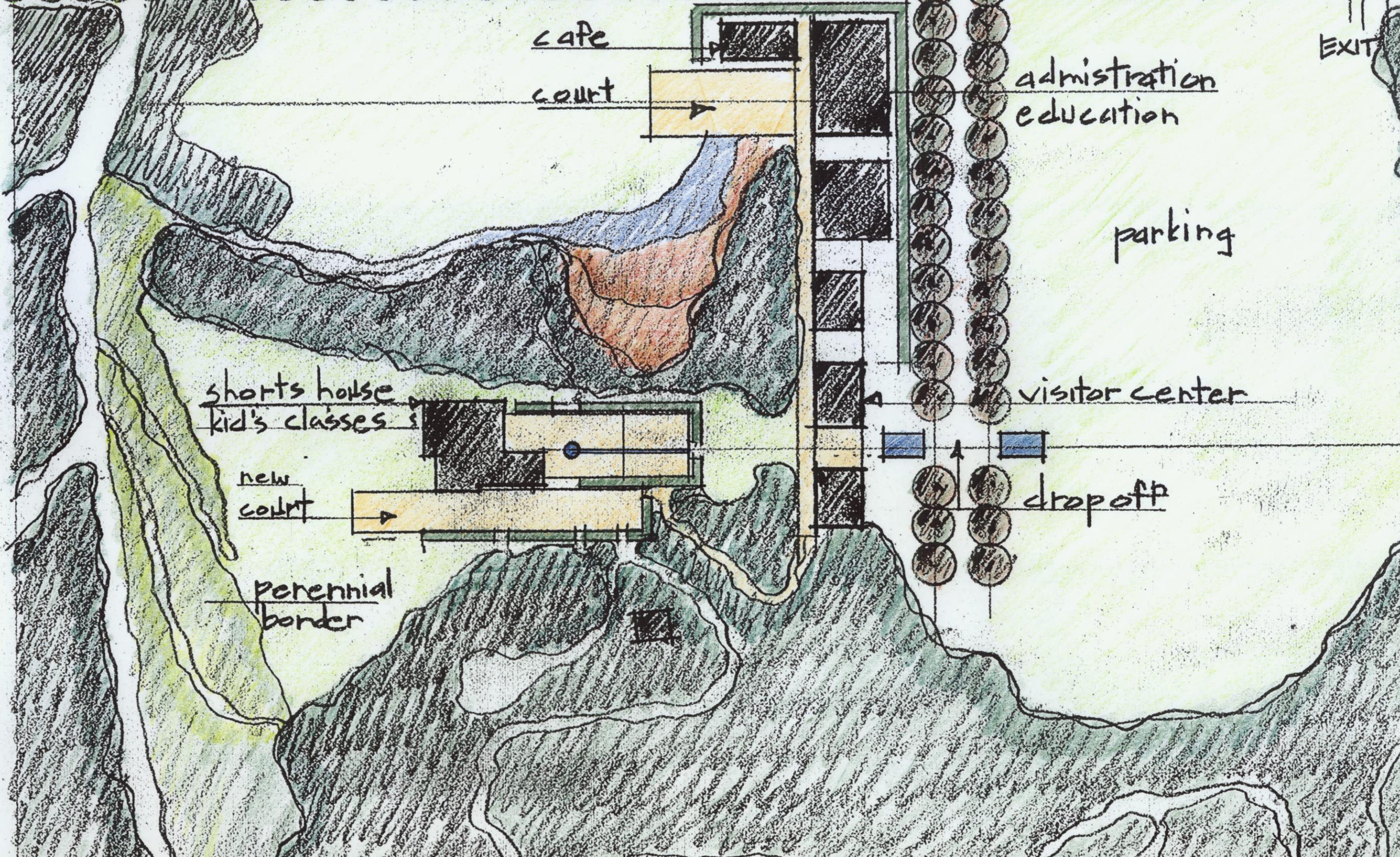
shorts horse  
kid's classes

visitor center

new  
court

drop off

perennial  
border



MAIN STREET

ENTER

EXIT

sun garden

cafe

court

administration/  
education

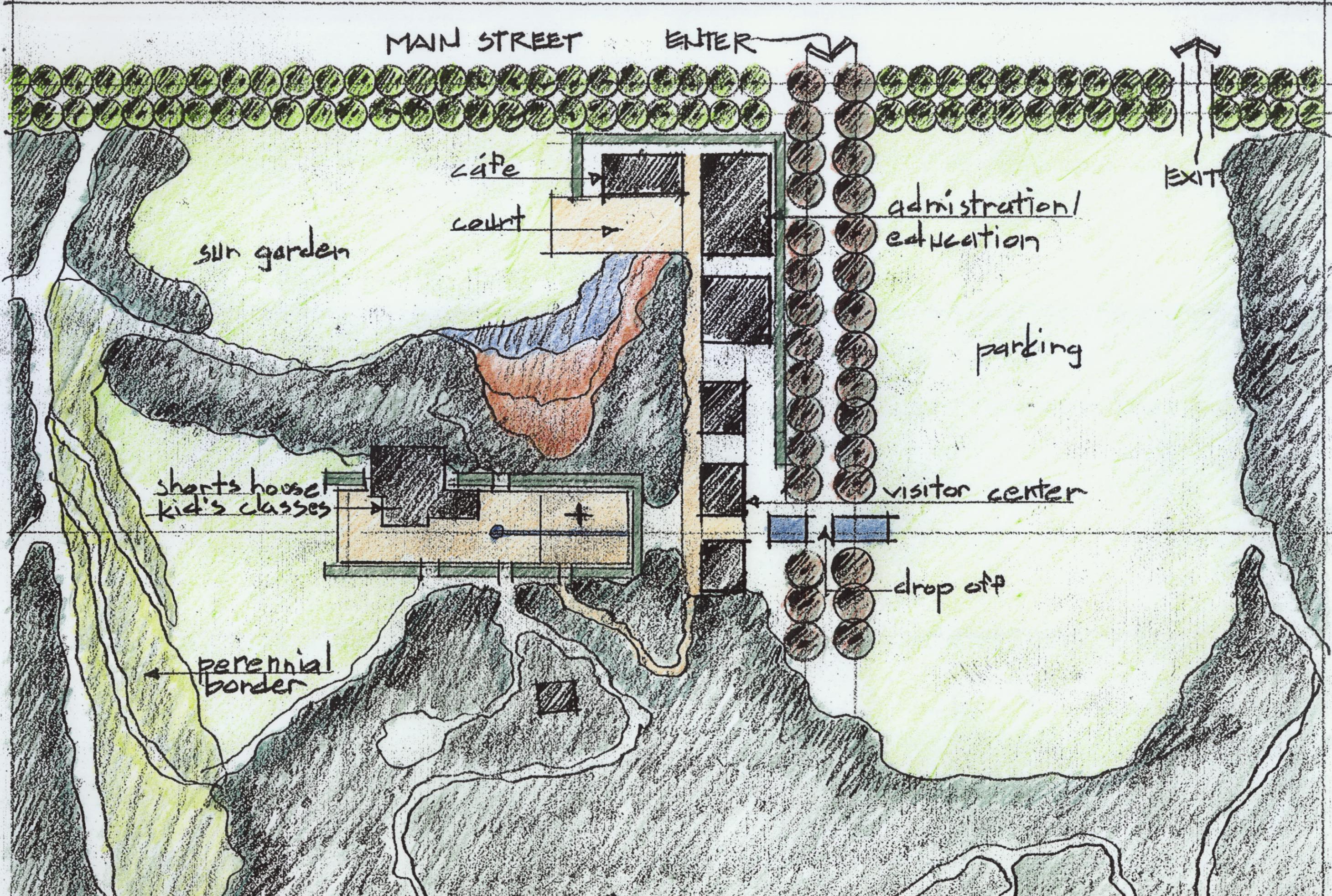
parking

sharts house  
kid's classes

visitor center

drop off

perennial  
border



MAIN STREET

ENTER

EXIT

sun garden

shirts  
horse  
cave

administration /  
education

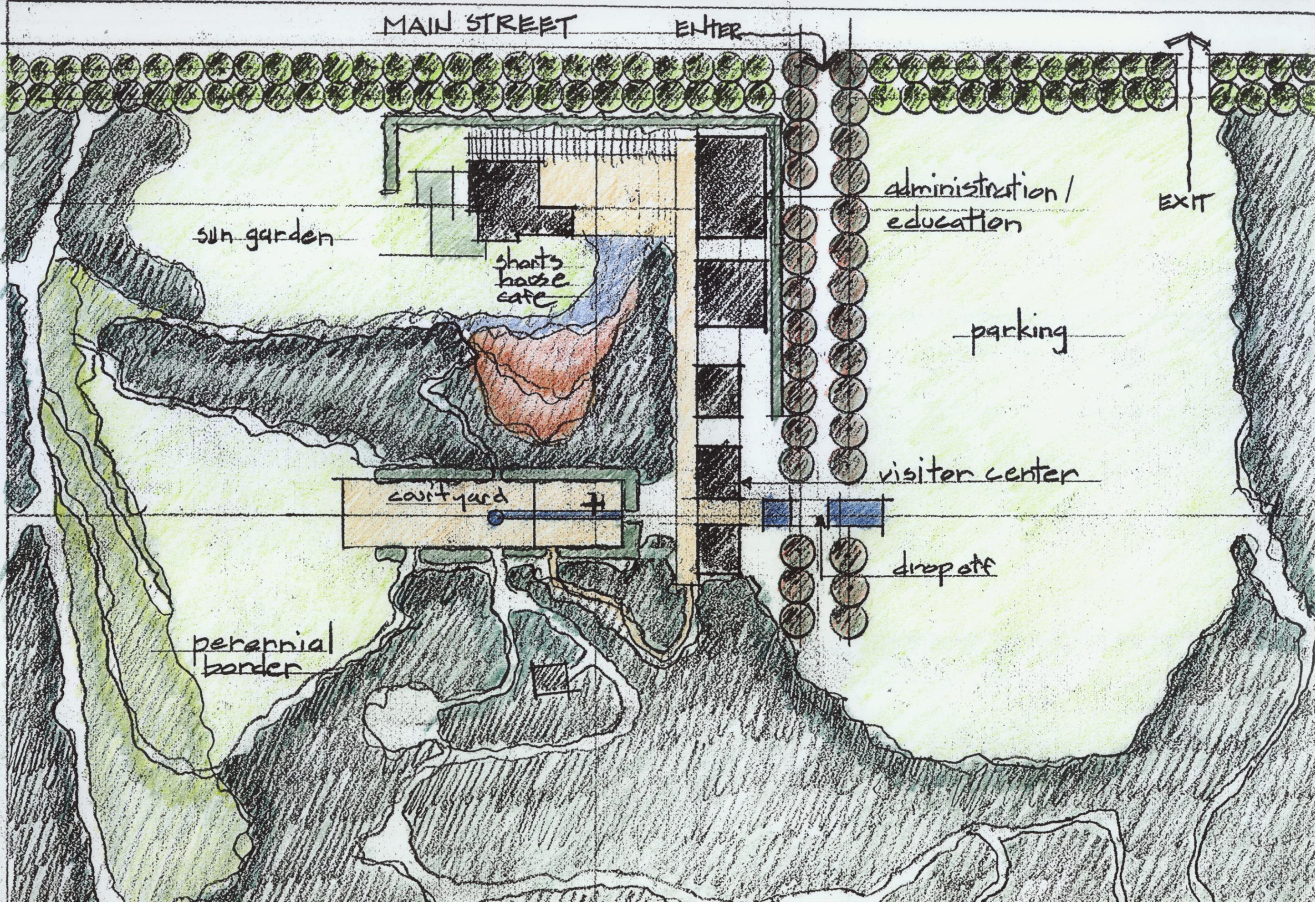
parking

visitor center

drop off

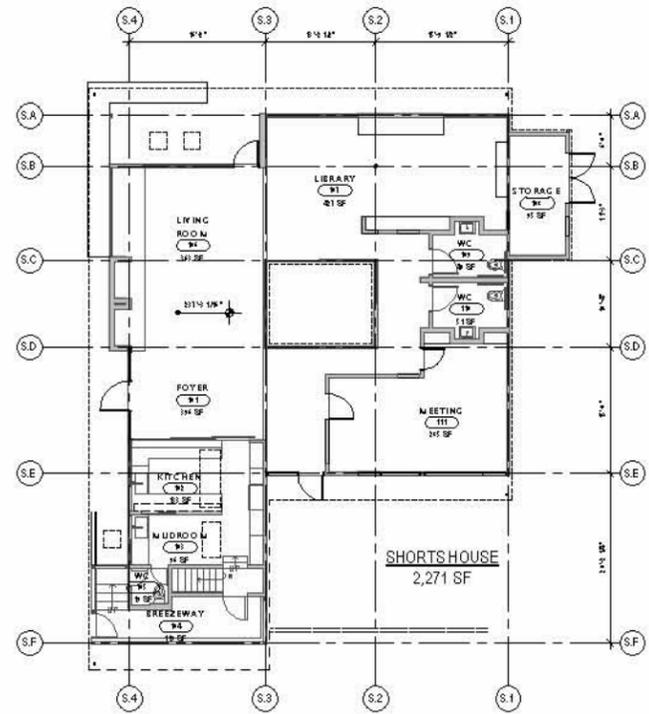
court yard

perennial  
border

