



PLANNING COMMISSION REGULAR MEETING  
THURSDAY, MARCH 14, 2019  
7:00 – 9:00 PM  
COUNCIL CHAMBER  
280 MADISON AVE N  
BAINBRIDGE ISLAND, WA 98110

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## AGENDA

- 7:00 PM     **REGULAR MEETING CALL TO ORDER**  
Call to Order, Agenda Review, Conflict Disclosure
- 7:05 PM     **REVIEW AND APPROVE MINUTES**  
February 28, 2019
- 7:10 PM     **PUBLIC COMMENT**  
Accept public comment on off agenda items.
- 7:15 PM     **ERICKSEN TOWNHOMES ([PLN50804B SPR](#))**  
Review and Recommendation  
Olivia Sontag, Planner
- 8:00 PM     **SITE PLAN REVIEW AND CONDITIONAL USE PERMIT DECISION  
CRITERIA**  
Study Session  
Christy Carr, AICP, Senior Planner
- 8:50 PM     **NEW/OLD BUSINESS**
- 9:00 PM     **ADJOURN**

***\*\*TIMES ARE ESTIMATES\*\****

Public comment time at meeting may be limited to allow time for Commissioners to deliberate. To provide additional comment to the City outside of this meeting, e-mail us at [pcd@bainbridgewa.gov](mailto:pcd@bainbridgewa.gov) or write us at Planning and Community Development, 280 Madison Avenue, Bainbridge Island, WA 98110

**For special accommodations, please contact Jane Rasely, Planning & Community  
Development 206-780-3750 or at [pcd@bainbridgewa.gov](mailto:pcd@bainbridgewa.gov)**

PUBLIC PARTICIPATION MEETING – Hyla Middle School ([PLN51288 PRE](#))  
CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure  
REVIEW OF MINUTES – November 10, 2016, November 29, 2018 and December 13, 2018  
PUBLIC COMMENT – Accept public comment on off agenda items  
ORDINANCE 2019-03 - SUBDIVISION STANDARDS UPDATE – Public Hearing and  
Recommendation  
NEW/OLD BUSINESS  
ADJOURN

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**PUBLIC PARTICIPATION MEETING – Hyla Middle School ([PLN51288 PRE](#))**

Chair William Chester opened the public participation meeting at 6:01 PM. Senior Planner Kelly Tayara facilitated the meeting and Brandon Hogg from Studio Hamlet Architects presented the project.

The public participation meeting was over at 6:25 PM and a recess until 7:00 PM occurred.

**SPECIAL MEETING CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure**

Chair William Chester called the meeting to order at 7:00 PM. Planning Commissioners in attendance were J. Mack Pearl, Jon Quitslund, Kimberly McCormick Osmond, Don Doman and Joe Paar. Lisa Macchio was absent and excused. City Staff present were Planning Director Gary Christensen, Long Range Senior Planner Christy Carr and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

The agenda was reviewed. There were not any conflicts noted.

**REVIEW AND APPROVE MINUTES – February 13, 2019**

**Motion: I move the approval of minutes from our meeting of February 13<sup>th</sup> as distributed.**

**Quitslund/Paar: Passed Unanimously**

**PUBLIC COMMENT – Accept public comment on off agenda items**

**Michael Zigich, Citizen** – Asked for an update on the approved amendments to the SMP.

**Rosalyn Renouard, Citizen** – Spoke about the increased traffic congestion on Madison Avenue.



**ORDINANCE 2019-03 - SUBDIVISION STANDARDS UPDATE – Public Hearing and Recommendation**

**The public hearing was opened at 7:16 PM.**

**Brian Wilkinson, Citizen** – Asked for an exemption for the R-0.4 Zone and spoke against the currently proposed ordinance.

**Larry Lewis Knight, Citizen** – Said he was there because he read a newspaper article and wanted to find out what the Planning Commission was considering especially as regarded “clustering” as that was not what he was used to considering rural in character.

**Charlie Wenzlau, Consultant** – Said he had spoken incorrectly at the last meeting and said the Planning Commission could correct his statement about the subdivision size to which these regulations would apply.

**The public hearing was closed at 7:34 PM.**

**8:33 PM Motion: I move to adopt the comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit A with the following changes: Section 17.12.030 Four-Step Design Process, second paragraph, first sentence we’ll remove the words except the redivision of land into two lots. Section 17.12.050 Natural Area and Community Space, Subsection B, Community Space Required, after all residential subdivisions, add the words except short subdivisions. Table 17.12.070-1, Subdivision Dimensional Standards, under Garage Dimensional Standards, change “shared garage to public right of way,” to “shared garage internal access.” [Ms. Carr asked to have the error in Garage Dimensional Standards – Shared garage maximum size corrected from “60 feet long or 144 square feet total” to 60 feet long or 1440 square feet total” to which Commissioner McCormick Osmond replied, “Yes, please.”] And I further move to adopt the comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit B. And I further move to adopt comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit C.**

**McCormick Osmond/Pearl: Passed Unanimously**

**Motion: I move that we forward to the Council with our recommendation Ordinance number 2019-03 with its exhibits as amended in the previous motion. Quitslund/Paar: Passed Unanimously**

**NEW/OLD BUSINESS**

Planning Director Gary Christensen reviewed the *Public Hearing Opening Statement, Protocols and Procedures* as it would be used by the Planning Commission.

Projects for the next meeting were reviewed.

**ADJOURN**

The meeting was adjourned at 8:56 PM.

Approved by:

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William Chester, Chair

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Jane Rasely, Administrative Specialist



## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

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# STAFF REPORT AND RECOMMENDATION

### ERICKSEN TOWNHOMES

FILE #: PLN50804B SPR

Prepared by: Olivia Sontag, Planner

Date: March 7, 2019

**Request:** Major Site Plan and Design Review (SPR), PLN50804B SPR

**Owner:** Wing Point Properties LLC

**Location:** 568 Ericksen Avenue NE

**Tax Parcel:** 262502-2-051-2009

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### Part I: Description of Proposal and Recommendation

- 1. Description of Proposal:** The property is located in the Mixed Use Town Center – Ericksen Avenue Overlay District. The 0.44-acre property is developed with a single-family residence built in 1905 which is listed on the City's Local Historic Register as the Henry Groos House. This proposal includes a condominium development of six (5) freestanding townhomes (2,102-2267 sq.ft.) and preservation of the Henry Groos House (640 sq.ft.). The applicant is proposing to purchase floor area to earn a floor area ratio (FAR) bonus.

The Winslow Ravine runs parallel to the east property line. The applicant is proposing the mitigated standard 25-foot buffer and 15-foot structure and hard surface setback from the top of the slope. The property also contains a geologically hazardous area that requires a standard 64-foot setback from the top of slope. The applicant has proposed to reduce the setback to 35 feet. Per BIMC 16.20.130.E.5, Independent Third Party Geotechnical Review was conducted.

- 2. Environmental Review:** The project is subject to State Environmental Policy Act (SEPA) review as provided in Washington Administrative Code (WAC 197-11-800).
- 3. Staff Recommendation:** APPROVAL, with conditions.
- 4. Decision Process:** In the case of a major site plan and design review application, the director will make the final decision based on (A) the decision criteria in BIMC 2.16.030.F, (B) the recommendation of the planning commission, (C) the recommendation of the design review board, and (D) consideration of any public comments received. The design review board and planning commission's recommendation shall hold substantial weight in the consideration of the application by the director. Any deviation from that recommendation shall be documented.
- 5. Appeal:** Administrative decisions may be appealed to the Hearing Examiner in accordance with BIMC 2.16.020.R.1.

[illegible]

Enclaven Avenue

Private Drive

5' Width Full Screen Buffer

10' Width Permeable Buffer

20' Width Permeable Buffer

LANDSCAPE TYPOLOGIES

- 1 STREETScape
- 2 LANEScape
- 3 PRIVATE YARDS
- 4 BUFFER ENHANCEMENT AREA

PLACES/FEATURES

- A OUTDOOR DINING
- B BENCH IN FOREST
- C SOFT SURFACE (WOOD CHIPS) TRAIL LOOPS
- D RAIN GARDEN - Refer to Civil
- E OLD APPLE TREE (ELECTIVE RETENTION)
- F GRAVEL PATH CONVERTED TO BARK PATH

EXISTING GRAVEL PATH AND BRICK PATIO IN 25' WINDSLOW RAVINE BUFFER CONVERTED TO PERMEABLE BARK SURFACES

NOTES:

1. REFER TO L03 TREE RETENTION PLAN FOR EXISTING TREES TO BE RETAINED.
2. REFER TO L02 FOR NARRATIVE OF EACH PLANTING TYPOLOGY, INCLUDING THE PROPOSED NATIVE PLANT PERCENTAGE FOR EACH.
3. NO TURF LAWN IS PROPOSED FOR THE PROJECT.

Scale

0 10 20

1" = 10' on a 24" x 36" sheet  
1" = 20' on a 18" x 24" sheet

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**Vicinity Map**

**Aerial View**

**Zoning**

The image displays three maps related to a property in Everett, WA. The top map is a vicinity map showing the location of the property (marked with a red dot) in the Everett area, near the city center and the Everett-Palouse Regional Airport. The middle map is an aerial view of the property, outlined in red, showing a large, irregularly shaped lot with dense vegetation and trees. The bottom map is a zoning map showing the property (outlined in red) located near Ericksen Ave NE, with the property labeled 'ERICK' and the area labeled 'GATE'. The zoning map also shows the surrounding streets and the location of the property relative to the city center.



## Part II: General Information and Site Characteristics

| Basic Information    |                                                                                                                                                                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zoning District      | Mixed Use Town Center – Ericksen Avenue Overlay District                                                                                                                                                                                        |
| Gross Site Area      | 0.44 acres (19,166 square feet)                                                                                                                                                                                                                 |
| Soils and Terrain    | Soils consist of Vashon Till hardpan (compacted sand, gravel, and silt). West of the 64-foot high slope from the Winslow Ravine, the upland portion of the site slopes gently gaining 10 feet of elevation from the southeast to the northwest. |
| Critical Areas       | Winslow Ravine and Geologically Hazardous Area                                                                                                                                                                                                  |
| Existing Development | Single-family residence (to be retained)                                                                                                                                                                                                        |

| Public Services and Utilities |                                                                              |
|-------------------------------|------------------------------------------------------------------------------|
| Police                        | City of Bainbridge Island Police Department                                  |
| Fire                          | Bainbridge Island Fire District                                              |
| Schools                       | Bainbridge Island School District                                            |
| Water                         | COBI Water Service Area                                                      |
| Sewer                         | COBI Sewer Service Area                                                      |
| Storm Drainage                | Rain garden and tying into an existing storm drain along Ericksen Avenue NE. |

## Part III: Application Background

| Date               | Action                                         | Summary                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| April 6, 2017      | Historic Property Nomination                   | The Henry Groos House was added to the Local Historic Register.                                                                                                                                                                                                                                                                                                                                              |
| September 18, 2017 | Public Participation Meeting                   | The applicant was commended for keeping the historic home. Questions centered around the buffers and view corridors to the Winslow Ravine.                                                                                                                                                                                                                                                                   |
| October 2, 2017    | Design Review Board (DRB) Meeting              | Preliminary review and discussion.                                                                                                                                                                                                                                                                                                                                                                           |
| January 9, 2018    | Development Moratorium (Ordinance No. 2018-02) | The moratorium as originally adopted prohibited applications for many land use actions. The moratorium was subsequently revised to allow an exception for Major Site Plan and Design Review proposals that were not otherwise subject to this moratorium and that had a preapplication conference on the Planning Department's calendar before the effective date of the moratorium. (Ordinance No. 2018-05) |
| January 30, 2018   | First Preapplication Meeting                   | Applicant initially proposed a Tier 1 HDDP subdivision with nine (9) units.                                                                                                                                                                                                                                                                                                                                  |
| July 3, 2018       | Second Preapplication Meeting                  | Applicant proposed changing project from a subdivision to a condominium development reducing the number of residential units.                                                                                                                                                                                                                                                                                |
| July 30, 2018      | Preapplication Letter Sent                     | Included comments from the Fire District and COBI Public Works Development Engineer.                                                                                                                                                                                                                                                                                                                         |
| August 29, 2018    | Application Submitted                          | Major Site Plan and Design Review (SPR) and Minor Conditional Use Permit (CUP) were submitted.                                                                                                                                                                                                                                                                                                               |

|                    |                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| September 13, 2018 | Historic Preservation Commission (HPC)                       | Initial review of the Minor CUP and zoning relief to reduce the 20-foot perimeter landscape buffer along the south property line to five (5) feet.                                                                                                                                                                                                                                                                                                                                                                                                  |
| September 27, 2018 | Determination of Completeness                                | Application was deemed complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| October 1, 2018    | Design Review Board (DRB) Meeting                            | Recommended approval with two (2) additional comments regarding windows and street trees.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| October 11, 2018   | Historic Preservation Commission (HPC)                       | Recommended approval of the Minor CUP and zoning relief to reduce the 20-foot perimeter landscape buffer along the south property line to five (5) feet.                                                                                                                                                                                                                                                                                                                                                                                            |
| December 12, 2018  | Multi-Modal Transportation Advisory Committee (MTAC) Meeting | The committee noted the need to ensure that the existing bike lane is preserved fully, as required by the Island Wide Transportation Plan (IWTP).                                                                                                                                                                                                                                                                                                                                                                                                   |
| February 22, 2019  | Administrative Code Interpretation (ADM)                     | At the request of another applicant, the Director issued an ADM (PLN50880 ADM) which concluded that the perimeter landscape buffer table (BIMC 18.15.010-3) applies to abutting zone districts or overlay districts but does not apply to uses of abutting properties. This interpretation eliminated the requirement for a perimeter landscape buffer along the southern property line and eliminated the need for the Minor CUP to reduce the perimeter landscape buffer width. The Minor CUP was cancelled, and the applicant is being refunded. |
| March 4, 2019      | Revisions Received from the Applicant                        | During review, staff determined that the applicant was over the maximum Floor Area Ratio (FAR) allowance and several buildings were above the allowable building height. The applicant revised the plans to meet the FAR and height requirements, reducing the number of townhomes from six (6) to five (5) and reducing the height of two (2) structures from 35 feet to 25 feet maximum.                                                                                                                                                          |
| March 4, 2019      | Design Review Board (DRB) Meeting                            | The applicant revisited the DRB with the revisions to the townhomes. The DRB recommended approval of the revisions with no comments.                                                                                                                                                                                                                                                                                                                                                                                                                |

#### Part IV: Comprehensive Plan Goals and Policies

| Elements     | Goals and Policies                                                                                                                                                                                                                                                                                    |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Introduction | Guiding Principle #1: Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation. |
|              | Guiding Principle #4: Consider the costs and benefits to Island residents and property owners in making land use decisions.                                                                                                                                                                           |
|              | Guiding Principle #5: The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.                                                                                                              |

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Use Element | Island-Wide Conservation and Development Strategy – Goal LU-4: As part of a long-term Island-wide Conservation and Development Strategy, focus residential and commercial development in designated centers, increase a network of conservation lands, maximize public access while protecting the shoreline, minimize impacts from the SR 305 corridor and conserve the Island’s ecosystems and the green and open character of its landscape.                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                  | Policy LU 4.1: Focus development and redevelopment on the Island over the next fifty years in designated centers that have or will have urban levels of services and infrastructure while increasing conservation, protection and restoration on the Island, including shorelines, especially where there is interaction between the fresh and saltwater environments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                  | Designated Centers – Goal LU-5: Focus Urban Development in Designated Centers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                  | Policy LU 5.11: Commercial and residential density within designated centers may be increased through the use of: Preservation of on-site of historic structures eligible for inclusion on a local, state or federal register of historic places.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                  | Designated Centers – Goal LU-6: Ensure a development pattern that is true to the Vision for Bainbridge Island by reducing the conversion of undeveloped land into sprawling development. Encourage improvement of aging or underutilized developments over development of previously undeveloped property.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                  | Policy LU 6.2: Promote dense residential and commercial development and encourage human activity within Winslow, the heart of Bainbridge Island. In order to create a vibrant city center direct growth where infrastructure exists, reduce reliance on the automobile, provide opportunities for affordable housing and absorb growth that would otherwise be scattered in outlying areas. Plan for adequate parking in Winslow to accommodate residents and visitors who drive downtown for shopping, participation in local government, attendance at cultural events and centers, and to use other resources in Winslow.                                                                                                                                                                                                                                      |
|                  | Winslow Town Center – Goal LU-7: The Winslow mixed use and commercial districts are designed to strengthen the vitality of downtown Winslow as a place for people to live, shop and work. The Winslow Mixed Use Town Center (MUTC) is intended to have a strong residential component to encourage a lively community during the day and at night. The high residential density of Winslow requires the Central Core Overlay District to provide services and products that meet the needs of residents as well as visitors.                                                                                                                                                                                                                                                                                                                                      |
|                  | Policy LU 7.4 Ericksen Avenue Overlay District – The purpose of this Overlay District is to preserve the unique and historical features of the neighborhood and to provide for a mix of residential and small-scale non-residential development. Retail development is permitted only on the ground floor, while residential and office development is permitted on the upper floors. Historic (pre-1920) single-family residential structures on Ericksen may be converted to non-residential use, provided that the structure is preserved. However, any additions to the structure must be added to the rear and must be compatible with the character of the original structure. New buildings shall employ traditional building forms, roof shapes, and relationship of building to street to be compatible with the historic structures on Ericksen Avenue. |
|                  | Historic Preservation – Goal LU-20: Identification and Evaluation of Historic Resources – Historic property inventory and context statements inform planning efforts by identifying areas where resources worthy of preservation exist or are likely to occur.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                  | Historic Preservation – Goal LU-21: Preservation and Enhancement of Historic Resources – An effective historic preservation program provides meaningful practical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | incentives and policies for property owners and developers to preserve historic resources.                                                                                                                                                                                                                                                                                                                                                     |
| Economic Element        | Development in Designated Centers – Goal EC-6: As the city’s designated centers evolve, balance their functions as places of commerce and employment with their roles helping to meet housing needs and provide focal points for civic engagement and cultural enrichment.                                                                                                                                                                     |
|                         | Policy EC 11.2: The predominant focus of downtown Winslow is to serve the commercial and social needs of Island residents. A lively, pedestrian-oriented town center that provides a mix of commercial and residential uses creates a potential tourist destination.                                                                                                                                                                           |
| Environmental Element   | Environment – Goal EN-4: Encourage sustainable development that maintains diversity of healthy, functioning ecosystems that are essential for maintaining our quality of life and economic viability into the future.                                                                                                                                                                                                                          |
|                         | Fish and Wildlife – Goal EN-5: Protect and enhance wildlife, fish resources and ecosystems.                                                                                                                                                                                                                                                                                                                                                    |
|                         | Geologically Hazardous Areas – Goal EN-8: Protect landslide hazard areas and erosion hazard areas from the impacts of use and development for the protection of public safety, property and the environment.                                                                                                                                                                                                                                   |
|                         | Policy EN 8.1: Avoid land uses on landslide hazard and erosion hazard areas. If the hazard caused by development can be mitigated, then design land use to prevent damage to persons or property and environmental degradation and to preserve and enhance existing vegetation to the maximum extent possible.                                                                                                                                 |
|                         | Policy EN 10.2: Encourage the retention of existing trees and vegetation and the planting of new trees and vegetation that provides natural filtration of suspended particulate matter, removes carbon dioxide and improves air quality.                                                                                                                                                                                                       |
| Water Resources Element | Policy WR 2.3: To promote efficient use of groundwater resources, encourage the expansion of existing water systems rather than encouraging shallow or individual residential wells.                                                                                                                                                                                                                                                           |
|                         | Policy WR 2.13: Require the retention of native landscapes to promote water quality and to reduce the need for irrigation.                                                                                                                                                                                                                                                                                                                     |
|                         | Policy WR 3.2: Require that vegetated buffers be maintained between proposed development and the aquatic resource in order to protect the functions and values of such systems. Restore degraded buffers to enhance their function. Allow reductions in vegetated buffers only in areas where such reductions, if consistently applied, would not result in significant cumulative impacts to aquatic resources and fish and wildlife habitat. |
|                         | Policy WR 3.3: Require that buffers be retained in their natural condition wherever possible while allowing for appropriate maintenance. Where buffer disturbance has occurred, require re-vegetation with appropriate species, with a preference for native species, to restore the buffers’ protective values.                                                                                                                               |
|                         | Policy WR 3.4: Ensure that development activities are conducted so that aquatic resources and natural drainage systems are maintained and water quality and quantity are protected.                                                                                                                                                                                                                                                            |
|                         | Policy WR 3.5: Prior to any clearing, grading or construction on a site, all wetlands, streams and buffer areas are to be specifically identified and accurately located in the field in order to protect these areas during development.                                                                                                                                                                                                      |
| Housing Element         | Policy HO 3.1 Encourage innovative zoning regulations that increase the variety of housing types and choices suitable to a range of household sizes and incomes in a way                                                                                                                                                                                                                                                                       |

|                        |                                                                                                                                                                                                                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | that is compatible with the character of existing neighborhoods.                                                                                                                                                                                                                                                                               |
|                        | Policy HO 4.1 Encourage new multifamily housing in a variety of sizes and forms in designated centers.                                                                                                                                                                                                                                         |
| Transportation Element | Multimodal – Goal TR-1: Encourage the development of an integrated multimodal transportation system that provides a range of safe transportation alternatives and increases the through movement of people, maximizing use of non-motorized and public transit.                                                                                |
|                        | Policy TR 1.1: In accordance with complete streets practices and guidelines, new or rebuilt streets shall, as much as is practical, address the use of the right-of-way by all users.                                                                                                                                                          |
|                        | Non-Motorized System – Goal TR-2: Provide a non-motorized transportation system that is a planned and coordinated network of shoulders, sidewalks, trails, footpaths, bikeways and multi- purpose trails that connect neighborhoods with parks, schools, the shoreline, the ferry terminal and commercial areas.                               |
| Utilities Element      | Policy U 12.2: Within public sewer system service areas, new construction should provide for eventual connection to public sewer systems.                                                                                                                                                                                                      |
|                        | Storm and Surface Water – Goal U-13: Manage stormwater runoff to protect life, property and habitat from flooding and erosion; to channel runoff to minimize impacts to daily activities; to protect the quality of groundwater, surface water, and the waters of Puget Sound; and to provide recharge of groundwater where appropriate.       |
|                        | Policy U 13.2: Require new development to provide both on-site and off-site improvements necessary to avoid adverse water quality and quantity impacts.                                                                                                                                                                                        |
|                        | Policy U 13.5: Minimize disruption and/or degradation of natural drainage systems, minimize impervious areas by restricting site coverage, and encourage site permeability by retaining natural vegetation and buffers, and specifying use of permeable materials.                                                                             |
|                        | Policy U 14.5: Encourage the electric service provider and electricity users to use carbon neutral electricity generation, local electricity generation, and innovative technologies such as solar power that are reliable, cost effective, preserve resources, provide minimal environmental impact, and do not contribute to global warming. |
|                        | Policy U 14.8: Encourage new development to integrate environmentally responsible and innovative energy systems.                                                                                                                                                                                                                               |

## Part V: Public Notice and Agency Comments

### 1. Public Notice

| Date             | Action                                                                   | Summary                      |
|------------------|--------------------------------------------------------------------------|------------------------------|
| October 5, 2018  | Notice of Application/SEPA Comment Period Published                      | 14 Day Comment Period        |
| October 19, 2018 | End of Comment Period                                                    | No public comments received. |
| February 8, 2019 | Notice of Intent to Reduce the Minimum Buffer in a Landslide Hazard Area | 21 Day Comment Period        |
| March 1, 2019    | End of Comment Period                                                    | One public comment received. |

## 2. Public Comments

| Date              | Summary of Comment                                                                                                                                                                                            | City Response                                                                                                                                                                |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| February 17, 2019 | The commenter requested a copy of the findings from the Third Party Geotechnical Reviewer. The commenter has concerns about construction so close to a landslide hazard and wants the risks to be considered. | Staff responded to the comment by sending the findings from the Third Party Geotechnical Reviewer. The commenter confirmed receipt and had no further comments or questions. |

## 3. Agency Comments

| Date               | Agency                                               | Summary of Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| August 29, 2018    | Kitsap Public Health District (KPHD)                 | KPHD had no comments (COBI sewer and water).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| September 25, 2018 | Bainbridge Island Fire District (BIFD)               | The Fire Marshal recommended approval with conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| October 1, 2018    | Design Review Board (DRB)                            | The DRB recommended approval with the following motion (passed unanimously): <ul style="list-style-type: none"> <li>We are recommending approval of the site plan review for this project with a recommendation of additional windows in the corner tower and the substitution of some evergreen trees to replace deciduous trees. Secondly, this collaborative process with the applicant, Planning staff and Design Review Board has generated an exemplary solution to creatively meet the requirements placed upon the property in the Ericksen Corridor.</li> </ul> |
| October 11, 2018   | Historic Preservation Commission (HPC)               | Recommended approval of the zoning relief to reduce the 20-foot landscape buffer along the south property line to 5-feet.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| October 22, 2018   | Independent Third-Party Geotechnical Review          | The Independent Third-Party Geotechnical Reviewer supported the analysis in the applicant's geotechnical report and recommended approval of the buffer reduction.                                                                                                                                                                                                                                                                                                                                                                                                        |
| December 12, 2018  | Multi-Modal Transportation Advisory Committee (MTAC) | The Committee recommended approval with the following comment: <ul style="list-style-type: none"> <li>The committee noted the need to ensure that the existing bike lane is preserved fully, as required by the Island Wide Transportation Plan (IWTP).</li> </ul>                                                                                                                                                                                                                                                                                                       |
| March 4, 2019      | Design Review Board (DRB)                            | After reviewing the applicant's revisions, the DRB recommended approval with the following motion (passed unanimously): <ul style="list-style-type: none"> <li>The DRB has reviewed on March 4 the applicant's revised site plan based on the FAR regulations and we approve of the changes as presented.</li> </ul>                                                                                                                                                                                                                                                     |
| March 6, 2019      | COBI Operations and Maintenance                      | The City issued a non-binding commitment for water and sewer system capacity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| March 7, 2019      | COBI Public Works - Engineering                      | The City's Public Works Development Engineer recommended approval with conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Part VI: Land Use Code Analysis

### 1. BIMC Title 16 Environment

#### a. BIMC 16.20 Critical Areas

| Critical Area                                                          | Required/Allowed                                                                                                                                                                                                                                                                                                                                                                         | Proposed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Geologically Hazardous Area (landslide hazard – slopes 40% or greater) | Standard Setback Requirement: A buffer equal to the height of the slope up to a maximum of 75 feet, shall be established from all edges of a landslide hazard area. The slope is 64 feet in height and the standard setback is 64 feet from the top of the slope. A different setback established by the findings of a geological hazards may be allowed pursuant to BIMC 16.20.130.E.5. | The applicant has proposed to reduce the setback to 35 feet from the top of slope. Per BIMC 16.20.130.E.5, Independent Third Party Geotechnical Review was conducted to review the proposed setback reduction. The reviewer recommended approval of the reduced setback. A Notice of Intent to Reduce the Minimum Buffer in a Landslide Hazard Area was issued with a 21-day comment period ending on March 1, 2019. An Indemnification or Hold Harmless agreement will be required prior to commencement of construction or site alteration. |
| Winslow Ravine                                                         | Option A: Prescriptive Standards<br>50 feet from the top of the Winslow Ravine plus a 15 foot structure and hard surface setback beyond the buffer<br><br>Option B: Mitigated Standards<br>25 feet from the top of the Winslow Ravine plus a 15 foot structure and hard surface setback beyond the buffer                                                                                | Option B: Mitigated Standards<br>The applicant submitted a buffer enhancement plan in accordance with BIMC 16.20.180.D with a 25 foot buffer and 15 foot setback. The mitigation plan proposes invasive species removal and planting native vegetation within the Winslow Ravine buffer. Existing hard surfaces are being converted to permeable bark surfaces.                                                                                                                                                                               |

### 2. BIMC Title 18 Zoning

#### a. BIMC 18.09 Use Regulations

| Proposed Use          | Use Standards                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------|
| Multifamily Dwellings | Multifamily development is a permitted use in the Mixed Use Town Center – Ericksen Avenue Overlay District. |

#### b. BIMC 18.12 Dimensional Standards

| Dimensional Standards | Required/Allowed                   | Proposed                                                                                                                                     |
|-----------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Lot Coverage          | 35 percent (6,708 sq.ft.)          | 32 percent (6,152 sq.ft.)                                                                                                                    |
| Front Yard Setback    | 15 feet minimum<br>20 feet maximum | 15 feet<br>The Henry Groos House is nonconforming to the front yard setback but no changes are proposed for the structure and it may remain. |

|                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                           | As a historic structure, zoning relief may be available per BIMC 18.24.010.C.                                                                                                                                                                                                                                                                                   |
| Rear Setback                                                                                                                                                                                                                                                                                                                                                                                         | 0 feet                                                                                                                                                    | 35 feet                                                                                                                                                                                                                                                                                                                                                         |
| Side Yard Setbacks                                                                                                                                                                                                                                                                                                                                                                                   | 5 feet minimum                                                                                                                                            | 5 feet to north and 5 feet to south                                                                                                                                                                                                                                                                                                                             |
| Residential FAR<br>Maximum with Bonus                                                                                                                                                                                                                                                                                                                                                                | 0.3 FAR (5,750 sq.ft.)<br>0.6 FAR (11,500 sq.ft.)                                                                                                         | 0.6 FAR (11,005 sq.ft.)<br>(bonus needed for 5,255 sq.ft.)<br>Portions of the structure not completely enclosed by exterior vertical walls, such as a garage, do not count as floor area.                                                                                                                                                                       |
| Historic Structure                                                                                                                                                                                                                                                                                                                                                                                   | The Henry Groos House is listed on the Local Historic Register and the FAR does not count in the calculation of total FAR for the site.                   | The Henry Groos House floor area (1,242 sq.ft.) is excluded from the maximum FAR calculation.                                                                                                                                                                                                                                                                   |
| Eligible properties may achieve a maximum level of development above the base FAR by using one, or a combination of FAR bonus provisions in BIMC 18.12.030.E. The applicant is proposing the following option: Up to 100 percent of the maximum residential FAR bonus may come from the purchase of development rights. The current cost of development rights for residential FAR is \$18.00/sq.ft. |                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                 |
| Title 18 Building Height                                                                                                                                                                                                                                                                                                                                                                             | 25 feet maximum                                                                                                                                           | 18 feet for the two (2) townhomes along the south property line.                                                                                                                                                                                                                                                                                                |
| Bonus for parking under the building                                                                                                                                                                                                                                                                                                                                                                 | 35 feet maximum<br>The bonus height is only available for the entire building if parking is located under more than 50 percent of the building footprint. | 31 feet for the three (3) townhomes along the north property line. The garages for these structures are located under 52 percent of the building footprint are designed to be partially below grade plane. They are not a story above grade plane as defined in the International Building Code (IBC) and qualify for the bonus for parking under the building. |

c. BIMC 18.15 Development Standards and Guidelines

i. BIMC 18.15.010 – Landscaping, Screening, Tree Retention, Protection and Replacement

| Landscape Requirements         | Required/Allowed                                                 | Proposed                                                                                                                                                                                                    |
|--------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Units                     | 40 tree units per acre<br>17.6 tree units are required           | The applicant is retaining 5.6 tree units and has proposed 12 new trees to meet the tree unit requirement. Trees retained within the Winslow Ravine buffer do not count towards the tree unit requirements. |
| Perimeter Buffer               | N/A                                                              | N/A                                                                                                                                                                                                         |
| Roadside Buffer                | N/A                                                              | N/A                                                                                                                                                                                                         |
| Protection During Construction | Protection of existing vegetation, trees, and tree stands during | As conditioned, construction fencing is required along the Winslow Ravine                                                                                                                                   |

|  |                                                                                        |                                                                                                                                                                   |
|--|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | construction and development shall comply with the requirements of BIMC 18.15.010.C.4. | buffer and around trees to be retained to delineate the area of prohibited disturbance. The applicant has provided a tree valuation for the trees to be retained. |
|--|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ii. BIMC 18.15.020 – Parking and Loading

| Parking Requirements    | Required/Allowed                                                                             | Proposed                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disabled Access Parking | N/A                                                                                          | N/A                                                                                                                                                       |
| Off-Street Parking      | One (1) space per one-bedroom unit<br>Two (2) spaces per townhome<br>11 parking spaces total | The applicant has proposed 2 car garages under each townhome and one existing space for the Henry Groos House. A total of 11 parking spaces are provided. |

iii. BIMC 18.15.030 – Mobility and Access

| Mobility Requirements | Required/Allowed                                                                             | Proposed                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Bicycle Spaces        | One (1) bicycle space per five (5) parking spaces with a minimum of four (4) bicycle spaces. | There is no shared parking and the applicant is proposing bicycle storage in each of the garages, exceeding these requirements. |

iv. BIMC 18.15.040 – Outdoor Lighting

| Lighting Requirements | Required/Allowed                                                 | Proposed                                      |
|-----------------------|------------------------------------------------------------------|-----------------------------------------------|
| Outdoor Lighting      | The project shall comply with the outdoor lighting requirements. | No outdoor lighting is proposed at this time. |

v. BIMC 18.15.050 – Signs

| Sign Requirements | Required/Allowed                                                 | Proposed                            |
|-------------------|------------------------------------------------------------------|-------------------------------------|
| Signs             | The project shall obtain a sign permit for any signage proposed. | No signs are proposed at this time. |

d. BIMC 18.18 Design Standards and Guidelines

| Design Guidelines                   | Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Design Guidelines           | The Ericksen District Design Guideline 3 requires the total of both side yard setbacks to be at least 30% of the width of the frontage on Ericksen. Driveways may be in the setbacks, but the open air view from the street through to the Winslow Ravine shall remain unobstructed by buildings or fences. During the early stages of review, the Design Review Board (DRB) requested that the applicant relocate the access drive from the side yard through the center of the property to create a muse effect, repositioning a portion of the side yard setback to the center of the property. The lot is 100 feet wide with a total of 10 feet (10%) in the side yard setbacks and the remaining 20 feet (20%) through the center of the property. While this is not technically located within the side yards, the Director reviewed the deviation and was supportive because it meets the intent of maintaining an open air view corridor from Ericksen Avenue through to the Winslow Ravine. |
| Ericksen District Design Guidelines |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



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|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>The DRB reviewed all of the Design Guideline Checklists and recommended approval with the following motion (passed unanimously):</p> <ul style="list-style-type: none"> <li>• We are recommending approval of the site plan review for this project with a recommendation of additional windows in the corner tower and the substitution of some evergreen trees to replace deciduous trees. Secondly, this collaborative process with the applicant, Planning staff and Design Review Board has generated an exemplary solution to creatively meet the requirements placed upon the property in the Ericksen Corridor.</li> </ul> <p>The applicant added windows and substituted evergreen trees for the deciduous trees in response to the DRB comments. The DRB reviewed the applicant's revisions and recommended approval with the following motion (passed unanimously):</p> <ul style="list-style-type: none"> <li>• The DRB has reviewed on March 4 the applicant's revised site plan based on the FAR regulations and we approve of the changes as presented.</li> </ul> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Part VII: Decision Criteria

### 1. BIMC 2.16.040 Site Plan and Design Review

The director and planning commission shall base their respective recommendations or decisions on site plan and design review applications on the following criteria:

| Decision Criteria                                                                                                                                                                                                                                     | City Analysis                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district, unless a standard has been modified as a housing design demonstration project pursuant to BIMC 2.16.020.S; | As conditioned, the site plan and design is in conformance with the Bainbridge Island Municipal Code (BIMC) and standards of the Mixed Use Town Center – Ericksen Avenue Overlay District. The floor area ratio (FAR) bonus has been conditioned to be secured prior to any building permit that would exceed the FAR for the site. |
| 2. The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the Island-Wide Transportation Plan;                          | As conditioned, the location of the building, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the Island-Wide Transportation Plan (IWTP). The existing bike lane meets the standards of the IWTP and no additional right of way is required.  |
| 3. The Kitsap County health district has determined that the site plan and design meets the following decision criteria:<br>a. The proposal conforms to current standards regarding domestic water supply and sewage disposal.                        | The property is served by City sewer and water and the City issued a non-binding commitment for water and sewer system capacity. A binding commitment letter for water and sewer availability is required prior to building permit issuance for the proposed structure. The Kitsap Public Health District (KPHD) had no comments.   |
| 4. The city engineer has determined that the site plan and design meets the following decision criteria:                                                                                                                                              | As conditioned, the City engineer has determined that the site plan and design meets the decision criteria. The applicant has proposed a rain garden and tying into an existing storm                                                                                                                                               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>a. The site plan and design conforms to regulations concerning drainage in Chapters 15.20 and 15.21 BIMC; and</li> <li>b. The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and</li> <li>c. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and</li> <li>d. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and</li> <li>e. If the site will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the site, and the applicable service(s) can be made available at the site; and</li> <li>f. The site plan and design conforms to the “City of Bainbridge Island Design and Construction Standards,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title 18.</li> </ul> | <p>drain along Ericksen. The streets and pedestrian ways coordinate with existing streets and are adequate to accommodate anticipated traffic. A Certificate of Concurrency was issued for the traffic study prepared by Heath &amp; Associates. The property is served by City sewer and water and the City issued a non-binding commitment for water and sewer system capacity. The proposal conforms to the “City of Bainbridge Island Design and Construction Standards.”</p> |
| <p>5. The site plan and design is consistent with all applicable design guidelines in BIMC Title 18, unless strict adherence to a guideline has been modified as a housing design demonstration project pursuant to BIMC 2.16.020.S;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>The site plan and design is consistent with the General Design Guidelines and the Ericksen District Design Guidelines. The Design Review Board reviewed all of the applicable Design Guideline Checklists and unanimously recommended approval.</p>                                                                                                                                                                                                                            |
| <p>6. No harmful or unhealthful conditions are likely to result from the proposed site plan;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>The proposal has been reviewed by all applicable review agencies. As conditioned, no harmful or unhealthful conditions are likely to result from the proposed development.</p>                                                                                                                                                                                                                                                                                                 |
| <p>7. The site plan and design is in conformance with the Bainbridge Island Comprehensive Plan and other applicable adopted community plans;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>As conditioned, the proposed development is in conformance with the Bainbridge Island Comprehensive Plan goals and policies, meets the intent of a designated center, and keeps with the character of Ericksen Avenue.</p>                                                                                                                                                                                                                                                     |
| <p>8. Any property subject to site plan and design review that contains a critical area or buffer, as defined in Chapter 16.20 BIMC, conforms to all requirements of that chapter;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>As conditioned, the proposed development conforms to the critical areas regulations in BIMC 16.20. The property abuts the Winslow Ravine to the east. The applicant has elected to apply a mitigated standard for the Winslow Ravine buffer. A buffer enhancement plan was submitted, reviewed, and found to be in</p>                                                                                                                                                         |

|                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                | compliance with BIMC 16.20.180. The proposed geologically hazardous area setback reduction was reviewed in accordance with BIMC 16.20.130 and the Independent Third Party Geotechnical Reviewer recommended approval of the reduced setback. The applicant will be required to record an Indemnification or Hold Harmless Agreement prior to building permit issuance. |
| 9. Any property subject to site plan and design review that is within shoreline jurisdiction, as defined in Chapter 16.12 BIMC, conforms to all requirements of that chapter;                                                  | The property is not within shoreline jurisdiction.                                                                                                                                                                                                                                                                                                                     |
| 10. If the applicant is providing privately owned open space and is requesting credit against dedications for park and recreation facilities required by BIMC 17.20.020.C, the requirements of BIMC 17.20.020.D have been met; | No privately owned open space is proposed.                                                                                                                                                                                                                                                                                                                             |
| 11. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals.                                                                                             | The site plan and design has been prepared consistent with the purpose of the site design review process and landscape requirements.                                                                                                                                                                                                                                   |

#### **Part VIII: Attachments**

1. PLN50804B SPR Site Plan Set March 2019
2. PLN50804B SPR Landscape Plan March 2019
3. PLN50804B SPR Buffer Enhancement Plan August 2018
4. PLN50804B SPR Arborist Report December 2017
5. PLN50804B SPR SEPA Checklist
6. PLN50804B SPR Geotechnical Report June 2018
7. PLN50804B SPR Third Party Geotechnical Review October 2018
8. PLN50804B SPR Traffic Impact Analysis August 2018
9. PLN50804B SPR Certificate of Concurrence
10. PLN50804B SPR Development Engineer Comments
11. PLN50804B SPR Fire District Comments
12. PLN50804B SPR Public Comment
13. PLN50804B SPR Design Guideline Checklists
14. PLN50804B SPR Design Review Board Minutes October 2018
15. PLN50804B SPR Design Review Board Minutes March 2019
16. PLN50804B SPR MTAC Minutes December 2018
17. PLN50804B SPR Administrative Code Interpretation February 2019

## **Part IX: Recommendation and Conditions of Approval**

Staff is recommending approval of the proposal in accordance with the following conditions:

### **SEPA Conditions:**

1. The limits of clearing and grading shall be clearly marked in the field and inspected by the Department of Planning and Community Development staff prior to start of any clearing, grading, or other site work.
2. Dust shall be managed in compliance with WAC 173-400 and Puget Sound Clean Air Agency – Regulation I, 9.15 (PSCCA Reg). “It shall be unlawful for any person to cause or allow visible emission of fugitive dust...” – PSCCA Reg, 9.15(a). The project proponent or contractor shall prepare and implement a “Dust Control Plan” in conformance with Department of Ecology Publication 96-433. Prior to any site activity, the “Dust Control Plan” shall be submitted to the City and it shall be actively managed for the duration of the project. Unlawful emissions (see below) shall be corrected immediately and/or dust generating operations ceased until additional or alternate BMPs can be implemented to maintain emissions below allowable levels.

"Fugitive dust" means a particulate (especially soil/dirt) emission made airborne by forces of nature, man's activity, or both, that leaves the subject site. Unlawful emissions shall generally be defined as emissions leaving the subject property that are visible to an untrained observer. Where continuous monitoring equipment is used particulate matter concentrations shall be monitored for 10µm particle (PM10) size. The 24-hr average PM10 emissions shall not exceed a concentration equivalent to the EPA Air Quality Index (AQI) of 50 (54µg/m<sup>3</sup>) and any instantaneous PM10 emissions shall not exceed a concentration equivalent to an AQI of 100 (154µg/m<sup>3</sup>).

### **Project Conditions:**

#### *General*

3. Except for modifications reflecting compliance with these conditions of approval, the project shall be in substantial conformance with the site plans dated March 4, 2019.
4. Prior to construction activity, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, right-of-way, and building permits.
5. All work shall adhere to the City's seasonal work limitations between October 1 and April 30 of any year. During this period, no soils shall remain exposed and unworked for more than two days. From May 1 to September 30, no soils shall remain exposed and unworked for more than seven days.
6. Prior to any construction, a temporary erosion and sedimentation control plan (TESCP) shall be submitted and approved by the City. Construction shall be restricted to the dates occurring between May 1 and September 30 unless a wet weather erosion control plan is submitted and approved by the City prior to construction.
7. All construction activities shall comply with noise limitations per BIMC 16.16.020.
8. If any historical or archaeological artifacts are uncovered during excavation or construction, work shall immediately stop and the Department of Planning and Community Development and the Washington State Department of Archaeology and Historic Preservation shall be immediately notified. Construction shall only continue thereafter in compliance with the applicable provisions of law.

9. The Henry Groos House is listed on the Local Historic Register. No person shall alter, reconstruct, relocate, remodel or restore the exterior of a property listed on the local register without a review or a waiver. Local register properties require a certificate of appropriateness or a waiver and register eligible properties require review and comments from the Historic Preservation Commission per BIMC 18.24.
10. The applicant is requesting a Floor Area Ratio (FAR) bonus. Prior to building permit issuance of a building exceeding the 0.3 FAR for the site, the applicant shall acquire the FAR bonus pursuant to BIMC 18.12.030.E. Up to 100 percent of the maximum residential FAR bonus may come from the purchase of development rights.

#### *Building*

11. The project shall comply with the provisions of the 2015 International Codes as currently adopted by the City of Bainbridge Island per the Bainbridge Island Municipal Code (BIMC) Chapter 15.04 and shall include any State of Washington Amendments.
12. A soils report is required for this project which shall address soils conditions and all foundation and building design criteria per the International Building Code and State of WA Code Amendments. The Soils and Structural Engineer shall coordinate design criteria for all structures for submittal and submit a complete design analysis and recommendations at time of plans examination.

#### *Fire District*

13. To the satisfaction of the Bainbridge Island Fire Department, the proposed project shall comply with all applicable provisions of the adopted Fire Code. The installation of residential fire sprinklers is highly recommended.
14. New access road will require a new road name and requires the existing home to be addressed off of new road name.

#### *Public Works*

15. Civil improvement plans, reports, and computations, prepared by a civil engineer registered in the State of Washington shall be submitted with the application(s) for a construction permit (building, grading, ROW, etc.) to the City for review and approval to construct all necessary infrastructure and utilities serving the site.
16. As-built civil construction plans stamped by a civil engineer shall be provided by the applicant prior to final.
17. A separate grading permit for all site utilities, grading, access features, and landscaping, etc. shall be required in addition to the individual building permits for each building. Occupancy shall be granted upon successful completion off all work under the grading permit and all other requirements of the individual building permits.
18. Fireline extensions, domestic water services, and irrigation water lines to the site shall be equipped with the required backflow devices per City standards and comply with the most current American Water Works Association, Pacific Northwest, Cross-Connection Control Manual publication.
19. Application of construction permits at the site shall require a signed Step 2 Form: Construction in a Geologically Hazardous Area for work at the top of the ravine within the zone of influence of the landslide hazard.

20. The applicant shall provide a Step 3 Form: As-Built Certification signed by the project geotechnical engineer prior to occupancy of the structures.
21. All grinder pumps and sewer force laterals shall be owned and operated by the City. An accessible 15-foot wide easement shall be granted to the City for maintenance of the units and laterals lines.
22. Storm drainage from the site is prohibited from entering the ravine via a new outfall. Discharging stormwater into the Ericksen Avenue storm drain system must include a capacity analysis of the system from the point of connection to the downstream receiving waters. Where capacity is not adequate to handle all or some portion of the project's stormwater runoff it shall be the responsibility of the applicant/owner to create additional storage to mitigate peak flows to mimic existing conditions up to the 100-year storm, or, upgrade the deficient reaches of storm drain to meet the combined demand on the system resulting from the development and the existing basin.
23. Prior to occupancy of the first building, the applicant shall submit an operation and maintenance plan for the on-going maintenance of the private storm drainage systems.
24. All on-site stormwater facilities shall remain privately owned and maintained. The owner(s) shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded before occupancy of the first building. The approved language for the Declaration of Covenant is found in BIMC Chapter 15.21, Exhibit A.
25. An indemnification or hold harmless agreement is required for all projects in geologically hazardous areas and buffers. The form of the agreement shall be approved by the City, executed prior to the commencement of construction or site alteration, and recorded with the County Auditor through a notice on title, or other similar document subject to the approval of the Administrator.
26. Low impact development methods for stormwater management shall be incorporated into the site to the maximum extent feasible.
27. Prior to building permit issuance, a binding commitment letter for water and sewer availability is required.
28. A traffic impact analysis was completed for the site per BIMC 15.32 and 15.40 to evaluate for concurrency. Based on the results of the traffic impact analysis completed by Heath & Associates in October 2018, a certificate of concurrency was issued per BIMC 15.32.060. Any proposed intensity of use at the site may require analysis and a new evaluation for concurrency.

#### *Critical Areas and Landscaping*

29. No construction activities or staging is permitted within the Winslow Ravine buffer or geologically hazardous area and setback.
30. Construction fencing is required along the Winslow Ravine buffer and around trees to be retained to delineate the area of prohibited disturbance. Protection of existing vegetation, trees, and tree stands during construction and development shall comply with the requirements of BIMC 18.15.010.C.4.
31. If trees required to be retained are not retained or if protection measures are not fully implemented, requirements for unauthorized removal per BIMC 18.15.010.C. shall apply.

32. Prior to the certificate of occupancy, the required tree units and the Buffer Enhancement Plan mitigation shall be planted, or a performance assurance shall be accepted by the City.
33. Prior to the certificate of occupancy, the applicant/property owner shall provide assurance to the satisfaction of the Administrator that the mitigation area will be maintained in perpetuity. The assurance can be in the form of notice on title, conservation easement, or similar mechanism as approved by the City Attorney.
34. As proposed in the Buffer Enhancement Plan completed by Ecological Land Services in August 2018, the monitoring, maintenance, and contingency plan for the mitigation areas shall be implemented in accordance with BIMC 16.20. The monitoring plan may require periodic maintenance measures if tree survival, plant survival, invasive plan recolonization, or irrigation is does not meet the thresholds outlined in the plan. To ensure the success of the required mitigation, monitoring shall occur for a minimum duration of five (5) years from the date of the completed planting. The duration of monitoring may be extended if the project performance standards set forth in the approved mitigation plan fail to be accomplished.
35. Per BIMC 18.15.010.H.3, performance assurance is required to assure the City that the required tree units and mitigation area are properly installed and will become established and be adequately maintained. Prior to the certificate of occupancy the required landscaping shall be installed. A Washington landscape architect, Washington certified nursery professional, or Washington certified landscaper shall submit a landscaping declaration to the director to verify installation in accordance with the approved plans. The time limit for compliance may be extended to allow installation of landscaping during the next appropriate planting season as approved if the director determines that a performance assurance device, for a period of not more than one (1) year, will adequately protect the interests of the City. The performance assurance device shall be for 150 percent of the cost of the work or improvements covered by the assurance device. In no case may the property owner delay performance for more than one (1) year. Once the planting is completed, landscape declaration is submitted, and a maintenance and monitoring assurance is accepted, the performance assurance shall be released.
36. Per BIMC 18.15.010.H.4, the property owner shall replace any unhealthy or dead plant materials in conformance with the approved landscape plan and vegetation management plan. A maintenance assurance device shall be required for a period of five (5) years after acceptance by the City of the new planting of vegetation to ensure proper installation, establishment, and maintenance. The maintenance assurance device amount shall not be less than 20 percent of the cost of replacing materials covered by the assurance device. The maintenance surety shall be refunded to the applicant upon completion of the five (5) year monitoring period and submittal of final compliance documentation as outlined in the no net loss documentation completed by Ecological Land Services in August 2018, minus any funds needed for the City to perform corrective actions or perform monitoring.
37. As proposed, 12 new trees are required to meet the tree unit requirement. Existing trees within critical areas and their buffers and do not count towards the tree unit requirements. Trees planted to meet tree retention requirements shall be planted in accordance with the planting requirements of BIMC 18.15.010.H and the landscape plan dated March 5, 2019.
38. A land use permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit within three years of the effective date of the permit unless (a) the applicant has received an extension for the permit; or (b) the permit provides for an extended time period. The director may grant one extension to the permit, in writing, for a period not to exceed one year if the applicant can demonstrate, (a) a. Unforeseen



circumstances or conditions necessitate the extension of the permit; and (b) Termination of the permit would result in unreasonable hardship to the applicant, and the applicant is not responsible for the delay; and (c) The extension of the permit will not cause substantial detriment to existing uses in the immediate vicinity of the subject property; and (d) The extension request is received by the department no later than 30 days prior to the expiration of the permit.





ERICKSEN TOWNHOMES MASTER LAND USE APPLICATION DRAWINGS  
REVISED 3.04.19

COVER SHEET

ERICKSEN TOWNHOMES  
568 ERICKSEN AVENUE  
BAINBRIDGE ISLAND, WA 98110

WING POINT ASSOCIATES LLC  
JOHN BIERLY AIA  
206.793.9469  
jtbierly@gmail.com

DATE:  
3/3/19

SHEET:

A0R





VIEW 2 FROM NORTHWEST



VIEW 1 FROM SOUTHWEST



AERIAL VIEW

EXISTING SITE IMAGES & LOCATION PLAN

ERICKSEN TOWNHOMES  
568 ERICKSEN AVENUE  
BAINBRIDGE ISLAND, WA 98110

WING POINT ASSOCIATES LLC  
JOHN BIERLY AIA  
206.793.9469  
jtbierly@gmail.com

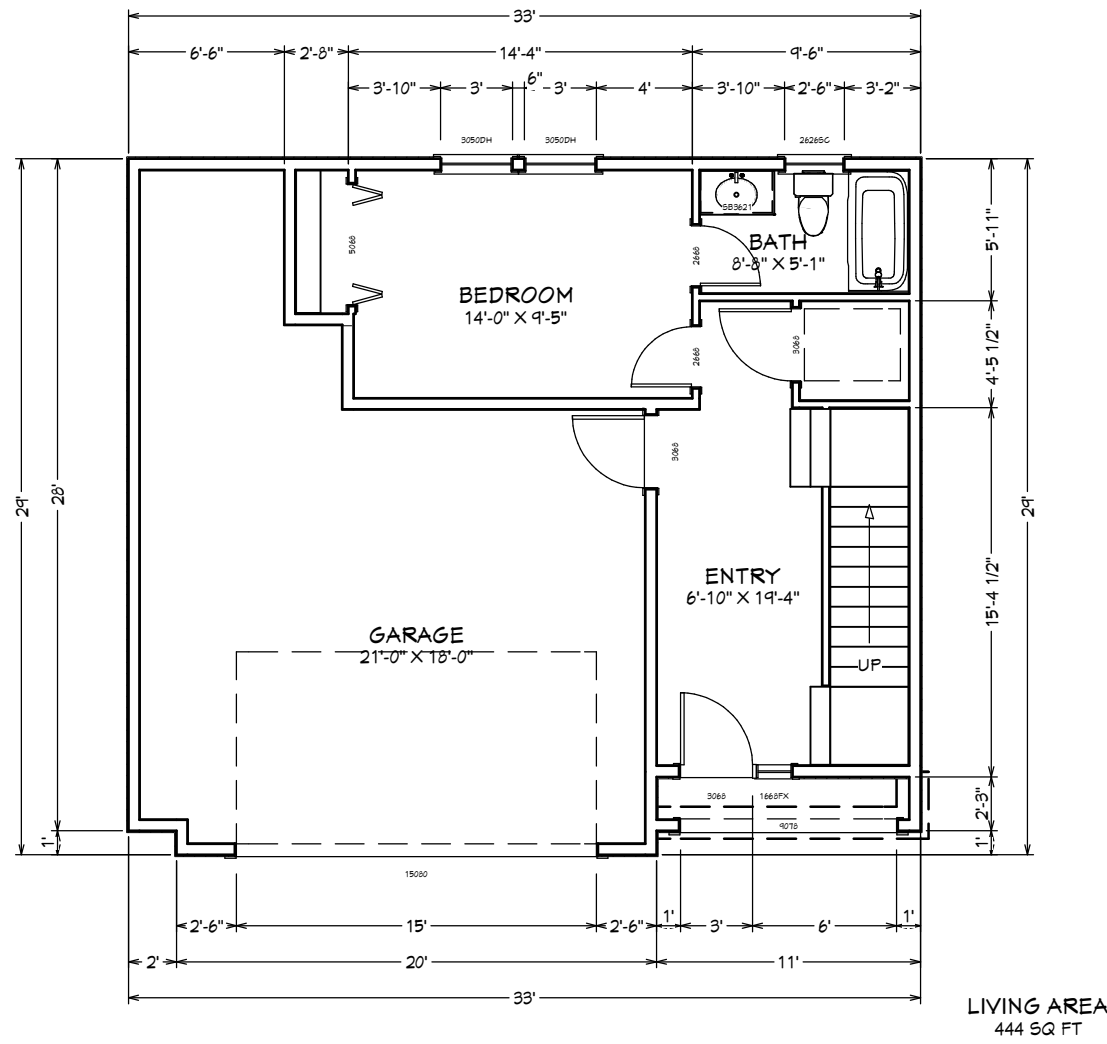
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9/12/18

SHEET:

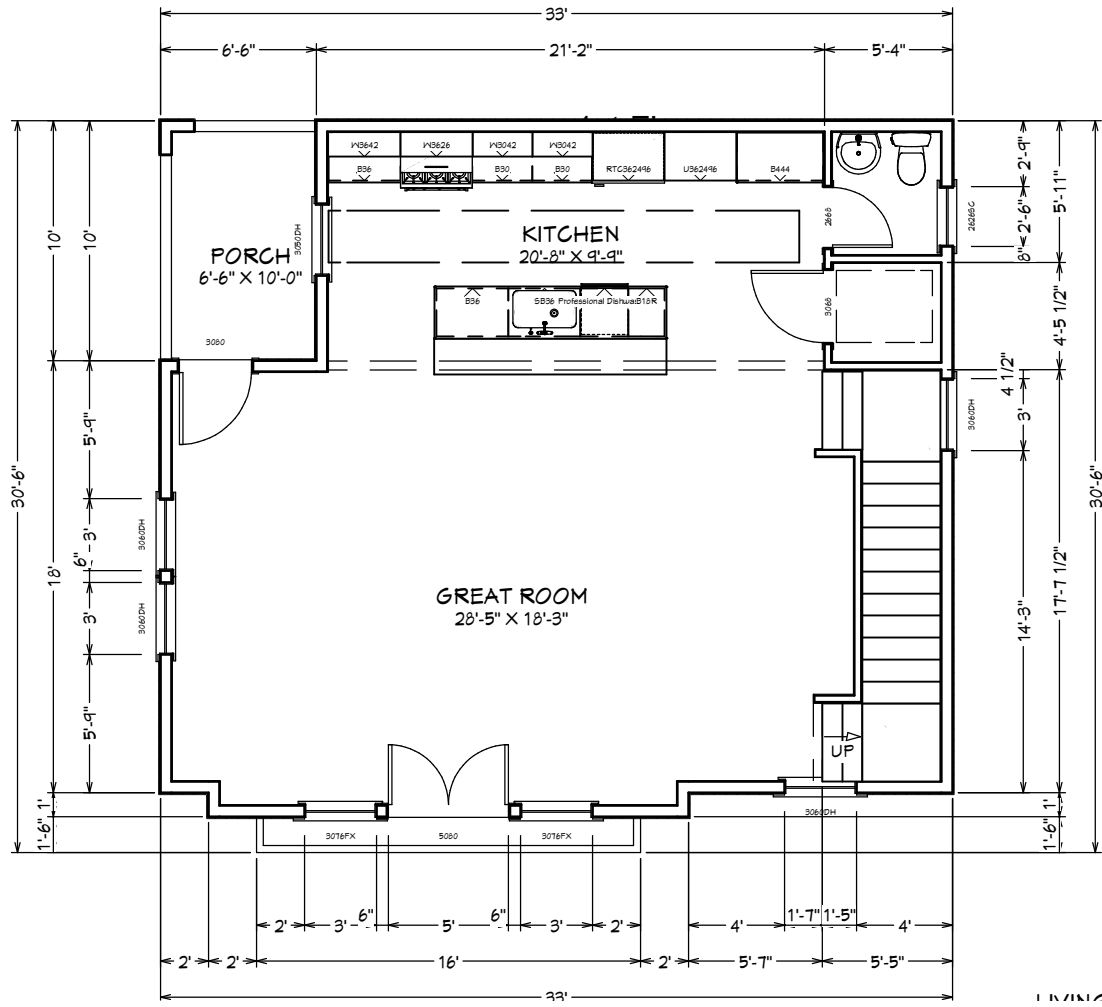
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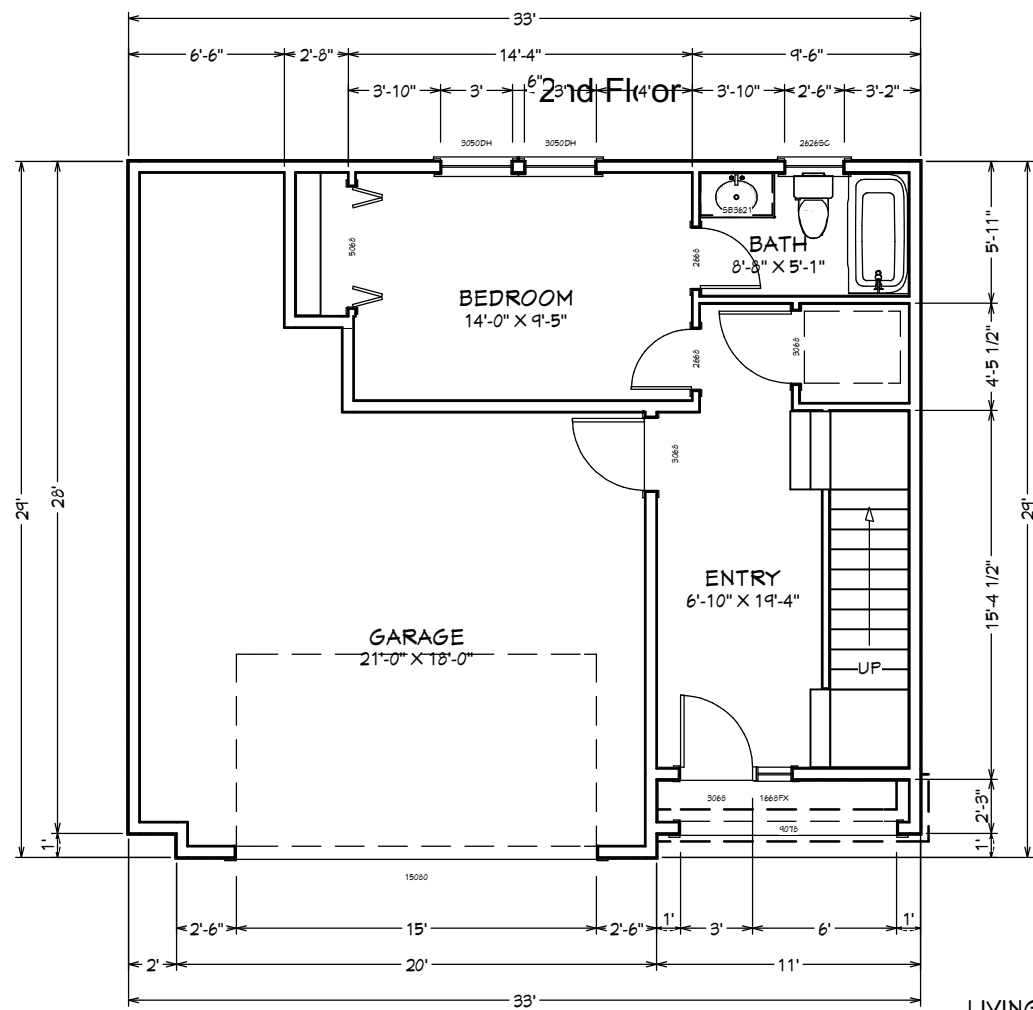




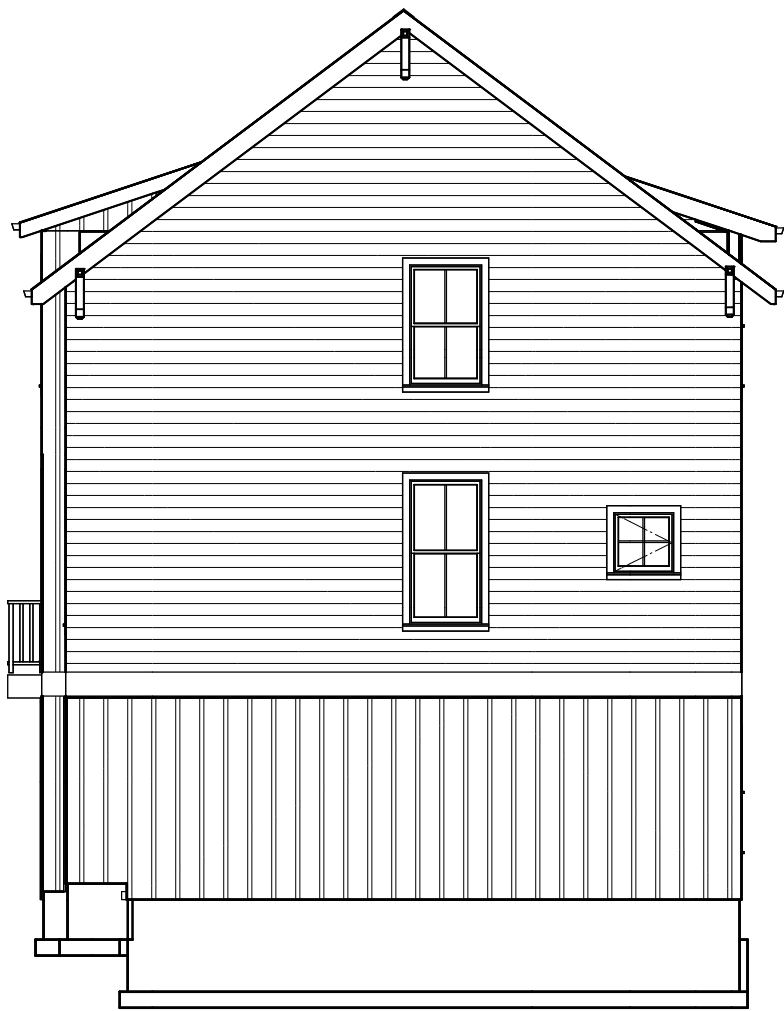
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444 SQ FT



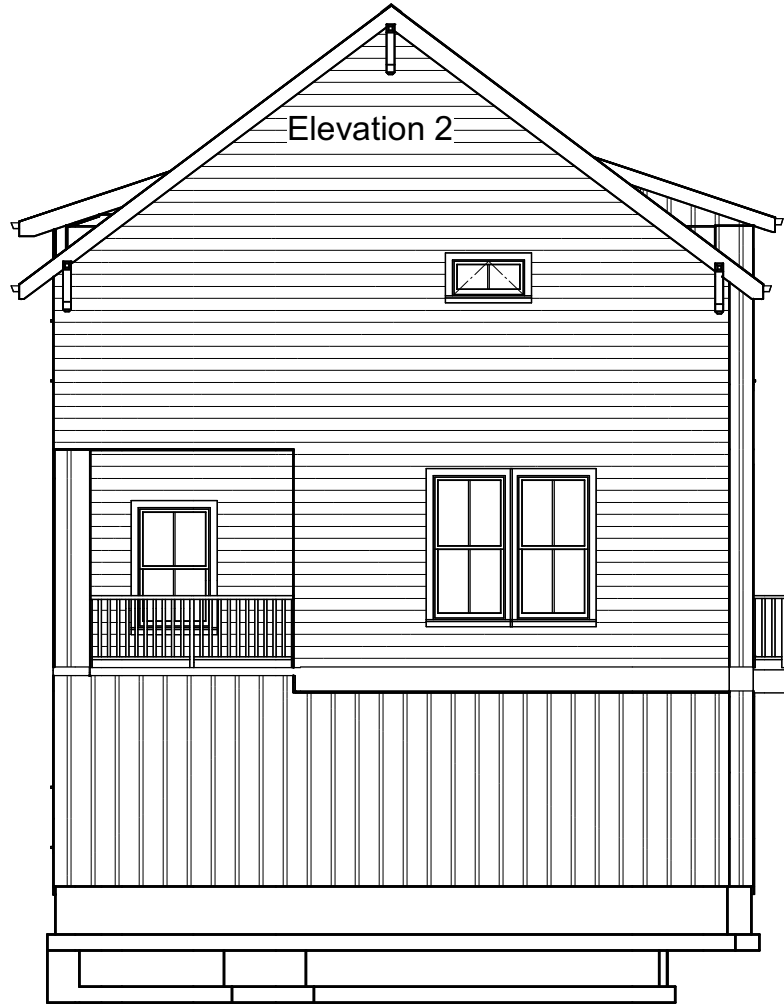
LIVING AREA



LIVING AREA  
444 SQ FT



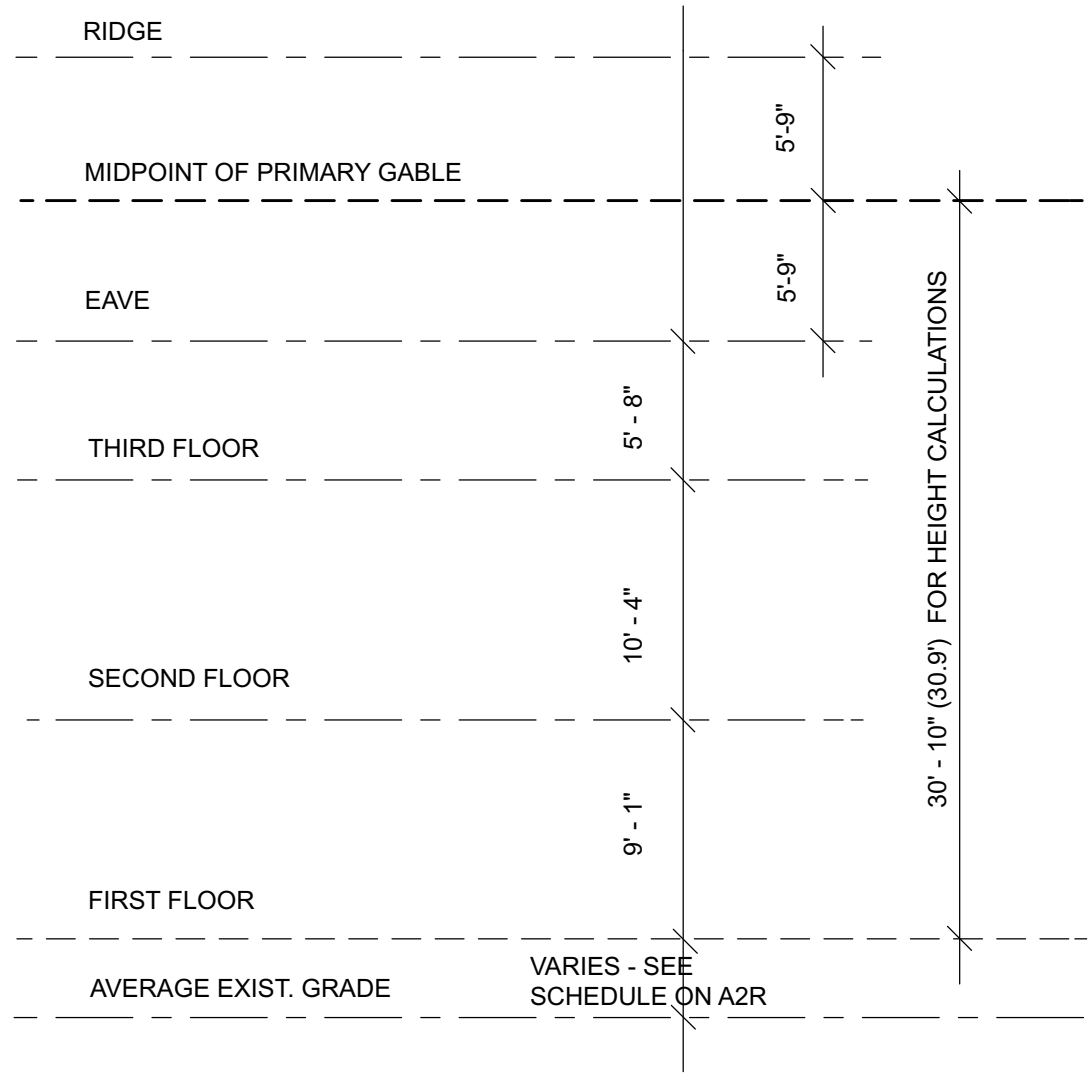
SIDE ELEVATION



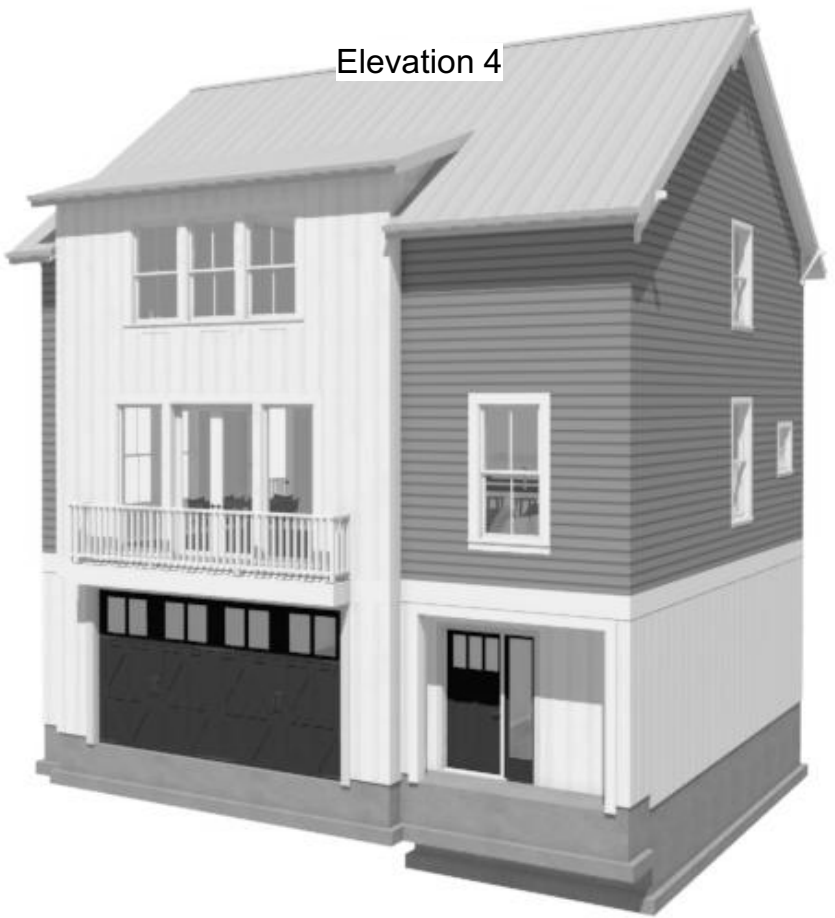
SIDE ELEVATION



REAR ELEVATION



FRONT ELEVATION



ALL PLANS AND  
ELEVATIONS 1/8" = 1' - 0"

UNIT TYPE 'A' PLANS AND ELEVATIONS

ERICKSEN TOWNHOMES  
568 ERICKSEN AVE NE  
BAINBRIDGE ISLAND, WA 98110

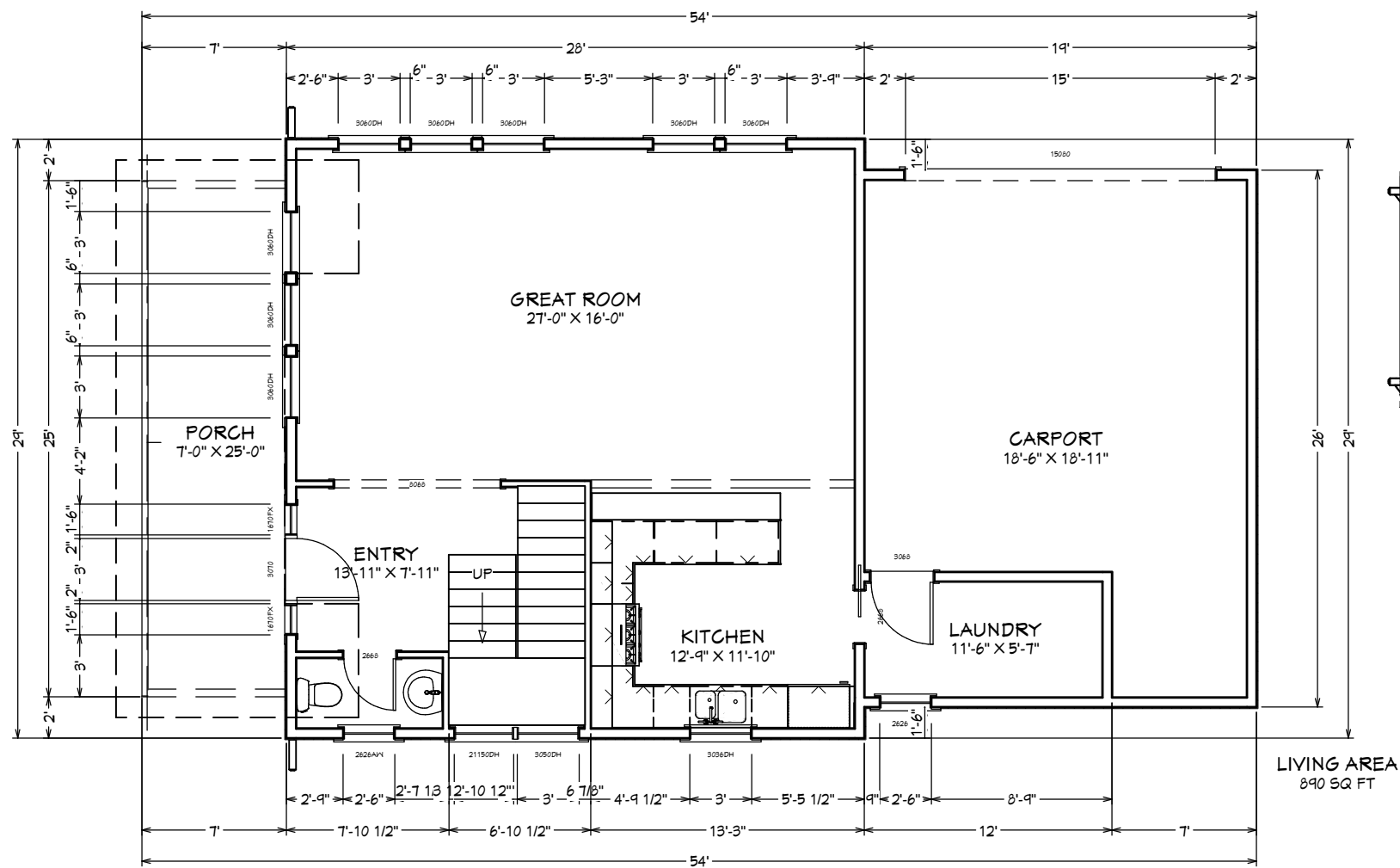
WING POINT ASSOCIATES LLC  
JOHN BIERLY AIA  
206.793.9469  
jbierly@gmail.com

DATE:  
3/3/19

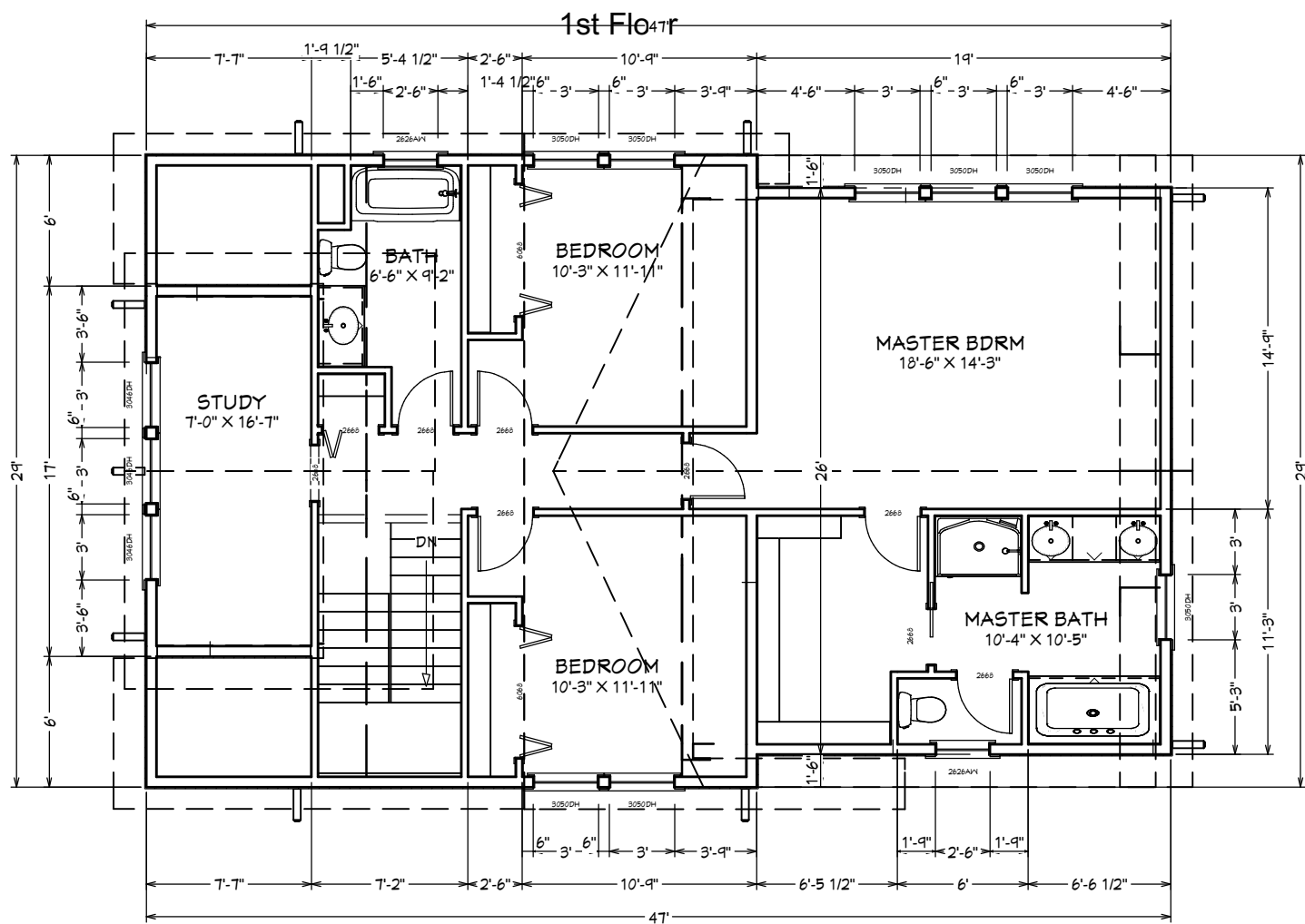
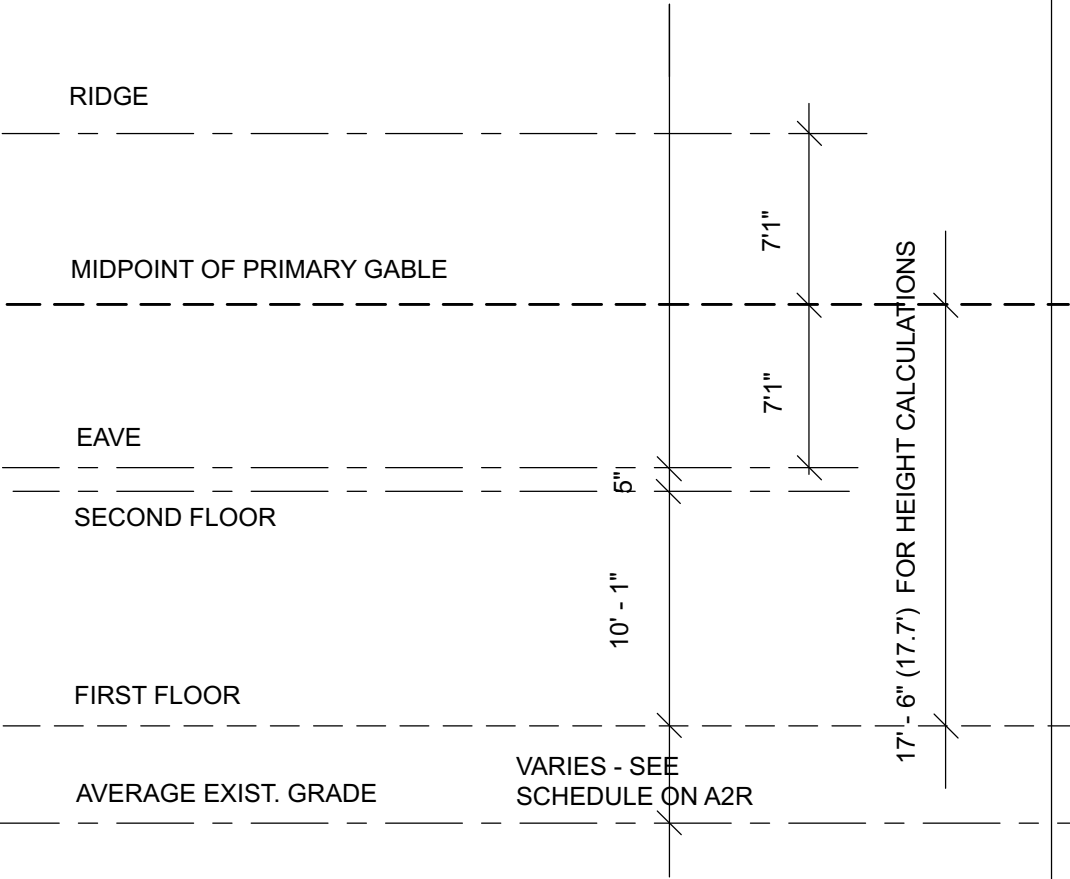
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A3R