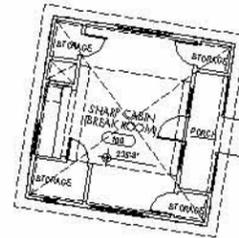


ATTACHMENT E –

VISITOR CENTER FLOOR PLAN

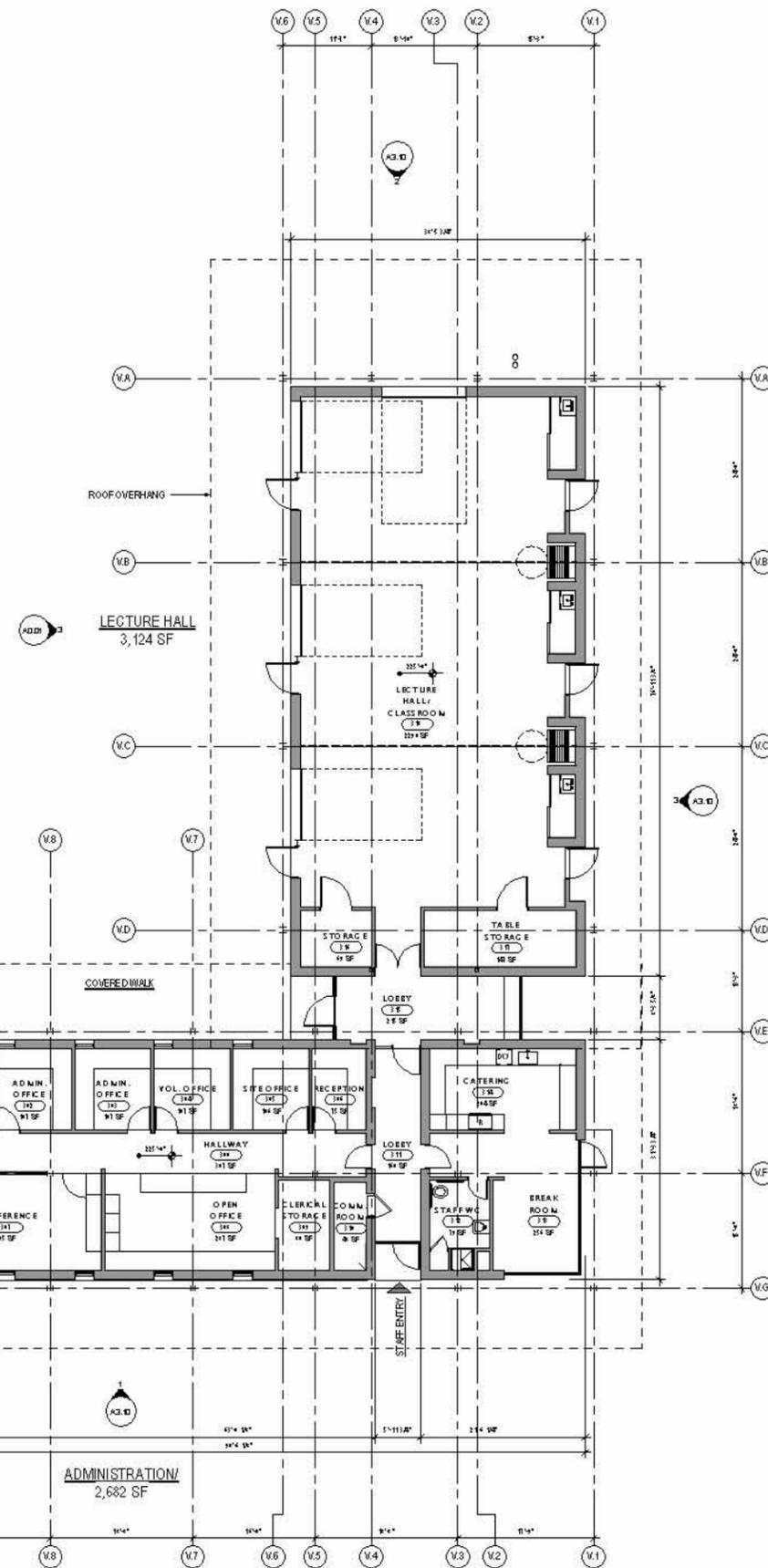


2 SHORTS HOUSE REFERENCE PLAN  
SCALE: 1/4" = 1'-0"

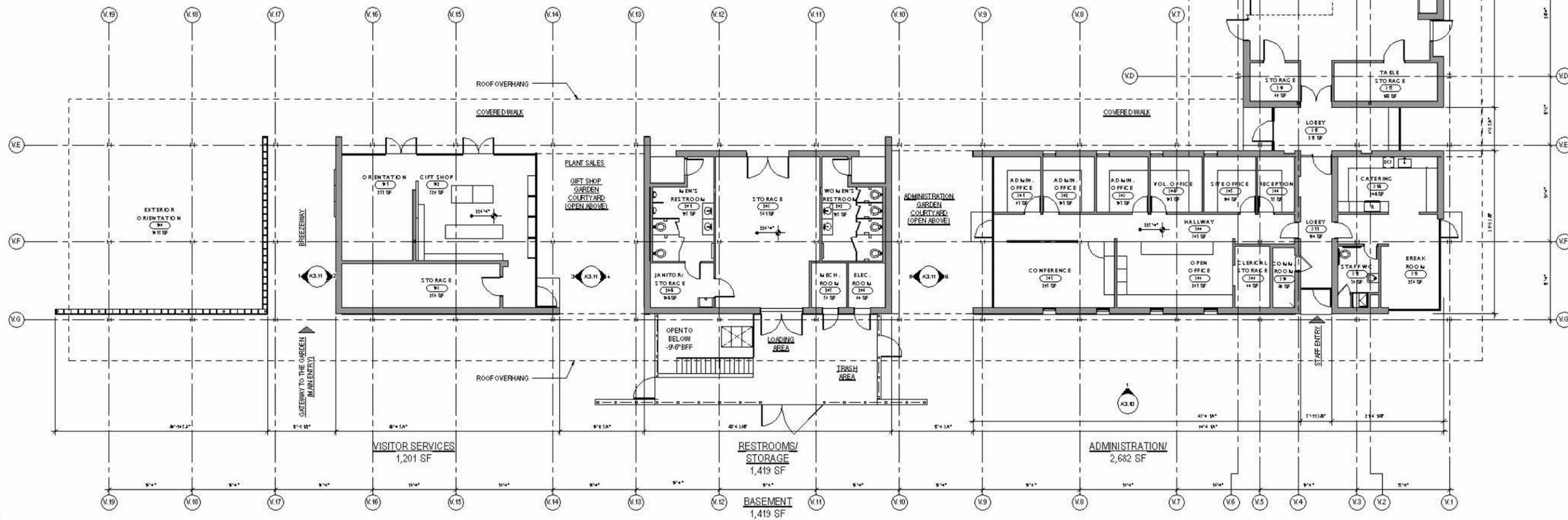


SHARP'S CABIN  
427 SF

3 SHARP CABIN REFERENCE PLAN  
SCALE: 1/4" = 1'-0"



1 VISITOR SERVICES REFERENCE PLAN  
SCALE: 1/4" = 1'-0"



project architect	JK
project manager	JK
designer	JK
checked by	JK
date	April 28th 2011

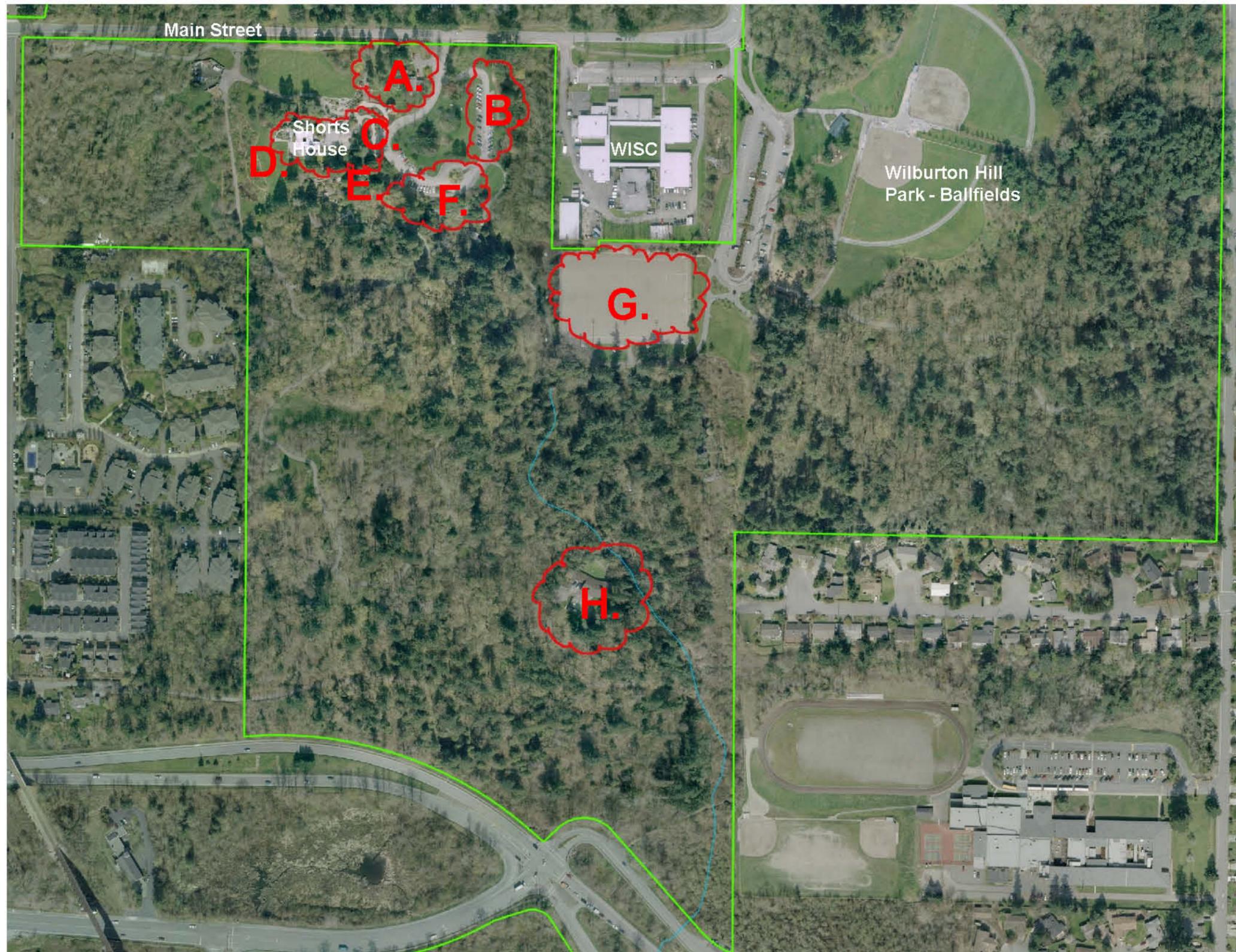
CONDITIONAL  
USE PERMIT SET  
April 28th 2011

MAIN LEVEL  
FLOOR PLANS

A2.00

ATTACHMENT F –

VISITOR CENTER SITE OPTIONS



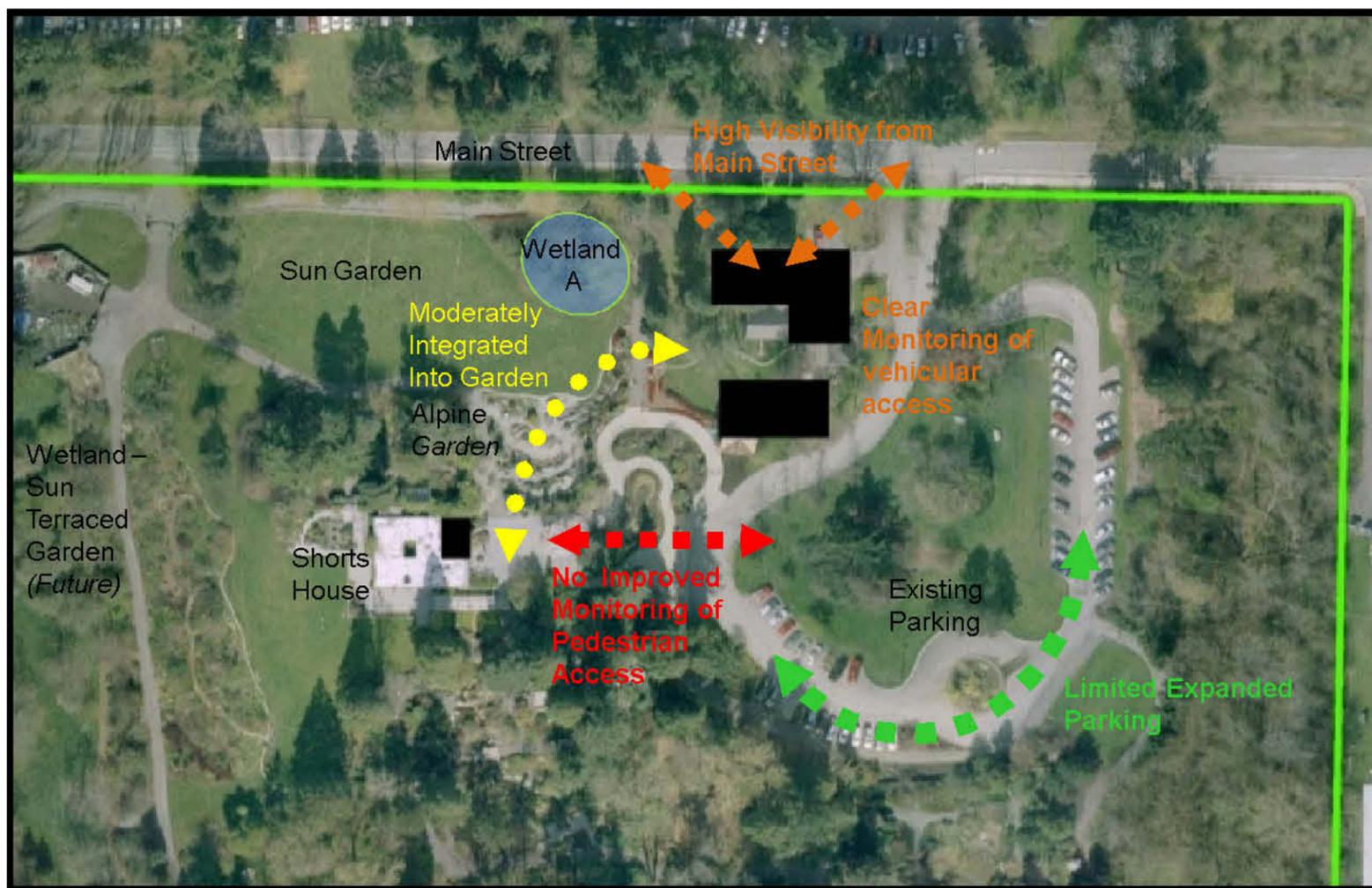
BELLEVUE BOTANICAL  
GARDEN VISITOR CENTER  
LOCATION STUDY

- A.** Existing Garden Office
- B.** East Parking
- C.** Shorts House (Miller Hull Plan)
- D.** Shorts House Re-Use
- E.** Exist Pedestrian Entry
- F.** Yao Garden / South Parking
- G.** Wilburton Hill Sportsfield
- H.** Koh Property

# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **A. Existing Garden Office Location**

Visitor Center to be located west of the main garden entry in the area that is now the garden office.