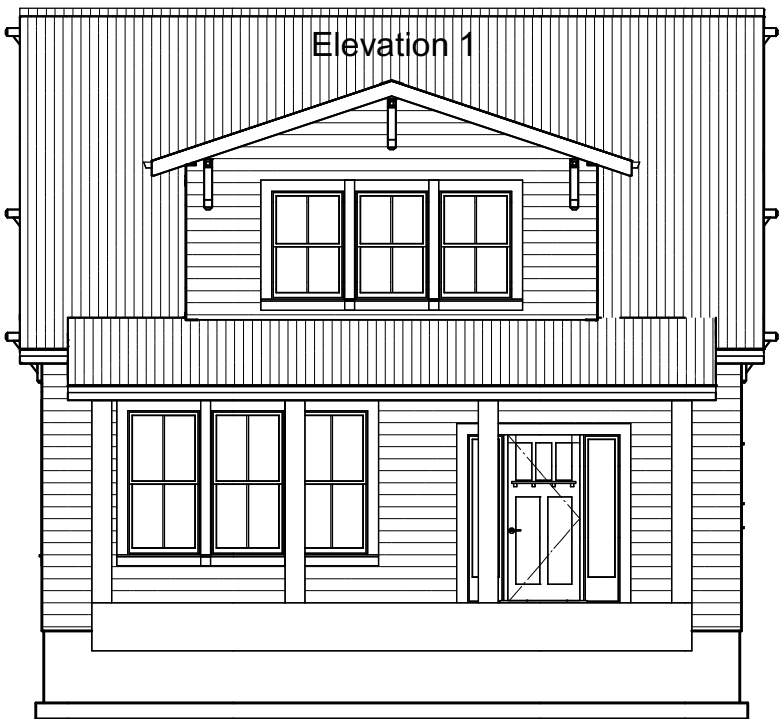




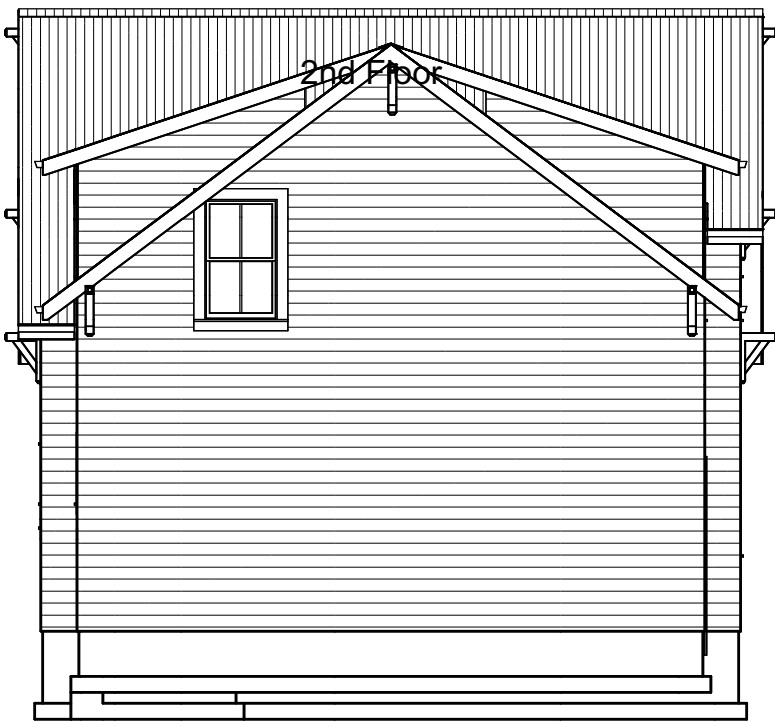
SIDE ELEVATION



LIVING AREA  
1212 SQ FT



FRONT ELEVATION



REAR ELEVATION



SIDE ELEVATION

UNIT TYPE 'B' PLANS AND ELEVATIONS

ERICKSEN TOWNHOMES  
568 ERICKSEN AVE NE  
BAINBRIDGE ISLAND, WA 98110

WING POINT ASSOCIATES LLC  
JOHN BIERLY AIA  
206.793.9469  
jtbierly@gmail.com

DATE:  
3/3/19

SHEET:

A4R

ALL PLANS AND  
ELEVATIONS 1/8" = 1' - 0"



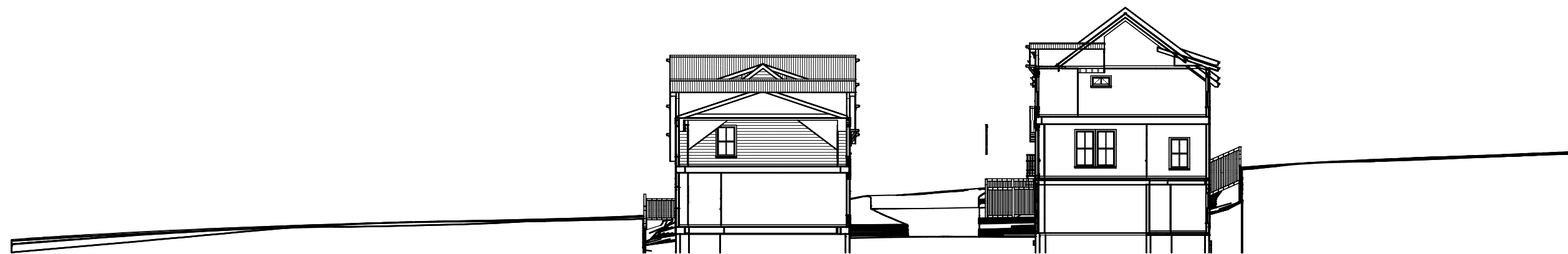
Elevation 28

VIEW LOOKING NORTH



Elevation 32

VIEW LOOKING SOUTH



Elevation 30

VIEW LOOKING WEST

ALL SITE SECTIONS 1" = 20'

SITE SECTIONS

ERICKSEN TOWNHOMES  
568 ERICKSEN AVE NE  
BAINBRIDGE ISLAND, WA 98110

WING POINT ASSOCIATES LLC  
JOHN BIERLY AIA  
206.793.9469  
jbierly@gmail.com

DATE:  
3/3/19

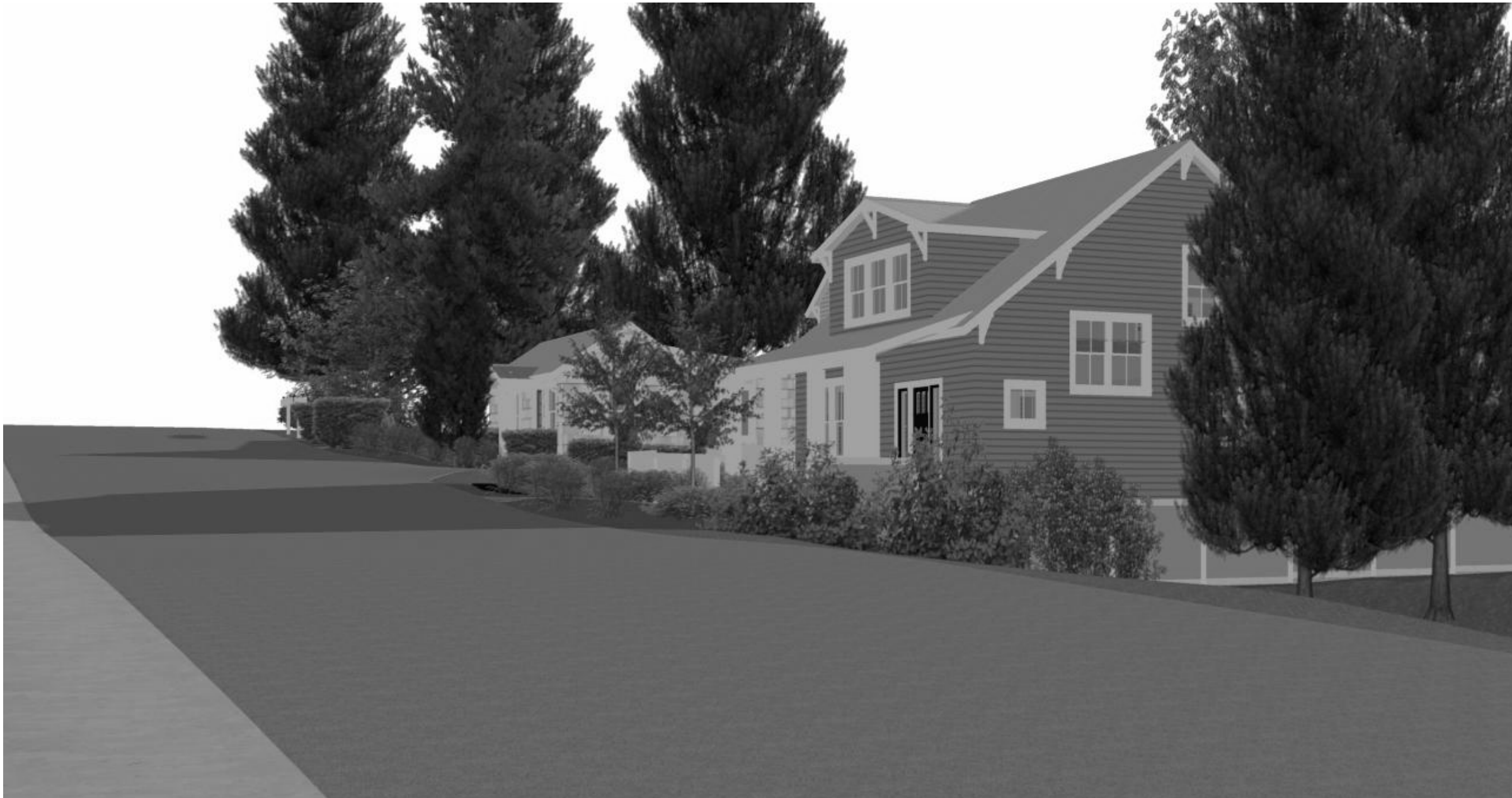
SHEET:

A5R





VIEW FROM NORTHWEST (SIM. TO VIEW 2/A1R)



VIEW FROM SOUTHWEST (SIM. TO VIEW 1/A1R)

|                                                                                    |
|------------------------------------------------------------------------------------|
|                                                                                    |
| PERSPECTIVE VIEWS                                                                  |
| ERICKSEN TOWNHOMES<br>568 ERICKSEN AVENUE<br>BAINBRIDGE ISLAND, WA 98110           |
| WING POINT ASSOCIATES LLC<br>JOHN BIERLY AIA<br>206.793.9469<br>jtbierly@gmail.com |
| DATE:<br>3/3/19                                                                    |
| SHEET:<br>A6R                                                                      |



Bench Mark #6  
Ele=160.89  
"MAG" nail with  
I.D. washer  
Datum=NAVD88

SSMH  
Rim: 159.48  
IE=149.98 8" pvc N  
IE=149.98 8" pvc NE  
IE=149.78 8" pvc S

Bench Mark #2  
Ele=155.35  
"MAG" nail with  
I.D. washer  
Datum=NAVD88

CB  
Rim: 153.58  
IE=151.32 12" ads W

CB  
Rim: 153.69  
IE=150.94 4" cmp SW  
IE=150.24 12" cmp N  
IE=150.34 12" cmp E  
IE=150.09 12" cmp S

#### PROCEDURES & EQUIPMENT

Standard field traverse with Nikon 1" Total Station and steel tape. This survey meets minimum standards as set forth in W.A.C. 332-130-090.

#### LEGEND

- Set 1/2" rebar flush with ground with yellow cap imprinted "A.E.S. 20795" with 2"x2" white guard stake.
- Found survey point as noted.
- Set 2"x2" wood hub on property line.
- IBX Irrigation control box.
- R.O.S. Record-of-Survey.

Calculated position per R.O.S. Vol.50 Pg.176  
270.26' - S88°37'24"E 200.20'

Found "MAG" nail  
N55°W 0.2'. Found Railroad  
Spike N55°E 0.2' and  
Brass Disc S79°E 1.4' from  
True West 1/4 corner.

Calculated Monument per R.O.S. Vol.50 Pg.176

Brass Cap monument inside case S28°W 1.3' from position shown on R.O.S. Vol.50 Pg.176

#### LEGAL DESCRIPTION

That portion of the Southwest quarter of the Northwest quarter of Section 26, Township 25 North, Range 2 East, W.M., in Kitsap County, Washington, described as follows:

The North 100 feet of the South 200 feet of the following described property: Commencing 990 feet East of the Southwest corner of said Southwest quarter of the Northwest quarter; Thence East 297 feet, more or less, to rim of a gulch; Thence Northeast along said gulch a sufficient distance to make the tract 300 feet wide; Thence North to the center of said South half of the Northwest quarter; Thence West 330 feet; Thence South 660 feet to the Point of Beginning. Except portions, if any, awarded to Hall Brothers Marine Railway and Ship Builders Company in Kitsap County Superior Court Case Number 1768.

Except the South 15 feet thereof for road, and except the West 30 feet as conveyed to the City of Winslow by deed recorded under Auditor's File Number 1028554.

#### SURVEYOR'S NOTES

Various recorded surveys in the vicinity disclose a difference of opinion as to the location of the East-West center of section line. This survey honored the location as per a Record-of-Survey by Roats engineering recorded in Volume 50 of Surveys, Page 176. We recovered the 3 pipes as set by Roats Engineering during their 1998 survey and it appears that the property owners have relied upon these survey points for improvements and occupation.

Property corners and line stakes shown were the only points set during this survey. Except as shown, all property lines were not checked for encroachments.

No title report was furnished to the surveyor. There may exist other documents of record that would affect this parcel.

Survey for use by original purchaser of survey only.

This map is not intended to show all matters related to the property including, but not limited to easements, restrictions and encroachments.

Encroachments (fence, vegetation, improvements, driveways, etc.) may, at times, establish lines of ownership. property owner should seek legal advice in these cases.

AUDITOR'S CERTIFICATE  
Filed for record this \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_ at the request of A.E.S. Consultants Inc.

COUNTY AUDITOR

Survey No. \_\_\_\_\_

Auditor's File No. \_\_\_\_\_

Vol. \_\_\_\_\_ Page \_\_\_\_\_

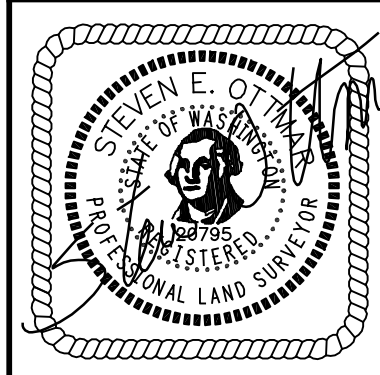
SURVEYOR'S CERTIFICATE

This map correctly represents a survey made by me or under my direction in conformance with the requirements of the Survey Recording Act at the request of WINGPOINT PROPERTIES

in MAR. 2017.

Steven E. Ottmar  
P.L.S. 20795

5-4-2017



**AES**  
CONSULTANTS, INC.  
P.O. BOX 930 · SILVERDALE, WA. 98383 · (360)692-6400

|                  |                    |
|------------------|--------------------|
| Drawn By: B.J.M. | Checked By: S.E.O. |
| Date: 5/04/17    | Job No. 6517       |

Record of Survey for;  
WINGPOINT PROPERTIES

Situate in the,

SW. 1/4 NW. 1/4  
SEC. 26, TWP. 25N.,  
RG. 2E., W.M.

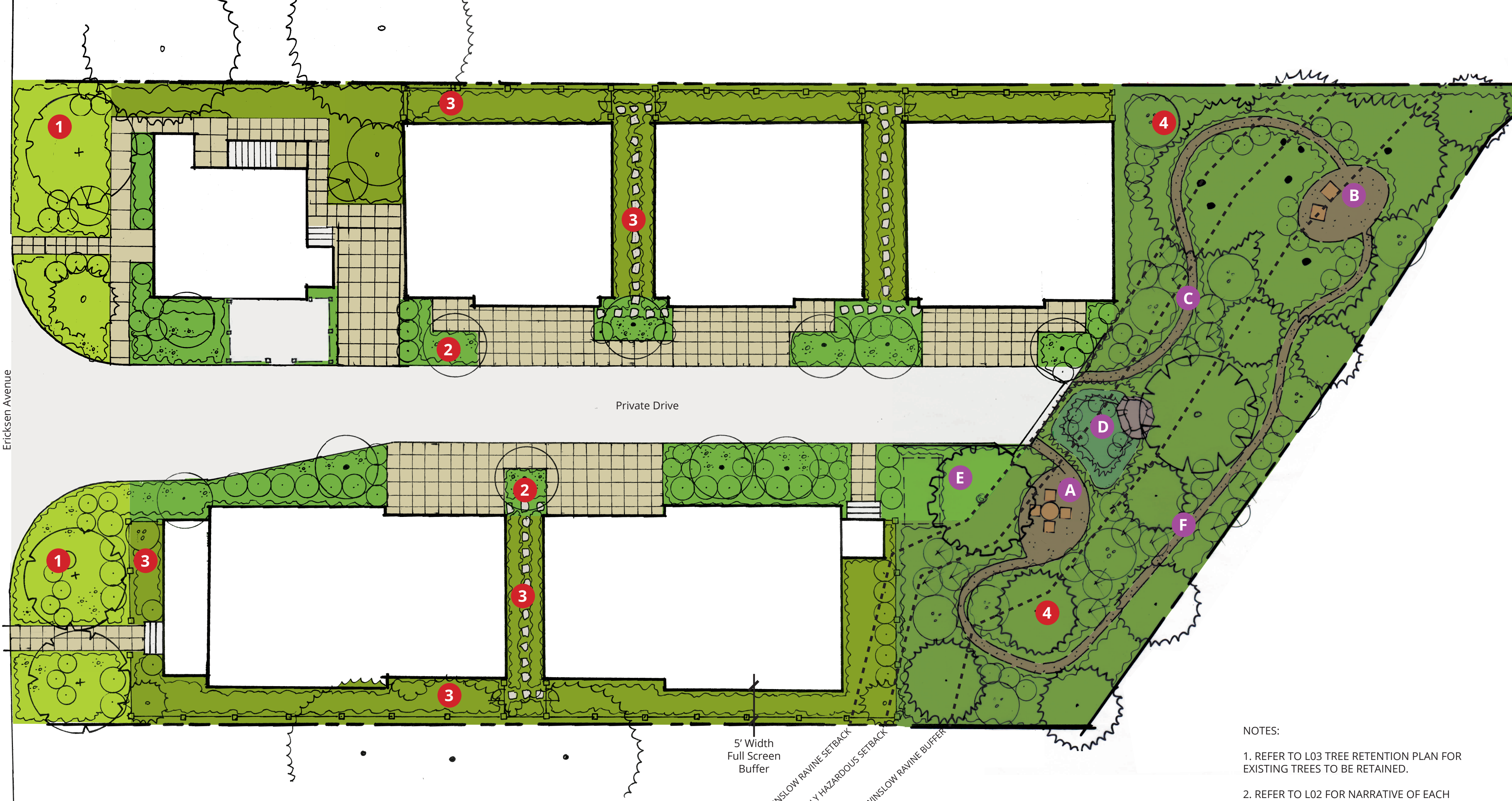
SHT

1

OF

1





Ericksen Avenue

Private Drive

5' Width  
Full Screen  
Buffer

15' WINSLOW RAVINE SETBACK  
35' GEOLOGICALLY HAZARDOUS SETBACK

25' WINSLOW RAVINE BUFFER

NOTES:

1. REFER TO L03 TREE RETENTION PLAN FOR EXISTING TREES TO BE RETAINED.
2. REFER TO L02 FOR NARRATIVE OF EACH PLANTING TYPOLOGY, INCLUDING THE PROPOSED NATIVE PLANT PERCENTAGE FOR EACH.
3. NO TURF LAWN IS PROPOSED FOR THE PROJECT.

### LANDSCAPE TYPOLOGIES

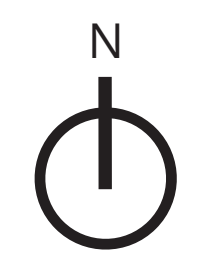
- 1** STREETSCAPE
- 2** LANESCAPE
- 3** PRIVATE YARDS
- 4** BUFFER ENHANCEMENT AREA

### PLACES/FEATURES

- A** OUTDOOR DINING
- B** BENCH IN FOREST
- C** SOFT SURFACE (WOOD CHIPS) TRAIL LOOPS
- D** RAIN GARDEN - Refer to Civil
- E** OLD APPLE TREE (ELECTIVE RETENTION)
- F** GRAVEL PATH CONVERTED TO BARK PATH

== == == EXISTING GRAVEL PATH  
AND BRICK PATIO IN 25'  
WINSLOW RAVINE BUFFER  
CONVERTED TO PERMEABLE  
BARK SURFACES

Scale 0' 10' 20'  
1" = 10' on a 24" x 36" sheet  
1" = 20' on a 18" x 24" sheet



# ERICKSEN TOWNHOMES

# LANDSCAPE CONCEPT NOTES

# L01



LANDSCAPE TYPES

1 STREETScape

The landscape design will satisfy COBI code section 18.15.010.A.2.e. for the Ericksen Overlay District. The streetscape will present a cohesive, inviting edge and interface with the larger neighborhood. Large deciduous canopy trees will line Ericksen Ave., providing structure and separation between homes and the road. A beautiful existing Plumose Japanese Cedar in the right of way will be retained if possible.

REPRESENTATIVE SPECIES

|                                                                                                                                                 |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <u>Trees</u><br>Fraxinus americana 'Junginger'<br>Cercidiphyllum japonicum<br>Ginkgo biloba 'Autumn Gold'                                       | Autumn Purple Ash<br>Katsura Tree<br>Autumn Gold Ginkgo                                 |
| <u>Shrubs/Grasses/Perennials</u><br>Gaultheria shallon<br>Vaccinium ovatum<br>Rhododendron x 'Teddy Bear'<br>Pennisetum orientale 'Karley Rose' | Salal<br>Evergreen Huckleberry<br>Teddy Bear Rhododendron<br>Karley Rose Fountain Grass |
| <u>Ground Covers</u><br>Baccharis magellanica<br>Rubus calycinoides 'Emerald Carpet'<br>Fragaria x 'Lipstick'                                   | Christmas Bush<br>Emerald Carpet Raspberry<br>Lipstick Strawberry                       |

2 LANEScape

Columnar evergreen trees will reflect the reduction in scale of the lanescape from the streetscape while allowing for a view to the forest edge beyond. A mixture of native shrubs, ferns, grasses and bulbs will provide an aesthetic transition from the streetscape of Ericksen, through this small community of seven condominiums, to the forest edge to the east.

REPRESENTATIVE SPECIES

|                                                                                                                    |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <u>Trees</u><br>Magnolia grandiflora 'TMGH'<br>Chamaecyparis obtusa 'Gracilis'<br>Camellia x 'Winter's Snowman'    | Alta Southern Magnolia<br>Slender Hinoki False Cypress<br>Winter's Snowman Ice Camellia |
| <u>Shrubs/Grasses/Ferns</u><br>Gaultheria shallon<br>Blechnum spicant<br>Deschampsia cespitosa<br>Vaccinium ovatum | Salal<br>Deer Fern<br>Tufted Hairgrass<br>Evergreen Huckleberry                         |
| <u>Ground Covers</u><br>Baccharis magellanica<br>Rubus calycinoides 'Emerald Carpet'<br>Fragaria x 'Lipstick'      | Christmas Bush<br>Emerald Carpet Raspberry<br>Lipstick Beach Strawberry                 |

3 PRIVATE YARDS

Small, narrow spaces between and behind condos will be a mix of shade loving native and ornamental shrubs and groundcovers. No turf is proposed for these spaces. Stepping stone paths will provide access through these gardens.

REPRESENTATIVE SPECIES

|                                                                                                                                   |                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <u>Trees</u><br>Thuja occidentalis 'Malonyana'<br>Populus tremuloides 'JFS-Column'                                                | Malonyana Arborvitae<br>Mountain Sentinel Aspen                                                         |
| <u>Shrubs/Grasses/Ferns</u><br>Gaultheria shallon<br>Blechnum spicant<br>Vaccinium ovatum<br>Polystichum munitum                  | Salal<br>Deer Fern<br>Evergreen Huckleberry<br>Western Sword Fern                                       |
| <u>Ground Covers</u><br>Fragaria x 'Lipstick'<br>Waldsteinia fragarioides caudatum<br>Tiarella trifoliata<br>Vancouveria hexandra | Lipstick Beach Strawberry<br>Barren Strawberry Asarum<br>Wild Ginger<br>Foamflower<br>Inside-out Flower |

4 BUFFER ENHANCEMENT PLAN

100% Native Species

Native plants will supplement the adjoining buffer and ravine, enhancing wildlife habitat and a sense of place among the greater Pacific Northwest. A wood chip trail will connect people to a campfire gathering space. This forest edge will contain shrubs and small trees that will be aesthetically pleasing against a backdrop of dark green mature conifer trees.

Refer to Buffer Enhancement Plan per Ecological Land Services for specific mitigationn goals and performance standards.

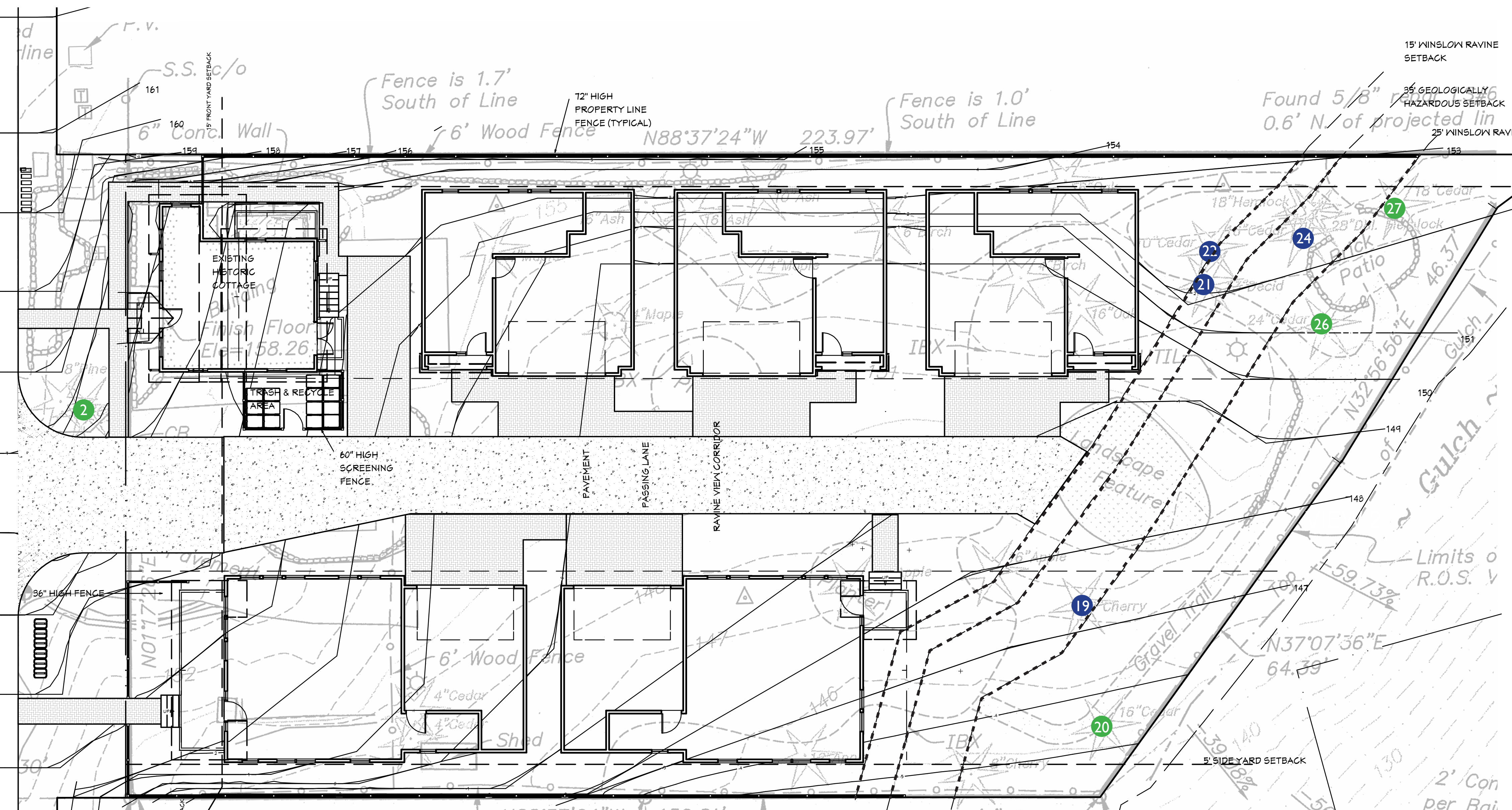
REPRESENTATIVE SPECIES

|                                                                                                                                                                            |                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Trees</u><br>Acer circinatum<br>Thuja plicata<br>Cornus nuttallii                                                                                                       | Vine Maple<br>Western Red Cedar<br>Pacific Dogwood                                                                                        |
| <u>Shrubs</u><br>Mahonia aquifolium<br>Physocarpus capitatus<br>Gaultheria shallon<br>Vaccinium ovatum<br>Ribes sanguineum<br>Rhododendron macrophyllum<br>Rosa gymnocarpa | Tall Oregon Grape<br>Pacific Ninebark<br>Salal<br>Evergreen Huckleberry<br>Red Flowering Currant<br>Pacific Rhododendron<br>Bald Hip Rose |
| <u>Ground Covers</u><br>Blechnum spicant<br>Fragaria chiloensis<br>Iris tenax<br>Asarum caudatum<br>Tellima grandiflora<br>Polystichum munitum                             | Deer Fern<br>Beach Strawberry<br>Oregon Iris<br>Wid Ginger<br>Fringecup<br>Western Sword Fern                                             |

GENERAL NOTES

- 1) Per BIMC 18.15.010.H.2, new tree plantings shall be a minimum of 2" caliper if deciduous or 6' in height if evergreen. New shrubs planted in roadside or perimeter buffers shall be of a variety that achives a minimum 6' height at maturity. Soil planting types and depth shall be sufficient for tree planting.
- 2) All new landscape to be permanently or temporarily irrigated to achieve required plant establishment goals.

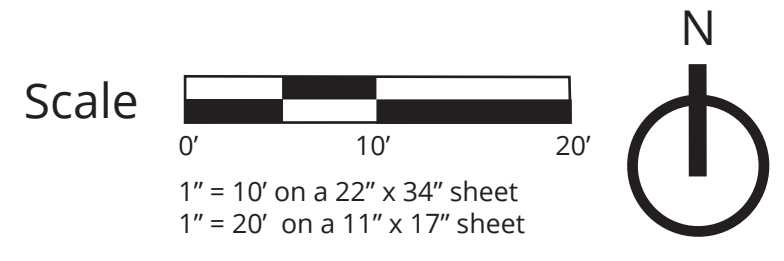




| TREES RETAINED |           |                 |            |
|----------------|-----------|-----------------|------------|
| #              | SPECIES   | D.B.H. (inches) | TREE UNITS |
| 19             | CHERRY    | 8               | 1.2        |
| 21             | DECIDUOUS | 13              | 2.0        |
| 22             | CEDAR     | 10              | 1.2        |
| 24             | CEDAR     | 10              | 1.2        |
| TOTAL          |           |                 | 5.6        |

- TREES RETAINED IN CRITICAL AREA BUFFER & ROW
- TREES RETAINED

- NOTES:
- TREES SHOWN ON SURVEY WITH NO DESIGNATION ARE BEING REMOVED.
  - LOT SIZE OF 0.427 ACRES MINUS BUFFER AREAS OF 0.071 ACRES EQUALS 0.356 ACRES.
  - 14.2 TREE UNITS REQUIRED (OR 40/ACRE PER 18.15.010.G.4.iii.
  - 5.6 TREE UNITS PROPOSED FOR RETENTION.
  - 9 NEW TREE UNITS REQUIRED TO MEET MIN. NUMBER OF TREE UNITS.
  - APPROX. 12 NEW TREES ARE BEING PROPOSED OUTSIDE OF BUFFER AREAS, PER CONCEPTUAL LANDSCAPE PLAN.
  - REFER TO ARBORIST REPORT FOR VALUATION OF TREES TO BE RETAINED AND RECOMMENDATION FOR REMOVAL OF UNHEALTHY TREES.



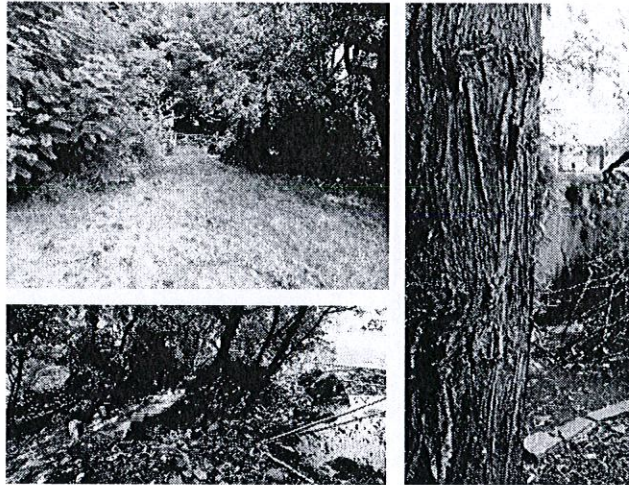
# ERICKSEN TOWNHOMES TREE RETENTION L03





## WINSLOW RAVINE BUFFER MITIGATION PLAN

August 27, 2018



**Ericksen Townhomes**  
*Bainbridge Island, Washington*



Prepared for

**Wing Point Properties LLC**  
**321 High School Road NE, Suite D3**  
**Bainbridge Island, WA 98110**  
**(206) 793-9469**

*Prepared by*

**Ecological Land Services**

1157 3rd Avenue, Suite 220A • Longview, WA 98632  
(360) 578-1371 • Project Number 2774.01

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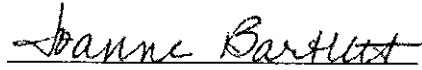
## **FIGURES & PHOTOPLATES**

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| Figure 3    | Site Plan                             |
| Figure 4    | Fischer Bouma Landscape Concept Plan  |
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| Figure 6    | Winslow Ravine Buffer Planting Plan   |
| Photoplates | Site Photos                           |



## SIGNATURE PAGE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.

A handwritten signature in cursive script, reading "Joanne Bartlett", is written over a horizontal line.

Joanne Bartlett, PWS  
Senior Biologist

## **INTRODUCTION**

---

Ecological Land Services, Inc. (ELS) has been contracted by Wing Point Properties LLC to prepare a planting plan for the Winslow Ravine buffer, which lies along the east side of the property at 568 Ericksen Avenue NE in Bainbridge Island, Washington. This property consists of a high density residential lot, Kitsap County Tax Parcel Number 262502-2-051-2009, that lies in a portion of Section 26, Township 25 North, Range 2 East of the Willamette Meridian (Figure 1). This buffer planting plan has been prepared in accordance with the *Bainbridge Island Municipal Code (BIMC) Section 16.20.180.D*.

## **SITE DESCRIPTION**

---

This property is located at 568 Ericksen Avenue NE, which is in the Winslow area of Bainbridge Island (Figure 1). It is a rectangular-shaped property that lies between Ericksen Avenue to the west and the Winslow Ravine to the east. The property is currently developed with a single-family home on the west end, an area of mowed yard behind the house, and landscaped forested area on the east side (Photoplate 1). The landscaped forest includes existing patios and a small landscape feature pond near the center (Photoplates 3, 4, and 5). There is a gravel trail that runs along the south and east property lines to that provides access to the patios and pond (Photoplate 3). The property is generally level with a slightly slope from north to south. The level terrain ends abruptly near the east property line, which represents the top of the Winslow Ravine slope.

The forested landscape area on the east end of the lot is composed of a mixture of native and ornamental species that have been planted over the years. The native trees and shrubs include wild cherry (*Prunus emarginata*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), paper birch (*Betula papyrifera*), and snowberry (*Symphoricarpos albus*) that are mixed in with ornamental maples and historic apple trees. Bamboo dominates areas along the east and north edges of the property and there are several butterfly bushes in the area (Photoplates 3, 4, and 5). The ground is mostly bare due to the dense cover by trees (Photoplates 2, 4, and 5). In addition to bamboo and butterfly bushes, black locust trees are present in portions of the buffer (Photoplate 1).

## **PROJECT DESCRIPTION**

---

The project at 568 Ericksen Avenue proposes construction of 6 cottages across the maintained yard area of the property. The existing historic cottage will remain as part of this small development. The existing gravel trail and landscape features, which include the brick patio at the northeast corner, will also be retained for this project. The gravel will be replaced with a softer, bark surface to create a more pervious path that will reduce impervious surface impacts within the buffer. The brick patio will be used as a small campfire area and the existing landscape feature will be converted to a rain garden.

Because the property backs up the Winslow Ravine, two separate setbacks are required for the project. These setbacks include the buffer from the Winslow Ravine and the geologically

hazardous areas setbacks per BIMC Sections 16.20.150 and 16.20.130, respectively. The BIMC Section 16.20.150 specifies two options for projects proposed along the Winslow Ravine.

**Option A-Prescriptive Standards** requires a 50-foot buffer from the top of the slope to protect the Type F stream and associated wetlands that are present within the ravine. This option does not allow uses within the buffer.

**Option B-Mitigated Standards** specifies a 25-foot buffer from the top of the slope with a 15-foot building setback. This option allows for public access within the buffer that meets the standards of *BIMC 16.20.110.G.6.a through e*. It also specifies a buffer enhancement plan to improve the function of disturbed buffers in accordance with *BIMC Section 16.20.180.D*.

This project has selected Option B-Mitigated Standards so proposes 25-foot buffer, which on this property, is measured from the top of the ravine slope. The required geologically hazardous setback is 35-foot setback from the top of the ravine and this setback extends 10 feet beyond the 25-foot buffer. A 15-foot setback was established from the Winslow Ravine buffer. Based on this collection of buffers and setbacks, the new cottages are proposed at least 40 feet from the top of Winslow Ravine.

The overall landscape plan proposes five landscape types that include the streetscape within the small development and the forest edge. This landscape plan has been designed to achieve greater than 60 percent native vegetation coverage to meet landscape regulations (Figure 4). The forest edge planting zone has been designed to enhance the Winslow Ravine buffer as part of the mitigated standard offered in the code. The plantings proposed in this area are intended to supplement native vegetation conditions in the buffer and setbacks by removing invasives and planting a variety of native plants. These natives will include trees, high and low shrubs, and herbaceous plants to create a vertically diverse buffer zone. Existing native trees will remain and the plants will be installed after removal of invasives, which include bamboo and butterfly bushes. In addition to the forest edge planting zone, the streetscape, lanescape, and private yard areas will be planted with native species mixed with some ornamental species also proposed (Figure 4).

## **BUFFER FUNCTIONAL ASSESSMENT**

The width of buffers necessary to protect a critical area from degradation is related to the functions of the critical area and the buffer itself (Castelle, et al. 1992). Buffers function to protect water quality of critical areas including slopes, wetlands, and streams by removing sediment and nutrients from runoff. The function depends on the type of soils, vegetation, and characteristics of the runoff. The function of buffers is also based on width and slope. In some cases, buffers as low as 50 feet are effective in filtering pollutants when there is dense groundcover, no slope or a gradual slope, and the runoff sheet flows across the buffer. The current buffer is relatively level to the top of the ravine slope and the vegetation is composed of a mix of native and ornamental vegetation as well as several fruit trees that were planted long ago. The combination of vegetation creates a canopy of nearly 100 percent that creates a dark and barren understory where herbaceous plants are unable to grow (Photoplates 2, 4, and 5). In addition, there is cover by bamboo, butterfly bushes, and black locust that provide minimal buffer function and also create areas where native plants are unable to thrive (Photoplate 3, 4, and 5). The outer portion of the 50-foot buffer is



composed of maintained yard and adds minimal buffer function to protect the critical areas within the Winslow Ravine (Photoplate 1).

There is commercial development north and south of the property. The area to the north has a lower buffer width than will be provided on this property after it is developed. The buffer areas to the south are less developed mainly because there is a large undeveloped property situated between the commercially developed lots to the south (Figure 2). There is significant vegetation coverage between the property and the Winslow Ravine stream that includes a mixture of deciduous and coniferous species with a dense shrub understory. The offsite portion of buffer east of the property is composed of deciduous trees with a high shrub layer that includes some Himalayan blackberry cover (Photoplate 3). Bamboo dominates the buffer immediately along the east property line while the remainder is composed of high and low trees and minimal shrub or herbaceous vegetation. Under current conditions, the function of the onsite buffer is low to moderate because it lacks dense shrub and herbaceous layers.

Buffers function to limit human intrusion when there are dense vegetation communities which humans cannot penetrate. These dense vegetation communities also reduce indirect human impacts that noise and light can have on critical areas. The value of the buffer to provide these functions is based on the condition of the critical area and wildlife that are currently using the critical area (Sheldon, et al. 2005). The current buffer conditions provide a measure of noise and light protection for the ravine due to the dense low tree cover. However, they do not necessarily lend itself to minimizing intrusion by humans because of the lack of dense understory vegetation.

The buffer mitigation plan proposes to install a variety of plant species that will create vertical diversity by planting trees, shrubs, and herbaceous plants. The current high shrub and small tree cover in this area prevents the development of an herbaceous understory and/or a tree canopy. The plan proposes removal of invasives and some of the small ornamental trees to make room for new plantings that will create a three-layer forested community. By creating a multi-layer vegetation community within the 25-foot Winslow Ravine buffer, the function will be increased significantly. The shrub layer will allow for limiting of intrusion by users and the herbaceous layer will provide additional protection for water quality as well as limiting intrusion. The plant species diversity will also increase the function of the buffer as wildlife habitat. Noise and light screening will be improved through installation of plants with year-round foliage including conifer trees, Oregon grape, salal, and sword fern. Therefore, the reduced buffer will have greater function than the buffer at the required width because dense vegetation cover will be created throughout the onsite buffer. In addition, the gravel in the existing trail will be replaced with bark that will reduce the impervious surface within the buffer area.

## **WINSLOW RAVINE BUFFER MITIGATION PLAN**

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The Winslow Ravine buffer mitigation plan is a cooperative effort between Fischer Bouma Partnership (FBP) and ELS. The plant selection was made by FBP and has included tree, shrub, and herbaceous species common to Bainbridge Island. The plant total has been determined by ELS and is based on the total square footage of the onsite Winslow Ravine Buffer as reduced to 25 feet.

### ***Specifications for Site Preparation***

The tasks listed below will achieve the critical area buffer planting plan goals and objectives. These tasks are listed in the order they are anticipated to occur; however, some tasks may occur concurrently or may precede other tasks due to site and procedural constraints.

### ***Buffer Planting Areas***

1. Establish the limits of the planting areas area as shown on the attached planting plan.
2. Remove invasive plant species (bamboo, black locust, and butterfly bushes) from the buffer.
3. Mark the locations for the new vegetation across the area to create the diversity within the buffer so that function is improved.

### ***Goals, Objectives, and Performance Standards***

**Project Goal:** Improve the Winslow Ravine buffer functions to compensate for the reduced buffer area. The performance standards focus on keeping cover by invasives low and having a high survival rate of planted species so that there will be a resulting increase in percent cover.

**Objective 1:** Control invasive species.

**Performance Standard 1(a):** During Years 1 through 5, invasive species will be removed and suppressed around the plants in the planting areas as often as necessary to meet a performance standard of no greater than 10 percent cover by invasive species. Percent cover will be recorded annually and included in monitoring reports. Invasive species include but are not limited to bamboo, black locust, butterfly bushes, English ivy, Himalayan blackberry, and Scot's broom.

**Objective 2:** Supplement native plant cover within the critical area buffer.

**Performance Standard 2(a):** The project will maintain 100 percent survival of plants in Years 1 through 3. Plant species number will be recorded annually and compared with as-built conditions for inclusion with the monitoring reports.

**Performance Standard 2(b):** The cover by native plants within the planting area will increase over the 5-year monitoring period. The yearly percent cover in the planting areas will be: Year 1 - 10 percent; Year 2 - 15 percent; Year 3 - 20 percent; and Year 5 - minimum of 35 percent. Plant species percentages will be recorded annually and compared with as-built conditions to determine overall success of the plantings. The existing and volunteer native plants will be included in the percent cover estimates.

### ***Specifications for Planting***

The plants specified for installation are intended to establish a native plant community and to achieve no-net-loss of buffer function. The specified plant species in Table 1 grow relatively quickly, and when maintained, will create a multi-layer canopy of vegetation that is consistent with conditions in other areas along the Winslow Ravine. The total number of plants is show in Table 1 but the planting locations have not been determined. The locations will be determined by Fischer Bouma Partnership to create an attractive and functional configuration.

The new plants will be installed around the trees and existing native vegetation that remains after removal of invasives. Plants will be spaced to allow for removal of invasive plants and each plant may be protected by wood chips to prevent the growth of invasive plants and to

dissipate precipitation in the wet season. Plant substitutions may be necessary if the numbers of plants or species are not available and if conditions are different than expected as a result of construction activities.

**Table 1. Plant specifications for Winslow Ravine buffer.**

| Species                                                   | Spacing (feet) | Quantity   | Size     |
|-----------------------------------------------------------|----------------|------------|----------|
| <b><i>TREE STRATUM</i></b>                                |                |            |          |
| Vine maple ( <i>Acer circinatum</i> )                     | 10             | 9          | 1 gallon |
| Western red cedar ( <i>Thuja plicata</i> )                | 10             | 9          | 1 gallon |
| Pacific dogwood ( <i>Cornus nuttallii</i> )               | 10             | 9          | 1 gallon |
| <b><i>SHRUB STRATUM</i></b>                               |                |            |          |
| Tall Oregon grape ( <i>Mahonia aquifolium</i> )           | 5              | 12         | 1 gallon |
| Pacific ninebark ( <i>Physocarpus capitatus</i> )         | 5              | 12         | 1 gallon |
| Salal ( <i>Gaultheria shallon</i> )                       | 5              | 12         | 1 gallon |
| Evergreen huckleberry ( <i>Vaccinium ovatum</i> )         | 5              | 12         | 1 gallon |
| Red flowering currant ( <i>Ribes sanguineum</i> )         | 5              | 12         | 1 gallon |
| Pacific rhododendron ( <i>Rhododendron macrophyllum</i> ) | 5              | 12         | 1 gallon |
| Baldhip rose ( <i>Rosa gymnocarpa</i> )                   | 5              | 12         |          |
| <b><i>HERB STRATUM</i></b>                                |                |            |          |
| Deer fern ( <i>Blechnum spicant</i> )                     | 2-3            | 35         | 4" pot   |
| Beach strawberry ( <i>Fragaria chiloensis</i> )           | 2-3            | 35         | 4" pot   |
| Oregon iris ( <i>Iris tenax</i> )                         | 2-3            | 35         | 4" pot   |
| Wild ginger ( <i>Asarum caudatum</i> )                    | 2-3            | 35         | 4" pot   |
| Fringecup ( <i>Tellima grandiflora</i> )                  | 2-3            | 35         | 4" pot   |
| Sword fern ( <i>Polystichum munitum</i> )                 | 2-3            | 35         | 4" pot   |
| <b>Total</b>                                              |                | <b>321</b> |          |

### ***Plant Materials***

#### ***Potted Stock***

1. Bareroot and potted plants will be purchased from a native plant nursery.
2. Shrubs will have a minimum size of 1.5 feet tall.
3. Plants will be kept in a shaded area prior to being planted.
4. The potted stock will have well-developed roots and sturdy stems with an appropriate root- to-shoot ratio.
5. No damaged or desiccated roots or diseased plants will be accepted.



6. Unplanted stock will be properly stored at the end of each planting day to prevent desiccation.
7. The project biologist will be responsible for inspecting potted stock prior to and during planting and culling unacceptable plant materials.

### ***Planting Methods***

1. Install the specified plants as listed in Table 1 during in the winter months when the plants are dormant. Space the plants somewhat irregularly within the buffer area areas to create dense heterogeneity and to allow the recovery of native volunteers. Plant the potted stock with a tree shovel or comparable tool.
2. Place the potted species in the planting holes so that their roots are able to extend down entirely and do not bend upward or circle inside the hole.
3. Position the root crowns so that they are at, or slightly above, the level of the surrounding soil.
4. Firmly compact the soil around the planted species to eliminate air spaces.
5. Place woody mulch around the base of planted species where they are susceptible to being dominated by invasive plants.
6. Irrigate all newly installed plants as site and weather conditions warrant.

### **MAINTENANCE**

Maintenance of the planting areas will occur for 5 years and will involve removing invasive plant species, irrigating planted species, and reinstalling failed plantings, as necessary. The maintenance may include the following activities:

1. Remove and control non-native and/or invasive vegetation from within the planting areas a minimum of two times during the growing season for the first 5 years.
2. Irrigate planted species as needed during the dry season, approximately July 1 through October 15. ELS biologists recommend that watering occur at least every two weeks during the dry season for the first 3 years. A drip irrigation system is highly recommended over a sprinkler system because it will distribute water directly to each plant, which will lessen the impacts to the stability of the slope.
3. Replace dead or failed plants as described for the original installation to meet the minimum annual survival rate and percent cover performance standards.

### **MONITORING PLAN**

The planting areas will be monitored annually for a 5-year period (skip Year 4) following plant installation. Monitoring reports will be submitted to the Bainbridge Island Department of Planning and Community Development (BIPCD) by December 31<sup>st</sup> of each monitored year. The goal of monitoring is to determine if the previously stated performance standards are being met. The buffer mitigation area will be monitored once during the growing season, preferably during the same two-week period each year to better compare the data.

A total of 2 to 4 monitoring units totaling will be established within the buffer area to collect data regarding the prescribed performance standards. In addition to photos taken of each monitoring

unit, two to three photo stations will be established to visually document the changing conditions of the mitigation area during the 5-year monitoring period.

### ***Vegetation***

Vegetative monitoring will document the developing native vegetation buffer within the planting areas. The following information will be collected during each monitoring visit:

- Number and frequency of installed species.
- Percent cover by installed and native volunteer species.
- Species composition in planting area, including non-native, invasive species.
- Photo documentation of vegetative changes over time.

### ***Monitoring Report Contents***

The annual monitoring reports will contain at least the following:

- Location map and representational drawing.
- Historic description of project, including dates of plant installation, current year of monitoring, and restatement of goals, objectives, and performance standards.
- Description of monitoring methods.
- Documentation of plant cover and overall development of plant communities.
- Assessment of non-native, invasive plant species and recommendations for management.
- Photographs from permanent photo points.
- Summary of maintenance and contingency measures proposed for the next season and completed for the past season.

## **CONTINGENCY PLAN**

If the performance standards are not being met during the 5-year monitoring period, contingency measures will be implemented to achieve the standard by the next monitoring season. The contingency measures utilized will depend on the failure of the plants or maintenance activities and will include but are not limited to replacement of dead plants (with the same or a similar species) when the survival rate standard is not met, addition of plants when the yearly percent cover standard is not met, and more intensive maintenance if the invasive plant cover exceeds 10 percent. All contingency actions will be undertaken only after consulting and gaining approval from the BIDCD. The applicant will be required to complete a contingency plan that describes (1) the causes of failure, (2) proposed corrective actions, (3) a schedule for completing corrective actions, and (4) whether additional maintenance and monitoring are necessary.

## **LIMITATIONS**

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. There are no other warranties, express or implied. The services performed were consistent with our agreement with our client. This report is prepared solely for the use of our client and may not be used or relied upon by a third party for any purpose. Any such use or reliance will be at such party's risk.

The opinions and recommendations contained in this report apply to conditions existing when services were performed. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report. ELS does not warrant the accuracy of supplemental information incorporated in this report that was supplied by others.



## **REFERENCES**

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Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Maurermann, T. Erickson, S.S. Cooke. 1992. *Wetland Buffers: Use and Effectiveness*. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology. Olympia. Pub. No. 92-10.

Kitsap County Parcel Search, 2018. <https://psearch.kitsapgov.com/webappa/>. Accessed August 2018.

Sheldon, D. T. Hraby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. March 2005. *Wetlands in Washington State – Volume 1: A Synthesis of the Science*. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.

## **FIGURES AND PHOTOPLATES**

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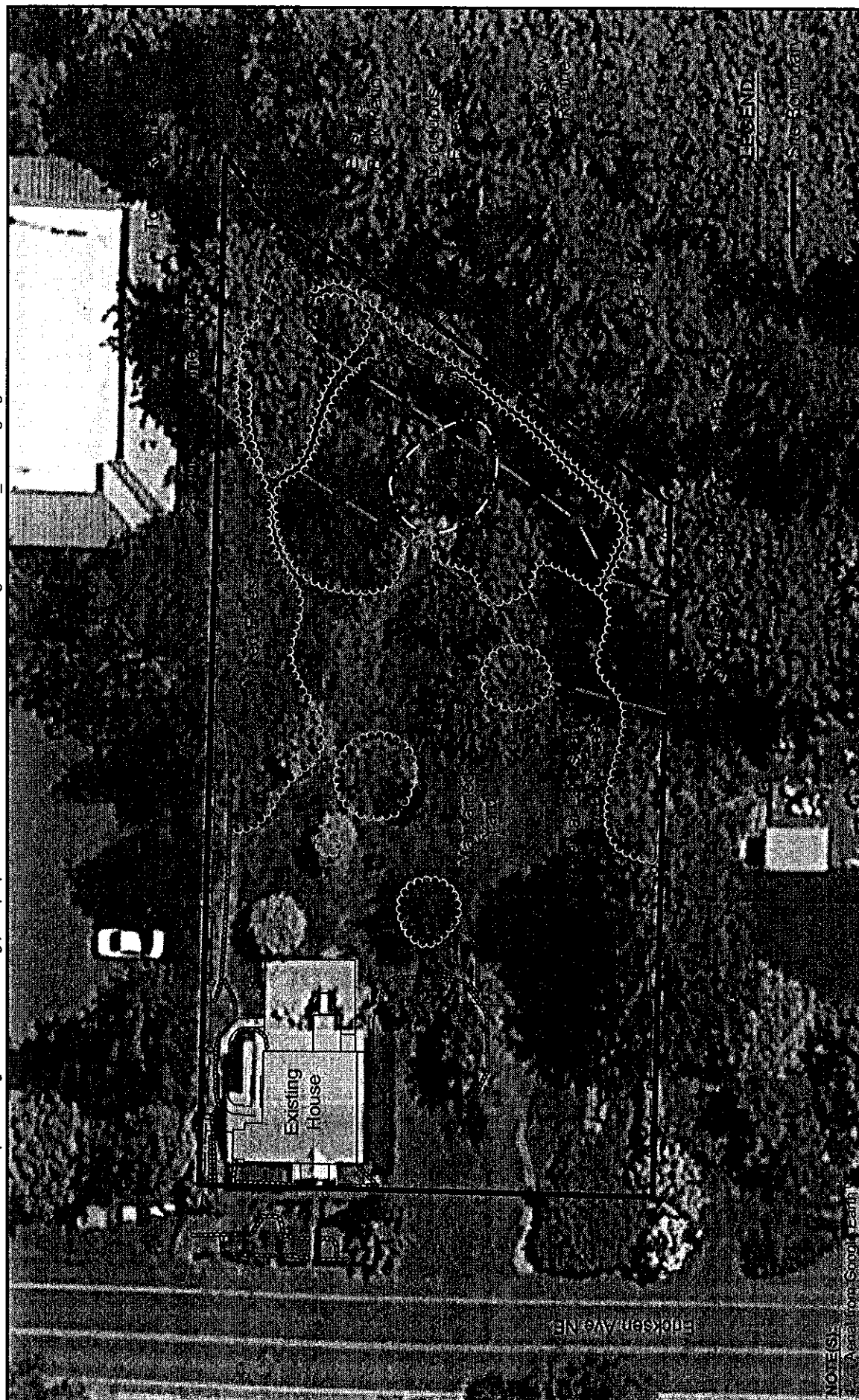
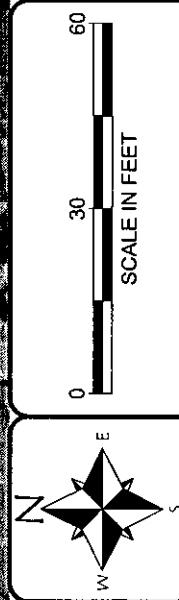
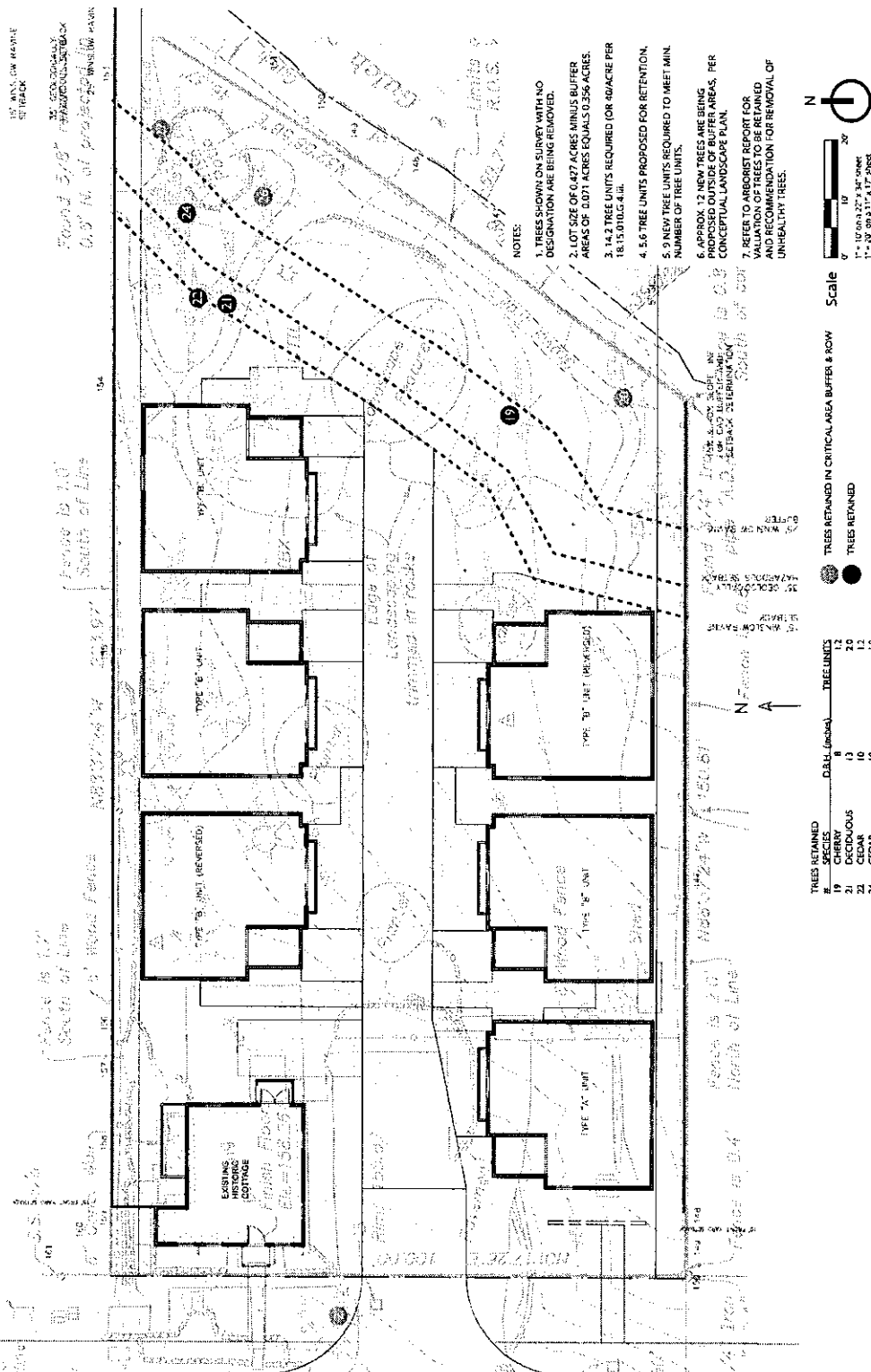


Figure 2  
SITE MAP  
Erickson Townhomes  
Wing Point Properties, LLC  
City of Bainbridge Island, Kitsap County, WA  
Section 26, Township 25N, Range 2E, W.M.

DATE: 8/27/18  
DOWN: JLL  
REQ. BY:  
PRJ. MGR: JB  
CHK:  
PROJECT NO:  
2774.01

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Longview, WA 98632  
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Fax: (360) 414-9305  
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568 ERICKSEN

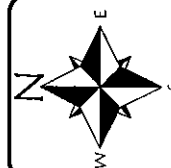
RAINBRIDGE ISLAND, WA

# PRELIMINARY TREE RETENTION

AUGUST 29, 2018 SITE PLAN REVIEW

L03

**FISCHER-BOUMA**



NOT TO SCALE

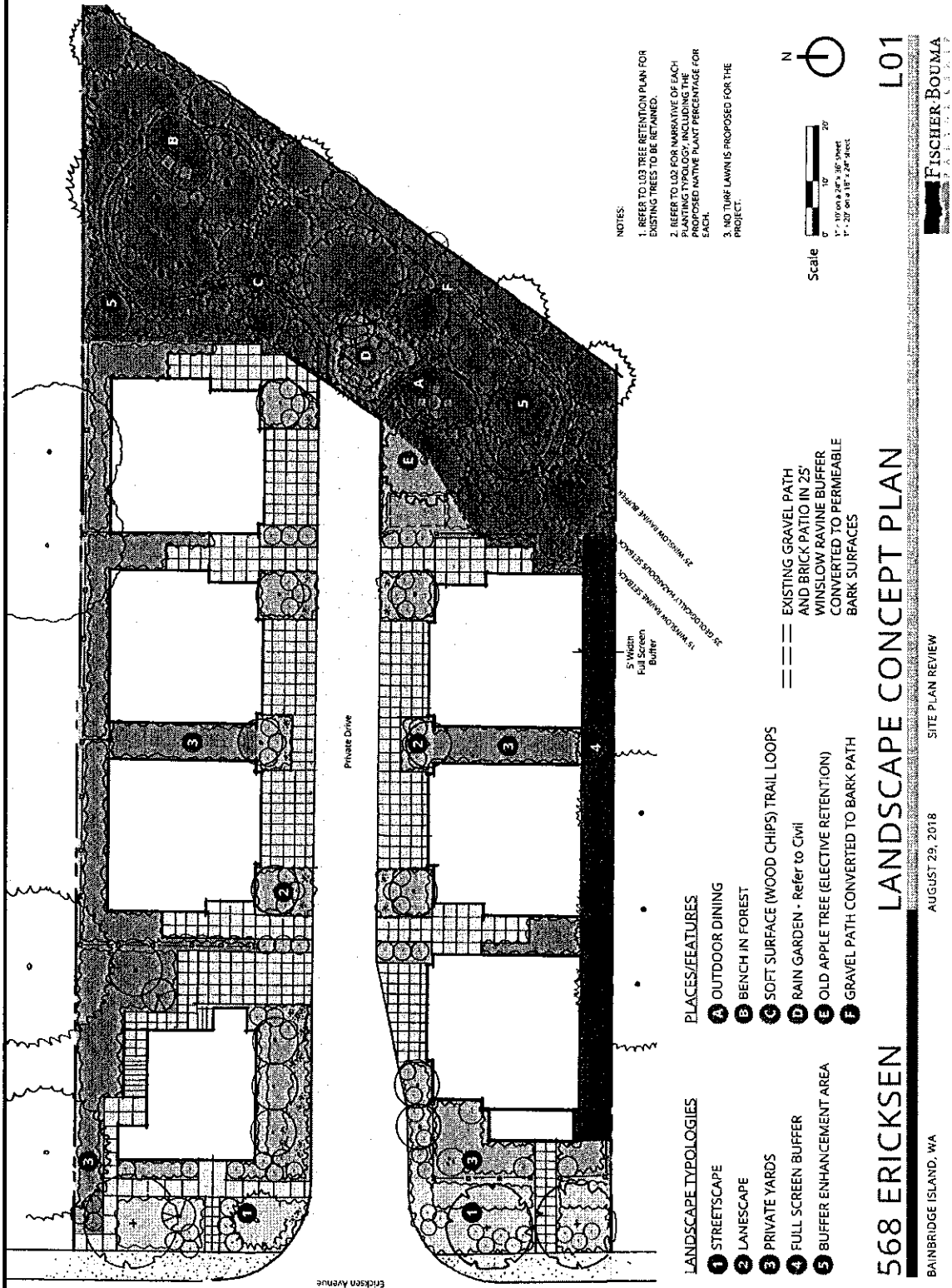


**Ecological  
Land Services**

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**Figure 3**  
**SITE PLAN**  
Ericksen Townhomes  
Wing Point Properties, LLC  
City of Bainbridge Island, Kitsap County, WA  
Section 26, Township 25N, Range 2, W.M.





## LANDSCAPE TYPES

### 1 STREETScape

The landscape design will satisfy COBI code section 18.15.010.A.2.e. for the Erickson Overlay District. The streetscape will present a cohesive, inviting edge and interface with the larger neighborhood. Large deciduous canopy trees will line Erickson Ave. providing structure and separation between homes and the road. A beautiful existing Plumrose Japanese Cedar in the right of way will be retained if possible.

#### REPRESENTATIVE SPECIES

**Trees**  
Fraxinus americana 'Junginger'  
Cercidiphyllum japonicum  
Ginkgo biloba 'Autumn Gold'  
**Shrubs/Grasses/Perennials**  
Gaultheria shallon  
Vaccinium ovatum  
Rhododendron x 'Teddy Bear'  
Pennisetum orientale 'Karley Rose'  
**Ground Covers**  
Barbicanis magellanica  
Rubus clycinoides 'Emerald Carpet'  
Fragaria x 'Lipstick'

**Autumn Purple Ash**  
**Katsura Tree**  
**Autumn Gold Ginkgo**  
**Salal**  
**Evergreen Huckleberry**  
**Teddy Bear Rhododendron**  
**Karley Rose Fountain Grass**  
**Christmas Bush**  
**Emerald Carpet Raspberry**  
**Lipstick Strawberry**

### 4 FULL SCREEN BUFFER (S' WIDTH)

Applicant is requesting relief of the 20' wide full screen buffer through the Historic Preservation Program. 20' buffer on south-east property line will be replaced with planting in accordance with the Buffer Enhancement Plan.

#### REPRESENTATIVE SPECIES

**Trees**  
Maloryana Arbovitae  
Mountain Sentinel Aspen  
**20' Buffer:**  
Pinus contorta var. contorta  
**Shrubs**  
Vaccinium ovatum  
**Ground Covers**  
Fragaria x 'Lipstick'  
Waldsteinia fragarioides

**Shore Pine**  
**Evergreen Huckleberry**  
**Lipstick Beach Strawberry**  
**Barren Strawberry**

### 2 LANEScape

Columnar trees will reflect the reduction in scale of the landscape from the streetscape while allowing for a view to the forest edge beyond. A mixture of native shrubs, ferns, grasses and bulbs will provide an aesthetic transition from the streetscape of Erickson through this small community of seven condominiums, to the forest edge to the east.

#### REPRESENTATIVE SPECIES

**Trees**  
Acer circinatum  
Carpinus betulus 'Franz Fontaine'  
Liriodendron tulipifera 'Fastigiatum'  
Quercus bicolor 'Bonnie and Mike'  
**Shrubs/Grasses/Ferns**  
Gaultheria shallon  
Blechnum spicant  
Deschampsia cespitosa  
Vaccinium ovatum  
**Ground Covers**  
Barbicanis magellanica  
Rubus clycinoides 'Emerald Carpet'  
Fragaria x 'Lipstick'

**Vine Maple**  
**Columnar Hornbeam**  
**Columnar Tulip Tree**  
**Columnar Oak**  
**Salal**  
**Deer Fern**  
**Tufted Hairgrass**  
**Evergreen Huckleberry**  
**Christmas Bush**  
**Emerald Carpet Raspberry**  
**Lipstick Beach Strawberry**

### 3 PRIVATE YARDS

Small, narrow spaces between and behind condos will be a mix of shade loving native and ornamental shrubs and groundcovers. No turf is proposed for these spaces. Stepping stone paths will provide access through these gardens.

#### REPRESENTATIVE SPECIES

**Shrubs/Grasses/Ferns**  
Gaultheria shallon  
Blechnum spicant  
Vaccinium ovatum  
**Ground Covers**  
Asarum caudatum  
Tarella trifoliata  
Vancouveria hexandra

**Salal**  
**Deer Fern**  
**Evergreen Huckleberry**  
**Western Sword Fern**  
**Wild Ginger**  
**Forniflower**  
**Inside-out Flower**

### 5 BUFFER ENHANCEMENT PLAN

100% Native Species

Native plants will supplement the adjoining buffer and ravine, enhancing wildlife habitat and a sense of place among the greater Pacific Northwest. A wood chip trail will connect people to a campfire gathering space. This forest edge will contain shrubs and small trees that will be aesthetically pleasing against a backdrop of dark green mature conifer trees.

Refer to Buffer Enhancement Plan per Ecological Land Services for specific mitigation goals and performance standards.

**Trees**  
Acer circinatum  
Thuja plicata  
Cornus nuttallii  
**Shrubs**  
Manoria aquifolium  
Physocarpus opulifolius  
Gaultheria shallon  
Vaccinium ovatum  
Ribes sanguineum  
Rhododendron macrophyllum  
Rosa gymnocarpa  
**Ground Covers**  
Blechnum spicant  
Fragaria chiloensis  
Iris tenax  
Asarum caudatum  
Tarella grandiflora  
Polystichum munitum

**Vine Maple**  
**Western Red Cedar**  
**Pacific Dogwood**  
**Tall Oregon Grape**  
**Pacific Ninebark**  
**Salal**  
**Evergreen Huckleberry**  
**Red Flowering Currant**  
**Pacific Rhododendron**  
**Bald Hip Rose**  
**Deer Fern**  
**Beach Strawberry**  
**Oregon Iris**  
**Wild Ginger**  
**Fringecup**  
**Western Sword Fern**

#### GENERAL NOTES

- 1) Per BLMC 18.15.010.H.2, new tree plantings shall be a minimum of 2" caliber, if deciduous or 6" in height if evergreen. New shrubs planted in roadside or perimeter buffers shall be of a variety that achieves a minimum 6' height at maturity. Soil planting types and depth shall be sufficient for tree planting.
- 2) All new landscape to be permanently irrigated to achieve required plant establishment goals.

## 568 ERICKSEN

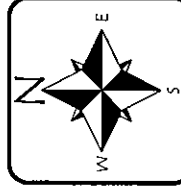
BAINBRIDGE ISLAND, WA

## LANDSCAPE CONCEPT NOTES

AUGUST 25, 2018 SITE PLAN REVIEW

## L02

FISCHER BOUMA



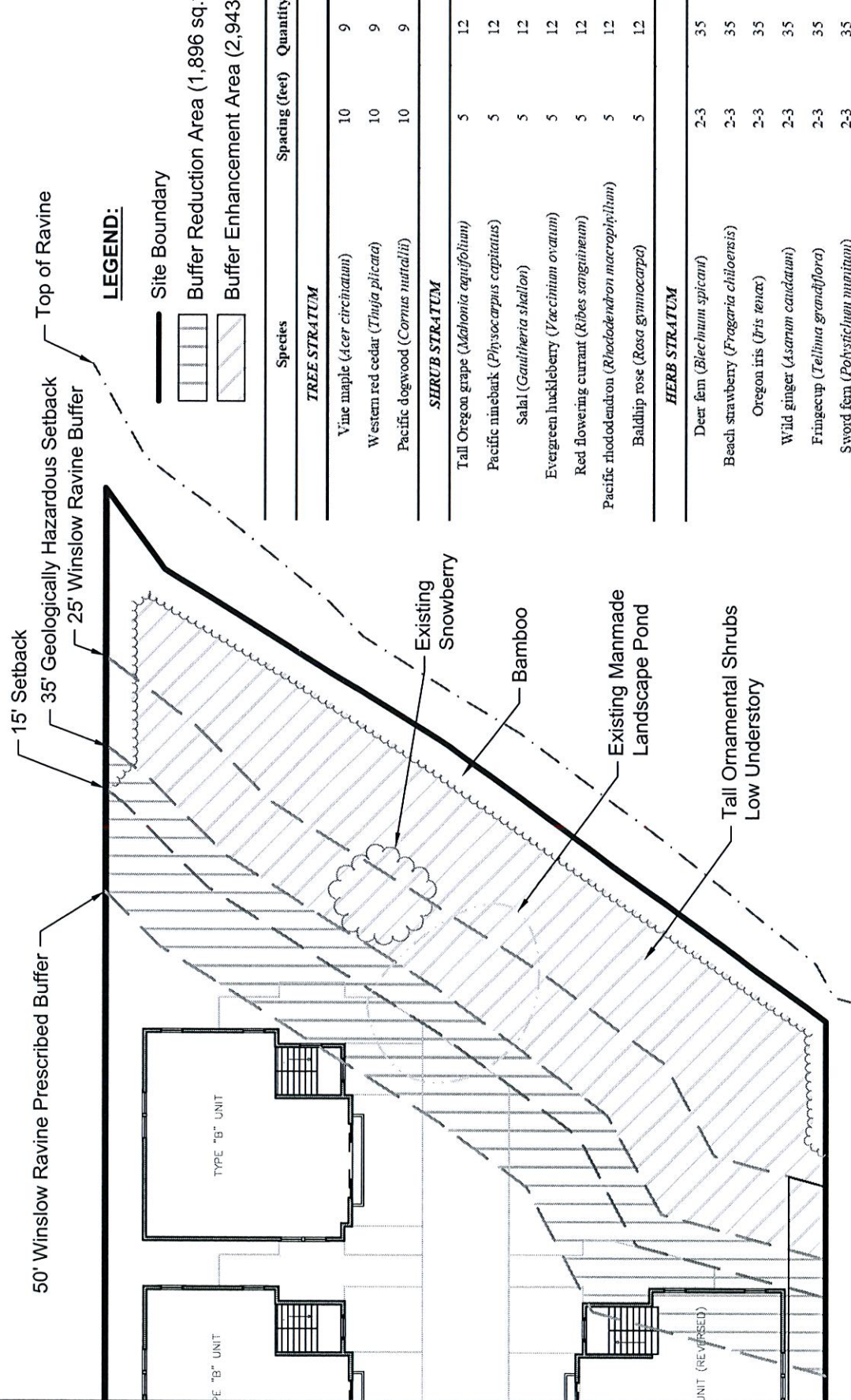
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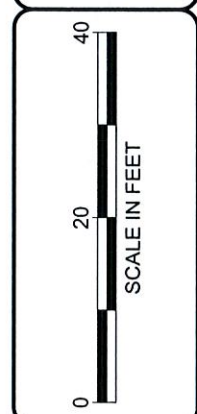
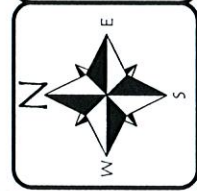
Figure 5  
FISCHER BOUMA LANDSCAPE CONCEPT NOTES  
Erickson Townhomes  
Wing Point Properties, LLC  
City of Bainbridge Island, Kitsap County, WA  
Section 26, Township 25N, Range 2E, W.M.



**LEGEND:**

- Site Boundary
- Buffer Reduction Area (1,896 sq.ft.)
- Buffer Enhancement Area (2,943 sq.ft.)

| Species                                                   | Spacing (feet) | Quantity   | Size     |
|-----------------------------------------------------------|----------------|------------|----------|
| <b>TREE STRATUM</b>                                       |                |            |          |
| Vine maple ( <i>Acer circinatum</i> )                     | 10             | 9          | 1 gallon |
| Western red cedar ( <i>Thuja plicata</i> )                | 10             | 9          | 1 gallon |
| Pacific dogwood ( <i>Cornus nuttallii</i> )               | 10             | 9          | 1 gallon |
| <b>SHRUB STRATUM</b>                                      |                |            |          |
| Tall Oregon grape ( <i>Mahonia aquifolium</i> )           | 5              | 12         | 1 gallon |
| Pacific ninebark ( <i>Physocarpus capitatus</i> )         | 5              | 12         | 1 gallon |
| Salal ( <i>Gaultheria shallon</i> )                       | 5              | 12         | 1 gallon |
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| Red flowering currant ( <i>Ribes sanguineum</i> )         | 5              | 12         | 1 gallon |
| Pacific rhododendron ( <i>Rhododendron macrophyllum</i> ) | 5              | 12         | 1 gallon |
| Baldhip rose ( <i>Rosa gymnocarpa</i> )                   | 5              | 12         | 1 gallon |
| <b>HERB STRATUM</b>                                       |                |            |          |
| Deer fern ( <i>Blechnum spicant</i> )                     | 2-3            | 35         | 4" pot   |
| Beach strawberry ( <i>Fragaria chiloensis</i> )           | 2-3            | 35         | 4" pot   |
| Oregon iris ( <i>Iris tenax</i> )                         | 2-3            | 35         | 4" pot   |
| Wild ginger ( <i>Asarum canadense</i> )                   | 2-3            | 35         | 4" pot   |
| Fringecup ( <i>Tellima grandiflora</i> )                  | 2-3            | 35         | 4" pot   |
| Sword fern ( <i>Polystichum munitum</i> )                 | 2-3            | 35         | 4" pot   |
| <b>Total</b>                                              |                | <b>321</b> |          |



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1157 3rd Ave., Suite 220A  
Longview, WA 98632  
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Fax: (360) 414-9305  
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**Figure 6**  
**MITIGATION PLANTING PLAN**  
Erickson Townhomes  
Wing Point Properties, LLC  
City of Bainbridge Island, Kitsap County, WA  
Section 26, Township 25N, Range 2E, W.M.



**Photo 1** was taken from near the middle of the property. It looks easterly toward the small landscape pond, which lies partially within the slope buffer and is visible in the forest opening in the middle of the photo.



**Photo 2** was taken from the same location as Photo 1. It looks south across the mowed yard toward a couple of older apple trees. According to the site plan, they will be removed to accommodate the proposed development.



**Photo 3** was taken from the same location as Photos 1 and 2. It looks west across the middle of the property to show the mowed yard and landscaping that lies behind the house. The house is not visible but is to the upper right of the center landscaping.



1157 3<sup>rd</sup> Ave., Suite 220A  
Longview, WA 98632  
(360) 578-1371  
Fax: (360) 414-9305

DATE: 8/20/18  
DWN: JB  
PRJ. MGR JB  
PROJ.#: 2774.01

Photoplate 1  
Project Name: 568 Ericksen  
Client: Wing Point Properties  
LLC  
Bainbridge Island, Washington





**Photo 4** was taken from near the southeast corner of the property. It looks westerly along the south property line to document the vegetation conditions within the buffer area.



**Photo 5** was taken from the same location as Photo 4 and looks northwesterly across the slope buffer. This photo documents the existing shrub vegetation and the lack of understory plants due to the shading provided by the taller plants.



**Photo 6** was taken from the same location as Photos 4 and 5. It looks north northwest across the slope buffer and provides additional documentation as to the lack of understory vegetation.



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PROJ.#: 2774.01

Photoplate 2  
Project Name: 568 Ericksen  
Client: Wing Point Properties  
LLC  
Bainbridge Island, Washington



**Photo 7** was taken from the same location as Photos 4, 5, and 6 (Photoplate 2). It looks north along the east edge of the property where there are conifer trees with a dense understory of bamboo.



**Photo 8** was taken about midway along the east property line and documents additional dense bamboo that will be removed as part of the buffer mitigation plan.



**Photo 9** was taken from the same location as Photo 8. It looks easterly into the Winslow Ravine, which in this location, is dominated by tall trees and an understory of Himalayan blackberry.



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PRJ. MGR JB  
PROJ.#: 2774.01

Photoplate 3  
Project Name: 568 Ericksen  
Client: Wing Point Properties  
LLC  
Bainbridge Island, Washington



**Photo 10** was taken from the northeast corner of the property and looks south along the east property line. The bamboo cover is visible on the left side of the photo with areas of trees and bare ground on the west side.



**Photo 11** was taken from the same location as Photo 10 and looks southwesterly across the slope buffer. The landscape pond is visible on the right side of the photo.



**Photo 12** was taken from the same location as Photos 10 and 11. It looks west and shows the large landscape rock to the right and the remainder of the pond to the left. The pond is covered with netting to prevent birds from landing.

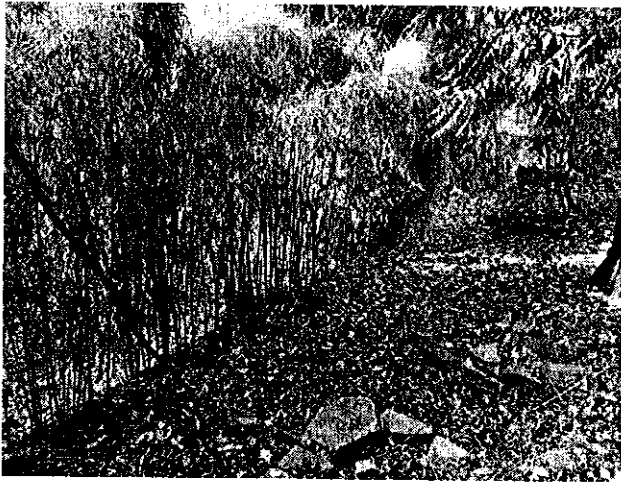


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Longview, WA 98632  
(360) 578-1371  
Fax: (360) 414-9305

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PROJ.#: 2774.01

Photoplate 4  
Project Name: 568 Ericksen  
Client: Wing Point Properties  
LLC  
Bainbridge Island, Washington





**Photo 13** was taken from near the northeast corner and looks southeasterly toward the east property line. This photo provides an additional view of the bamboo, which is basically a single line of plants next to the fence.