### PROS:

- This location would enable staff to monitor and control vehicular access
- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Allows Shorts House to return to residential feel
- Preserves existing Garden rooms
- Highly visible from Main Street
- Blocks some noise from Main Street

### -CONS:

- Existing topography limits ability to increase parking
- Result of parking constraints, Program space will be increased, not meeting all needs
- Does not provide a new drive/ drop off aisle
- Requires small addition to Shorts House
- Potential to require second floor – reduces small scale, residential feel
- Does not assist in controlling or monitoring the pedestrian access
- Does not provide an easy pedestrian access, nor provide safer pathway
- Removed from many of the existing Garden rooms
- Does not improve ADA access through site
- Limited Gateway to Garden feeling
- Impacts to Wetland A Critical Areas Buffer

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$750,000
- Additional Transportation Study/Design	\$150,000
- New Public Outreach Costs:	\$100,000
- Additional Site Analysis (geotechnical, survey):	\$ 80,000
- Wetland A Buffer mitigation	\$ 100,000
- COB Staff Time (Parks)	\$150,000
- TOTAL (Additional Cost)	\$1,330,000

# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **B. Existing East Parking Location**

Visitor Center to be located at the east edge of the existing parking lot. This site was removed as a result of the topographic challenges, potential wetland impacts, and set back issues from the adjacent property. As well, this location did not provide for security and control of the Garden and set the stage for pedestrian conflicts.

### PROS:

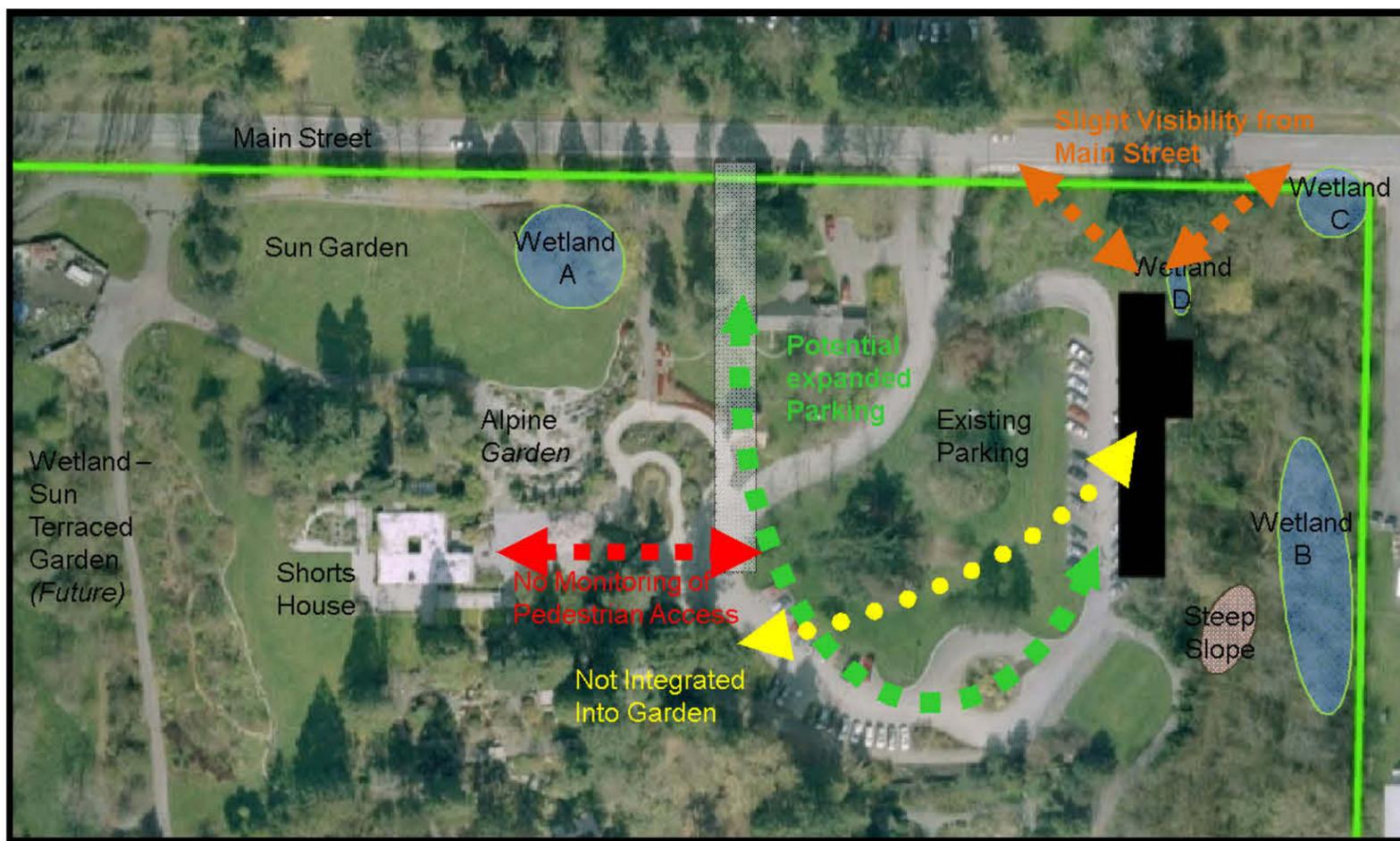
- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Retains a residential character
- Preserves existing Garden rooms
- Visible from Main Street
- Allows Shorts House to convert back to "residential" feel
- Potential for expanded Parking and Drive Aisle modifications
- Less severe community reaction (outreach)

### -CONS:

- Does not allow for monitoring of vehicles or pedestrians
- Does not provide an easy pedestrian access, nor provide safer pathway
- Removed from Shorts House
- Removed from many of the existing Garden rooms
- Does not improve ADA access
- Does not allow Shorts House to convert back to "residential" feel
- Impacts the Wetland B, C, and D Critical Areas and Critical Areas Buffers
- Impacts the Steep Slope Critical Area and Critical Areas Buffer

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$850,000
- Additional Transportation Study/Design	\$150,000
- New Public Outreach Costs:	\$100,000
- Additional Site Analysis (geotechnical, survey):	\$ 90,000
- Master Plan Update	\$150,000
- Critical Area(s) mitigation	\$170,000
- COB Staff Time (Parks)	\$200,000
- TOTAL (Additional Cost)	\$1,710,000



# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **C. Shorts House (Miller Hull Plan) Location**

In 2002, the Miller/Hull conceptual plans located the new VC at the current main pedestrian entry. This location would have limits to controlling access to the Garden and would compete with the Shorts' House. To the point that the house would not be able to function in its historical context or setting.

### PROS:

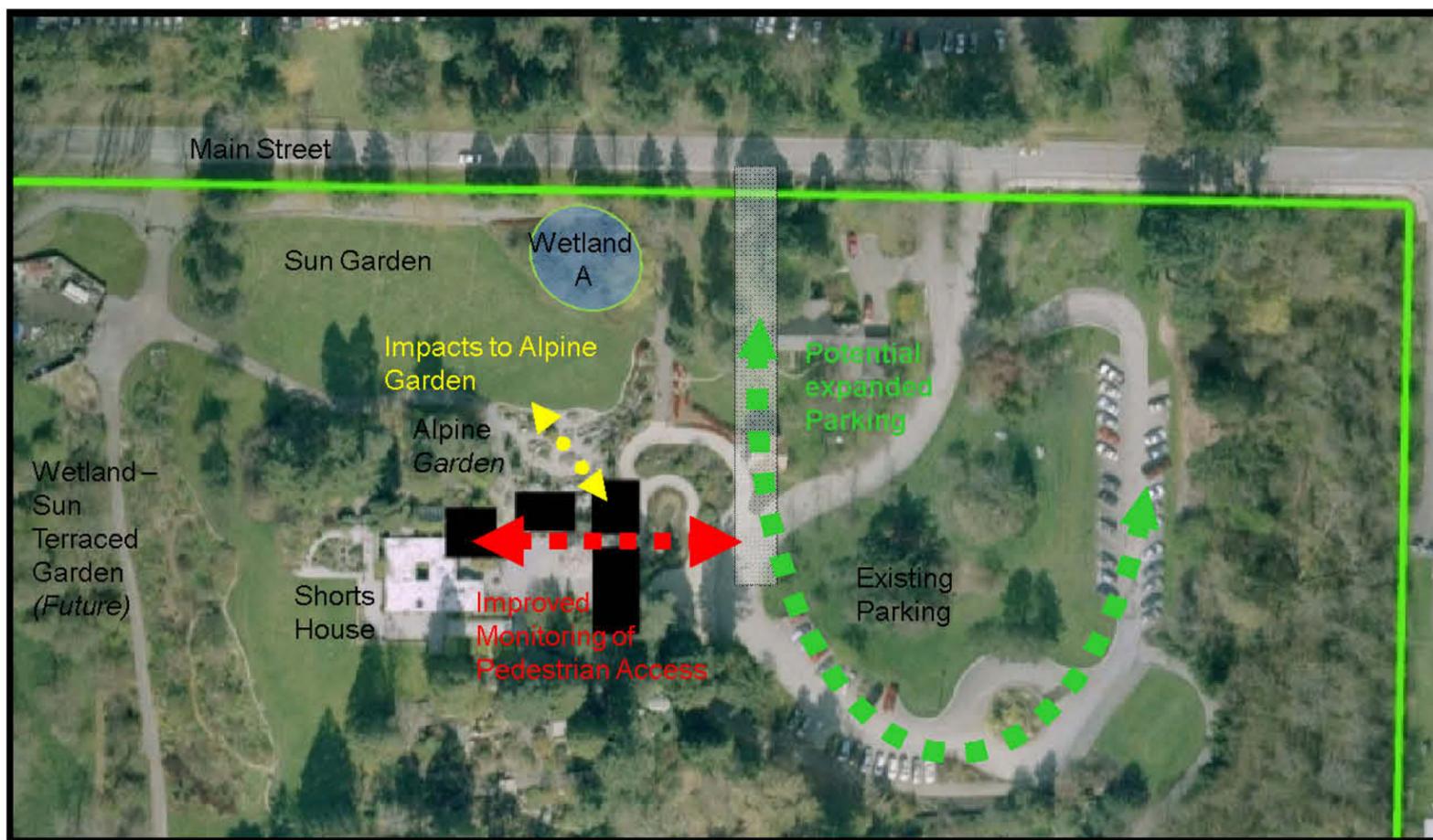
- Improved Pedestrian monitoring and access
- Potential for expanded Parking and Drive Aisle modifications
- Improves ADA access
- Does not impact Critical Areas
- Provides a gateway into the Garden
- Community has seen this scheme(outreach)