**Photo 14** was taken from the same location as Photo 13 and looks southerly across the patio area near the northeast corner.



**Photo 15** was taken from the same location as Photos 13 and 14 and looks west along the north line. The trees in this photo will be retained within the slope buffer. Plant will be installed around these trees as part of the planting plan.



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Fax: (360) 414-9305

DATE: 8/20/18  
DWN: JB  
PRJ. MGR JB  
PROJ.#: 2774.01

Photoplate 5  
Project Name: 568 Ericksen  
Client: Wing Point Properties  
LLC  
Bainbridge Island, Washington



Katy Bigelow  
206.351.1375  
arboristkaty@gmail.com

December 15, 2017

John Bierly  
President  
Wing Point Properties LLC  
Bainbridge Island, WA 98110

Jeff Bouma  
Fischer Bouma Partnership  
310 Madison Avenue South, Suite A  
Bainbridge Island, WA 98110



Dear Mr. Bierly and Mr. Bouma:

Thank you for asking me to provide valuations of trees you are retaining during development at 568 Ericksen Ave NE on Bainbridge Island. I completed my tree assessment on November 12, 2017.

To assess the trees addressed in this report I combined my field experience and education with current accepted practices as defined by the American National Standards Institute (ANSI) and the International Society of Arboriculture (ISA). The tools I use to make an assessment are limited to a mallet, compass and diameter tape unless otherwise noted. A visual tree assessment and other methods are only conclusive for the day of inspection and do not guarantee that conditions will remain the same in the future.

-----  
*The Guide for Plant Appraisal*, 9th edition, by the Council of Tree and Landscape Appraisers is widely used in the industry to determine the value of plants in the landscape. To determine values I utilized the protocol of the Council of Tree and Landscape Appraisers. This systematic process includes factors that contribute to the value of plants such as size, species, condition, and location. Methods are outlined to assess casualty losses, damage from trespass or accidents or finding values of trees/plants in a changing landscape. They include:

- *The Reduction of Property Value Method (or Market Approach)* is generally used in cases where the damage or loss is large enough to negatively affect the value of the property.
  - In this case, this is not the issue at hand and this method was not used.
- *The Income Approach Method* is generally used when the damage was to a nursery or producing orchard.

- This is not a nursery or orchard property and this method was not used.
- *The Trunk Formula Method* is generally used when the (potential) damage or death is of plants and trees too large to replace.
  - **I used this methodology to calculate the value of the trees to be retained.**
- *The Cost of Cure Method* is generally used when damage is small enough that curative measures can be taken to correct the damage over a reasonable period of time.
  - All of the trees are of a size that cannot be reasonably accurately replaced if significantly damaged, though could be used to calculate costs if a damaged tree would survive injury.
- *The Replacement Cost Method* is generally used when damage is great enough the plant materials died or will not recover. The Replacement Cost Method is based upon the total cost to replace the plant or amenity of comparable species and size in the same place.
  - Since the Replacement Cost Method is used to establish the value of landscape plants that are commonly available and small enough to be transported to the site and properly installed, I chose not to use this method.

### **Observations, Discussion and Conclusions**

The only trees to be retained on this development site are along the eastern portion of the site bordering a ravine. No single trees in the middle of the development site are specified for retention.

I specifically assessed and calculated the value for six trees. See the [Site Map](#) to view their locations. They include a mix of ornamental and native trees species of varying conditions.

On this site it is reasonable that all the trees to be retained could be fenced off in one tree protection area instead of individual trees needing to be encircled with tree protection fencing.

There will be ample room throughout the site after development is complete to replant trees to meet or exceed the tree credits required for developing this site.



## Summary

# Trunk Formula Method Summary

Client: Bouma-Fischer/Bainbridge Landing

12/14/2017

| TREE # | SPECIES                                    | Trunk Dia.<br>in Inches | Trunk Formula<br>Value |
|--------|--------------------------------------------|-------------------------|------------------------|
| 19     | Ornamental cherry ( <i>Prunus sp.</i> )    | 9                       | \$210.00               |
| 21     | Ornamental cherry ( <i>Prunus sp.</i> )    | 10                      | \$40.00                |
| 22     | Western red cedar ( <i>Thuja plicata</i> ) | 10                      | \$860.00               |
| 24     | Western red cedar ( <i>Thuja plicata</i> ) | 14                      | \$1,450.00             |
| 20     | Western red cedar ( <i>Thuja plicata</i> ) | 16                      | \$1,980.00             |
| 26     | Western red cedar ( <i>Thuja plicata</i> ) | 26                      | \$6,500.00             |
| 27     | Western red cedar ( <i>Thuja plicata</i> ) | 21                      | \$6,200.00             |
|        | <b>TOTAL</b>                               |                         | <b>\$17,240</b>        |

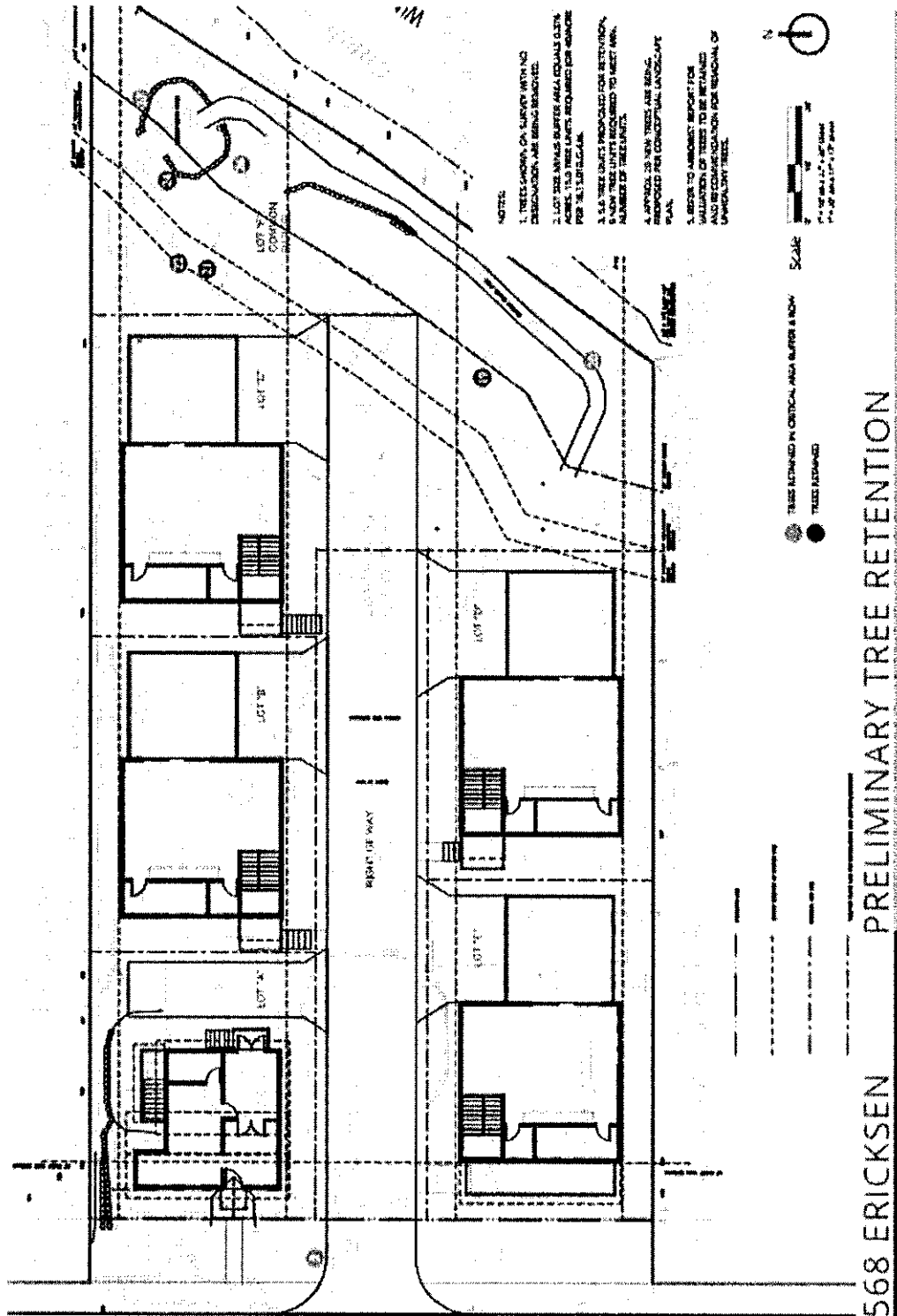
See the individual Trunk Formula Method Worksheets for information on individual trees.

Thank you very much for calling me for your arboricultural concerns.



Katy Bigelow  
Board Master Certified Arborist  
PNW ISA member # PN-6039B  
PNW ISA Tree Risk Assessment Qualified  
Registered Consulting Arborist® # 490

## Site Map



## Trunk formula method worksheets

# Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 19

### Field Observations

|   |                |                                                           |
|---|----------------|-----------------------------------------------------------|
| 1 | Species        | <u>Ornamental cherry (Prunus sp.)</u>                     |
| 2 | Condition      | <u>40%</u> Structural integrity and health rating         |
| 3 | Trunk Diameter | <u>9"</u>                                                 |
|   | Site           | <u>40%</u>                                                |
|   | Contribution   | <u>30%</u>                                                |
|   | Placement      | <u>30%</u>                                                |
| 4 | Location %     | <u>33%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                             |               |
|-------|-------------------------------------------------------------------------------------------|-----------------------------|---------------|
|       |                                                                                           | <u>W WA- Coastal</u>        | <u>Region</u> |
| 5     | Species Rating                                                                            | <u>35%</u>                  |               |
|       |                                                                                           | <u>Deciduous</u>            |               |
| 6     | Replacement tree diameter                                                                 | <u>3"</u>                   |               |
| 7,8,9 | Replacement Tree Cost, installed                                                          |                             | <u>\$480</u>  |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                             |               |
| 10    | Unit Tree Cost                                                                            | <u>\$72 /in<sup>2</sup></u> |               |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                          |                                                            |                  |
|----|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------|
| 11 | Appraised Trunk Area (ATA <sub>A</sub> ) or (TA <sub>A</sub> )                                                           | <u>63.59 in<sup>2</sup></u>                                |                  |
|    | Replacement Trunk Area (TA <sub>R</sub> )                                                                                | <u>7 in<sup>2</sup></u>                                    |                  |
| 12 | Appraised Tree Trunk Increase                                                                                            | <u>= 57 in<sup>2</sup></u>                                 |                  |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = $-0.335d^2 + 69.3d - 1087$ |                                                            |                  |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = $0.785d^2$                   |                                                            |                  |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                          |                                                            |                  |
| 13 | Basic Tree Cost                                                                                                          | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost | = <u>\$4,584</u> |
| 14 | Appraised Value                                                                                                          | = Basic Tree Cost                                          | = <u>\$214</u>   |
|    | * Species Rating                                                                                                         | <u>35%</u>                                                 |                  |
|    | * Condition                                                                                                              | <u>40%</u>                                                 |                  |
|    | * Location                                                                                                               | <u>33%</u>                                                 |                  |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                  |                                                            |                  |
| 16 | Appraised Value                                                                                                          |                                                            | = <u>\$210</u>   |

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## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 21

### Field Observations

|   |                |                                                    |
|---|----------------|----------------------------------------------------|
| 1 | Species        | <u>Ornamental cherry (Prunus sp.)</u>              |
| 2 | Condition      | <u>20%</u> Structural integrity and health rating  |
| 3 | Trunk Diameter | <u>10"</u>                                         |
|   | Site           | <u>40%</u>                                         |
|   | Contribution   | <u>10%</u>                                         |
|   | Placement      | <u>10%</u>                                         |
| 4 | Location %     | 10% Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                             |       |
|-------|-------------------------------------------------------------------------------------------|-----------------------------|-------|
|       |                                                                                           | <u>W WA- Coastal</u> Region |       |
| 5     | Species Rating                                                                            | <u>35%</u>                  |       |
|       |                                                                                           | <u>Deciduous</u>            |       |
| 6     | Replacement tree diameter                                                                 | 3"                          |       |
| 7,8,9 | Replacement Tree Cost, installed                                                          |                             | \$480 |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                             |       |
| 10    | Unit Tree Cost                                                                            | \$72 /in <sup>2</sup>       |       |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                                   |                                                            |                                                                    |
|----|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|
| 11 | Appraised Trunk Area (ATA <sub>A</sub> ) or (TA <sub>A</sub> )                                                                    | 78.50 in <sup>2</sup>                                      |                                                                    |
|    | Replacement Trunk Area (TA <sub>R</sub> )                                                                                         | - 7 in <sup>2</sup>                                        |                                                                    |
| 12 | Appraised Tree Trunk Increase                                                                                                     | = 71 in <sup>2</sup>                                       |                                                                    |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = -0.335d <sup>2</sup> + 69.3d - 1087 |                                                            |                                                                    |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = 0.785d <sup>2</sup>                   |                                                            |                                                                    |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                                   |                                                            |                                                                    |
| 13 | Basic Tree Cost                                                                                                                   | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost | = \$5,592                                                          |
| 14 | Appraised Value                                                                                                                   | = Basic Tree Cost                                          | \$5,592                                                            |
|    |                                                                                                                                   | * Species Rating                                           | 35%                                                                |
|    |                                                                                                                                   | * Condition                                                | 20%                                                                |
|    |                                                                                                                                   | * Location                                                 | 10%                                                                |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                           |                                                            |                                                                    |
| 16 | Appraised Value                                                                                                                   |                                                            | = <span style="border: 1px solid black; padding: 2px;">\$40</span> |

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## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 22

### Field Observations

|   |                       |                                                           |
|---|-----------------------|-----------------------------------------------------------|
| 1 | <b>Species</b>        | <u>Western red cedar (<i>Thuja plicata</i>)</u>           |
| 2 | <b>Condition</b>      | <u>65%</u> Structural integrity and health rating         |
| 3 | <b>Trunk Diameter</b> | <u>10"</u>                                                |
|   | <b>Site</b>           | <u>40%</u>                                                |
|   | <b>Contribution</b>   | <u>30%</u>                                                |
|   | <b>Placement</b>      | <u>30%</u>                                                |
| 4 | <b>Location %</b>     | <u>33%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                      |                             |              |
|-------|-------------------------------------------------------------------------------------------|----------------------|-----------------------------|--------------|
|       |                                                                                           | <u>W WA- Coastal</u> | <b>Region</b>               |              |
| 5     | <b>Species Rating</b>                                                                     | <u>90%</u>           |                             |              |
|       |                                                                                           | <u>Coniferous</u>    |                             |              |
| 6     | <b>Replacement tree diameter</b>                                                          | <u>3"</u>            |                             |              |
| 7,8,9 | <b>Replacement Tree Cost, installed</b>                                                   |                      |                             | <b>\$380</b> |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                      |                             |              |
| 10    | <b>Unit Tree Cost</b>                                                                     |                      | <b>\$57 /in<sup>2</sup></b> |              |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                                   |                                                                                        |                                                                            |
|----|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 11 | <b>Appraised Trunk Area (ATA<sub>A</sub>) or (TA<sub>A</sub>)</b>                                                                 | <u>78.50 in<sup>2</sup></u>                                                            |                                                                            |
|    | <b>Replacement Trunk Area (TA<sub>R</sub>)</b>                                                                                    | <u>7 in<sup>2</sup></u>                                                                |                                                                            |
| 12 | <b>Appraised Tree Trunk Increase</b>                                                                                              | <u>= 71 in<sup>2</sup></u>                                                             |                                                                            |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = -0.335d <sup>2</sup> + 69.3d - 1087 |                                                                                        |                                                                            |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = 0.785d <sup>2</sup>                   |                                                                                        |                                                                            |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                                   |                                                                                        |                                                                            |
| 13 | <b>Basic Tree Cost</b>                                                                                                            | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost                             | <b>= \$4,427</b>                                                           |
| 14 | <b>Appraised Value</b>                                                                                                            | = Basic Tree Cost \$4,427<br>* Species Rating 90%<br>* Condition 65%<br>* Location 33% | <b>= \$863</b>                                                             |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                           |                                                                                        |                                                                            |
| 16 | <b>Appraised Value</b>                                                                                                            |                                                                                        | <b>= <span style="border: 1px solid black; padding: 2px;">\$860</span></b> |

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## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 24

### Field Observations

|   |                       |                                                           |
|---|-----------------------|-----------------------------------------------------------|
| 1 | <b>Species</b>        | <u>Western red cedar (<i>Thuja plicata</i>)</u>           |
| 2 | <b>Condition</b>      | <u>55%</u> Structural integrity and health rating         |
| 3 | <b>Trunk Diameter</b> | <u>14"</u>                                                |
|   | <b>Site</b>           | <u>40%</u>                                                |
|   | <b>Contribution</b>   | <u>30%</u>                                                |
|   | <b>Placement</b>      | <u>30%</u>                                                |
| 4 | <b>Location %</b>     | <u>33%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                                    |              |
|-------|-------------------------------------------------------------------------------------------|------------------------------------|--------------|
|       |                                                                                           | <u>W WA- Coastal</u> <b>Region</b> |              |
| 5     | <b>Species Rating</b>                                                                     | <u>90%</u>                         |              |
|       |                                                                                           | <u>Coniferous</u>                  |              |
| 6     | <b>Replacement tree diameter</b>                                                          | <u>3"</u>                          |              |
| 7,8,9 | <b>Replacement Tree Cost, installed</b>                                                   |                                    | <b>\$380</b> |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                                    |              |
| 10    | <b>Unit Tree Cost</b>                                                                     | <u>\$57 /in<sup>2</sup></u>        |              |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                          |                                                            |                  |
|----|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------|
| 11 | <b>Appraised Trunk Area (ATA<sub>A</sub>) or (TA<sub>A</sub>)</b>                                                        | <u>153.86 in<sup>2</sup></u>                               |                  |
|    | <b>Replacement Trunk Area (TA<sub>R</sub>)</b>                                                                           | <u>7 in<sup>2</sup></u>                                    |                  |
| 12 | <b>Appraised Tree Trunk Increase</b>                                                                                     | <u>= 147 in<sup>2</sup></u>                                |                  |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = $-0.335d^2 + 69.3d - 1087$ |                                                            |                  |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = $0.785d^2$                   |                                                            |                  |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                          |                                                            |                  |
| 13 | <b>Basic Tree Cost</b>                                                                                                   | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost | = <b>\$8,759</b> |
| 14 | <b>Appraised Value</b>                                                                                                   | = Basic Tree Cost                                          | = <b>\$1,445</b> |
|    | * Species Rating                                                                                                         | 90%                                                        |                  |
|    | * Condition                                                                                                              | 55%                                                        |                  |
|    | * Location                                                                                                               | 33%                                                        |                  |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                  |                                                            |                  |
| 16 | <b>Appraised Value</b>                                                                                                   |                                                            | = <b>\$1,450</b> |

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## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 20

### Field Observations

|   |                       |                                                           |
|---|-----------------------|-----------------------------------------------------------|
| 1 | <b>Species</b>        | <u>Western red cedar (<i>Thuja plicata</i>)</u>           |
| 2 | <b>Condition</b>      | <u>55%</u> Structural integrity and health rating         |
| 3 | <b>Trunk Diameter</b> | <u>16"</u>                                                |
|   | <b>Site</b>           | <u>40%</u>                                                |
|   | <b>Contribution</b>   | <u>30%</u>                                                |
|   | <b>Placement</b>      | <u>35%</u>                                                |
| 4 | <b>Location %</b>     | <u>35%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                                    |              |
|-------|-------------------------------------------------------------------------------------------|------------------------------------|--------------|
|       |                                                                                           | <u>W WA- Coastal</u> <b>Region</b> |              |
| 5     | <b>Species Rating</b>                                                                     | <u>90%</u>                         |              |
|       |                                                                                           | <u>Coniferous</u>                  |              |
| 6     | <b>Replacement tree diameter</b>                                                          | <u>3"</u>                          |              |
| 7,8,9 | <b>Replacement Tree Cost, Installed</b>                                                   |                                    | <b>\$380</b> |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                                    |              |
| 10    | <b>Unit Tree Cost</b>                                                                     | <b>\$57 /in<sup>2</sup></b>        |              |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                   |                              |
|----|-------------------------------------------------------------------|------------------------------|
| 11 | <b>Appraised Trunk Area (ATA<sub>A</sub>) or (TA<sub>A</sub>)</b> | <u>200.96 in<sup>2</sup></u> |
|    | <b>Replacement Trunk Area (TA<sub>R</sub>)</b>                    | <u>7 in<sup>2</sup></u>      |
| 12 | <b>Appraised Tree Trunk Increase</b>                              | <u>= 194 in<sup>2</sup></u>  |

ATA<sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA =  $-0.335d^2 + 69.3d - 1087$

TA<sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA<sub>A</sub> =  $0.785d^2$

TA<sub>R</sub> = Trunk Area of the largest commonly available replacement tree

|    |                        |                                                            |                 |                 |                |
|----|------------------------|------------------------------------------------------------|-----------------|-----------------|----------------|
| 13 | <b>Basic Tree Cost</b> | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost | =               | <b>\$11,438</b> |                |
| 14 | <b>Appraised Value</b> | = Basic Tree Cost                                          | <b>\$11,438</b> | =               | <b>\$1,982</b> |
|    |                        | * Species Rating                                           | <b>90%</b>      |                 |                |
|    |                        | * Condition                                                | <b>55%</b>      |                 |                |
|    |                        | * Location                                                 | <b>35%</b>      |                 |                |

15 If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10

16 **Appraised Value** = **\$1,980**

*Guide for Plant Appraisal, 9th Edition* is an official publication of the International Society of Arboriculture, in conjunction with the Council of Tree & Landscape Appraisers.

## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 26

### Field Observations

|   |                       |                                                           |
|---|-----------------------|-----------------------------------------------------------|
| 1 | <b>Species</b>        | <u>Western red cedar (<i>Thuja plicata</i>)</u>           |
| 2 | <b>Condition</b>      | <u>55%</u> Structural integrity and health rating         |
| 3 | <b>Trunk Diameter</b> | <u>26"</u>                                                |
|   | <b>Site</b>           | <u>40%</u>                                                |
|   | <b>Contribution</b>   | <u>45%</u>                                                |
|   | <b>Placement</b>      | <u>45%</u>                                                |
| 4 | <b>Location %</b>     | <u>43%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                                    |              |
|-------|-------------------------------------------------------------------------------------------|------------------------------------|--------------|
|       |                                                                                           | <u>W WA- Coastal</u> <b>Region</b> |              |
| 5     | <b>Species Rating</b>                                                                     | <u>90%</u>                         |              |
|       |                                                                                           | <u>Coniferous</u>                  |              |
| 6     | <b>Replacement tree diameter</b>                                                          | <u>3"</u>                          |              |
| 7,8,9 | <b>Replacement Tree Cost, installed</b>                                                   |                                    | <b>\$380</b> |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                                    |              |
| 10    | <b>Unit Tree Cost</b>                                                                     | <u>\$57 /in<sup>2</sup></u>        |              |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                          |                                                            |                   |
|----|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------|
| 11 | <b>Appraised Trunk Area (ATA<sub>A</sub>) or (TA<sub>A</sub>)</b>                                                        | <u>530.66 in<sup>2</sup></u>                               |                   |
|    | <b>Replacement Trunk Area (TA<sub>R</sub>)</b>                                                                           | <u>7 in<sup>2</sup></u>                                    |                   |
| 12 | <b>Appraised Tree Trunk Increase</b>                                                                                     | <u>= 524 in<sup>2</sup></u>                                |                   |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = $-0.335d^2 + 69.3d - 1087$ |                                                            |                   |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = $0.785d^2$                   |                                                            |                   |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                          |                                                            |                   |
| 13 | <b>Basic Tree Cost</b>                                                                                                   | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost | = <b>\$30,248</b> |
| 14 | <b>Appraised Value</b>                                                                                                   | = Basic Tree Cost                                          | = <b>\$30,248</b> |
|    | * Species Rating                                                                                                         | 90%                                                        |                   |
|    | * Condition                                                                                                              | 55%                                                        |                   |
|    | * Location                                                                                                               | 43%                                                        |                   |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                  |                                                            |                   |
| 16 | <b>Appraised Value</b>                                                                                                   |                                                            | = <b>\$6,500</b>  |

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## Trunk Formula Method

Property Bierly/Bouma-Fischer: Ericksen  
Appraiser Katy Bigelow

Date 12/14/2017  
Tree No. 27

### Field Observations

|   |                       |                                                           |
|---|-----------------------|-----------------------------------------------------------|
| 1 | <b>Species</b>        | <u>Pseudotsuga menziesii</u>                              |
| 2 | <b>Condition</b>      | <u>70%</u> Structural integrity and health rating         |
| 3 | <b>Trunk Diameter</b> | <u>21"</u>                                                |
|   | <b>Site</b>           | <u>45%</u>                                                |
|   | <b>Contribution</b>   | <u>60%</u>                                                |
|   | <b>Placement</b>      | <u>45%</u>                                                |
| 4 | <b>Location %</b>     | <u>50%</u> Site, contribution & placement rating averaged |

### Regional Plant Appraisal Committee Information

The Pacific Northwest Chapter Plant Appraisal Committee of the International Society of Arboriculture determines the Ratings and Tree Costs used in this section.

|       |                                                                                           |                      |                             |              |
|-------|-------------------------------------------------------------------------------------------|----------------------|-----------------------------|--------------|
|       |                                                                                           | <u>W WA- Coastal</u> | <b>Region</b>               |              |
| 5     | <b>Species Rating</b>                                                                     | <u>90%</u>           |                             |              |
|       |                                                                                           | <u>Coniferous</u>    |                             |              |
| 6     | <b>Replacement tree diameter</b>                                                          |                      | <u>3"</u>                   |              |
| 7,8,9 | <b>Replacement Tree Cost, installed</b>                                                   |                      |                             | <b>\$380</b> |
|       | Standard cost set by Regional Plant Appraisal Committee for a 3" caliper tree, installed. |                      |                             |              |
| 10    | <b>Unit Tree Cost</b>                                                                     |                      | <b>\$57 /in<sup>2</sup></b> |              |

### Calculations by Appraiser using Field and Regional Information

|    |                                                                                                                                   |                                                                    |                                                                              |
|----|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------|
| 11 | <b>Appraised Trunk Area (ATA<sub>A</sub>) or (TA<sub>A</sub>)</b>                                                                 |                                                                    | <b>346.19 in<sup>2</sup></b>                                                 |
|    | <b>Replacement Trunk Area (TA<sub>R</sub>)</b>                                                                                    | <b>-</b>                                                           | <b>7 in<sup>2</sup></b>                                                      |
| 12 | <b>Appraised Tree Trunk Increase</b>                                                                                              | <b>=</b>                                                           | <b>339 in<sup>2</sup></b>                                                    |
|    | ATA <sub>A</sub> = Adjusted Trunk Area of appraised tree more than 30" in diameter (d). ATA = -0.335d <sup>2</sup> + 69.3d - 1087 |                                                                    |                                                                              |
|    | TA <sub>A</sub> = Trunk Area of appraised tree (30" in diameter or less). TA <sub>A</sub> = 0.785d <sup>2</sup>                   |                                                                    |                                                                              |
|    | TA <sub>R</sub> = Trunk Area of the largest commonly available replacement tree                                                   |                                                                    |                                                                              |
| 13 | <b>Basic Tree Cost</b>                                                                                                            | Tree Trunk Increase * Unit Tree Cost + Installed Tree Cost         | <b>= \$19,703</b>                                                            |
| 14 | <b>Appraised Value</b>                                                                                                            | = Basic Tree Cost<br>* Species Rating<br>* Condition<br>* Location | <b>= \$6,206</b><br>\$19,703<br>90%<br>70%<br>50%                            |
| 15 | If the Appraised Value is \$5,000 or more, round to nearest \$100; if it is less, round to nearest \$10                           |                                                                    |                                                                              |
| 16 | <b>Appraised Value</b>                                                                                                            |                                                                    | <b>= <span style="border: 1px solid black; padding: 2px;">\$6,200</span></b> |

Guide for Plant Appraisal, 9th Edition is an official publication of the International Society of Arboriculture, in conjunction with the Council of Tree & Landscape Appraisers.

## **Assumptions, Limiting Conditions and General Waiver**

I, Katy Bigelow, certify that:

I have personally inspected the tree(s) and or the property referred to in this report;

I have no current or prospective financial or other interest in the vegetation or the property which is the subject of this report and have no personal interest or bias in favor of or against any of the involved parties or their respective position(s), if any;

The analysis, opinions and conclusions stated herein are the product of my independent professional judgment and based on current scientific procedures and facts, and the foregoing report was prepared according to commercially reasonable and generally accepted arboricultural standards and practices for the Pacific Northwest and Puget Sound areas;

The information included in this report covers only those trees that were examined and reflects the condition of the trees as of the time and date of inspection;

This report and the opinions expressed herein are not intended, nor should they be construed, as any type of warranty or guarantee regarding the condition of the subject trees in the future;

Covenants, Conditions, and Restrictions (“CC&Rs”) may restrict the number, type and height of vegetation on the subject property, and I have made no investigation regarding whether the property is subject to such CC&Rs; and

To the best of my knowledge and belief, all statements and information in this report are true and correct and information provided by others is assumed to be true and correct.

I am not an attorney or engineer. This report does not cover these areas of expertise and represents advice only of arboricultural nature. Without limiting the generality of the preceding sentence, it is specifically understood that nothing contained in this report is intended as legal advice, or advice or opinions regarding soil stability or zoning laws, and this report should not be relied upon to take the place of such advice.

I further certify that I am a member in good standing of the American Society of Consulting Arborists (ASCA) and the International Society of Arboriculture (ISA). I have been employed full time in the field of arboriculture for more than ten years.



*Katy Bigelow*  
*Board Master Certified Arborist*  
*PNW ISA member # PN-6039B*  
*PNW ISA Tree Risk Assessment Qualified*  
*Registered Consulting Arborist® # 490*

**CITY OF BAINBRIDGE ISLAND**

**ENVIRONMENTAL (SEPA) CHECKLIST - UPDATED 2014**

**FORM MUST BE COMPLETED IN INK, PREFERABLY BLUE**

**PENCIL WILL NOT BE ACCEPTED**



**PLEASE READ THE FOLLOWING CAREFULLY BEFORE FILLING OUT THE CHECKLIST**

**Purpose of checklist:**

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

**Instructions for applicants: [help]**

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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.

**Instructions for Lead Agencies:**

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

**Use of checklist for nonproject proposals: [help]**

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements ~~that do not~~ contribute meaningfully to the analysis of the proposal.

Department of Planning and Community Development  
280 Madison Avenue North • Bainbridge Island, WA • 98110-1812  
Phone: (206) 842-2552 • Fax: (206) 780-0955 • Email: [pdc@bainbridgewa.gov](mailto:pdc@bainbridgewa.gov)  
[www.ci.bainbridge-isl.wa.us](http://www.ci.bainbridge-isl.wa.us)

**RECEIVED**

**AUG 29 2018**

Planning and  
Community Development

**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

**A. background [help]**

1. Name of proposed project, if applicable: [help]

ERICKSEN TOWNHOMES

✓

2. Name of applicant: [help]

WING POINT PROPERTIES L.L.C.

✓

3. Address and phone number of applicant and contact person: [help]

JOHN BIERLY 206 795 9469  
321 HIGH SCHOOL RD NB STE D3 #342  
BAINBRIDGE IS. WA. 98110

✓

4. Date checklist prepared: [help]

8.28.18

✓

5. Agency requesting checklist: [help]

CITY OF BAINBRIDGE ISLAND PLANNING DEPT

✓

6. Proposed timing or schedule (including phasing, if applicable): [help]

CONSTRUCTION FROM SPRING 2019 - SPRING 2020

✓

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

NO

✓

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

BUFFER MITIGATION PLAN  
TRAFFIC REPORT

Geotechnical Report

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. [help]

NO

✓



CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

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FOR STAFF USE

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

COB SITE REVIEW & (MAJOR) & CUP (MINOR)  
BUILDING PERMITS

✓

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.) [help]

CONDOMINIUM PROJECT WITH SIX NEW  
FREESTANDING TOWNHOMES AND ONE EXISTING  
RESIDENCE (ON HISTORIC REGISTER).

✓

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. [help]

EXISTING RESIDENCE AT 560 BRICKSEN  
AVENUE - NORTH OF INTERSECTION OF  
WYATT AND BRICKSEN (SEE DRAWINGS)

✓

See site plan

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth

a. General description of the site [help]  
(circle one): Flat, rolling, hilly, steep slopes, mountainous,

other FLAT - STEEP SLOPE ADJACENT

✓

CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

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

10%

5-15%.

✓

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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

SEE GEOTECHNICAL REPORT

Glacial Till Soils

Kapowsin gravelly sandy loam

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

NO

✓

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

GOAL IS TO BALANCE CUT & FILL ON SITE  
W/ EXCEPTION OF EXCAVATION FOR  
STORMWATER VAULT (± 250 CY)

✓

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

NO

Erosion control  
required.

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

SEE STORMWATER SITE ANALYSIS

~52% of the site

CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

STANDARD CONSTRUCTION FENCING FOR  
STORMWATER + BUFFER MITIGATION (SEE  
BUFFER MITIGATION REPORT)



2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [\[help\]](#)

STANDARD CONSTRUCTION VEHICULAR TRAFFIC,  
RESIDENTIAL VEHICULAR TRAFFIC PER  
TRAFFIC REPORT. NO WOODBURNING FIREPLACES  
PROPOSED



- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

NO



- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

NONE



3. Water

- a. Surface Water: [\[help\]](#)

- 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. [\[help\]](#)

FORMER KOI POND, DRAINED. WINSLOW  
RAVINE STREAM.



CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

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FOR STAFF USE

- 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. [\[help\]](#)

[\[help\]](#)

YES - SOB BUFFER MITIGATION PLAN



- 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. [\[help\]](#)

NONE



- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

NO



- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

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. [\[help\]](#)

NO WASTE IS CONNECTED TO COB  
MAIN SOB STORMWATER REPORT





**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

**b. Ground Water:**

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

*NO*

- 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. [\[help\]](#)

*NONE*

**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. [\[help\]](#)

*SEE STORMWATER REPORT*

- 2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

*SEE STORMWATER REPORT*

*Source: Driveways +  
new townhomes*

*Driveway runoff: to  
rain garden and then  
to stormdrain in ROW*

*Townhome runoff: to  
stormdrain in ROW  
via roofdrains*

**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

*NO*

✓

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

*SEE STORMWATER REPORT*

*Rain garden  
Roof drains*

**4. Plants [help]**

- a. Check the types of vegetation found on the site: [help]

- ☒ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other
- ☒ shrubs
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ Orchards, vineyards or other permanent crops.
- ☐ wet soil plants: cattail, buttercup, skunk cabbage, other
- ☐ water plants: water lily, eelgrass, milfoil, other
- ☐ other types of vegetation

✓

- b. What kind and amount of vegetation will be removed or altered? [help]

*GRASS, SOME EXISTING DECIDUOUS TREES*

✓

- c. List threatened and endangered species known to be on or near the site. [help]

*UNKNOWN*

✓

CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

SEE LANDSCAPE DRAWINGS & BUFFER  
MITIGATION PLAN

native + deciduous

- e. List all noxious weeds and invasive species known to be on or near the site.

BAMBOO (TO BE REMOVED, SEE BUFFER  
MITIGATION REPORT),

✓

5. Animals

- a. List any birds and other animals which have been observed, or are known to be on or near the site. Examples include: [\[help\]](#)

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other :

✓

- b. List any threatened and endangered species known to be on or near the site.  
[\[help\]](#)

NONE KNOWN

✓

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

NONE KNOWN

No.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

NONE

Buffer Enhancement  
Plan proposed

- e. List any invasive animal species known to be on or near the site.

NONE KNOWN

✓

CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

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. [help]

ELECTRIC HEAT PUMPS



- b. Would your project affect the potential use of solar energy by adjacent properties?

If so, generally describe. [help]

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: [help]

PROJECT DESIGNED TO ENERGY STAR  
CERTIFIED STANDARDS.



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. [help]

NO



- 1) Describe any known or possible contamination at the site from present or past uses.

NONE KNOWN



- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the



**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

vicinity.

*NONE KNOWN*



- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.



*NONE KNOWN*

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

*NONE*



- 5) 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)? [\[help\]](#)

*\* SR 305 TRAFFIC NOISE*



- 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. [\[help\]](#)

*ON TYPICAL CONSTRUCTION VEHICULAR TRAFFIC;  
RESIDENTIAL TRAFFIC PER TRAFFIC REPORT*



- 3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

*COBI RESTRICTIONS ON CONSTRUCTION HOURS*



**8. Land and shoreline use**

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [\[help\]](#)

CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

EXISTING & FUTURE USE AT SITE IS  
RESIDENTIAL. ADJACENT PROPERTIES ARE  
A MIX OF OFFICE & RESIDENTIAL.



- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [\[help\]](#)



NO

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:



NO

- c. Describe any structures on the site. [\[help\]](#)

ONE EXISTING RESIDENCE



- d. Will any structures be demolished? If so, what? [\[help\]](#)

EXISTING RESIDENCE HAS BEEN RETAINED  
AND ADDED TO LOCAL HISTORIC REGISTER



- e. What is the current zoning classification of the site? [\[help\]](#)

TOWN CENTER - MIXED USE / FRICKSON  
AVENUE OVERLAY



- f. What is the current comprehensive plan designation of the site? [\[help\]](#)

TOWN CENTER - MIXED USE



- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

NA

✓

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

ADJACENT RAVINE IS CRITICAL AREA - BUFFER IS ON SITE

Winslow Ravine  
+  
Geologically Hazardous Area

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

20 (EST.)

✓

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

NONE

✓

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]

NA

✓

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

SUB SITE REVIEW PLANS: PROJECT WILL BE SUBJECT TO DESIGN REVIEW

✓

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

SUB BUFFER MITIGATION PLAN

✓

**9. Housing**

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

7 - MIDDLE INCOME (POTENTIAL ONE LOW INCOME)

✓

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



CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

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NONE



c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

NA



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? [\[help\]](#)

35' - WOOD SIDING



b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

NA



c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

PROJECT SUBJECT TO DESIGN REVIEW  
BOARD APPROVAL



Design Review Board  
has recommended approval

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

TYPICAL RESIDENTIAL LIGHTING



b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

NO



c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

NONE ANTICIPATED



d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)



**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

NONE



**12. Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

NONE - COBI PARKS WITHIN ± .5 MI



- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

NO



- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

NONE



**13. Historic and cultural preservation**

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [\[help\]](#)

YES - EXISTING RESIDENCE FROM 1905 HAS BEEN ADDED TO LOCAL HISTORIC REGISTER



Listed on Local  
Historic Register

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [\[help\]](#)

NO



**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
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- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

NA



- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

NA



**14. Transportation**

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

SUB TRAFFIC STUDY

Erickson Avenue NE  
(access to remain the same)

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

NO - ± 1.5 MI (WINSLOW WAY & MADISON AVE.)

Nearest stop is 1200 feet  
✓ to the west @  
Madison + Knechtel

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

12 / NONE



- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

NO



**CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST**

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
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- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)

*no*

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)

*SEE TRAFFIC REPORT*

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

*no*

- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)

*none*

**15. Public services**

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

*no*

- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)

*none*

✓

*64 average weekday  
daily trips*

*5AM peak hour trips  
7PM peak hour trips*

✓

*Traffic Impact Fees*

✓

✓

✓



CITY OF BAINBRIDGE ISLAND  
ENVIRONMENTAL (SEPA) CHECKLIST

LEFT COLUMN TO BE COMPLETED BY APPLICANT.  
ONLY

FOR STAFF USE

16. Utilities

- a. Circle utilities currently available at the site: [help]  
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other CABLE TV
- 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. [help]

COBI - WATER & SEWER

PSB - ELECTRICITY

CABLE - COMCAST

BAHVERIDOB DISPOSAL - REFUSE

CENTURY LINK - PHONE

WILL REQUIRE TRENCHING OF BRICKEN AVE FOR  
STORM SEWER GRAVITY CONNECTION (SEE PLANS)

C. Signature [HELP]

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:

John B. [Signature]

Name of signee

JOHN B. [Signature]

Position and Agency/Organization

PRESIDENT / WIND PAINT PROPERTIES LLC

Date Submitted:

8-29-18

CHECKLIST REVIEWED BY:

[Signature]

Project Manager, Department of Planning and Community Development



# GEOTECHNICAL REPORT

Ericksen Ave Development

568 Ericksen Avenue NE  
Bainbridge Island, Washington

Prepared for: Wing Point Properties

Project No. 170194 • June 21, 2018

RECEIVED

AUG 29 2018

Planning and  
Community Development



earth + water



## GEOTECHNICAL REPORT

Ericksen Ave Development

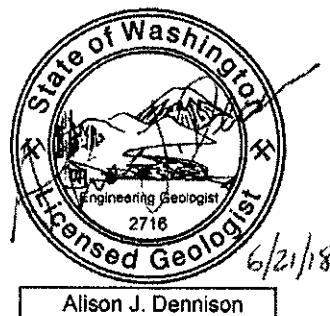
568 Ericksen Avenue NE

Bainbridge Island, Washington

Prepared for: Wing Point Properties

Project No. 170194 • June 21, 2018

Aspect Consulting, LLC



**Alison J. Dennison, LEG**  
Senior Project Geologist  
adennison@aspectconsulting.com



**Erik O. Andersen, PE**  
Principal Geotechnical Engineer  
eandersen@aspectconsulting.com

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# 1 Introduction

## 1.1 General

---

This report summarizes Aspect Consulting, LLC's (Aspect) observations, conclusions, and recommendations made during a geotechnical evaluation for the multi-family residential project at 568 Ericksen Avenue NE on Bainbridge Island, Washington (Site). We performed our geotechnical engineering evaluation in accordance with our agreed upon scope of work dated April 10, 2017 and authorized by you on April 11, 2017.

## 1.2 Scope of Services

---

Our scope of services included a literature review, site reconnaissance, subsurface explorations, and geotechnical engineering and slope stability evaluations. This report includes:

- Site and project descriptions;
- Distribution and characteristics of subsurface soils and groundwater based on two drilled soil borings;
- Slope stability analyses and corresponding structure setback recommendations;
- Seismic design considerations in accordance with the current version of the International Building Code (IBC);
- Suitable foundation types and allowable bearing pressure(s);
- Stormwater recommendations; and
- Site preparation recommendations and general construction recommendations.

## 1.3 Project Understanding

---

The Site consists of Kitsap County Parcel No. 262502-2-051-2009 at 568 Ericksen Avenue NE in Bainbridge Island, Washington, as shown on Figure 1, *Site Location Map*. The Site is developed with one building used for office space along the west side of the Site, as shown on Figure 2, *Site Exploration Plan*.

Current project plans include demolishing the existing structure and constructing six single-family residences along the north boundary of the Site (Project). Two parking stalls will be located along the west side of the Site. Access will remain from the east side of Ericksen Avenue NE using a new access driveway and parking along the south end of the Site. A stormwater detention vault is planned to be constructed under the access driveway.

The east-facing slope on the east side of the Site is approximately 64 feet tall with a greater than 40 percent steep slope, as shown on Figure 2. The slope is considered by City of Bainbridge Island (COBI) as a geologically hazardous area. This geotechnical

## **ASPECT CONSULTING**

engineering evaluation presents the results of our evaluation for the minimum setbacks and corresponding recommended buffer reduction from these steep slopes for the proposed Project, in accordance with the applicable components of the COBI's Municipal Code.

## **2 Site Conditions**

### **2.1 Site Description**

---

#### **2.1.1 General**

The Site is a trapezoid-shaped parcel, covering about 0.44 acres that extends from Ericksen Avenue NE towards a ravine that drains to the south into the Puget Sound, as shown on Figure 1. One building is located on the west side of the Site used for office space. The building was built in 1905 and has a 642-square-foot footprint. A pond is located on the east side of the Site near the top of the steep, east-facing slope. Access to the Site is from the east side of Ericksen Avenue NE.

The top of the steep, east-facing slope is at about Elevation 140 feet (above mean sea level, North American Vertical Datum 1988 [NAVD88]; COBI, 2017). The slope has a greater than 40 percent slope and the toe of the steep slope is at about Elevation 76 feet.

West of the steep slope, the upland developed portion of the Site slopes gently down from the northwest to the southeast with about 10 feet of Elevation loss.

### **2.2 Geologic Setting**

---

#### **2.2.1 Geology**

The Site is located within the Puget Lowland, a broad area of tectonic subsidence flanked by two mountain ranges—the Cascades to the east and the Olympics to the west. The majority of the Puget Lowland is overlain by thick Pleistocene-age sediments resulting from repeated cycles of glacial and nonglacial deposition and erosion. During nonglacial cycles, the Puget Lowland was dominated by lowland forests and broad river valleys similar to the predevelopment Duwamish valley. During glacial cycles, ice sheets up to 3,000 feet thick occupied the Puget Lowland and carved out the deep marine waterways and river valleys, and sculpted the uplands. The existing ground surface morphology has been defined by the glacial processes associated with the Vashon Stade of the Fraser Glaciation Age, the most recent glacial activity in the Puget Lowland occurred about 12,000 to 20,000 years ago.

The geologic map of the Site vicinity shows the Site as underlain by the Pleistocene Pre-Vashon-age deposits (Qpv) and the overlying Vashon till (Qvt) unit just to the west (Haugerud, 2011). The Pre-Vashon deposits are described as a diamict of fluvial, lacustrine, and glacial origin. Vashon till was deposited during the most recent glacial advance and was overridden and compacted by glacial ice, creating a dense/hard configuration. The Qvt unit is generally described as a dense diamict of sand, gravel, and silt, and is colloquially referred to as “hardpan”.

#### **2.2.2 Faults and Seismicity**

The Site area is located within the Puget Lowland physiographic province, an area of active seismicity that is subject to earthquakes on shallow crustal faults and deeper subduction zone earthquakes. The Site area lies about 1 mile north of the Seattle fault

zone, which consists of shallow crustal tectonic structures that are considered active (evidence for movement within the Holocene [since about 15,000 years ago]) and is believed to be capable of producing earthquakes of magnitude 7.3 or greater. The recurrence interval of earthquakes on this fault zone is believed to be on the order of a thousand years or more. The most recent large earthquake on the Seattle fault occurred about 1,100 years ago (Pratt et al., 2015). There are also several other shallow crustal faults in the region capable of producing earthquakes and strong ground shaking.

The Site area also lies within the zone of strong ground shaking from earthquakes associated with the Cascadia Subduction Zone (CSZ). Subduction zone earthquakes occur due to rupture between the subducting oceanic plate and the overlying continental plate. The CSZ can produce earthquakes up to magnitude 9.3 and the recurrence interval is thought to be on the order of about 500 years. A recent study estimates the most recent subduction zone earthquake occurred around 1700 (Atwater et al., 2015).

Deep intra-slab earthquakes, which occur from tensional rupture of the sinking oceanic plate, are also associated with the CSZ. An example of this type of seismicity is the 2001 Nisqually earthquake. Deep intra-slab earthquakes typically are magnitude 7.5 or less and occur approximately every 10 to 30 years.

## 2.3 Site Reconnaissance

---

An Aspect geologist performed a Site reconnaissance on April 20, 2017, to observe the existing conditions and, to the extent possible, identify geologic and landslide-related features. The Site reconnaissance was performed by traversing the slopes, noting visible features such as outcrops, scarps, cracks, springs, hummocks, vegetation, and the general geomorphology that may be indicative of ground movement.

The slope is approximately 64 feet tall and was measured to be approximately 35 to 37 degrees (70 to 75 percent). The level area of the Site at the top of the steep slope is landscaped with small trees, grass, and a row of bamboo near the crest of the slope. The top of the slope and the slope itself was vegetated with young to mature evergreens with forest undergrowth including ferns, ivy, salal, and a few young deciduous trees. A few of the evergreens showed a very minor bowed trunk, indicating minor past slope movement. Landscape debris was observed on the slope.

No water seepage or standing water was observed on the Site during our reconnaissance. A landscape pond was located about 20 feet west of the top of the slope.

## 2.4 Subsurface Conditions

---

### 2.4.1 Subsurface Explorations

Our subsurface explorations encountered Vashon till which was mapped on the geologic map just to the west of the Site (Haugerud et al., 2011). We inferred subsurface conditions at the Site using the completed field explorations, readily available geologic data, and our experience with the local geology.

On April 26, 2017, two borings—AB-01 and AB-02—were advanced to 21 and 51.4 feet below ground surface (bgs), respectively. The locations of the borings are shown on Figure 2.



Detailed descriptions of the subsurface conditions encountered in our explorations, as well as, the depths where characteristics of the soils changed, are on the soil boring logs presented in Appendix A. Soils were classified per the Unified Soil Classification System (USCS) in general accordance with the American Society for Testing and Materials (ASTM) D2488, Standard Practice for Description and Identification of Soils (Visual and Manual Procedure; ASTM, 2012). A key to the symbols and terms used on the logs is provided in Figure A-1. The depths on the logs where conditions changed may represent gradational variations between soil types and actual transitions may be more gradual.

A subsurface profile, A-A' (plan view on Figure 2; cross section Appendix B), was modeled using the computer model SLIDE (Rocscience, 2016). Based on our experience with the local geology, we interpreted between the two borings and extrapolated material types and contact depths (Appendix B).

### 2.4.2 Soil

The soil conditions observed during the subsurface exploration are summarized, from shallowest to deepest, as follows:

#### *FILL*

Fill refers to human-placed material. In boring AB-01, we encountered fill from the ground surface down to about 5 feet below ground surface (bgs). The fill consisted of very loose, moist, brown to dark brown, gravelly, silty SAND (SM).

The relative density of this coarse-grained deposit was very loose with N-values about 1 blow per foot (bpf).

#### *COLLUVIUM*

Colluvium is generally loose to medium dense soil that mantels hillsides due to accumulating soil creep, slope wash, and sloughing. We encountered colluvium along the steep east facing slope as well as in boring AB-02 from the ground surface down to about 5.5 feet bgs. The colluvium consisted of loose, moist, brown, gravelly, silty SAND (SM) with trace rootlets and moderate iron-oxide staining.

The relative density of this coarse-grained deposit was loose with N-values about 8 bpf.

#### *VASHON TILL (Qvt)*

Vashon till was encountered below fill in AB-01 and below colluvium in AB-02. With increased depth, the deposit became light gray in color. Vashon till at the Site consisted of layers of moist to very moist, light gray, very gravelly, silty SAND (SM) to sandy SILT (ML) with layers of cleaner sand. In AB-01 the upper portion of the till was weathered light brown due to iron-oxide staining.

The relative density of this fine-grained deposit was very dense with N-values greater than 50 bpf.

### ***2.4.3 Groundwater***

Groundwater was not encountered in boring AB-01. Groundwater seepage was measured in boring AB-02 about 41.7 feet bgs during drilling in a sandy deposit.

Samples within the upper 10 feet of both borings were very moist indicating a potential perched condition. A perched groundwater condition occurs when surface water percolates into the shallow subsurface and collects on relatively impermeable materials. In this case, the fill material, colluvium, and weathered Vashon till are considered low permeability, while the unweathered Vashon till unit is essentially impermeable. Groundwater conditions at the Site will vary with fluctuations in precipitation, Site usage (such as irrigation), and off-Site land use.

## 3 Conclusions and Recommendations

### 3.1 General

---

We conclude that the proposed Project will not negatively affect the stability of the geologically hazardous areas located at and near the Site, provided the recommendations herein are incorporated in design and construction. The key findings and conclusions include:

- The subsurface conditions at the Site consist of fill and colluvium near the top of the slope and Vashon till extending to the base of the slope. The Vashon till is not susceptible to deep-seated landsliding and can readily support the loads from the proposed residences;
- Shallow colluvial landslides are possible on the steep, east-facing slope; however, if best management practices are followed for steep slopes, the risk will be mitigated;
- Slide planes and/or subsurface layering that may indicate or be preferable for global slope instability were not encountered in the borings;
- Based on our slope stability analysis, we recommend a reduced minimum 20-foot buffer plus the 15-foot building setback for a total of 35 feet from the top of the steep slope;
- Shallow spread footing foundations are appropriate for the proposed residence foundations at the recommended setback from the steep slope;
- If fill, colluvium, and loose weathered Vashon till is encountered in the area of the planned footing subgrade, it should be removed and replaced with structural fill;
- Stormwater should be directed and/or conveyed away from the foundation and from the steep slope into the proposed stormwater detention vault; and
- Excavation with conventional equipment is feasible over the majority of the Site.

The grading and final development plans for the Project had not been completed at the time this report was prepared. Thus, we have not evaluated the impacts of Site grading on the stability of the existing slope. Once they are complete, Aspect should be engaged to review the Project plans and update our recommendations if necessary.

### 3.2 Seismic Considerations

---

#### *3.2.1 Seismic Hazards*

##### **3.2.1.1 Ground Shaking**

There is a high potential for low to moderate levels of shaking from all identified seismic sources to occur during the life of the proposed Project. The USGS National Seismic

Hazards Mapping Program interactive de-aggregation tool attributes over 46 percent of the seismic hazard at the Site to deep intra-slab earthquakes (USGS, 2014); less than 40 percent of seismic hazards at the Site are attributed to the Seattle fault zone earthquakes. Due to the lengthy recurrence intervals between large seismic events, the potential for strong ground shaking is considered low during the life of the proposed Project but must be considered for design of the structure, as required by the current building code.

### **3.2.1.2 Liquefaction and Lateral Spread**

Liquefaction occurs when loose, saturated, and relatively cohesion-less soil deposits temporarily lose strength from seismic shaking. The primary factors controlling the onset of liquefaction include intensity and duration of strong ground motion, characteristics of subsurface soil, *in situ* stress conditions, and the depth to groundwater.

The Washington Department of Natural Resources (DNR) maps the Site as having a very low susceptibility to liquefaction (DNR, 2004). Given the relative density/consistency and composition of the soils expected below ground water, soil liquefaction is not a design consideration at this Site.

### **3.2.1.3 Seismically Induced Landslides**

The presence of glacially-consolidated deposits underlying the relatively shallow fill, colluvium, and weathered Vashon till at the Site presents a low to moderate risk of seismically induced landslides. Future seismic events may cause movement within the surficial soils near and on the face of the slope. Further discussion and analyses of Site stability are presented in Section 3.3.2, *Slope Stability Analyses*, of this report and Appendix B.

### **3.2.1.4 Surficial Ground Rupture**

The nearest known active fault trace is an unnamed fault, which is associated with the Seattle fault zone and located approximately 2,000 feet southwest of the Site (Gower et al., 1985). Due to the suspected long recurrence interval and the proximity of the Site from the mapped fault trace, the potential for surficial ground rupture at the Site is considered low during the expected life of the Project. Because there is no practical design mitigation for surface fault rupture, this is not a design consideration.

## **3.2.2 Seismic Design Criteria**

Inertial seismic forces are expected to affect the Site and structures. Appropriate design of structures in accordance with the current version of the International Building Code (IBC), with State of Washington amendments, will mitigate seismic hazards.

The IBC requires design for a “Maximum Considered Earthquake (MCE)” with a 2 percent probability of exceedance (PE) in 50 years (2,475-year return period; IBC, 2015). The USGS has completed probabilistic ground motion studies and maps for Washington (USGS, 2014).

Current IBC design methodologies express the effects of site-specific subsurface conditions on the ground motion response in terms of the “site class.” The site class can be correlated to the average standard penetration resistance (SPT) in the upper 100 feet of



the soil profile. Based on the results of our subsurface exploration program Seismic Site Class C is appropriate for IBC code-based seismic design.

Based on the latitude and longitude of the Site (47.62895°N, -122.51665°W), the mapped maximum considered earthquake spectral response accelerations for short period ( $S_s$ ) = 1.432g and for 1-second period ( $S_1$ ) = 0.563g. Site coefficients for this Site are  $F_a = 1.0$ ,  $F_v = 1.3$ . The maximum considered earthquake spectral response accelerations adjusted for Site class effects are  $S_{ds} = 0.954g$ ,  $S_{d1} = 0.488g$ .

Using methods presented in the IBC and American Society of Engineers (ASCE) Standard 7-10, *Minimum Design Loads for Buildings and Other Structures*, we calculated a Site Class-adjusted peak ground acceleration ( $PGA_M$ ) of 0.66g during the MCE. A pseudo-static coefficient ( $K_h$ ) equal to half of the PGA was used in the seismic slope stability analyses.

### **3.3 Landslide and Steep Slope Considerations**

---

#### **3.3.1 Landslide and Erosion Hazards**

The City maps a geologically hazardous area along the east-facing, slope east of the Site: greater than 40 percent steep slopes (COBI, 2017).

Three types of landslides (Varnes, 1978) are common on steep slopes and bluffs near the Site area: topples, deep-seated rotational slides, and surficial landslides. Based on the Site topography and lack of vertical relief, topples are not anticipated and are not a relevant landslide at the Site. Deep-seated rotational slides and surficial landslides are relevant to the Site and are described in further detail below.

Landslides may be triggered by natural causes such as precipitation, freeze-thaw cycles, seismic event, or be man-made (e.g., broken water pipes or stormwater flow).

##### **3.3.1.1 Deep-Seated Rotational Landslides**

Rotational landslides consist of deep-seated failures that typically involve slip along a curved surface(s). Rotational landslides may transport large masses of semi-intact soil downslope, resulting in alternating steep headscarps along the upper portion of the failure, with more gently sloping benches composed of displaced soil.

No rotational landslides have been mapped or inventoried on or adjacent to the Site vicinity (McKenna et al., 2008; Haugerud et al., 2011; Ecology, 1979). Additionally, no evidence of recent or ancient rotational landslide activity was apparent at or in the immediate vicinity of the Site. No weak zones or bedding planes were observed in the subsurface investigation of the glacially-overridden deposits. The geologic map (Haugard, 2011) did indicate a landslide within the ravine about 200 feet south of the Site.

##### **3.3.1.2 Surficial Landslides**

Surficial or debris landslides consist of sliding of the weathered colluvial soil layer and overlying vegetation that typically mantles steep slopes in the Puget Sound region. Surficial slides commonly result from a significant increase in the moisture content within the upper weathered soil layer on slopes. Increased moisture typically results from

periods of extended, heavy precipitation, groundwater seepage, or concentrated stormwater discharge onto a slope. Slides that occur within the upper several feet of weathered soils typically do not extensively impact the underlying soils.

We observed evidence of minor, recent, or incipient surficial slide activity on the Site steep slopes. The slopes are densely vegetated with mature evergreens and deciduous trees, with an established and moderately dense understory. In general, the mature evergreens trees on the steep slope were relatively straight and only little noticeable trunk curvature was observed. The steep slope has an ongoing risk of surficial landslide activity as is typical of steep slopes in this region. Any surficial failure would likely be limited to the outer weathered soils and would not affect the overall slope stability. Following the steep slope management recommendations included in this report will help the overall stability of the Site slopes.

### 3.3.1.3 Erosion Hazard

Due to the relatively flat topography of the uplands area, this portion of the Site has a low erosion potential. Soils on the steep slope portion of the Site have a moderate erosion potential during normal (undisturbed) conditions, but will increase to high erosion potential where groundcover is sparse or disturbed. Areas outside of the proposed construction area with dense groundcover have low erosion potential. Care should be taken during construction to prevent any erosion on the face of the steep slope.

### 3.3.2 Slope Stability Analysis

Based on our review of the existing Site topography, Site reconnaissance, and geotechnical explorations, we conducted a stability analysis of a profile (A–A') of the critical section transecting the east-facing steep slope on the Site (Figure 2 and Appendix B). These analyses helped us to determine minimum setbacks from the steep slope to the proposed structures and were completed using the computer program Slide (Rocscience, 2017). The engineering soil parameters used in our analysis were based on the completed subsurface explorations and our experience with local geology. These parameters are presented in Table 1.

**Table 1 – Summary of Soil Engineering Properties Used in Slope Stability Analyses**

| <b>Geologic Unit</b> | <b>Unit Weight (pcf)</b> | <b>Cohesion (psf)</b> | <b>Phi (deg)</b> |
|----------------------|--------------------------|-----------------------|------------------|
| Colluvium            | 120                      | 0                     | 30               |
| Vashon Till          | 130                      | 0                     | 40               |

Notes:

Pcf = pound per cubic foot psf = pounds per square foot; and deg = degrees

We developed a generalized cross-section of the east-facing slope using publicly available topographic data derived from City LiDAR data (COBI, 2017). The strength values assumed for the subsurface units were roughly correlated with the blow count data collected in the borings and are within the bounds of the suggested parameters in Chapter 5 of the Washington State Department of Transportation (WSDOT) Geotechnical Design Manual (GDM; WSDOT, 2015). Back calculations of existing slope configurations indicate the cohesion values assumed are reasonable and conservative. Groundwater was

modeled based on our field explorations, observations, and experience with local geology.

The Slide program performs slope stability computations based on the modeled slope conditions and calculates a factor of safety against slope failure, which is defined as the ratio of resisting forces to driving forces. A factor of safety of 1.0 indicates a “just-stable” condition, and a factor of safety less than one would indicate unstable conditions.

We conservatively assumed a 400 pound per square foot (psf) aerial load for an average surcharge pressure from a typical residence. We utilized Spencer’s method in our Slide analyses. For seismic calculations, we set the horizontal seismic coefficient for pseudostatic analysis ( $K_h$ ) equal to  $\frac{1}{2} \times \text{PGA} = 0.33g$ , where  $g$  is the acceleration of gravity. The results of our stability analyses for the proposed conditions are summarized in Table 2 below.

**Table 2 – Summary of Profile A-A’ Slope Stability Analysis Results**

| Distance from Top of Slope | Static Factor of Safety | Seismic* Factor of Safety |
|----------------------------|-------------------------|---------------------------|
| 35 feet                    | 2.0                     | 1.0                       |

Notes:

\* Pseudostatic seismic analysis based on peak ground acceleration (PGA) of 0.66g in accordance with the methods presented in ASCE Standard 7-10.

The analyses identified that the most critical (minimum factor of safety) surfaces are on the face of the steep slope under seismic conditions. For potential failure surfaces daylighting 35 feet or more west of the top of the steep slope, we calculated minimum factors of safety of 2.0 for static conditions and 1.0 for seismic conditions. These factors of safety satisfy the City’s minimum requirements of 1.5 and 1.0, respectively (COBI, 2016).

The results of our slope stability analyses indicate the steep slope is relatively stable with regards to rotational landslide mechanisms. Given the geologic units that comprise the Site and steep slope, it is our opinion that the likelihood of a rotational failure of the steep slope is low. The more pertinent hazard to the proposed structure is the accumulation of incremental erosion and small surficial slides on the steep slope (slope retreat).

### ***3.3.3 Allowable Slope Setback***

The east-facing steep slope at the Site is approximately 64 feet tall. The standard buffer and building setback associated with this slope would be 64 feet plus a 15-foot building setback, for a total standard setback of 79 feet from the top of the slope. However, based on the results of our explorations, reconnaissance, and slope stability evaluations, the steep slope at the Site is relatively stable and meets the criteria for the limited setback exemption. Based on our slope stability analysis, we recommend a reduced minimum 20-foot buffer plus the 15-foot building setback for a total of 35 feet from the top of the steep slope modeled in cross section A-A’ to the planned residence. This minimum setback recommendation applies to all structures, including the stormwater detention vault. The excavation for the vault will reduce the loads on the nearby steep slope because a

concrete-lined vault full of water weighs less than the soil excavated for the vault. Therefore, the existing slope stability model for the Project is more conservative than the final configuration of Site in the location of the planned vault.

Our analyses assume no leakage from the stormwater detention vault. Given the location of the proposed vault at the crest of a steep slope critical area, we recommend the civil engineer include adequate redundancy in the design to minimize the risk of leakage.

### 3.3.4 Slope Management

The most likely impact from slope instability to the Site would be surficial landslides triggered by saturation of the near-surface soils. These failure types are typically limited to the upper 2 to 3 feet of soil on the slope. Table 3 includes factors that can affect stability of the near-surface soil layer:

**Table 3 – Stabilizing and Destabilizing Factors for Slope Management<sup>1</sup>**

| <b>Stabilizing Factors</b>                                                                                                                          | <b>Destabilizing Factors</b>                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Root Reinforcement</b><br>Roots mechanically reinforce a soil by transfer of shear stresses in the soil to tensile resistance in the roots.      | <b>Surcharge</b><br>Weight of vegetation on a slope exerts both a downslope (destabilizing) stress and a stress component perpendicular to the slope, which tends to increase resistance to sliding. |
| <b>Soil Moisture Modification</b><br>Evapotranspiration and interception in the foliage lower soil moisture content.                                | <b>Root Wedging</b><br>Alleged tendency of roots to invade cracks, fissures, and channels in a soil and thereby cause local instability by a wedging or prying action.                               |
| <b>Buttressing and Arching</b><br>Anchored and embedded stems can act as buttress piles or arch abutments in a slope, counteracting shear stresses. | <b>Windthrowing</b><br>Destabilizing influences from an overturning moment exerted on a slope as a result of strong winds blowing downslope through trees.                                           |

Notes:

1) from Gray and Leiser (1982)

Other causes of surficial slope instability include improperly-managed storm and surface water runoff flowing near or over the top of the slope. Uncontrolled runoff or surface water should never be allowed to flow across the Site slopes.

Yard debris should never be placed on the surface of the steep slope, as this adds unnecessary, extra weight and limits the growth potential of the surficial plants.

We recommend maintaining dense vegetative groundcover on the Site slopes outside of the building area. If soils on or near the slopes become exposed through erosion and/or shallow failures, we recommend immediately covering and aggressively revegetating the exposed area. This may require the placement of plastic sheeting replaced by a woven jute-mat to provide temporary ground cover while vegetation takes root.

For specific vegetation recommendations, the Washington State Department of Ecology (Ecology) has several good publications on the subject including:



- Vegetation Management: A Guide for Puget Sound Bluff Property Owners, Ecology Publication 93-31, at <http://www.ecy.wa.gov/programs/sea/pubs/93-31/intro.html>.
- Slope Stabilization and Erosion Control Using Vegetation: A Manual of Practice for Coastal Property Owners, Ecology Publication 93-30, at <http://www.ecy.wa.gov/programs/sea/pubs/93-30/index.html>.

### **3.4 Foundation, Slabs, and Wall Design Considerations**

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#### ***3.4.1 Shallow Foundations***

Although current Site plans are preliminary, the following general foundation criteria are assumed. Shallow foundations or spread footings may be used for building supports on the Vashon till as encountered in our explorations. Bearing surfaces for the footings should be prepared as described in this report. Based on both borings, depth to the bearing strata is anticipated 5 to 5.5 feet bgs.

For shallow foundations gaining support from the bearing strata described above, we recommend an allowable foundation bearing pressure of 2,000 psf be utilized for design purposes, including both dead and live loads for the proposed structure. Recommendations within the Site Preparation and Structural Fill sections of this report must be followed in order for this allowable bearing pressure to be used. An increase in the above-mentioned bearing pressure of one-third may be used for short-term wind or seismic loading. Perimeter footings should be buried at least 18 inches into the surrounding soil for frost protection and be a minimum of 14 inches wide; interior footings require only 12 inches burial below outside grade. The minimum footing width may control the design. No footing should be founded in or above yielding/loose or organic soils.

We estimate the total settlement of the foundation designed in accordance with our recommendations will be less than 1 inch. Differential settlements can be expected to be less than half of the total settlement. Our experience indicates the majority of these settlements will occur during construction.

Wind, earthquakes, and unbalanced earth loads will subject the proposed structures to lateral forces. Lateral forces on a structure will be resisted by a combination of sliding resistance of its base or footing on the underlying soil and passive earth pressure against the buried portions of the structures.

For use in design, an ultimate coefficient of friction of 0.55 may be assumed along the interface between the base of the footing and subgrade soils. An ultimate passive earth pressure of 325 pcf may be assumed for native soils adjacent to below-grade elements. The upper 1 foot of passive resistance should be neglected in design. The recommended coefficient of friction and passive pressure values are ultimate values that do not include a safety factor. We recommend applying a factor of safety of at least 1.5 in design for determining allowable values for coefficient of friction and passive pressure.

### 3.4.2 Floor Slabs

Concrete slabs-on-grade, such as garage floors or basement slabs, should be designed in accordance with the American Concrete Institute (ACI) Committee 360 Guide to Design of Slabs-on-Ground (ACI, 2010). We recommend over-excavation of any loose soil or deleterious matter and replacement with structural fill beneath all structural slabs. To provide uniform support for the floor slab and to provide a capillary break, we recommend a 6-inch-thick capillary break layer. The capillary break material should be freely-draining sand and gravel with a maximum particle size of 3/4 inch, with no more than 80 percent passing the No. 4 sieve and less than 5 percent fines (material passing the U.S. Standard No. 200 sieve). In areas where moisture will be detrimental to floor coverings or equipment inside the proposed structures, a 10-mil polyethylene vapor barrier should be placed directly over the capillary break. The vapor barrier should be installed in accordance with the manufacturer's recommendations.

Slab-on-grade floors prepared as described above and designed as beam on elastic foundation can utilize a modulus of subgrade reaction of 150 pounds per cubic inch (pci).

## 3.5 Drainage and Moisture Considerations

The Vashon glacial till that underlies the Site is relatively impermeable and not suitable for concentrated stormwater infiltration. Current Project plans include a stormwater detention vault constructed under the planned driveway setback 35 feet from the top of the east-facing steep slope. The vault is about 20 feet wide by 8 feet tall by 75 feet long, with the bottom of the vault at approximately Elevation 136 feet. This vault will have an overflow system to route excess stormwater through a high-density polyethylene (HDPE) pipe to outfall at the toe of the steep slope.

Final grades around the proposed structures should be sloped such that water drains away from the structures. At no time should stormwater or runoff be allowed to collect or discharge onto the slope. Water from hard surfaces should be collected and diverted to the proposed stormwater detention vault. To reduce the potential for flooding foundation drains and clogging, downspouts and roof drains should not be connected to the foundation drains and under-slab drains. Drains should include clean-outs to allow periodic maintenance and inspection.

The outside edge of all perimeter footings and the upslope side of all walls should be provided with a drainage system consisting of 4-inch-diameter, perforated, rigid plastic pipe embedded in a clean, free-draining sand and gravel meeting the requirements of Section 9-03.12(4) of the WSDOT Standard Specifications for Gravel Backfill for Drains (WSDOT, 2016). The drainpipe and surrounding drain rock could be wrapped in filter fabric to minimize the potential for clogging and/or ground loss due to piping. A washed rock drain curtain at least 1-foot-thick should extend from the footing continuously upward to within 1 foot of the ground surface. A layer of low permeability soils should be used on the upper foot to reduce potential for surface water to enter the drain curtain.

We recommend that the stormwater overflow pipe from the stormwater detention vault to the base of the ravine be designed with an appropriately sized, fuse-welded, HDPE piping suspended from the vault. An HDPE in-line wall anchor should be utilized to secure the outfall pipe to vault. A diffuser should be installed at the outlet of the tightline near the

base of the ravine and buried in quarry spalls around the outlet. Backfill for the tightline trench between the catch basin and the top of the slope should consist of relatively impermeable material such as bentonite-amended soil or controlled density fill (CDF)/lean concrete to prevent water migration along the tightline trench.

A properly designed and constructed steep slope tightline can accommodate small and moderate shallow flow landslide events without significant damage to the outfall. Larger landslide events could require repairs or rebuilding of the system. The steep slope tightline should be inspected and tested for tightness before each winter and after any landslide event.

A landscape pond is located about 20 feet west of the top of the steep slope. It is our understanding that this pond will not remain when the Site is redeveloped.

## 4 Construction Considerations

### 4.1 Earthwork

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Earthwork is typically most economical when performed under dry weather conditions. Appropriate erosion control measures should be implemented prior to beginning earthwork activities in accordance with the local regulations. In our opinion, excavation can generally be accomplished using standard excavation equipment. While not directly observed in our subsurface explorations, the presence of potential obstructions, such as small boulders or other debris, in any of the materials encountered should be anticipated.

#### 4.1.1 *Wet Weather Conditions*

If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is above optimum and difficult to control, the following recommendations apply:

- Earthwork should be performed in small areas to minimize exposure;
- Structural fill placed during wet weather should consist of material meeting the criteria for Gravel Borrow as specified in Section 9-03.14(1) of the WSDOT Standard Specifications (WSDOT, 2016);
- Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of the specified structural fill;
- The size, type, and access of construction equipment used may have to be limited to prevent soil disturbance;
- The ground surface within the construction area should be graded to promote runoff of surface water away from the slopes and to prevent water ponding;
- The ground surface within the construction area should be properly covered and under no circumstances should be left uncompacted and/or exposed to moisture. Soils that become too wet for compaction should be removed and replaced with specified structural fill;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed prior to placement, compaction requirement are met, and site drainage is appropriate; and
- Erosion and sedimentation control are implemented in accordance with City best management practices (BMPs).

### 4.2 Site Preparation

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Site preparation within the proposed construction footprint should include removal of fill and soils containing roots, organics, debris, and any other deleterious materials. The contractor must use care during site preparation and excavation operations so that any bearing surfaces are not disturbed. If disturbance does occur, the disturbed material should be removed to expose undisturbed material or be compacted in-place to acceptable criteria as determined by the geotechnical engineer. Over-excavated soils in footing subgrade areas should be replaced with compacted crushed surfacing base course (CSBC)



specified in Section 9-03.9(3) of the WSDOT Standard Specifications (WSDOT, 2016) as described in the Structural Fill section of this report.

All footing excavations should be trimmed neat and the bottom of the excavation should be carefully prepared. All loose or softened soil should be removed from the footing excavation or compacted in-place prior to placing reinforcing steel bars. We recommend that footing excavations be observed by the geotechnical engineer prior to placing steel and concrete to verify the recommendations in this report have been followed.

If footing excavations are exposed during the winter or periods of wet weather, we recommend providing a layer of crushed rock or gravel to help preserve the subgrade until the concrete placement. Gravel used to protect the bearing surfaces should meet the gradation requirements for Class A Gravel Backfill for Foundations, as described in Section 9-03.12(1)A of the WSDOT Standard Specifications (WSDOT, 2016).

Construction of the proposed driveway and residence will involve limited clearing and grubbing of existing vegetation. The subgrade under the AC pavement section areas should be prepared by scarifying, moisture conditioning, and recompacting a minimum of 12 inches below the bottom of the base course. Materials generated during earthwork should be transported off site or stockpiled in areas designated by the owner's representative.

### **4.3 Temporary and Permanent Slopes**

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Maintenance of safe working conditions, including temporary excavation stability, is the sole responsibility of the contractor. All temporary cuts in excess of 4 feet in height that are not protected by trench boxes, or otherwise shored, should be sloped in accordance with Part N of Washington Administrative Code (WAC) 296-155 (WAC, 2009).

With time and the presence of seepage and/or precipitation, the stability of temporary unsupported cut slopes can be significantly reduced. We recommend planning the construction schedule to have excavation occur during the summer months and to minimize the amount of time that the temporary slopes will be unsupported during construction. The contractor should monitor the stability of the temporary cut slopes and adjust the construction schedule and slope inclination accordingly. Vibrations created by traffic and construction equipment may cause caving and raveling of the face of the temporary slopes. At no time should soil stockpiles, equipment, and other loads be placed immediately adjacent to an excavation.

In general, shallow surface soils, such as topsoil, fill, colluvium, and weathered soils that will be subject to excavation and sloping on the Site classify as Occupational Safety and Health Administration (OSHA) Soil Classification Type C. Temporary excavation side slopes (cut slopes) are anticipated to stand as steep as 1½ H:1V within the topsoil and weathered soils. The underlying Vashon till can be classified as OSHA Type A Soil; temporary cuts in the till may be inclined as steep as ¾H:1V. The cut slope inclinations estimated above are for planning purposes only and are applicable to excavations without inflowing perched groundwater or runoff.

Permanent slopes for the Project should have a maximum inclination of 2H:1V. Access roads and pavements should be located at least five feet from the top of temporary slopes. Surface water runoff should be collected and directed away from slopes to prevent water from running down the face.

## 4.4 Structural Fill

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Excavated soil will generally be fill, colluvium, and Vashon till deposits, which contain a significant fraction of fine-grained (silt and clay) materials. These soils will only be suitable for re-use as structural fill if properly moisture conditioned (dried back). Material excavated that is not suitable for use as structural fill may be used as fill in landscape areas or other areas not sensitive to settlement.

Imported structural fill should be granular material with less than 10 percent fines, such as Select Borrow as specified in Section 9-03.14(2) of the WSDOT Standard Specifications (WSDOT, 2016). In wet weather conditions or situations requiring free-draining backfill, material meeting the criteria for Gravel Borrow as specified in Section 9-03.14(1) of the WSDOT Standard Specifications (WSDOT, 2016) should be used. Crushed Surfacing Base Course as specified in Section 9-03.9(3) of the WSDOT Standard Specifications. If desired, lean concrete or controlled density fill (CDF) can also be used as structural fill under foundations.

In general, suitable structural fill material for the Project is fill placed within 3 percent of its optimum moisture content per ASTM D1557 (modified Proctor test) and does not contain deleterious materials or particles larger than 3 inches in diameter. Structural fill material should be compacted to a minimum of 95 percent of the maximum dry density (MDD) based on ASTM D1557. Structural fill adjacent to a wall should be compacted to a minimum of 90 percent of the MDD based on ASTM D1557.

The extent of site grading is currently unknown; however, we estimate cuts and fills will be limited in depth/thickness to less than 2 feet. Structural fill, including base rock, should be placed over subgrades that have been prepared in conformance with the Site Preparation section of this report.

If fill and excavated material will be placed on slopes steeper than 5H:1V, these must be keyed/benched into the existing slopes and installed in horizontal lifts. Vertical steps between benches should be approximately two feet.

## 4.5 Additional Project Design and Construction Monitoring

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At the time of this report, site plans, site grading, structural plans, and construction methods have not been finalized, and the recommendations presented herein are based on preliminary Project information. If Project developments result in changes to the assumptions made herein, we should be contacted to determine if our recommendations should be revised. We recommend that, once design plans are fully developed, Aspect is consulted in order to verify that our recommendations were properly interpreted and applied.

We recommend a pre-construction meeting be organized at the start of construction with you, your contractor, and Aspect. During this meeting, we will understand the goals and

schedule to be upheld during construction. We will also discuss effective lines of communication. The integrity of the foundation and overall Site stability depends on proper site preparation and construction procedures. In addition, engineering decisions may have to be made in the field in the event that variations in subsurface conditions become apparent.

Upon completion of construction, the City will require Aspect to complete a Step 3 Form prior to issuing the Certificate of Occupancy. For Aspect to complete this form, we must be involved during certain construction activities, including but not limited to, foundation subgrade preparation, installation of the stormwater outfall system, and installation of the site and foundation drainage elements.

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## Limitations

Work for this project was performed for Mr. and Ms. Rein (Client), and this report was prepared consistent with recognized standards of professionals in the same locality and involving similar conditions, at the time the work was performed. No other warranty, expressed or implied, is made by Aspect Consulting, LLC (Aspect).

Recommendations presented herein are based on our interpretation of site conditions, geotechnical engineering calculations, and judgment in accordance with our mutually agreed-upon scope of work. Our recommendations are unique and specific to the project, site, and Client. Application of this report for any purpose other than the project should be done only after consultation with Aspect.

Variations may exist between the soil and groundwater conditions reported and those actually underlying the site. The nature and extent of such soil variations may change over time and may not be evident before construction begins. If any soil conditions are encountered at the site that are different from those described in this report, Aspect should be notified immediately to review the applicability of our recommendations.

Risks are inherent with any site involving slopes and no recommendations, geologic analysis, or engineering design can assure slope stability. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the Client.

It is the Client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, and agents, are made aware of this report in its entirety. At the time of this report, site plans, site grading, structural plans, and construction methods have not been finalized, and the recommendations presented herein are based on preliminary project information. If project developments result in changes from the preliminary project information, Aspect should be contacted to determine if our recommendations contained in this report should be revised and/or expanded upon. We recommend that, once design plans are fully developed, Aspect is consulted in order to verify that our recommendations were properly interpreted and applied.

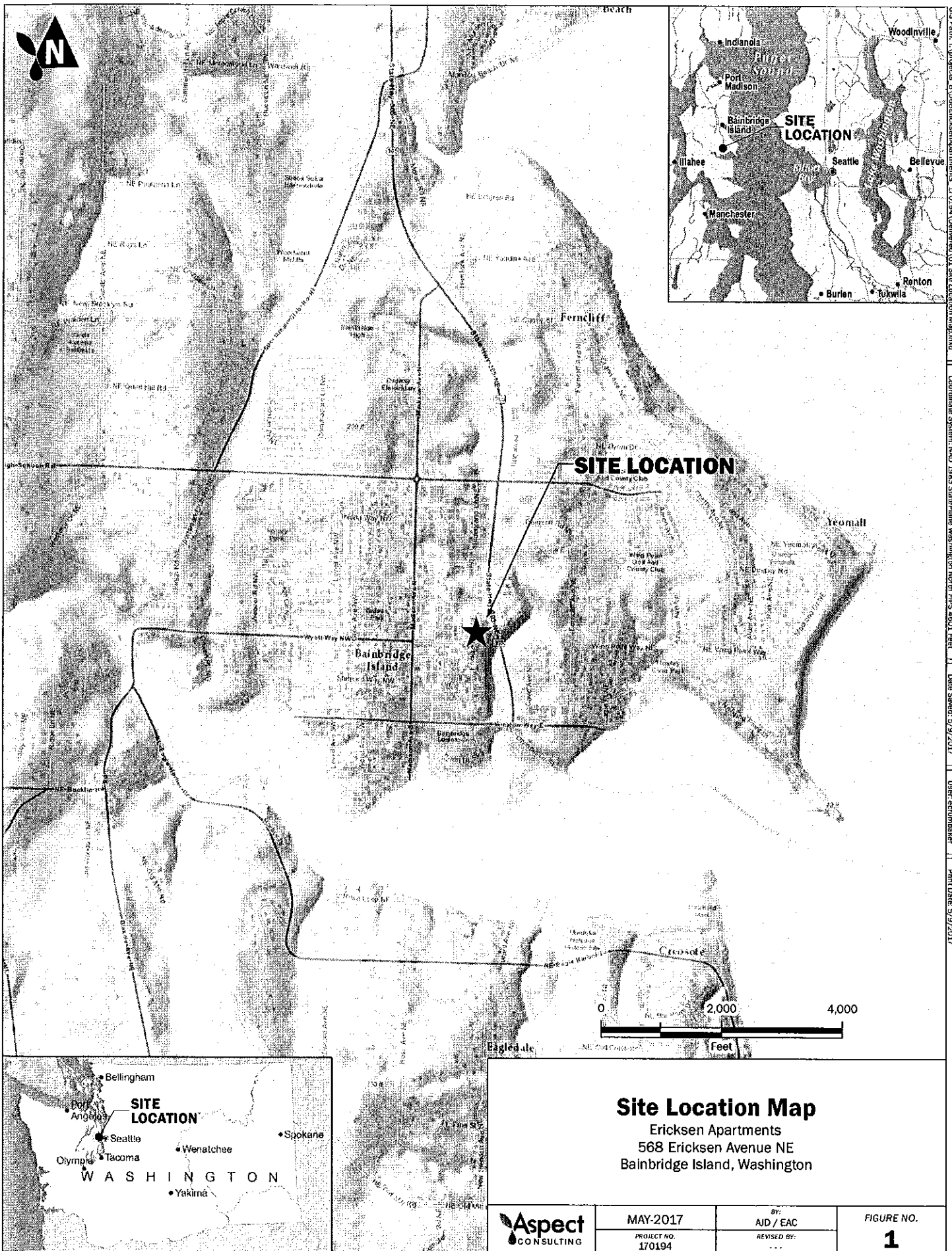
The scope of work does not include services related to construction safety precautions. Site safety is typically the responsibility of the contractor, and our recommendations are not intended to direct the contractor's site safety methods, techniques, sequences, or procedures. The scope of our work also does not include the assessment of environmental characteristics, particularly those involving potentially hazardous substances in soil or groundwater.