### -CONS:

- Does not allow for monitoring of vehicles
- Impacts to Shorts House and does not allow Shorts House to convert back to "residential" feel
- Competes with the Shorts House and adjacent Garden rooms for prominence
- Due to second story, does not allow the VC to have a residential character
- Due to topography and access, impacts/alters the Alpine Garden (potential relocation)
- VC is not visible from Main Street, rather Parking area becomes "welcome mat"
- Does not buffer sound from roadway
- Community did not want this scheme, especially with impacts to Shorts House

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$800,000
- New Alpine Garden Design Fees	\$100,000
- Additional Transportation Study/Design	\$150,000
- New Public Outreach Costs:	\$170,000
- Additional Site Analysis (geotechnical, survey):	\$ 100,000
- Master Plan Update	\$150,000
- Relocation of Alpine Garden	\$750,000
- COB Staff Time (Parks)	\$175,000
- TOTAL (Additional Cost)	\$2,295,000



# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **D. Shorts House Re-Use Location**

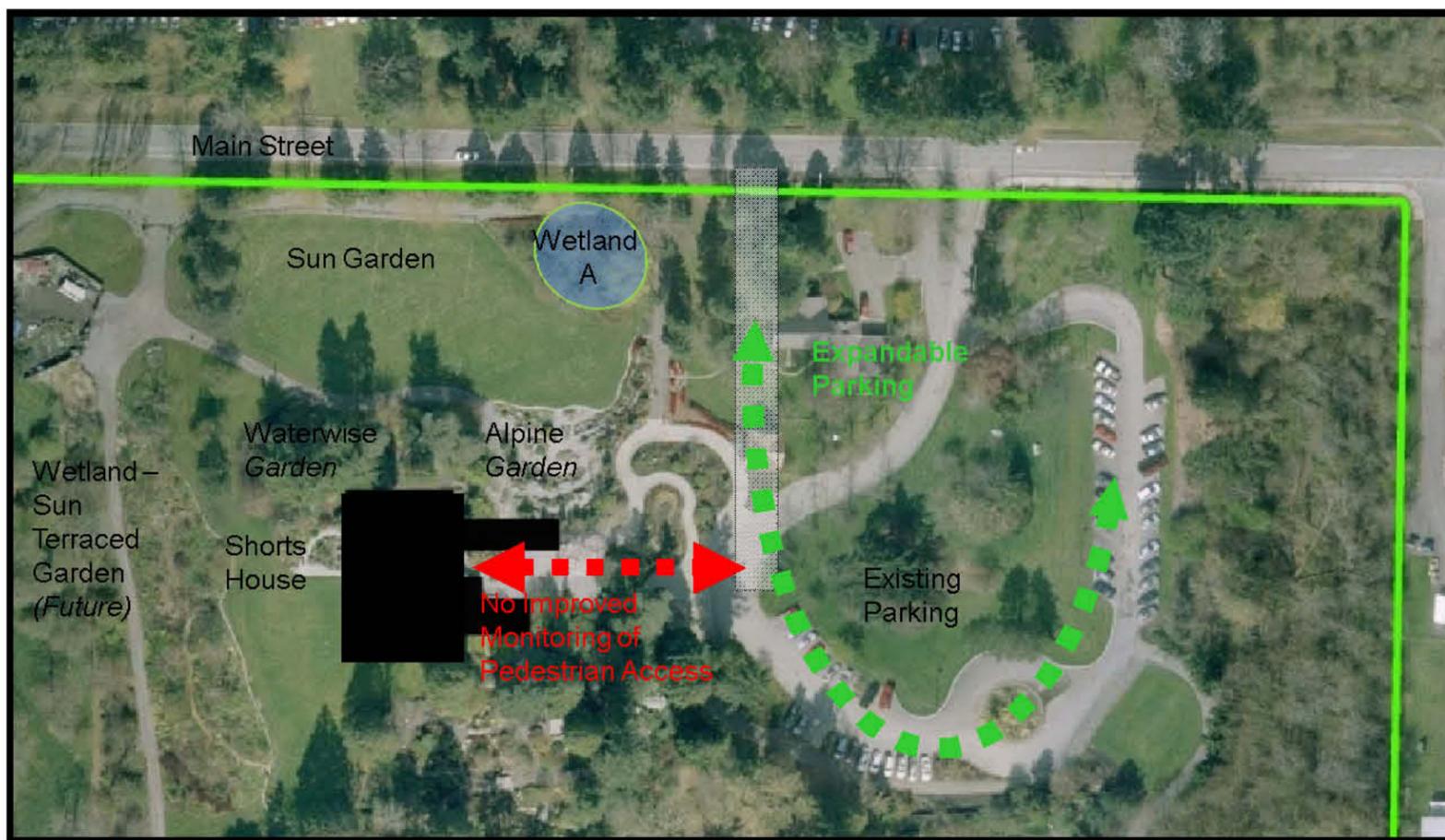
Utilizing the existing Shorts' House was contemplated. This would mean either a complete teardown of the structure or a significant remodel/addition. This choice was deleted, as it took too much away from the existing historical house, as well as, impacting the Garden spaces around it. This option eliminated the historical context of the site and residential structure.

### PROS:

- Potential for expanded Parking and Drive Aisle modifications
- Minor improvement for ADA access
- Does not impact Critical Areas
- Integral to Garden Rooms

### -CONS:

- Does not allow for monitoring of vehicles
- Significant Impacts to Shorts House and does not allow conversion back to "residential" feel or complete removal of House
- Competes with the Shorts House and adjacent Garden rooms for prominence
- Impacts to Waterwise Garden
- VC is not visible from Main Street, rather Parking area becomes "welcome mat"
- Does not buffer sound from roadway
- Major outreach needed for Shorts House work – Highly confrontational
- Not Supported by Community, BBG Society, Park Board, or Council



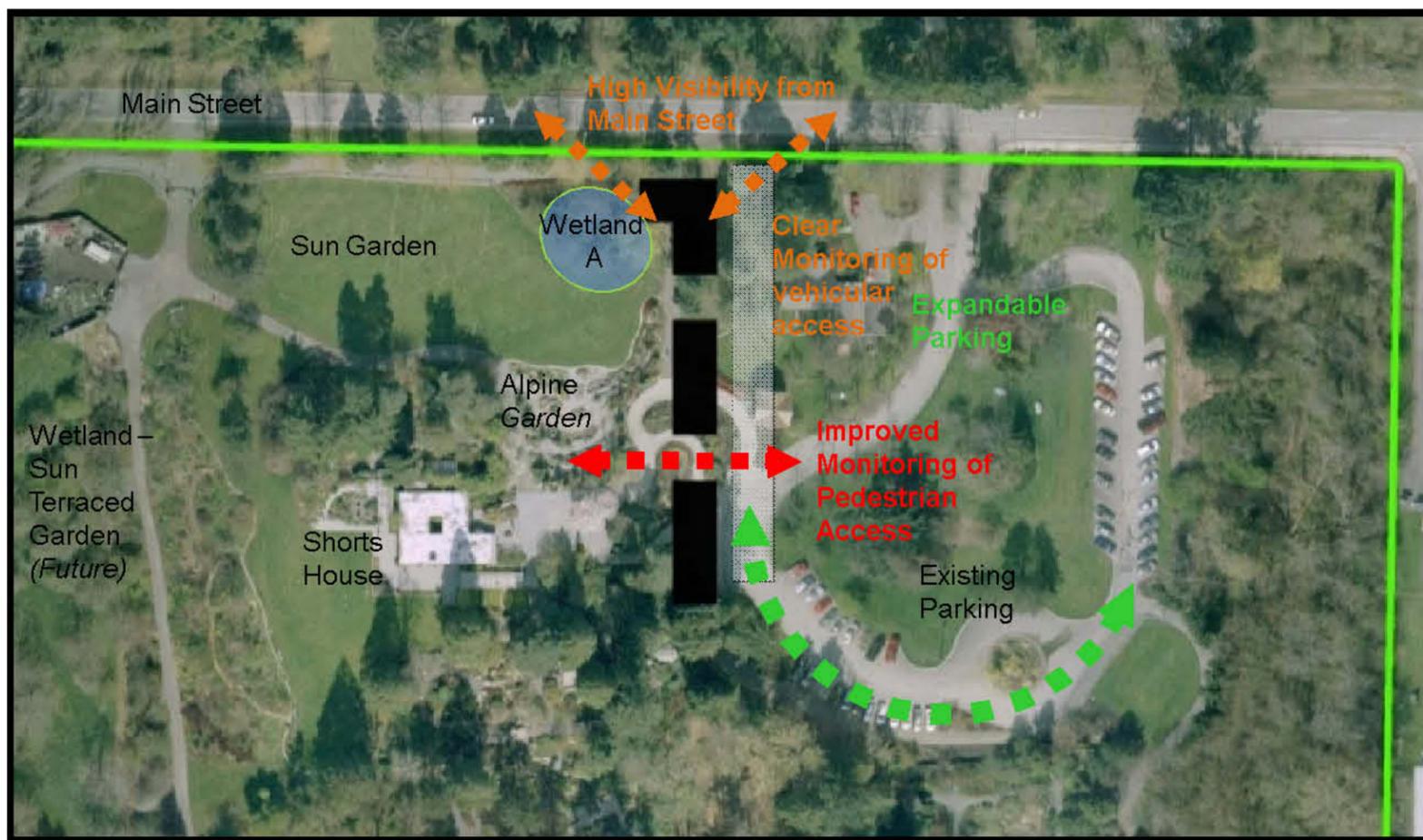
### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$950,000
- New Waterwise Garden Design Fees	\$100,000
- New Public Outreach Costs:	\$300,000
- Additional Site Analysis (geotechnical, survey):	\$100,000
- Master Plan Update	\$300,000
- Relocation of Waterwise Garden	\$250,000
- Relocation/Demolition of Shorts House	\$700,000
- COB Staff Time (Parks)	\$175,000
- TOTAL (Additional Cost)	\$2,875,000

# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **E. Existing Pedestrian Entry Location**

The new VC facility and its supporting amenities have been designed to minimize their impact on the garden's natural setting in a number of ways. First, the Visitor Center building and supporting functions have been minimally sized to meet the growing number of visitors. Second, the new facilities have been located within the disturbed and developed portion of the BBG. Third, the building and the parking area are integrated into the existing and new gardens.



### PROS:

- Potential for expanded Parking and Drive Aisle modifications
- improvement for ADA access
- Retains residential character
- Allows Shorts House to retain its historical state and location
- Creates a Gateway into the Garden
- Designed with Pedestrian safety in mind
- This location would enable staff to monitor and control vehicular access
- Enable staff to control and monitor pedestrian access
- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Integral to Garden Rooms
- Location supported by community, BBG Society, Park Board, and City Council
- Design complete and ready for permit – no additional fees
- Supported by Community, BBG Society, Park Board, and City Council

### -CONS:

- Limited sound buffer from roadway
- Impacts Critical Areas and Critical Areas Buffer

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$0
- Additional Transportation Study/Design	\$0
- New Public Outreach Costs:	\$0
- Additional Site Analysis (geotechnical, survey):	\$0
- Master Plan Update	\$0
- Public Outreach for relocation	\$0
- COB Staff Time (Parks)	\$0
- TOTAL (Additional Cost)	\$0

# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **F. Existing Yao Garden/ South Parking Location**

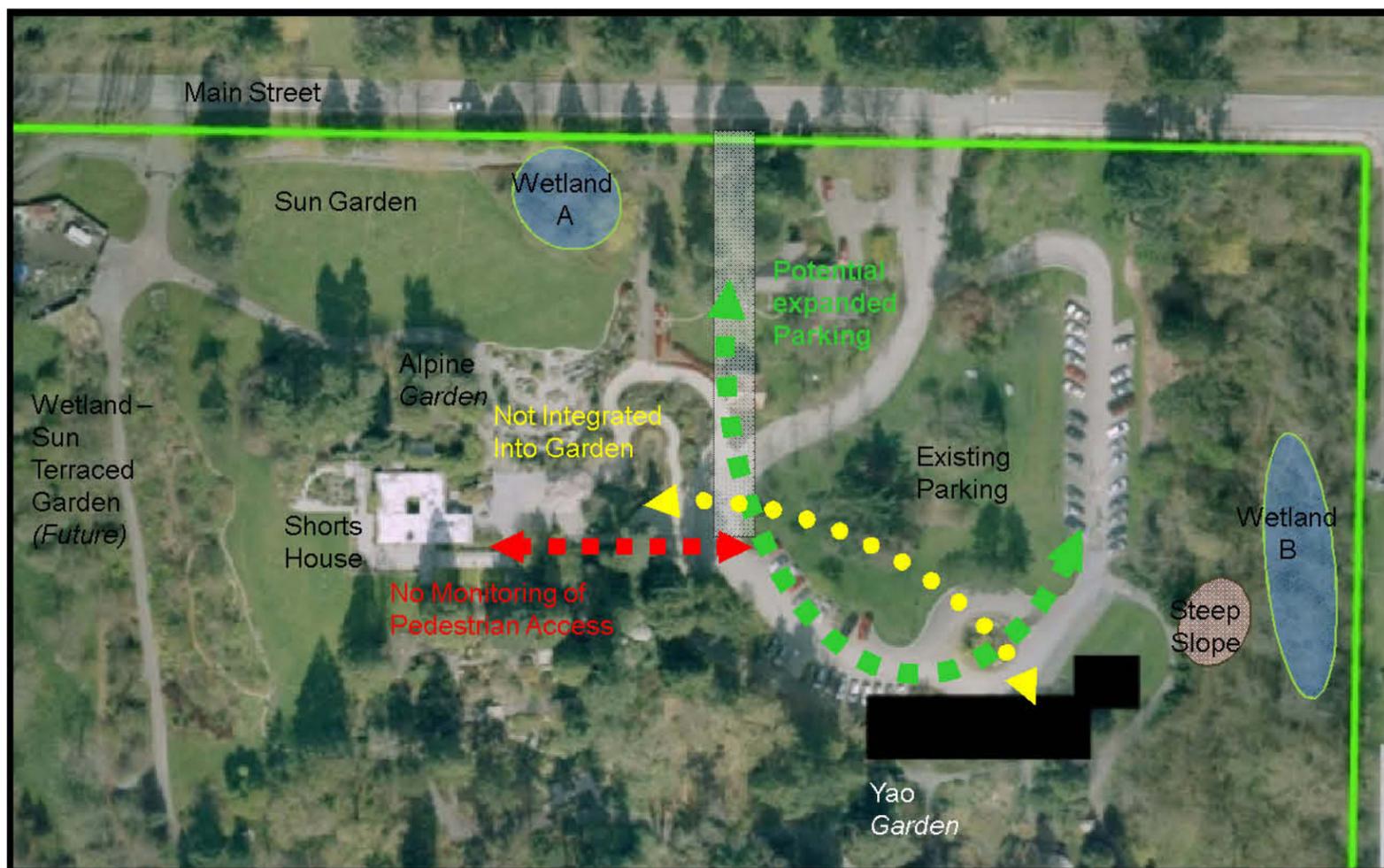
The south end of the existing parking lot between the Yao and Ground Cover Gardens (now the Rhododendron Glen Garden) was considered for a location, however eliminated due to pedestrian access issues, need to relocate an existing mature Garden, and the likely need to remove significant trees.

### PROS:

- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Allows Shorts House to return to residential feel
- Retains a residential character
- Less severe community reaction (outreach)

### -CONS:

- Limited monitoring of vehicular access
- Does not assist in controlling or monitoring the pedestrian access
- Does not provide an easy pedestrian access, nor provide safer pathway
- Removed from many of the existing Garden rooms
- Does not improve ADA access through site
- Limited Gateway to Garden feeling
- Impacts existing Yao Garden – potential partial relocation
- VC is not visible from Main Street, rather Parking area becomes “welcome mat”
- Does not buffer sound from roadway
- Significant trees on site to be removed
- Potential conflict with Steep Slope critical areas buffer



### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$850,000
- New Yao Garden Design Fees	\$200,000
- New Public Outreach Costs:	\$150,000
- Additional Site Analysis (geotechnical, survey):	\$ 80,000
- Master Plan Update	\$150,000
- Relocation of Yao Garden	\$ 825,000
- Critical Areas Buffer mitigation	\$100,000
- COB Staff Time (Parks)	\$175,000
- TOTAL (Additional Cost)	\$2,530,000



# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## **G. Wilburton Hill Park Sportsfield Location**

On or near the existing Wilburton Hill Park soccer field, west of the Garden along the Lake to Lake trail system. Although this site is open and level (ideal topography for construction), it would eliminate a lighted sportsfield, a valuable City asset in which there is a shortage. As well as, potential habitat impacts, and not providing a clear route for safety and security vehicles to access the building. Distance and proximity to the Garden, Park boundary issues, and other potential roadblocks removed this option from discussion.