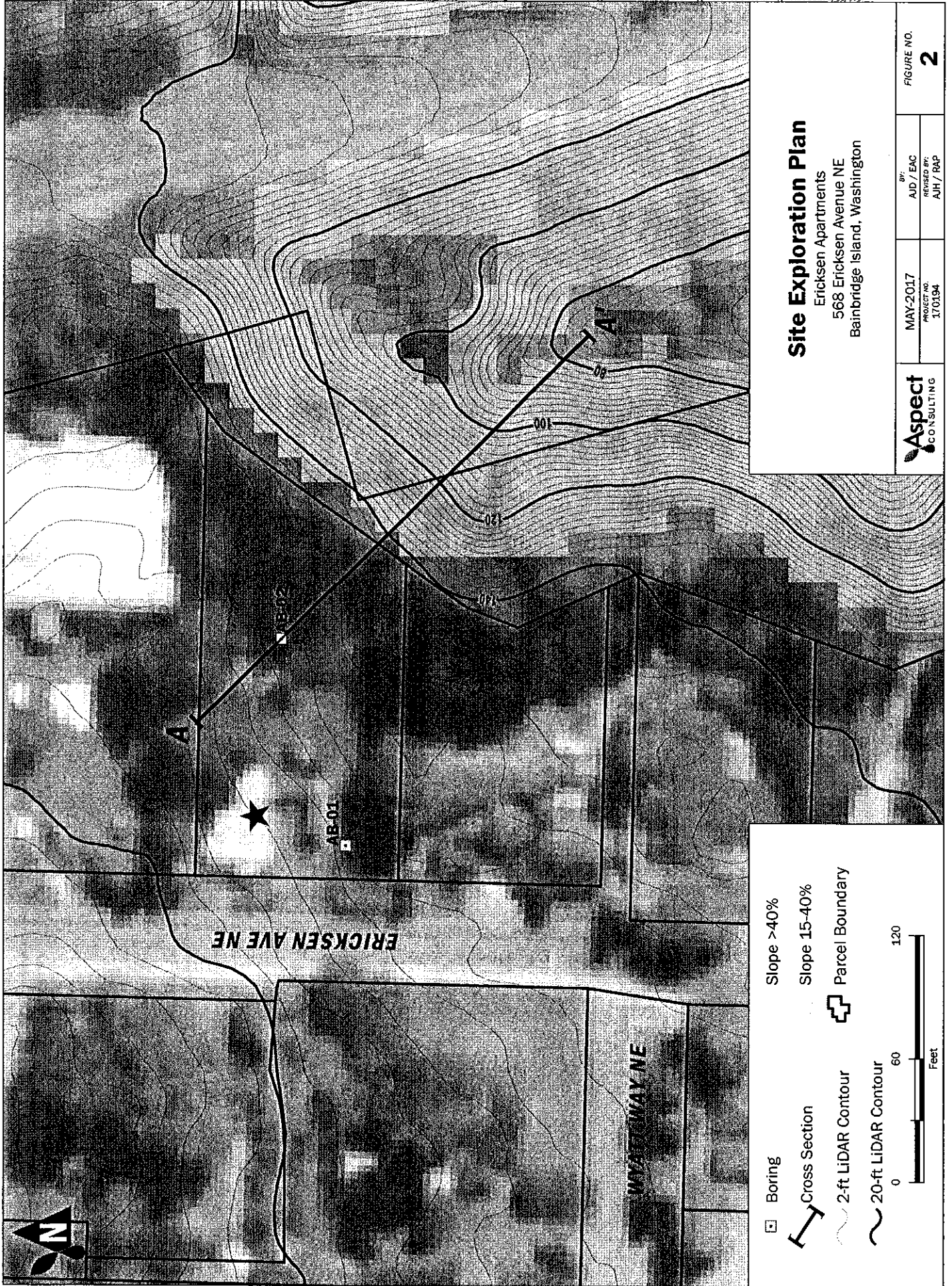
All reports prepared by Aspect for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect. Aspect's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

**Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.**

We appreciate the opportunity to perform these services. If you have any questions please call Alison Dennison, LEG, Senior Project Geologist, at 206-780-7717.

# **FIGURES**





# **Site Exploration Plan** Ericksen Apartments 568 Ericksen Avenue NE Bainbridge Island, Washington

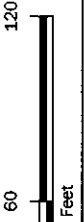


MAY-2017  
 PROJECT NO:  
 170194

BY:  
 AJD / EAC  
 REVISED BY:  
 AJH / RAP

FIGURE NO.  
**2**

- Boring
- Cross Section
- 2-ft LiDAR Contour
- 20-ft LiDAR Contour
- Slope >40%
- Slope 15-40%
- Parcel Boundary





## **APPENDIX A**

### **Soil Boring Logs**

## **A. Field Exploration Program**

### **A.1. Soil Borings**

Two machine drilled borings, AB-01 and AB-02 were advanced on the Site on April 26, 2017. The machine drilled borings were advanced using hollow-stem auger methods by Boretac, Inc. under subcontract to Aspect using a track-mounted drill rig that was equipped with a 140-pound autohammer. Samples were obtained every 2.5 feet to 15 feet bgs and then every 5 feet to the depths explored using the Standard Penetration Test (SPT) in general accordance with ASTM Method D1586.

The SPT method involves driving a 2-inch-outside-diameter split-barrel sampler with a 140-pound hammer free-falling from a distance of 30 inches. The number of blows for each 6-inch interval is recorded and the number of blows required to drive the sampler the final 12 inches is known as the Standard Penetration Resistance ("N") or blow count. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils. If a total of 50 blows are recorded for a single 6-inch interval, the test is terminated and the blow count is recorded as 50 blows for the total inches of penetration. Samples were placed in labeled plastic jars and taken to a laboratory for further classification.

The locations of explorations are shown on Figure 2 and were collected in the field using a hand-held global positioning system (GPS) receiver. The borings were backfilled with bentonite chips and capped with about 1 foot of excavated soils, in accordance with Washington State Department of Ecology regulations.

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.

**Ericksen Apartments - 170194****Geotechnical Exploration Log**

Project Address &amp; Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

568 Ericksen Ave NE, next to driveway

47.629, -122.517 (est)

**AB-01**

Contractor

Equipment

Sampling Method

Ground Surface (GS) Elev. (NAVD88)

Boretect1, Inc.

EC95 Track Drill

Autohammer; 140 lb hammer; 30" drop

151'(est)

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Juan Carlos

Hollow-stem auger

4/26/2017

NA

No Water Encountered

| Depth<br>(feet) | Elev.<br>(feet) | Exploration Completion<br>and Notes                                 | Sample<br>Type/ID | Blows/foot |    |    |    |    | Blows/6' | Tests | Material<br>Type | Description                                                                                                                                                                                                                                                                                                                         | Depth<br>(ft) |
|-----------------|-----------------|---------------------------------------------------------------------|-------------------|------------|----|----|----|----|----------|-------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                 |                 |                                                                     |                   | 0          | 10 | 20 | 30 | 40 |          |       |                  |                                                                                                                                                                                                                                                                                                                                     |               |
| 1               | 150             | Borehole backfilled<br>with bentonite chips<br>and capped with sod. |                   |            |    |    |    |    |          |       |                  | <b>FILL</b><br>Very loose, moist, brown to dark brown, gravelly, silty<br>SAND (SM); rounded fine gravel.                                                                                                                                                                                                                           | 1             |
| 2               | 149             |                                                                     |                   |            |    |    |    |    |          |       |                  |                                                                                                                                                                                                                                                                                                                                     | 2             |
| 3               | 148             |                                                                     | S1                |            |    |    |    |    | 1        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 3             |
| 4               | 147             |                                                                     |                   |            |    |    |    |    | 1        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 4             |
| 5               | 146             |                                                                     |                   |            |    |    |    |    | 0        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 5             |
| 6               | 145             |                                                                     | S2                |            |    |    |    |    | 2        |       |                  | <b>WEATHERED VASHON TILL</b><br>Medium dense, moist, brown to light gray and brown,<br>slightly gravelly, slightly silty SAND (SP-SM) interbedded<br>with moist, light gray and brown, slightly gravelly, slightly<br>sandy SILT (ML); rounded to subrounded fine gravel, trace<br>organic fragments, moderate iron-oxide staining. | 6             |
| 7               | 144             |                                                                     |                   |            |    |    |    |    | 6        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 7             |
| 8               | 143             |                                                                     | S3                |            |    |    |    |    | 15       |       |                  |                                                                                                                                                                                                                                                                                                                                     | 8             |
| 9               | 142             |                                                                     |                   |            |    |    |    |    | 9        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 9             |
| 10              | 141             |                                                                     |                   |            |    |    |    |    | 11       |       |                  |                                                                                                                                                                                                                                                                                                                                     | 10            |
| 11              | 140             |                                                                     | S4                |            |    |    |    |    | 11       |       |                  | Medium dense, very moist, light grayish brown, very sandy<br>SILT (ML); low plasticity, fine to medium sand, silty sand<br>pockets.                                                                                                                                                                                                 | 11            |
| 12              | 139             |                                                                     |                   |            |    |    |    |    | 6        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 12            |
| 13              | 138             |                                                                     |                   |            |    |    |    |    | 9        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 13            |
| 14              | 137             |                                                                     | S5                |            |    |    |    |    | 9        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 14            |
| 15              | 136             |                                                                     |                   |            |    |    |    |    | 4        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 15            |
| 16              | 135             |                                                                     | S6                |            |    |    |    |    | 5        |       |                  | <b>VASHON TILL</b><br>Very dense, moist, brown to light gray, very silty SAND<br>(SM); trace subrounded fine gravel, subrounded fine to<br>coarse sand.                                                                                                                                                                             | 16            |
| 17              | 134             |                                                                     |                   |            |    |    |    |    | 8        |       |                  |                                                                                                                                                                                                                                                                                                                                     | 17            |
| 18              | 133             |                                                                     |                   |            |    |    |    |    | 17       |       |                  |                                                                                                                                                                                                                                                                                                                                     | 18            |
| 19              | 132             |                                                                     |                   |            |    |    |    |    | 30       |       |                  |                                                                                                                                                                                                                                                                                                                                     | 19            |
| 20              | 131             |                                                                     |                   |            |    |    |    |    | 37       |       |                  |                                                                                                                                                                                                                                                                                                                                     | 20            |
| 21              | 130             |                                                                     | S7                |            |    |    |    |    | 14       |       |                  | Becomes gravelly and silty; fine to coarse gravel, stratified,<br>trace iron-oxide staining.                                                                                                                                                                                                                                        | 21            |
| 22              | 129             |                                                                     |                   |            |    |    |    |    | 50/6     |       |                  |                                                                                                                                                                                                                                                                                                                                     | 22            |
| 23              | 128             |                                                                     |                   |            |    |    |    |    |          |       |                  |                                                                                                                                                                                                                                                                                                                                     | 23            |
| 24              | 127             |                                                                     |                   |            |    |    |    |    |          |       |                  |                                                                                                                                                                                                                                                                                                                                     | 24            |
|                 |                 |                                                                     |                   |            |    |    |    |    |          |       |                  | Bottom of exploration at 21 ft. bgs.                                                                                                                                                                                                                                                                                                |               |

**Legend**

- ☐ No Soil Sample Recovery  
☒ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

No Water Encountered

Water  
LevelSee Exploration Log Key for explanation  
of symbolsLogged by: NHC  
Approved by: AJD 5/19/2017**Exploration  
Log  
AB-01**

Sheet 1 of 1



# Ericksen Apartments - 170194

# Geotechnical Exploration Log

Project Address & Site Specific Location

568 Ericksen Ave NE, backyard

Coordinates (Lat, Lon WGS84)

47.629, -122.516 (est)

Exploration Number

**AB-02**

Contractor  
Boretec1, Inc.

Equipment

EC95 Track Drill

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface (GS) Elev. (NAVD88)

149'(est)

Operator

Juan Carlos

Exploration Method(s)

Hollow-stem auger

Work Start/Completion Dates

4/26/2017

Top of Casing Elev. (NAVD88)

NA

Depth to Water (Below GS)

41.7' (ATD)

| Depth (feet) | Elev. (feet) | Exploration Completion and Notes                              | Sample Type/ID | Blows/foot | Water Content (%) | Blows/6" | Tests | Material Type | Description                                                                                                                                                                  | Depth (ft) |
|--------------|--------------|---------------------------------------------------------------|----------------|------------|-------------------|----------|-------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1            | 148          | Borehole backfilled with bentonite chips and capped with sod. |                |            |                   |          |       |               | <b>COLLUVIUM</b><br>Loose, moist, brown, gravelly, silty SAND (SM); subrounded fine to coarse gravel, predominantly fine sand, trace rootlets, moderate iron-oxide staining. | 1          |
| 2            | 147          |                                                               |                |            |                   |          |       |               |                                                                                                                                                                              | 2          |
| 3            | 146          |                                                               | S1             |            |                   | 3        |       |               |                                                                                                                                                                              | 3          |
| 4            | 145          |                                                               |                |            |                   | 2        |       |               |                                                                                                                                                                              | 4          |
| 5            | 144          |                                                               |                |            |                   | 6        |       |               |                                                                                                                                                                              | 5          |
| 6            | 143          |                                                               | S2             |            |                   | 12       |       |               | Becomes dense and very moist.                                                                                                                                                | 6          |
| 7            | 142          |                                                               |                |            |                   | 20       |       |               | <b>VASHON TILL</b><br>Very dense, slightly moist, brown, sandy, silty GRAVEL (GM); rounded fine to coarse gravel.                                                            | 7          |
| 8            | 141          |                                                               | S3             |            |                   | 18       |       |               | Very dense, slightly moist, gravelly, silty SAND (SM); fine to coarse sand, subangular to subrounded fine to coarse gravel, trace iron-oxide staining, socketing.            | 8          |
| 9            | 140          |                                                               |                |            |                   | 40       |       |               |                                                                                                                                                                              | 9          |
| 10           | 139          |                                                               | S4             |            |                   | 40       |       |               | Very dense, slightly moist, brown, very sandy, silty GRAVEL (GM); fine sand, coarse gravel.                                                                                  | 10         |
| 11           | 138          |                                                               |                |            |                   | 50/6     |       |               |                                                                                                                                                                              | 11         |
| 12           | 137          |                                                               |                |            |                   |          |       |               |                                                                                                                                                                              | 12         |
| 13           | 136          |                                                               | S5             |            |                   | 21       |       |               | Very dense, very moist, brown, slightly gravelly, silty SAND (SM); predominantly fine to medium sand, subrounded fine gravel, trace iron-oxide staining                      | 13         |
| 14           | 135          |                                                               |                |            |                   | 37       |       |               |                                                                                                                                                                              | 14         |
| 15           | 134          |                                                               | S6             |            |                   | 28       |       |               | Very dense, very moist, brown, very sandy SILT (ML); fine sand.                                                                                                              | 15         |
| 16           | 133          |                                                               |                |            |                   | 50/6     |       |               | Very dense, moist to very moist, gray, gravelly SAND (SW); trace silt, fine to coarse sand, subangular to subrounded fine gravel.                                            | 16         |
| 17           | 132          |                                                               |                |            |                   |          |       |               |                                                                                                                                                                              | 17         |
| 18           | 131          |                                                               |                |            |                   |          |       |               | Very dense, moist, light grayish brown, SAND (SP); trace silt, predominantly fine sand.                                                                                      | 18         |
| 19           | 130          |                                                               |                |            |                   |          |       |               |                                                                                                                                                                              | 19         |
| 20           | 129          |                                                               |                |            |                   |          |       |               |                                                                                                                                                                              | 20         |
| 21           | 128          |                                                               | S7             |            |                   | 20       |       |               |                                                                                                                                                                              | 21         |
| 22           | 127          |                                                               |                |            |                   | 27       |       |               |                                                                                                                                                                              | 22         |
| 23           | 126          |                                                               |                |            |                   | 40       |       |               |                                                                                                                                                                              | 23         |
| 24           | 125          |                                                               |                |            |                   |          |       |               | Very dense, moist to very moist, brown, gravelly, silty SAND (SM); fine to coarse sand, subrounded to rounded fine to coarse gravel.                                         | 24         |

## Legend

- ☐ No Soil Sample Recovery
- ☒ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

Water Level

See Exploration Log Key for explanation of symbols

Logged by: NHC  
Approved by: AJD 5/19/2017

**Exploration Log**  
**AB-02**  
Sheet 1 of 3





# Ericksen Apartments - 170194

# Geotechnical Exploration Log

Project Address & Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

568 Ericksen Ave NE, backyard

47.629, -122.516 (est)

**AB-02**

Contractor

Equipment

Sampling Method

Ground Surface (GS) Elev. (NAVD88)

Boretac1, Inc.

EC95 Track Drill

Autohammer; 140 lb hammer; 30" drop

149'(est)

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Juan Carlos

Hollow-stem auger

4/26/2017

NA

41.7' (ATD)

| Depth (feet) | Elev. (feet) | Exploration Completion and Notes | Sample Type/ID | Blows/foot<br>Water Content (%) | Blows/6'       | Tests | Material Type | Description                                                                                                                                      | Depth (ft) |
|--------------|--------------|----------------------------------|----------------|---------------------------------|----------------|-------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 26           | 123          |                                  | S8             |                                 | 20<br>50/5     |       |               | Very dense, moist to very moist, brown, gravelly, silty SAND (SM); fine to coarse sand, subrounded to rounded fine to coarse gravel. (continued) | 26         |
| 27           | 122          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 27         |
| 28           | 121          |                                  |                |                                 |                |       |               | Very dense, very moist, brown, gravelly SAND (SW); trace silt, subrounded fine to coarse sand, subrounded fine to coarse gravel.                 | 28         |
| 29           | 120          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 29         |
| 30           | 119          |                                  | S9             |                                 | 29<br>50/4     |       |               |                                                                                                                                                  | 30         |
| 31           | 118          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 31         |
| 32           | 117          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 32         |
| 33           | 116          |                                  |                |                                 |                |       |               | Very dense, wet, brown to light gray, slightly silty SAND (SP-SM); rapid dilatancy, fine sand.                                                   | 33         |
| 34           | 115          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 34         |
| 35           | 114          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 35         |
| 36           | 113          |                                  | S10            |                                 | 17<br>29<br>44 |       |               | Very dense, moist, brown, very silty SAND (SM); predominantly fine sand, diamict texture, trace iron-oxide staining.                             | 36         |
| 37           | 112          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 37         |
| 38           | 111          |                                  |                |                                 |                |       |               | Very dense, moist, light grayish brown, very sandy GRAVEL (GW); trace silt, predominantly fine to medium sand, subangular fine to coarse gravel. | 38         |
| 39           | 110          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 39         |
| 40           | 109          |                                  | S11            |                                 | 50/6           |       |               |                                                                                                                                                  | 40         |
| 41           | 108          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 41         |
| 42           | 107          | 4/26/2017                        |                |                                 |                |       |               |                                                                                                                                                  | 42         |
| 43           | 106          |                                  |                |                                 |                |       |               | Very dense, wet, light grayish brown SAND (SP); trace silt, predominantly fine sand.                                                             | 43         |
| 44           | 105          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 44         |
| 45           | 104          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 45         |
| 46           | 103          |                                  | S12            |                                 | 29<br>50/6     |       |               |                                                                                                                                                  | 46         |
| 47           | 102          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 47         |
| 48           | 101          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 48         |
| 49           | 100          |                                  |                |                                 |                |       |               |                                                                                                                                                  | 49         |

## Legend

- No Soil Sample Recovery
- Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

Water Level

Water Level

See Exploration Log Key for explanation of symbols

Logged by: NHC  
Approved by: AJD 5/19/2017

**Exploration Log**  
**AB-02**

Sheet 2 of 3

**Erickson Apartments - 170194****Geotechnical Exploration Log**

Project Address &amp; Site Specific Location

Coordinates (Lat, Lon WGS84)

Exploration Number

568 Erickson Ave NE, backyard

47.629, -122.516 (est)

AB-02

Contractor

Equipment

Sampling Method

Ground Surface (GS) Elev. (NAVD88)

Boretec1, Inc.

EC95 Track Drill

Autohammer; 140 lb hammer; 30" drop

149'(est)

Operator

Exploration Method(s)

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)

Juan Carlos

Hollow-stem auger

4/26/2017

NA

41.7' (ATD)

| Depth (feet) | Elev. (feet) | Exploration Completion and Notes | Sample Type/ID | Blows/foot       | Water Content (%) | Blows/6"   | Tests | Material Type | Description                                                                                      | Depth (ft) |
|--------------|--------------|----------------------------------|----------------|------------------|-------------------|------------|-------|---------------|--------------------------------------------------------------------------------------------------|------------|
|              |              |                                  |                | 0 10 20 30 40 50 |                   | 25 44 50/5 |       |               |                                                                                                  |            |
| 51           | 98           |                                  | S13            |                  |                   |            |       |               | Very dense, wet, light grayish brown SAND (SP); trace silt, predominantly fine sand. (continued) | 51         |
| 52           | 97           |                                  |                |                  |                   |            |       |               | Bottom of exploration at 51.4 ft. bgs.                                                           | 52         |
| 53           | 96           |                                  |                |                  |                   |            |       |               |                                                                                                  | 53         |
| 54           | 95           |                                  |                |                  |                   |            |       |               |                                                                                                  | 54         |
| 55           | 94           |                                  |                |                  |                   |            |       |               |                                                                                                  | 55         |
| 56           | 93           |                                  |                |                  |                   |            |       |               |                                                                                                  | 56         |
| 57           | 92           |                                  |                |                  |                   |            |       |               |                                                                                                  | 57         |
| 58           | 91           |                                  |                |                  |                   |            |       |               |                                                                                                  | 58         |
| 59           | 90           |                                  |                |                  |                   |            |       |               |                                                                                                  | 59         |
| 60           | 89           |                                  |                |                  |                   |            |       |               |                                                                                                  | 60         |
| 61           | 88           |                                  |                |                  |                   |            |       |               |                                                                                                  | 61         |
| 62           | 87           |                                  |                |                  |                   |            |       |               |                                                                                                  | 62         |
| 63           | 86           |                                  |                |                  |                   |            |       |               |                                                                                                  | 63         |
| 64           | 85           |                                  |                |                  |                   |            |       |               |                                                                                                  | 64         |
| 65           | 84           |                                  |                |                  |                   |            |       |               |                                                                                                  | 65         |
| 66           | 83           |                                  |                |                  |                   |            |       |               |                                                                                                  | 66         |
| 67           | 82           |                                  |                |                  |                   |            |       |               |                                                                                                  | 67         |
| 68           | 81           |                                  |                |                  |                   |            |       |               |                                                                                                  | 68         |
| 69           | 80           |                                  |                |                  |                   |            |       |               |                                                                                                  | 69         |
| 70           | 79           |                                  |                |                  |                   |            |       |               |                                                                                                  | 70         |
| 71           | 78           |                                  |                |                  |                   |            |       |               |                                                                                                  | 71         |
| 72           | 77           |                                  |                |                  |                   |            |       |               |                                                                                                  | 72         |
| 73           | 76           |                                  |                |                  |                   |            |       |               |                                                                                                  | 73         |
| 74           | 75           |                                  |                |                  |                   |            |       |               |                                                                                                  | 74         |

**Legend**

- ☐ No Soil Sample Recovery  
☒ Split Barrel 2" X 1.375" (SPT)

Plastic Limit — Liquid Limit

Water Level

☒ Water Level ATD

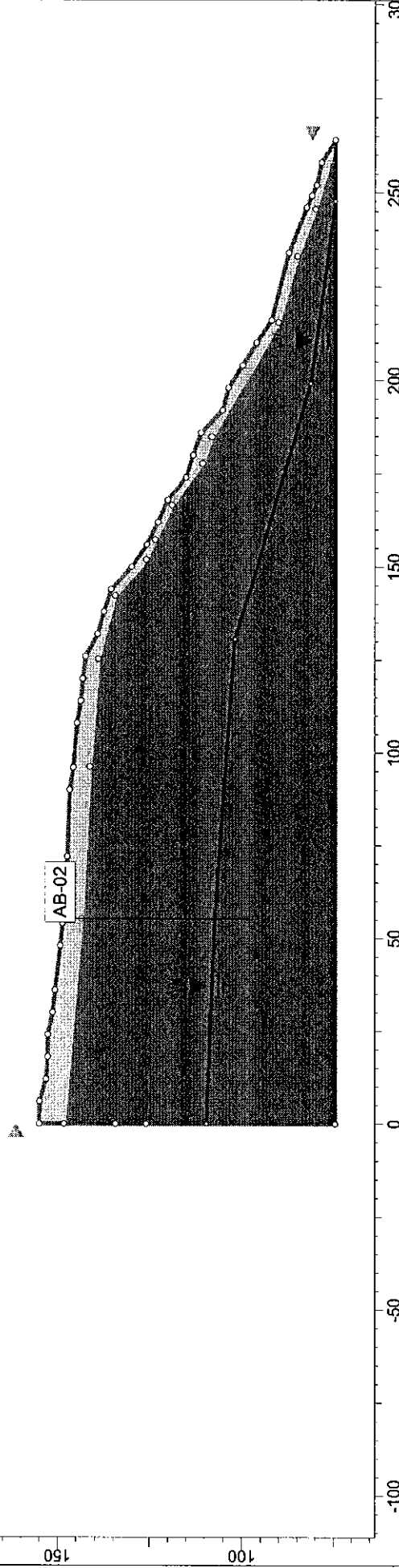
See Exploration Log Key for explanation of symbols

Logged by: NHC  
Approved by: AJD 5/19/2017**Exploration Log**  
**AB-02**  
Sheet 3 of 3

## **APPENDIX B**

### **Slope Stability Analyses**

| Material Name | Color                                                                               | Unit Weight<br>(lbs/ft <sup>3</sup> ) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------|-------------------|--------------|
| Colluvium     |  | 120                                   | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |  | 130                                   | Mohr-Coulomb  | 0                 | 40           |



## Existing Conditions Model Setup

## Slope Stability Analysis Ericksen Apartments 568 Ericksen Apartments

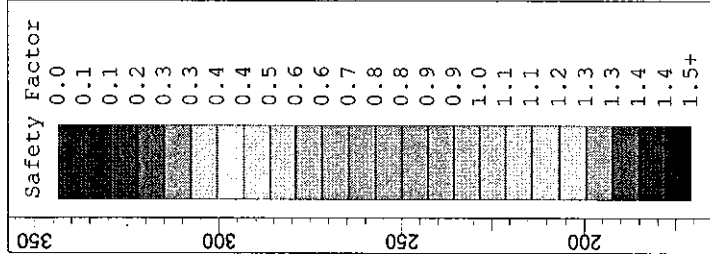
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**Aspect**  
CONSULTING

6/18/2018  
PROJECT NO.  
170194

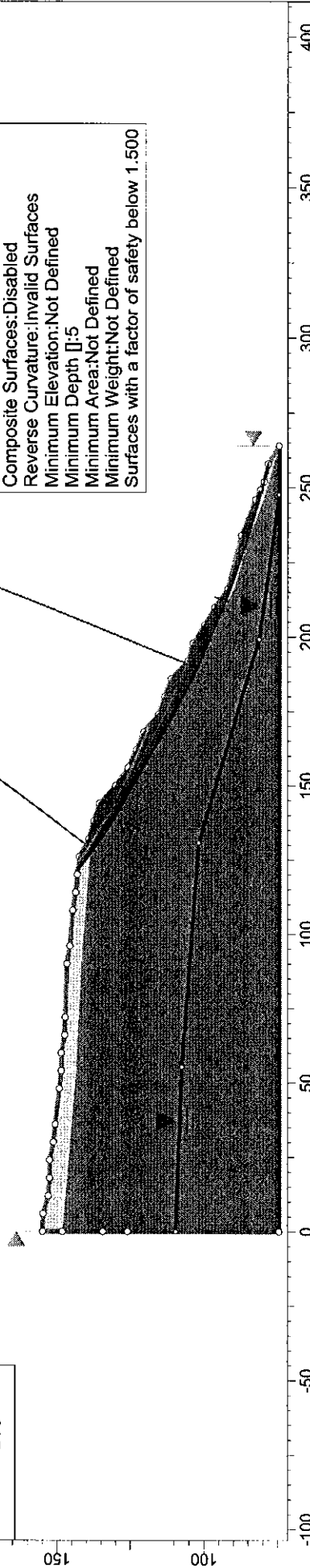
BY: NHC  
REVISED BY: AJH

APPENDIX:  
**B-1**



| Material Name | Color                                                                               | Unit Weight<br>(lb <sub>s</sub> /ft <sup>3</sup> ) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------------------------------------------------------------------------------------|----------------------------------------------------|---------------|-------------------|--------------|
| Colluvium     |  | 120                                                | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |  | 130                                                | Mohr-Coulomb  | 0                 | 40           |

Results:  
 Analysis Method: spencer  
 Surface Type: Circular  
 Search Method: Grid Search  
 Radius Increment: 10  
 Composite Surfaces: Disabled  
 Reverse Curvature: Invalid Surfaces  
 Minimum Elevation: Not Defined  
 Minimum Depth II: 5  
 Minimum Area: Not Defined  
 Minimum Weight: Not Defined  
 Surfaces with a factor of safety below 1.500



## Existing Conditions Static

## Slope Stability Analysis

Erickson Apartments  
568 Erickson Apartments

SCALE: 1" = 50'  
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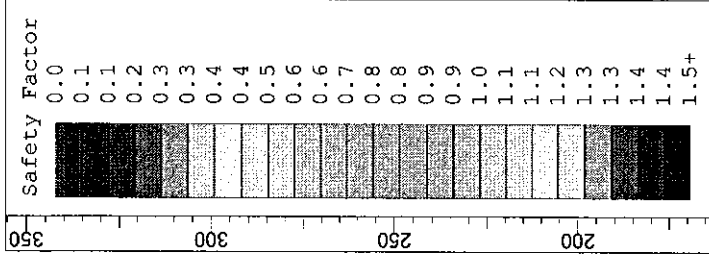


6/18/2018  
 PROJECT NO.  
170194

BY: NHC  
 REVISED BY: AJH

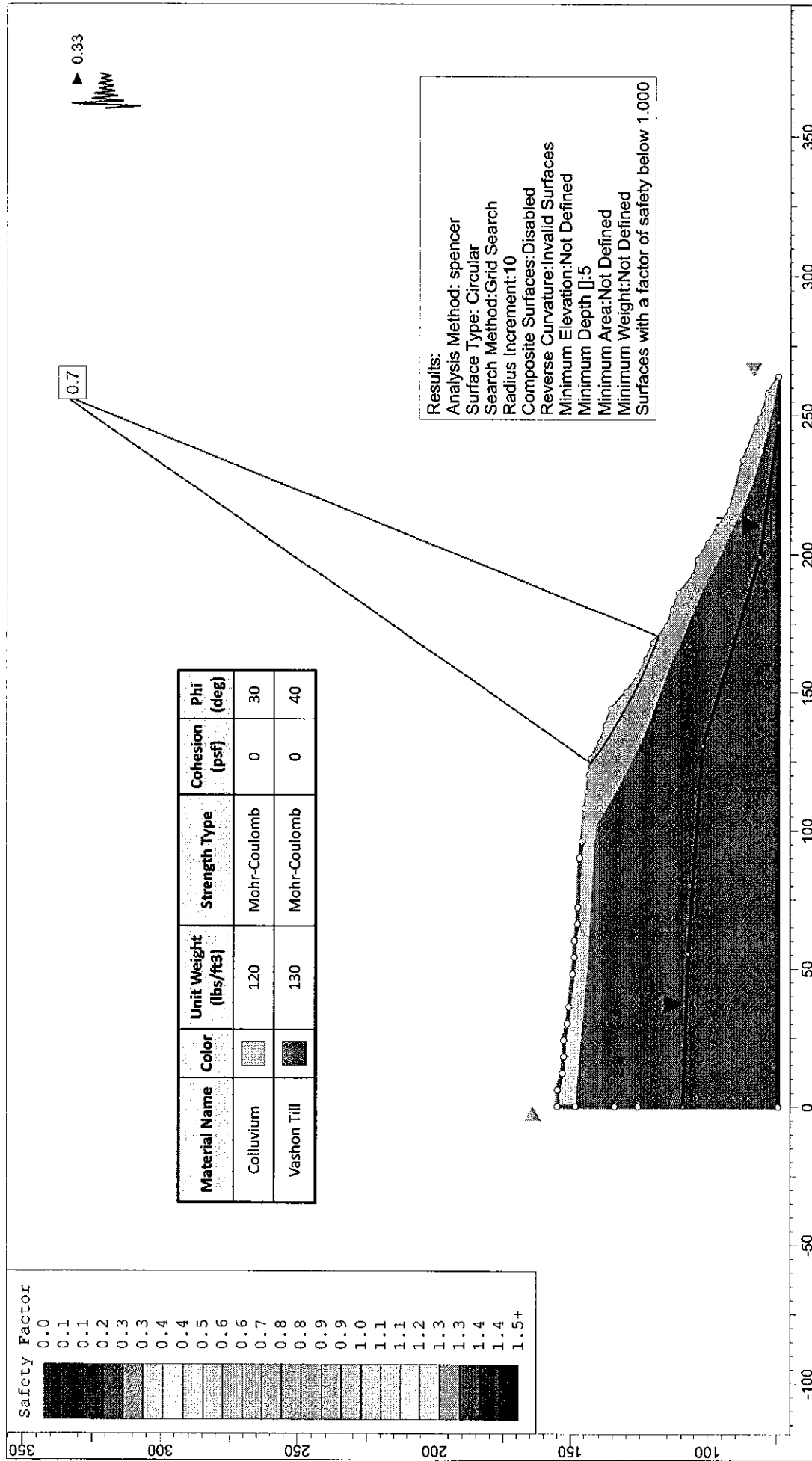
APPENDIX:  
**B-2**





| Material Name | Color | Unit Weight<br>(lbs/ft3) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------|--------------------------|---------------|-------------------|--------------|
| Colluvium     |       | 120                      | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |       | 130                      | Mohr-Coulomb  | 0                 | 40           |

Results:  
 Analysis Method: spencer  
 Surface Type: Circular  
 Search Method: Grid Search  
 Radius Increment: 10  
 Composite Surfaces: Disabled  
 Reverse Curvature: Invalid Surfaces  
 Minimum Elevation: Not Defined  
 Minimum Depth [J]: 5  
 Minimum Area: Not Defined  
 Minimum Weight: Not Defined  
 Surfaces with a factor of safety below 1.000



## Existing Conditions Seismic

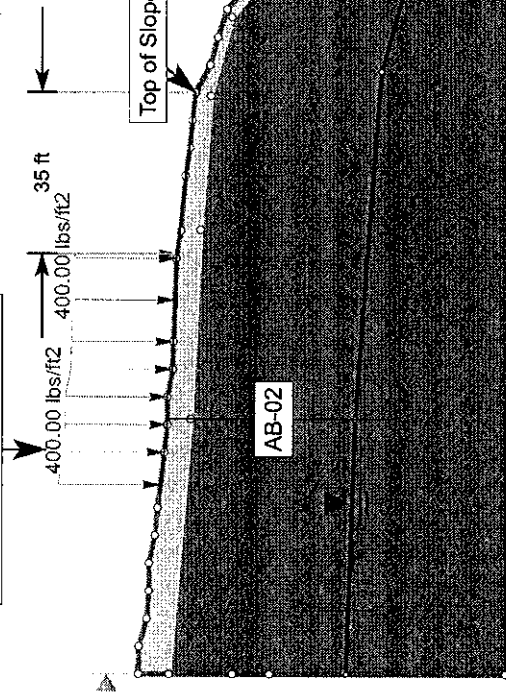
## Slope Stability Analysis

Erickson Apartments  
568 Erickson Apartments

|                      |                 |                                                                                                                                                       |  |                       |                    |                         |
|----------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------|--------------------|-------------------------|
| SLIDEINTERPRET 7.024 | SCALE: 1" = 50' | Aspect<br>CONSULTING                                                                                                                                  |  | 6/18/2018             | BY: NHC            | APPENDIX:<br><b>B-3</b> |
|                      |                 | \\biserver1.aspect.local\projects\GEO\TECH\568 Erickson - Wing Point<br>Properties\Data\Analyses\Slope Stability\568 Erickson SLIDE model 2018.06.sld |  | PROJECT NO.<br>170194 | REVISED BY:<br>AJH |                         |

| Material Name | Color                                                                               | Unit Weight<br>(lbs/ft <sup>3</sup> ) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------|-------------------|--------------|
| Colluvium     |  | 120                                   | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |  | 130                                   | Mohr-Coulomb  | 0                 | 40           |

Proposed Building Surcharge



## Proposed Conditions Model Setup

## Slope Stability Analysis Ericksen Apartments 568 Ericksen Apartments

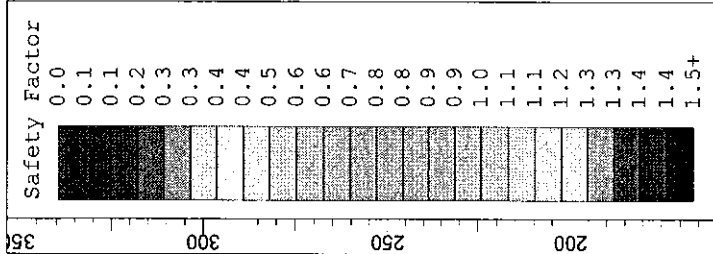


SCALE: 1" = 40'  
\\bisener1.aspect.local\projects\GEO\TECH\568 Ericksen - Wing Point  
Properties Data\Analyses\Slope Stability\568 Ericksen SLIDE model\_2018-06.slm

APPENDIX:  
**B-4**

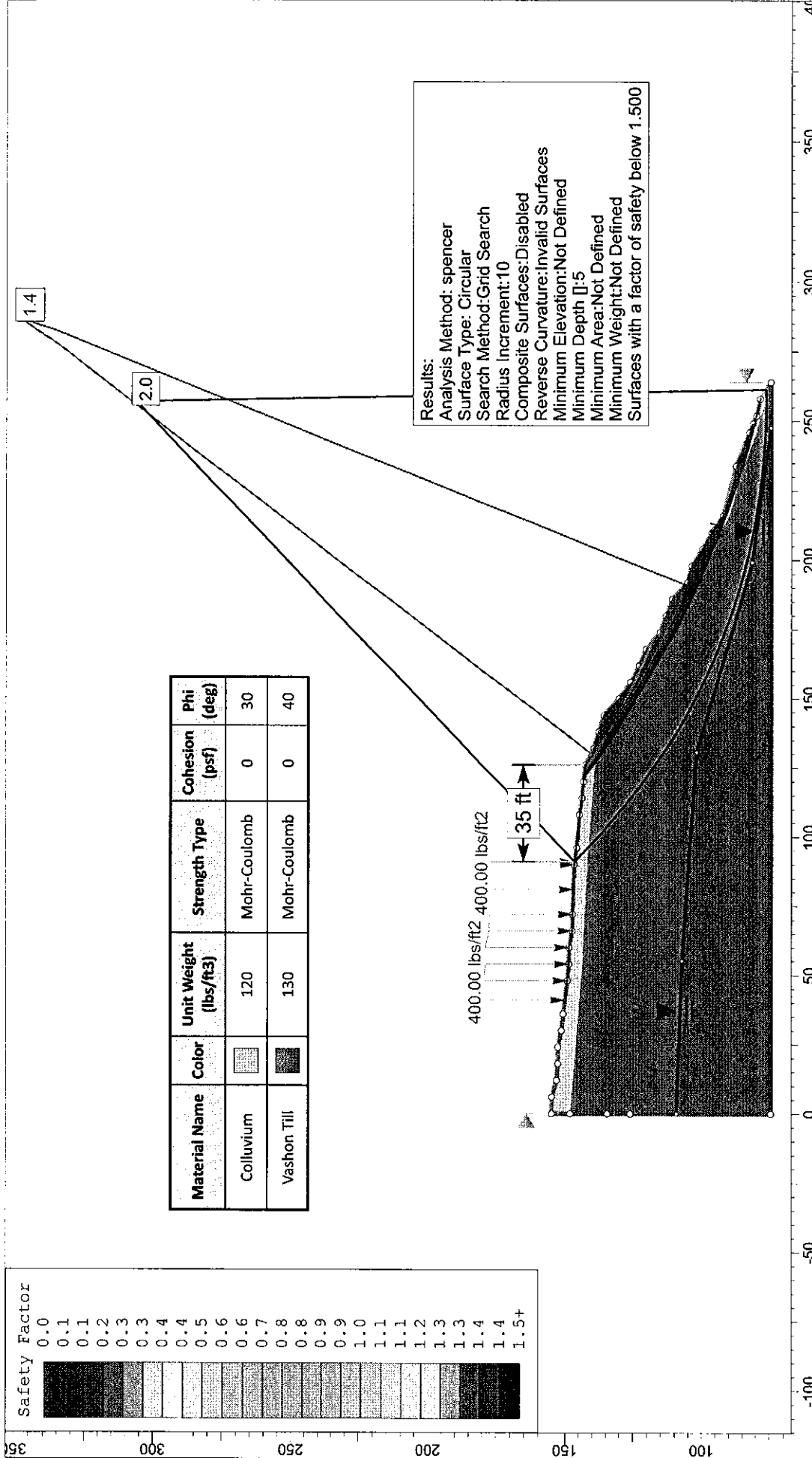
BY: NHC  
REVIEW BY: AIH

6/20/2018  
PROJECT NO.  
170194



| Material Name | Color | Unit Weight<br>(lbs/ft <sup>3</sup> ) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------|---------------------------------------|---------------|-------------------|--------------|
| Colluvium     |       | 120                                   | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |       | 130                                   | Mohr-Coulomb  | 0                 | 40           |

Results:  
 Analysis Method: Spencer  
 Surface Type: Circular  
 Search Method: Grid Search  
 Radius Increment: 10  
 Composite Surfaces: Disabled  
 Reverse Curvature: Invalid Surfaces  
 Minimum Elevation: Not Defined  
 Minimum Depth [J]: 5  
 Minimum Area: Not Defined  
 Minimum Weight: Not Defined  
 Surfaces with a factor of safety below 1.500



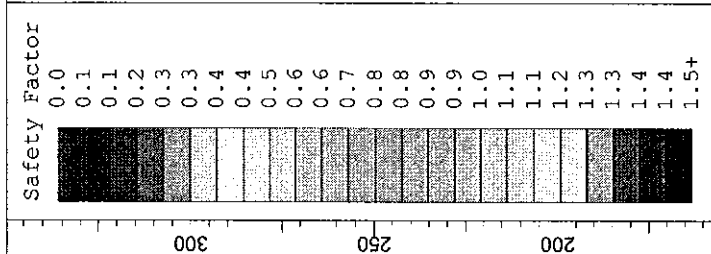
## Proposed Conditions Static Conditions

## Slope Stability Analysis

Ericksen Apartments  
568 Ericksen Apartments

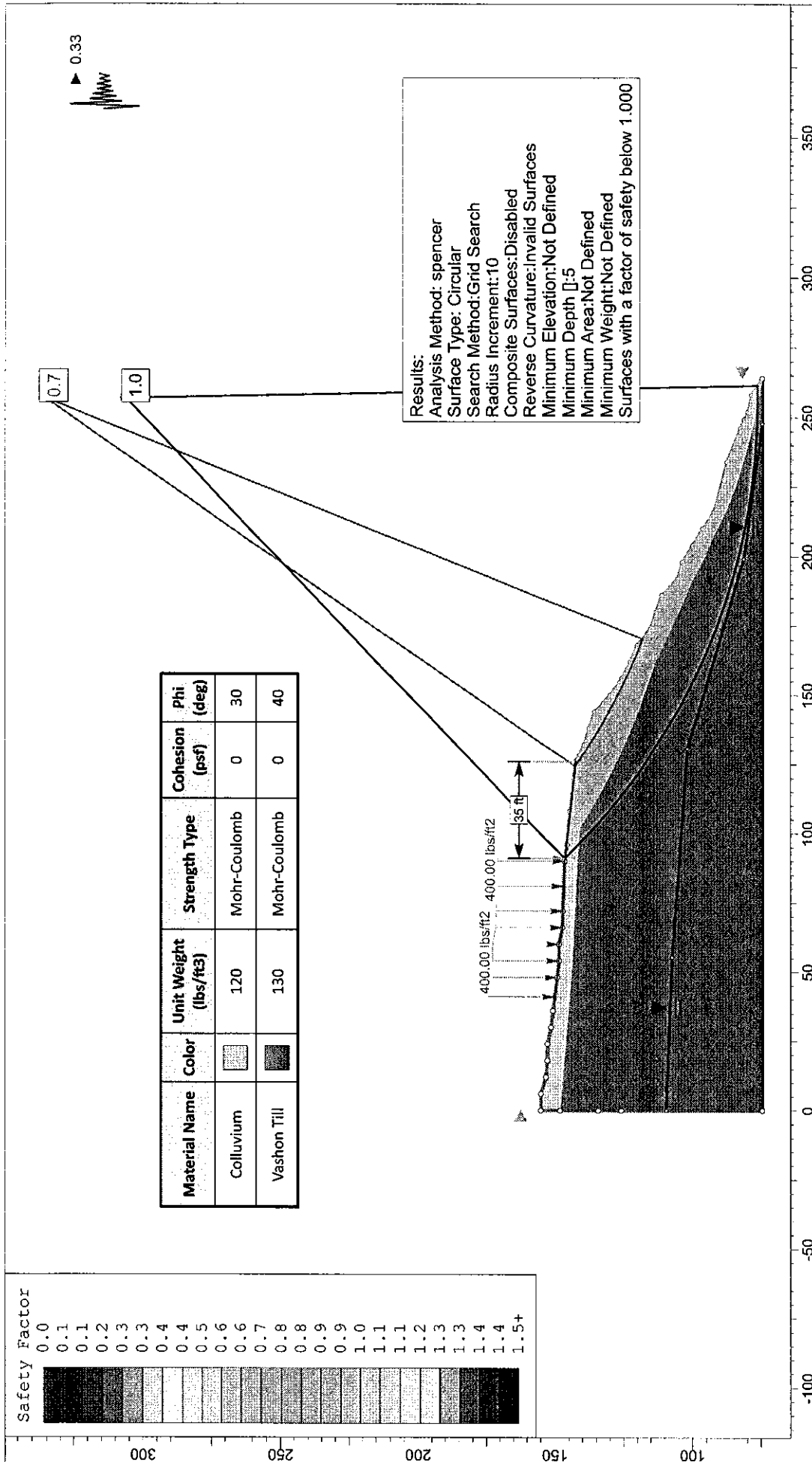
|                      |                   |  |                       |                            |                         |
|----------------------|-------------------|--|-----------------------|----------------------------|-------------------------|
| SLIDEINTERPRET 7.024 | Aspect CONSULTING |  | 6/20/2018             | BY: NHC<br>REVISED BY: AJH | APPENDIX:<br><b>B-5</b> |
|                      | SCALE: 1" = 50'   |  | PROJECT NO:<br>170194 |                            |                         |

\\observer1.aspect.local\projects\GEO\TECH\568 Ericksen - Wing Point  
 Properties>Data\Analyses\Slope Stability\568 Ericksen SLIDE model\_2018-06.slm



| Material Name | Color | Unit Weight<br>(lbs/ft <sup>3</sup> ) | Strength Type | Cohesion<br>(psf) | Phi<br>(deg) |
|---------------|-------|---------------------------------------|---------------|-------------------|--------------|
| Colluvium     |       | 120                                   | Mohr-Coulomb  | 0                 | 30           |
| Vashon Till   |       | 130                                   | Mohr-Coulomb  | 0                 | 40           |

Results:  
 Analysis Method: spencer  
 Surface Type: Circular  
 Search Method: Grid Search  
 Radius Increment: 10  
 Composite Surfaces: Disabled  
 Reverse Curvature: Invalid Surfaces  
 Minimum Elevation: Not Defined  
 Minimum Depth: 5  
 Minimum Area: Not Defined  
 Minimum Weight: Not Defined  
 Surfaces with a factor of safety below 1.000



## Proposed Conditions Seismic Conditions

SCALE: 1" = 50'

\\piscener1.aspect.local\projects\GEO\TECH\568 Erikson - Wing Point  
 Properties Data Analyses\Slope Stability\568 Erikson SLIDE model\_2018-06.slm

## Slope Stability Analysis

Erickson Apartments  
 568 Erikson Apartments

Aspect  
CONSULTING

6/20/2018

PROJECT NO.  
170194

BY:  
NHC

REVIEW BY:  
AJH

APPENDIX:

B-6

## **APPENDIX C**

### **Report Limitations and Guidelines for Use**



# REPORT LIMITATIONS AND GUIDELINES FOR USE

## **This Report and Project-Specific Factors**

---

Aspect Consulting, LLC (Aspect) considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

## **Geoscience Interpretations**

---

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

## **Reliance Conditions for Third Parties**

---

This report was prepared for the exclusive use of the Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual limitations. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and recognized geoscience practices in the same locality and involving similar conditions at the time this report was prepared

## **Property Conditions Change Over Time**

---

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope instability, or groundwater fluctuations. If any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

## **Discipline-Specific Reports Are Not Interchangeable**

---

The equipment, techniques, and personnel used to perform a geotechnical or geologic study differ significantly from those used to perform an environmental study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions, or recommendations (e.g., about the likelihood of encountering underground storage tanks or regulated contaminants). Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

We appreciate the opportunity to perform these services. If you have any questions please contact the Aspect Project Manager for this project.



Wood Environment & Infrastructure Solutions, Inc.  
600 University Street, Suite 600  
Seattle, Washington 98101  
USA  
T: 206-342-1760  
[www.woodplc.com](http://www.woodplc.com)

October 22, 2018

Project No. 5-917-17942-0

Mr. Peter Corelis, PE  
City of Bainbridge Island  
280 Madison Avenue North  
Bainbridge Island, Washington 98110

### Dear Peter:

This letter presents our third-party review of the geotechnical engineering studies for the proposed development of the Ericksen Townhomes, 568 Ericksen Avenue NE, Bainbridge Island, Washington. Specifically, we reviewed the following documents:

- ) Geotechnical Report, Ericksen Ave Development, dated June 21, 2018, by Aspect Consulting, LLC (Aspect); and
- ) Topographic survey titled SW. ¼ NW ¼ Sec. 26, TWP. 25N., RG. 2E., W.M., dated May 4, 2018, by AES Consultants, Inc..
- ) Ericksen Townhomes Site Plan Sheet A-2, dated June 12, 2018, by Wing Point Associates / John Bierly AIA.

The purpose of our review was to evaluate whether the proposed project and the associated geotechnical engineering studies comply with requirements detailed in Section 16.20.130, 16.20.180, and associated subsections of the Bainbridge Island Municipal Code (BIMC).

## Site and project description

The project proposes to construct six townhomes on the western portion of the site. The eastern portion of the site is classified as a Geologic Hazard Area due to a steep slope descending to the Winslow Ravine. The proposed development includes structures closer to the slope than the standard buffer, so a geotechnical assessment was conducted to assess the slope conditions and recommend an appropriate buffer and setback, as we as provide other pertinent geotechnical engineering recommendations.

Subsurface conditions were determined by a site reconnaissance of the site, two exploratory borings at the top of the slope, a review of geologic and shoreline maps. No significant signs of slope instability were documented. The recommended buffer and setback from the top of the slope was determined by slope stability modeling.

## Review comments

Wood Environment & Infrastructure Solutions, Inc., reviewed the geotechnical engineering studies and the site plans to determine if the report meets the criteria specified within Subsection 16.20.180(E). This subsection details the minimum requirements for a critical areas assessment and geotechnical reports to be submitted for proposed developments in the Geologically Hazardous Areas.



Mr. Paul Nylund, M.S., E.I.T.  
City of Bainbridge Island  
October 22, 2018  
Page 2 of 2

We found Aspect's investigation, engineering, and recommendations to be thorough and sufficient for the proposed site development. We have two comments for consideration during final design and permitting.

1. We agree with Aspect's recommendation that they review the final plans to verify that the design incorporated their recommendations.
2. Aspect should review the final stormwater design relative the the geologic hazard. For instance, rather than digging a trench down the steep slope for the stormwater overflow pipe, the design could consider anchoring a HDPE pipe to the surface of the slope.

## Closure

It should be noted that our scope of work for this letter was limited to a review of the documents supplied to us. Our scope did not include a site visit, exploration of actual subsurface conditions, nor does our review purport to verify the accuracy of the geotechnical engineering results presented within the documents.

We hope this letter meets your current needs. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

**Wood Environment & Infrastructure Solutions, Inc.**



Todd D. Wentworth, P.E., L.G.  
Associate Geotechnical Engineer  
Direct Tel: (425) 368-0938  
E-mail: Todd.Wentworth@woodplc.com

TDW:





ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

*BAINBRIDGE ISLAND, WA*



RECEIVED

AUG 29 2018

Planning and  
Community Development

Prepared for: Mr. John Bierly, AIA  
Wing Point Properties, LLC  
321 High School Rd NE, Ste D3  
Bainbridge Island, WA 98110

August 2018



ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

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# ERICKSEN TOWNHOMES TRAFFIC IMPACT ANALYSIS

## 1. INTRODUCTION

The main goals of this study focus on the assessment of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information on the roadways serving the site, baseline conditions, and entering sight distance data. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. As a final step, appropriate conclusions and mitigation measures are defined if needed.

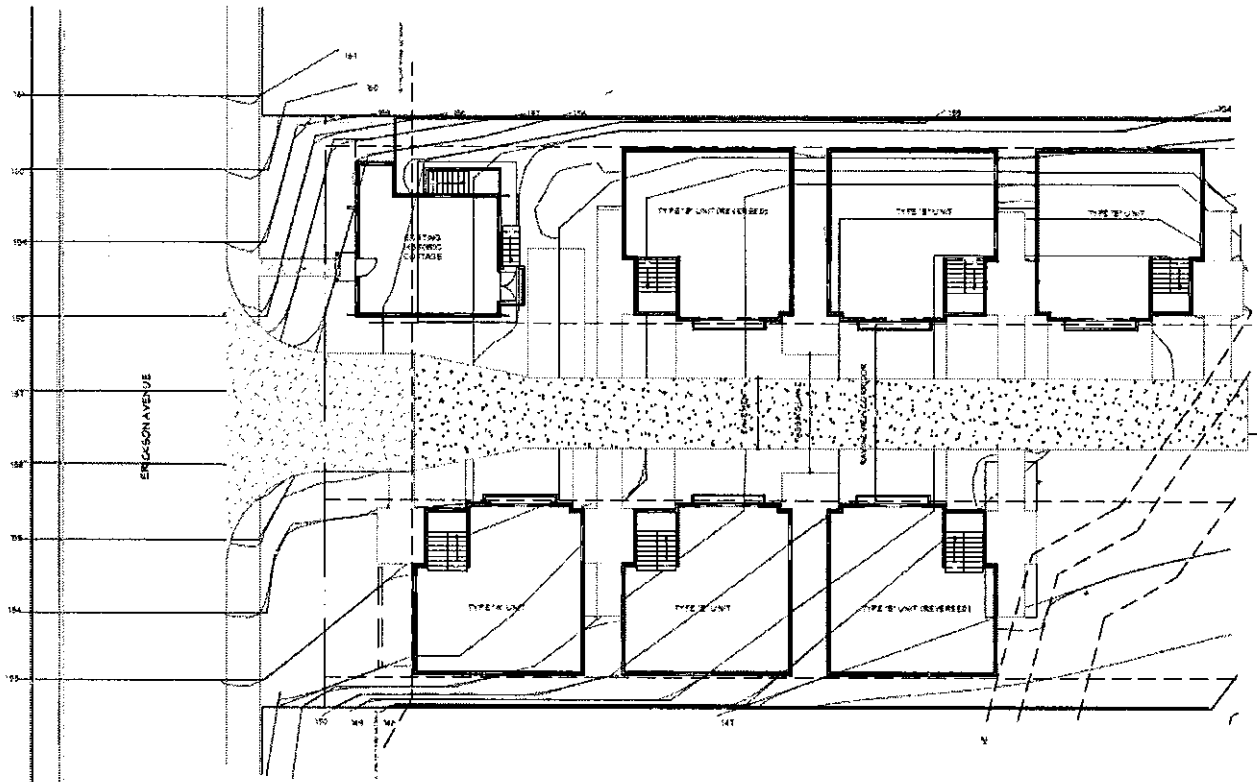
## 2. PROJECT DESCRIPTION

Erickson Townhomes proposes for the construction of 6 new residential units in the City of Bainbridge Island. The subject site is situated on the east side of Ericksen Avenue NE on a 0.44-acre parcel (262502-2-051-2009). The property is presently occupied with one existing cottage on the northwest corner and is proposed to remain for a total of 7 units accessing the site. The general vicinity of the site location and adjacent roadway network is illustrated in Figure 1 below.

Access to the property is proposed via one driveway extending east from Ericksen Avenue NE. A site plan illustrating the overall configuration of the project is presented in Figure 2. Horizon years of 2021 (buildout) and 2035 (long-range) were assessed to analyze future roadway conditions and potential project impacts, if any.

**Figure 1: Site Vicinity – Aerial View**





**HEATH & ASSOCIATES**  
TRAFFIC AND CIVIL ENGINEERING

**ERICKSEN TOWNHOMES**  
SITE PLAN  
FIGURE 2

### 3. EXISTING CONDITIONS

#### 3.1 Surrounding Roadway System

Roadways serving the site consist of arterials and local residential roadways. The key streets in the vicinity and described below.

*Ericksen Avenue NE:* is a two-lane, north-south collector that borders the west side of the project frontage. The roadway has a posted speed limit of 25 mph with 10-foot wide travel lanes. Bicycle facilities are offered along either side of the roadway and sidewalks are present on the west side.

*Wyatt Way NE:* is a two-lane, east-west collector that is located to the south of the site. The roadway has a posted speed limit of 25 mph with 10-foot wide travel lanes. Sidewalks are generally present on at least one side of the roadway. On-street parking is offered in some areas.

*Knechtel Way NE:* is a two lane, east-west local access that is located to the north of the site. Travel lanes are approximately 10 feet in width with curb, gutter, and sidewalk available. The local roadway has a speed limit of 25 mph and on-street parking is offered in some areas.

#### 3.2 Existing Peak Hour Volumes and Patterns

Field data for this study was obtained and collected in August of 2018. Traffic counts were taken at the primary intersections of interest – Ericksen Avenue NE / Wyatt Way NE and Ericksen Avenue NE / Knechtel Way NE – which would receive the bulk of vehicular impacts. Field data was collected from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. to capture roadway volumes at peak conditions. The one-hour (peak hour) reflecting highest overall volumes for each a.m. and p.m. scenario is then used for capacity and delay analysis to depict worst case conditions. Figure 3 on the following page shows the existing weekday peak hour volumes at the intersections of study.

#### 3.3 Roadway Improvements

A review of the 2017 to 2022 City of Bainbridge Island Capital Improvement Program indicates an improvement project is planned in the vicinity.

##### *Wyatt Way Reconstruction Phase 1*

The scope of this project intends to reconstruct and improve the existing Wyatt Way segment from Madison Avenue to Lovell Avenue. Included are sidewalk and bicycle facilities on both sides of the street and capacity improvements to the intersection of Wyatt Way/Madison Avenue. Intersection improvements are planned with either signalization or a roundabout.

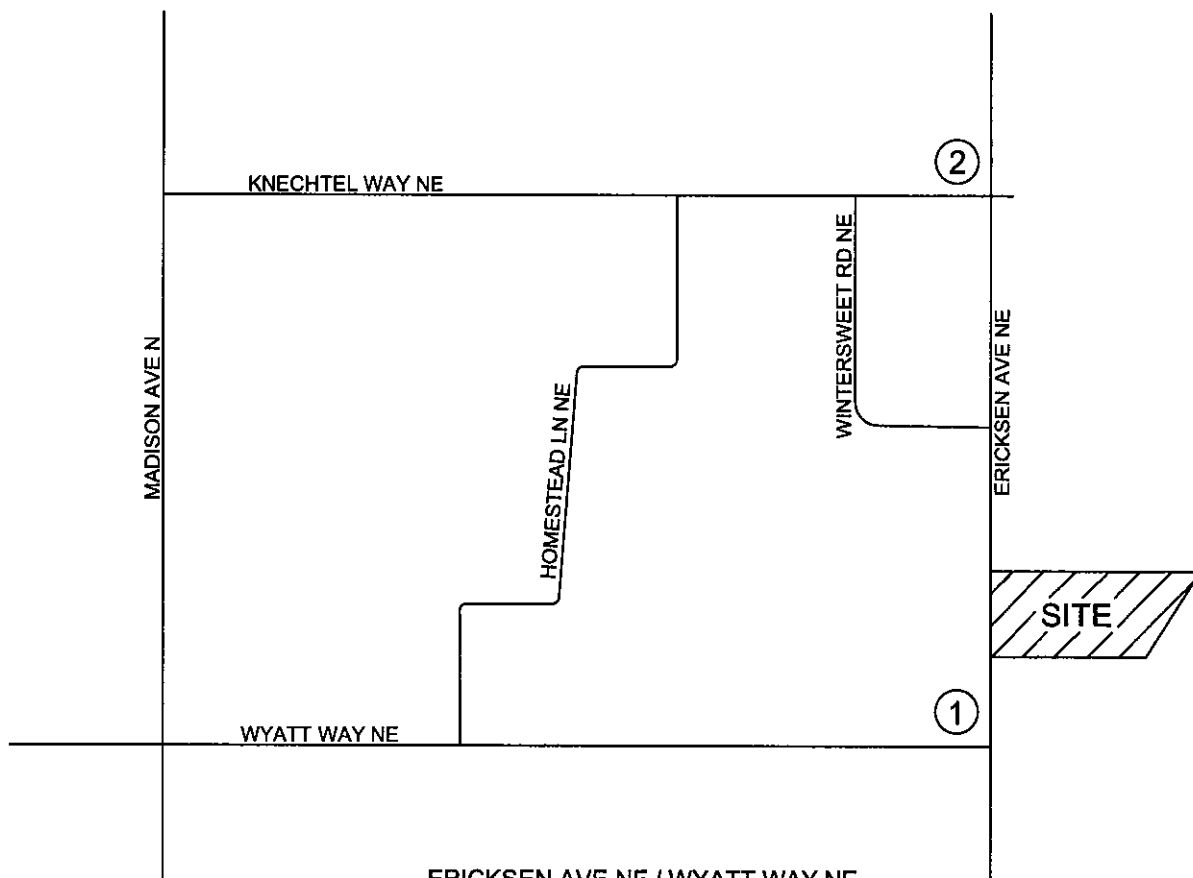
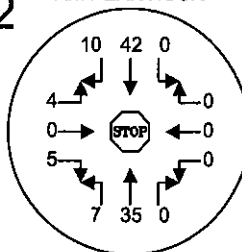
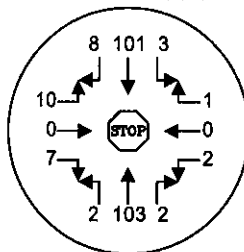


# ERICKSEN AVE NE / KNECHTEL WAY NE

PM PEAK HOUR

2

AM PEAK HOUR

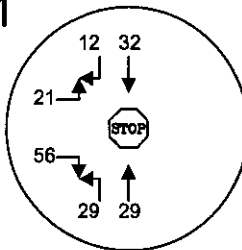
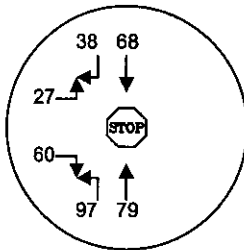


## ERICKSEN AVE NE / WYATT WAY NE

PM PEAK HOUR

1

AM PEAK HOUR



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ERICKSEN TOWNHOMES  
EXISTING PEAK HOUR VOLUMES  
FIGURE 3



### 3.4 Existing Level of Service

Peak hour delays were determined through the use of the *Highway Capacity Manual* 6th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range<sup>1</sup> for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. Level of service calculations were made through the use of the Synchro 10 analysis program. Table 1 below summarizes LOS calculated for the key intersections serving the site.

**Table 1**  
Existing Level of Service  
*Delays given in seconds per vehicle*

| Erickson Avenue NE at | Control | AM Peak Hour |       | PM Peak Hour |       |
|-----------------------|---------|--------------|-------|--------------|-------|
|                       |         | LOS          | Delay | LOS          | Delay |
| Wyatt Way NE          | AWSC    | A            | 7.3   | A            | 8.5   |
| Knechtel Way NE       | Stop    | A            | 9.1   | A            | 9.8   |

(AWSC: All-Way Stop Control)

As shown in the table, existing peak hour delays operate at LOS A for all scenarios indicating intersections operating satisfactorily. Drivers would experience minimal wait times before proceeding through the intersection control. The subject property is situated within the City's Winslow area which has an adopted LOS standard of LOS D for arterials and collectors and LOS C for local roadways<sup>2</sup>. Based on the analysis above intersections currently meet the City standards.

#### <sup>1</sup> Signalized Intersections - Level of Service

| Level of Service | Control Delay per Vehicle (sec) |
|------------------|---------------------------------|
| A                | ≤ 10                            |
| B                | > 10 and ≤ 20                   |
| C                | > 20 and ≤ 35                   |
| D                | > 35 and ≤ 55                   |
| E                | > 55 and ≤ 80                   |
| F                | > 80                            |

Highway Capacity Manual, 6th Edition

#### Stop Controlled Intersections - Level of Service

| Level of Service | Control Delay per Vehicle (sec) |
|------------------|---------------------------------|
| A                | ≤ 10                            |
| B                | > 10 and ≤ 15                   |
| C                | > 15 and ≤ 25                   |
| D                | > 25 and ≤ 35                   |
| E                | > 35 and ≤ 50                   |
| F                | > 50                            |

<sup>2</sup> Island Wide Transportation Study, Chapter 3: Operations and Mobility. Bainbridge Island, 2016

### 3.5 Pedestrian and Bicycle Activity

A significant amount of non-motorist activity was observed during field data acquisition. Notably, Ericksen Avenue NE was shown to support high volumes of bicycle activity; however, the roadway offers 4-5-foot wide shoulders along either side to minimize conflicts between motorists. In addition, the surrounding area offers a robust network of pedestrian infrastructure. The vehicular volumes captured in the field data suggests no adverse impacts are anticipated to pedestrian and bicycle safety and/or level of service.

### 3.6 Public Transit

A review of the Kitsap Transit regional bus schedule indicates transit is provided to the area. The nearest stop is located at the intersection of Madison Avenue N / Knechtel Way NE via Routes 90, 98 and 99 approximately 1,200 feet to the west of the subject site. Route 90 provides service from the Bainbridge Island Ferry Terminal to the North Viking Transit Center in Poulsbo from 6:15 AM to 7:50 PM. Route 98 provides service from the Fort Ward & State Park Entrance intersection to the Bainbridge Island Ferry from 5:42 AM to 8:10 PM. Route 99 provides service from the Eagle Harbor Drive NE & New Sweden Road NE intersection to the Bainbridge Island Ferry from 4:29 AM to 7:27 PM. Refer to the Kitsap Transit schedule for detailed route information. In addition, the Bainbridge Island Ferry Terminal is located approximately half a mile from the site.

### 3.7 Sight Distance at Access Driveways

As shown in the site plan (see Figure 2), one entrance on Ericksen Avenue NE is proposed for all 7 units. Assessments of the approximate driveway location were made to determine whether adequate entering sight (ESD) can be met for project traffic to safely enter the roadway. Sight distance requirements were obtained from the *American Association of State Highway and Transportation Officials* (AASHTO) standards for left- and right-turn movements. Based on the 25 mph speed limit on Ericksen Avenue NE, 280 and 240 feet of unobstructed view would be needed for left- and right turn movements, respectively. Preliminary examinations indicate that sight distance would be met at the proposed access location with distances exceeding 300 feet in either direction. Slight vertical grades existing along Ericksen Avenue NE become the limiting factor when looking north. No safety issues are detected with the proposed entrance layout.

### 3.8 Accident History

A list of the recorded accident history from 2015 through July of 2018 for the intersections of study was provided by WSDOT. A summary of the accident totals per year is given below in Table 2.

**Table 2**  
Accident History  
2015-2018 (WSDOT)

| <b>Ericksen Avenue NE at</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018<br/>Thru July</b> | <b>Avg/yr</b> |
|------------------------------|-------------|-------------|-------------|---------------------------|---------------|
| Wyatt Way NE                 | 2           | 0           | 0           | 1                         | 0.84          |
| Knechtel Way NE              | 1           | 1           | 0           | 0                         | 0.56          |

Reviewing descriptions from the report summaries indicate the types of crashes were in the form of: left turn maneuvers (2), parking related (2), and pedestrian related (1). No fatalities were recorded. The collision with the pedestrian was attributed to driver inattention and failure to grant right-of-way to the pedestrian as opposed to inefficient visibility or other roadway design aspect. The number of recorded accidents does not suggest any safety-related inefficiencies with respect to the surrounding roadway network.

## 4. FUTURE TRAFFIC DEMAND

### 4.1 Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. Data presented in this report was taken from the Institute of Transportation Engineer's publication *Trip Generation*, 10th Edition. The designated land use for the site is defined as Single-Family Detached Housing (LUC 210). Dwelling units was used at the independent variable and average rates were used for trip determination. Data for the peak hours are shown below in Table 3. It should be noted that the existing unit on-site was include in calculations. Given are average weekday daily traffic (AWDT), AM peak hour, and PM peak hour volumes.

**Table 3**  
Project Trip Generation

| <b>Land Use</b> | <b>Units</b> | <b>AWDT</b> | <b>AM Peak-Hour Trips</b> |            |              | <b>PM Peak-Hour Trips</b> |            |              |
|-----------------|--------------|-------------|---------------------------|------------|--------------|---------------------------|------------|--------------|
|                 |              |             | <b>In</b>                 | <b>Out</b> | <b>Total</b> | <b>In</b>                 | <b>Out</b> | <b>Total</b> |
| Residential     | 7            | 66          | 1                         | 4          | 5            | 4                         | 3          | 7            |

## 4.2 Trip Distribution

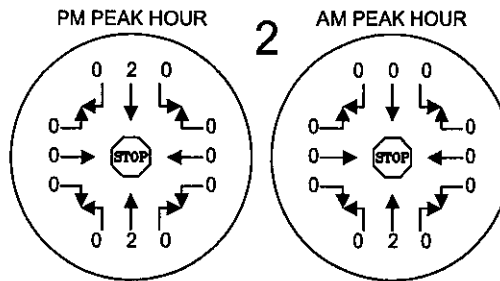
Trip distribution describes the process by which project generated trips are dispersed on the street network surrounding the site. The specific destinations and origins of the generated traffic primarily influences the key intersections, which will effectively receive the bulk of project impacts. The trips generated by the project are expected to follow the general trip pattern as shown in Figure 4. Percentages are primarily based on existing travel patterns identified from the field counts and location of nearby major arterials. Roughly half of the trips are anticipated to travel to/from the north and half to/from the south.

## 4.3 Future Traffic Volumes With and Without the Project

A horizon year of 2021 was used for future traffic delay analysis to reflect conditions at the time of project buildout. A long-term horizon year of 2035 was used to assess, if any, potential adverse impacts to the intersections of study. Forecast background volumes were derived by applying a one percent compound annual growth rate to the existing volumes shown in Figure 3. This growth rate has been determined appropriate for the area and has been used in similar projects in the past. Forecast 2021 peak hour volumes with the addition of project traffic are illustrated in Figure 5. Forecast 2035 peak hour volumes with project traffic are illustrated in Figure 6.



### ERICKSEN AVE NE / KNECHTEL WAY NE



MADISON AVE N

KNECHTEL WAY NE

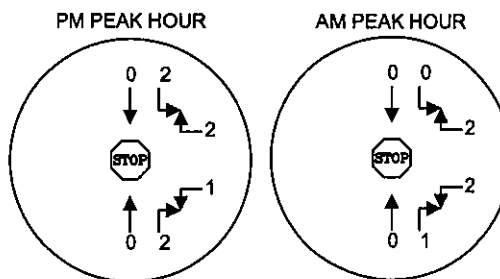
②

50%

WINTERSWEET RD NE

ERICKSEN AVE NE

### PROJECT ENTRANCE



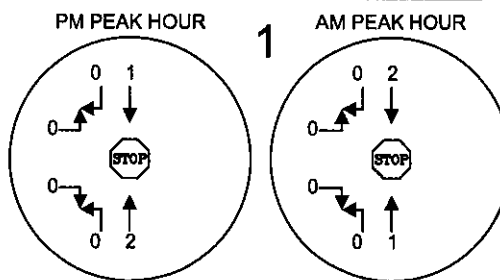
①

50%

SITE

WYATT WAY NE

### ERICKSEN AVE NE / WYATT WAY NE



#### AM PEAK HOUR TRIPS

INBOUND: 1 VPH  
OUTBOUND: 4 VPH

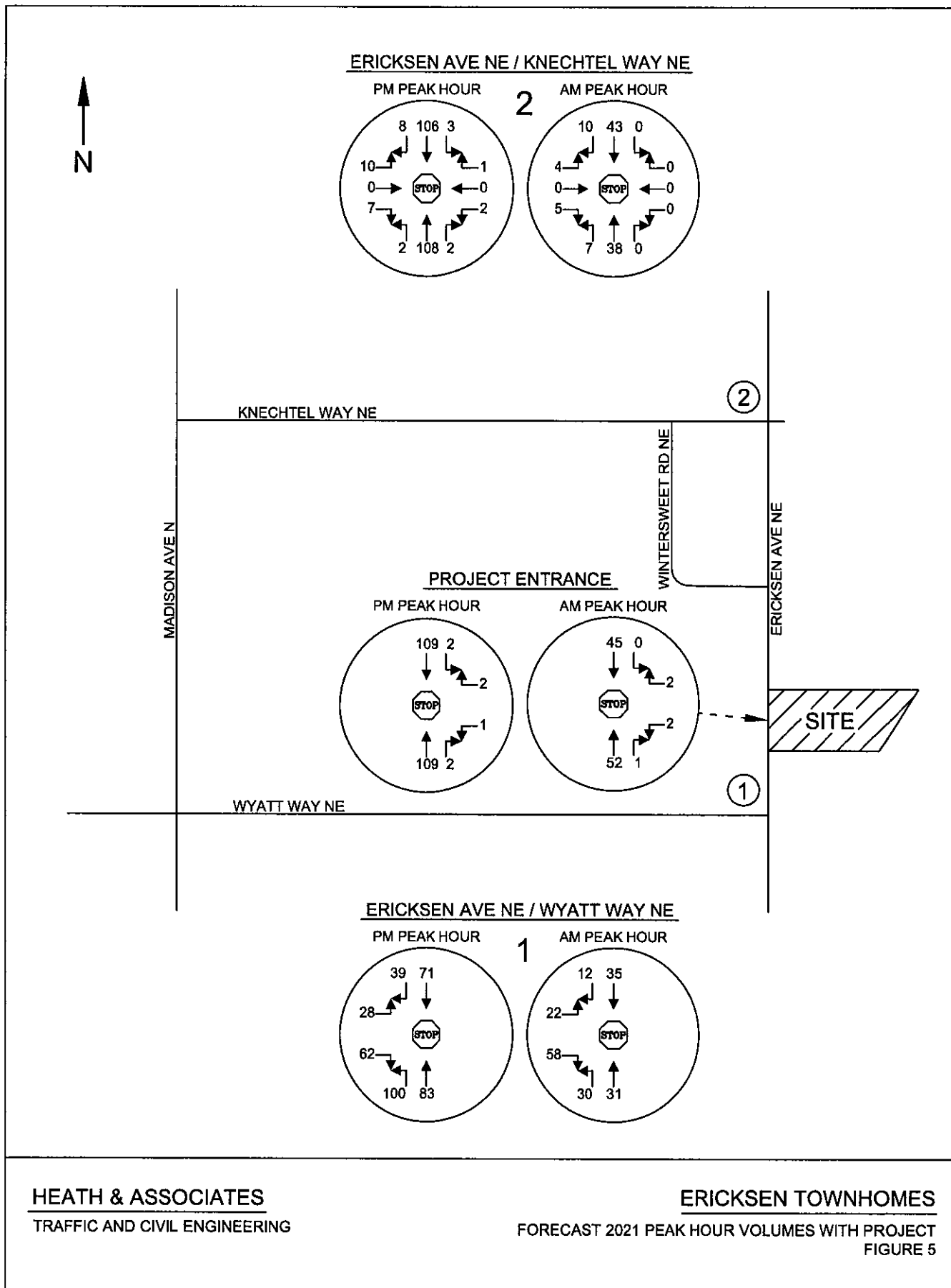
#### PM PEAK HOUR TRIPS

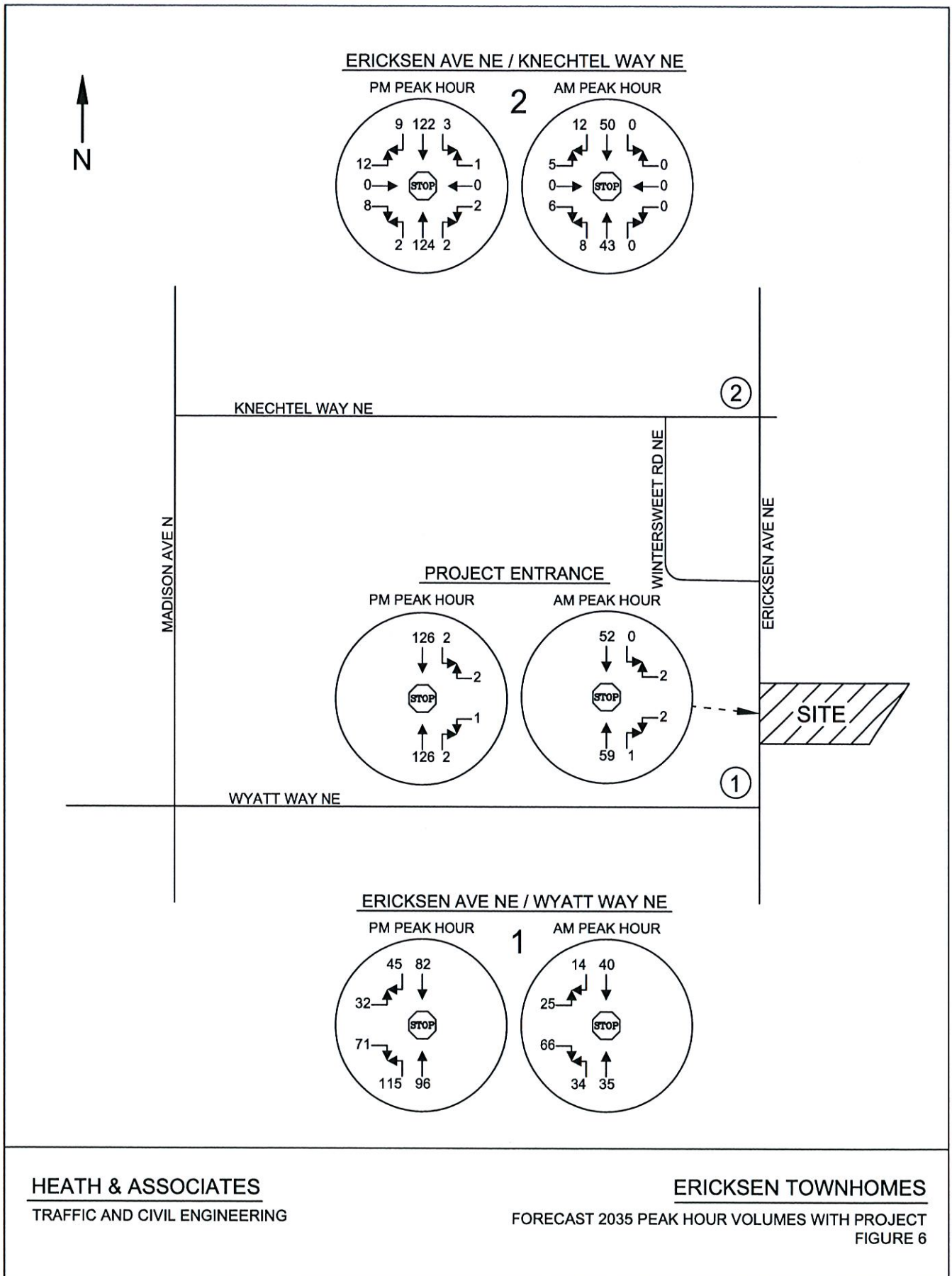
INBOUND: 4 VPH  
OUTBOUND: 3 VPH

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**ERICKSEN TOWNHOMES**  
TRIP DISTRIBUTION - PEAK HOURS  
FIGURE 4







#### 4.4 Future Level of Service

Level of service analyses were made of the future AM and PM peak hour volumes with project-generated trips for the 2021 and 2035 horizon years. This analysis once again involved the use of the Synchro 10 analysis program. Delays for the key intersections under future conditions are shown below in Table 4 for the 2021 build-out scenario the long-term 2035 horizon year.

**Table 4**  
Forecast Level of Service with Project  
*Delays given in seconds per vehicle*

| Ericksen Avenue NE at | Horizon Year | Control | AM Peak Hour |       | PM Peak Hour |       |
|-----------------------|--------------|---------|--------------|-------|--------------|-------|
|                       |              |         | LOS          | Delay | LOS          | Delay |
| Wyatt Way NE          | 2021         | AWSC    | A            | 7.4   | A            | 8.7   |
|                       | 2035         |         | A            | 7.4   | A            | 9.1   |
| Knechtel Way NE       | 2021         | Stop    | A            | 9.2   | A            | 9.9   |
|                       | 2035         |         | A            | 9.3   | B            | 10.1  |
| Project Access        | 2021         | Stop    | A            | 8.9   | A            | 9.5   |
|                       | 2035         |         | A            | 9.0   | A            | 9.7   |

(AWSC: All-Way Stop Control)

As shown in Table 4, forecast delays are anticipated to remain mild for all scenarios and intersections of study. The intersections are shown to have adequate capacity to support the incoming project's vehicular demands with little to no adverse impacts. Forecast LOS will continue meeting City standards.