### PROS:

- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Allows Shorts House to return to residential feel
- Potential for expanded Parking and Drive Aisle modifications
- Does not impact Critical Areas or Buffers
- Preserves existing Garden rooms
- Easy access to Wilburton Hill Park for overflow parking
- Level site with easy construction access
- Potential expansion of Garden rooms around VC and new "buffer" to Wilburton Hill Park

### -CONS:

- Does not allow for monitoring of vehicles
- VC is not visible from Main Street, rather Parking area becomes "welcome mat"
- VC would be hard to find
- Does not buffer sound from roadway
- Does not assist in controlling or monitoring the pedestrian access
- Does not provide an easy pedestrian access
- Removed from most of the existing Gardens
- Displaces synthetic turf sportsfield
- Potential conflicts with parking at Wilburton Hill Park users

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$950,000
- New Sportsfield Design Fees	\$400,000
- Additional Transportation Study/Design	\$100,000
- New Public Outreach Costs:	\$300,000
- Additional Site Analysis (geotechnical, survey):	\$150,000
- Master Plan Update	\$250,000
- Relocation of Synthetic Sportsfield	\$1,550,000
- COB Staff Time (Parks)	\$200,000
- TOTAL (Additional Cost)	\$3,900,000

# BELLEVUE BOTANICAL GARDEN VISITOR CENTER LOCATION STUDY

## H. Koh Property Location

Koh property site (existing residential structure site) was not included past a concept strategy, as this site has limited access. Additionally, there is no ability to control access to the Garden, would be hidden from use, would remove significant large trees and vegetation, and is located in a critical area.

### PROS:

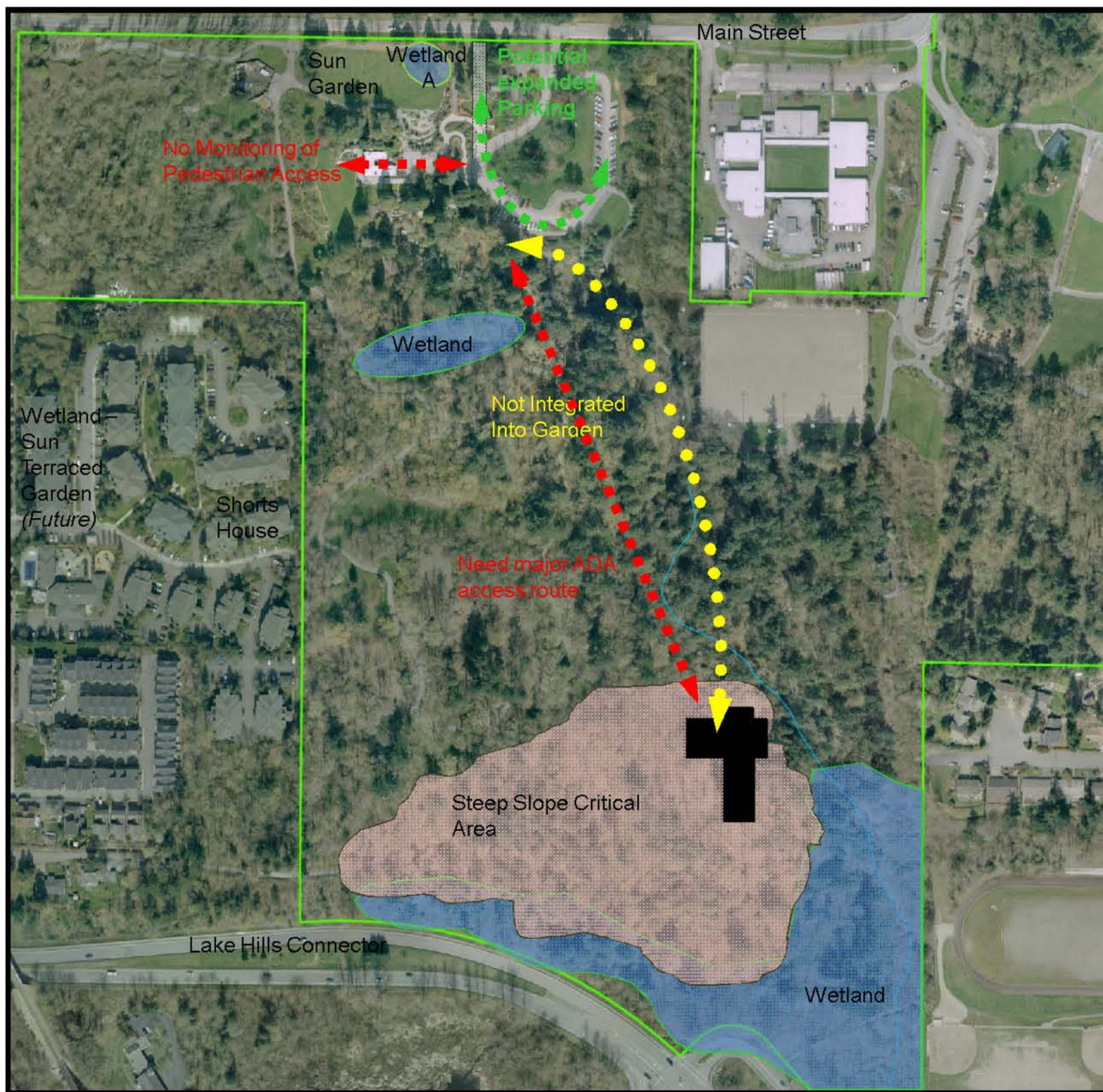
- Its less prominent location than the hilltop site of the Shorts' House is desirable.
- Allows Shorts House to return to residential feel
- Potential for expanded Parking and Drive Aisle modifications

### -CONS:

- Does not allow for monitoring of vehicles
- VC is not visible from Main Street, rather Parking area becomes "welcome mat"
- VC would be extremely difficult to find
- Does not buffer sound from roadway
- Does not assist in controlling or monitoring the pedestrian access
- Does not provide clear ADA route. And topographic challenges for access
- Removed from most of the existing Gardens
- Potential conflicts with parking at Wilburton Hill Park users
- Impacts the Wetland Critical Area buffer
- Impacts the Steep Slope Critical Area
- Requires numerous significant trees to be removed

### Redesigning the VC project (approximately):

- VC Architectural/Engineering Redesign Fees:	\$950,000
- Additional Transportation Study/Design	\$150,000
- New Public Outreach Costs:	\$150,000
- Additional Site Analysis (geotechnical, survey):	\$ 200,000
- Master Plan Update	\$150,000
- Critical Areas Mitigation	\$300,000
- New ADA Access	\$140,000
- COB Staff Time (Parks)	\$175,000
- TOTAL (Additional Cost)	\$2,215,000



ATTACHMENT G –

WETLAND MITIGATION PLAN



MAIN STREET

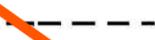
WETLAND "A" IMPACT AREA  
(5,423 SF)

WETLAND "B" BUFFER  
IMPACT AREA (253 SF),  
SIDEWALK TO THE  
SOUTH IS EXISTING

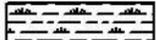
WETLAND CREATION AREA  
(10,869 SF)  
PROPOSED BUFFER  
(110 FEET)

118TH AVE. SE

**PLAN LEGEND**

-  DELINEATED ORDINARY HIGH WATER MARK
-  STREAM BUFFER
-  DELINEATED WETLAND
-  WETLAND BUFFER
-  PREVIOUSLY DELINEATED WETLAND (BY OTHERS)
-  PREVIOUSLY DEFINED BUFFER (BY OTHERS)

**IMPACTS & MITIGATION LEGEND**

-  WETLAND CREATION AREA (10,869 SF)
-  BUFFER ENHANCEMENT AREA (300 SF)
-  WETLAND BUFFER IMPACT AREA (253 SF)
-  WETLAND IMPACT (5,423 SF)

**Wetland/Buffer Impacts**

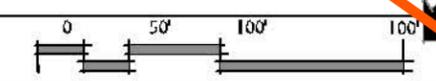
	Wetland Category	Buffer Width	Wetland Fill Impact (sq. ft.)	Wetland Buffer Impact (sq. ft.)	Mitigation Ratio Required	Mitigation Required	Mitigation Provided
Wetland A	IV	60-ft	5,423*	---	1.5:1 (creation)	8,134	10,869
Wetland B	III	110-ft	---	253	1:1	253	300
Wetland C	III	60-ft	---	---	---	---	---
Wetland D***	IV	---	---	---	---	---	---

\* Assumes the entire wetland will be filled.  
 \*\* If the entirety of Wetland A is filled, there would no longer be a buffer and therefore, despite the fact that portions of the proposed building are within the existing buffer, no buffer impacts would occur.  
 \*\*\*Wetland D is 317 square feet in size. Pursuant to 20.25H.095.4, Category IV wetlands less than 2,500 square feet in size are not regulated.

**CONCEPT MITIGATION PLAN**

SCALE: 1" = 100'-0"

**REVISED**  
9:09 am, Nov 03, 2011



SUBMITTALS & REVISIONS	
NO.	DESCRIPTION
1	DRAFT/CONCEPT PLAN

PROJECT MANAGER:	KB
DESIGNED:	ZL
DRAFTED:	M
CHECKED:	HM, BW
JOB NUMBER:	110408
SHEET NUMBER:	2 OF 2

**Bellevue Botanical Garden  
Critical Areas Land Use Permit (LO) Narrative  
September 2011**

*A description of the project site, including landscape features, existing development, and site history as applicable.*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011.

*A description of how the design constitutes the minimum necessary impact to the critical area.*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011 for language showing compliance with LUC 20.25H.055.C.2.b.i (*location and design results in the least impact to the critical area...*).

*A description of why there is no feasible alternative with less impact to the critical area, critical area buffer, or critical area structure setback.*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011 for language showing compliance with LUC 20.25H.055.C.3.g.ii.3 (*demonstration that no alternative achieves the stated function or objective*).

*A description of alternatives considered and why the alternative selected is preferred.*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011.

*A summary of how the proposal meets each of the decision criteria contained in Land Use Code Section 20.30P.*

A. *The proposal obtains all other permits required by the Land Use Code; and*

Response: The project applicant has applied for a Critical Areas Land Use Permit (LO) to allow for the placement of the Bellevue Botanical Garden Visitor Services Center within and surrounding a Category IV wetland. The LO will accompany a Conditional User Permit (CUP), also required for the Visitor Services Center.

Following approval of the CUP and LO, all necessary construction permits will be obtained.

*B. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer; and*

Response: The applicant has used the best available design and development techniques to design the improved trail. The design constitutes the minimum necessary impact on the critical area by minimizing the amount of trail within the buffer while still allowing full expansion of the parking lot.

Regarding impacts to Wetland A, see the explanations of unavoidable impacts in the *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011.

*C. The proposal incorporates the performance standards of Part [20.25H](#) LUC to the maximum extent applicable; and*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011 for language showing compliance with LUC 20.25H.100.

*D. The proposal will be served by adequate public facilities including streets, fire protection, and utilities; and*

Response: The proposed project will be served by adequate public facilities. No new streets will be needed to serve the site and the project site will utilize existing utilities currently available at the site. Additionally, fire and police protection are currently available at the site.

*E. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC [20.25H.210](#); except that a proposal to modify or remove vegetation pursuant to an approved Vegetation Management Plan under LUC 20.25H.055.C.3.i shall not require a mitigation or restoration plan; and*

Response: A mitigation plan has been prepared in accordance with the requirements of LUC 20.25H.210. The mitigation plan has been submitted as part of the Critical Areas Land Use Permit application. The mitigation plan proposes a 1.5:1 replacement to loss ratio to compensate for the loss of Wetland A. Wetland creation will take place adjoining an existing wetland southwest of

the project area. Buffer restoration is proposed to offset a minor impact to wetland buffer resulting from parking lot expansion/trail relocation. All temporarily disturbed wetland buffers resulting from mitigation site construction will be fully restored with native vegetation.

The non-wetland gap between Wetlands B and C was not selected for wetland creation due to a variety of factors, primarily steep grading, existing large trees with in-tact understory, and lack of buffering to the east. Wetlands B and C are at the base of a relatively steep slope, a gradient of approximately 17 percent. Currently there is a raised mound between these wetlands that contains a few trees and shrubs and a mix of native and invasive groundcovers; there are some bitter cherry trees and existing snags in that area. Existing willow trees on the edges of Wetlands B and C, and potentially roots of trees upslope, would likely be damaged by grading necessary to create wetland in the space between them. Additionally, the resulting grade would be quite steep, a condition that is not conducive to wetland creation. Under existing conditions Wetlands B and C drain to a ditch along the east property line. Due to the developed condition of the adjacent parcel, the eastern buffer is narrow and vegetated with mowed lawn. Creating wetland at this location would further diminish a buffer that is already sub-standard by current regulations and Best Available Science.

Comparatively, the proposed mitigation site to the west takes advantage of a more moderate gradient, limits impacts to a meadow and an area of successional deciduous trees and saplings with an invasive understory, and maintains a functioning buffer around the entire wetland feature. The majority of the grading would occur at the south end of the existing wetland where the slope is approximately 10 percent. Starting with a moderate gradient, a final wetland creation area could be blended with the existing grade, resulting in a more natural tapered grade. Therefore, the selected mitigation site was chosen to be the most sustainable long-term wetland creation area for this project.

*F. The proposal complies with other applicable requirements of this code.*

Response: The proposed project complies with all other applicable City of Bellevue Land Use Codes.

*A summary of how the proposal meets each of the criteria and performance standards contained in Land Use Code Section 20.25H associated with the critical area you are modifying.*

Response: See *Bellevue Botanical Garden Visitor Center – Critical Areas Analysis*, Ken Kroeger, City of Bellevue, dated August 23<sup>rd</sup>, 2011 for language showing compliance with LUC 20.25H.100.

*A summary of how the proposal meets each of the criteria contained in Land Use Code Section 20.25H.230 as required for applications proposing a modification through the use the Critical Areas Report process.*

Response: Not applicable; the proposed project is an allowed use within a wetland critical area.

The following compliance criteria apply only to the proposed wetland buffer impact resulting from trail modification activities east of the parking lot. Specifically, a section of the existing Lake-to-Lake Trail will be reconfigured to accommodate the expanded parking lot. Currently, the trail connects with the southeast corner of the parking lot and then extends to the west around the southern end of the lot. The proposed plan calls for the trail to extend to the north along the east edge of the new lot, eventually connecting with the remainder of the existing trail along Main Street. This allows the trail to bypass the busiest portions of the garden and also to allow full expansion of the parking lot. A small portion (382 square feet) of the newly configured trail will fall within the extreme outer edge of the standard 110-foot buffer of an onsite Category III wetland.

*20.25H.055C.3.g New and Expanded City and Public Parks*

*i. Trails. New nonmotorized trails within the critical area or critical area buffer must meet following standards:*

(A) *Trail location and design shall result in the least impacts on the critical area or critical area buffer.*

Response: Portions of the existing trail are located within the wetland buffer. However, the reconfigured trail has been designed to limit new impacts within the buffer to 382 square feet. All impacts will occur within the outer 15 feet of the 110-foot wetland buffer. Impacts are limited to minimal vegetation clearing, ground disturbance and trail installation. No new structures are proposed within the buffer.

(B) *Trails shall be designed to compliment and enhance the environmental, educational, and social functions and values of the critical area with trail design and construction focused on managing and controlling public access and limiting uncontrolled access.*

Response: The proposed trail improvements have been located within the outer edge of the wetland buffer in order to limit critical area buffer disturbance. The improvements are part of the Lake-to-Lake Trail, a greenway trail through the City of Bellevue that links Lake Washington and Lake Sammamish. Currently, the trail connects with the existing parking lot and then extends to the west around the southern end of the lot. The new trail section will extend to the north along the east edge of the new lot, eventually connecting with the remainder of the existing trail along Main Street. This allows the trail to bypass the busiest portions of the garden, allow full expansion of the parking lot, and also provide additional passive access opportunities along the perimeter of the wetland buffer. This can then help to create further awareness of the ecological sensitivity and uniqueness of the area.

A small portion (382 square feet) of the newly configured trail will fall within the extreme outer edge of the standard 110-foot buffer of an onsite Category III wetland.

- (C) *Trails shall be designed to avoid disturbance of significant trees and to limit disturbance of native understory vegetation.*

Response: No existing significant trees are proposed for removal as part of the trail improvement activities. Only ornamental groundcover will be removed to make room for the new trail section. All existing significant trees within the project vicinity will be protected during vegetation removal and trail construction and will remain post-construction. Areas of native vegetation that are impacted during construction activities will be restored with native plantings after trail installation.

- (D) *Trails shall be designed to avoid disturbance of habitat used for salmonid rearing or spawning or by any species of local importance.*

Response: No salmonid fish or species of local importance are known to occur within the project area. Therefore, no impacts to habitat associated with these species are expected to result from the proposed trail improvement activities.

- (E) *The trail shall be the minimum width necessary to accommodate the intended function or objective.*

Response: The proposed trail has been designed at a width of approximately eight feet. The proposed width is intended to provide adequate and safe

capacity for expected demand and is consistent with the width of connecting trails to the north and south of the project site.

- (F) *All work shall be consistent with the City of Bellevue’s “Environmental Best Management Practices” and all applicable City of Bellevue codes and standards, now or as hereafter amended.*

Response: All trail work shall be consistent with the City of Bellevue Clearing & Grading Code (Chapter 23.76), permit conditions, and all other applicable codes, ordinances, and standards, including “Environmental Best Management Practices”.

- (G) *The facility shall not significantly change or diminish overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod.*

Response: All portions of the paved trail will be located outside the limits of the on-site wetland and drainage channels.

- (H) *Where feasible and consistent with any accessibility requirements, any trail shall be constructed of pervious materials.*

Response: The small section of trail proposed within the wetland buffer will be constructed of impervious asphalt. The purpose of the asphalt trail is to provide a durable hard surface to accommodate the expected level of demand. Additionally, connecting trails to the north and south of the project site are also made of asphalt. Therefore, in order to provide a continuous surface through the project area, asphalt has been proposed.

- (I) *Crossings over and penetrations into wetlands and streams shall be generally perpendicular to the critical area, and shall be accomplished by bridging or other technique designed to minimize critical area disturbance considering the entire trail segment and function.*

Response: The proposed trail will not be located in or over a wetland or stream. Impacts will occur within a wetland buffer only.

- (J) *Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.*

Response: The project proposes to mitigate for the 382 square feet of wetland buffer impact by providing 400 square feet of wetland buffer enhancement at an existing wetland west of the garden. Mitigation for trail impacts is being proposed at this location due to the fact that additional wetland mitigation is proposed to occur there (for the filling of a Category IV wetland). This would locate all mitigation activities in the same area, thereby increasing the likelihood of success. Buffer enhancement will involve the removal of invasive species and the planting of native trees, shrubs, and groundcover with the wetland buffer. These actions are included in a mitigation and restoration plan prepared in accordance with LUC 20.25H.210.