#### 4.5 Turn Lane Warrants

Left turn warrants were analyzed at the project's entrance on Ericksen Avenue NE to determine if storage capacity is needed for left turning vehicles. Procedures described in WSDOT's Design Manual (Figure 1310-7a) were used to ascertain left turn requirements under forecast 2035 PM peak hour conditions. Based on the assessment criteria, a left turn lane *would not be warranted*. The applicable warrant sheet has been included in the appendix.

## **5. CONCLUSIONS AND MITIGATION**

Ericksen Townhomes proposes for the construction of 6 new residential units in the City of Bainbridge Island. The subject property is located on the east side of Ericksen Avenue NE on parcel 262502-2-051-2009. An existing dwelling unit will remain for a total of 7 units on-site. Access is proposed via one entrance on Ericksen Avenue NE as shown in the site plan (Figure 2). The project is anticipated to generate approximately 66 average weekday daily trips, 5 AM peak hour and 7 PM peak hour trips.

Existing and Forecast 2021 & 2035 delay analyses indicate that all intersections of study will remain meeting the City's LOS standards. The adjacent roadways are shown to have sufficient capacity to support the project's demands. Similarly, the proposed access is anticipated to operate at LOS A or better for all scenarios. A left turn lane on Ericksen Avenue NE at the project's entrance is not warranted based on 2035 PM peak hour volumes.

Based on the findings of the report the recommended mitigation for the site is as follows:

1. Pay traffic impacts fees per net new dwelling unit to the City of Bainbridge Island per Ordinance No. 2015-07. Exact fees and calculations will be determined by the City.

No other mitigation is identified at this time.

ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

APPENDIX



## LEVEL OF SERVICE

The following are excerpts from the *2010 Highway Capacity Manual - Transportation Research Board Special Report 209*.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

### Level-of-Service definitions

The following definitions generally define the various levels of service for arterials.

*Level of service A represents* primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at signalized intersections is minimal.

*Level of service B represents* reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver in the traffic stream is only slightly restricted and delays are not bothersome.

*Level of service C represents* stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial classification.

*Level of service D borders on* a range in which small increases in flow may cause substantial increases in approach delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.

*Level of service E is characterized by* significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of

adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

*Level of service F* characterizes arterial flow at extremely low speeds, from less than one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with long delays and extensive queuing.

These definitions are general and conceptual in nature, and they apply primarily to uninterrupted flow. Levels of service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

For each type of facility, levels of service are defined based on one or more operational parameters that best describe operating quality for the subject facility type. While the concept of level of service attempts to address a wide range of operating conditions, limitations on data collection and availability make it impractical to treat the full range of operational parameters for every type of facility. The parameters selected to define levels of service for each facility type are called "measures of effectiveness" or "MOE's", and represent available measures that best describe the quality of operation on the subject facility type.

Each level of service represents a range of conditions, as defined by a range in the parameters given. Thus, a level of service is not a discrete condition, but rather a range of conditions for which boundaries are established.

**Heath & Associates, Inc.**  
**2214 Tacoma Road**  
**Puyallup, WA 98371**

**Project Name: Ericksen Townhomes**

**Intersection: Wyatt Way NE & Ericksen Ave**

**Jurisdiction: City of Bainbridge**

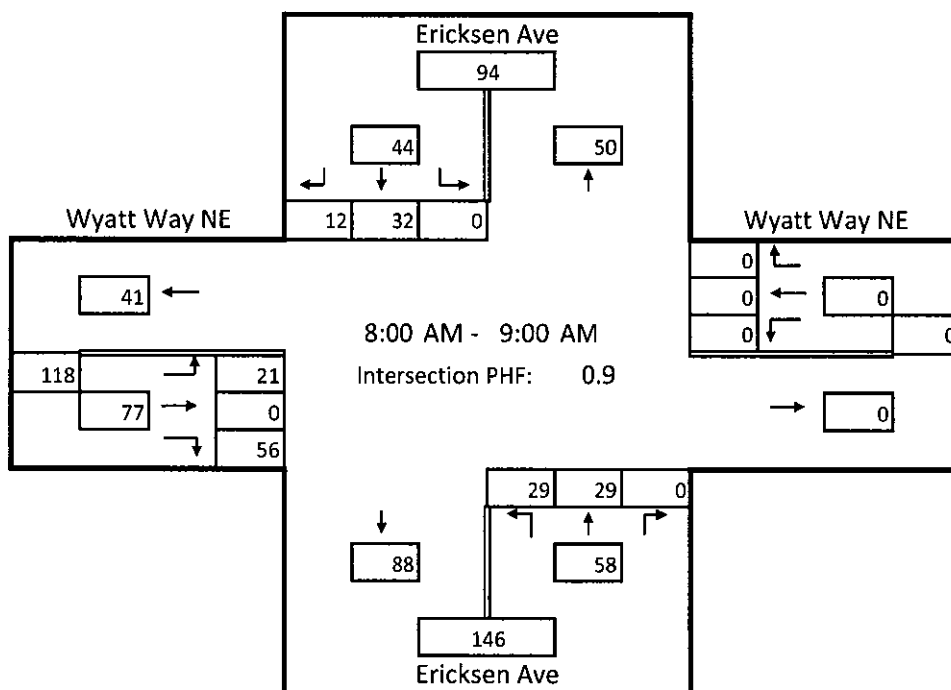
**Date of Count: 8/8/2018**

**Project Number: 4161**

| Time Period | Southbound<br>Ericksen Ave |   |    |   | Westbound<br>Wyatt Way NE |   |   |   | Northbound<br>Ericksen Ave |   |    |    | Eastbound<br>Wyatt Way NE |    |   |    | Total |
|-------------|----------------------------|---|----|---|---------------------------|---|---|---|----------------------------|---|----|----|---------------------------|----|---|----|-------|
|             | HV                         | R | T  | L | HV                        | R | T | L | HV                         | R | T  | L  | HV                        | R  | T | L  |       |
| 7:00 AM     | 0                          | 1 | 3  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 3  | 5  | 0                         | 7  | 0 | 2  | 21    |
| 7:15 AM     | 0                          | 1 | 8  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 2  | 1  | 0                         | 12 | 0 | 1  | 25    |
| 7:30 AM     | 0                          | 2 | 7  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 3  | 5  | 0                         | 27 | 0 | 2  | 46    |
| 7:45 AM     | 0                          | 2 | 5  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 2  | 4  | 1                         | 18 | 0 | 5  | 36    |
| 8:00 AM     | 0                          | 2 | 9  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 6  | 5  | 0                         | 7  | 0 | 6  | 35    |
| 8:15 AM     | 1                          | 3 | 6  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 10 | 6  | 0                         | 22 | 0 | 2  | 49    |
| 8:30 AM     | 0                          | 5 | 4  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 5  | 12 | 0                         | 21 | 0 | 3  | 50    |
| 8:45 AM     | 0                          | 2 | 13 | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 8  | 6  | 0                         | 6  | 0 | 10 | 45    |

|              |   |    |    |   |   |   |   |   |   |   |    |    |   |     |   |    |     |
|--------------|---|----|----|---|---|---|---|---|---|---|----|----|---|-----|---|----|-----|
| <b>Total</b> | 1 | 18 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 44 | 1 | 120 | 0 | 31 | 307 |
|--------------|---|----|----|---|---|---|---|---|---|---|----|----|---|-----|---|----|-----|

|                   |                           |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    |              |
|-------------------|---------------------------|----|----|---|------|---|---|---|------|---|----|----|------|----|---|----|--------------|
| <b>Peak Hour</b>  | <b>8:00 AM to 9:00 AM</b> |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 1                         | 12 | 32 | 0 | 0    | 0 | 0 | 0 | 0    | 0 | 29 | 29 | 0    | 56 | 0 | 21 | 179          |
| <b>Heavy Veh.</b> | 1.4%                      |    |    |   | 0.0% |   |   |   | 0.0% |   |    |    | 0.7% |    |   |    |              |
| <b>PHF</b>        | 0.73                      |    |    |   | 0.00 |   |   |   | 0.85 |   |    |    | 0.80 |    |   |    |              |



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**Project Name: Ericksen Townhomes**

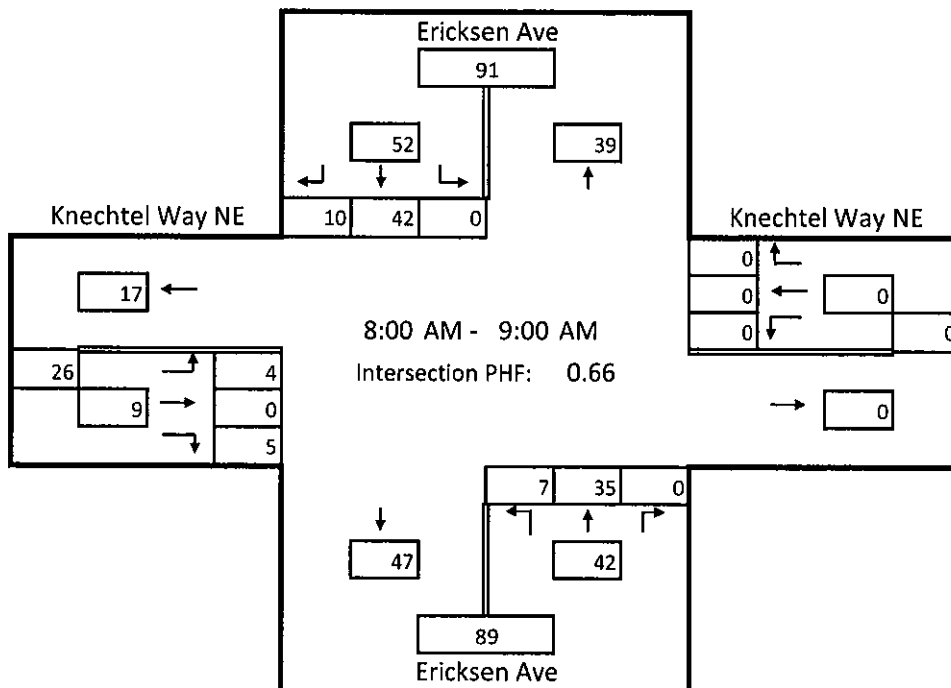
**Intersection: Knechtel Way NE & Ericksen Ave**

**Jurisdiction: City of Bainbridge**

**Date of Count: 8/8/2018**

**Project Number: 4161**

| Time Period       | Southbound<br>Ericksen Ave |           |           |          | Westbound<br>Knechtel Way NE |          |          |          | Northbound<br>Ericksen Ave |          |           |          | Eastbound<br>Knechtel Way NE |          |          |          | Total        |
|-------------------|----------------------------|-----------|-----------|----------|------------------------------|----------|----------|----------|----------------------------|----------|-----------|----------|------------------------------|----------|----------|----------|--------------|
|                   | HV                         | R         | T         | L        | HV                           | R        | T        | L        | HV                         | R        | T         | L        | HV                           | R        | T        | L        |              |
| 7:00 AM           | 0                          | 1         | 4         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 5         | 0        | 0                            | 1        | 0        | 2        | 13           |
| 7:15 AM           | 0                          | 0         | 7         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 2         | 1        | 0                            | 2        | 0        | 1        | 13           |
| 7:30 AM           | 1                          | 0         | 10        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 6         | 0        | 0                            | 0        | 0        | 0        | 17           |
| 7:45 AM           | 0                          | 2         | 8         | 0        | 0                            | 0        | 0        | 0        | 0                          | 1        | 6         | 0        | 0                            | 1        | 0        | 0        | 18           |
| 8:00 AM           | 0                          | 0         | 9         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 7         | 1        | 0                            | 3        | 0        | 1        | 21           |
| 8:15 AM           | 1                          | 4         | 11        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 6         | 3        | 0                            | 0        | 0        | 0        | 25           |
| 8:30 AM           | 0                          | 2         | 6         | 0        | 0                            | 0        | 0        | 0        | 1                          | 0        | 7         | 2        | 0                            | 1        | 0        | 0        | 19           |
| 8:45 AM           | 0                          | 4         | 16        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 15        | 1        | 0                            | 1        | 0        | 3        | 40           |
| <b>Total</b>      | <b>2</b>                   | <b>13</b> | <b>71</b> | <b>0</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                   | <b>1</b> | <b>54</b> | <b>8</b> | <b>0</b>                     | <b>9</b> | <b>0</b> | <b>7</b> | <b>166</b>   |
| <b>Peak Hour</b>  | <b>8:00 AM to 9:00 AM</b>  |           |           |          |                              |          |          |          |                            |          |           |          |                              |          |          |          | <b>Total</b> |
| <b>Peak Total</b> | <b>1</b>                   | <b>10</b> | <b>42</b> | <b>0</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                   | <b>0</b> | <b>35</b> | <b>7</b> | <b>0</b>                     | <b>5</b> | <b>0</b> | <b>4</b> | <b>103</b>   |
| <b>Heavy Veh.</b> | <b>2.4%</b>                |           |           |          | <b>0.0%</b>                  |          |          |          | <b>1.6%</b>                |          |           |          | <b>0.0%</b>                  |          |          |          |              |
| <b>PHF</b>        | <b>0.65</b>                |           |           |          | <b>0.00</b>                  |          |          |          | <b>0.66</b>                |          |           |          | <b>0.56</b>                  |          |          |          |              |



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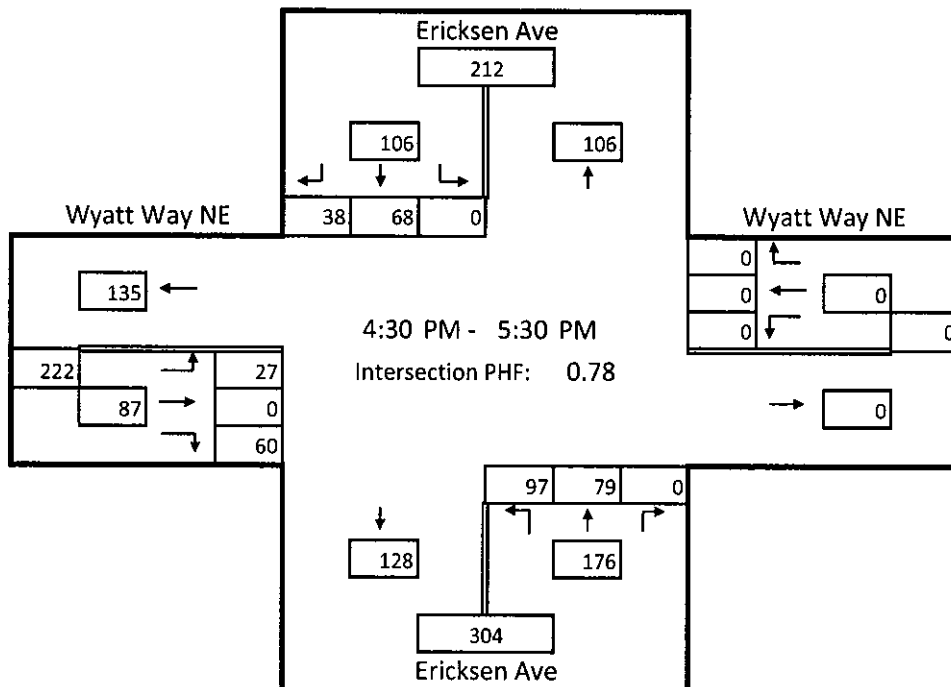
**Jurisdiction: City of Bainbridge**

**Date of Count: 8/7/2018**

**Project Number: 4161**

| Time Period  | Southbound<br>Ericksen Ave |           |            |          | Westbound<br>Wyatt Way NE |          |          |          | Northbound<br>Ericksen Ave |          |            |            | Eastbound<br>Wyatt Way NE |           |          |           | Total      |
|--------------|----------------------------|-----------|------------|----------|---------------------------|----------|----------|----------|----------------------------|----------|------------|------------|---------------------------|-----------|----------|-----------|------------|
|              | HV                         | R         | T          | L        | HV                        | R        | T        | L        | HV                         | R        | T          | L          | HV                        | R         | T        | L         |            |
| 4:00 PM      | 0                          | 4         | 13         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 15         | 9          | 0                         | 7         | 0        | 8         | 56         |
| 4:15 PM      | 0                          | 10        | 20         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 10         | 18         | 0                         | 14        | 0        | 6         | 78         |
| 4:30 PM      | 0                          | 13        | 13         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 29         | 42         | 0                         | 15        | 0        | 7         | 119        |
| 4:45 PM      | 0                          | 6         | 23         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 22         | 21         | 0                         | 13        | 0        | 6         | 91         |
| 5:00 PM      | 0                          | 10        | 18         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 15         | 14         | 1                         | 11        | 0        | 9         | 78         |
| 5:15 PM      | 0                          | 9         | 14         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 13         | 20         | 0                         | 21        | 0        | 5         | 82         |
| 5:30 PM      | 0                          | 8         | 12         | 0        | 0                         | 0        | 0        | 0        | 1                          | 0        | 21         | 40         | 0                         | 7         | 0        | 1         | 90         |
| 5:45 PM      | 0                          | 1         | 10         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 6          | 15         | 0                         | 8         | 0        | 6         | 46         |
| <b>Total</b> | <b>0</b>                   | <b>61</b> | <b>123</b> | <b>0</b> | <b>0</b>                  | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                   | <b>0</b> | <b>131</b> | <b>179</b> | <b>1</b>                  | <b>96</b> | <b>0</b> | <b>48</b> | <b>638</b> |

|                   |                           |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    |              |
|-------------------|---------------------------|----|----|---|------|---|---|---|------|---|----|----|------|----|---|----|--------------|
| <b>Peak Hour</b>  | <b>4:30 PM to 5:30 PM</b> |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 0                         | 38 | 68 | 0 | 0    | 0 | 0 | 0 | 0    | 0 | 79 | 97 | 1    | 60 | 0 | 27 | 369          |
| <b>Heavy Veh.</b> | 0.0%                      |    |    |   | 0.0% |   |   |   | 0.3% |   |    |    | 0.7% |    |   |    |              |
| <b>PHF</b>        | 0.91                      |    |    |   | 0.00 |   |   |   | 0.62 |   |    |    | 0.84 |    |   |    |              |





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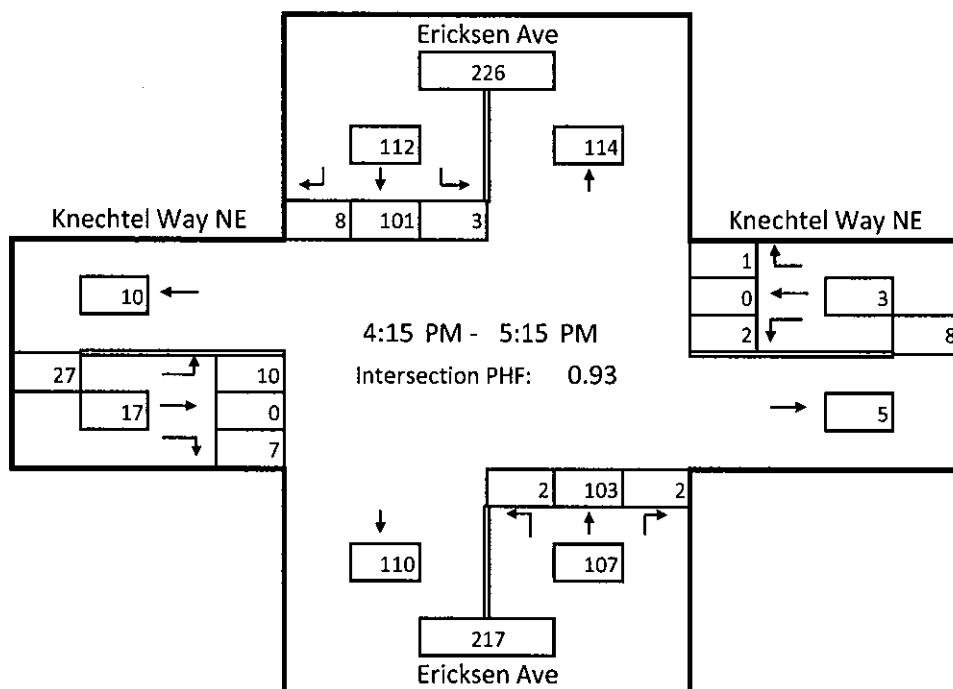
**Intersection:** Knechtel Way NE & Ericksen Ave

**Jurisdiction:** City of Bainbridge

**Date of Count:** 8/7/2018

**Project Number:** 4161

| Time Period       | Southbound<br>Ericksen Ave |    |     |   | Westbound<br>Knechtel Way NE |   |   |   | Northbound<br>Ericksen Ave |   |     |    | Eastbound<br>Knechtel Way NE |    |   |    | Total        |
|-------------------|----------------------------|----|-----|---|------------------------------|---|---|---|----------------------------|---|-----|----|------------------------------|----|---|----|--------------|
|                   | HV                         | R  | T   | L | HV                           | R | T | L | HV                         | R | T   | L  | HV                           | R  | T | L  |              |
| 4:00 PM           | 0                          | 3  | 11  | 0 | 0                            | 0 | 0 | 0 | 0                          | 2 | 21  | 2  | 0                            | 5  | 0 | 3  | 47           |
| 4:15 PM           | 0                          | 5  | 27  | 2 | 0                            | 0 | 0 | 0 | 0                          | 0 | 15  | 0  | 0                            | 1  | 0 | 3  | 53           |
| 4:30 PM           | 0                          | 1  | 23  | 0 | 0                            | 1 | 0 | 1 | 1                          | 1 | 33  | 0  | 0                            | 2  | 0 | 2  | 64           |
| 4:45 PM           | 0                          | 2  | 25  | 1 | 0                            | 0 | 0 | 0 | 0                          | 1 | 27  | 1  | 0                            | 1  | 0 | 2  | 60           |
| 5:00 PM           | 0                          | 0  | 26  | 0 | 0                            | 0 | 0 | 1 | 0                          | 0 | 28  | 1  | 0                            | 3  | 0 | 3  | 62           |
| 5:15 PM           | 0                          | 2  | 23  | 0 | 0                            | 1 | 0 | 1 | 0                          | 0 | 18  | 4  | 0                            | 0  | 0 | 0  | 49           |
| 5:30 PM           | 0                          | 4  | 15  | 1 | 0                            | 0 | 0 | 0 | 1                          | 0 | 26  | 1  | 0                            | 3  | 0 | 2  | 52           |
| 5:45 PM           | 0                          | 2  | 10  | 1 | 0                            | 0 | 0 | 0 | 0                          | 0 | 10  | 1  | 0                            | 1  | 0 | 0  | 25           |
| <b>Total</b>      | 0                          | 19 | 160 | 5 | 0                            | 2 | 0 | 3 | 2                          | 4 | 178 | 10 | 0                            | 16 | 0 | 15 | 412          |
| <b>Peak Hour</b>  | <b>4:15 PM to 5:15 PM</b>  |    |     |   |                              |   |   |   |                            |   |     |    |                              |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 0                          | 8  | 101 | 3 | 0                            | 1 | 0 | 2 | 1                          | 2 | 103 | 2  | 0                            | 7  | 0 | 10 | 239          |
| <b>Heavy Veh.</b> | 0.0%                       |    |     |   | 0.0%                         |   |   |   | 1.0%                       |   |     |    | 0.0%                         |    |   |    |              |
| <b>PHF</b>        | 0.82                       |    |     |   | 0.38                         |   |   |   | 0.79                       |   |     |    | 0.71                         |    |   |    |              |



## Single-Family Detached Housing (210)

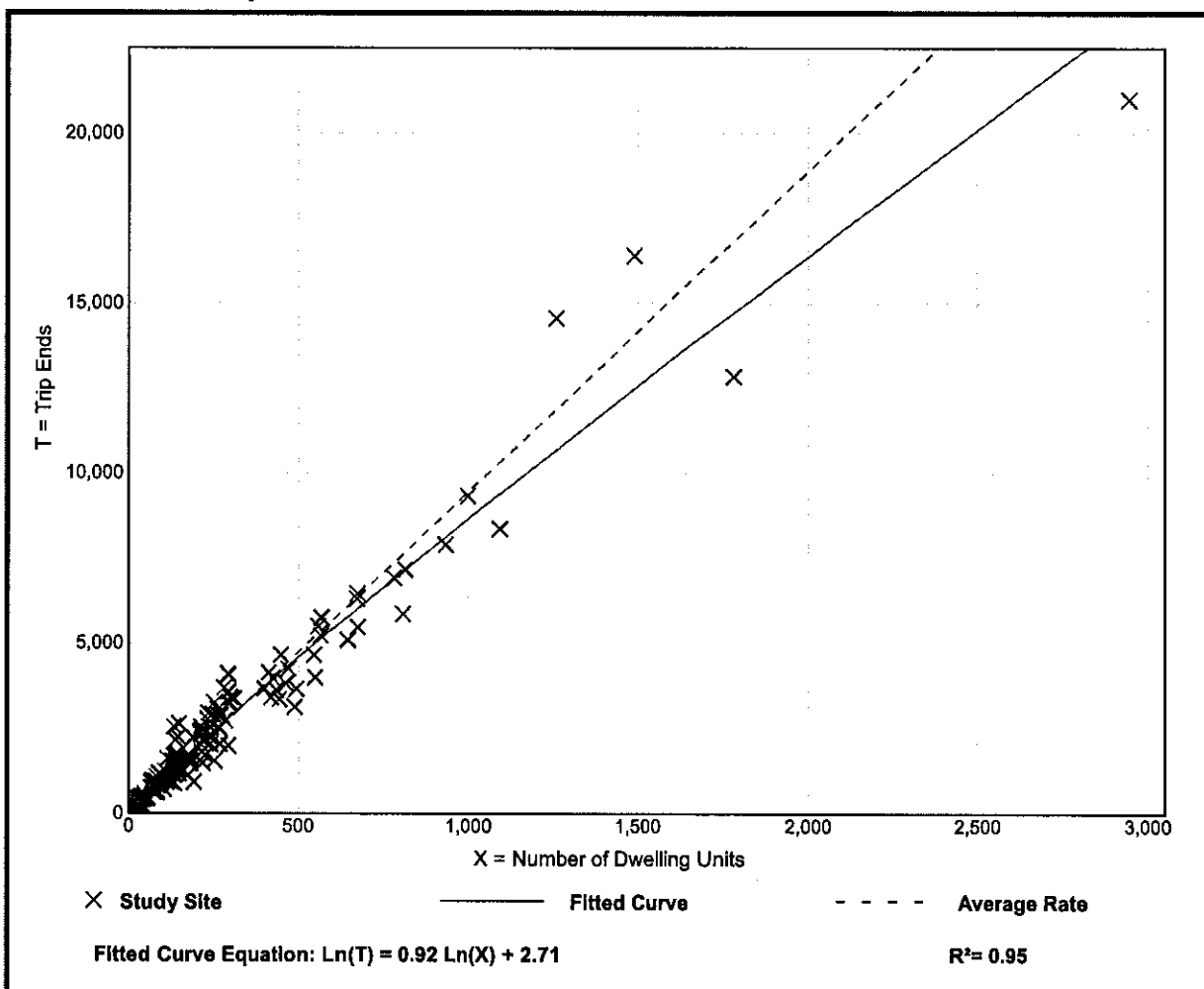
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 159  
Avg. Num. of Dwelling Units: 264  
Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 9.44         | 4.81 - 19.39   | 2.10               |

### Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 173

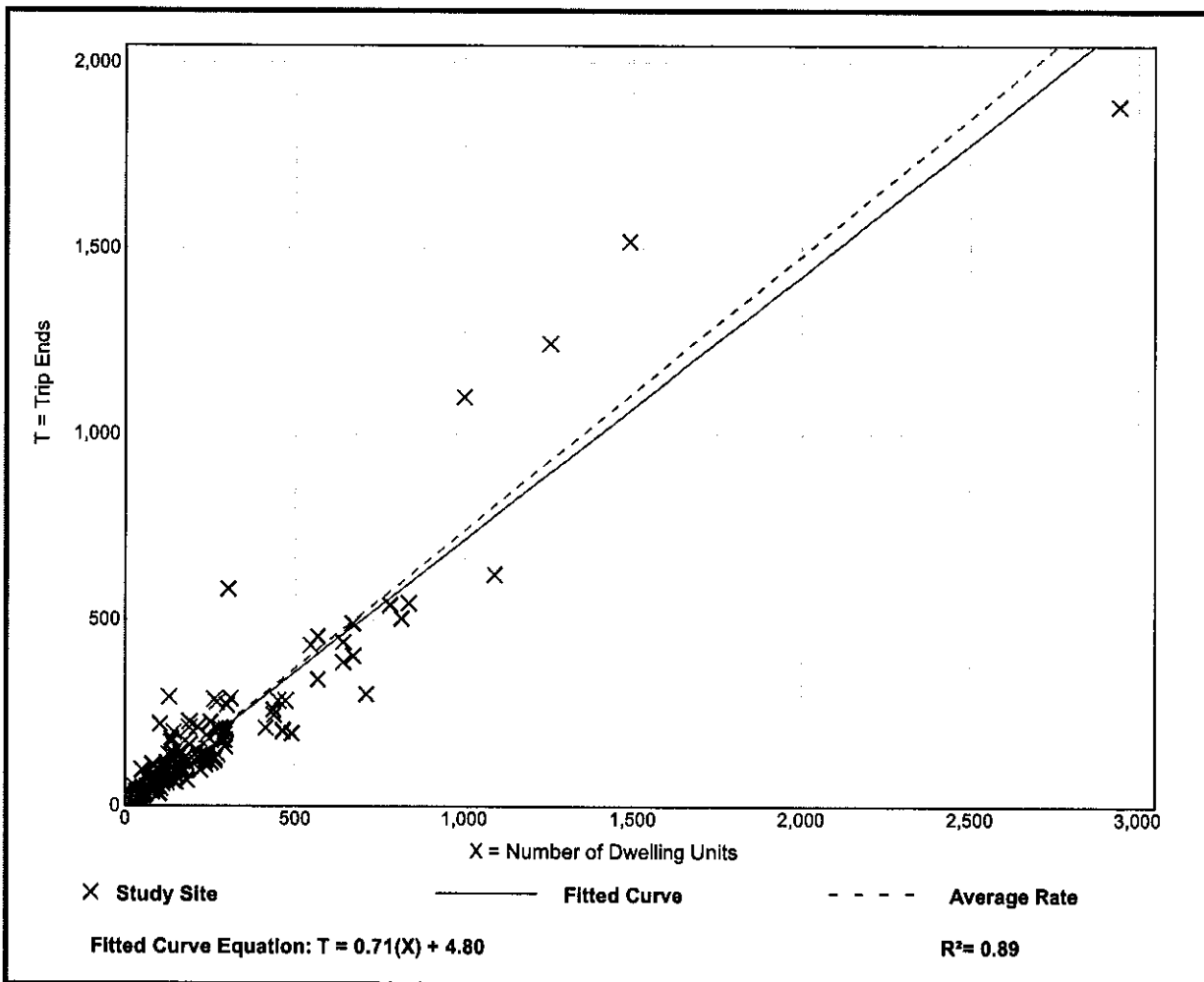
Avg. Num. of Dwelling Units: 219

Directional Distribution: 25% entering, 75% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.74         | 0.33 - 2.27    | 0.27               |

### Data Plot and Equation



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## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 190

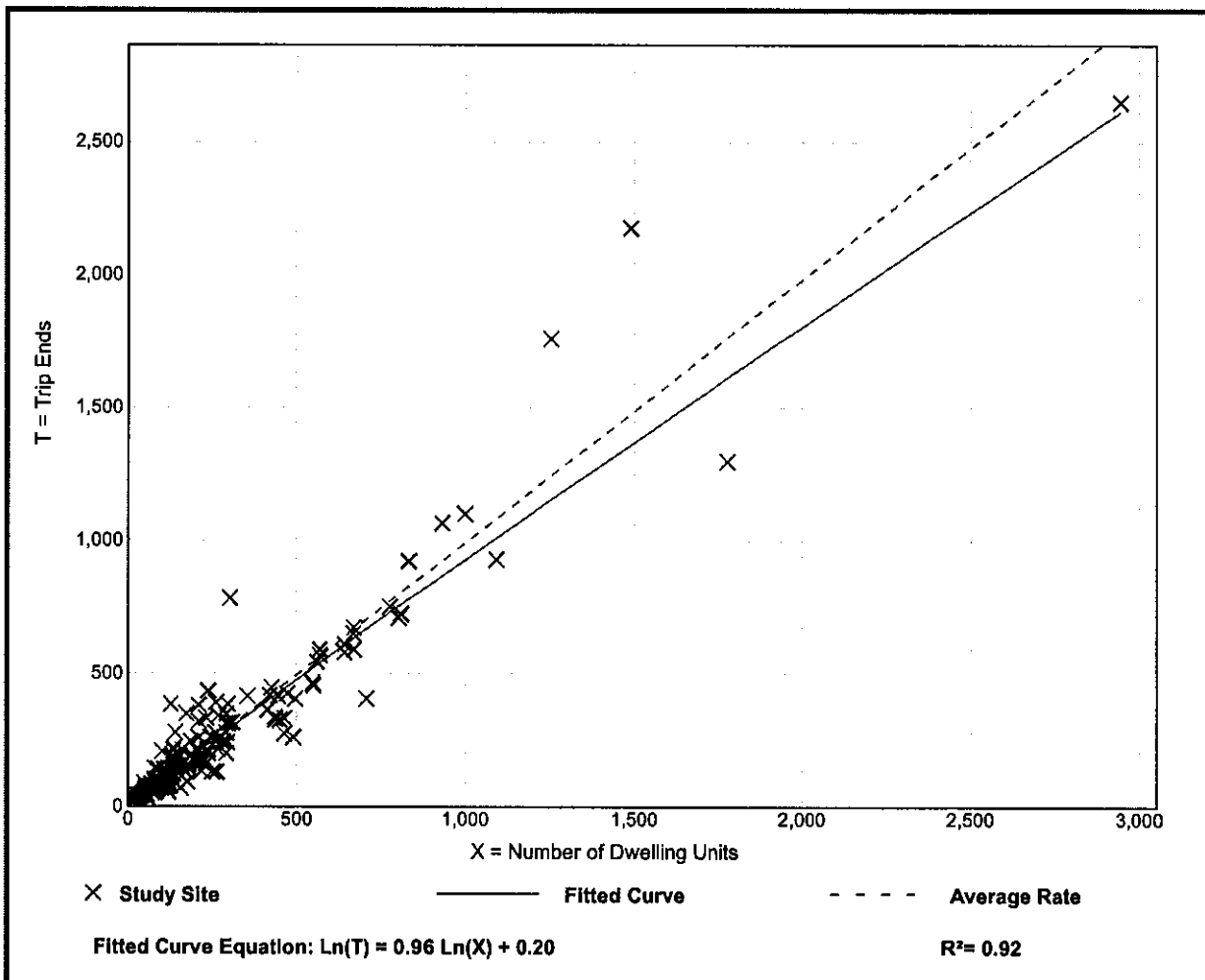
Avg. Num. of Dwelling Units: 242

Directional Distribution: 63% entering, 37% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.99         | 0.44 - 2.98    | 0.31               |

### Data Plot and Equation



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| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.3 |
| Intersection LOS          | A   |

| Movement            | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
|---------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations |  |      |      |  |  |      |
| Traffic Vol, veh/h  | 21                                                                                | 56   | 29   | 29                                                                                | 32                                                                                | 12   |
| Future Vol, veh/h   | 21                                                                                | 56   | 29   | 29                                                                                | 32                                                                                | 12   |
| Peak Hour Factor    | 0.90                                                                              | 0.90 | 0.90 | 0.90                                                                              | 0.90                                                                              | 0.90 |
| Heavy Vehicles, %   | 1                                                                                 | 1    | 1    | 1                                                                                 | 1                                                                                 | 1    |
| Mvmt Flow           | 23                                                                                | 62   | 32   | 32                                                                                | 36                                                                                | 13   |
| Number of Lanes     | 1                                                                                 | 0    | 0    | 1                                                                                 | 1                                                                                 | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.2 | 7.6 | 7.2 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 50%   | 27%   | 0%    |
| Vol Thru, %            | 50%   | 0%    | 73%   |
| Vol Right, %           | 0%    | 73%   | 27%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 58    | 77    | 44    |
| LT Vol                 | 29    | 21    | 0     |
| Through Vol            | 29    | 0     | 32    |
| RT Vol                 | 0     | 56    | 12    |
| Lane Flow Rate         | 64    | 86    | 49    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.075 | 0.089 | 0.054 |
| Departure Headway (Hd) | 4.204 | 3.728 | 3.952 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 850   | 952   | 902   |
| Service Time           | 2.24  | 1.784 | 1.994 |
| HCM Lane V/C Ratio     | 0.075 | 0.09  | 0.054 |
| HCM Control Delay      | 7.6   | 7.2   | 7.2   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.2   | 0.3   | 0.2   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

Existing AM Peak Hour  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 35   | 0    | 0    | 42   | 10   |
| Future Vol, veh/h        | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 35   | 0    | 0    | 42   | 10   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 6    | 0    | 8    | 0    | 0    | 0    | 11   | 53   | 0    | 0    | 64   | 15   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       |       |   | Major2 |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|-------|---|--------|-------|---|---|
| Conflicting Flow All | 157    | 157   | 82     | 161   | 164    | 63    | 84    | 0 | 0      | 58    | 0 | 0 |
| Stage 1              | 77     | 77    | -      | 80    | 80     | -     | -     | - | -      | -     | - | - |
| Stage 2              | 80     | 80    | -      | 81    | 84     | -     | -     | - | -      | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11  | - | -      | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -     | - | -      | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -     | - | -      | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209 | - | -      | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 811    | 737   | 980    | 807   | 730    | 1004  | 1519  | - | -      | 1553  | - | - |
| Stage 1              | 934    | 833   | -      | 931   | 830    | -     | -     | - | -      | -     | - | - |
| Stage 2              | 931    | 830   | -      | 930   | 827    | -     | -     | - | -      | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -     | - | -      | -     | - | - |
| Mov Cap-1 Maneuver   | 799    | 724   | 971    | 789   | 718    | 994   | 1512  | - | -      | 1546  | - | - |
| Mov Cap-2 Maneuver   | 799    | 724   | -      | 789   | 718    | -     | -     | - | -      | -     | - | - |
| Stage 1              | 923    | 829   | -      | 920   | 820    | -     | -     | - | -      | -     | - | - |
| Stage 2              | 920    | 820   | -      | 918   | 823    | -     | -     | - | -      | -     | - | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.1 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL | SBT  | SBR |
|-----------------------|-------|-----|-----|------------|-----|------|-----|
| Capacity (veh/h)      | 1512  | -   | -   | 886        | -   | 1546 | -   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | 0.015      | -   | -    | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.1        | 0   | 0    | -   |
| HCM Lane LOS          | A     | A   | -   | A          | A   | -    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | -   | 0    | -   |



| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 8.5 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | Y    | Y    |      |
| Traffic Vol, veh/h  | 27   | 60   | 97   | 79   | 68   | 38   |
| Future Vol, veh/h   | 27   | 60   | 97   | 79   | 68   | 38   |
| Peak Hour Factor    | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 35   | 77   | 124  | 101  | 87   | 49   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB |
|----------------------------|-----|-----|----|
| Opposing Approach          |     | SB  | NB |
| Opposing Lanes             | 0   | 1   | 1  |
| Conflicting Approach Left  | SB  | EB  |    |
| Conflicting Lanes Left     | 1   | 1   | 0  |
| Conflicting Approach Right | NB  |     | EB |
| Conflicting Lanes Right    | 1   | 0   | 1  |
| HCM Control Delay          | 8.1 | 9.1 | 8  |
| HCM LOS                    | A   | A   | A  |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 64%   |
| Vol Right, %           | 0%    | 69%   | 36%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 176   | 87    | 106   |
| LT Vol                 | 97    | 27    | 0     |
| Through Vol            | 79    | 0     | 68    |
| RT Vol                 | 0     | 60    | 38    |
| Lane Flow Rate         | 226   | 112   | 136   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.278 | 0.135 | 0.158 |
| Departure Headway (Hd) | 4.435 | 4.365 | 4.196 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 815   | 823   | 856   |
| Service Time           | 2.435 | 2.385 | 2.215 |
| HCM Lane V/C Ratio     | 0.277 | 0.136 | 0.159 |
| HCM Control Delay      | 9.1   | 8.1   | 8     |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.1   | 0.5   | 0.6   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

Existing PM Peak Hour  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 103  | 2    | 3    | 101  | 8    |
| Future Vol, veh/h        | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 103  | 2    | 3    | 101  | 8    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 11   | 0    | 8    | 2    | 0    | 1    | 2    | 111  | 2    | 3    | 109  | 9    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 247    | 247   | 124    | 250   | 250    | 122   | 123    | 0 | 0 | 118   | 0 | 0 |
| Stage 1              | 125    | 125   | -      | 121   | 121    | -     | -      | - | - | -     | - | - |
| Stage 2              | 122    | 122   | -      | 129   | 129    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - | - | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - | - | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 709    | 657   | 929    | 706   | 655    | 932   | 1470   | - | - | 1476  | - | - |
| Stage 1              | 881    | 794   | -      | 886   | 798    | -     | -      | - | - | -     | - | - |
| Stage 2              | 885    | 797   | -      | 877   | 791    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - | - | -     | - | - |
| Mov Cap-1 Maneuver   | 700    | 648   | 920    | 692   | 646    | 923   | 1463   | - | - | 1469  | - | - |
| Mov Cap-2 Maneuver   | 700    | 648   | -      | 692   | 646    | -     | -      | - | - | -     | - | - |
| Stage 1              | 876    | 788   | -      | 881   | 793    | -     | -      | - | - | -     | - | - |
| Stage 2              | 879    | 792   | -      | 864   | 785    | -     | -      | - | - | -     | - | - |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.8 | 9.8 | 0.1 | 0.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1  | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|-------|-----|-----|
| Capacity (veh/h)      | 1463  | -   | -   | 776 755     | 1469  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.024 0.004 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 9.8 9.8     | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | A A         | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1 0       | 0     | -   | -   |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.4 |
| Intersection LOS          | A   |

| Movement            | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
|---------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations |  |      |      |  |  |      |
| Traffic Vol, veh/h  | 22                                                                                | 58   | 30   | 31                                                                                | 35                                                                                | 12   |
| Future Vol, veh/h   | 22                                                                                | 58   | 30   | 31                                                                                | 35                                                                                | 12   |
| Peak Hour Factor    | 0.90                                                                              | 0.90 | 0.90 | 0.90                                                                              | 0.90                                                                              | 0.90 |
| Heavy Vehicles, %   | 1                                                                                 | 1    | 1    | 1                                                                                 | 1                                                                                 | 1    |
| Mvmt Flow           | 24                                                                                | 64   | 33   | 34                                                                                | 39                                                                                | 13   |
| Number of Lanes     | 1                                                                                 | 0    | 0    | 1                                                                                 | 1                                                                                 | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.2 | 7.6 | 7.3 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 49%   | 28%   | 0%    |
| Vol Thru, %            | 51%   | 0%    | 74%   |
| Vol Right, %           | 0%    | 72%   | 26%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 61    | 80    | 47    |
| LT Vol                 | 30    | 22    | 0     |
| Through Vol            | 31    | 0     | 35    |
| RT Vol                 | 0     | 58    | 12    |
| Lane Flow Rate         | 68    | 89    | 52    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.079 | 0.092 | 0.058 |
| Departure Headway (Hd) | 4.211 | 3.742 | 3.971 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 849   | 948   | 898   |
| Service Time           | 2.248 | 1.801 | 2.014 |
| HCM Lane V/C Ratio     | 0.08  | 0.094 | 0.058 |
| HCM Control Delay      | 7.6   | 7.2   | 7.3   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.3   | 0.3   | 0.2   |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 38   | 0    | 0    | 43   | 10   |
| Future Vol, veh/h        | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 38   | 0    | 0    | 43   | 10   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 6    | 0    | 8    | 0    | 0    | 0    | 11   | 58   | 0    | 0    | 65   | 15   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 163    | 163   | 83     | 167   | 170    | 68    | 85     | 0 |
| Stage 1              | 78     | 78    | -      | 85    | 85     | -     | -      | - |
| Stage 2              | 85     | 85    | -      | 82    | 85     | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 804    | 731   | 979    | 799   | 725    | 998   | 1518   | - |
| Stage 1              | 933    | 832   | -      | 925   | 826    | -     | -      | - |
| Stage 2              | 925    | 826   | -      | 929   | 826    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 791    | 718   | 970    | 781   | 712    | 989   | 1511   | - |
| Mov Cap-2 Maneuver   | 791    | 718   | -      | 781   | 712    | -     | -      | - |
| Stage 1              | 921    | 828   | -      | 913   | 815    | -     | -      | - |
| Stage 2              | 913    | 815   | -      | 917   | 822    | -     | -      | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.2 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL | SBT  | SBR |
|-----------------------|-------|-----|-----|------------|-----|------|-----|
| Capacity (veh/h)      | 1511  | -   | -   | 881        | -   | 1539 | -   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | 0.015      | -   | -    | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.2        | 0   | 0    | -   |
| HCM Lane LOS          | A     | A   | -   | A          | A   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | -   | 0    | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↔    | ↔    | ↔    | ↔    |
| Traffic Vol, veh/h       | 2    | 2    | 52   | 1    | 0    | 45   |
| Future Vol, veh/h        | 2    | 2    | 52   | 1    | 0    | 45   |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 2    | 2    | 58   | 1    | 0    | 50   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 119    | 69     | 0      |
| Stage 1              | 64     | -      | -      |
| Stage 2              | 55     | -      | -      |
| Critical Hdwy        | 6.41   | 6.21   | 4.11   |
| Critical Hdwy Stg 1  | 5.41   | -      | -      |
| Critical Hdwy Stg 2  | 5.41   | -      | -      |
| Follow-up Hdwy       | 3.509  | 3.309  | 2.209  |
| Pot Cap-1 Maneuver   | 879    | 997    | 1545   |
| Stage 1              | 961    | -      | -      |
| Stage 2              | 970    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 870    | 988    | 1538   |
| Mov Cap-2 Maneuver   | 870    | -      | -      |
| Stage 1              | 956    | -      | -      |
| Stage 2              | 965    | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.9 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT |
|-----------------------|-----|----------|------|-----|
| Capacity (veh/h)      | -   | 925      | 1538 | -   |
| HCM Lane V/C Ratio    | -   | 0.005    | -    | -   |
| HCM Control Delay (s) | -   | 8.9      | 0    | -   |
| HCM Lane LOS          | -   | A        | A    | -   |
| HCM 95th %tile Q(veh) | -   | 0        | 0    | -   |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 8.7 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h  | 28   | 62   | 100  | 83   | 71   | 39   |
| Future Vol, veh/h   | 28   | 62   | 100  | 83   | 71   | 39   |
| Peak Hour Factor    | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 36   | 79   | 128  | 106  | 91   | 50   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 8.1 | 9.3 | 8.1 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 65%   |
| Vol Right, %           | 0%    | 69%   | 35%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 183   | 90    | 110   |
| LT Vol                 | 100   | 28    | 0     |
| Through Vol            | 83    | 0     | 71    |
| RT Vol                 | 0     | 62    | 39    |
| Lane Flow Rate         | 235   | 115   | 141   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.29  | 0.141 | 0.165 |
| Departure Headway (Hd) | 4.452 | 4.398 | 4.221 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 812   | 817   | 852   |
| Service Time           | 2.452 | 2.419 | 2.24  |
| HCM Lane V/C Ratio     | 0.289 | 0.141 | 0.165 |
| HCM Control Delay      | 9.3   | 8.1   | 8.1   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.2   | 0.5   | 0.6   |



| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.9  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 108  | 2    | 3    | 106  | 8    |
| Future Vol, veh/h        | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 108  | 2    | 3    | 106  | 8    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 11   | 0    | 8    | 2    | 0    | 1    | 2    | 116  | 2    | 3    | 114  | 9    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 257    | 257   | 129    | 260   | 260    | 127   | 128    | 0 |
| Stage 1              | 130    | 130   | -      | 126   | 126    | -     | -      | - |
| Stage 2              | 127    | 127   | -      | 134   | 134    | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 698    | 649   | 924    | 695   | 646    | 926   | 1464   | - |
| Stage 1              | 876    | 791   | -      | 880   | 794    | -     | -      | - |
| Stage 2              | 879    | 793   | -      | 872   | 787    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 689    | 641   | 915    | 681   | 638    | 917   | 1457   | - |
| Mov Cap-2 Maneuver   | 689    | 641   | -      | 681   | 638    | -     | -      | - |
| Stage 1              | 871    | 785   | -      | 875   | 789    | -     | -      | - |
| Stage 2              | 873    | 788   | -      | 859   | 781    | -     | -      | - |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.8 | 9.9 | 0.1 | 0.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1457  | -   | -   | 767   | 745   | 1463  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.024 | 0.004 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 9.8   | 9.9   | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | A     | A     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | 0     | 0     | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | Y    |      | ↑    |      |      | ↑    |
| Traffic Vol, veh/h       | 1    | 2    | 109  | 2    | 2    | 109  |
| Future Vol, veh/h        | 1    | 2    | 109  | 2    | 2    | 109  |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 78   | 78   | 78   | 78   | 78   | 78   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 1    | 3    | 140  | 3    | 3    | 140  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 298    | 152    | 0      | 0 | 148   |
| Stage 1              | 147    | -      | -      | - | -     |
| Stage 2              | 151    | -      | -      | - | -     |
| Critical Hdwy        | 6.41   | 6.21   | -      | - | 4.11  |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | - | 2.209 |
| Pot Cap-1 Maneuver   | 695    | 897    | -      | - | 1440  |
| Stage 1              | 883    | -      | -      | - | -     |
| Stage 2              | 879    | -      | -      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | 687    | 888    | -      | - | 1433  |
| Mov Cap-2 Maneuver   | 687    | -      | -      | - | -     |
| Stage 1              | 877    | -      | -      | - | -     |
| Stage 2              | 875    | -      | -      | - | -     |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.5 | 0  | 0.1 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLh1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 809   | 1433  |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | 0.002 |
| HCM Control Delay (s) | -   | -        | 9.5   | 7.5   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0     |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.4 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h  | 25   | 66   | 34   | 35   | 40   | 14   |
| Future Vol, veh/h   | 25   | 66   | 34   | 35   | 40   | 14   |
| Peak Hour Factor    | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 28   | 73   | 38   | 39   | 44   | 16   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.3 | 7.7 | 7.3 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 49%   | 27%   | 0%    |
| Vol Thru, %            | 51%   | 0%    | 74%   |
| Vol Right, %           | 0%    | 73%   | 26%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 69    | 91    | 54    |
| LT Vol                 | 34    | 25    | 0     |
| Through Vol            | 35    | 0     | 40    |
| RT Vol                 | 0     | 66    | 14    |
| Lane Flow Rate         | 77    | 101   | 60    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.09  | 0.106 | 0.067 |
| Departure Headway (Hd) | 4.239 | 3.77  | 3.998 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 842   | 939   | 890   |
| Service Time           | 2.284 | 1.838 | 2.049 |
| HCM Lane V/C Ratio     | 0.091 | 0.108 | 0.067 |
| HCM Control Delay      | 7.7   | 7.3   | 7.3   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.3   | 0.4   | 0.2   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

2035 AM Peak Hour with Project  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 5    | 0    | 6    | 0    | 0    | 0    | 8    | 43   | 0    | 0    | 50   | 12   |
| Future Vol, veh/h        | 5    | 0    | 6    | 0    | 0    | 0    | 8    | 43   | 0    | 0    | 50   | 12   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 8    | 0    | 9    | 0    | 0    | 0    | 12   | 65   | 0    | 0    | 76   | 18   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 184    | 184   | 95     | 189   | 193    | 75    | 99     | 0 |
| Stage 1              | 90     | 90    | -      | 94    | 94     | -     | -      | - |
| Stage 2              | 94     | 94    | -      | 95    | 99     | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 779    | 712   | 964    | 773   | 704    | 989   | 1500   | - |
| Stage 1              | 920    | 822   | -      | 915   | 819    | -     | -      | - |
| Stage 2              | 915    | 819   | -      | 914   | 815    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 767    | 699   | 955    | 754   | 691    | 980   | 1493   | - |
| Mov Cap-2 Maneuver   | 767    | 699   | -      | 754   | 691    | -     | -      | - |
| Stage 1              | 908    | 818   | -      | 903   | 808    | -     | -      | - |
| Stage 2              | 903    | 808   | -      | 901   | 811    | -     | -      | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.3 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL  | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h)      | 1493  | -   | -   | 859   | -     | 1530 | -   | -   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | 0.019 | -     | -    | -   | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.3   | 0     | 0    | -   | -   |
| HCM Lane LOS          | A     | A   | -   | A     | A     | A    | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | -     | 0    | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | 2    | 2    | 1    | 1    | 0    | 2    |
| Traffic Vol, veh/h       | 2    | 2    | 59   | 1    | 0    | 52   |
| Future Vol, veh/h        | 2    | 2    | 59   | 1    | 0    | 52   |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 2    | 2    | 66   | 1    | 0    | 58   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 135    | 77     | 0      |
| Stage 1              | 72     | -      | -      |
| Stage 2              | 63     | -      | -      |
| Critical Hdwy        | 6.41   | 6.21   | 4.11   |
| Critical Hdwy Stg 1  | 5.41   | -      | -      |
| Critical Hdwy Stg 2  | 5.41   | -      | -      |
| Follow-up Hdwy       | 3.509  | 3.309  | 2.209  |
| Pot Cap-1 Maneuver   | 861    | 987    | 1534   |
| Stage 1              | 953    | -      | -      |
| Stage 2              | 962    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 852    | 978    | 1527   |
| Mov Cap-2 Maneuver   | 852    | -      | -      |
| Stage 1              | 948    | -      | -      |
| Stage 2              | 957    | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 9  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT  |
|-----------------------|-----|----------|-------|------|
| Capacity (veh/h)      | -   | -        | 911   | 1527 |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | -    |
| HCM Control Delay (s) | -   | -        | 9     | 0    |
| HCM Lane LOS          | -   | -        | A     | A    |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0    |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 9.1 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | 4    | 4    |      |
| Traffic Vol, veh/h  | 32   | 71   | 115  | 96   | 82   | 45   |
| Future Vol, veh/h   | 32   | 71   | 115  | 96   | 82   | 45   |
| Peak Hour Factor    | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 41   | 91   | 147  | 123  | 105  | 58   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 8.5 | 9.8 | 8.4 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 65%   |
| Vol Right, %           | 0%    | 69%   | 35%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 211   | 103   | 127   |
| LT Vol                 | 115   | 32    | 0     |
| Through Vol            | 96    | 0     | 82    |
| RT Vol                 | 0     | 71    | 45    |
| Lane Flow Rate         | 271   | 132   | 163   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.339 | 0.166 | 0.195 |
| Departure Headway (Hd) | 4.505 | 4.53  | 4.309 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 798   | 791   | 832   |
| Service Time           | 2.53  | 2.561 | 2.337 |
| HCM Lane V/C Ratio     | 0.34  | 0.167 | 0.196 |
| HCM Control Delay      | 9.8   | 8.5   | 8.4   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.5   | 0.6   | 0.7   |



| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 12   | 0    | 8    | 2    | 0    | 1    | 2    | 124  | 2    | 3    | 122  | 9    |
| Future Vol, veh/h        | 12   | 0    | 8    | 2    | 0    | 1    | 2    | 124  | 2    | 3    | 122  | 9    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 13   | 0    | 9    | 2    | 0    | 1    | 2    | 133  | 2    | 3    | 131  | 10   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 291    | 291   | 146    | 295   | 295    | 144   | 146    | 0 | 0 | 140   | 0 | 0 |
| Stage 1              | 147    | 147   | -      | 143   | 143    | -     | -      | - | - | -     | - | - |
| Stage 2              | 144    | 144   | -      | 152   | 152    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - | - | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - | - | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 663    | 621   | 904    | 659   | 618    | 906   | 1442   | - | - | 1449  | - | - |
| Stage 1              | 858    | 777   | -      | 862   | 780    | -     | -      | - | - | -     | - | - |
| Stage 2              | 861    | 780   | -      | 853   | 774    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - | - | -     | - | - |
| Mov Cap-1 Maneuver   | 654    | 612   | 895    | 645   | 609    | 897   | 1435   | - | - | 1442  | - | - |
| Mov Cap-2 Maneuver   | 654    | 612   | -      | 645   | 609    | -     | -      | - | - | -     | - | - |
| Stage 1              | 852    | 772   | -      | 856   | 775    | -     | -      | - | - | -     | - | - |
| Stage 2              | 854    | 775   | -      | 839   | 769    | -     | -      | - | - | -     | - | - |

| Approach             | EB   | WB   | NB  | SB  |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 10.1 | 10.1 | 0.1 | 0.2 |
| HCM LOS              | B    | B    |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1435  | -   | -   | 733   | 712   | 1442  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.029 | 0.005 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 10.1  | 10.1  | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | B     | B     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | 0     | 0     | -   | -   |

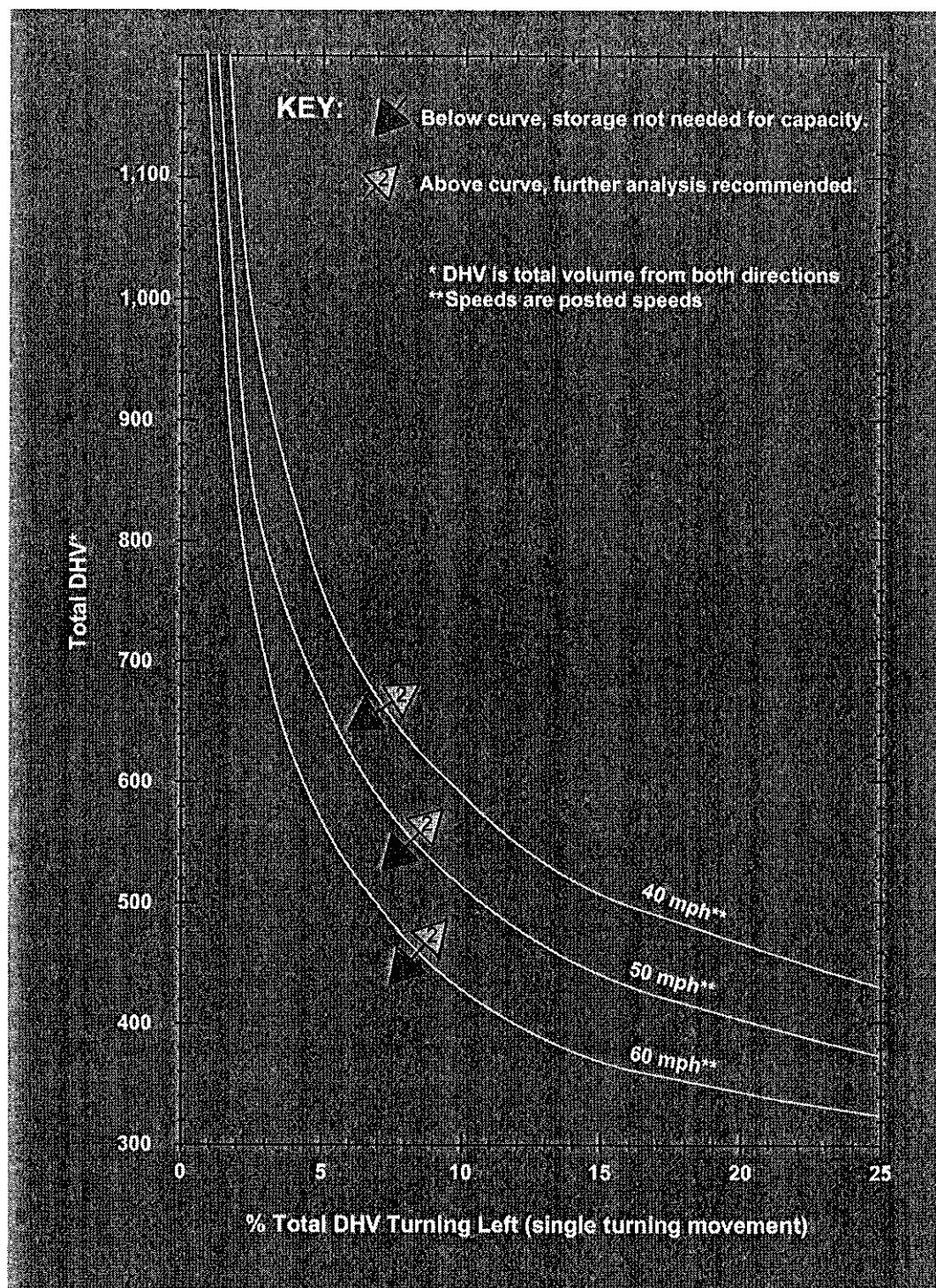
| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | W    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 1    | 2    | 126  | 2    | 2    | 126  |
| Future Vol, veh/h        | 1    | 2    | 126  | 2    | 2    | 126  |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 78   | 78   | 78   | 78   | 78   | 78   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 1    | 3    | 162  | 3    | 3    | 162  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 342    | 174    | 0      | 0 | 170   |
| Stage 1              | 169    | -      | -      | - | -     |
| Stage 2              | 173    | -      | -      | - | -     |
| Critical Hdwy        | 6.41   | 6.21   | -      | - | 4.11  |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | - | 2.209 |
| Pot Cap-1 Maneuver   | 656    | 872    | -      | - | 1413  |
| Stage 1              | 863    | -      | -      | - | -     |
| Stage 2              | 860    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 648    | 864    | -      | - | 1406  |
| Mov Cap-2 Maneuver   | 648    | -      | -      | - | -     |
| Stage 1              | 857    | -      | -      | - | -     |
| Stage 2              | 856    | -      | -      | - | -     |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.7 | 0  | 0.1 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 778   | 1406  |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | 0.002 |
| HCM Control Delay (s) | -   | -        | 9.7   | 7.6   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0     |

Exhibit 1310-7a Left-Turn Storage Guidelines: Two-Lane, Unsignalized





DEPARTMENT PUBLIC WORKS - ENGINEERING

## CERTIFICATE OF CONCURRENCY

Pursuant to The City of Bainbridge Island Municipal Code 15.32.040.B, the City Engineer has determined that the capacity of transportation facilities affected by the proposed development is equal to or greater than the capacity required to maintain the level of service standard for the impact of the development.

Property Location or Description: **Ericksen Townhomes**  
**568 Ericksen Avenue NE**  
**Bainbridge Island, WA**  
**Tax Parcel: 262502-2-051-2009**  
**Permit Number: PLN50804B SPR/CUP**

Development Type: **Site Plan Review, Conditional Use Permit**

Approved Uses: **Multi-Family Residential**

Approved Density: **6 townhouses**

Approved Intensity: **7 PM Peak-Hour Trips/66 Average Daily Trips (ADT) at project completion**

Basis For Concurrence: **Attached traffic study, prepared by Heath & Associates, dated August, 2018**

Date Issued: **This certificate is effective on the issuance date of the above referenced permit numbers.**

Expiration Date: **This certificate expires on the earlier of: 1) The date of expiration of the above referenced permit numbers, or 2) Three years after the above effective (issuance) date of this certificate.**

A handwritten signature in black ink, appearing to read 'P.S. Corelis', is written over a horizontal line.

BY: Peter S. Corelis, P.E.

February 22, 2019

Date of Issuance

Attachments:



**1: Memorandum; and/or**



**2: Traffic Analysis**



## DEPARTMENT OF PUBLIC WORKS - ENGINEERING

### MEMORANDUM

Date: January 30, 2019  
To: Olivia Sontag, Planner, Planning and Comm. Development  
From: Peter Corelis, P.E., Development Engineer  
Subject: PLN50804B SPR/CUP – Ericksen Townhomes Traffic Concurrency

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A Traffic Impact Analysis (TIA) was conducted in support of the project, prepared by Heath & Associates, dated August 23, 2018. The scope of the analysis included three study intersections: the project entrance at Ericksen Avenue NE, Ericksen Avenue NE and Wyatt Way NE, and Ericksen Avenue NE and Knechtel Way NE. Additional consideration by the City has been given to the intersection of Ericksen Avenue NE and Winslow Way E as it operates at a passing Level of Service (LOS) D in year 2021 according to the City's Islandwide Transportation Plan (IWTP) and at a failing LOS F in year 2035 without City intervention and mitigation. As mitigation the City has prohibited left turn lanes from Bjune Drive SE to Winslow Way E to limit turning conflicts during peak hours thereby addressing long-term LOS deficiency concerns. The vehicle load on the Ericksen Avenue NE/Winslow Way E intersection resulting from the project fits within the 2035 projections as mitigated and warrants no further study (see next paragraph for vehicle load summary).

The contribution from the Ericksen Townhomes project to the Ericksen Avenue NE and Winslow Way E intersection is estimated to be one (1) vehicle during the PM-peak hour. The total existing PM-peak hour vehicle count by comparison at that intersection from the Ericksen Avenue NE is 128 vehicles. The project results in a 0.8% increase in vehicles over current levels.



ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

*BAINBRIDGE ISLAND, WA*



RECEIVED

AUG 29 2018

Planning and  
Community Development

Prepared for: Mr. John Bierly, AIA  
Wing Point Properties, LLC  
321 High School Rd NE, Ste D3  
Bainbridge Island, WA 98110

August 2018



ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

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# ERICKSEN TOWNHOMES TRAFFIC IMPACT ANALYSIS

## 1. INTRODUCTION

The main goals of this study focus on the assessment of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information on the roadways serving the site, baseline conditions, and entering sight distance data. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. As a final step, appropriate conclusions and mitigation measures are defined if needed.

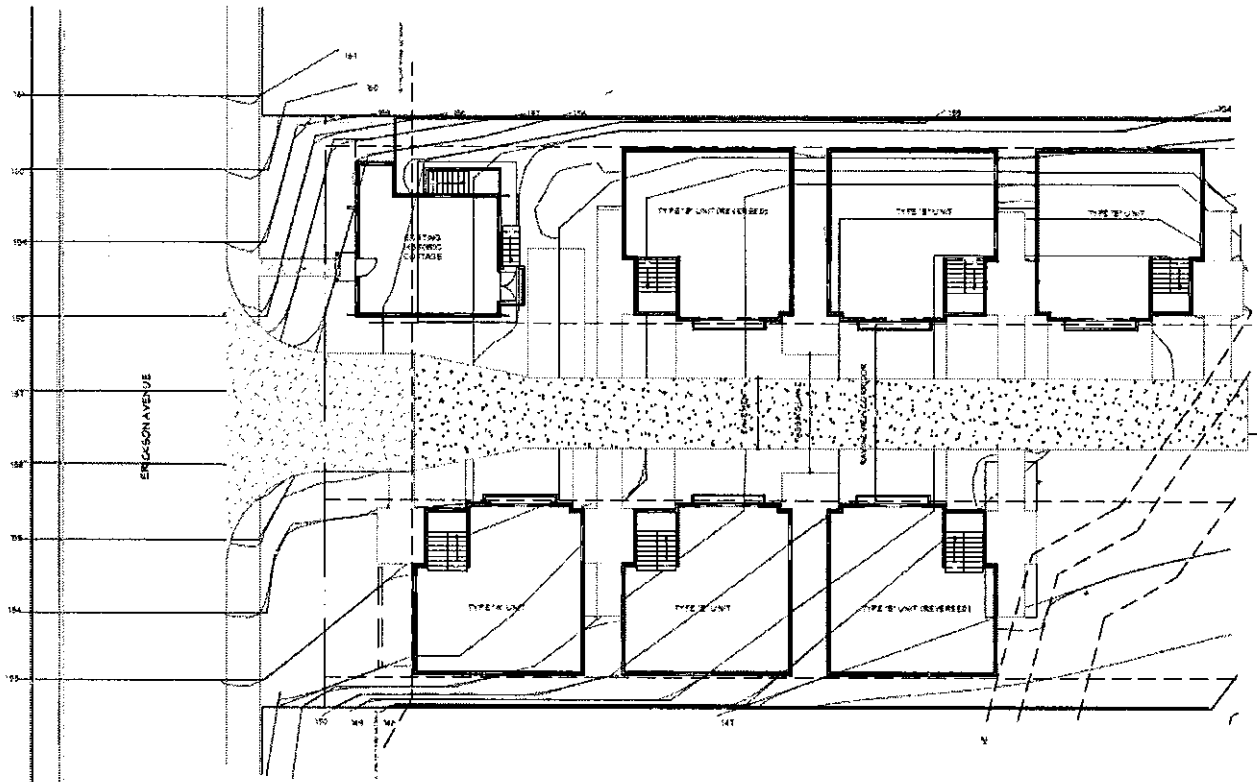
## 2. PROJECT DESCRIPTION

Erickson Townhomes proposes for the construction of 6 new residential units in the City of Bainbridge Island. The subject site is situated on the east side of Ericksen Avenue NE on a 0.44-acre parcel (262502-2-051-2009). The property is presently occupied with one existing cottage on the northwest corner and is proposed to remain for a total of 7 units accessing the site. The general vicinity of the site location and adjacent roadway network is illustrated in Figure 1 below.

Access to the property is proposed via one driveway extending east from Ericksen Avenue NE. A site plan illustrating the overall configuration of the project is presented in Figure 2. Horizon years of 2021 (buildout) and 2035 (long-range) were assessed to analyze future roadway conditions and potential project impacts, if any.

**Figure 1: Site Vicinity – Aerial View**





**HEATH & ASSOCIATES**  
TRAFFIC AND CIVIL ENGINEERING

**ERICKSEN TOWNHOMES**  
SITE PLAN  
FIGURE 2

### 3. EXISTING CONDITIONS

#### 3.1 Surrounding Roadway System

Roadways serving the site consist of arterials and local residential roadways. The key streets in the vicinity and described below.

*Ericksen Avenue NE:* is a two-lane, north-south collector that borders the west side of the project frontage. The roadway has a posted speed limit of 25 mph with 10-foot wide travel lanes. Bicycle facilities are offered along either side of the roadway and sidewalks are present on the west side.

*Wyatt Way NE:* is a two-lane, east-west collector that is located to the south of the site. The roadway has a posted speed limit of 25 mph with 10-foot wide travel lanes. Sidewalks are generally present on at least one side of the roadway. On-street parking is offered in some areas.

*Knechtel Way NE:* is a two lane, east-west local access that is located to the north of the site. Travel lanes are approximately 10 feet in width with curb, gutter, and sidewalk available. The local roadway has a speed limit of 25 mph and on-street parking is offered in some areas.

#### 3.2 Existing Peak Hour Volumes and Patterns

Field data for this study was obtained and collected in August of 2018. Traffic counts were taken at the primary intersections of interest – Ericksen Avenue NE / Wyatt Way NE and Ericksen Avenue NE / Knechtel Way NE – which would receive the bulk of vehicular impacts. Field data was collected from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. to capture roadway volumes at peak conditions. The one-hour (peak hour) reflecting highest overall volumes for each a.m. and p.m. scenario is then used for capacity and delay analysis to depict worst case conditions. Figure 3 on the following page shows the existing weekday peak hour volumes at the intersections of study.

#### 3.3 Roadway Improvements

A review of the 2017 to 2022 City of Bainbridge Island Capital Improvement Program indicates an improvement project is planned in the vicinity.

##### *Wyatt Way Reconstruction Phase 1*

The scope of this project intends to reconstruct and improve the existing Wyatt Way segment from Madison Avenue to Lovell Avenue. Included are sidewalk and bicycle facilities on both sides of the street and capacity improvements to the intersection of Wyatt Way/Madison Avenue. Intersection improvements are planned with either signalization or a roundabout.

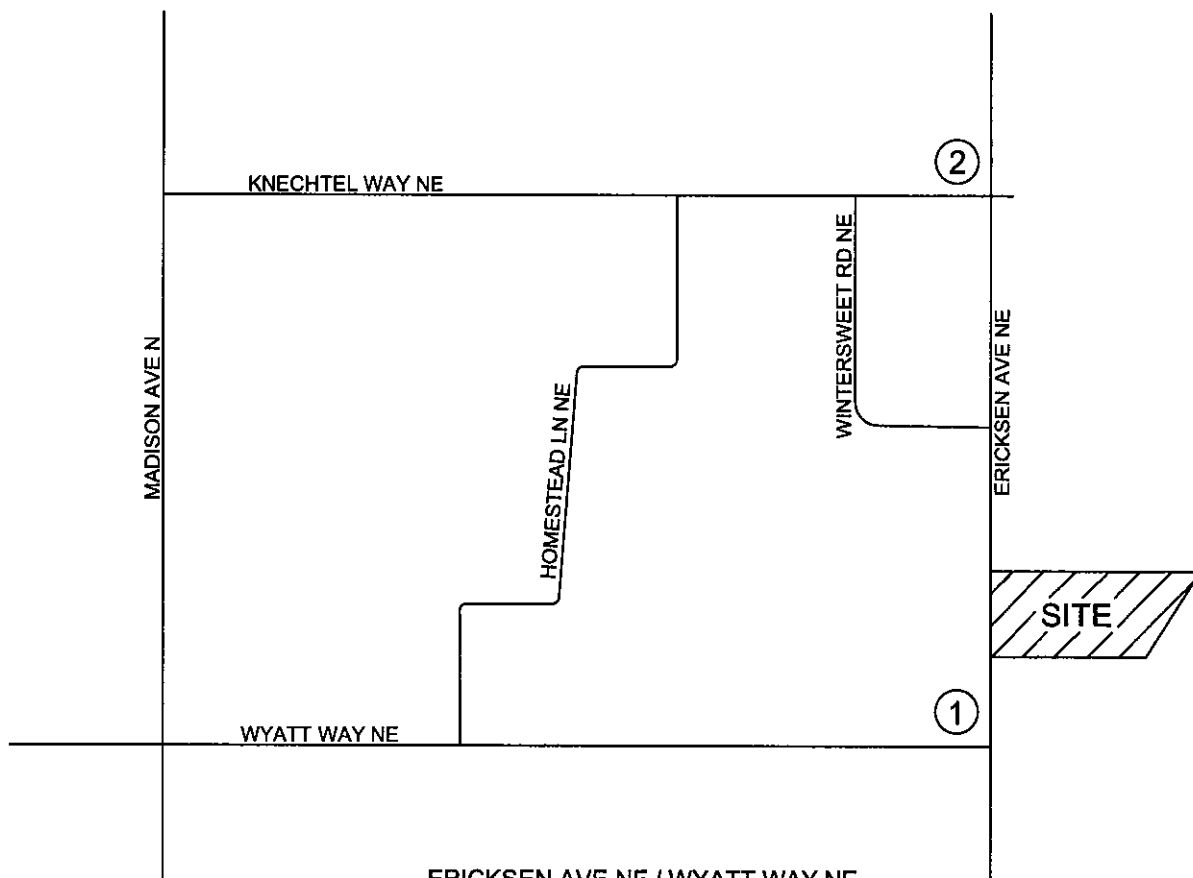
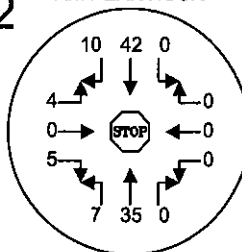
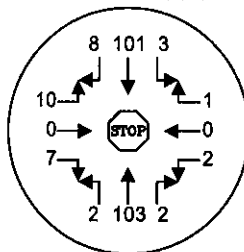


# ERICKSEN AVE NE / KNECHTEL WAY NE

PM PEAK HOUR

2

AM PEAK HOUR

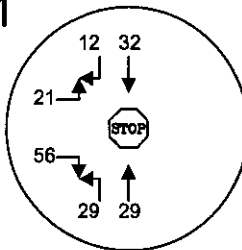
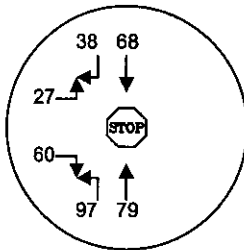


# ERICKSEN AVE NE / WYATT WAY NE

PM PEAK HOUR

1

AM PEAK HOUR



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ERICKSEN TOWNHOMES  
EXISTING PEAK HOUR VOLUMES  
FIGURE 3

### 3.4 Existing Level of Service

Peak hour delays were determined through the use of the *Highway Capacity Manual* 6th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range<sup>1</sup> for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. Level of service calculations were made through the use of the Synchro 10 analysis program. Table 1 below summarizes LOS calculated for the key intersections serving the site.

**Table 1**  
Existing Level of Service  
*Delays given in seconds per vehicle*

| Erickson Avenue NE at | Control | AM Peak Hour |       | PM Peak Hour |       |
|-----------------------|---------|--------------|-------|--------------|-------|
|                       |         | LOS          | Delay | LOS          | Delay |
| Wyatt Way NE          | AWSC    | A            | 7.3   | A            | 8.5   |
| Knechtel Way NE       | Stop    | A            | 9.1   | A            | 9.8   |

(AWSC: All-Way Stop Control)

As shown in the table, existing peak hour delays operate at LOS A for all scenarios indicating intersections operating satisfactorily. Drivers would experience minimal wait times before proceeding through the intersection control. The subject property is situated within the City's Winslow area which has an adopted LOS standard of LOS D for arterials and collectors and LOS C for local roadways<sup>2</sup>. Based on the analysis above intersections currently meet the City standards.

#### <sup>1</sup> Signalized Intersections - Level of Service

| Control Delay per |               |
|-------------------|---------------|
| Level of Service  | Vehicle (sec) |
| A                 | ≤ 10          |
| B                 | > 10 and ≤ 20 |
| C                 | > 20 and ≤ 35 |
| D                 | > 35 and ≤ 55 |
| E                 | > 55 and ≤ 80 |
| F                 | > 80          |

Highway Capacity Manual, 6th Edition

#### Stop Controlled Intersections - Level of Service

| Control Delay per |               |
|-------------------|---------------|
| Level of Service  | Vehicle (sec) |
| A                 | ≤ 10          |
| B                 | > 10 and ≤ 15 |
| C                 | > 15 and ≤ 25 |
| D                 | > 25 and ≤ 35 |
| E                 | > 35 and ≤ 50 |
| F                 | > 50          |

<sup>2</sup> Island Wide Transportation Study, Chapter 3: Operations and Mobility. Bainbridge Island, 2016



### 3.5 Pedestrian and Bicycle Activity

A significant amount of non-motorist activity was observed during field data acquisition. Notably, Ericksen Avenue NE was shown to support high volumes of bicycle activity; however, the roadway offers 4-5-foot wide shoulders along either side to minimize conflicts between motorists. In addition, the surrounding area offers a robust network of pedestrian infrastructure. The vehicular volumes captured in the field data suggests no adverse impacts are anticipated to pedestrian and bicycle safety and/or level of service.

### 3.6 Public Transit

A review of the Kitsap Transit regional bus schedule indicates transit is provided to the area. The nearest stop is located at the intersection of Madison Avenue N / Knechtel Way NE via Routes 90, 98 and 99 approximately 1,200 feet to the west of the subject site. Route 90 provides service from the Bainbridge Island Ferry Terminal to the North Viking Transit Center in Poulsbo from 6:15 AM to 7:50 PM. Route 98 provides service from the Fort Ward & State Park Entrance intersection to the Bainbridge Island Ferry from 5:42 AM to 8:10 PM. Route 99 provides service from the Eagle Harbor Drive NE & New Sweden Road NE intersection to the Bainbridge Island Ferry from 4:29 AM to 7:27 PM. Refer to the Kitsap Transit schedule for detailed route information. In addition, the Bainbridge Island Ferry Terminal is located approximately half a mile from the site.

### 3.7 Sight Distance at Access Driveways

As shown in the site plan (see Figure 2), one entrance on Ericksen Avenue NE is proposed for all 7 units. Assessments of the approximate driveway location were made to determine whether adequate entering sight (ESD) can be met for project traffic to safely enter the roadway. Sight distance requirements were obtained from the *American Association of State Highway and Transportation Officials* (AASHTO) standards for left- and right-turn movements. Based on the 25 mph speed limit on Ericksen Avenue NE, 280 and 240 feet of unobstructed view would be needed for left- and right turn movements, respectively. Preliminary examinations indicate that sight distance would be met at the proposed access location with distances exceeding 300 feet in either direction. Slight vertical grades existing along Ericksen Avenue NE become the limiting factor when looking north. No safety issues are detected with the proposed entrance layout.

### 3.8 Accident History

A list of the recorded accident history from 2015 through July of 2018 for the intersections of study was provided by WSDOT. A summary of the accident totals per year is given below in Table 2.

**Table 2**  
Accident History  
2015-2018 (WSDOT)

| <b>Ericksen Avenue NE at</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018<br/>Thru July</b> | <b>Avg/yr</b> |
|------------------------------|-------------|-------------|-------------|---------------------------|---------------|
| Wyatt Way NE                 | 2           | 0           | 0           | 1                         | 0.84          |
| Knechtel Way NE              | 1           | 1           | 0           | 0                         | 0.56          |

Reviewing descriptions from the report summaries indicate the types of crashes were in the form of: left turn maneuvers (2), parking related (2), and pedestrian related (1). No fatalities were recorded. The collision with the pedestrian was attributed to driver inattention and failure to grant right-of-way to the pedestrian as opposed to inefficient visibility or other roadway design aspect. The number of recorded accidents does not suggest any safety-related inefficiencies with respect to the surrounding roadway network.

## 4. FUTURE TRAFFIC DEMAND

### 4.1 Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. Data presented in this report was taken from the Institute of Transportation Engineer's publication *Trip Generation*, 10th Edition. The designated land use for the site is defined as Single-Family Detached Housing (LUC 210). Dwelling units was used at the independent variable and average rates were used for trip determination. Data for the peak hours are shown below in Table 3. It should be noted that the existing unit on-site was include in calculations. Given are average weekday daily traffic (AWDT), AM peak hour, and PM peak hour volumes.

**Table 3**  
Project Trip Generation

| <b>Land Use</b> | <b>Units</b> | <b>AWDT</b> | <b>AM Peak-Hour Trips</b> |            |              | <b>PM Peak-Hour Trips</b> |            |              |
|-----------------|--------------|-------------|---------------------------|------------|--------------|---------------------------|------------|--------------|
|                 |              |             | <b>In</b>                 | <b>Out</b> | <b>Total</b> | <b>In</b>                 | <b>Out</b> | <b>Total</b> |
| Residential     | 7            | 66          | 1                         | 4          | 5            | 4                         | 3          | 7            |

## 4.2 Trip Distribution

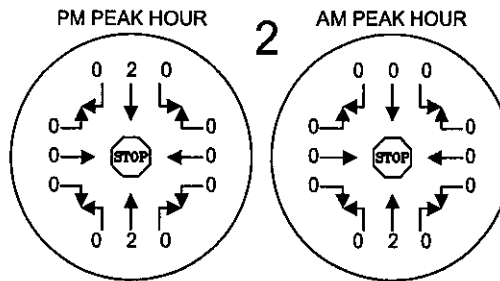
Trip distribution describes the process by which project generated trips are dispersed on the street network surrounding the site. The specific destinations and origins of the generated traffic primarily influences the key intersections, which will effectively receive the bulk of project impacts. The trips generated by the project are expected to follow the general trip pattern as shown in Figure 4. Percentages are primarily based on existing travel patterns identified from the field counts and location of nearby major arterials. Roughly half of the trips are anticipated to travel to/from the north and half to/from the south.

## 4.3 Future Traffic Volumes With and Without the Project

A horizon year of 2021 was used for future traffic delay analysis to reflect conditions at the time of project buildout. A long-term horizon year of 2035 was used to assess, if any, potential adverse impacts to the intersections of study. Forecast background volumes were derived by applying a one percent compound annual growth rate to the existing volumes shown in Figure 3. This growth rate has been determined appropriate for the area and has been used in similar projects in the past. Forecast 2021 peak hour volumes with the addition of project traffic are illustrated in Figure 5. Forecast 2035 peak hour volumes with project traffic are illustrated in Figure 6.



# ERICKSEN AVE NE / KNECHTEL WAY NE



MADISON AVE N

KNECHTEL WAY NE

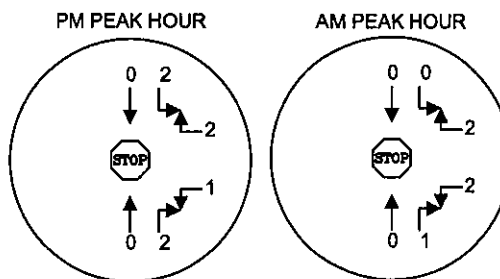
②

50%

WINTERSWEET RD NE

ERICKSEN AVE NE

## PROJECT ENTRANCE



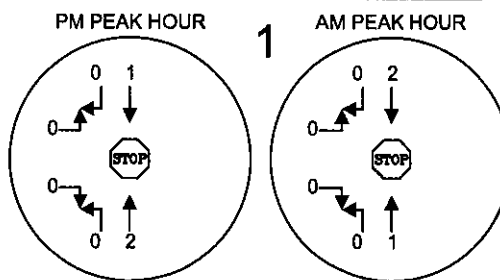
①

50%

SITE

WYATT WAY NE

# ERICKSEN AVE NE / WYATT WAY NE



## AM PEAK HOUR TRIPS

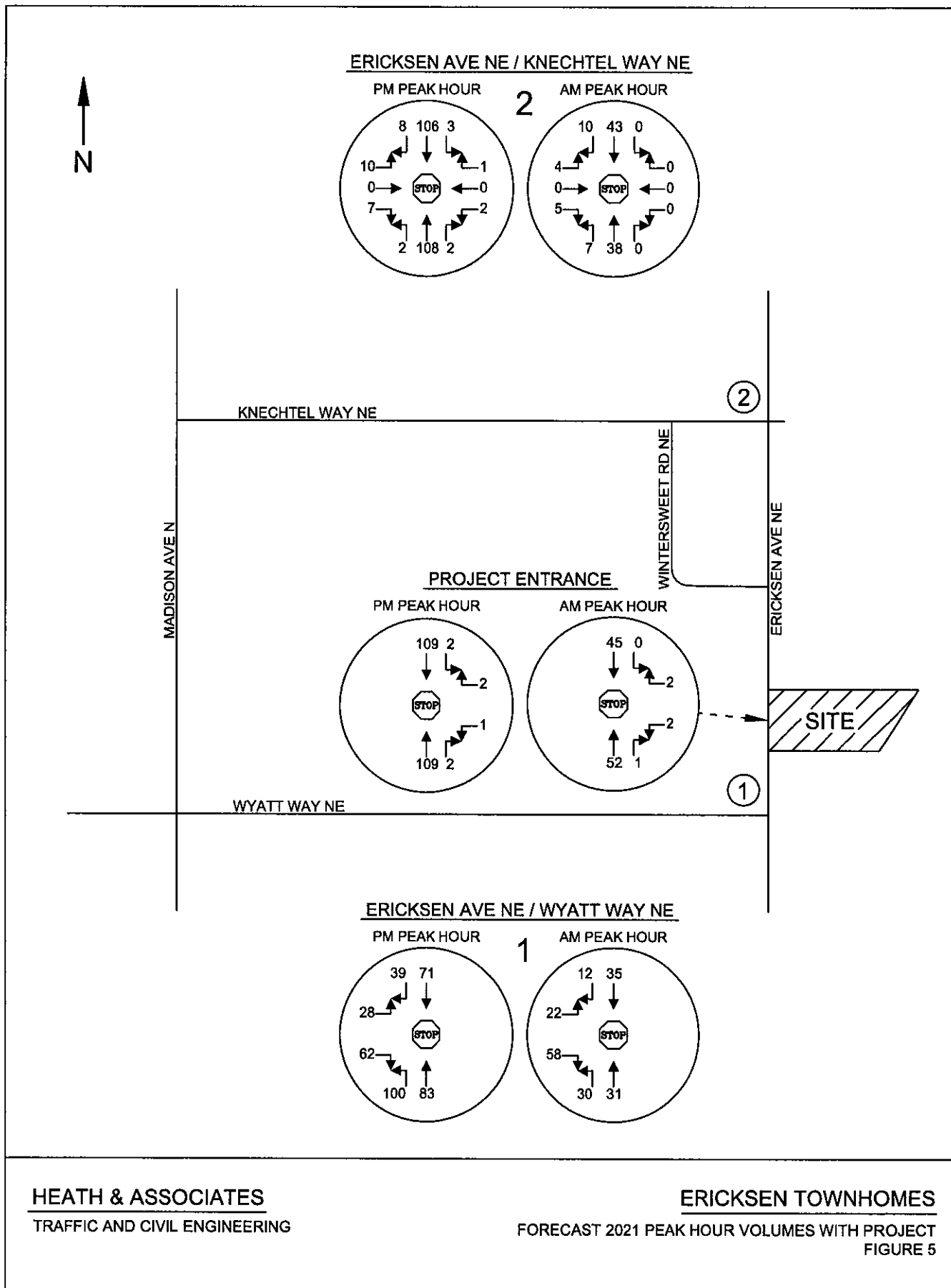
INBOUND: 1 VPH  
OUTBOUND: 4 VPH

## PM PEAK HOUR TRIPS

INBOUND: 4 VPH  
OUTBOUND: 3 VPH

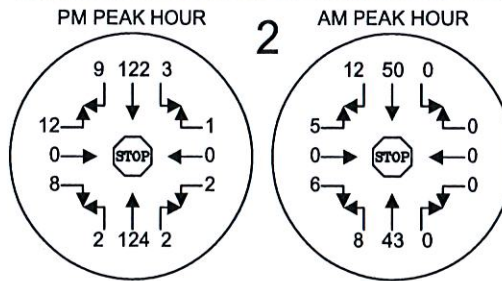
**HEATH & ASSOCIATES**  
TRAFFIC AND CIVIL ENGINEERING

**ERICKSEN TOWNHOMES**  
TRIP DISTRIBUTION - PEAK HOURS  
FIGURE 4





ERICKSEN AVE NE / KNECHTEL WAY NE



KNECHTEL WAY NE

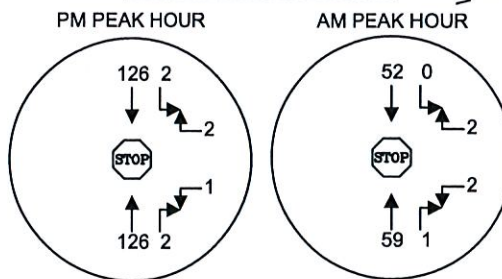
②

MADISON AVE N

WINTERSWEET RD NE

ERICKSEN AVE NE

PROJECT ENTRANCE

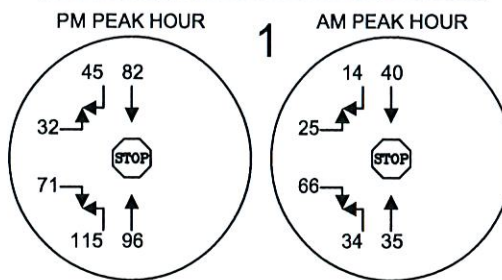


SITE

①

WYATT WAY NE

ERICKSEN AVE NE / WYATT WAY NE



**HEATH & ASSOCIATES**  
TRAFFIC AND CIVIL ENGINEERING

**ERICKSEN TOWNHOMES**  
FORECAST 2035 PEAK HOUR VOLUMES WITH PROJECT  
FIGURE 6



#### 4.4 Future Level of Service

Level of service analyses were made of the future AM and PM peak hour volumes with project-generated trips for the 2021 and 2035 horizon years. This analysis once again involved the use of the Synchro 10 analysis program. Delays for the key intersections under future conditions are shown below in Table 4 for the 2021 build-out scenario the long-term 2035 horizon year.

**Table 4**  
Forecast Level of Service with Project  
*Delays given in seconds per vehicle*

| Ericksen Avenue NE at | Horizon Year | Control | AM Peak Hour |       | PM Peak Hour |       |
|-----------------------|--------------|---------|--------------|-------|--------------|-------|
|                       |              |         | LOS          | Delay | LOS          | Delay |
| Wyatt Way NE          | 2021         | AWSC    | A            | 7.4   | A            | 8.7   |
|                       | 2035         |         | A            | 7.4   | A            | 9.1   |
| Knechtel Way NE       | 2021         | Stop    | A            | 9.2   | A            | 9.9   |
|                       | 2035         |         | A            | 9.3   | B            | 10.1  |
| Project Access        | 2021         | Stop    | A            | 8.9   | A            | 9.5   |
|                       | 2035         |         | A            | 9.0   | A            | 9.7   |

(AWSC: All-Way Stop Control)

As shown in Table 4, forecast delays are anticipated to remain mild for all scenarios and intersections of study. The intersections are shown to have adequate capacity to support the incoming project's vehicular demands with little to no adverse impacts. Forecast LOS will continue meeting City standards.

#### 4.5 Turn Lane Warrants

Left turn warrants were analyzed at the project's entrance on Ericksen Avenue NE to determine if storage capacity is needed for left turning vehicles. Procedures described in WSDOT's Design Manual (Figure 1310-7a) were used to ascertain left turn requirements under forecast 2035 PM peak hour conditions. Based on the assessment criteria, a left turn lane *would not be warranted*. The applicable warrant sheet has been included in the appendix.

## **5. CONCLUSIONS AND MITIGATION**

Ericksen Townhomes proposes for the construction of 6 new residential units in the City of Bainbridge Island. The subject property is located on the east side of Ericksen Avenue NE on parcel 262502-2-051-2009. An existing dwelling unit will remain for a total of 7 units on-site. Access is proposed via one entrance on Ericksen Avenue NE as shown in the site plan (Figure 2). The project is anticipated to generate approximately 66 average weekday daily trips, 5 AM peak hour and 7 PM peak hour trips.

Existing and Forecast 2021 & 2035 delay analyses indicate that all intersections of study will remain meeting the City's LOS standards. The adjacent roadways are shown to have sufficient capacity to support the project's demands. Similarly, the proposed access is anticipated to operate at LOS A or better for all scenarios. A left turn lane on Ericksen Avenue NE at the project's entrance is not warranted based on 2035 PM peak hour volumes.

Based on the findings of the report the recommended mitigation for the site is as follows:

1. Pay traffic impacts fees per net new dwelling unit to the City of Bainbridge Island per Ordinance No. 2015-07. Exact fees and calculations will be determined by the City.

No other mitigation is identified at this time.

ERICKSEN TOWNHOMES  
TRAFFIC IMPACT ANALYSIS

APPENDIX

## LEVEL OF SERVICE

The following are excerpts from the *2010 Highway Capacity Manual - Transportation Research Board Special Report 209*.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

### Level-of-Service definitions

The following definitions generally define the various levels of service for arterials.

*Level of service A represents* primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at signalized intersections is minimal.

*Level of service B represents* reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver in the traffic stream is only slightly restricted and delays are not bothersome.

*Level of service C represents* stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial classification.

*Level of service D borders on* a range in which small increases in flow may cause substantial increases in approach delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.

*Level of service E is characterized by* significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of

adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

*Level of service F* characterizes arterial flow at extremely low speeds, from less than one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with long delays and extensive queuing.

These definitions are general and conceptual in nature, and they apply primarily to uninterrupted flow. Levels of service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

For each type of facility, levels of service are defined based on one or more operational parameters that best describe operating quality for the subject facility type. While the concept of level of service attempts to address a wide range of operating conditions, limitations on data collection and availability make it impractical to treat the full range of operational parameters for every type of facility. The parameters selected to define levels of service for each facility type are called "measures of effectiveness" or "MOE's", and represent available measures that best describe the quality of operation on the subject facility type.

Each level of service represents a range of conditions, as defined by a range in the parameters given. Thus, a level of service is not a discrete condition, but rather a range of conditions for which boundaries are established.

**Heath & Associates, Inc.**  
**2214 Tacoma Road**  
**Puyallup, WA 98371**

**Project Name: Ericksen Townhomes**

**Intersection: Wyatt Way NE & Ericksen Ave**

**Jurisdiction: City of Bainbridge**

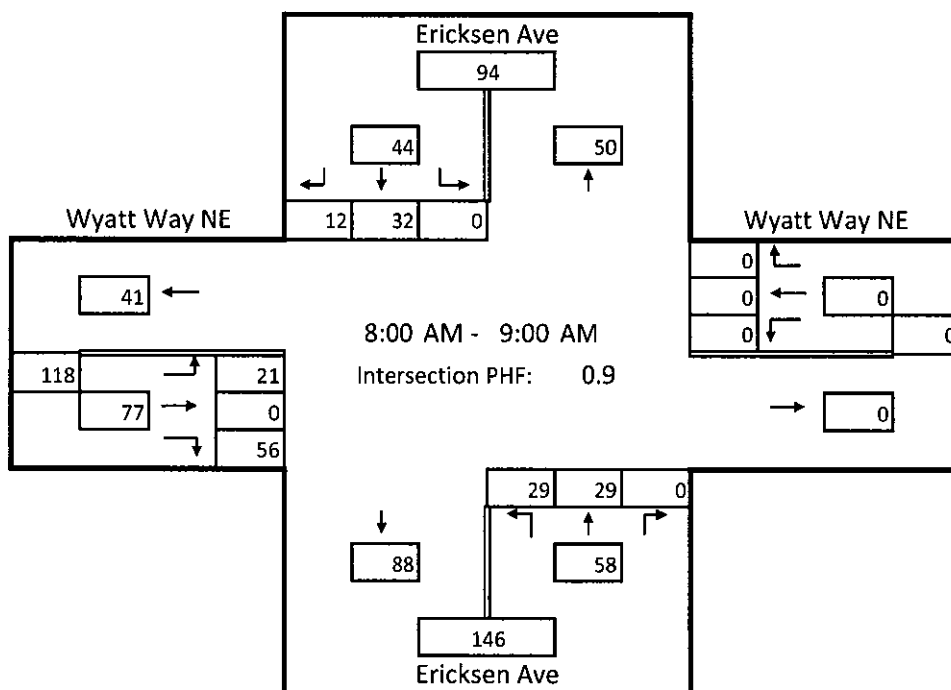
**Date of Count: 8/8/2018**

**Project Number: 4161**

| Time Period | Southbound<br>Ericksen Ave |   |    |   | Westbound<br>Wyatt Way NE |   |   |   | Northbound<br>Ericksen Ave |   |    |    | Eastbound<br>Wyatt Way NE |    |   |    | Total |
|-------------|----------------------------|---|----|---|---------------------------|---|---|---|----------------------------|---|----|----|---------------------------|----|---|----|-------|
|             | HV                         | R | T  | L | HV                        | R | T | L | HV                         | R | T  | L  | HV                        | R  | T | L  |       |
| 7:00 AM     | 0                          | 1 | 3  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 3  | 5  | 0                         | 7  | 0 | 2  | 21    |
| 7:15 AM     | 0                          | 1 | 8  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 2  | 1  | 0                         | 12 | 0 | 1  | 25    |
| 7:30 AM     | 0                          | 2 | 7  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 3  | 5  | 0                         | 27 | 0 | 2  | 46    |
| 7:45 AM     | 0                          | 2 | 5  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 2  | 4  | 1                         | 18 | 0 | 5  | 36    |
| 8:00 AM     | 0                          | 2 | 9  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 6  | 5  | 0                         | 7  | 0 | 6  | 35    |
| 8:15 AM     | 1                          | 3 | 6  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 10 | 6  | 0                         | 22 | 0 | 2  | 49    |
| 8:30 AM     | 0                          | 5 | 4  | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 5  | 12 | 0                         | 21 | 0 | 3  | 50    |
| 8:45 AM     | 0                          | 2 | 13 | 0 | 0                         | 0 | 0 | 0 | 0                          | 0 | 8  | 6  | 0                         | 6  | 0 | 10 | 45    |

|              |   |    |    |   |   |   |   |   |   |   |    |    |   |     |   |    |     |
|--------------|---|----|----|---|---|---|---|---|---|---|----|----|---|-----|---|----|-----|
| <b>Total</b> | 1 | 18 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 44 | 1 | 120 | 0 | 31 | 307 |
|--------------|---|----|----|---|---|---|---|---|---|---|----|----|---|-----|---|----|-----|

|                   |                           |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    |              |
|-------------------|---------------------------|----|----|---|------|---|---|---|------|---|----|----|------|----|---|----|--------------|
| <b>Peak Hour</b>  | <b>8:00 AM to 9:00 AM</b> |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 1                         | 12 | 32 | 0 | 0    | 0 | 0 | 0 | 0    | 0 | 29 | 29 | 0    | 56 | 0 | 21 | 179          |
| <b>Heavy Veh.</b> | 1.4%                      |    |    |   | 0.0% |   |   |   | 0.0% |   |    |    | 0.7% |    |   |    |              |
| <b>PHF</b>        | 0.73                      |    |    |   | 0.00 |   |   |   | 0.85 |   |    |    | 0.80 |    |   |    |              |





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**Intersection: Knechtel Way NE & Ericksen Ave**

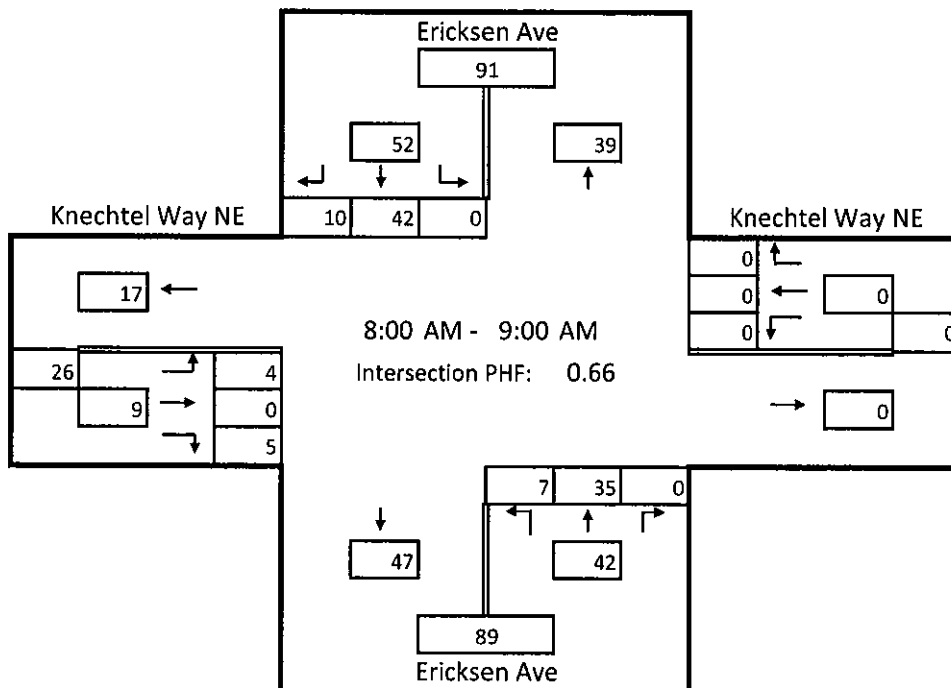
**Jurisdiction: City of Bainbridge**

**Date of Count: 8/8/2018**

**Project Number: 4161**

| Time Period  | Southbound<br>Ericksen Ave |           |           |          | Westbound<br>Knechtel Way NE |          |          |          | Northbound<br>Ericksen Ave |          |           |          | Eastbound<br>Knechtel Way NE |          |          |          | Total      |
|--------------|----------------------------|-----------|-----------|----------|------------------------------|----------|----------|----------|----------------------------|----------|-----------|----------|------------------------------|----------|----------|----------|------------|
|              | HV                         | R         | T         | L        | HV                           | R        | T        | L        | HV                         | R        | T         | L        | HV                           | R        | T        | L        |            |
| 7:00 AM      | 0                          | 1         | 4         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 5         | 0        | 0                            | 1        | 0        | 2        | 13         |
| 7:15 AM      | 0                          | 0         | 7         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 2         | 1        | 0                            | 2        | 0        | 1        | 13         |
| 7:30 AM      | 1                          | 0         | 10        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 6         | 0        | 0                            | 0        | 0        | 0        | 17         |
| 7:45 AM      | 0                          | 2         | 8         | 0        | 0                            | 0        | 0        | 0        | 0                          | 1        | 6         | 0        | 0                            | 1        | 0        | 0        | 18         |
| 8:00 AM      | 0                          | 0         | 9         | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 7         | 1        | 0                            | 3        | 0        | 1        | 21         |
| 8:15 AM      | 1                          | 4         | 11        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 6         | 3        | 0                            | 0        | 0        | 0        | 25         |
| 8:30 AM      | 0                          | 2         | 6         | 0        | 0                            | 0        | 0        | 0        | 1                          | 0        | 7         | 2        | 0                            | 1        | 0        | 0        | 19         |
| 8:45 AM      | 0                          | 4         | 16        | 0        | 0                            | 0        | 0        | 0        | 0                          | 0        | 15        | 1        | 0                            | 1        | 0        | 3        | 40         |
| <b>Total</b> | <b>2</b>                   | <b>13</b> | <b>71</b> | <b>0</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                   | <b>1</b> | <b>54</b> | <b>8</b> | <b>0</b>                     | <b>9</b> | <b>0</b> | <b>7</b> | <b>166</b> |

|            |                           |    |    |   |      |   |   |   |      |   |    |   |      |   |   |   |       |
|------------|---------------------------|----|----|---|------|---|---|---|------|---|----|---|------|---|---|---|-------|
| Peak Hour  | <b>8:00 AM to 9:00 AM</b> |    |    |   |      |   |   |   |      |   |    |   |      |   |   |   | Total |
| Peak Total | 1                         | 10 | 42 | 0 | 0    | 0 | 0 | 0 | 1    | 0 | 35 | 7 | 0    | 5 | 0 | 4 | 103   |
| Heavy Veh. | 2.4%                      |    |    |   | 0.0% |   |   |   | 1.6% |   |    |   | 0.0% |   |   |   |       |
| PHF        | 0.65                      |    |    |   | 0.00 |   |   |   | 0.66 |   |    |   | 0.56 |   |   |   |       |



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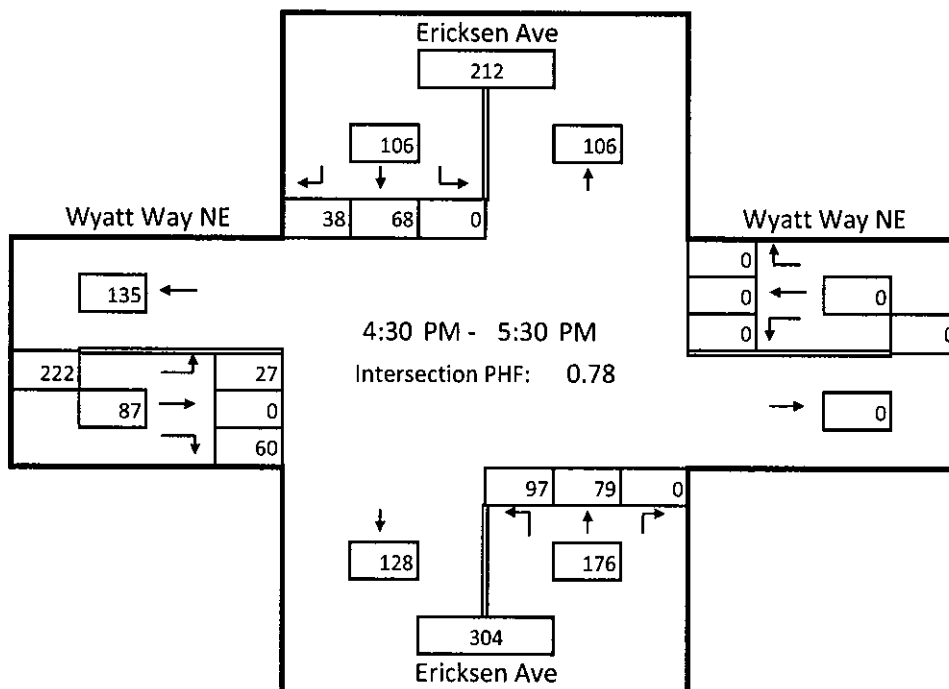
**Jurisdiction: City of Bainbridge**

**Date of Count: 8/7/2018**

**Project Number: 4161**

| Time Period  | Southbound<br>Ericksen Ave |           |            |          | Westbound<br>Wyatt Way NE |          |          |          | Northbound<br>Ericksen Ave |          |            |            | Eastbound<br>Wyatt Way NE |           |          |           | Total      |
|--------------|----------------------------|-----------|------------|----------|---------------------------|----------|----------|----------|----------------------------|----------|------------|------------|---------------------------|-----------|----------|-----------|------------|
|              | HV                         | R         | T          | L        | HV                        | R        | T        | L        | HV                         | R        | T          | L          | HV                        | R         | T        | L         |            |
| 4:00 PM      | 0                          | 4         | 13         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 15         | 9          | 0                         | 7         | 0        | 8         | 56         |
| 4:15 PM      | 0                          | 10        | 20         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 10         | 18         | 0                         | 14        | 0        | 6         | 78         |
| 4:30 PM      | 0                          | 13        | 13         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 29         | 42         | 0                         | 15        | 0        | 7         | 119        |
| 4:45 PM      | 0                          | 6         | 23         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 22         | 21         | 0                         | 13        | 0        | 6         | 91         |
| 5:00 PM      | 0                          | 10        | 18         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 15         | 14         | 1                         | 11        | 0        | 9         | 78         |
| 5:15 PM      | 0                          | 9         | 14         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 13         | 20         | 0                         | 21        | 0        | 5         | 82         |
| 5:30 PM      | 0                          | 8         | 12         | 0        | 0                         | 0        | 0        | 0        | 1                          | 0        | 21         | 40         | 0                         | 7         | 0        | 1         | 90         |
| 5:45 PM      | 0                          | 1         | 10         | 0        | 0                         | 0        | 0        | 0        | 0                          | 0        | 6          | 15         | 0                         | 8         | 0        | 6         | 46         |
| <b>Total</b> | <b>0</b>                   | <b>61</b> | <b>123</b> | <b>0</b> | <b>0</b>                  | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                   | <b>0</b> | <b>131</b> | <b>179</b> | <b>1</b>                  | <b>96</b> | <b>0</b> | <b>48</b> | <b>638</b> |

|                   |                           |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    |              |
|-------------------|---------------------------|----|----|---|------|---|---|---|------|---|----|----|------|----|---|----|--------------|
| <b>Peak Hour</b>  | <b>4:30 PM to 5:30 PM</b> |    |    |   |      |   |   |   |      |   |    |    |      |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 0                         | 38 | 68 | 0 | 0    | 0 | 0 | 0 | 0    | 0 | 79 | 97 | 1    | 60 | 0 | 27 | 369          |
| <b>Heavy Veh.</b> | 0.0%                      |    |    |   | 0.0% |   |   |   | 0.3% |   |    |    | 0.7% |    |   |    |              |
| <b>PHF</b>        | 0.91                      |    |    |   | 0.00 |   |   |   | 0.62 |   |    |    | 0.84 |    |   |    |              |



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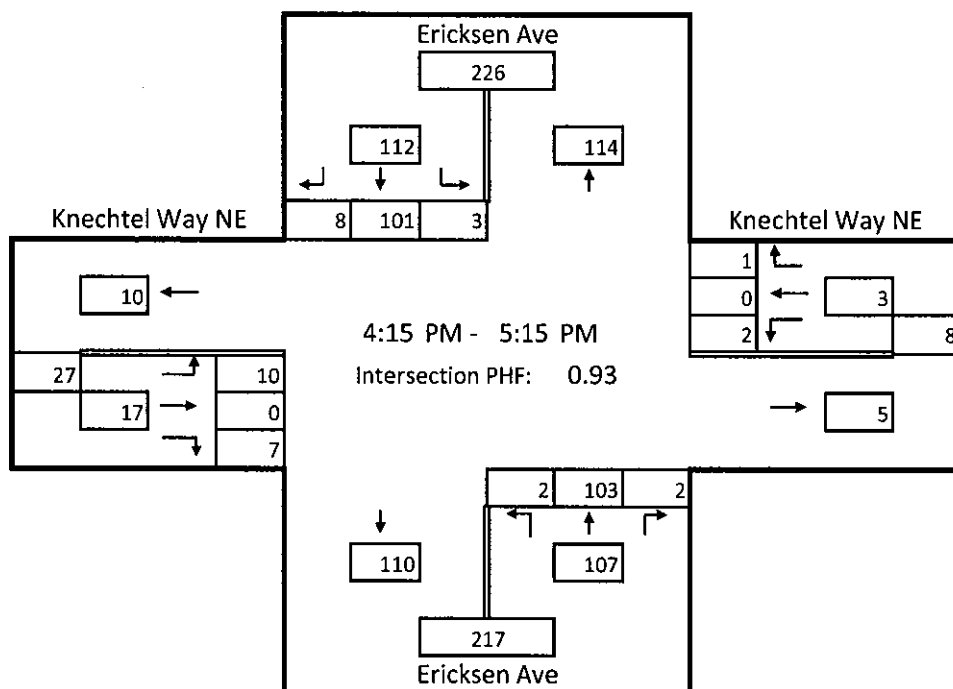
**Intersection:** Knechtel Way NE & Ericksen Ave

**Jurisdiction:** City of Bainbridge

**Date of Count:** 8/7/2018

**Project Number:** 4161

| Time Period       | Southbound<br>Ericksen Ave |    |     |   | Westbound<br>Knechtel Way NE |   |   |   | Northbound<br>Ericksen Ave |   |     |    | Eastbound<br>Knechtel Way NE |    |   |    | Total        |
|-------------------|----------------------------|----|-----|---|------------------------------|---|---|---|----------------------------|---|-----|----|------------------------------|----|---|----|--------------|
|                   | HV                         | R  | T   | L | HV                           | R | T | L | HV                         | R | T   | L  | HV                           | R  | T | L  |              |
| 4:00 PM           | 0                          | 3  | 11  | 0 | 0                            | 0 | 0 | 0 | 0                          | 2 | 21  | 2  | 0                            | 5  | 0 | 3  | 47           |
| 4:15 PM           | 0                          | 5  | 27  | 2 | 0                            | 0 | 0 | 0 | 0                          | 0 | 15  | 0  | 0                            | 1  | 0 | 3  | 53           |
| 4:30 PM           | 0                          | 1  | 23  | 0 | 0                            | 1 | 0 | 1 | 1                          | 1 | 33  | 0  | 0                            | 2  | 0 | 2  | 64           |
| 4:45 PM           | 0                          | 2  | 25  | 1 | 0                            | 0 | 0 | 0 | 0                          | 1 | 27  | 1  | 0                            | 1  | 0 | 2  | 60           |
| 5:00 PM           | 0                          | 0  | 26  | 0 | 0                            | 0 | 0 | 1 | 0                          | 0 | 28  | 1  | 0                            | 3  | 0 | 3  | 62           |
| 5:15 PM           | 0                          | 2  | 23  | 0 | 0                            | 1 | 0 | 1 | 0                          | 0 | 18  | 4  | 0                            | 0  | 0 | 0  | 49           |
| 5:30 PM           | 0                          | 4  | 15  | 1 | 0                            | 0 | 0 | 0 | 1                          | 0 | 26  | 1  | 0                            | 3  | 0 | 2  | 52           |
| 5:45 PM           | 0                          | 2  | 10  | 1 | 0                            | 0 | 0 | 0 | 0                          | 0 | 10  | 1  | 0                            | 1  | 0 | 0  | 25           |
| <b>Total</b>      | 0                          | 19 | 160 | 5 | 0                            | 2 | 0 | 3 | 2                          | 4 | 178 | 10 | 0                            | 16 | 0 | 15 | 412          |
| <b>Peak Hour</b>  | <b>4:15 PM to 5:15 PM</b>  |    |     |   |                              |   |   |   |                            |   |     |    |                              |    |   |    | <b>Total</b> |
| <b>Peak Total</b> | 0                          | 8  | 101 | 3 | 0                            | 1 | 0 | 2 | 1                          | 2 | 103 | 2  | 0                            | 7  | 0 | 10 | 239          |
| <b>Heavy Veh.</b> | 0.0%                       |    |     |   | 0.0%                         |   |   |   | 1.0%                       |   |     |    | 0.0%                         |    |   |    |              |
| <b>PHF</b>        | 0.82                       |    |     |   | 0.38                         |   |   |   | 0.79                       |   |     |    | 0.71                         |    |   |    |              |



## Single-Family Detached Housing (210)

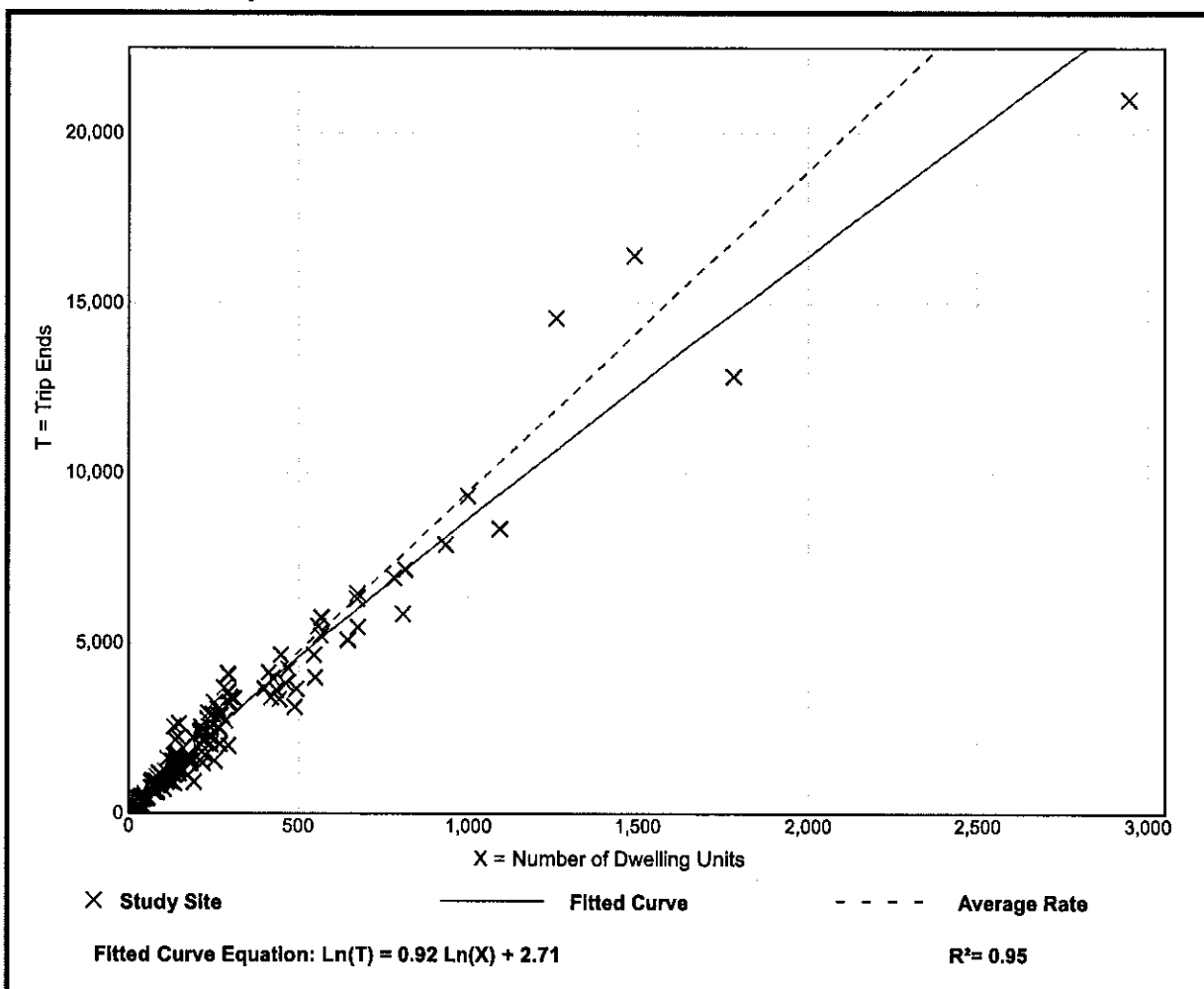
Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 159  
Avg. Num. of Dwelling Units: 264  
Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 9.44         | 4.81 - 19.39   | 2.10               |

### Data Plot and Equation



Trip Generation Manual, 10th Edition • Institute of Transportation Engineers

## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 173

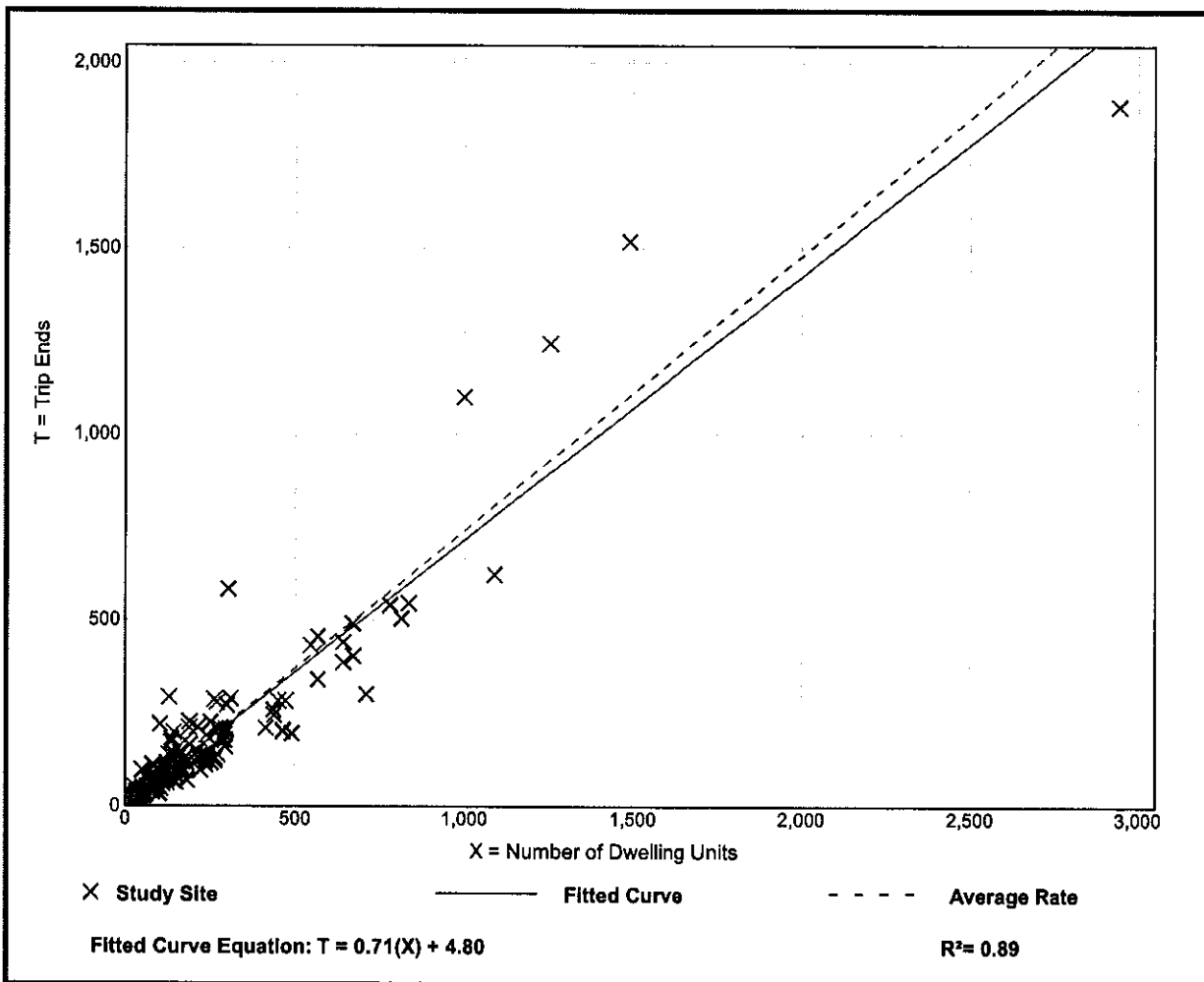
Avg. Num. of Dwelling Units: 219

Directional Distribution: 25% entering, 75% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.74         | 0.33 - 2.27    | 0.27               |

### Data Plot and Equation



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## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 190

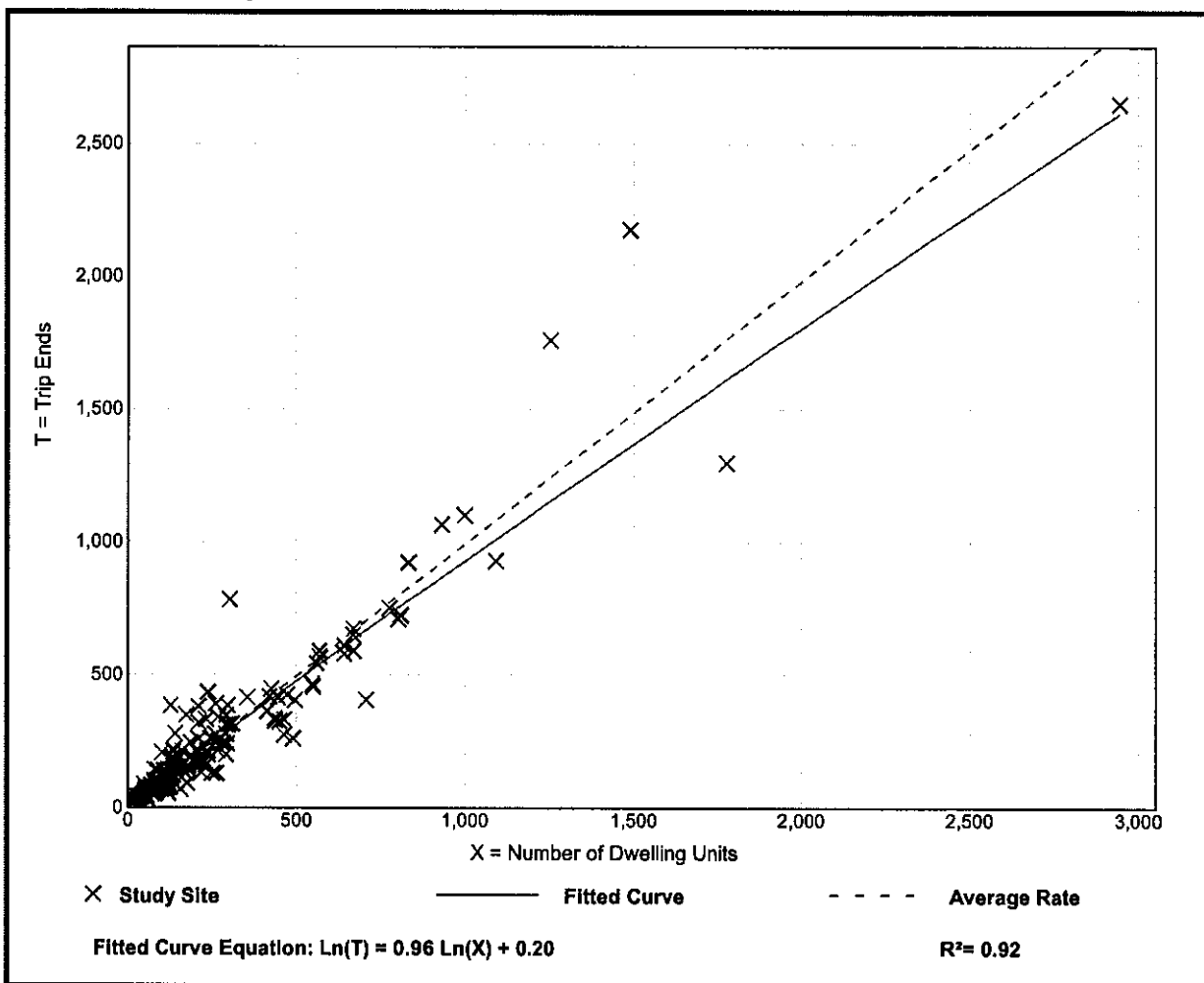
Avg. Num. of Dwelling Units: 242

Directional Distribution: 63% entering, 37% exiting

### Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 0.99         | 0.44 - 2.98    | 0.31               |

### Data Plot and Equation



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| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.3 |
| Intersection LOS          | A   |

| Movement            | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
|---------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations |  |      |      |  |  |      |
| Traffic Vol, veh/h  | 21                                                                                | 56   | 29   | 29                                                                                | 32                                                                                | 12   |
| Future Vol, veh/h   | 21                                                                                | 56   | 29   | 29                                                                                | 32                                                                                | 12   |
| Peak Hour Factor    | 0.90                                                                              | 0.90 | 0.90 | 0.90                                                                              | 0.90                                                                              | 0.90 |
| Heavy Vehicles, %   | 1                                                                                 | 1    | 1    | 1                                                                                 | 1                                                                                 | 1    |
| Mvmt Flow           | 23                                                                                | 62   | 32   | 32                                                                                | 36                                                                                | 13   |
| Number of Lanes     | 1                                                                                 | 0    | 0    | 1                                                                                 | 1                                                                                 | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.2 | 7.6 | 7.2 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 50%   | 27%   | 0%    |
| Vol Thru, %            | 50%   | 0%    | 73%   |
| Vol Right, %           | 0%    | 73%   | 27%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 58    | 77    | 44    |
| LT Vol                 | 29    | 21    | 0     |
| Through Vol            | 29    | 0     | 32    |
| RT Vol                 | 0     | 56    | 12    |
| Lane Flow Rate         | 64    | 86    | 49    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.075 | 0.089 | 0.054 |
| Departure Headway (Hd) | 4.204 | 3.728 | 3.952 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 850   | 952   | 902   |
| Service Time           | 2.24  | 1.784 | 1.994 |
| HCM Lane V/C Ratio     | 0.075 | 0.09  | 0.054 |
| HCM Control Delay      | 7.6   | 7.2   | 7.2   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.2   | 0.3   | 0.2   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

Existing AM Peak Hour  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 35   | 0    | 0    | 42   | 10   |
| Future Vol, veh/h        | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 35   | 0    | 0    | 42   | 10   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 6    | 0    | 8    | 0    | 0    | 0    | 11   | 53   | 0    | 0    | 64   | 15   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       |       |   | Major2 |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|-------|---|--------|-------|---|---|
| Conflicting Flow All | 157    | 157   | 82     | 161   | 164    | 63    | 84    | 0 | 0      | 58    | 0 | 0 |
| Stage 1              | 77     | 77    | -      | 80    | 80     | -     | -     | - | -      | -     | - | - |
| Stage 2              | 80     | 80    | -      | 81    | 84     | -     | -     | - | -      | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11  | - | -      | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -     | - | -      | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -     | - | -      | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209 | - | -      | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 811    | 737   | 980    | 807   | 730    | 1004  | 1519  | - | -      | 1553  | - | - |
| Stage 1              | 934    | 833   | -      | 931   | 830    | -     | -     | - | -      | -     | - | - |
| Stage 2              | 931    | 830   | -      | 930   | 827    | -     | -     | - | -      | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -     | - | -      | -     | - | - |
| Mov Cap-1 Maneuver   | 799    | 724   | 971    | 789   | 718    | 994   | 1512  | - | -      | 1546  | - | - |
| Mov Cap-2 Maneuver   | 799    | 724   | -      | 789   | 718    | -     | -     | - | -      | -     | - | - |
| Stage 1              | 923    | 829   | -      | 920   | 820    | -     | -     | - | -      | -     | - | - |
| Stage 2              | 920    | 820   | -      | 918   | 823    | -     | -     | - | -      | -     | - | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.1 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL | SBT  | SBR |
|-----------------------|-------|-----|-----|------------|-----|------|-----|
| Capacity (veh/h)      | 1512  | -   | -   | 886        | -   | 1546 | -   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | 0.015      | -   | -    | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.1        | 0   | 0    | -   |
| HCM Lane LOS          | A     | A   | -   | A          | A   | -    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | -   | 0    | -   |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 8.5 |
| Intersection LOS          | A   |

| Movement            | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
|---------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations |  |      |      |  |  |      |
| Traffic Vol, veh/h  | 27                                                                                | 60   | 97   | 79                                                                                | 68                                                                                | 38   |
| Future Vol, veh/h   | 27                                                                                | 60   | 97   | 79                                                                                | 68                                                                                | 38   |
| Peak Hour Factor    | 0.78                                                                              | 0.78 | 0.78 | 0.78                                                                              | 0.78                                                                              | 0.78 |
| Heavy Vehicles, %   | 1                                                                                 | 1    | 1    | 1                                                                                 | 1                                                                                 | 1    |
| Mvmt Flow           | 35                                                                                | 77   | 124  | 101                                                                               | 87                                                                                | 49   |
| Number of Lanes     | 1                                                                                 | 0    | 0    | 1                                                                                 | 1                                                                                 | 0    |

| Approach                   | EB  | NB  | SB |
|----------------------------|-----|-----|----|
| Opposing Approach          |     | SB  | NB |
| Opposing Lanes             | 0   | 1   | 1  |
| Conflicting Approach Left  | SB  | EB  |    |
| Conflicting Lanes Left     | 1   | 1   | 0  |
| Conflicting Approach Right | NB  |     | EB |
| Conflicting Lanes Right    | 1   | 0   | 1  |
| HCM Control Delay          | 8.1 | 9.1 | 8  |
| HCM LOS                    | A   | A   | A  |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 64%   |
| Vol Right, %           | 0%    | 69%   | 36%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 176   | 87    | 106   |
| LT Vol                 | 97    | 27    | 0     |
| Through Vol            | 79    | 0     | 68    |
| RT Vol                 | 0     | 60    | 38    |
| Lane Flow Rate         | 226   | 112   | 136   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.278 | 0.135 | 0.158 |
| Departure Headway (Hd) | 4.435 | 4.365 | 4.196 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 815   | 823   | 856   |
| Service Time           | 2.435 | 2.385 | 2.215 |
| HCM Lane V/C Ratio     | 0.277 | 0.136 | 0.159 |
| HCM Control Delay      | 9.1   | 8.1   | 8     |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.1   | 0.5   | 0.6   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

Existing PM Peak Hour  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 103  | 2    | 3    | 101  | 8    |
| Future Vol, veh/h        | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 103  | 2    | 3    | 101  | 8    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 11   | 0    | 8    | 2    | 0    | 1    | 2    | 111  | 2    | 3    | 109  | 9    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 247    | 247   | 124    | 250   | 250    | 122   | 123    | 0 | 0 | 118   | 0 | 0 |
| Stage 1              | 125    | 125   | -      | 121   | 121    | -     | -      | - | - | -     | - | - |
| Stage 2              | 122    | 122   | -      | 129   | 129    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - | - | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - | - | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 709    | 657   | 929    | 706   | 655    | 932   | 1470   | - | - | 1476  | - | - |
| Stage 1              | 881    | 794   | -      | 886   | 798    | -     | -      | - | - | -     | - | - |
| Stage 2              | 885    | 797   | -      | 877   | 791    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - | - | -     | - | - |
| Mov Cap-1 Maneuver   | 700    | 648   | 920    | 692   | 646    | 923   | 1463   | - | - | 1469  | - | - |
| Mov Cap-2 Maneuver   | 700    | 648   | -      | 692   | 646    | -     | -      | - | - | -     | - | - |
| Stage 1              | 876    | 788   | -      | 881   | 793    | -     | -      | - | - | -     | - | - |
| Stage 2              | 879    | 792   | -      | 864   | 785    | -     | -      | - | - | -     | - | - |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.8 | 9.8 | 0.1 | 0.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1  | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|-------|-----|-----|
| Capacity (veh/h)      | 1463  | -   | -   | 776 755     | 1469  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.024 0.004 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 9.8 9.8     | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | A A         | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1 0       | 0     | -   | -   |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.4 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | Y    | Y    |      |
| Traffic Vol, veh/h  | 22   | 58   | 30   | 31   | 35   | 12   |
| Future Vol, veh/h   | 22   | 58   | 30   | 31   | 35   | 12   |
| Peak Hour Factor    | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 24   | 64   | 33   | 34   | 39   | 13   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.2 | 7.6 | 7.3 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 49%   | 28%   | 0%    |
| Vol Thru, %            | 51%   | 0%    | 74%   |
| Vol Right, %           | 0%    | 72%   | 26%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 61    | 80    | 47    |
| LT Vol                 | 30    | 22    | 0     |
| Through Vol            | 31    | 0     | 35    |
| RT Vol                 | 0     | 58    | 12    |
| Lane Flow Rate         | 68    | 89    | 52    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.079 | 0.092 | 0.058 |
| Departure Headway (Hd) | 4.211 | 3.742 | 3.971 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 849   | 948   | 898   |
| Service Time           | 2.248 | 1.801 | 2.014 |
| HCM Lane V/C Ratio     | 0.08  | 0.094 | 0.058 |
| HCM Control Delay      | 7.6   | 7.2   | 7.3   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.3   | 0.3   | 0.2   |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 38   | 0    | 0    | 43   | 10   |
| Future Vol, veh/h        | 4    | 0    | 5    | 0    | 0    | 0    | 7    | 38   | 0    | 0    | 43   | 10   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 6    | 0    | 8    | 0    | 0    | 0    | 11   | 58   | 0    | 0    | 65   | 15   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 163    | 163   | 83     | 167   | 170    | 68    | 85     | 0 |
| Stage 1              | 78     | 78    | -      | 85    | 85     | -     | -      | - |
| Stage 2              | 85     | 85    | -      | 82    | 85     | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 804    | 731   | 979    | 799   | 725    | 998   | 1518   | - |
| Stage 1              | 933    | 832   | -      | 925   | 826    | -     | -      | - |
| Stage 2              | 925    | 826   | -      | 929   | 826    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 791    | 718   | 970    | 781   | 712    | 989   | 1511   | - |
| Mov Cap-2 Maneuver   | 791    | 718   | -      | 781   | 712    | -     | -      | - |
| Stage 1              | 921    | 828   | -      | 913   | 815    | -     | -      | - |
| Stage 2              | 913    | 815   | -      | 917   | 822    | -     | -      | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.2 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL | SBT  | SBR |
|-----------------------|-------|-----|-----|------------|-----|------|-----|
| Capacity (veh/h)      | 1511  | -   | -   | 881        | -   | 1539 | -   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | 0.015      | -   | -    | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.2        | 0   | 0    | -   |
| HCM Lane LOS          | A     | A   | -   | A          | A   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | -   | 0    | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↑    | ↑    | ↔    | ↔    |
| Traffic Vol, veh/h       | 2    | 2    | 52   | 1    | 0    | 45   |
| Future Vol, veh/h        | 2    | 2    | 52   | 1    | 0    | 45   |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 2    | 2    | 58   | 1    | 0    | 50   |

| Major/Minor          | Minor1 | Major1 | Major2 | Major3 | Major4 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 119    | 69     | 0      | 0      | 64     |
| Stage 1              | 64     | -      | -      | -      | -      |
| Stage 2              | 55     | -      | -      | -      | -      |
| Critical Hdwy        | 6.41   | 6.21   | -      | -      | 4.11   |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | -      | -      |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | -      | 2.209  |
| Pot Cap-1 Maneuver   | 879    | 997    | -      | -      | 1545   |
| Stage 1              | 961    | -      | -      | -      | -      |
| Stage 2              | 970    | -      | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | 870    | 988    | -      | -      | 1538   |
| Mov Cap-2 Maneuver   | 870    | -      | -      | -      | -      |
| Stage 1              | 956    | -      | -      | -      | -      |
| Stage 2              | 965    | -      | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.9 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT  |
|-----------------------|-----|----------|-------|------|
| Capacity (veh/h)      | -   | -        | 925   | 1538 |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | -    |
| HCM Control Delay (s) | -   | -        | 8.9   | 0    |
| HCM Lane LOS          | -   | -        | A     | A    |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0    |



| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 8.7 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h  | 28   | 62   | 100  | 83   | 71   | 39   |
| Future Vol, veh/h   | 28   | 62   | 100  | 83   | 71   | 39   |
| Peak Hour Factor    | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 36   | 79   | 128  | 106  | 91   | 50   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 8.1 | 9.3 | 8.1 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 65%   |
| Vol Right, %           | 0%    | 69%   | 35%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 183   | 90    | 110   |
| LT Vol                 | 100   | 28    | 0     |
| Through Vol            | 83    | 0     | 71    |
| RT Vol                 | 0     | 62    | 39    |
| Lane Flow Rate         | 235   | 115   | 141   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.29  | 0.141 | 0.165 |
| Departure Headway (Hd) | 4.452 | 4.398 | 4.221 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 812   | 817   | 852   |
| Service Time           | 2.452 | 2.419 | 2.24  |
| HCM Lane V/C Ratio     | 0.289 | 0.141 | 0.165 |
| HCM Control Delay      | 9.3   | 8.1   | 8.1   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.2   | 0.5   | 0.6   |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.9  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 108  | 2    | 3    | 106  | 8    |
| Future Vol, veh/h        | 10   | 0    | 7    | 2    | 0    | 1    | 2    | 108  | 2    | 3    | 106  | 8    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 11   | 0    | 8    | 2    | 0    | 1    | 2    | 116  | 2    | 3    | 114  | 9    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 257    | 257   | 129    | 260   | 260    | 127   | 128    | 0 |
| Stage 1              | 130    | 130   | -      | 126   | 126    | -     | -      | - |
| Stage 2              | 127    | 127   | -      | 134   | 134    | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 698    | 649   | 924    | 695   | 646    | 926   | 1464   | - |
| Stage 1              | 876    | 791   | -      | 880   | 794    | -     | -      | - |
| Stage 2              | 879    | 793   | -      | 872   | 787    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 689    | 641   | 915    | 681   | 638    | 917   | 1457   | - |
| Mov Cap-2 Maneuver   | 689    | 641   | -      | 681   | 638    | -     | -      | - |
| Stage 1              | 871    | 785   | -      | 875   | 789    | -     | -      | - |
| Stage 2              | 873    | 788   | -      | 859   | 781    | -     | -      | - |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.8 | 9.9 | 0.1 | 0.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1457  | -   | -   | 767   | 745   | 1463  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.024 | 0.004 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 9.8   | 9.9   | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | A     | A     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | 0     | 0     | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | Y    |      | ↑    |      |      | ↑    |
| Traffic Vol, veh/h       | 1    | 2    | 109  | 2    | 2    | 109  |
| Future Vol, veh/h        | 1    | 2    | 109  | 2    | 2    | 109  |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 78   | 78   | 78   | 78   | 78   | 78   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 1    | 3    | 140  | 3    | 3    | 140  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 298    | 152    | 0      | 0 | 148   |
| Stage 1              | 147    | -      | -      | - | -     |
| Stage 2              | 151    | -      | -      | - | -     |
| Critical Hdwy        | 6.41   | 6.21   | -      | - | 4.11  |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | - | 2.209 |
| Pot Cap-1 Maneuver   | 695    | 897    | -      | - | 1440  |
| Stage 1              | 883    | -      | -      | - | -     |
| Stage 2              | 879    | -      | -      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | 687    | 888    | -      | - | 1433  |
| Mov Cap-2 Maneuver   | 687    | -      | -      | - | -     |
| Stage 1              | 877    | -      | -      | - | -     |
| Stage 2              | 875    | -      | -      | - | -     |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.5 | 0  | 0.1 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLh1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 809   | 1433  |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | 0.002 |
| HCM Control Delay (s) | -   | -        | 9.5   | 7.5   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0     |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.4 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | ↑    | ↑    |      |
| Traffic Vol, veh/h  | 25   | 66   | 34   | 35   | 40   | 14   |
| Future Vol, veh/h   | 25   | 66   | 34   | 35   | 40   | 14   |
| Peak Hour Factor    | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 28   | 73   | 38   | 39   | 44   | 16   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 7.3 | 7.7 | 7.3 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 49%   | 27%   | 0%    |
| Vol Thru, %            | 51%   | 0%    | 74%   |
| Vol Right, %           | 0%    | 73%   | 26%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 69    | 91    | 54    |
| LT Vol                 | 34    | 25    | 0     |
| Through Vol            | 35    | 0     | 40    |
| RT Vol                 | 0     | 66    | 14    |
| Lane Flow Rate         | 77    | 101   | 60    |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.09  | 0.106 | 0.067 |
| Departure Headway (Hd) | 4.239 | 3.77  | 3.998 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 842   | 939   | 890   |
| Service Time           | 2.284 | 1.838 | 2.049 |
| HCM Lane V/C Ratio     | 0.091 | 0.108 | 0.067 |
| HCM Control Delay      | 7.7   | 7.3   | 7.3   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 0.3   | 0.4   | 0.2   |

HCM 6th TWSC  
1: Ericksen Ave NE & Knechtel Way NE/Driveway

2035 AM Peak Hour with Project  
08/22/2018

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      |
| Traffic Vol, veh/h       | 5    | 0    | 6    | 0    | 0    | 0    | 8    | 43   | 0    | 0    | 50   | 12   |
| Future Vol, veh/h        | 5    | 0    | 6    | 0    | 0    | 0    | 8    | 43   | 0    | 0    | 50   | 12   |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 8    | 0    | 9    | 0    | 0    | 0    | 12   | 65   | 0    | 0    | 76   | 18   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|
| Conflicting Flow All | 184    | 184   | 95     | 189   | 193    | 75    | 99     | 0 |
| Stage 1              | 90     | 90    | -      | 94    | 94     | -     | -      | - |
| Stage 2              | 94     | 94    | -      | 95    | 99     | -     | -      | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - |
| Pot Cap-1 Maneuver   | 779    | 712   | 964    | 773   | 704    | 989   | 1500   | - |
| Stage 1              | 920    | 822   | -      | 915   | 819    | -     | -      | - |
| Stage 2              | 915    | 819   | -      | 914   | 815    | -     | -      | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - |
| Mov Cap-1 Maneuver   | 767    | 699   | 955    | 754   | 691    | 980   | 1493   | - |
| Mov Cap-2 Maneuver   | 767    | 699   | -      | 754   | 691    | -     | -      | - |
| Stage 1              | 908    | 818   | -      | 903   | 808    | -     | -      | - |
| Stage 2              | 903    | 808   | -      | 901   | 811    | -     | -      | - |

| Approach             | EB  | WB | NB  | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 9.3 | 0  | 1.2 | 0  |
| HCM LOS              | A   | A  |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL  | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h)      | 1493  | -   | -   | 859   | -     | 1530 | -   | -   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | 0.019 | -     | -    | -   | -   |
| HCM Control Delay (s) | 7.4   | 0   | -   | 9.3   | 0     | 0    | -   | -   |
| HCM Lane LOS          | A     | A   | -   | A     | A     | A    | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | -     | 0    | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | 2    | 2    | 1    | 1    | 0    | 2    |
| Traffic Vol, veh/h       | 2    | 2    | 59   | 1    | 0    | 52   |
| Future Vol, veh/h        | 2    | 2    | 59   | 1    | 0    | 52   |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 2    | 2    | 66   | 1    | 0    | 58   |

| Major/Minor          | Minor1 | Major1 | Major2 | Major3 | Major4 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 135    | 77     | 0      | 0      | 72     |
| Stage 1              | 72     | -      | -      | -      | -      |
| Stage 2              | 63     | -      | -      | -      | -      |
| Critical Hdwy        | 6.41   | 6.21   | -      | -      | 4.11   |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | -      | -      |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | -      | 2.209  |
| Pot Cap-1 Maneuver   | 861    | 987    | -      | -      | 1534   |
| Stage 1              | 953    | -      | -      | -      | -      |
| Stage 2              | 962    | -      | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | 852    | 978    | -      | -      | 1527   |
| Mov Cap-2 Maneuver   | 852    | -      | -      | -      | -      |
| Stage 1              | 948    | -      | -      | -      | -      |
| Stage 2              | 957    | -      | -      | -      | -      |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 9  | 0  | 0  |
| HCM LOS              | A  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT  |
|-----------------------|-----|----------|-------|------|
| Capacity (veh/h)      | -   | -        | 911   | 1527 |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | -    |
| HCM Control Delay (s) | -   | -        | 9     | 0    |
| HCM Lane LOS          | -   | -        | A     | A    |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0    |

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 9.1 |
| Intersection LOS          | A   |

| Movement            | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|
| Lane Configurations | Y    |      |      | 4    | 4    |      |
| Traffic Vol, veh/h  | 32   | 71   | 115  | 96   | 82   | 45   |
| Future Vol, veh/h   | 32   | 71   | 115  | 96   | 82   | 45   |
| Peak Hour Factor    | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, %   | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow           | 41   | 91   | 147  | 123  | 105  | 58   |
| Number of Lanes     | 1    | 0    | 0    | 1    | 1    | 0    |

| Approach                   | EB  | NB  | SB  |
|----------------------------|-----|-----|-----|
| Opposing Approach          |     | SB  | NB  |
| Opposing Lanes             | 0   | 1   | 1   |
| Conflicting Approach Left  | SB  | EB  |     |
| Conflicting Lanes Left     | 1   | 1   | 0   |
| Conflicting Approach Right | NB  |     | EB  |
| Conflicting Lanes Right    | 1   | 0   | 1   |
| HCM Control Delay          | 8.5 | 9.8 | 8.4 |
| HCM LOS                    | A   | A   | A   |

| Lane                   | NBLn1 | EBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, %            | 55%   | 31%   | 0%    |
| Vol Thru, %            | 45%   | 0%    | 65%   |
| Vol Right, %           | 0%    | 69%   | 35%   |
| Sign Control           | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 211   | 103   | 127   |
| LT Vol                 | 115   | 32    | 0     |
| Through Vol            | 96    | 0     | 82    |
| RT Vol                 | 0     | 71    | 45    |
| Lane Flow Rate         | 271   | 132   | 163   |
| Geometry Grp           | 1     | 1     | 1     |
| Degree of Util (X)     | 0.339 | 0.166 | 0.195 |
| Departure Headway (Hd) | 4.505 | 4.53  | 4.309 |
| Convergence, Y/N       | Yes   | Yes   | Yes   |
| Cap                    | 798   | 791   | 832   |
| Service Time           | 2.53  | 2.561 | 2.337 |
| HCM Lane V/C Ratio     | 0.34  | 0.167 | 0.196 |
| HCM Control Delay      | 9.8   | 8.5   | 8.4   |
| HCM Lane LOS           | A     | A     | A     |
| HCM 95th-tile Q        | 1.5   | 0.6   | 0.7   |



| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 12   | 0    | 8    | 2    | 0    | 1    | 2    | 124  | 2    | 3    | 122  | 9    |
| Future Vol, veh/h        | 12   | 0    | 8    | 2    | 0    | 1    | 2    | 124  | 2    | 3    | 122  | 9    |
| Conflicting Peds, #/hr   | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    | 5    | 0    | 5    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 13   | 0    | 9    | 2    | 0    | 1    | 2    | 133  | 2    | 3    | 131  | 10   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 291    | 291   | 146    | 295   | 295    | 144   | 146    | 0 | 0 | 140   | 0 | 0 |
| Stage 1              | 147    | 147   | -      | 143   | 143    | -     | -      | - | - | -     | - | - |
| Stage 2              | 144    | 144   | -      | 152   | 152    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.11   | 6.51  | 6.21   | 7.11  | 6.51   | 6.21  | 4.11   | - | - | 4.11  | - | - |
| Critical Hdwy Stg 1  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.11   | 5.51  | -      | 6.11  | 5.51   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.509  | 4.009 | 3.309  | 3.509 | 4.009  | 3.309 | 2.209  | - | - | 2.209 | - | - |
| Pot Cap-1 Maneuver   | 663    | 621   | 904    | 659   | 618    | 906   | 1442   | - | - | 1449  | - | - |
| Stage 1              | 858    | 777   | -      | 862   | 780    | -     | -      | - | - | -     | - | - |
| Stage 2              | 861    | 780   | -      | 853   | 774    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   | -      | -     | -      | -     | -      | -     | -      | - | - | -     | - | - |
| Mov Cap-1 Maneuver   | 654    | 612   | 895    | 645   | 609    | 897   | 1435   | - | - | 1442  | - | - |
| Mov Cap-2 Maneuver   | 654    | 612   | -      | 645   | 609    | -     | -      | - | - | -     | - | - |
| Stage 1              | 852    | 772   | -      | 856   | 775    | -     | -      | - | - | -     | - | - |
| Stage 2              | 854    | 775   | -      | 839   | 769    | -     | -      | - | - | -     | - | - |

| Approach             | EB   | WB   | NB  | SB  |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 10.1 | 10.1 | 0.1 | 0.2 |
| HCM LOS              | B    | B    |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1435  | -   | -   | 733   | 712   | 1442  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.029 | 0.005 | 0.002 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 10.1  | 10.1  | 7.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | B     | B     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1   | 0     | 0     | -   | -   |

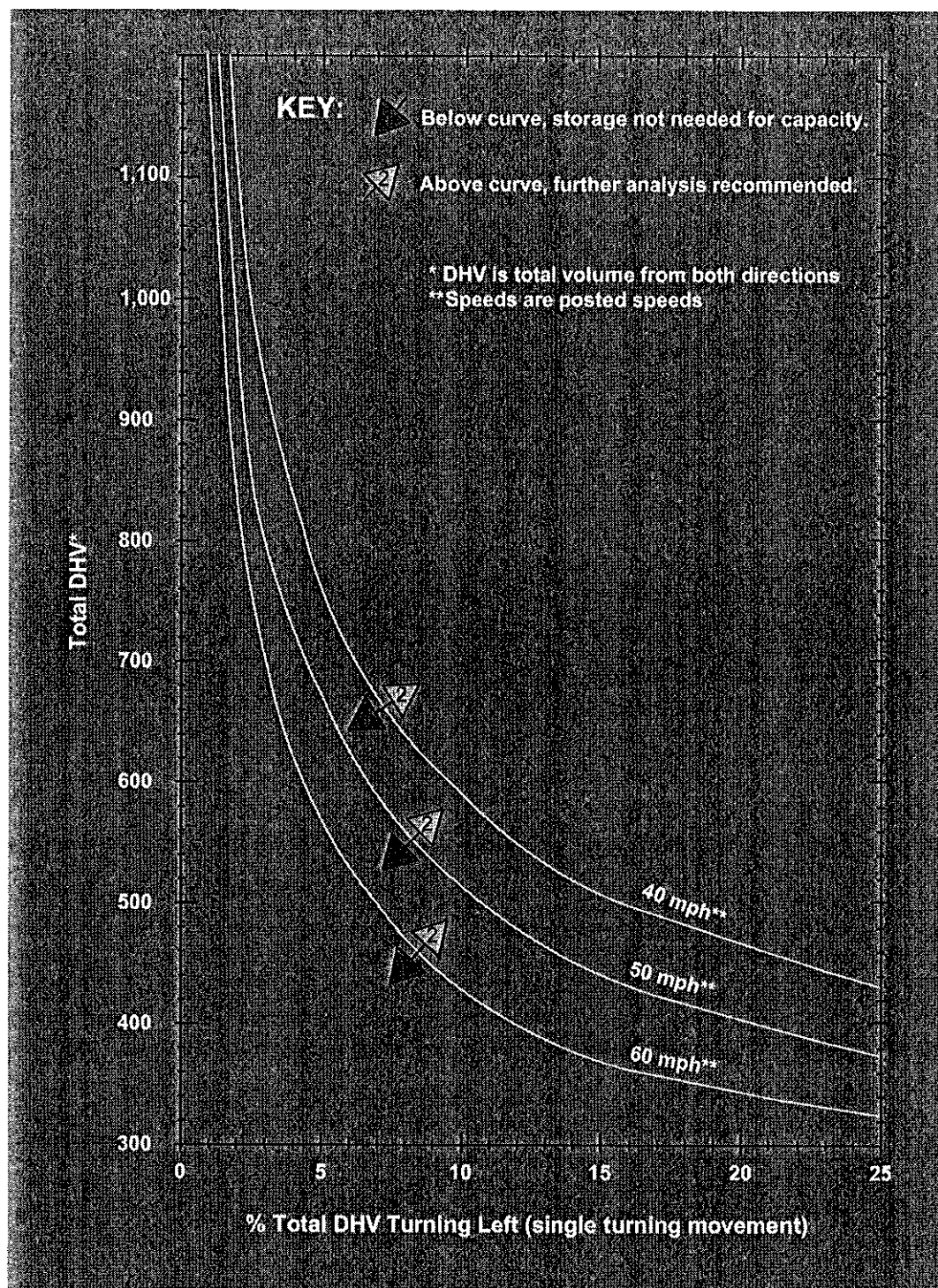
| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | W    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 1    | 2    | 126  | 2    | 2    | 126  |
| Future Vol, veh/h        | 1    | 2    | 126  | 2    | 2    | 126  |
| Conflicting Peds, #/hr   | 5    | 5    | 0    | 5    | 5    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 78   | 78   | 78   | 78   | 78   | 78   |
| Heavy Vehicles, %        | 1    | 1    | 1    | 1    | 1    | 1    |
| Mvmt Flow                | 1    | 3    | 162  | 3    | 3    | 162  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 342    | 174    | 0      | 0 | 170   |
| Stage 1              | 169    | -      | -      | - | -     |
| Stage 2              | 173    | -      | -      | - | -     |
| Critical Hdwy        | 6.41   | 6.21   | -      | - | 4.11  |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.509  | 3.309  | -      | - | 2.209 |
| Pot Cap-1 Maneuver   | 656    | 872    | -      | - | 1413  |
| Stage 1              | 863    | -      | -      | - | -     |
| Stage 2              | 860    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 648    | 864    | -      | - | 1406  |
| Mov Cap-2 Maneuver   | 648    | -      | -      | - | -     |
| Stage 1              | 857    | -      | -      | - | -     |
| Stage 2              | 856    | -      | -      | - | -     |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.7 | 0  | 0.1 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 778   | 1406  |
| HCM Lane V/C Ratio    | -   | -        | 0.005 | 0.002 |
| HCM Control Delay (s) | -   | -        | 9.7   | 7.6   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0     |

Exhibit 1310-7a Left-Turn Storage Guidelines: Two-Lane, Unsignalized





## DEPARTMENT OF PUBLIC WORKS - ENGINEERING

### MEMORANDUM

Date: March 7, 2019  
To: Olivia Sontag, Planner, Planning and Comm. Development  
From: Peter Corelis, P.E., Development Engineer  
Subject: PLN50804B SPR – Ericksen Townhomes

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#### **Project Description:**

The proposal is to construct 5 (five) new detached condominium units at 586 Ericksen Avenue NE in the City of Bainbridge Island.

#### **Preliminary Approval:**

I have completed a review of the above-referenced project materials received by the City on August 29, 2018. The site plan review is recommended for **APPROVAL** based on the following findings and subject to the conditions.

1. The site plan conforms to regulations concerning drainage in BIMC 15.20 and 15.21;
2. The site plan will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream;
3. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic;
4. The site will rely on public water and sewer services. There is adequate capacity in the water and sewer system and those services can be made available at the site;
5. The site plan conforms to the City of Bainbridge Island Design and Construction Standards and Specifications, "the Standards";
6. The site plan and design is in conformance with the applicable portions of the comprehensive plan pertaining to streets, roads, and utilities;
7. The site plan conforms to the geologically hazardous buffer reduction requirements in BIMC 16.20 and has been accepted by a third-party geotechnical reviewer;

## **Recommended Conditions of Approval**

### *General*

1. Civil improvement plans, reports, and computations, prepared by a civil engineer registered in the State of Washington shall be submitted with the application(s) for a construction permit (building, grading, ROW, etc.) to the City for review and approval to construct all necessary infrastructure and utilities serving the site.
2. As-built civil construction plans stamped by a civil engineer shall be provided by the applicant prior to final.
3. A separate grading permit for all site utilities, grading, access features, and landscaping, etc. shall be required in addition to the individual building permits for each building. Occupancy shall be granted upon successful completion off all work under the grading permit and all other requirements of the individual building permits.
4. Fireline extensions, domestic water services, and irrigation water lines to the site shall be equipped with the required backflow devices per City standards and comply with the most current American Water Works Association, Pacific Northwest, Cross-Connection Control Manual publication.
5. Application of construction permits at the site shall require a signed Step 2 Form: Construction in a Geologically Hazardous Area for work at the top of the ravine within the zone of influence of the landslide hazard.
6. The applicant shall provide a Step 3 Form: As-Built Certification signed by the project geotechnical engineer prior to occupancy of the structures.
7. All grinder pumps and sewer force laterals shall be owned and operated by the City. An accessible 15-foot wide easement shall be granted to the City for maintenance of the units and laterals lines.
8. Storm drainage from the site is prohibited from entering the ravine via a new outfall. Discharging stormwater into the Ericksen Avenue storm drain system must include a capacity analysis of the system from the point of connection to the downstream receiving waters. Where capacity is not adequate to handle all or some portion of the project's stormwater runoff it shall be the responsibility of the applicant/owner to create additional storage to mitigate peak flows to mimic existing conditions up to the 100-year storm, or, upgrade the deficient reaches of storm drain to meet the combined demand on the system resulting from the development and the existing basin.
9. Prior to occupancy of the first building, the applicant shall submit an operation and maintenance plan for the on-going maintenance of the private storm drainage systems.
10. All on-site stormwater facilities shall remain privately owned and maintained. The owner(s) shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded

before occupancy of the first building. The approved language for the Declaration of Covenant is found in BIMC Chapter 15.21, Exhibit A.



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## MEMO

**Date:** September 25, 2018  
**To:** Olivia Sontag, Planning Department  
**From:** Deputy Chief Jared Moravec, Fire Marshal  
**Re:** Ericksen Townhomes PLN50804B SPR

The submittal has been reviewed resulting in the following comments:

1. The proposed project shall comply with all provisions of the adopted Fire Code.
2. The installation of residential fire sprinklers is highly recommended.
3. Fire flow is met through existing hydrants.
4. New access road will require a new road name and for home to be addressed off of new road name.



**Jane Rasely**

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**From:** Kent Fredrickson <fredricksonkent@gmail.com>  
**Sent:** Sunday, February 17, 2019 11:10 AM  
**To:** PCD  
**Subject:** Permit PLN50804B SPR/CUP

In reviewing NOTICE OF INTENT TO REDUCE THE MINIMUM BUFFER IN A LANDSLIDE HAZARD AREA for this application, it is noted that an Independent Third Party Geotechnical Review was conducted, but does not provide any of the findings. Please provide the reference document or a link to it. I have concerns about construction so close to a landslide hazard due to potential environmental impact and danger to the residents if such a landslide was to occur. Such risks need to be considered.

R/  
Kent Fredrickson

318 Wyatt Way NE  
Bainbridge Island, WA 98110

**DESIGN REVIEW BOARD DESIGN GUIDELINE CHECKLIST**  
**MIXED USE TOWN CENTER/ERICKSEN DISTRICT DESIGN GUIDELINES BIMC 18.18.020**

☒ Preapplication Conference Checklist

☐ Formal Submittal Checklist

|                                                                                                                                             |                    |                                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-----------------------------|
| <b>PROJECT NAME</b>                                                                                                                         | <b>CASE NUMBER</b> | <b>SITE ADDRESS</b>                      | <b>TAX PARCEL NUMBER(S)</b> |
| ERICKSEN TOWNHOMES                                                                                                                          |                    | 568 ERICKSEN AVENUE (EXISTING STRUCTURE) | 26250220512009              |
| <b>PROJECT DESCRIPTION</b>                                                                                                                  |                    |                                          |                             |
| CONDOMINIUM PROJECT SUBJECT TO SITE REVIEW. SIX NEW FREESTANDING TOWNHOMES (1900SF EACH) AND ONE EXISTING RESIDENCE (ON HISTORIC REGISTER). |                    |                                          |                             |

| SITE DESIGN                                                                                                                                                                                                                                                                                                |                                                               |                                                                                                                                                                                                                                                                                                                  |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| DESIGN GUIDELINE                                                                                                                                                                                                                                                                                           | INTENT                                                        | GUIDELINE                                                                                                                                                                                                                                                                                                        | DRB ACTION (Y/N) |
| <b>SITE DESIGN 1</b>                                                                                                                                                                                                                                                                                       | Ensure that the pre-1920s residential character predominates. | <b>PRESERVATION OF HISTORIC BUILDINGS</b><br>Owners are strongly encouraged to preserve historic (pre-1920) buildings. Any additions to existing historic structures shall be located to the rear and shall be consistent with the character of the older structure.                                             |                  |
| Applicant Response: The existing residence from 1905 (Henry Groos House) at 568 Ericksen Avenue has been retained. The building was added to the local historic register in April of 2017.                                                                                                                 |                                                               |                                                                                                                                                                                                                                                                                                                  |                  |
| <b>SITE DESIGN 2</b>                                                                                                                                                                                                                                                                                       | Modest scale of buildings.                                    | <b>SCALE OF BUILDINGS</b><br>Scale of buildings in this corridor shall remain modest (refer to guideline Building Design 1). Any new development shall be constructed so that building forms, roof shapes and relationship of building to street are compatible with the historic structures on Ericksen Avenue. |                  |
| Applicant Response: At approximately 800sf footprint each the new residential structures are significantly under the 2500sf maximum footprint (Building Design #1). Forms, roof shapes and slopes, detailing, and street relationships are consistent with the Ericksen Avenue Corridor Design Guidelines. |                                                               |                                                                                                                                                                                                                                                                                                                  |                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
| <b>SITE DESIGN 3</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | Reinforce the historic pattern of development by retaining open-air view corridors from Ericksen Avenue through to the Winslow Ravine. | <b>RAVINE VIEW CORRIDORS</b><br>On the west side of Ericksen Avenue from Winslow Way to 200 feet north of Wyatt Way (where the Winslow Ravine leaves Ericksen to cross under Highway 305), the total of both side yard setbacks shall be at least 30% of the width of the frontage on Ericksen. Driveways may be in the setbacks, but the open-air view from the street through to the Winslow Ravine shall remain unobstructed by buildings or fences. | <b>DRB ACTION</b><br>(Y/N) |
| Applicant Response: A view corridor of 30’ in width (30% of the 100’ lot width) is shown in the center of the proposed development. While technically this does not lie within the side yard setbacks, when combined with the 5’ side yards it provides 40’ of total transparency. This approach is a side yard relief allowed under the code provisions for “Historic Structure Relief” (see Project Vision document for more detail). |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
| <b>SITE DESIGN 4</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | Reinforce the historic pattern of development.                                                                                         | <b>SETBACKS</b><br>Buildings shall be set back from the front property line in accordance with the zoning ordinance, which allows porches and bay windows to intrude into the setback.                                                                                                                                                                                                                                                                  | <b>DRB ACTION</b><br>(Y/N) |
| Applicant Response: New structures are set back 15’ or greater from Ericksen (porch intrudes). The existing 568 Residence is located within the front yard setback approximately 5’ from the front property line.                                                                                                                                                                                                                       |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |
| <b>SITE DESIGN 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | Reinforce the historic pattern of development.                                                                                         | <b>LANDSCAPE FRONT YARDS</b><br>Landscaped front yards shall be provided. At least 50% of the area between the ROW and the building setback shall be landscaped with trees, shrubs and ground cover.                                                                                                                                                                                                                                                    | <b>DRB ACTION</b><br>(Y/N) |

|                                                                                                |                                                        |                                                                                                                                                                                                                     |                     |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Applicant Response: Landscaped front yards are provided and are shown in the project drawings. |                                                        |                                                                                                                                                                                                                     |                     |
|                                                                                                |                                                        |                                                                                                                                                                                                                     |                     |
| <b>SITE DESIGN 6</b>                                                                           | To have signs along this corridor be very unobtrusive. | <b>SIGNS</b><br>The design of signs should be integrated with the architecture of the building, with features and materials common to pre-1920 structures on Ericksen. No neon or internally lit signs are allowed. | DRB ACTION<br>(Y/N) |
| Applicant Response: No signage other than residential addresses numbers are proposed           |                                                        |                                                                                                                                                                                                                     |                     |

*Building Design Guidelines continued on following page...*

| <b>BUILDING DESIGN</b>                                                                                                                                       |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| DESIGN GUIDELINE                                                                                                                                             | INTENT                                                                           | GUIDELINE                                                                                                                                                                                                                                                                                                                                                                                    |                     |
| <b>BUILDING DESIGN 1</b>                                                                                                                                     | Ensure that the scale of new development is compatible with historic structures. | <b>MAXIMUM BUILDING FOOTPRINT</b><br>South of Wyatt, the total footprint of any building shall not exceed 2500 sf. North of Wyatt, buildings shall be designed in sections with footprints not exceeding 2500 sf. There shall be no minimal connections between these sections so that the overall project appears more compatible with smaller, individual buildings to the south of Wyatt. | DRB ACTION<br>(Y/N) |
| Applicant Response: As noted above, individual building footprints are approximately 800sf of only about 1/3 of the maximum allowable                        |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              |                     |
| <b>BUILDING DESIGN 2</b>                                                                                                                                     | Continue the historic pattern of building forms.                                 | <b>PITCHED ROOFS</b><br>Buildings should have pitched roofs with one or more visible ridge lines. Roof pitch on main roofs shall have at least 8: 12 and no more than 12: 12. Roof overhang should be at least 12". Roof pitch on shed dormers and attached porches shall be at least 4: 12. No continuous roof ridge shall be over 50' long.                                                | DRB ACTION<br>(Y/N) |
| Applicant Response: Roof pitches on main roofs at 9:12 with 12" and 18" overhangs. Roof pitch on shed dormers is 4:12. Longest continuous roof ridge is 29'. |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                              |                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |
| <b>BUILDING DESIGN 3</b>                                                                                                                                                                                                                                                                                                                                                                                        | Continue the historic pattern of building forms. | <b>BUILDING AND SITE ACCESS</b><br>In new construction, features such as handicap access and pedestrian access to underground parking shall be integrated within buildings, not placed as visible add-ons.<br><br>In remodel projects, this guideline will be met to the extent feasible.                                                                                                                                | DRB ACTION<br>(Y/N) |
| Applicant Response: Parking is provided within first floor garages; handicap unit has internal elevator for accessibility.                                                                                                                                                                                                                                                                                      |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |
| <b>BUILDING DESIGN 4</b>                                                                                                                                                                                                                                                                                                                                                                                        | Continue the historic pattern of building forms. | <b>BUILDING MATERIALS</b><br>Such features and materials common to the pre-1920 structures on Ericksen as horizontal wood siding, frieze boards, double-hung windows, trim at windows, corner braces, porches, bay windows, prominent roof overhangs and red brick chimneys, are encouraged. It is the responsibility of the applicant to demonstrate that proposed building materials meet the intent of the guideline. | DRB ACTION<br>(Y/N) |
| Applicant Response: New residences have horizontal wood siding, double hung windows with trim, roofs with corner braces, and roof overhangs. The existing historic residence has wood shingle siding. It is the intent of the design to relate to some of the details and materials the existing residence and as such all new residences have a standing seam metal roof similar to that on the existing home. |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |

*Additional comments/recommendations from the Design Review Board on the following page...*

|                                                     |
|-----------------------------------------------------|
| GUIDELINES REQUIRING ACTION PER DESIGN REVIEW BOARD |
| DESIGN REVIEW BOARD SUMMARY MOTION ON ACTIONS       |



Design Review Board Design Guideline Checklist

Mixed Use Town Center and High School Road Districts / General Design Guidelines– BIMC 18.18.030

- ☐ “Pre-App” Meeting Checklist
- ☐ “Post-App” Meeting Checklist

Project Name/Case #:

Ericksen Townhomes/PLN50804B SPR & PLN50804B CUP

Land Use Application  
(Pre-app, Site Plan Review etc.):

Site Plan Review (major) and Conditional Use Permit (minor)

Project Description:

Project is a condominium with six new freestanding townhomes and one existing residence (on historic register)

| Applicable Design Guidelines         |                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                          |                  |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Design Guideline                     | Intent                                                                                                                    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Applicant Response                                                                                                                                                                                                                                                                                                                                                                       | DRB Action (Y/N) |
| 1. Parking Lot Location              | To have parking lots be as visually unobtrusive as possible.                                                              | Parking lots should not front upon intersections. Parking lots should be located behind or to the side of buildings.                                                                                                                                                                                                                                                                                                                                                                                                | Surface parking is limited to one space located behind the existing historic residence; the remainder of the parking spaces are in garages located below the new townhomes.                                                                                                                                                                                                              |                  |
| 2. Outdoor Open Spaces and Amenities | To establish, over time, a variety of open spaces within the town center                                                  | New development and redevelopment should provide facilities near or visible from the sidewalk for outdoor public use. Examples of such facilities include seating areas, courtyards, and small plaza spaces. Generally, the larger the development, the greater the number and size of such spaces. Furthermore, it is desirable to locate these spaces where they can receive sun and where they can easily be connected to adjacent concentrations of land use.                                                   | Front yard “gardens” are located along Ericksen Avenue as per the Ericksen Avenue Design Guidelines. The project exceeds the require for view corridor percentage (40% provided vs. 30% required) with the majority in the central mews space. Additional open space adjacent to the required Winslow Ravine buffer and setback is provided for proposed retention of an old apple tree. |                  |
| 3. Pedestrian Connections            | To create a network of safe, comfortable and attractive linkages for people on foot                                       | New development and redevelopment should include pedestrian walkways, raised and/or separated from traffic lanes, that offer access from the public sidewalk to the main entrance to the building. (Locating a building entrance directly on the sidewalk satisfies this guideline.) In addition, connections to adjoining properties should be provided. Furthermore, within parking lots, there should be pedestrian walkways that allow people to traverse the lot without being forced to use vehicular aisles. | The “mews” driveway is intended to function as European “Woonerf” living street – the central circulation space is limited to 12’ (with wider turnouts) to reduce traffic speed and allow shared circulation for resident pedestrian and bicycle traffic.                                                                                                                                |                  |
| 4. Shielded Lighting                 | To ensure that the source of lighting for parking, service and loading areas is not visible from neighboring development. | Freestanding light fixtures should not exceed 14’ in height. All exterior lighting fixtures should incorporate cutoff shields to prevent spillover.                                                                                                                                                                                                                                                                                                                                                                 | No freestanding light fixtures are proposed. Exterior lighting will be limited to residence and garage entries and will incorporate cutoff shields.                                                                                                                                                                                                                                      |                  |

**Design Review Board Design Guideline Checklist**  
Mixed Use Town Center and High School Road Districts / General Design Guidelines– BIMC 18.18.030

| Applicable Design Guidelines           |                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                            |                  |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Design Guideline                       | Intent                                                                                                                                      | Description                                                                                                                                                                                                                                                                                                                                                                                  | Applicant Response                                                                                                                                                                                                                                                                         | DRB Action (Y/N) |
| <b>5. Screen Service Areas</b>         | To conceal loading, trash, and storage areas from view.                                                                                     | Trash containers should be enclosed on all sides with solid walls and gates. Loading docks, outdoor storage and staging areas should be screened with fencing and vegetation, such as evergreen hedges. Chain link fencing is not acceptable.                                                                                                                                                | A trash, recycle, and yard waste collection area is provided. The area is enclosed with a 5’ high wood fence and gate.                                                                                                                                                                     |                  |
| <b>6. Common Open Space</b>            | To ensure that open spaces within a development containing dwelling units are truly usable by all residents.                                | While some portions of common open space may be dedicated to specific amenities such as pools and tennis courts, most of it should be designed in such a manner as to allow walking throughout the development, to any adjacent commercial or recreational areas, and to surrounding streets. Except for designated senior housing, some place for children to play should also be provided. | As noted in item 2, additional outdoor space is provided adjacent to Winslow Ravine buffer and setback. The combined areas, equal to approximately 20% of the site, have a bark trail system, a forest seating area, and an outdoor dining which are all available for residents to enjoy. |                  |
| <b>6a. Conceal Garage Doors</b>        | To ensure that street frontages are not dominated by vehicular storage facilities.                                                          | Entrances to parking garages and structures should be from alleys, access lanes, or minor side streets, rather than from principal through streets. If access from a principal street is unavoidable, such access should be restricted to a single, two-way curb cut for each development.                                                                                                   | Garage entrances face onto the common driveway and are not oriented towards Ericksen Avenue.                                                                                                                                                                                               |                  |
| <b>7. Overall Form</b>                 | To create visual continuity among buildings having potentially different styles.                                                            | Buildings should utilize elements such as massing, materials, windows, canopies, and pitched or terraced roof forms to create both a visually distinct “base” as well as a “cap”.                                                                                                                                                                                                            | The design of the new townhomes contains all of the elements described; in addition the design is per the Ericksen Avenue Design Guidelines which have additional requirements above and beyond the MUTC General Design Guidelines.                                                        |                  |
| <b>8. Entrances</b>                    | To make it apparent from the street where major entrances to buildings are located.                                                         | Principal entrances to buildings should be visually prominent and located within close proximity to the public sidewalk. Entrances should incorporate elements such as setbacks, recesses, balconies, porches, arches, trellises, or other architectural devices.                                                                                                                            | Entrances to the residences on Ericksen Avenue face the street. Entrances to the other residences are marked with individual roof canopies and are located in recesses which feature small patio spaces.                                                                                   |                  |
| <b>9. Conceal Mechanical Equipment</b> | To ensure that larger pieces of mechanical equipment are visually unobtrusive.                                                              | Rooftop mechanical equipment should be concealed by and integrated within the roof form of a building. Simply surrounding it with a parapet wall is not sufficient.                                                                                                                                                                                                                          | No rooftop mechanical equipment is proposed.                                                                                                                                                                                                                                               |                  |
| <b>10. Structured Parking</b>          | To diminish the visual impact of parking as viewed from streets.                                                                            | Any level of parking contained within or under a structure that is visible from a public street shall fully screen the parking with either another use, a facade that incorporates artwork, or trees and other vegetation.                                                                                                                                                                   | See response to 6a.                                                                                                                                                                                                                                                                        |                  |
| <b>11. Encouraging Varied Details</b>  | To ensure that denser types of housing include details that create a sense of human scale and that break down the bulk of larger buildings. | Buildings containing residential dwellings should incorporate most, if not all, of the following elements: <ul style="list-style-type: none"><li>• Front porches or stoops</li><li>• Bay windows or dormers</li><li>• Visible trim around windows and building corners</li><li>• Base articulation, such as a plinth or first floor raised above grade</li></ul>                             | See response to 7.                                                                                                                                                                                                                                                                         |                  |

Design Review Board Design Guideline Checklist

Mixed Use Town Center and High School Road Districts / General Design Guidelines– BIMC 18.18.030

| Applicable Design Guidelines |                                                                                                       |                                                                                                                                                                                        |                                                                     |                  |
|------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------|
| Design Guideline             | Intent                                                                                                | Description                                                                                                                                                                            | Applicant Response                                                  | DRB Action (Y/N) |
| 12. Integration              | To ensure that signage is a part of the overall design approach to a project and not an afterthought. | The design of signs should be integrated with the architecture and site design of a project.                                                                                           | No signage other than addresses and a street name sign is proposed. |                  |
| 13. Creativity               | To encourage interesting and even unusual approaches to graphic design.                               | Signs should be expressive and even whimsical, exhibiting a graphic design approach to form and lighting. Standard, back-lighted, metal frame and plastic panel signs are discouraged. | See response to 12                                                  |                  |
| 14. Awning Signs             | To produce a visual effect that emphasizes buildings and vegetation, not advertising.                 | Signs painted on awnings are allowed, but awnings should not be internally illuminated.                                                                                                | See response to 12                                                  |                  |

Guidelines Requiring Action per DRB:

DRB Summary Motion on Actions:

Call to Order (Attendance, Agenda, Ethics)  
Ericksen Townhomes (PLN50804B SPR)  
Bainbridge Island Child Care (PLN51161 SPR)  
Bainbridge Hildebrand (PLN51281 PRE)  
Two and Three Lot Subdivision Exemption from Moratorium  
New/Old Business  
Adjourn

---

**Call to Order (Attendance, Agenda, Ethics)**

Chair Alan Grainger called the meeting to order at 2:00 PM. Design Review Board members in attendance were Joseph Dunstan, Jim McNett, Peter Perry and Jane Rein. Carl Yurdin and Jason Wilkinson were absent and excused. Councilmember Ron Peltier also attended. City Staff present were Planning Director Gary Christensen, Senior Planners David Greetham and Kelly Tayara, Planner Olivia Sontag and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

The agenda was reviewed. There were not any conflicts disclosed.

Peter Perry asked if there could be a presentation by BIMPRD on where they would like trails to be so as projects are reviewed, they would be able to look at the proposed trail map and see how a project might contribute to making the trails happen.

Jane Rein asked to have time to discuss the sign ordinance added to the next agenda. Chair Grainger agreed and asked her to contact Administrative Specialist Jane Rasely with an outline of the topic.

**Update from the Director**

Planning Director Gary Christensen provided updates on Planning Month, the 2018 Moratorium, Critical Areas Ordinance, Design Review Guidelines, 2019-2020 budget process and the DRB's response to the Green Building memo from former Building Official James Weaver. Ms. Rein asked if the DRB could look at the interview questions for the Building Official position in lieu of having a DRB representative on the interview panel.

**Ericksen Townhomes (PLN50804B SPR)**

Planner Olivia Sontag introduced the project and applicant John Bierly.

**Motion:** We are recommending approval of the site plan review for this project with a recommendation of additional windows in the corner tower and the substitution of some evergreen trees to replace deciduous trees. Secondly, this collaborative process with the applicant, Planning staff and Design Review Board has generated an exemplary solution to creatively meet the requirements placed upon the property in the Ericksen Corridor.

**Grainger/Perry:** Passed unanimously



**Bainbridge Island Child Care**

Senior Planner David Greetham introduced the project and applicant Shelley Long along with project architect Patrick Banks from Coates Design.

**Motion: I make the motion that the Design Review Board approves the Bainbridge Island Childcare site plan review with strong recommendation to include graphic traffic modification at the junction with High School Road to provide a safe area for children dismounting or mounting the buses and that the applicant's landscape team look at making the plaza "looser" in its design and more child friendly and less adult and formal.**

**Grainger/Dunstan: Passed unanimously**

**Bainbridge Hildebrand (PLN51281 PRE)**

Senior Planner Kelly Tayara introduced the proposal for an apartment building following a subdivision of the proposed parcel. Architect Charles Wenzlau presented the project.

**Two and Three Lot Subdivision Exemption from Moratorium**

City Councilmember Ron Peltier asked for the Design Review Board's input regarding proposed changes to the temporary moratorium enacted by City Council.

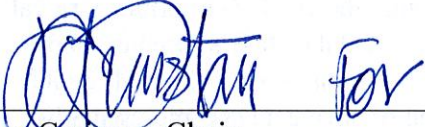
**New/Old Business**

None.

**Adjourn**

The meeting was adjourned at 5:21 PM.

Approved by:

  
\_\_\_\_\_  
Alan Grainger, Chair

  
\_\_\_\_\_  
Jane Rasely, Administrative Specialist



CITY OF  
BAINBRIDGE ISLAND

CITY OF BAINBRIDGE ISLAND  
Design Review Board Meeting  
October 1, 2018

**PLEASE PRINT**

Join ListServ  
Yes/No

| Name             | Address                  | Phone/ E-Mail               | Join ListServ<br>Yes/No |
|------------------|--------------------------|-----------------------------|-------------------------|
| ALAN GRANGER     | CHAR DRB                 |                             |                         |
| JOE DUNSTAN      | DRB                      |                             |                         |
| JANE REIN        | DRB                      |                             |                         |
| JIM MUNCH        | DRB                      |                             |                         |
| PETER PERI       | DRB                      |                             |                         |
| Ron Peltier      | City Council             |                             |                         |
| JOHN BIERER      | APPLICANT                | (206) 797 9469              |                         |
| GARY CHRISTENSEN | PCD                      |                             |                         |
| Brian Kelly      | Bainbridge Review        | editor@bainbridgereview.com |                         |
| PATRICK BANKS    | COATES DESIGN            | 206 780 0876                |                         |
| Shelley Jones    | BICC                     | slony@bicc.org              |                         |
| David Groothuis  | PCD staff                | dgree@bainbridgeisland.org  |                         |
| Matthew Coates   | COATES DESIGN            | 206 780 0876                |                         |
| Tonisha Howard   | Planning Comm            |                             |                         |
| C. Wenzel        | 490 Madison #105         |                             |                         |
| Kelly Taylor     | DBI - Planner            |                             |                         |
| JANE Chung       | 490 Madison Ave. N. #105 |                             |                         |

Call to Order (Attendance, Agenda, Ethics)  
Review and Approval of Minutes – January 7, 2019 & February 20, 2019  
Ericksen Townhomes (PLN50804B) – Revisions Recommendation  
Bainbridge Periodontics Clinic – Design Guidance Review  
Pavilion/Blue Canary – Design Guidance Review  
Grow Community: Final Phase – Conceptual Proposal Review  
New/Old Business  
Adjourn

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**Call to Order (Attendance, Agenda, Ethics)**

Chair Joseph Dunstan called the meeting to order at 2:02 PM. Board members in attendance were Jason Wilkinson, Carl Yurdin, Jim McNett and Jane Rein. Alan Grainger and Peter Perry were absent and excused. City Staff present were Planning Manager Heather Wright, Senior Planner Kelly Tayara, Planners Olivia Sontag and Ellen Fairleigh and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

The agenda was reviewed. There were not any conflicts noted.

**Review and Approval of Minutes – January 7, 2019 & February 20, 2019**

**Motion: I move to approve the January 7, 2019 minutes as amended.**

**Rein/McNett: Passed Unanimously**

**Motion: I move to approve the February 20, 2019 minutes.**

**Yurdin/Rein: Passed Unanimously**

Chair Dunstan reminded everyone to use their COBI e-mail accounts for City business.

**Ericksen Townhomes (PLN50804B) – Revisions Recommendation**

Planner Olivia Sontag introduced minor revisions to the project since the DRB reviewed the project.

**Motion: The DRB has reviewed on March 4 the applicant's revised site plan. Based on the FAR regulations and we approve of the changes as presented.**

**Dunstan/McNett: Passed Unanimously**

**Bainbridge Periodontics Clinic – Design Guidance Review**

Due to some confusion over the new project review process, Chair Dunstan asked that design guidelines be sent to the Design Review Board (DRB) via e-mail and the DRB would review them at the project's next meeting with them for a site plan review.



**Pavilion/Blue Canary - Design Guidance Review**

John Eisenhower and Eric Fredricks, both from Madison Ave Real Estate, presented their project. While the DRB agreed the location of the building was acceptable, Chair Dunstan asked the applicants to come back for a second Design Guidance Review meeting due to the lack of specificity in the materials provided and asked for the applicable Design Guidelines Checklist be provided for the next meeting.

**Public Comment**

**Sherry Burke, Citizen** – Asked that the roof not be a shiny material that would reflect the sun into the Grow apartments.

**Marianne Spur, Citizen** – Did not see the drop off “valet” parking as reasonable. She asked for a couple of parking spots right in front of the building.

**Pam Cole, Citizen** – Asked for ADA consideration in parking in front of the building.

**Kimberly McCormick Osmond, Planning Commission** – Asked whether they were required to preserve the Grow House. Mr. Eisenhower stated they were required to preserve the historic front 20 feet built in 1880.

**Tom, Citizen** – Spoke in favor of the development.

**Grow Community: Final Phase – Conceptual Proposal Review**

Marja Preston and Jonathan Davis from Davis Studio Architecture + Design presented the final phase of the Grow Community entitled Trillium. The owners of the land were abandoning the original City permitted site plan and Ms. Preston and Mr. Davis were exploring potential development of the site.

**New/Old Business**

None

**Adjourn**

The meeting was adjourned at 5:46 PM.

Approved by:

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Joseph Dunstan, Chair

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Jane Rasely, Administrative Specialist



## MULTI-MODAL TRANSPORTATION ADVISORY COMMITTEE (MTAC)

January 9, 2019 Meeting

7:00 – 9:00 PM

Council Conference Room, 280 Madison Ave N., Bainbridge Island, Washington

### AGENDA

Key: (A) Actionable, (I) Informational

#### 7:00 Administrative

- Call to Order -- *Lief Horwitz*
- (A) Acceptance or Modification of Agenda -- *MTAC Members*
- (A) Approval of December 12 MTAC Meeting Minutes -- *MTAC Members*

#### 7:10 (I) Public Comment

#### 7:20 (I) City Staff Report Out -- *Mark Epstein & Chris Hammer*

#### 7:45 Committee Discussion -- *MTAC, Liaisons & COBI Staff*

- (A) Hildebrand Hotel Project Trail Alignment -- *MTAC Recommendation*
- (A) Providing MTAC Input Through the COBI Island-wide Transportation Plan Public Review Process
- (I) Intra-Island Trails Collaboration
- (I) February 9, 2019 MTAC Retreat -- *Agenda & Logistics*

#### 8:45 (I) Liaison Report Outs -- *Joe Deets & Leslie Schneider (City Council Liaisons), Ken DeWitt (Parks District Liaison)*

#### 9:00 Adjournment – *Lief Horwitz*





MULTI-MODAL TRANSPORTATION  
ADVISORY COMMITTEE  
REGULAR MEETING  
DECEMBER 12, 2018  
CITY HALL  
280 MADISON AVENUE NORTH  
BAINBRIDGE ISLAND, WA 98110

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## Minutes

Members Present: Lief Horwitz, Don Willott, Erin Thomasson, Shannon Glass

Members Absent: Robert Shulock, David Freeburg

Additional attendees: Joe Deets, Leslie Schneider (City Council); Chris Hammer, Mark Epstein (City Staff); Kjell Stoknes, Lynn Harmeling, Susan Loftus, Ross Hathaway, John Grinter, Don Rooks

Leslie Schneider introduced herself as the new Council liaison to MTAC and indicated her interests in enhancing the environment for active transportation.

### Public Comment

\*Ross Hathaway and Don Rooks each expressed strong support for encouraging Council to take real action to make roads safe for all users - to give people who want to bike, walk and run a real option to do that.

\*John Grinter made comments about the importance of a good process for building consensus around the island transportation plan, and expressed optimism about how close we are to making real progress on active transportation.

\*Lynn Harmeling mentioned the importance of making sure sidewalks in Winslow work for all users, included people with physical limitations.

### City Staff Report

\*Chris noted recent adjustments to the trail alignment at Finch & Sportmans' Club road to address safety concerns for pedestrians.

\*Olympic Drive improvements - all approvals from WSDOT have been received - the grant money is secured and is not at risk. The committee discussed the multi-year process that has brought us to this point.

\*The Committee addressed the need to gather and tell "success stories" about projects that have been completed over the past several years. We will incorporate part of this in a report out to Council in January.

\*Sportmans' Club and New Brooklyn intersection - Council approved moving forward with this project.

\*The Waterfront Park bridge repair project will begin in early January - bridge surface will be redecked and railing replaced.

### Development Review

\*Eriksen Townhomes - The committee noted the need to ensure that the existing bike lane is preserved fully, as contemplated by the COBI Non-Motorized System Plan.

\*Hildebrand Hotel Project - This project has frontage along Hildebrand Lane from just north of Wallace way to the existing Country Inn.

\*The committee discussed the process for development reviews - the current process used by Planning to obtain MTAC comments on proposed developments.



MULTI-MODAL TRANSPORTATION  
ADVISORY COMMITTEE  
REGULAR MEETING  
DECEMBER 12, 2018  
CITY HALL  
280 MADISON AVENUE NORTH  
BAINBRIDGE ISLAND, WA 98110

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Committee Discussion

\*Mark reviewed the budget for the 2019-2020 biennium; he noted that city spending for non-motorized projects over the next two years (as shown in the approved CIP) is only about \$100,000. The committee also noted that the city money that had been allocated to the bike-ped bridge project (approximately \$700,000) was not reprogrammed for non-motorized projects.

\*Mark reviewed the process for how projects get into the CIP and proposed improvements to that process, as included in his presentation to Council on November 20, 2018. The committee then discussed the extent to which we should rely on grant funding for non-motorized projects, and how much city money should be spent on projects that are not grant funded.

\*Leslie and Joe reviewed the current proposal for an increase to car tab fees to raise money for climate change mitigation, traffic calming, and marketing funds for BI rides.

Lief Horwitz, Chair

1/9/19



## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

### MEMORANDUM

**DATE:** February 21, 2019  
**TO:** Gary R. Christensen, AICP, Director of Planning & Community Development  
**FROM:** Olivia Sontag, Planner  
**SUBJECT:** Administrative Code Interpretation, PLN50880 ADM

The applicants submitted the following Administrative Code Interpretation request on January 17, 2019.

**REQUEST:** The applicant requested an Administrative Code Interpretation of the Bainbridge Island Municipal Code (BIMC) 18.15.010.D Perimeter Buffering and Screening. Specifically, the applicant requests interpretation of the requirements within the Winslow Town Center Mixed Use District in Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use and Zoning District (see table below). The applicant asks the following questions:

1. Does Table 18.15.010-3 apply to both abutting zoning and uses?
2. What qualifies as 'single-family residential'?

**Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use and Zoning District**

| Abutting Zoning or Land Use District              | Perimeter Landscape Type | Perimeter Width (ft.) | Minimum Perimeter Width (ft.) |
|---------------------------------------------------|--------------------------|-----------------------|-------------------------------|
| <b>Winslow Town Center Mixed Use District [3]</b> |                          |                       |                               |
| Single-family residential                         | Full Screen              | 20                    | 15                            |

**AUTHORITY:** This administrative code interpretation is provided pursuant to BIMC 18.03.090, "Interpretation by the director", which states in part:

The director has the authority to provide interpretations of provisions, uses, or definitions in BIMC Titles 16, 17 and 18 and related provisions in BIMC Title 2, and will make these interpretations available to the public. Any person may apply to the director for an interpretation of any provision in these titles.

**RESPONSE:** Table 18.15.010-3 applies to abutting zone districts or overlay districts and does not apply to uses of the abutting properties. Abutting 'single-family residential', refers to the following zones: R-0.4, R-1, R-2, R-2.9, R-3.5, R-4.3, and R-6.





**ANALYSIS:** As stated in BIMC 18.15.010.D.2, “applicants shall meet the specific requirements of Table 18.15.010-3 applicable to the zone district or overlay district in which the property is located.” All of the listed abutting zoning or land use districts in Table 18.15.010-3 refer to zones and districts – uses are not specified. The BIMC uses the words ‘zoning district’ and ‘land use district’ interchangeably.

The Comprehensive Plan Land Use Map categorizes residential zones in the following ways: Residential (R-0.4, R-1, R-2), Semi-Urban (R-2.9, R-3.5), Urban Residential (R-4.3, R-5, R-6), and Urban Multi-Family (R-8, R-14). R-5, R-8 and R-14 are the only districts where multi-family dwellings are a permitted use, and are not considered ‘single-family residential’. Multifamily dwellings require a conditional use permit in the R-0.4, R-1, R-2, R-2.9, R-3.5, R-4.3, and R-6 zones.

In Table 18.15.010-3, where perimeter buffers are intended to apply to multifamily development, it is specified. For example, under NC Districts, the table specifies all abutting residential including multifamily warrants a perimeter buffer (see table below).

For these reasons, where ‘single-family residential’ is specified in Table 18.15.010-3, it refers only to the following zones: R-0.4, R-1, R-2, R-2.9, R-3.5, R-4.3, and R-6.

**Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use and Zoning District**

| Abutting Zoning or Land Use District                                                        | Perimeter Landscape Type | Perimeter Width (ft.) | Minimum Perimeter Width (ft.) |
|---------------------------------------------------------------------------------------------|--------------------------|-----------------------|-------------------------------|
| <b>Multifamily in R-2, R-1 and R-0.4 Districts</b>                                          |                          |                       |                               |
| Single-family residential                                                                   | Full Screen              | 25                    | 25                            |
| <b>R-8 and R-14 Multifamily Districts</b>                                                   |                          |                       |                               |
| R-4.3 (urban residential)                                                                   | Partial Screen           | 20                    | 15                            |
| <b>Nonresidential Uses in Areas Outside Winslow Mixed Use, HSR, NC, B/I, WD-I Districts</b> |                          |                       |                               |
| Residential including multifamily                                                           | Full Screen              | 25                    | 25                            |
| Nonindustrial uses                                                                          | Partial Screen           | 20                    | 10                            |
| <b>Winslow Town Center Mixed Use District [3]</b>                                           |                          |                       |                               |
| Single-family residential                                                                   | Full Screen              | 20                    | 15                            |
| <b>HSR I and II Districts</b>                                                               |                          |                       |                               |
| Single-family residential                                                                   | Full Screen              | 20                    | 15                            |
| <b>NC Districts</b>                                                                         |                          |                       |                               |
| Residential including multifamily                                                           | Full Screen              | 20                    | 15                            |
| <b>B/I Districts</b>                                                                        |                          |                       |                               |
| Non-B/I                                                                                     | Full Screen [4]          | 50                    | 35                            |
| <b>WD-I Districts</b>                                                                       |                          |                       |                               |
| Residential including multifamily                                                           | Full Screen              | 40                    | 30                            |
| Nonindustrial uses                                                                          | Full Screen              | 25                    | 15                            |





**APPEAL:** Any decision of the director may be appealed to the hearing examiner in accordance with the procedures of BIMC 2.16.020.P.

**ATTACHMENTS:**

- A. Applicant's Letter and Appendices

**REFERENCES:**

- 1. BIMC (<https://www.codepublishing.com/WA/Bainbridgelsland>)
- 2. Land Use Map (<http://www.bainbridgewa.gov/DocumentCenter/View/8126/Ord-2017-01-Exhibit-B-Future-Land-Use-Map-Feb-28-2017?bidId=>)

A handwritten signature in blue ink, appearing to read 'Gary R. Christensen', is written over a horizontal line.

Gary R. Christensen, AICP

Director of Planning & Community Development

A handwritten date '2/22/19' in blue ink is written above a horizontal line.

Date



## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

### MEMORANDUM

**Date:** March 14, 2019  
**To:** Planning Commission  
**From:** Christy Carr, AICP, Senior Planner  
**Subject:** **Site Plan and Design Review and Conditional Use Permit Decision Criteria**

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#### I. BACKGROUND

Consideration of revisions to site plan and design review (SPR) and conditional use permit (CUP) decision criteria is a moratorium work plan item. The intent of any potential revisions is to (a) minimize “wiggle room” and subjectivity for the decision maker and (b) ensure that decision criteria result in project outcomes reflective of the City’s Comprehensive Plan.

Background material provided for your review includes:

- Existing decision criteria in the Bainbridge Island Municipal Code (BIMC)
  - o BIMC 2.16.040.F – Site Plan and Design Review
  - o BIMC 2.16.050.D – Minor Conditional Use Permit
  - o BIMC 2.16.110.F – Major Conditional Use Permit
- Table 18.09.020 – Permitted Use Table
- Recent SPR and CUP staff and Hearing Examiner reports that include response/analysis of the existing decision criteria

#### **Site Plan and Design Review (BIMC 2.16.040)**

The purpose of the site plan and design review process is to:

“... establish a comprehensive site plan and design review process that ensures compliance with the adopted plans, policies, and ordinances of the city. The overall goal of this chapter is to minimize land alteration, provide greater site development flexibility and consequently provide more creative and imaginative design than generally is possible under conventional zoning regulations. It is further intended to provide for the review of development proposals with respect to overall site design and to provide a means for guiding development in a logical, safe, attractive, and expedient manner, while also allowing property to be developed in phases. An additional purpose is to promote those specific purposes for each zoning district stated in Chapter [18.06](#) BIMC.”

**Site plan and design review is required in any of the following circumstances:**

- The new construction of a nonresidential building or other structure; or
- The expansion, remodel, or alteration of any building or other structure by more than five percent of its existing floor area, or overall size in cases where floor area is not applicable; or expansion that creates a new dwelling unit; or
- A change of use, where traffic, parking, noise or other impacts are greater than the impacts for the previously existing use, as determined by the director; or
- The construction of new wireless communications support structures (but not the location of wireless facilities on existing buildings).

**The following types of activities do not require site plan and design review:**

- Permits authorizing residential construction for detached single-family residential use and accessory dwelling units.
- Any activity that does not require a building permit or is not considered a change in use, as determined by the director.
- Any activity on the exterior of a building that does not exceed 25 percent change in any existing facade or roof form.
- Interior work that does not alter the exterior of the structure or affect parking standards as determined by the director.
- Normal building maintenance and repair.
- Maintenance or expansion of existing parks where the proposed activities are exempt from SEPA review in accordance with WAC [197-11-800](#).
- Construction of public communications towers.

**There are two methods of site plan and design review, major and minor:**

Minor. Minor site plan and design review is required for minor projects that can clearly meet the decision criteria, as determined by the director. Examples of minor administrative projects include: (a) a fourplex multifamily development; (b) minor commercial remodel or the addition of a small room; and (c) a minor change in use, such as from a church to a preschool.

Major. Major site plan and design review requires design review board and planning commission review and recommendation, and is required for projects that: (a) are determined by the director to be more complicated than minor projects, due to site constraints or the complexity of the project; or (b) receive written public comment(s) during the public comment period concerning the effect on the land use application of the comprehensive plan, shoreline master program, or matters not addressed by specific provisions of this code; or (c) are located on property zoned business/industrial after November 22, 1999.

**Decisions on site plan and design review applications are administrative, made by the Director of Planning Community Development (Director). Major SPRs require review and recommendation meetings by the Design Review Board and Planning Commission, both of which are optional for minor SPRs.**

**Conditional Use Permit – Minor (BIMC 2.16.050)**

A minor conditional use permit is a mechanism by which the city may require specific conditions on development or the use of land to ensure that designated uses or activities are compatible with other

uses in the same zone and in the vicinity of the subject property. If imposition of conditions will not make a specific proposal compatible the proposal is to be denied.

**The minor conditional use procedure applies to:**

- All conditional uses listed as agricultural uses in Table 18.09.020 (*attached for quick reference*);
- Conditional uses listed in Table 18.09.020 other than an educational, cultural, governmental, religious, or health care facility, where the director determines that the anticipated impacts of those conditional uses will be minor or minimal; or
- Uses that are clearly consistent and compatible with other uses in the same zone or vicinity.

**Decisions on minor conditional use applications are administrative, made by the Director. Review and recommendation meetings by the Design Review Board and Planning Commission are optional.**

**Conditional Use Permit – Major (BIMC 2.16.110)**

A major conditional use permit is a mechanism by which the city may require specific conditions on development or the use of land to ensure that designated uses or activities are compatible with other uses in the same zone and in the vicinity of the subject property. If imposition of conditions will not make a specific proposal compatible the proposal is to be denied.

**The major conditional use procedure applies to** establishing or expanding a use according to situations that include, but are not limited to:

- The proposed use or expansion covers 50 percent or greater of the total lot area;
- The proposed use is accessed by a local or private road;
- The proposed use or expansion generates more than 36 total trips per day;
- The proposed use or expansion contains four or more units in a multifamily dwelling;
- The proposed use or expansion of educational, cultural, governmental, religious, or health care facility or
- Requests for additional nonresidential building height pursuant to Table 18.12.020-1, 18.12.020-2, or 18.12.020-3.

**Decisions on major conditional use permit applications are quasi-judicial, made by the Hearing Examiner. Major CUPs require review and recommendation meetings by the Design Review Board and Planning Commission.**

## **II. ALTERNATIVES FOR REVISIONS TO DECISION CRITERIA**

As stated earlier, the intent of any revisions to the decision criteria is to minimize “wiggle room” and subjectivity for the decision maker and (b) ensure that decision criteria result in project outcomes reflective of the City’s Comprehensive Plan. It is also a good opportunity for “housekeeping” revisions including corrections/clarifications. Potential revisions to achieve these intended results include:

- Eliminate or define subjective terms, such as “harmonious and compatible,” “materially detrimental,” and “intended character and quality of development in the vicinity.”
- Define area of impact – “immediately surrounding area,” “immediate vicinity of project area,” “in the vicinity of the subject property;” for example, are all used.
- Use consistent terms, such as “in accord with” vs. “in conformance with” the Comprehensive Plan
- Clarify when an application can be denied.
- Consolidate major and minor CUP decision criteria and otherwise eliminate duplication.

- Develop decision criteria for specific uses.

## **2.16.040 – Site Plans and Design Review**

F. Decision Criteria. The director and planning commission shall base their respective recommendations or decisions on site plan and design review applications on the following criteria:

1. The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district, unless a standard has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.S](#);
2. The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the Island-Wide Transportation Plan;
3. The Kitsap County health district has determined that the site plan and design meets the following decision criteria:
  - a. The proposal conforms to current standards regarding domestic water supply and sewage disposal; or if the proposal is not to be served by public sewers, then the lot has sufficient area and soil, topographic and drainage characteristics to permit an on-site sewage disposal system.
  - b. If the health district recommends approval of the application with respect to those items in subsection E.3.a of this section, the health district shall so advise the director.
  - c. If the health district recommends disapproval of the application, it shall provide a written explanation to the director;
4. The city engineer has determined that the site plan and design meets the following decision criteria:
  - a. The site plan and design conforms to regulations concerning drainage in Chapters [15.20](#) and [15.21](#) BIMC; and
  - b. The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and
  - c. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and
  - d. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and
  - e. If the site will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the site, and the applicable service(s) can be made available at the site; and
  - f. The site plan and design conforms to the “City of Bainbridge Island Design and Construction Standards,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title [18](#);
5. The site plan and design is consistent with all applicable design guidelines in BIMC Title [18](#), unless strict adherence to a guideline has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.S](#);
6. No harmful or unhealthful conditions are likely to result from the proposed site plan;
7. The site plan and design is in conformance with the comprehensive plan and other applicable adopted community plans;
8. Any property subject to site plan and design review that contains a critical area or buffer, as defined in Chapter [16.20](#) BIMC, conforms to all requirements of that chapter;
9. Any property subject to site plan and design review that is within shoreline jurisdiction, as defined in Chapter [16.12](#) BIMC, conforms to all requirements of that chapter;

10. If the applicant is providing privately owned open space and is requesting credit against dedications for park and recreation facilities required by BIMC [17.20.020.C](#), the requirements of BIMC [17.20.020.D](#) have been met;
11. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals.

## **2.16.540 – Minor conditional use permit**

D. Nonagricultural Minor Conditional Use Decision Criteria. A nonagricultural minor conditional use or an agricultural research facility may be approved if:

1. The conditional use is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity of the subject property and with the physical characteristics of the subject property; provided, that in the case of a housing design demonstration project any differences in design, character or appearance that are in furtherance of the purpose and decision criteria of BIMC [2.16.020.S](#) shall not result in denial of a conditional use permit for the project;
2. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities;
3. The conditional use will not be materially detrimental to uses or property in the immediate vicinity of the subject property;
4. The conditional use is in accord with the comprehensive plan and other applicable adopted community plans, including the Island-Wide Transportation Plan;
5. The conditional use complies with all other provisions of the BIMC, unless a provision has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.S](#);
6. All necessary measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the immediate vicinity of the subject property;
7. Noise levels shall be in compliance with BIMC [16.16.020](#) and [16.16.040.A](#);
8. The city engineer has determined that the conditional use meets the following decision criteria:
  - a. The conditional use conforms to regulations concerning drainage in Chapters [15.20](#) and [15.21](#) BIMC; and
  - b. The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and
  - c. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and
  - d. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and
  - e. If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the applicable service(s) can be made available at the site; and
  - f. The conditional use conforms to the “City of Bainbridge Island Engineering Design and Development Standards Manual,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title [18](#).
9. If a minor conditional use is processed as a housing design demonstration project pursuant to BIMC [2.16.020.S](#), the above criteria will be considered in conjunction with the purpose, goals, policies, and decision criteria of BIMC [2.16.020.S](#).



10. A conditional use may be approved with conditions. If no reasonable conditions can be imposed that ensure the application meets the decision criteria of this chapter, then the application shall be denied.

E. Agricultural Conditional Use Decision Criteria.

1. As agriculture is a preferred use, conditional uses that are listed as agricultural uses in Table 18.09.020 (except for agricultural research facilities) may be approved if:
  - a. The conditional use will not be materially detrimental to uses or property in the immediate vicinity of the subject property; and
  - b. The conditional use is in accord with the comprehensive plan and other applicable adopted community plans, including the Island-Wide Transportation Plan; and
  - c. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities; and
  - d. The conditional use complies with all other provisions of the BIMC.
2. Animal agricultural conditional uses that are in compliance with an existing conditional use permit may expand any structure or area used in the operation of the conditional use on January 1, 2012 (effective date of adoption), by up to 25 percent without applying for a new conditional use permit.
3. Crop agriculture conditional uses that are in compliance with an existing conditional use permit may expand an unlimited amount without an additional conditional use permit, given they comply with the standards in BIMC Titles [16](#) and [18](#).

**2.16.110 Major conditional use permit**

F. Decision Criteria.

1. A conditional use may be approved or approved with conditions if:
  - a. The conditional use is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity of the subject property and with the physical characteristics of the subject property; provided, that in the case of a housing design demonstration project any differences in design, character or appearance that are in furtherance of the purpose and decision criteria of BIMC [2.16.020.Q](#) shall not result in denial of a conditional use permit for the project; and
  - b. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities; and
  - c. The conditional use will not be materially detrimental to uses or property in the vicinity of the subject property; and
  - d. The conditional use is in accord with the comprehensive plan and other applicable adopted community plans, including the Island-Wide Transportation Plan; and
  - e. The conditional use complies with all other provisions of the BIMC, unless a provision has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#); and
  - f. All necessary measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the immediate vicinity of the subject property; and
  - g. Noise levels shall be in compliance with BIMC [16.16.020](#) and [16.16.040.A](#); and
  - h. The vehicular, pedestrian, and bicycle circulation meets all applicable city standards, unless the city engineer has modified the requirements of BIMC [18.15.020.B.4](#) and [B.5](#), allows alternate driveway and parking area surfaces, and confirmed that those surfaces meet

city requirements for handling surface water and pollutants in accordance with Chapters [15.20](#) and [15.21](#) BIMC; and

i. The city engineer has determined that the conditional use meets the following decision criteria:

i. The conditional use conforms to regulations concerning drainage in Chapters [15.20](#) and [15.21](#) BIMC; and

ii. The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and

iii. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and

iv. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and

v. If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the applicable service(s) can be made available at the site; and

vi. The conditional use conforms to the “City of Bainbridge Island Engineering Design and Development Standards Manual,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title [17](#).

j. If a major conditional use is processed as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#), the above criteria will be considered in conjunction with the purpose, goals, policies, and decision criteria of BIMC [2.16.020.Q](#).

2. If no reasonable conditions can be imposed that ensure the application meets the decision criteria of this chapter, then the application shall be denied.

G. Additional Decision Criteria for Institutions in Residential Zones. Applications to locate any of those uses categorized as educational facilities, governmental facilities, religious facilities, health care facilities, cultural facilities, or clubs in Table 18.09.020 in residential zones shall be processed as major conditional use permits and shall be required to meet the following criteria, in addition to those in subsection D of this section:

1. All sites must front on roads classified as residential suburban, collector, or arterial on the Bainbridge Island functional road classification map.

2. If the traffic study shows an impact on the level of service, those impacts have been mitigated as required by the city engineer.

3. If the application is located outside of Winslow study area, the project shall provide vegetated perimeter buffers in compliance with BIMC [18.15.010](#).

4. The proposal meets the requirements of the commercial/mixed use design guidelines in BIMC [18.18.030.C](#).

5. The scale of proposed construction including bulk and height and architectural design features is compatible with the immediately surrounding area.

6. If the facility will have attendees and employees numbering fewer than 50 or an assembly seating area of less than 50, the director may waive any or all the above requirements in this subsection E, but may not waive those required elsewhere in the BIMC.

7. Lot coverage does not exceed 50 percent of the allowable lot coverage in the zone in which the institution is located, except that public schools and governmental facilities, as defined in BIMC Title [18](#), that are located in the R-0.4 zoning district shall be allowed 150 percent of the lot coverage established in the R-0.4 zoning district, and such public schools and governmental facilities located in other zoning districts shall be allowed 100 percent of the lot coverage

established in the underlying zoning district in which the facility is located, unless, regardless of which zoning district such a facility is located, conditions are required to limit the lot coverage to mitigate impacts of the use.

H. Approval of Additional Height in Nonresidential Districts.

1. In the NC zone district a maximum height of 45 feet for nonresidential uses can be approved through the major conditional use permit process if the director determines that: (a) view opportunities are not substantially reduced; (b) fire flow is adequate; and (c) solar access of neighboring lots is not substantially reduced.
2. In the B/I zone district a maximum height of 45 feet can be approved through the major conditional use process if the director determines that: (a) view opportunities are not substantially reduced; (b) fire flow is adequate; (c) solar access of neighboring lots is not reduced; and (d) the appearance of the neighborhood will not substantially change.
3. In the WDI zone district a maximum height of 45 feet can be approved through the major conditional use process if the director determines that (a) view opportunities are not substantially reduced; (b) fire flow is adequate; (c) solar access of neighboring lots is not reduced; and (d) each setback requirement shall be increased one foot for each additional foot of building height allowed. In portions of the WDI district located within the shoreline jurisdiction regulated by Chapter [16.12](#) BIMC, a shoreline variance may be needed before additional height can be approved.

Table 18.09.020 Use Table

| “P” = Permitted Use                                                                                            |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |  |
|----------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|--|
| “C” = Conditional Use                                                                                          |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Blank = Prohibited Use                                                                                         |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                                                                    | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |  |
|                                                                                                                |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |  |
| PRINCIPAL USES                                                                                                 |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| AGRICULTURAL                                                                                                   |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Note: Agricultural uses may be subject to additional requirements in BIMC 16.12.040.E, Forest Practices.       |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| All agricultural uses are subject to the critical area regulations in Chapter 16.20 BIMC.                      |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Agricultural uses are not allowed within the shoreline jurisdiction pursuant to Chapter 16.12 BIMC.            |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Agriculture, Animal                                                                                            | P      | P                                | P   | C     | C     | C     | C   |     |     |      |                               |                                                                                                                  |    |      |           |              | P  |     |      | A-1                                         |  |
| Agriculture, Crop                                                                                              | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    |                               |                                                                                                                  |    |      |           |              | P  |     |      | A-2                                         |  |
| Agriculture Research Facility                                                                                  | C      | C                                | C   |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      | A-3                                         |  |
| Agricultural Processing                                                                                        |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | P            |    | P/C |      | A-4                                         |  |
| RESIDENTIAL                                                                                                    |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Note: Residential uses may be subject to additional requirements in BIMC 16.12.040.I, Residential Development. |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Household Living                                                                                               |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Single-Family Dwelling                                                                                         | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     |      | B-1                                         |  |
| Single-Family Dwelling existing on April 15, 1996                                                              |        |                                  |     |       |       |       |     |     |     |      | P                             | P                                                                                                                | P  |      |           |              |    |     |      | B-1                                         |  |
| Multifamily Dwellings                                                                                          | C      | C                                | C   | C     | C     | C     | P   | C   | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     |      | B-2                                         |  |
| Commercial/Residential Mixed Use                                                                               |        |                                  |     |       |       |       |     |     | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     |      | B-3                                         |  |

| “P” = Permitted Use                                                                                                        |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |  |
|----------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|--|
| “C” = Conditional Use                                                                                                      |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Blank = Prohibited Use                                                                                                     |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| ZONING DISTRICT<br>USE<br>CATEGORY/TYPE                                                                                    | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |  |
|                                                                                                                            |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |  |
| Developments                                                                                                               |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Live/Work Units                                                                                                            |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P   |      | B-4                                         |  |
| Group Living                                                                                                               |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Foster Home                                                                                                                | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                             | P                                                                                                                | P  | P    | P         |              | P  |     |      |                                             |  |
| Small Group Living Facility                                                                                                | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     |      |                                             |  |
| Group Care Facility                                                                                                        | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                             | P                                                                                                                | P  | P    | C         | P            | P  |     | C    |                                             |  |
| PUBLIC AND INSTITUTIONAL                                                                                                   |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Community and Educational Facilities                                                                                       |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Educational Facility                                                                                                       | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                             | P                                                                                                                | P  | C    | C         | P            | C  |     | C    | C-1                                         |  |
| Vocational/Trade Instruction Facilities                                                                                    | C      |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P   |      |                                             |  |
| Governmental Facility                                                                                                      | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                             | P                                                                                                                | P  | C    | C         | P            | C  |     | C    | C-2                                         |  |
| Religious Facility                                                                                                         | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                             | P                                                                                                                | P  | C    | C         | P            | C  |     | C    | C-3                                         |  |
| Parks and Park-Related                                                                                                     |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Note: Parks and park-related uses may be subject to additional requirements in BIMC 16.12.040.H, Recreational Development. |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |  |
| Community Garden                                                                                                           | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     |      | C-4                                         |  |
| Park, Active Recreation                                                                                                    | P      | P                                | P   | C     | C     | C     | C   | C   | C   | C    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     | P    |                                             |  |
| Park, Passive Recreation                                                                                                   | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                             | P                                                                                                                | P  | P    | P         | P            | P  |     | P    |                                             |  |

| “P” = Permitted Use                                                                                                            |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |    |      |           |              |    |     |      |                                             |
|--------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|------------------------------------------------------------------------------------------------------------------|----|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                                                          |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                                                                                         |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                                                                                    | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center                                                                                    |    |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                                                |        |                                  |     |       |       |       |     |     |     |      | CC                                                                                                               | MA | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Recreation Activity, Indoor                                                                                                    | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   |      |                                             |
| Recreation Activity, Outdoor                                                                                                   | P      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | C                                                                                                                | C  | C  | C    | C         | C            | C  |     | P    |                                             |
| Other Public and Institutional                                                                                                 |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Cemetery                                                                                                                       | C      | C                                | C   |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Day Care Center                                                                                                                | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      | C-5                                         |
| Family Day Care Home                                                                                                           | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      | C-6                                         |
| Health Care Facility                                                                                                           | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                                                                                                                | P  | P  | P    | C         | P            | P  |     |      | C-7                                         |
| CULTURAL AND ENTERTAINMENT                                                                                                     |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Artist Studio                                                                                                                  |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   |      |                                             |
| Club                                                                                                                           | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      |                                             |
| Commercial Amusement                                                                                                           |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | C  |     |      |                                             |
| Cultural Facility                                                                                                              | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | P                                                                                                                | P  | P  | P    | P         | P            | C  |     | C    |                                             |
| Entertainment Facility                                                                                                         |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                |    |    |      |           | P            | C  |     |      |                                             |
| COMMERCIAL SALES AND SERVICE                                                                                                   |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Note: Commercial Sales and Service uses may be subject to additional requirements in BIMC 16.12.040.D, Commercial Development. |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Accommodation                                                                                                                  |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Bed and Breakfast (3+ bedrooms)                                                                                                | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      |                                             |

| “P” = Permitted Use                     |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |    |      |           |              |    |     |      |                                             |
|-----------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|------------------------------------------------------------------------------------------------------------------|----|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                   |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                  |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br>USE<br>CATEGORY/TYPE | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center                                                                                    |    |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                         |        |                                  |     |       |       |       |     |     |     |      | CC                                                                                                               | MA | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Inn                                     |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      |                                             |
| Hotel                                   |        |                                  |     |       |       |       |     |     |     |      | C                                                                                                                |    |    | C    | C         | P            |    |     | D-1  |                                             |
| Animal Sales and Service                |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Equestrian Facility                     | C      |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    | P   |      |                                             |
| Kennel, Indoor                          | C      |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   |      |                                             |
| Kennel, Outdoor                         | C      |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    | C   |      |                                             |
| Veterinarian Clinic or Office           | C      | C                                | C   | C     | C     | C     | C   | C   | C   | P    | P                                                                                                                | P  | P  | P    | C         | P            | C  | P   |      |                                             |
| Food and Beverage                       |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Formula Take-Out Restaurant             |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           | P            |    |     |      | D-2                                         |
| Restaurant                              |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      |                                             |
| Food Service Establishment              |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    | P   |      | D-3                                         |
| Mobile Retail Food Establishment        |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   | P    | D-5                                         |
| Craft Food and Beverage                 |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   |      | D-4                                         |
| Offices and Services                    |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Personal Service                        |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  |     |      | D-6                                         |
| Professional Service                    |        |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P  | P   |      | D-7                                         |
| Retail                                  |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |



| “P” = Permitted Use                                                                                                                  |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                                                                |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                                                                                               |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br>USE<br>CATEGORY/TYPE                                                                                              | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                                                      |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Commuter-Oriented Retail Sales                                                                                                       |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      | P         |              |    |     |      | D-8                                         |
| Open-Air Sales for Garden Supply                                                                                                     | C      | C                                | C   |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | P  |     |      |                                             |
| Retail Sales                                                                                                                         |        |                                  |     |       |       |       |     |     |     |      | P                             | P                                                                                                                | P  | P    |           | P            | P  | A   |      | D-9                                         |
| PRIVATE MOTOR VEHICLE-RELATED                                                                                                        |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Note: Private motor vehicle-related uses may be subject to additional requirements in BIMC 16.12.030.C.6, Transportation Facilities. |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Auto Repair Services                                                                                                                 |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | C  | P/C |      | E-1                                         |
| Car Wash Facility, Manual or Automatic                                                                                               |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | C  | C   |      |                                             |
| Commercial Parking Structure                                                                                                         |        |                                  |     |       |       |       |     |     |     |      | C                             |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Commercial Parking, Surface                                                                                                          |        |                                  |     |       |       |       |     |     |     |      | P                             |                                                                                                                  |    | P    |           |              |    |     |      | E-2                                         |
| Ferry Commuter Parking                                                                                                               |        |                                  |     |       |       |       |     |     |     |      | P                             |                                                                                                                  |    | P    | P         |              |    |     |      | E-3                                         |
| Gasoline Service Station                                                                                                             |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | C  |     |      |                                             |
| Motor Vehicle Sales                                                                                                                  |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            |    |     |      | E-4                                         |
| Noncommuter Ferry Parking                                                                                                            |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    | C    |           |              |    |     |      | E-5                                         |
| Park and Ride Facility/Lot                                                                                                           | C      | C                                | C   |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | C  |     | C    | E-6                                         |
| Park and Ride Lot, Shared Use                                                                                                        | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    |                               |                                                                                                                  |    |      |           | C            | C  |     | C    | E-7                                         |

| “P” = Permitted Use                                                                                          |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |    |      |           |              |     |     |      |                                             |
|--------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|------------------------------------------------------------------------------------------------------------------|----|----|------|-----------|--------------|-----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                                        |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |
| Blank = Prohibited Use                                                                                       |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                                                                  | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center                                                                                    |    |    |      |           | HSR I and II | NC  | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                              |        |                                  |     |       |       |       |     |     |     |      | CC                                                                                                               | MA | EA | Gate | Ferry [1] |              |     |     |      |                                             |
| Small Engine Repair                                                                                          |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           | C            | C   | P   |      |                                             |
| Transport and Delivery Service                                                                               |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           | P            | C   | P   |      | E-8                                         |
| Motor Vehicle-Related Services, Not Including Retail and Not Otherwise Listed                                |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           | C            |     |     |      |                                             |
| UTILITY AND TELECOMMUNICATIONS                                                                               |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |
| Note: Utility and telecommunications uses may be subject to additional requirements in BIMC 16.12.030.C.7.   |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |
| Monopole or Lattice Tower                                                                                    | P      |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     | P   |      |                                             |
| Small Wind Energy Generator                                                                                  | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | C                                                                                                                | C  | C  | C    | C         | C            | P/C | P/C | P/C  | F-1                                         |
| Utility, Primary                                                                                             | C      | C                                | C   | C     | C     | C     | C   | C   | C   | C    | C                                                                                                                | C  | C  | C    | C         | C            | C   | P   | C    | F-2                                         |
| Public Communications Tower                                                                                  | P      | P                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A   | P   | A    | F-3                                         |
| Wireless Communication Facilities, Facility I                                                                | P      | P                                | P   | P     | P     | P     | P   | P   | P   | P    | P                                                                                                                | P  | P  | P    | P         | P            | P   | P   | P    |                                             |
| Wireless Communication Facilities, Facility II                                                               | P      |                                  |     |       |       |       |     |     |     |      | P                                                                                                                | P  | P  | P    | P         | P            | P   | P   | P    |                                             |
| Wireless Communication Facilities, Facility III                                                              | P      |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     | P   | P    |                                             |
| INDUSTRIAL USES                                                                                              |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |
| Note: Industrial uses may be subject to additional requirements in BIMC 16.12.040.F, Industrial Development. |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |     |     |      |                                             |

| “P” = Permitted Use                                                                                                                                                |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |     |     |      |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|-----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                                                                                              |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Blank = Prohibited Use                                                                                                                                             |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| ZONING DISTRICT<br>USE<br>CATEGORY/TYPE                                                                                                                            | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC  | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                                                                                    |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |     |     |      |                                             |
| Manufacturing and Production                                                                                                                                       |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Manufacturing, Small-Scale                                                                                                                                         |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | P   |     |      |                                             |
| Manufacturing, Light                                                                                                                                               |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | P   |     |      |                                             |
| Manufacturing, General                                                                                                                                             |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | C   |     |      |                                             |
| Mining and Quarrying                                                                                                                                               | C      | C                                | C   |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     | G-1  |                                             |
| Research and Development                                                                                                                                           |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | P            | P   |     |      |                                             |
| Waste and Salvage                                                                                                                                                  |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Recycling Center                                                                                                                                                   | C      | C                                |     |       |       |       |     |     |     |      | C                             |                                                                                                                  |    |      | C         |              | C   | C   | G-2  |                                             |
| Waste Transfer Facility                                                                                                                                            | C      |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     | G-3  |                                             |
| Warehouse and Freight Movement                                                                                                                                     |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Commercial Moving and Freight Terminal                                                                                                                             |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | C   |     |      |                                             |
| Self-Service Storage Facility                                                                                                                                      |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | C            | P   |     | G-4  |                                             |
| Warehouse                                                                                                                                                          |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | P   |     |      |                                             |
| Ferry- and Waterfront-Related                                                                                                                                      |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Note: Ferry- and waterfront-related uses may be subject to additional requirements in BIMC 16.12.040.C, Boating Facilities; and 16.12.050.C, Overwater Structures. |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     |     |      |                                             |
| Barge Moorage and Off-Load Ships                                                                                                                                   |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |     | C   | H-1  |                                             |
| Boat Building                                                                                                                                                      |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | P/C | C   | H-2  |                                             |

| “P” = Permitted Use                                                                            |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |
|------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                          |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                                                         |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br>USE<br>CATEGORY/TYPE                                                        | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Boat Repair Facility                                                                           |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P/C | P    | H-3                                         |
| Cross Harbor Passenger-Only Ferry Terminal and Associated Parking                              |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | C    |                                             |
| Dry Storage for Boats and Marine Equipment                                                     |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    |                                             |
| Ferry Terminal and Associated Docks, Ramps, Walkways, Trails, Waiting Rooms, and Holding Areas |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    | P    |           |              |    |     |      |                                             |
| Ferry Slips and Repair Facility                                                                |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    | H-4                                         |
| Marine Rental and Sales                                                                        |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    |                                             |
| Marine Way                                                                                     |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | C    |                                             |
| Pleasure and Commercial Vessel Moorage                                                         |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    |                                             |
| Small Boat Haul-Out Facility                                                                   |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    |                                             |
| Water-Related Supply and Retail Sale                                                           |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     | P    |                                             |
| ACCESSORY USES                                                                                 |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Accessory Agricultural Education                                                               | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                               |                                                                                                                  |    |      |           |              | A  |     |      | I-1                                         |
| Accessory Agricultural                                                                         | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                               |                                                                                                                  |    |      |           |              | A  |     |      | I-2                                         |

| “P” = Permitted Use                                                               |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |
|-----------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                             |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                                            |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                                       | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                   |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Retail, Minor                                                                     |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Accessory Agricultural<br>Retail, Major                                           | CA     | CA                               | CA  | CA    | CA    | CA    | CA  |     |     |      |                               |                                                                                                                  |    |      |           |              | CA |     |      | I-3                                         |
| Accessory Agricultural<br>Special Event                                           | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                               |                                                                                                                  |    |      |           |              | A  |     |      | I-4                                         |
| Accessory Agricultural<br>Tourism                                                 | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                               |                                                                                                                  |    |      |           |              | A  |     |      |                                             |
| Accessory Composting<br>Bin                                                       | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                             | A                                                                                                                | A  | A    | A         | A            | A  | A   | A    |                                             |
| Accessory Dwelling<br>Unit (outside shoreline<br>jurisdiction)                    | A      | A                                | A   | A     | A     | A     | A   |     | A   | A    | A                             | A                                                                                                                | A  | A    | A         | A            | A  |     |      | I-5                                         |
| Accessory Dwelling<br>Unit (within shoreline<br>jurisdiction)                     | CA     | CA                               | CA  | CA    | CA    | CA    | CA  |     | CA  | CA   |                               |                                                                                                                  |    |      |           |              | CA |     |      | I-5                                         |
| Accessory Agricultural<br>Processing and<br>Livestock and Poultry<br>Slaughtering | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                               |                                                                                                                  |    |      |           |              | A  |     | A    | I-6                                         |
| Accessory On-Site<br>Treatment and Storage<br>Facilities for Hazardous<br>Wastes  |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | A  | A   | A    | I-7                                         |
| Accessory Outdoor<br>Storage                                                      |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              | A  | A   | A    | I-8                                         |
| Accessory Rain<br>Garden/Swale                                                    | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                             | A                                                                                                                | A  | A    | A         | A            | A  | A   | A    |                                             |
| Accessory Rainwater<br>Harvesting Barrel                                          | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                             | A                                                                                                                | A  | A    | A         | A            | A  | A   | A    | I-9                                         |

| “P” = Permitted Use                                                  |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |    |      |           |              |    |     |      |                                             |
|----------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|------------------------------------------------------------------------------------------------------------------|----|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                               |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                          | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center                                                                                    |    |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                      |        |                                  |     |       |       |       |     |     |     |      | CC                                                                                                               | MA | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Accessory Security Residence                                         |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    | P   |      | I-10                                        |
| Accessory Small Wind Energy Generator                                | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A  | A   | A    | I-10                                        |
| Accessory Solar Panel                                                | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A  | A   | A    |                                             |
| Accessory Uses to Agriculture (not otherwise listed)                 | A      | A                                | A   | A     | A     | A     | A   |     |     |      |                                                                                                                  |    |    |      |           |              | A  |     |      |                                             |
| Accessory Utilities                                                  | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A  | A   | A    | I-11                                        |
| Bed and Breakfast (1 – 2 bedrooms)                                   | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    |                                                                                                                  |    |    |      |           |              | A  |     |      |                                             |
| Minor Home Occupations                                               | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A  |     |      | I-12                                        |
| Major Home Occupations                                               | CA     | CA                               | CA  | CA    | CA    | CA    | CA  | CA  | CA  | CA   | CA                                                                                                               | CA | CA | CA   | CA        | CA           | CA |     |      | I-13                                        |
| Nonagricultural Accessory Uses and Structures (not otherwise listed) | A      | A                                | A   | A     | A     | A     | A   | A   | A   | A    | A                                                                                                                | A  | A  | A    | A         | A            | A  | A   | A    | I-14                                        |
| TEMPORARY USES                                                       |        |                                  |     |       |       |       |     |     |     |      |                                                                                                                  |    |    |      |           |              |    |     |      |                                             |
| Temporary Construction Building                                      | T      | T                                | T   | T     | T     | T     | T   | T   | T   | T    | T                                                                                                                | T  | T  | T    | T         | T            | T  | T   | T    | J-1                                         |
| Temporary Container Storage                                          | T      | T                                | T   | T     | T     | T     | T   | T   | T   | T    | T                                                                                                                | T  | T  | T    | T         | T            | T  | T   | T    | J-2                                         |
| Temporary Commercial Parking                                         |        |                                  |     |       |       |       |     |     |     |      | T                                                                                                                | T  | T  | T    | T         | T            |    |     |      | J-3                                         |
| Temporary Public Events or Gatherings                                | T      | T                                | T   | T     | T     | T     | T   | T   | T   | T    | T                                                                                                                | T  | T  | T    | T         | T            | T  | T   |      | J-4                                         |

| “P” = Permitted Use                                                                                                                                                                                                                                                                                                                                                           |        | “A” = Accessory Use              |     |       |       |       |     |     |     |      |                               | Additional use restrictions for Chapters 16.12 and 16.20 BIMC may apply to shoreline or critical area properties |    |      |           |              |    |     |      |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------|-----|-------|-------|-------|-----|-----|-----|------|-------------------------------|------------------------------------------------------------------------------------------------------------------|----|------|-----------|--------------|----|-----|------|---------------------------------------------|
| “C” = Conditional Use                                                                                                                                                                                                                                                                                                                                                         |        | “CA” = Conditional Accessory Use |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Blank = Prohibited Use                                                                                                                                                                                                                                                                                                                                                        |        | “T” = Temporary Use              |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| ZONING DISTRICT<br><br>USE<br>CATEGORY/TYPE                                                                                                                                                                                                                                                                                                                                   | R- 0.4 | R-1                              | R-2 | R-2.9 | R-3.5 | R-4.3 | R-5 | R-6 | R-8 | R-14 | Winslow Mixed Use Town Center |                                                                                                                  |    |      |           | HSR I and II | NC | B/I | WD-I | Use-Specific Standards<br>BIMC<br>18.09.030 |
|                                                                                                                                                                                                                                                                                                                                                                               |        |                                  |     |       |       |       |     |     |     |      | CC                            | MA                                                                                                               | EA | Gate | Ferry [1] |              |    |     |      |                                             |
| Temporary Ferry Commuter Parking                                                                                                                                                                                                                                                                                                                                              |        |                                  |     |       |       |       |     |     |     |      | T                             |                                                                                                                  |    |      | T         | T            |    |     |      | J-5                                         |
| Temporary Noncommuter Parking                                                                                                                                                                                                                                                                                                                                                 |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           | T            |    |     |      | J-6                                         |
| Temporary Seasonal Sales                                                                                                                                                                                                                                                                                                                                                      | T      | T                                | T   |       |       |       |     |     |     |      | T                             |                                                                                                                  |    |      |           | T            | T  | T   |      | J-7                                         |
| Temporary Homeless Encampment                                                                                                                                                                                                                                                                                                                                                 | T      | T                                | T   | T     | T     | T     | T   | T   | T   | T    | T                             | T                                                                                                                | T  | T    | T         | T            | T  | T   | T    | J-8                                         |
| MARIJUANA-RELATED USES                                                                                                                                                                                                                                                                                                                                                        |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| Marijuana Retailer                                                                                                                                                                                                                                                                                                                                                            |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P   |      | K                                           |
| Marijuana Processor                                                                                                                                                                                                                                                                                                                                                           |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P   |      | K                                           |
| Marijuana Producer                                                                                                                                                                                                                                                                                                                                                            |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    | P   |      | K                                           |
| Collective Garden                                                                                                                                                                                                                                                                                                                                                             |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |
| [1] In the ferry terminal district, all development shall include at least 10 percent of landscaped or naturally vegetated open space. Parking may be located under the open space. Development south of Winslow Way shall include pedestrian walkways that connect to Winslow Way East and Olympic Drive Southeast, and/or that align with Cave Avenue and Ferncliff Avenue. |        |                                  |     |       |       |       |     |     |     |      |                               |                                                                                                                  |    |      |           |              |    |     |      |                                             |

(Ord. 2018-13 § 3 (Exh. A), 2018; Ord. 2017-14 § 2 (Exh. A), 2017; Ord. 2017-02 § 1, 2017; Ord. 2015-10 § 1 (Exh. A), 2015; Ord. 2014-14 § 1 (Exh. A), 2014; Ord. 2014-26 § 1 (Exh. A), 2014; Ord. 2013-25 § 4 (Exh. A), 2013; Ord. 2012-12 § 1, 2012; Ord. 2011-17 § 1, 2011; Ord. 2011-02 § 2 (Exh. A), 2011)



February 13, 2017

**CITY OF BAINBRIDGE ISLAND, WASHINGTON  
HEARING EXAMINER**

**REPORT AND DECISION**

**Project:** Montessori Country School  
Conditional Use Permit / Site Plan and Design Review

**File Number:** PLN17677 CUP/ SPR

**Applicant:** Montessori Country School  
10994 Arrow Point Drive NE  
Bainbridge Island, WA 98110

**Location:** 10994 Arrow Point Drive NE

**Request:** Increase campus student population from 83 to 146 and staff from 10 to 18. Construct six new buildings (in addition to the existing building), expanding floor area from 3,550 square feet to 11,853 square feet. Modify existing parking lot and access drive dimensions.

**SEPA Review:** A Mitigated Determination of Non-Significance was issued on December 21, 2016.

**Zoning and Plan Designations:** R-1, Residential zone, one unit per acre  
OSR-1, Open Space Residential, one unit per acre

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**FINDINGS OF FACT**

**Site Characteristics**

1. Tax Assessor Information:
  - a. Tax Lot Number: 172502-1-087-2000
  - b. Owner of record: Montessori Country School
  - c. Lot size: 4.38 acres
  - d. Land use: Community and Educational / Educational Facility
2. Background: The Montessori Country School is a non-profit private school that is currently located on two campuses. The school requests approval to expand its Arrow Point Drive campus in order to serve the entire student population on a single site. In 1990 the school revised an existing

Kitsap County Unclassified Use Permit, receiving approval for two preschool sessions per weekday at a maximum of 34 students per session plus an elementary program at a maximum of 30 students (98 students total).

3. Zoning and Comprehensive Plan Designation: The subject property is within the R-1 district and the Open Space Residential (OSR-1) designation. The properties to the north and east are similarly designated. Properties to the west, across Arrow Point Drive, and to the south are zoned R-0.4 with a Comprehensive Plan designation of OSR-0.4.

4. Existing Development: The property contains a private school campus with a school building and associated development, including a parking lot and playground. The property to the north is undeveloped. The property to the east contains single-family residential development. The property to the west is a public park (Battle Point Park). Both properties to the south contain single-family residential development.

5. Access: Vehicular access is provided from Arrow Point Drive via a one-way loop.

6. Soils and Terrain: Site soils are composed of ice-contact deposits overlying Vashon till. The existing school building, parking lot and playground are located in the southwestern portion of the site and the existing septic system is located further east within the southern portion. The remainder of the site is heavily wooded with second growth forest.

The topography of the western third of the site is relatively flat. The remainder of the parcel slopes west to east with inclinations ranging from 10 to 40 percent. A small area in the middle of the site contains a slope that exceeds 40 percent but has no individual section greater than ten feet in height. The geotechnical reconnaissance indicates that this slope is relatively stable, with no groundwater seepage observed and no adverse geologic strata sequencing evident. The geotechnical engineer concluded that no regulated geologically hazardous areas are present on the property.

7. Public Services and Utilities:

- a. Police: City of Bainbridge Island Police Department.
- b. Fire: Bainbridge Island Fire District.
- c. Water: On-site well.
- d. Sewer / Septic: On-site septic system.
- e. Storm drainage: On-site dispersion is proposed for the parcel's eastern basin and on-site detention for the western basin.

### **Procedural History**

8. A pre-application conference was held on October 20, 2015, with a public participation meeting convened on January 4, 2016. Applications for Site Plan Review and Conditional Use Permit were received on June 15, 2016, and deemed complete on July 5, 2016. Public meetings were also held before the Design Review Board and the Planning Commission.

9. The project is subject to State Environmental Policy Act (SEPA) review. Utilizing the optional DNS process provided in WAC 197-11-355, the City issued a combined Notice of Application/SEPA comment period on July 15, 2016. The 14-day comment period ended on July 29, 2016. The City, acting as lead agency, issued a SEPA Mitigated Determination of Nonsignificance (MDNS) for this

proposal on December 21, 2016. The SEPA appeal period expired on January 4, 2017, with no appeals having been filed.

10. Regarding agency comments, the Kitsap Public Health District has approved the application, with subsequent building permits also subject to Health District approval. The Bainbridge Island Fire District has approved the project as conditioned. Both the Design Review Board and the Planning Commission reviewed the proposal. At a public meeting on January 12, 2017, the Planning Commission unanimously recommended approval subject to modified conditions regarding construction fencing and to incorporate septic drainfields into a covenant protecting forested areas associated with stormwater requirements.

11. Two public comments were received prior to the public hearing. One commenter requested assurances that the well, septic and stormwater facilities will be adequate to serve the project. A second neighbor to the south, who also spoke at the public hearing, expressed concern over increased risks to groundwater and aquifers and whether noise levels from the children's play area would interfere with telephone conversations held in her home office.

12. BIMC 2.16.170 allows an applicant for a single project proposal requiring more than one major City land use application to request them all to be processed together within a consolidated project review. A consolidated public hearing on the Montessori Country School applications for Site Plan and Design Review and Conditional Use Permit approvals was held by the City's Hearing Examiner on February 1, 2017.

#### **Comprehensive Plan Consistency**

13. The staff report documents project consistency with the Land Use, Economic and Cultural Elements of the Comprehensive Plan. Promoting economic diversity and the non-profit sector are favored goals under the Economic Element. The school's emphasis on arts education and inclusion of the natural environment into the program support Cultural Element goals.

#### **Regulatory Compliance**

14. Educational facilities are listed as conditionally permitted in the R-1 district under the BIMC 18.09.020 Use Table, to be processed as major conditional uses in residential zones (BIMC 18.09.030). Kitsap County granted an Unclassified Use Permit to the Montessori Country School in 1990 to serve preschool and elementary-age children. .

15. Under BIMC 18.12.020-2 the maximum allowable coverage for residential lots in the R-1 district is 15 percent, with institutions not to exceed 50 percent of the allowable lot coverage (i.e. 7.5 percent). The parcel is 4.38 acres in size and proposed lot coverage is 13,660 square feet, or 7.1 percent of the lot area, therefore meeting this requirement. A small portion of the existing building encroaches three feet into the ten-foot side setback now required along the south property line. All other existing or proposed structures to be located within the setbacks, such as fencing and walkways, are authorized as setback modifications under BIMC Table 18.12.040. All proposed new buildings will lie outside required setbacks.

16. Pursuant to BIMC 18.15.010, a 25 foot wide full screen buffer is required along the perimeter of a non-residential use located within a residential district, which buffer may be reduced via averaging to accommodate a unique situation so long as a minimum ten foot width is maintained. The 25 foot wide partial screen required along rights-of-way also may be averaged. The site must provide at least 40 tree

units per acre following redevelopment, with trees within required landscape buffers not counting toward the tree unit total.

17. The perimeter buffer is proposed to be averaged, as permitted by code. Buffer widths along the northwest and southwest will be reduced in three locations to 15 feet, resulting in a total reduction of 7,650 square feet. As compensation, buffer widths will be increased along the northeast, southeast and east property boundaries to provide a contiguous 35 foot width boundary, providing a total increase of 8,700 square feet. The project is conditioned to maintain the buffers for the life of the project. The development is mandated to provide 177 total tree units (40 X 4.42 acres) to meet the tree retention requirements of BIMC Chapter 18.15. The tree retention schedule specifies that the project will provide 199 tree units. Parking lot landscaping will also be required.

18. During construction the applicant must also identify areas of prohibited disturbance, generally corresponding to the driplines or critical root zones of the existing vegetation to be retained, plus future rain gardens and larger planting areas. Temporary fencing must be installed and posted with signage denoting the vegetation protection area. No impervious surfaces, fill, excavation, vehicle operations, compaction, removal of native soil or storage of construction materials are to be allowed within any protected area defined by construction fencing.

19. BIMC 18.15.020 requires an elementary school to provide one parking space per 50 students plus one space per employee. The proposed development will serve 146 students and 18 staff, resulting in a parking requirement of 21 spaces. The proposed parking lot will supply 26 spaces, including one handicapped-accessible parking space. Additionally, to accommodate all-school events the applicant has a long-standing agreement with the Parks District to use the parking facilities at Battle Point Park across Arrow Point Drive for overflow.

20. The project will provide pedestrian access from Arrow Point Drive through the parking lot plus a second pedestrian access from the parking lot alone, both connecting to the internal sidewalk that fronts the buildings. A dedicated drop-off / pick-up lane will allow students to exit directly onto the internal sidewalk, avoiding interaction between students and vehicles in the parking lot. Walkways and decks will create pedestrian connectivity between buildings. The project conditions mandate appropriate curbs, walkway dimensions and surfacing meeting the requirements of BIMC 18.15.030, as approved by the City Engineer. A bicycle rack is proposed for the southeast side of the parking lot, with the project conditioned to provide at least six bicycle spaces.

21. All outdoor lighting must result in no light trespass, as defined by BIMC 18.15.040. Outdoor lighting is proposed on buildings and along walkways. The project is conditioned to demonstrate compliance with lighting regulations at the time of building permit application.

22. The project is subject to the General and Commercial and Mixed Use Design Guidelines stated at BIMC Chapter 18.18. The Design Review Board reviewed the proposal and unanimously recommended approval. The proposed site redevelopment will provide a 25-foot width vegetated buffer along Arrow Point Drive, with the parking lot lying between the buffer and the buildings, all of which will be set back at least 80 feet from the right-of-way. Parking facilities will provide an appropriate separation between vehicular traffic and the campus. Parking spaces will be grouped into clusters interspersed with landscape areas.

23. In addition to sidewalks, the development will include other outdoor spaces such as playgrounds, play fields and trails. Most will be located behind the buildings in order to efficiently serve the student population, with one courtyard sited prominently in front to create a terminus for the

pedestrian walkway connection to Arrow Point Drive.

24. Buildings designs are encouraged to utilize features such as massing, materials, windows, canopies, and pitched or terraced roof forms to create a visually distinct base and cap. Variations in texture and elevations help to avoid massive scales. The architect's stated goal is to create a campus that manifests environmentally aware building practices and design. Buildings will be oriented to capture natural light and provide views of the outdoors. Building materials include natural wood siding, corrugated metal, cement board, recycled wood trim and decking, and reclaimed timber. All buildings will be single story with no blank walls. Covered walkways, porches and canopies will afford protection from the elements. No rooftop mechanical equipment is proposed.

### **Neighborhood Impacts**

25. The City's Development Engineer has concluded that, as conditioned, the project can meet applicable stormwater requirements without causing either undue burdens on the affected drainage systems or interference with the use and enjoyment of properties downstream. The site is divided into eastern and western basins. The western basin outlets to a swale along Arrow Point Road, then flows are conveyed beneath the road to a seasonal pond in Battle Point Park and eventually discharged to Fletcher Bay. This conveyance system has potential capacity and maintenance problems at a number of points but appears to function adequately. The applicant proposes to detain stormwater onsite and release it at flow rates that match predevelopment peaks, thereby not increasing downstream impacts.

26. As originally proposed, stormwater within the eastern basin was to be directed to an off-site stormwater pond and then to an outfall at Manzanita Bay. But staff determined that the proposed release to Manzanita Bay would be prohibited by the Shoreline Master Program and requested the applicant to revise the stormwater plan for the eastern basin. The new proposal is to disperse stormwater onsite via four 50 foot long dispersion pipes located on the wooded eastern side of the property.

27. The onsite portion of eastern basin presents a number of challenges. It is mostly forested, with slopes in the 8 to 20 percent range. The slopes are underlain by impermeable glacial till at relatively shallow depths, making the site a poor candidate for either infiltration or dispersion trenching. The four dispersion pipes proposed to be laid on the ground surface represent the maximum number feasible on the site and are modeled to be able to handle 14,000 square feet of roof runoff. That appears to leave 300 square feet of impervious surface flows unaccounted for, as well as 2000 square feet of landscaping. The nearest residence downslope to the east is over 100 feet away from the proposed dispersion pipe array and is partially protected by an upslope curtain drain at the project site boundary.

28. The project engineer's proposed solution to the pipe capacity shortfall includes detaining flows above the 14,000 square foot limit to meter a slower release rate plus installing a second curtain drain upslope from the septic drainfield. This approach could well prove to be adequate but offers no margin of safety. The City Development Engineer has also expressed concerns about the available forested cover being adequate to meet dispersion requirements. A condition has been added to the approval (no. 6.1) to create a five-year stormwater system monitoring plan to verify the system's adequacy in actual practice.

29. Arrow and Battle Points are relatively isolated locations and traffic volumes on the roads

serving the site are generally light. The school staggers its morning student dropoff times to avoid creating congestion either on the site itself or in its environs. As noted, reserve parking is available across the street at Battle Point Park; the school's usage of the park facility does not overlap heavy recreational periods. A certificate of traffic concurrency has been issued for the proposal.

30. Since 2015 Denise McDonnell has been the school's neighbor adjacent to the south. She both commented on the application and offered testimony at the public hearing. She operates a virtual office in her home and is concerned that noise from the existing playground near the site's southern boundary will increase after school expansion and interfere with her business conversations. The staff report discussed this concern, from which the following descriptive observations were selected:

The commenters' residence was constructed in 2015. The existing play area on the subject property is 170 feet from the commenters' residence. No change to the play area or playground equipment is proposed within 270 feet of the residence; the proposed development adds two play fields beyond that distance.

... Additionally, there is a vegetated swath 55 feet in width between the play area and the commenters' property, and an additional 25 foot width vegetation buffer on the commenters' property.

Noise levels exceeding 70 decibels are loud enough to be considered annoying, intrusive, and interfere with telephone use. By comparison, the sound of a dishwasher is 80 dba at a distance of 16 feet; 70 dba is the sound emanating from a freeway at a distance of 50 feet. Noise levels of children on playgrounds can approach 115 dba, equivalent to the level of noise experienced standing three feet from a power mower.

Decibel levels are reduced by approximately 6 dba for every doubling of the distance from the noise source.... The exterior walls of a home typically provide noise level reduction of 25 – 30 dba...

31. When at the public hearing the Examiner expressed skepticism that the noise levels of children playing could "approach 115 dba", staff made reference to a World Health Organization training slide presentation, *Children and Noise*, as authority for the statement. Staff has submitted a print-out of the slide show to the record. In addition, the Examiner has taken notice of noise documentation literature readily accessible on the internet. The City regulates noise under BIMC Chapter 16.16, which largely tracks the state regulatory scheme set forth at WAC Chapter 173-60.

32. The notion that a small children's playground will generate noise in the 115 dBa range is unsupported by the technical literature and contradicted by common sense. A standard reference, Cowan's *Handbook of Environmental Acoustics*, characterizes "amplified rock music" at 110 dBa and a "busy city street" and a "loud shout" both at 80 dBa. Specific studies of playground noise (mainly from Britain) describe measured levels starting within the 56 – 57 dBa range and rising to about 65 dBa. A February 22, 2016, preliminary noise study done for a proposed private school in San Diego County displayed the virtues of being both recently performed and encompassing assumptions comparable to the Montessori context. It is worth quoting:

Noise level measurements were taken at an existing school facility (The Classical Academies) with approximately 400 students, located in Escondido, CA on September 19, 2012 by Ldn Consulting. Short term measurements were conducted of the children playing in the larger play field. The results of the noise measurements varied between 60-64 dBa for the children playing at a distance of 25 feet from the main activities in the center of the playing field. For purposes

of this analysis and to be conservative, the higher noise level of 64 dBA will be utilized for each of the playing areas and the courtyard. The nearest property line to the playground area is approximately 150 feet to the west... The outdoor play area is located 150-feet from the nearest property line to the east. Based on the distance separation the noise levels would diminish to 47 dBA at the property lines.

33. Based on these comparable noise generation and attenuation assumptions, the noise level at the existing Montessori playground might reach as high as 65 dBA at the nearby southern property line but would be expected to decrease to less than 47 dBA at the McDonnell residence. By way of context, the difference between 65 dBA and 115 dBA sound sources is far bigger than the raw numbers suggest. The sound energy represented by the decibel scale doubles with every 10 dBA increase. So while 115 dBA looks like it should represent less than a doubling of the 65 dBA sound energy level, in actuality it is 32 times greater.

34. More fundamentally, from a regulatory standpoint the McDonnell factual situation does not support remedial action by the City. First, the playground at issue is an existing facility, not a new facility to be constructed under the school expansion proposal. It would thus not be subject to regulation within this proceeding unless credible evidence was offered that its expanded use would create significant additional noise impacts above their current level. The applicant's administrative head, Meghan Skotheim, testified that because additional new playground facilities will be built under the current proposal, the existing facility nearest the McDonnell residence will be used in the future by larger numbers of children at any single time but for fewer daily play periods. These facts are not sufficient to support an inference of increased overall impacts.

35. Finally, the relevant state noise standards do not by their own terms pertain to a school playground use of the type encountered here. WAC 173-60-040 describes the noise standards to be used in a regulatory analysis but the following section, WAC 173-60-050, limits their scope by supplying a list of exemptions from such standards. WAC 173-60-050(4)(k) provides that “[t]he following shall be exempt from all provisions of WAC 173-60-040:...(k) Sounds caused by natural phenomena and unamplified human voices.” In the absence of evidence that the school employs sound amplification equipment in conjunction with its playground activities, the state noise standards as written do not apply.

## CONCLUSIONS

1. BIMC 2.16.040E states the following criteria to be applicable to a site plan and design review approval:

1. *The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district, unless a standard has been modified as a housing design demonstration project pursuant to BIMC 2.16.020.Q;*
2. *The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the nonmotorized transportation plan;*
3. *The Kitsap County health district has determined that the site plan and design meets the following decision criteria:*
  - a. *The proposal conforms to current standards regarding domestic water supply and sewage*



disposal; or if the proposal is not to be served by public sewers, then the lot has sufficient area and soil, topographic and drainage characteristics to permit an on-site sewage disposal system.

b. If the health district recommends approval of the application with respect to those items in subsection E.3.a of this section, the health district shall so advise the director.

c. If the health district recommends disapproval of the application, it shall provide a written explanation to the director.

4. The city engineer has determined that the site plan and design meets the following decision criteria:

a. The site plan and design conforms to regulations concerning drainage in Chapters 15.20 and 15.21 BIMC; and

b. The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and

c. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and

d. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and

e. If the site will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the site, and the applicable service(s) can be made available at the site; and

f. The site plan and design conforms to the "City of Bainbridge Island Engineering Design and Development Standards Manual," unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title 18.

5. The site plan and design is consistent with all applicable design guidelines in BIMC Title 18, unless strict adherence to a guideline has been modified as a housing design demonstration project pursuant to BIMC 2.16.020.Q;

6. No harmful or unhealthful conditions are likely to result from the proposed site plan;

7. The site plan and design is in conformance with the comprehensive plan and other applicable adopted community plans;

8. Any property subject to site plan and design review that contains a critical area or buffer, as defined in Chapter 16.20 BIMC, conforms to all requirements of that chapter;

9. Any property subject to site plan and design review that is within shoreline jurisdiction, as defined in Chapter 16.12 BIMC, conforms to all requirements of that chapter;

10. If the applicant is providing privately owned open space and is requesting credit against dedications for park and recreation facilities required by BIMC 17.20.020.C, the requirements of BIMC 17.20.020.D have been met;

11. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals;

*12. For applications in the B/I zoning district, the site plan and development proposal include means to integrate and re-use on-site storm water as site amenities.*

2. As summarized in the findings above and documented in both the staff report and the materials submitted by the applicant, the proposal, as conditioned, is in conformance with the Bainbridge Island Comprehensive Plan and Municipal Code. The proposed development provides for the expansion of an existing educational facility, a use conditionally allowed by the Municipal Code within the R-1 zoning district. The requirements of BIMC 17.20.020 are not relevant to this application because the proposal contains no new dwelling units and is not located within the B/I zoning district.
3. The Health District reviewed the project and raised no objections. The City's Development Engineer reviewed the submitted civil plans and, subject to appropriate conditions, found them to be consistent with applicable requirements. The proposed development was reviewed and recommended for approval by the Design Review Board. The designs of the building form, wall articulation, roof form, landscaping and overall layout are consistent with the intent of the applicable design guidelines.
4. The proposed site plan provides building layout, parking and circulation systems that are an efficient use of the available land while providing required setbacks and screening from the adjacent properties as well as open space. No critical areas issues have been identified. The proposed site plan was prepared consistent with the overall purpose and goals of the Site Plan and Design Review process. This process provided a means for guiding the development in a logical, safe, attractive and expedient manner. The requirements of BIMC 2.16.040E for a site plan and design review approval have been met by the proposal.
5. BIMC 2.16.110D and E provide the decisional criteria governing approval of a major conditional use permit application in a residential zone:

*D. Decision Criteria.*

*1. A conditional use may be approved or approved with conditions if:*

- a. The conditional use is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity of the subject property and with the physical characteristics of the subject property; provided, that in the case of a housing design demonstration project any differences in design, character or appearance that are in furtherance of the purpose and decision criteria of BIMC 2.16.020.Q shall not result in denial of a conditional use permit for the project; and*
- b. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities; and*
- c. The conditional use will not be materially detrimental to uses or property in the vicinity of the subject property; and*
- d. The conditional use is in accord with the comprehensive plan and other applicable adopted community plans, including the nonmotorized transportation plan; and*
- e. The conditional use complies with all other provisions of the BIMC, unless a provision has been modified as a housing design demonstration project pursuant to BIMC 2.16.020.Q; and*
- f. All necessary measures have been taken to eliminate or reduce to the greatest extent*

*possible the impacts that the proposed use may have on the immediate vicinity of the subject property; and*

*g. Noise levels shall be in compliance with BIMC 16.16.020 and 16.16.040.A; and*

*h. The vehicular, pedestrian, and bicycle circulation meets all applicable city standards, unless the city engineer has modified the requirements of BIMC 18.15.020.B.4 and B.5, allows alternate driveway and parking area surfaces, and confirmed that those surfaces meet city requirements for handling surface water and pollutants in accordance with Chapters 15.20 and 15.21 BIMC; and*

*i. The city engineer has determined that the conditional use meets the following decision criteria:*

*i. The conditional use conforms to regulations concerning drainage in Chapters 15.20 and 15.21 BIMC; and*

*ii. The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and*

*iii. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and*

*iv. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and*

*v. If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the applicable service(s) can be made available at the site; and*

*vi. The conditional use conforms to the "City of Bainbridge Island Engineering Design and Development Standards Manual," unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title 17.*

*j. If a major conditional use is processed as a housing design demonstration project pursuant to BIMC 2.16.020.Q, the above criteria will be considered in conjunction with the purpose, goals, policies, and decision criteria of BIMC 2.16.020.Q.*

*2. If no reasonable conditions can be imposed that ensure the application meets the decision criteria of this chapter, then the application shall be denied.*

*E. Additional Decision Criteria for Institutions in Residential Zones.*

*Applications to locate any of those uses categorized as educational facilities, governmental facilities, religious facilities, health care facilities, cultural facilities, or clubs in Table 18.09.020 in residential zones shall be processed as major conditional use permits and shall be required to meet the following criteria, in addition to those in subsection D of this section:*

*1. All sites must front on roads classified as residential suburban, collector, or arterial on the Bainbridge Island functional road classification map.*

*2. If the traffic study shows an impact on the level of service, those impacts have been mitigated*

*as required by the city engineer.*

*3. If the application is located outside of Winslow study area, the project shall provide vegetated perimeter buffers in compliance with BIMC 18.15.010.*

*4. The proposal meets the requirements of the commercial/mixed use design guidelines in BIMC 18.18.030.C.*

*5. The scale of proposed construction including bulk and height and architectural design features is compatible with the immediately surrounding area.*

*6. If the facility will have attendees and employees numbering fewer than 50 or an assembly seating area of less than 50, the director may waive any or all the above requirements in this subsection E, but may not waive those required elsewhere in the BIMC.*

*7. Lot coverage does not exceed 50 percent of the allowable lot coverage in the zone in which the institution is located, except that existing public schools and governmental facilities, as defined in BIMC Title 18, shall be allowed 100 percent of the lot coverage established in the underlying zoning district in which it is located unless conditions are required to limit the lot coverage to mitigate impacts of the use.*

6. The proposed development is for the expansion of an existing private school. With few surrounding single-family residential uses, the Montessori Country School, which has been in existence and operation at this location for many years, fits well into the neighborhood pattern. Other adjacent developments include a few larger lot residences and a public park to the west across Arrow Point Drive. The proposed conditional use is consistent with the goals and policies of the Comprehensive Plan.

7. As conditioned, the proposed use will be adequately served by public roads, water, sewer, fire protection and storm drainage facilities. Allowing the expansion of the school will not be materially detrimental to existing uses in the vicinity because the site's function, although intensified, will continue much as it has for many years. Proper access, parking, circulation, landscaping are being provided. The conditional use complies, as do the buildings analyzed within the Site Plan Review, with all applicable provisions of the BIMC. The DRB reviewed the project and provided a recommendation of approval.

8. The Site Plan Review and Conditional Use Permit applications have been reviewed by the City's development engineer and, as conditioned, the vehicular, pedestrian, and bicycle facilities plans meet all applicable City standards and pollution controls. The project trip generation data did not demonstrate an increased level of service impact requiring mitigation.

9. Neighborhood impacts of potential concern included stormwater management in the site's eastern basin and the possibility of noise impacts to the residential property adjacent to the south. As conditioned, stormwater runoff in the eastern basin can be dispersed onsite. Proper analysis indicated that the alleged noise impacts had been incorrectly characterized both as to their intensity and regulatory consequences.

10. Based on the record as a whole, the school expansion application meets the requirements of BIMC 2.16.110D and E for the issuance of a major conditional use permit.

## **DECISION**

The Montessori Country School Conditional Use Permit and Site Plan and Design Review applications (file no. PLN17677 CUP/ SPR) are APPROVED, subject to the following conditions:

### **SEPA Conditions**

1. To avoid impacts to vegetation, no construction activity shall occur in landscape buffers or within the critical root zone of significant trees within landscape buffers, including staging, storage, materials laydown, parking, construction vehicle turnaround, or equipment.
2. To avoid impacts to historic and cultural resources, work shall immediately stop if any historical or archaeological artifacts are uncovered during excavation or construction and the Department of Planning and Community Development and the Washington State Office of Archaeology and Historic Preservation shall be immediately notified. Construction shall only continue thereafter in compliance with the applicable provisions of law.

### **Project Conditions**

3. The authorization for construction activities automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit within three years of the effective date of the Site Plan and Design Review and Conditional Use permits except: The applicant must file for building permit to accommodate phased construction of building six within ten years of the effective date of this permit or the authorization to construct building six expires.
4. Construction plans shall substantially conform to plans submitted on June 15, 2016, except for modifications reflecting compliance with these conditions of approval, and except as follows: Sheet A-0.1 submitted on July 11, 2016; Sheets A-1.2, C1, C2, L1 and L2 submitted on January 24, 2017.
5. Prior to any construction activities, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, and/or building permits.
6. The project shall comply with the following conditions of the City Engineer:
  - a. Final civil improvement plans shall be submitted with building permit application. Upon approval to construct, all necessary infrastructure serving the site must be completed prior to the first final building inspection.
  - b. As-built civil construction plans stamped by a civil engineer shall be provided by the applicant prior to the first final building inspection.
  - c. The preconstruction condition of Arrow Point Drive fronting the property shall be photo-documented to the satisfaction of the City Engineer prior to issuance of any permit. Prior to the final inspection of the final building damage to the road caused by heavy construction equipment and traffic shall be fixed by the permit holder.

- d. Shoulder improvements along the frontage of Arrow Point Drive are required as a condition of development to include construction of a three-to-five foot width gravel shoulder.
  - e. Paved driveway aprons matching the surfacing on Arrow Point Drive shall be provided from the roadway for a distance of 20 feet from the edge of the Arrow Point pavement.
  - f. A maintenance plan for the internal roadway and parking lot is required with the first building permit. Track-out of dirt and silt from the site onto the roadway is not allowed. Cloudy runoff leaving the site is not allowed.
  - g. All on-site stormwater facilities shall remain privately owned and maintained.
    - 1) The applicant shall submit an operation and maintenance plan for the on-going maintenance of the storm drainage systems to the satisfaction of the City Engineer with the first building permit application.
    - 2) Annual inspection and maintenance reports shall be provided to the City.
    - 3) A recorded Declaration of Covenant for Stormwater System Operation and Maintenance will be required prior to the first final building inspection. The approved language for the Declaration of Covenant is found in BIMC Chapter 15.21, Exhibit A.
  - h. Prior to the first final building inspection the applicant shall provide a recorded covenant protecting the forested area as identified in Sheet C2 Utility and Drainage Plan submitted to the City on January 24, 2017. The covenant should be carefully worded to allow for installation and maintenance of stormwater facilities and drainfield facilities which are within the area proposed for retention of significant trees and understory.
  - i. A right-of-way construction permit is required prior to any construction activities within the right-of-way and is subject to separate conditions and bonding requirements.
  - j. A Stormwater Conveyance System Connection Application shall be submitted with the right-of-way construction permit application for locations where stormwater will enter the City system.
  - k. The project requires a Construction Stormwater General Permit from the Washington State Department of Ecology. No land clearing or construction permits shall be issued prior to obtaining the State permit.
  - l. Prior to the first final building permit inspection, the applicant's civil engineer shall submit to the City Engineer a plan for assessing the adequacy of the site's eastern basin stormwater dispersion system to be based on its actual performance over a five-year period of usage. This plan shall describe feasible options for system modification and remediation if within the five-year assessment period its dispersion pipes demonstrate a lack of capacity to accommodate satisfactorily all eastern basin flows and avoid downslope impacts. As a condition of approving the proposed assessment plan, the City Engineer may require the applicant to post a bond sufficient to cover the cost of implementing a feasible system modification option if such remediation should become necessary.
7. The project shall comply with the following conditions of the Fire Marshal:
- b. The project shall be equipped throughout with a monitored fire alarm system.
  - c. All classrooms shall exit directly outside.

- d. Occupant load shall be determined by the Building Official.
  - e. Any building or room with an occupant load greater than 50 shall be equipped with an automatic fire sprinkler system and panic hardware on approved exit doors.
  - f. All access roads shall be designed to accommodate fire apparatus (load, width, grade, angle of approach and departure).
  - g. Minimum 12-foot access road width shall not be diminished by parked vehicles. No Parking / Fire Lane signage is required in areas where this could occur.
  - h. Fire lane on north side of property shall be marked 'No Parking / Fire Lane'.
  - i. All fire apparatus access roads shall have a clear overhead height of not less than 13.5 feet.
8. Vehicle parking or standing, and / or construction staging, shall be prohibited within the right-of-way during the construction period unless specifically authorized by the Public Works Department.
  9. A total of six bicycle spaces must be provided at a minimum. Bicycle facilities shall allow secure locking of both the frame and wheels of a bicycle.
  10. With application for any construction activity, including grading and/or vegetation removal, the applicant shall provide plans that identify areas of prohibited disturbance which are necessary to preserve ecological function, including but not limited to: The dripline or critical root zone (as identified by a consulting arborist) of significant trees, areas proposed for other retained vegetation, future raingarden areas, and future planting areas which are larger than 400 square feet in size. The plans shall label fencing required through these conditions of approval, along with any vegetation protection measures identified by the applicant's arborist.
  11. Prior to any construction activity, a clearing permit shall be obtained authorizing fencing to be erected and posted with signs to protect areas of prohibited disturbance. Protective fencing shall remain in place until construction is complete; earlier removal of any portion of the fencing is subject to approval of the Planning Division.
    - a. Fencing location, materials and signage shall be approved by the Planning Division prior to installation.
    - b. Temporary chain link fence a minimum five feet in height with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance that lies within the perimeter boundary of the roadside buffer, the area of existing vegetation to be retained between the roadside buffer and the parking lot, and the interior landscape perimeter buffer adjacent to the southernmost parking spaces. The fencing shall be configured to provide for installation of the driveway, path and stormwater pipe through the buffer. Special care shall be taken to protect the significant trees and vegetation adjacent to the driveway.
    - c. Orange plastic fencing shall delineate the perimeter landscape buffer adjacent to the proposed primary drainfield.
  12. Roadside and perimeter landscape buffers shall be maintained for the life of the project: At a minimum, roadside buffers shall meet the full-screen standard and perimeter buffers shall meet the partial screen standard of BIMC 18.15.



13. New plantings shall be the following heights at time of planting: Evergreen trees shall be not less than six feet in height; Deciduous trees shall be not less than two-inch dbh; Evergreen shrubs shall be not less than 18 inches in height.
14. All plantings shall be installed or installation financially assured in accordance with BIMC 18.15.010.H. prior to occupancy of any of the new buildings. Subsequent to installation approval by the Department, maintenance assurity shall be required in accordance with BIMC 18.15.010.H.
15. Internal walkways shall be surfaced with nonskid hard surfaces, meet handicapped-accessibility requirements and be designed to provide a minimum of five feet of unobstructed width.
16. Where walkways cross vehicular driving lanes, the walkways shall be constructed of contrasting materials or with maintained painted markings. The walkway adjacent to the pick-up / drop-off lane shall be curbed and raised six inches above adjacent vehicular surface grade, except where required to meet accessibility standards.
17. Except in locations where protection of existing trees may be compromised, raised curbs shall be used to define driveways from the public right-of-way, landscape areas within the parking lot, the ends of parking aisles, and the vehicular circulation pattern.
18. Outdoor lighting fixture shall meet the standards contained in BIMC 18.15.040.
19. Outdoor trash / recycle receptacles shall be enclosed with a solid structure / gated and screened from view with evergreen vegetation.
20. Prior to building permit issuance, the landowner must record a notice on title listing these conditions of approval with the Kitsap County Auditor.

ORDERED February 13, 2017.



Stafford L. Smith, Hearing Examiner  
City of Bainbridge Island

The Hearing Examiner is authorized to make the City of Bainbridge Island's final decision on conjoined Conditional Use Permit and Site Plan and Design Review applications. A party with standing may seek judicial review of this decision by filing a timely suit in Kitsap County Superior Court under the Land Use Petition Act.

The exhibit list prepared by the Clerk of the Hearing Examiner's Office is attached.

## **EXHIBIT LIST**

### **Montessori Country School PLN 17677 SPR / CUP**

Staff Contact:  
Kelly Tayara, Planner

Public Hearing:  
February 1, 2017

Hearing Examiner: Stafford L. Smith

| <b>NO.</b> | <b>DOCUMENT DESCRIPTION</b>                                                  | <b>DATE</b>                                    |
|------------|------------------------------------------------------------------------------|------------------------------------------------|
| 1          | Application – Conditional Use Permit                                         | 06/15/2016<br>Received                         |
| 2          | Application – Site Plan and Design Review                                    | 06/15/2016<br>Received                         |
| 3          | MCS Parent Handbook (excerpt) regarding Traffic Flow                         | 06/15/2016<br>Received                         |
| 4          | Traffic Plan                                                                 | 06/15/2016<br>Received                         |
| 5          | Parking Agreement with the Parks Dept.                                       | 06/15/2016<br>Received                         |
| 6          | Browne Wheeler Engineers Inc. Drainage Report dated March 7, 2016            | 06/15/2016<br>Received                         |
| 7          | Environmental (SEPA) Checklist with Staff Comments                           | 06/15/2016<br>Prepared                         |
| 8          | Landscape Plans                                                              | 01/24/2017<br>Revised                          |
| 9          | Existing Conditions Drawings                                                 | 06/15/2016<br>Received                         |
| 10         | Civil Plans                                                                  | 01/24/2017<br>Revised                          |
| 11         | Architectural Drawings                                                       | 06/15/2016,<br>07/11/2016<br>and<br>01/24/2017 |
| 12         | Bainbridge Island Fire Department Memos                                      | 06/24/2016<br>Dated                            |
| 13         | Vegetation Protection Sign                                                   | N/A                                            |
| 14         | Health District Review Comments                                              | 07/08/2016<br>Dated                            |
| 15         | Public Comment Emails                                                        | 07/2016 and<br>08/2016<br>Dated                |
| 16         | Notice of Application and SEPA Comment Period and Affidavit of Publication   | 07/15/2016<br>Published                        |
| 17         | Browne Wheeler Engineers, Inc. Memorandum – East Drainage Basin              | 09/21/2016<br>Dated                            |
| 18         | Building Site Application for On-Site Sewage System (Health District)        | 09/21/2016<br>Received                         |
| 19         | Browne Wheeler Engineers, Inc. – Modified Utility Plan – West Basin Revision | 09/22/2016<br>Dated                            |

02/01/2017

## **EXHIBIT LIST**

### **Montessori Country School PLN 17677 SPR / CUP**

Staff Contact:  
Kelly Tayara, Planner

Public Hearing:  
February 1, 2017

Hearing Examiner: Stafford L. Smith

| <b>NO.</b> | <b>DOCUMENT DESCRIPTION</b>                                                                      | <b>DATE</b>             |
|------------|--------------------------------------------------------------------------------------------------|-------------------------|
| 20         | Kitsap County Unclassified Use Permit                                                            | 1990<br>Dated           |
| 21         | Design Review Board Minutes and Recommendation                                                   | 10/17/2016<br>Dated     |
| 22         | Development Engineer Information Request to Complete Review                                      | 11/07/2016<br>Dated     |
| 23         | Browne Wheeler Engineers, Inc. Memorandum in response to Development Engineer 11/07/2016 Request | 11/14/2016<br>Dated     |
| 24         | Geotechnical Engineering Report from Aspect Consulting                                           | 11/14/2016<br>Received  |
| 25         | Transportation Solutions Inc. Traffic Analysis                                                   | 12/14/2016<br>Dated     |
| 26         | Certificate of Traffic Concurrency                                                               |                         |
| 27         | Development Engineer Memorandum Comments and Recommendations                                     | 12/19/2016<br>Dated     |
| 28         | Email to Planner from Development Engineer re: Condition Number 5 of 12/19/2016 Recommendation   | 12/21/2016<br>Dated     |
| 29         | SEPA Mitigated Determination of Nonsignificance                                                  | 12/21/2016<br>Dated     |
| 30         | Certificate of Distribution and Posting                                                          | 01/11/2017<br>Dated     |
| 31         | Notice of Hearing and Affidavit of Publication                                                   | 01/13/2017<br>Published |
| 32         | Planning Commission Meeting Minutes                                                              | 01/12/2017<br>Dated     |
| 33         | Certificate of Posting Signs                                                                     | 01/17/2017<br>Dated     |
| 34         | Development Engineer Memorandum Modifying 12/19/2016 Recommendations                             | 01/20/2017<br>Dated     |
| 35         | Staff Report                                                                                     | 01/25/2017<br>Dated     |
| 36         | Children and Noise Information Package – World Health Organization                               | 2/1/2017<br>Admitted    |

02/01/2017

**BEFORE THE HEARING EXAMINER  
FOR THE CITY OF BAINBRIDGE ISLAND**

|                                        |   |                                 |
|----------------------------------------|---|---------------------------------|
| In the Matter of an Application for a  | ) |                                 |
| Conditional Use Permit, Site Plan and  | ) | <b>PLN 18970B SPR/CUP</b>       |
| Design Review for                      | ) |                                 |
|                                        | ) | <b>FINDINGS OF FACT,</b>        |
| <b>MADRONA SCHOOL</b>                  | ) | <b>CONCLUSIONS OF LAW.</b>      |
|                                        | ) | <b>ORDER AND PARTIAL REMAND</b> |
| For Construction of a New PK-8 Private | ) |                                 |
| School at 11478 N. Madison Avenue NE   | ) |                                 |
|                                        | ) |                                 |

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**SUMMARY**

|                             |                                                                                                                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant:</b>           | Madrona School<br>219 Madison Avenue S.<br>Bainbridge Island, WA 98110                                                                                                                                                                       |
| <b>Project Location;</b>    | 11478 North Madison Avenue NE                                                                                                                                                                                                                |
| <b>Zoning:</b>              | R-1                                                                                                                                                                                                                                          |
| <b>Summary of Proposal:</b> | To build and operate a new PK-8 private Waldorf school, able to accommodate up to 200 students, consisting of three buildings erected in three phases. Vehicular access will be from N. Madison Avenue NE via separate in and out driveways. |
| <b>SEPA Compliance:</b>     | Mitigated Determination of Non-Significance (MDNS) issued February 27, 2017. No appeals.                                                                                                                                                     |
| <b>Public Hearing:</b>      | May 4, 2017. Testimony by staff, applicant, and consultants. Public comment from 25 persons.                                                                                                                                                 |
| <b>Decision:</b>            | Phases I and II and approved. Phase III is remanded to the City for further consideration..                                                                                                                                                  |

## **PROCEDURE**

The applicant engaged in a pre-application conference with the City on October 8, 2013. A public participation meeting was held on July 18, 2016. A second pre-application conference was held on July 19, 2016. Applications for Site Plan Review and Conditional Use Permit were received on August 2, 2016.

A combined Notice of Application and SEPA comment period was issued on October 14, 2016. The City issued a Mitigated Determination of Non-Significance (MDNS) on February 27, 2017. The MDNS was not appealed.

The Design Review Board recommended approval of the project on December 19, 2016.

The proposal was discussed before the Planning Commission on March 9, March 23, and April 13, 2017. The Planning Commission recommended approval with additional conditions.

Between receipt of the application and the Hearing Examiner hearing, the City received an extraordinary outpouring of public comment, enough to fill an oversized three-ring binder. The Examiner visited the site and environs.

The Hearing Examiner hearing was held on May 4, 2017. The City was represented by Josh Machen, Planning Manager. Missy Goss, school headmistress, and John Kennedy, architect, represented the applicant. Testimony was also presented by Jeff Hee, PE, of Transportation Solutions Inc. Twenty-four citizens and Bryan Telegin, counsel for the property owners in the Windsong development testified.

## **FINDINGS OF FACT**

1. Factual matters in the foregoing Summary and Procedure are hereby adopted as findings.
2. Madrona School seeks to relocate from downtown Winslow to a 4.79-acre site at 11478 N. Madison Avenue NE within a more lightly settled area of residences, farms and woods. The proposal is to create a new facility, eventually consisting of three buildings, parking and drop off areas, and playfields.
3. The site is zoned R-1 single family residential and is surrounded by such zoning. To the west of the site across North Madison is the Windsong residential development. To the immediate south is a residence owned by Dana and Pam Halvorsen. Within the R-1 zone schools are allowed as a Conditional Use. There is no zone specifically for schools.
4. The plan is to build in three phases. Phase One will be an 11,000 square foot building on two levels, to consist of nine classrooms for grades 1 through 8 and four administrative

) offices. Phase Two will involve the construction of a separate 5,000 square foot building, also on two levels, containing four classrooms for early childhood activities. Phase Three will involve a third building -- a two-level 10,000 square foot gymnasium/auditorium with three classrooms, a kitchen and an apartment. On completion of the project, the total square footage in buildings will be 26,000. The footprint of these buildings will take up slightly less than 7.5% of the total area.

5. The closest classroom building to adjacent property will be 28 feet from the north property line. The proposed gymnasium/auditorium will be 32 feet from the south property line.

6. Eventually, the school will be able to accommodate 200 students and 27 teachers and staff. Two people will reside on the property, initially in the existing residence and ultimately in a two bedroom apartment, if and when the auditorium building in Phase Three is built.

7. The proposed new school site is the former Lowery Farm property located on the east side of North Madison between NE Roberts Road and NE Valley Road. In the 1960's and 1970's this property housed a riding club and the owner gave horseback riding lessons.

8. The site is currently developed with a house and associated outbuildings. The central portion is mowed grass and a large vegetable garden. The southeast, east, north and northwest portions of the site have mature stands of forest. Most of the new site development will occur in areas already cleared. The existing house and outbuildings are proposed to be demolished with the construction of Phase Three.

9. The tallest height of the proposed structures will be 30 feet to the top of sloped roofs. The buildings are designed to settle in to the landscape. Because of this and because of vegetation around the property edges, the buildings will scarcely be visible from off-site. A dense buffer of existing trees and shrubs along N. Madison Avenue will screen most of the property from the views of those driving by.

10. Existing trees will also largely screen the site from neighboring properties, except to the southwest. There the plan is to plant a full-screen landscape buffer to separate the school from the Halvorsen property. This buffer will be 15 feet wide at the entry drive and 25 feet wide beyond that. A six-foot high solid wood fence will be erected on the school side of the tree strip.

11. The buildings will be finished in natural tones that blend with the surroundings. The Examiner finds that that the project will not constitute an incompatible visual intrusion. It will be aesthetically harmonious with its setting.

12. The property is generally flat in the middle with a gradual slope to the southwest and southeast. The project will capture storm water on the site and convey it to a stormwater detention pond. It will be released at no more than the pre-project flow rate. Released stormwater will be dispersed through a dispersion tee located within 25 feet of the north-eastern property line. A stormwater management plan was prepared by a licensed professional engineer. The City Engineer has found that the project conforms to stormwater requirements.

13. Potable water to the developed facilities will be provided by an on-site well. Sewage treatment will be provided by an on-site septic system. The Kitsap Public Health District has determined that the proposed site has sufficient area, soil, topographic and drainage characteristics to permit such a system.

14. Other usual public services and utilities such as electricity, police and fire protection, will be provided and are adequate to meet the impacts of this development.

15. The R-1 zoning of the property could support up to five single-family homes, each with an accessory dwelling unit and associated outbuildings. The lot coverage allowed for the proposed school is half the amount that would be allowed if single-family home and accessory structures were proposed.

16. The nearest existing neighbor's house is over 100 feet away from any play area at the school. During recess periods, the noise of children at play may be audible off site. It is unlikely that such noise will be significantly intrusive, but in any event, sound made by unamplified human voices is exempt from adopted noise limits. WAC 173-60-050(4)(k).

17. The applicant submitted a lighting plan with proposed fixtures. Only a few low bollard lights are proposed around the parking area and along pedestrian paths. Some entry sconces will be attached to the buildings. The proposed fixtures are all shielded. No high field lights will be allowed. As the project is proposed, light intrusion from the school will not occur.

18. The existing house on the site is a historic home, eligible for the local register. However, it is not in a condition to be preserved. To ensure historic and cultural resource preservation, a completed Washington State Historic Property Inventory Field Form is to be recorded with the State Department of Archaeology and Historic Preservation prior to demolition.

19. A Boundary Line Adjustment combining the present lots on-site will be required prior to building permit issuance.

20. Buffer averaging will reduce buffer widths along the northwest and southwest from 25 to 15 feet in three locations. Buffer widths are increased along the northeast and southeast portions of the property, providing a 35-53 foot width boundary. This will preserve existing mature trees. A Tree Retention Plan calls for retaining 640 tree units. Landscaping will add trees within the parking areas and buffers.

21. The project, as conditioned, provides for multiple pedestrian walkways from the parking lot to the school buildings. The drop off/pick up spaces will allow students to exit directly onto a sidewalk avoiding interaction between students and vehicles. Appropriate curbs, walkway dimensions and surfacing will be provided. The City Engineer has determined that the internal streets and pedestrians ways are well-defined, safe and efficient.



22. The site is unencumbered by critical areas or their buffers. The property is not within shoreline jurisdiction.

23. The overriding concern of the neighbors of the new school is its impact on traffic. North Madison Avenue NE is classified as a secondary arterial, appropriate for the location of a school under the City Code. The road is oriented north-south at the school site and includes one lane in each direction. At the school site, the road includes a two-foot wide paved shoulder on both sides. On the west side this widens to about 20 feet in the vicinity of Windsong Loop NE, just south of the school site. There are bus stops in the vicinity of the Windsong Loop entry.

24. Cars will enter the school property at the site of the current driveway near the southern boundary. Traffic will then be routed to drop off and parking areas, eventually exiting at an "out only" driveway near the north boundary. Initially traffic will be allowed to turn both ways from this exit, although a right-turn only regime during busy hours may be imposed if experience requires it.

25. The design provides for a curbside drop off area along the driveway on the west side of the school. The drop off area is intended to be large enough to accommodate the anticipated queue of cars at the start of the school day and at its close. There will on site queueing space for 27 cars. Backups on North Madison, if they occur, should be minimal and short-lived. To reduce the possibility that such backups might occur, the school has agreed to a carpooling/rideshare program to limit traffic and has also agreed to staggered start times.

26. On-site parking space will be provided for 39 vehicles, with five additional parking spaces located in the curbside drop off area. No parking will be allowed in these five spaces during the drop off and pick up periods. Two handicapped accessible parking spaces and a minimum of nine bicycle spaces will be provided. Parking for events, such as open houses will be accommodated by overflow parking within the playfield.

27. No drop-off, pick-up or parking will be allowed on North Madison Avenue or anywhere within the Windsong Loop neighborhood. Assuming that significant queues do not develop along Madison, congestion caused in the immediate vicinity of the site should be minimal.

28. The Police Department will be asked to reduce the speed limit on North Madison in the school's vicinity to reflect a school zone.

29. However, traffic concerns are not limited to the road alongside the school. Area residents emphasized that during the morning rush, traffic at the major intersection to the south—the SR 305 and Sportsman Club Road and Madison Avenue South intersection—there is a problem even now. A video taken at rush hour by a neighbor demonstrates that presently cars have to wait several cycles to get through the light there. The implication is that the school will make the situation worse.

30. Responsive to this concern, Transportation Solutions, Inc. performed a study which showed that with the school in operation in 2018, traffic at this intersection will satisfy relevant

level of service standards. But, their analysis also showed that, with or without the school, traffic at the SR 305 intersection will soon be at Level of Service F – below acceptable. Clearly the school will contribute to this. Yet, the overall picture is one of ongoing general traffic growth that will occur even if the school is not built.

31. The Examiner finds that the traffic impacts of the new school during normal operating hours have been adequately analyzed and that the design and the conditions of operation imposed herein appropriately accommodate the high-use periods of the day. The City Engineer issued a Certificate of Concurrency in relation to this proposal.

32. However, there is a significant blank in the traffic analysis presented. It did not address potential after-hours traffic impacts stemming from the operation of the proposed auditorium to be completed in Phase Three. Both the accommodation of cars on-site and their effect on roadway conditions before and after auditorium events need to be analyzed.

33. The school will not be allowed to rent out its facilities to commercial businesses, but non-profit clubs and religious groups may be allowed to use it during off hours. And the school itself may wish to schedule events in the evening or on weekends. All functions on the property must end by 9 p.m. But up to that time, the record contains no information on the traffic impacts of use of the site when school is not in session, and of the auditorium in particular.

34. The Hearing Examiner takes notice that schools are more often than not located in residential areas. The plans presented go to considerable length to assure that during normal hours the new school will fit in.

35. The proposed school development is part of an overall pattern of growth. In the larger development picture, the school actually represents the retention of open space, as compared with standard residential development. 92.5% of the property will remain open. This applicant, a Waldorf School, is particularly sensitive to concerns for preservation of natural conditions because nature plays an important role in its instructional program.

36. Looking at the record as a whole, the Examiner finds that the proposed use in Phases I and II is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity and with the physical characteristics of the site. With respect to these phases, measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the immediate vicinity.

37. However, the Examiner has no basis for concluding that the operation of the auditorium facility will not be materially detrimental to uses or property in the immediate vicinity. Analysis is needed on traffic impacts from uses made of the auditorium.

38. Also, the record contains no analysis of the effects of glare from headlights in homes adjacent to the site. Given the invention of curtains, this is not a make it or break it issue for the school. However, it is a matter that should be addressed in analyzing Phase Three traffic.

39. Any conclusion herein which may be deemed a finding is hereby adopted as such.

## **CONCLUSIONS OF LAW**

1. The Hearing Examiner has jurisdiction over these proceedings.
2. The City staff analyzed the application in light of goals and policies of the Comprehensive Plan and found it to be consistent with them. The Examiner concurs.
3. Education facilities are allowed as conditional uses in the R-1 District. BIMC 18.09.020.
4. The project, as conditioned, will meet relevant land use provisions of the Bainbridge Island Municipal Code (BIMC).
  - a) The combined lots meet the minimum lot size requirement. The proposal will meet the maximum lot coverage limit, and the buildings will be within the maximum building height limit. All proposed buildings will meet minimum building setbacks. BIMC 18.12.020.
  - b) The development will meet the Code requirements for landscaping, screening and tree care. BIMC 18.15.010.
  - c) Adequate parking will be provided for the non-auditorium operations. BIMC 18.15.020
  - d) The design meets requirement for pedestrian circulation and walkways for non-residential development, as well as requirements for bicycle facilities. BIMC 18.15.030.
  - e) Proposed downward directed outdoor lighting meets applicable regulations. BIMC 18.15.040.
5. As indicated by the approval of the Design Review Board, the project meets applicable Design Guidelines. Chapter 18.18 BIMC.
6. The project is consistent with decision criteria for Site Plan and Design Review. BIMC 2.16.04(E)
7. Phase I and II of the project, as conditioned, meet the decision criteria for a Conditional Use Permit. BIMC 2.16.050(D).
8. The proposal for Phase III should be remanded to the City for review of the traffic impacts associated with use of the auditorium proposed for construction during that phase. Conditional Use approval for Phase III is, therefore, withheld pending results of the remand.
9. Any finding herein which may be deemed a conclusion is hereby adopted as such.

## PHASE I AND II CONDITIONS OF APPROVAL

*SEPA Conditions (from MDNS issued February 27, 2017).*

1. To avoid impacts to vegetation, no construction activity shall occur in landscape buffers or within the critical root zone of significant trees within landscape buffers, including staging, storage, materials laydown, parking, construction vehicle turn around, or equipment.
2. Prior to clearing permit or construction permit issuance, fencing shall be erected and posted with signage to protect areas of prohibited disturbance. Signs shall be affixed to the fence every 50 feet indicating the protected area. Fencing shall remain in place until construction is complete, and removal shall be subject to approval of the Planning Division. No construction activities, including grading and/or vegetation removal, shall occur prior to 'area of disturbance' plan approval and inspection and approval of the fencing installation, by the Planning Division.
3. A temporary chain link fence, a minimum five feet in height with tubular steel poles or "T" posts, shall delineate the area of prohibited disturbance in the following locations:
  - a. At the edge of the drip line of trees proposed to be preserved between N. Madison Avenue and the proposed access drive. Special care shall be taken to protect the significant trees, vegetation, and rain garden area adjacent to the driveway.
  - b. Along the buffer adjacent to the north property line.
4. Orange plastic fencing shall delineate the perimeter buffer where chain link fencing is not required and where existing vegetation is being preserved to meet the buffer requirement.
5. All graded materials removed from the subject property shall be hauled to and deposited at City approved locations. (Note: local regulations require that a grade/fill permit is obtained for any grading or filling of 50 cubic yards of material or more if the grading or filling occurs on sites that have not been previously approved for such activities. A SEPA Threshold Determination is required for any fill over 100 cubic yards on sites that have not previously received a SEPA determination.)
6. Contractor is required to stop work if any historical or archaeological artifacts are uncovered during excavation or construction and immediately notify the City Department of Planning and Community Development and the Washington State Office of Archaeology and Historic Preservation.
7. To mitigate possible impact on adjacent properties from light and glare, all exterior lighting shall be hooded and shielded so that the bulb is not visible from adjacent properties. All landscape lighting shall be downcast and lighting within surface parking lots shall be no higher than 5 feet above grade. All exterior lighting shall comply with BIMC Chapter 15.34.

8. All on-site stormwater facilities shall remain privately owned and maintained. The owner shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded before issuance of occupancy permits. The approved language for the Declaration of Covenant is found in BIMC 15.21.

9. Stormwater detained in the proposed detention pond will be released at a controlled rate through a control structure and ultimately out through a dispersion tee located within 25 feet of the north-eastern property line. The nearest residence downgradient of the dispersion tee is within 50 feet. The release of stormwater from the detention pond shall be monitored for a minimum of 5 years to ensure proper function of pond and control structure and to ensure stormwater release is not detrimental to the neighboring property or structures. The monitoring plan shall be developed by the project stormwater engineer, reviewed and approved by the City, and included with the overall stormwater operation and maintenance plan.

10. The applicant shall be responsible for verifying water pressure and fire flows are adequate from connections to water mains.

11. All construction activities shall comply with the construction operating hours limitations contained in BIMC Chapter 16.16.

12. Noise produced by this development must comply with the maximum environmental noise levels established by the Washington Administrative Code 173-60 or its successor.

*Examiner imposed conditions*

13. To ensure that the Madrona School facility remains compatible with the surrounding neighborhood, the school is limited to an occupancy of 200 students and 27 teachers for standard school days. (This limitation does not apply to special events or functions.

14. To ensure historic and cultural resource preservation, a completed Washington State Historic Property Inventory Field Form shall be recorded with the State Department of Archaeology and Historic Preservation prior to the demolition of the historic home on the property.

15. A National Pollutant Discharge Elimination System (NPDES) permit from the Department of Ecology will be required prior to ground disturbing activities.

16. A Right-of-Way permit will be required prior to any work within the right of way. The ROW permit will be subject to separate conditions and bonding requirements.

17. Except for modifications reflecting compliance with these conditions of approval, building plans shall substantially conform to plans submitted on August 2, 2016, except as follows: Sheet A-1.00 submitted on September 22, 2016; Sheet C1-C3 submitted on January 10, 2017.

18. Prior to any construction activities, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, and/or building permits.

19. The project shall comply with the following conditions of the Fire Marshall:

- a. The project shall comply with all applicable provisions of the adopted Fire Code.
- b. All driving lanes within the project are considered Fire Lanes and shall be labeled as such by the Fire Marshal.
- c. Landscaping shall not impede access of fire department apparatus and personnel.

20. Prior to building permit issuance, a Boundary Line Adjustment shall be submitted and approved. The structures on any resultant lot must meet zoning requirements.

21. A minimum of nine bicycle spaces must be provided. Bicycle facilities shall allow secure locking of both frame and wheels of a bicycle.

22. In order to screen the proposed school from the adjacent single-family home to the south, a six-foot high solid wood fence shall be erected at the inner edge of the buffer on the south side of the property, prior to final inspection of the first phase of the project. (Note: this condition may be waived upon written request of the property owner to the south.)

23. All perimeter buffers shall be planted to the full screen landscape requirements in accordance with the submitted landscaping plan during the first planting season following the grading and access construction phase.

24. Landscape buffers shall be maintained for the life of the project.

25. New plantings shall be the following heights at time of planting: evergreen trees shall not be less than six feet in height; deciduous trees shall not be less than two-inch caliper dbh, evergreen shrubs shall be not less than 18 inches in height.

26. All plantings shall be installed or installation financially assured in accordance with BIMC 18.15.010(H) prior to occupancy of any of the new buildings. Subsequent to installation approval by the Department, maintenance assurity shall be required in accordance with BIMC 18.15.010(H).

27. The primary internal walkways shall be surfaced with nonskid hard surfaces (asphalt pavement or concrete), meet handicapped accessibility requirements and be designed to provide a minimum of five feet of unobstructed width.

28. The walkway adjacent to the pick up/drop off lane shall be curbed and raised six inches above adjacent vehicular surface grade, except where required to meet accessibility standards.

29. Raised curbs shall be used to define driveways from the public right-of-way, landscape areas within the parking lot, the ends of parking aisles, and the vehicular circulation pattern.

30. No parking or pick-up/drop-off shall occur on Madison Avenue or within the Windsong Loop neighborhood.

31. Outdoor trash/recycle receptacles shall be enclosed within solid, gated structure that is screened from view with evergreen vegetation.

32. No high field lights shall be allowed.

33. The project may have one sign at the entrance to the school. The sign shall be located outside of the public right-of-way and shall not exceed 10 feet square in size. It shall be constructed of natural materials. The height of the sign shall not exceed five feet from existing grade.

34. Prior to the issuance of any building permit, the landowner must record a notice of title listing these conditions of approval with the Kitsap County Auditor.

35. Prior to issuance of a building permit for Phase I or for Phase II, approval of a Building Site Application for on-site sewer and water facilities shall be obtained from the Kitsap Public Health District.

36. The applicant shall review experience at the exit from the site, and if this experience so indicates, shall limit exiting to right-turn only during pick-up and/or drop-off times.

37. The Tree Retention Plan, as accepted by the City, shall be adhered to during all phases of construction and in the future. Deviations therefrom may be allowed by the City only for good cause shown.

38. The school may not allow use of its facilities for commercial purposes. Non-profit organizations or religious groups may be permitted after-hour use of the Phase I and II facilities, provided that no function may continue beyond 9:00 p.m. and all functions shall be subject to strict conditions on noise and on the size of gatherings in order to minimize any disturbance of area neighbors.

39. The applicant shall request the Police Department to declare the area adjacent to the school on North Madison Avenue a school zone and to impose a speed limit appropriate to the zone. Signs reflecting the zone and the allowable speed should be installed.



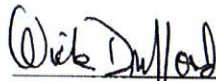
40. Summer school sessions shall be limited so that no more than 40 students are in attendance on campus at any time.

### **ORDER**

The application of Madrona School for Phase I and II Site Plan and Design Review and for a Conditional Use Permit (PLN 18970B SPR/CUP) is approved, subject to the conditions set forth above.

Phase III of the proposed project is remanded to the City for further investigation of the traffic impacts of the operation of the proposed auditorium.

**SO ORDERED**, this 23rd day of May, 2017.



Wick Dufford, Hearing Examiner Pro Tempore



## Department of Planning and Community Development

### Staff Recommendation

Date: March 17, 2017  
To: City of Bainbridge Island Planning Commission  
From: Joshua Machen, AICP, Planning Manager  
Gary R. Christensen, AICP, Director  
Project: Madrona School  
File No: PLN 18970B SPR / CUP

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**Applicant:** Madrona School  
219 Madison Avenue S.  
Bainbridge Island, WA 98110

**Request:** Construction of a new PK-8 private school, which includes classrooms, offices, and a gymnasium/auditorium. Site improvements include 39+ parking spaces, play field, stormwater facilities and on-site septic system. An existing residence, barn and two sheds will be demolished (Reference Documents A, B, & C)

**Location:** 11478 N. Madison Avenue NE

### Consolidated Project Review:

In accordance with regulations contained in BIMC 2.16.170, an applicant for a single project proposal requiring more than one of the land use applications identified in BIMC 2.16.010 may be processed under the consolidated project review process. The applicant requests consolidated review of the applications for Site Plan and Design Review and Conditional Use Permit.

### Public Notice / Environmental Review:

The first pre-application conference was held on October 8, 2013. No formal plans had been developed, so the discussion was generally about zoning and the process. A second pre-application conference was held on July 19, 2016. A public participation meeting was held on July 18<sup>th</sup>, 2016. Applications for Site Plan Review and Conditional Use Permit were received on August 2, 2016.

After deeming the application complete the City determined that the project is subject to State Environmental Policy Act (SEPA) review as provided in Washington Administrative Code (WAC 197-11-800). Utilizing the **optional DNS process** provided in WAC 197-11-355, the City issued a combined Notice of Application/SEPA comment period on October 14, 2016 (Reference Document D). The 14-day comment period ended on October 28, 2016; public comment is discussed in Section I.C. of this report. The City, acting as lead agency, issued a SEPA threshold determination for this proposal on February 27, 2017 (Reference Document E). No appeals were filed.

**Planning Commission Review:**

The Planning Commission shall provide a recommendation to the Hearing Examiner pursuant to BIMC 2.14.020, BIMC 2.16.040.C.2, and BIMC 2.16.110.C.

**Recommendation:**

Approval of the request subject to the following conditions:

**SEPA CONDITIONS**

1. To avoid impacts to vegetation, no construction activity shall occur in landscape buffers or within the critical root zone of significant trees within landscape buffers, including staging, storage, materials laydown, parking, construction vehicle turnaround, or equipment.
2. Prior to clearing permit or construction permit issuance, fencing shall be erected and posted with signage to protect areas of prohibited disturbance. Signs shall be affixed to the fence every 50 feet indicating the protected area. Fencing shall remain in place until construction is complete, and removal shall be subject to approval of the Planning Division. No construction activities, including grading and/or vegetation removal, shall occur prior 'area of disturbance' plan approval, and inspection and approval of the fencing installation, by the Planning Division.
3. Temporary chain link fence a minimum five feet in height with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance in the following locations:
  - a. At the edge of the drip line of trees proposed to be preserved between N. Madison Avenue and the proposed access drive. Special care shall be taken to protect the significant trees, vegetation, and rain garden area adjacent to the driveway.
  - b. Along the buffer adjacent to the north property line.
4. Orange plastic fencing shall delineate the perimeter buffer where chain link fencing is not required and where existing vegetation is being preserved to meet the buffer requirement.
5. All graded materials removed from the subject property shall be hauled to and deposited at City approved locations (Note: local regulations require that a grade/fill permit is obtained for any grading or filling of 50 cubic yards of material or more if the grading or filling occurs on sites that have not been previously approved for such activities. A SEPA Threshold Determination is required for any fill over 100 cubic yards on sites that have not been previously received a SEPA determination).
6. Contractor is required to stop work if any historical or archaeological artifacts are uncovered during excavation or construction and immediately notify the Department of Planning and Community Development and the Washington State Office of Archaeology and Historic Preservation.
7. To mitigate the possible impact on adjacent properties from light and glare, all exterior lighting shall be hooded and shielded so that the bulb is not visible from adjacent properties. All landscape lighting shall be downcast and lighting within surface parking lots shall be no higher than 5 feet above grade. All exterior lighting shall comply with BIMC Chapter 15.34.

8. All on-site stormwater facilities shall remain privately owned and maintained. The owner shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded before issuance of occupancy permits. The approved language for the Declaration of Covenant is found in BIMC 15.21 Exhibit A.
9. Stormwater detained in the proposed detention pond will be released at a controlled rate through a control structure and ultimately out through a dispersion tee located within 25 feet of the north-eastern property line. The nearest residence downgradient of the dispersion tee is within 50 feet. The release of stormwater from the detention pond shall be monitored for a minimum of 5 years to ensure proper function of pond and control structure and to ensure stormwater release is not detrimental to the neighboring property or structures. The monitoring plan shall be developed by the project stormwater engineer, reviewed and approved by the city, and included with the overall stormwater operation and maintenance plan developed under condition number 1 above.
10. The applicant shall be responsible for verifying water pressure and fire flows are adequate from connections to water mains.
11. All construction activities shall comply with the construction operating hours limitations contained in BIMC Chapter 16.16.
12. Noise produced by this development must comply with the maximum environmental noise levels established by the Washington Administrative Code 173-60 or its successor.

#### **PROJECT CONDITIONS**

13. To ensure the Madrona School facility remains compatible with the surrounding neighborhood, the school is limited to an occupancy of 200 students and 27 teachers for standard school days (this limitation does not apply to special events or functions).
14. To ensure historic and cultural resource preservation, a completed Washington State Historic Property Inventory Field Form shall be recorded with the State Department of Archeology and Historic Preservation prior to the demolition of the historic home on the property.
15. A NPDES permit from the Department of Ecology will be required prior to ground disturbing activities.
16. A Right-of-Way permit will be required prior to any work within the right of way. The ROW permit will be subject to separate conditions and bonding requirements.
17. Except for modifications reflecting compliance with these conditions of approval, building plans shall substantially conform to plans submitted on August 2, 2016, except as follows: Sheet A-1.00 submitted on September 12, 2016; Sheet C1-C3 submitted on January 10, 2017.
18. Prior to any construction activities, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, and/or building permits.

19. The project shall comply with the following conditions of the Fire Marshal:
  - a. The project shall comply with all applicable provisions of the adopted Fire Code.
  - b. All driving lanes within the project are considered Fire Lanes and shall be labeled as such as directed by the Fire Marshal.
  - c. Landscaping shall not impede access of fire department apparatus and personnel.
20. Prior to building permit issuance a Boundary Line Adjustment shall be submitted and approved. The structures on any resultant lot must meet zoning requirements.
21. A minimum of nine bicycle spaces must be provided. Bicycle facilities shall allow secure locking of both the frame and wheels of a bicycle.
22. In order to screen the proposed school from the adjacent single-family home to the south, a six-foot high solid wood fence shall be erected along the property line adjacent to the parking lot and play field prior to final inspection of the first phase of the project. (Note: this condition may be waived upon written request from the property owner to the south).
23. All perimeter buffers shall be planted to the full screen landscape requirements in accordance with the submitted landscaping plan during the first planting season following the grading and access construction phase.
24. Landscape buffers shall be maintained for the life of the project.
25. New plantings shall be the following heights at time of planting: Evergreen trees shall be not less than six feet in height; Deciduous trees shall be not less than two-inch (caliper in diameter?) dbh; Evergreen shrubs shall be not less than 18 inches in height.
26. All plantings shall be installed or installation financially assured in accordance with BIMC 18.15.010.H. prior to occupancy of any of the new buildings. Subsequent to installation approval by the Department, maintenance assurity shall be required in accordance with BIMC 18.15.010.H.
27. The primary internal walkways shall be surfaced with nonskid hard surfaces (asphalt pavement or concrete), meet handicapped-accessibility requirements and be designed to provide a minimum of five feet of unobstructed width.
28. The walkway adjacent to the pick-up / drop-off lane shall be curbed and raised six inches above adjacent vehicular surface grade, except where required to meet accessibility standards.
29. Raised curbs shall be used to define driveways from the public right-of-way, landscape areas within the parking lot, the ends of parking aisles, and the vehicular circulation pattern.
30. No parking or pick-up/drop-off shall occur on Madison Avenue or Windsong Loop.
31. Outdoor trash / recycle receptacles shall be enclosed with a solid structure / gated and screened from view with evergreen vegetation.
32. No high field lights are allowed for the school.
33. The project is allowed one sign at the entrance to the school. The sign shall be located outside of the public right-of-way and not exceed 10 square feet in size and shall be constructed of natural materials. The height of the sign shall not exceed five feet from existing grade.
34. Prior to building permit issuance of any phase, an approved building site application for on-site septic system and water availability shall be obtained from the Kitsap Public Health District.

35. Prior to building permit issuance, the landowner must record a notice on title listing these conditions of approval with the Kitsap County Auditor.

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## Staff Analysis

### I. Findings of Fact

#### A. Site Characteristics

##### 1. Tax Assessor Information:

- a. Tax Lot Numbers: 112502-3-099-2008  
112502-3-102-2003  
112502-3-1003-2005  
112502-3-001-2004
- b. Owner of record: Center Tree LLC
- c. Lot size: the total of the four lots is 4.79 acres
- d. Existing land use: Single -family residence and associated outbuildings.

##### 2. Background

The Madrona School is a non-profit private school that is currently located in the congregational church in downtown Winslow. The school is proposing to relocate to the North Madison Avenue property to accommodate their increase in student population and to address learning needs that their own campus can provide that the constrained property in Winslow can't provide. The proposed school is designed to accommodate up to 200 students and 27 teachers and administration personnel.

The proposed school is proposed to be developed in three phases as follows:

##### Phase 1: Grades 1-8, Administrative Offices

Nine classrooms and four offices -11,000 square feet on two levels

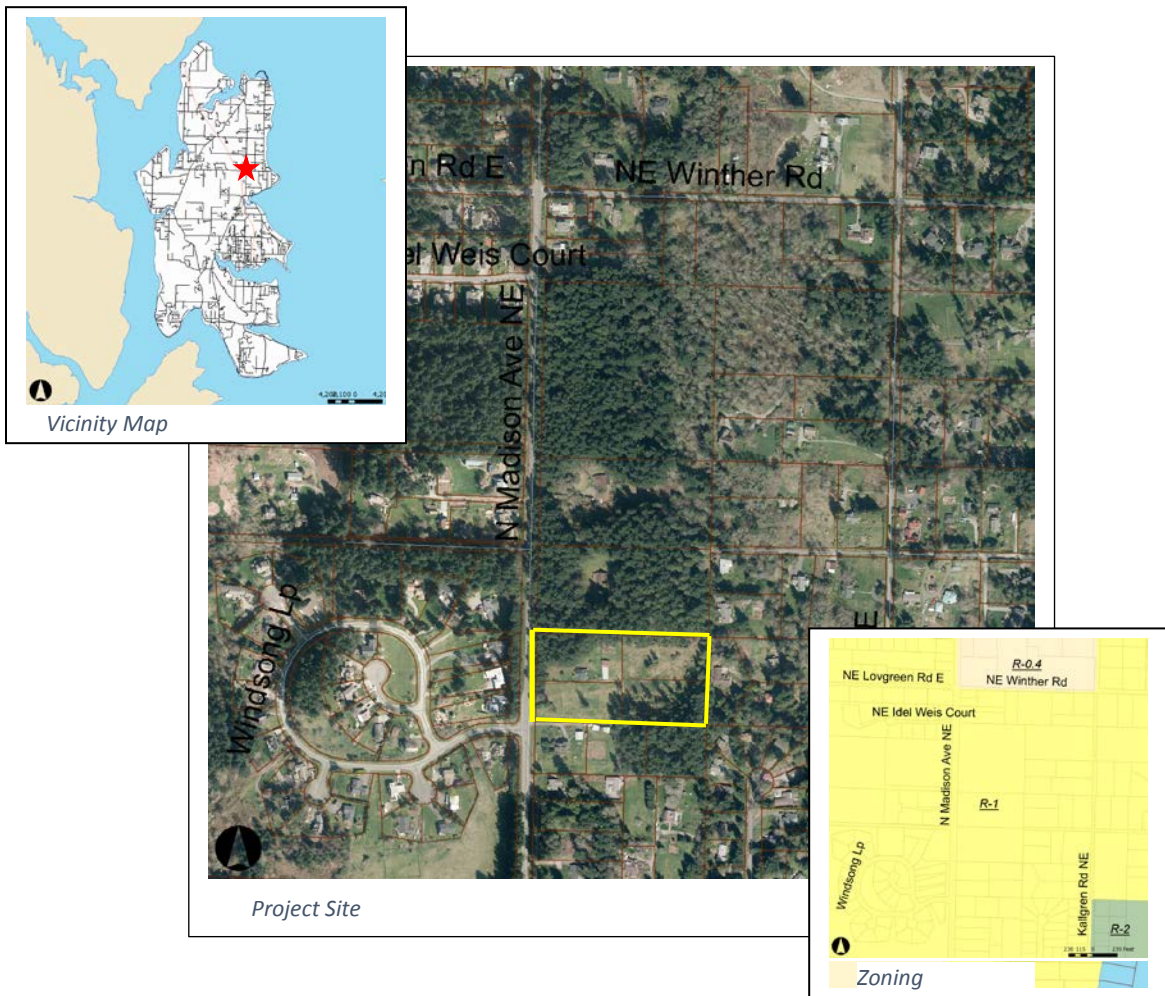
##### Phase 2: Early Childhood

Four classrooms -5,000 square feet on two levels

##### Phase 3: Gymnasium/Auditorium

GYM, three classrooms, kitchen, and apartment- 10,000 square feet on two levels

The existing house on the site will be demolished with the construction of Phase 3. No off-site road construction is proposed, other than entry and exit drive aprons connecting to N. Madison Avenue NE.



3. Zoning and Comprehensive Plan Designation: The subject property is within the R-1 district and the Open Space Residential (OSR-1) designation. All the surrounding properties are also zoned R-1 and the Comprehensive Plan Designation is OSR-1.
4. Existing Development: The property contains an existing single-family residence and accessory buildings. The surrounding properties are either developed with single-family homes or are currently undeveloped.
5. Access: Vehicular access is provided from N. Madison Avenue NE.
6. Soils and Terrain:

Site soils are composed of Harstine and Ragnar gravelly/sandy loams. Much of the site is cleared pasture/grass area with a perimeter buffer of trees around the property except the southwest portion of the site which is cleared pasture area adjacent to the adjoining property's access driveway and garage/outbuilding.

The topography of the site is generally flat in the middle with a gradual slope to the southwest and southeast.



7. Public Services and Utilities:

- a. Police: City of Bainbridge Island Police Department
- b. Fire: Bainbridge Island Fire District
- c. Water: On-site Well
- d. Sewer / Septic: On-site Septic
- e. Storm drainage: On-site detention and dispersion is proposed for the east side of the site, and on-site detention for the west side.

B. Comprehensive Plan Goals and Policies

1. Land Use Element

- a. Historic Preservation - Goal 3

Archaeological resources should be identified, preserved, and / or left undisturbed.

**The site contains a historic home that the City has found to be eligible for the local register. The applicant has indicated they intend to maintain the house during the first two phases of construction, but that the house is not in a condition to be preserved into the future and would be demolished during the third phase. To ensure historic and cultural resource preservation, a completed Washington State Historic Property Inventory Field Form shall be recorded with the State Department of Archeology and Historic Preservation prior to the demolition of the historic home on the property (Condition 14).**

**Should any historical or archaeological artifacts be uncovered during excavation or construction, project work must stop and the applicant must notify the Department of Planning and Community Development and the Washington State Office of Archeology and Historic Preservation. (Condition 6)**

2. Economic Element

- a. Economic Element - Goal 1

Retain and enhance a diversified local economy. The City should embrace diverse and innovative business opportunities compatible with the community and develop programs to make Bainbridge Island an attractive location for those businesses.

**The development provides for a private not-for-profit elementary and pre-school educational facility.**

3. Cultural Element

- a. Arts Education - Goal 2

Demonstrate commitment to quality arts education and lifelong learning by advocating for comprehensive inclusion of the arts in our schools and community settings. Support a comprehensive quality arts education program in the schools and the community.

**The development provides for a learning environment that emphasis the natural environment and the arts.**

b. Humanities - Goal 7

Foster the spirit of community in which the richness of human experience is explored and nurtured through ongoing analysis and exchange of ideas about the relation to self, others and the natural world.

**The school relies on the natural environment to address Waldorf education principles and methods. The Waldorf program provides a broad curriculum, including academics, art and music education, physical education, and emotional and social education.**

**The project emphasizes outdoor spaces and the discovery of the natural world. For example: The proposed development provides playgrounds with all-natural materials, a campus with trails through a natural environment. Buildings are oriented to capture natural light and to fit into the natural topography of the land avoiding competition with the natural setting.**

C. Public / Agency Comment

Multiple public comments were received. The comments are summarized as follows:

1. **Neighborhood/Zoning Compatibility:**

Several public comments were received regarding the scale of the proposed development and the structures are too large and non-compatible with the existing residential neighborhood character. **The school does represent a distinct change from the single-family homes within the immediate vicinity. The property upon which the school is proposed is 4.79 acres in total which under current zoning could support up to five single-family residences each with an accessory dwelling unit and associated out buildings. Under the conditional use permit requirements, the allowed lot coverage (the area of the lot allowed to be covered by buildings) is limited to half the amount that would be allowed if single-family homes and accessory structures were proposed on this same site.**

Multiple comments suggested that the zoning should not allow a use that is like a commercial development and questioned why private schools are allowed in a residential zone. **The zoning for the subject property is R-1, Residential one unit per acre zone. However, the R-1 zone allows schools (public or private) under the provisions of obtaining a conditional use permit. Washington State laws grant local jurisdictions (i.e., city) land use regulatory authority. The elected City Officials of Bainbridge Island have adopted zoning definitions for commercial and educational development and adopted zoning regulations as to where these uses may be allowed, or allowed through a conditional use permit. Educational facilities are an allowed use in the R-1 zone through the issuance of a conditional use permit.**

2. **Traffic and vehicular trips:**

Several public comments expressed concern regarding the number of vehicular trips proposed to the subject property each day and the impact those trips may have on adjacent roadways and transportation systems. **The school facility poses a significant increase in vehicular trips per day when compared to single-family homes. The submitted traffic study indicates the school at full capacity is expected to generate 720 daily trips, 360 in and 360 out. Educational facilities requiring a conditional use permit and must be located on roads classified as residential suburban, collector, or arterial on the Bainbridge Island functional road classification map. N. Madison Avenue NE is listed as an arterial road on the classification map. Two traffic studies were performed to address the issue of traffic generation and the impact that the proposed**

development would have on surrounding roadways. Typically, traffic calculations look at the PM peak hour because that is the hour of highest congestion. The proposed development's typical traffic patterns fall outside of this peak hour, so the school is likely to have little to no impacts on the PM peak hour. However, in consideration of public comments received a second traffic study was performed to analyze the morning peak hour and specifically the potential impact on the Sportsman's Club/SR305 intersection (Reference Document H). The traffic studies indicate that this intersection will fail in the year 2040 with or without the proposed school. The City has generally accepted that improvements at major intersections that serve large populations of the island are a City and State responsibility and that individual project are not expected to make the improvements when their portion of the impact is very minimal.

3. **Noise from children:**

Only a couple of public comments expressed concern regarding noise emanating from children's play. **While many of the surrounding properties are developed with single-family homes, only one is in proximity to the playfield to be impacted by noise from children's play.** The closest house is approximately 75 feet away from the property line and the proposed playfields would be over 100 feet from the residence and will have a new 15-foot landscape buffer and possible fence between the properties. In accordance with a recent City of Bainbridge Island Hearing Examiner Decision and Analysis on the Montessori Country School, noise from children (unamplified human noise) is exempt from noise standards of the Municipal Code or state law. In that same decision, the examiner referred to a noise study at an existing school of 400 students and the noise from an active play area at 25 feet was 60-64 dBA. Since the nearest existing house is over 100 feet away and will be screened with vegetation and a fence, it is likely that the noise would be significantly diminished not having an adverse impact on the neighbor.

4. **Visual impact:**

A few public comments received expressed concern that the proposed school would have a negative visual impact on the surrounding residential neighborhood character. **As proposed and required by the municipal code, the proposed project is providing a dense buffer of existing trees and shrubs along N. Madison Avenue. The closest parking spaces will be almost 45 feet back from the edge of right-of-way. Existing native tree and shrub buffer also exists along the north, east and half of the south property lines. Where no buffer exists along a portion of the south property line a new 15-foot full screen buffer will be planted as part of this proposed development. These buffers will help ensure the residential nature of area is not visually altered by the proposed private school.**

5. **Lighting:**

Concerns were raised that the school may employ high intruding parking lot lighting or lighting for the play fields that would adversely impact surrounding properties. **As part of their application the school was required to submit a lighting plan with proposed fixtures. As proposed, only a few low bollard lights are proposed around the parking area and pedestrian paths and there are some entry sconces proposed on the buildings. The proposed fixtures are all shielded and downlight only.**

6. **Parking:**

Public comments were received regarding the adequacy of the number of parking spaces being provided, especially for large events involving the whole school. **The proposed school is providing 39 parking stalls in addition to five load/unload spaces that would be available for long-term parking outside of pick-up/drop-off times. The number of stalls is consistent with the City's regulations for schools including staff, parents, and visitors. The school has recognized for large**

events alternative parking would be necessary. For these events, the school play field could be accessed and used for overflow parking in addition to shuttle programs from either Rolling Bay Presbyterian Church or from the Grange Hall parking lot.

7. **Signs:**

Concerns were raised that a large lighted sign at the entrance of the school on Madison could detract from the residential neighborhood character. **A school sign, consistent with the municipal code and as specified in a conditional use permit, would be limited in size, and be required to meet lighting requirements, and to assure compatibility with the surrounding neighborhood. Any sign not visible from the public right-of-way or adjacent property is not considered a regulated sign under the City's regulations.**

8. **No rental clause:**

A concern was raised that the school would rent out their space to commercial endeavors during non-school hours causing additional traffic and potential impacts on the surrounding properties. **Often schools or other public facilities are rented out to other non-profit clubs or religious groups for use on off hours. No commercial businesses would be allowed to use the school facilities as this would be a violation of the municipal code. Other uses wanting to rent space from the school would have to demonstrate that their intended use would not adversely affect the neighborhood, cause a burden on parking or have any other impact greater than the school use.**

9. **Support for Waldorf education/school-**

Many comments were received that expressed their support of both the school and the Waldorf education the school is proposed to provide. The commenters indicated school provides a different type of education offered at other private or public schools on the island. **The Madrona School, which offers a Waldorf education system has operated on Bainbridge Island for many years in the church at the corner of Winslow Way and Madison Avenue in downtown Winslow. Due to space constraints and the desire to connect the children with the land and natural environment, they are proposing to relocate to the "Lowery Farm" property. As a private school offering a Waldorf education they provide an educational diversity on the island that would be lost if they were unable to maintain their school on the Island. Many citizens have indicated that this large clear farm property is a suitable location for the school, as it is centrally located on an arterial road, while providing a natural setting for educational needs of the children without having to remove a significant amount of existing significant trees to build the facilities.**

D. Land Use Code Analysis

1. BIMC Title 18 Zoning

a. BIMC 18.09.020 Use Table

Educational facilities are conditional uses in the R-1 district, and shall be processed as major conditional uses in residential zones (BIMC 18.09.030). **The applicant has properly applied for a major conditional use permit along with a site plan and design review application.**

b. BIMC 18.12.020-2 Standard Lot Dimensional Standards for Residential Districts

i. Lot Size, Lot Coverage and Building Height Requirements

Minimum lot size is 40,000 square feet in the R-1 district, and minimum lot width is 80 feet. Lot coverage is the portion of the lot area that may be covered by buildings

(BIMC 18.12.050.K). Maximum lot coverage for lots in the district is 15 percent provided, institutions located in residential districts may not exceed 50 percent of the allowable lot coverage (i.e. 7.5 percent). Maximum building height is 30 feet.

**The combined lots are 4.79 acres in size, and therefore meets the minimum lot size requirement (Note a Boundary Line Adjustment combining the lots will be required prior to building permit issuance-Condition #20). The lot width well exceeds the required 80 feet. Proposed lot coverage is 16,260 square feet 7.4 percent of lot area, and therefore meets this requirement. All existing and proposed buildings are less than 30 feet in height.**

ii. Setbacks

The front lot line setback is a minimum of 25 feet. The minimum side setback is ten feet, and side setbacks must total 25 feet. The rear lot line setback is a minimum of 15 feet.

**All proposed buildings exceed the minimum building setbacks. The closest classroom building is 28 feet to the north property line. The proposed gymnasium/auditorium building is 32 feet from the south property line.**

b. BIMC 18.15.010 Landscaping, Screening, and Tree Retention, Protection, Replacement

A 25-foot width full screen buffer is required along the perimeter of the property for non-residential use in residential districts; this buffer may be averaged to provide not less than a 15-foot width to accommodate a unique situation, such as continuation of an existing use or to incorporate existing trees. A 25-foot width partial screen is required along rights-of-way; this buffer may be averaged to provide not less than a 15 foot width. The site must have at least 40 tree units per acre following redevelopment (BIMC 18.15.010.G.4.ii).

Parking lots adjacent to the right-of-way must provide one tree for every four parking stalls; a minimum of 30 percent of the trees must be evergreen. Deciduous trees must be at least two-inch caliper and evergreen at least six feet high at time of planting. Evergreen shrubs must be at least 18 inches in height at time of planting and spaced no more than three feet on center to provide a continuous hedge. Evergreen ground cover must be planted and spaced to achieve total coverage within two years. The parking lot must provide a landscaped area at the end of parking aisles.

To protect retained vegetation within buffers, raingarden areas, and planting areas which are larger than 400 square feet in size, the applicant must identify areas of prohibited disturbance, generally corresponding to the dripline or critical root zone of the trees as identified by a consulting arborist. A temporary five-foot high chain link fence with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance, unless the Director approves use of a four-foot high plastic net fence as an alternative, and the fencing must be posted with signage denoting the protection area.

**Buffer averaging reduces buffer widths along the northwest and southwest from 25 feet to 15 feet in three locations. Buffer widths are increased along the northeast and**

southeast property boundaries to provide a contiguous 35-53-foot width boundary. The averaging considers the preservation of existing mature trees and vegetation.

**The proposed development provides adequate parking lot and buffer landscaping. The project is conditioned to identify areas of prohibited disturbance, and to adequately protect those areas. (Conditions 1-4)**

Non-residential development within the R-1 zone requires 40 tree units per acre to either be preserved or planted. The subject property is 4.79 acres in size requiring 192 tree units. **In accordance with the submitted Tree Retention Plan (Reference Document B), the proposed development is retaining 640 tree units. Most of these preserved trees are within expanded/averaged buffers along Madison Avenue and surrounding the proposed school. In addition to the existing trees, the proposal will plant over 40 new trees within the buffers and parking areas (Reference Document B).**

c. BIMC 18.15.020 Parking Spaces Required

Elementary school must provide one space per 50 students and one space per employee. Parking lots must comply with State minimum requirements for handicapped-accessible parking spaces. Above-ground parking lots exceeding the number of spaces required by this section are not allowed unless approved by the Planning Commission.

**The proposed development serves a maximum of 200 students and 27 staff (Condition #13). The required parking is 40 spaces. The proposed parking lot provides 39 dedicated spaces and an addition five load/unload spaces that will be available for long term parking outside of the pick-up/drop-off periods. The parking lot includes two handicapped-accessible parking space. Additionally, to accommodate all-school event parking, such as an open house, the school has identified overflow parking within the playfield and a possible shuttle service program from Rolling Bay Presbyterian Church or the Grange.**

d. BIMC 18.15.030 Mobility and Access

i. Circulation and Walkways for Non-residential Development

Parking lots and driveways shall provide well-defined, safe and efficient circulation for motor vehicles, bicycles and pedestrians. Entrances from the right-of-way, ends of parking aisles and the circulation pattern shall be defined by landscaped areas with raised curbs. Pedestrian walkways should be provided around buildings to assure safe access. Internal walkways shall be surfaced with nonskid hard surfaces, meet accessibility requirements and provide at least five feet of unobstructed width. Walkways that cross driving lanes shall be constructed of contrasting materials or maintained painted markings. Walkways must be curbed and raised six inches above adjacent vehicular surface grade, except where the walkway crosses vehicular driving lanes or to meet accessibility standards.

**The project provides vehicular and pedestrian access from N. Madison Avenue through one way entrance and exiting lanes to the parking lot. The proposal includes multiple pedestrian walkways from the parking lot to all the school buildings. Dedicated drop-off / pick-up parking spaces allows students to exit**

directly onto the internal sidewalk, avoiding interaction between students and vehicles in the parking lot. Internal walkways provide pedestrian connectivity between buildings.

The project conditions provide appropriate curbs, walkway dimensions and surfacing. As determined by the City Engineer, the streets and pedestrian ways that serve the site are well-defined, safe, and efficient. (Conditions #27-29)

ii. Bicycle facilities

The development must provide one bicycle space for every five vehicle parking spaces, with a minimum of four spaces provided for each parking lot.

**A bicycle rack is proposed on the north side of the entry plaza. Based on the number of vehicular parking spaces, nine bicycle spaces are required. The project is conditioned to provide nine bicycle spaces at a minimum. (Condition #21)**

e. BIMC 18.15.040 Outdoor Lighting

All outdoor lighting must result in no light trespass. Outdoor lighting must be shielded and aimed downward, with no escaping direct light permitted to contribute to light pollution by shining upward into the sky or onto adjacent properties. Spot lighting on landscaping and foliage is limited to 150 watts incandescent (2,220 lumens output).

**Outdoor lighting is proposed on buildings with downlight scone fixtures and along walkways with downlight bollard type light fixtures. As proposed, the lighting meets regulations. The project is conditioned to demonstrate compliance with these regulations at time of building permit application. (Condition #7)**

f. BIMC Chapter 18.18 Design Guidelines

The project is subject to the General and Commercial and Mixed Use Guidelines.

**The Design Review Board reviewed the proposal and unanimously recommended approval on December 19, 2017 (Reference Document L).**

- i. Site Design. Create small parking clusters connected by vegetated landscaping and pedestrian walkways. Parking lots should be located behind or to the side of buildings. Pedestrian walkways should offer connections to adjoining properties. Exterior lighting should not exceed 14 feet in height and should incorporate shields. Trash containers should be shielded from view.

**The development provides a buffer more than 25-feet wide from N. Madison Avenue, and the parking lot lies between the buffer and the buildings, which are set back over 185 feet from the right-of-way. Parking facilities are in a manner that provides appropriate separation between vehicular traffic and the campus. The parking lot is comprised of grouped spaces which are separated by landscape areas.**

**Pedestrian walkways provide internal connection between the buildings and between the parking lot and the buildings. The development provides numerous outdoor spaces, including playgrounds, play fields and trails; while most are**



oriented to the side of the buildings to serve the student population, one plaza feature is prominently in front of the buildings and is to provide a waiting area for parents to pick-up their children on the pick-up loop.

The proposed outdoor lighting appears to meet design guidelines, and the project is conditioned to demonstrate compliance with regulations at time of building permit application. Trash containers are in a screened service area between the grades building and the early childhood building. The proposed screening appears meet design guidelines; the project is conditioned to demonstrate compliance with this guideline at time of building permit application. (Conditions #31)

- ii. Building Design. Buildings should utilize elements such as massing, materials, windows, canopies, and pitched or terraced roof forms to create a visually distinct base and cap. Building materials and patterns should be varied to produce variations in texture. Building elevations shall be vertically and horizontally modulated to avoid massive scale. Facades facing public ways shall incorporate setbacks or articulation, and shall include features such as columns or recessed entries. Blank walls shall not be visible to public spaces. Building designs should respond to nearby buildings by using shared elements, materials or massing. Principal entrances should be visually prominent and incorporate elements such as setbacks, recesses, and porches. Rooftop mechanical equipment should be concealed by and integrated within the roof form.

**The architect's goal is to create a campus that exemplifies environmentally aware building practices and design. Buildings are oriented to capture natural light and provide views of the outdoors. Building materials include natural wood siding and large windows that let in natural light and views of the natural landscape. While the buildings are two-story, they use the natural topography to blend in to the site, and no blank walls are proposed. Covered walkways, porches and canopies afford protection from the elements. The roof form or parapet walls properly screen roof top mechanical equipment. Other mechanical equipment is to the side of the building and is screened by landscaping.**

## 2. BIMC 2.16 Decision Criteria

This staff report shall be considered the written findings of fact and conclusions of law for Site Plan and Design Review and Conditional Use Permit. As conditioned, the development meets the decision criteria for approval:

### a. BIMC 2.16.040.E Site Plan and Design Review – Decision Criteria

- i. The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district.

**All proposed improvements and buildings meet applicable development standards, including but not limited to: setbacks, height limitations, and lot coverage. Landscape buffer widths are averaged as provided in BIMC 18.15.010, and where necessary, the project is conditioned to specify vegetation protection. The project provides adequate parking facilities, including overflow parking for**

**events. The development meets applicable design guidelines, and is conditioned to meet lighting regulations. (Conditions #7)**

- ii. The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the Non-Motorized Transportation Plan.

**The City Engineer finds that as conditioned, the project provides adequate circulation systems. (Condition #29)**

- iii. The Kitsap County Health District has determined that the site plan and design meets the following decision criteria: The proposal conforms to current standards regarding domestic water supply and sewage disposal; or if the proposal is not to be served by public sewers, then the lot has sufficient area and soil, topographic and drainage characteristics to permit an on-site sewage disposal system.

**The Kitsap Public Health District has determined that the proposed lot has sufficient area, soil, topographic and drainage characteristics to permit on-site sewage disposal systems. While final on-site septic system designs and binding water availability are not yet approved, the project is conditioned to obtain an approved building site application for on-site septic and water supply prior to building permit issuance (Condition #34).**

- iv. The City Engineer has determined that the site plan and design meets the following decision criteria: The site plan and design conforms to regulations concerning drainage in BIMC 15.20 and 15.21; The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; The site plan and design conforms to the "City of Bainbridge Island Engineering Design and Development Standards Manual".

**The City Engineer finds that, as conditioned, the project conforms to surface and stormwater requirements, will not cause undue burden on the drainage basin, and will not unreasonably interfere with the use and enjoyment of properties downstream. The stormwater management plan is prepared by a licensed professional engineer in accordance with BIMC 15.20. On-site stormwater is managed through dispersion, infiltration, and detention. The applicant's model demonstrates that surface and stormwater that flows off-site mimics pre-developed conditions. The stormwater management system must be monitored and maintained as required in BIMC 15.20 / 15.21.**

**The traffic impact analysis provides adequate information to demonstrate that the impact of development passes the concurrency test (BIMC 15.32.020), and the City Engineer issued a Certificate of Concurrency (Reference Document K).**

- v. The site plan and design is consistent with applicable design guidelines.

**The Design Review Board recommends approval of the project as proposed.**

- vi. No harmful or unhealthful conditions are likely to result from the proposed plan.

**Adequate provision is made for the public health, safety and welfare, and public use and interest. The project is conditioned to ensure adequate access, including emergency services, water, septic, and stormwater facilities. (Conditions #19 &34)**

- vii. The site plan and design is in conformance with the comprehensive plan and other applicable adopted community plans.

**The project provides for relocation of a not-for-profit educational facility which includes an arts education program and fosters appreciation of the natural environment. Which is consistent with the goals and policies of the comprehensive plan.**

- viii. Any property subject to site plan and design review that contains a critical area or buffer conforms to all requirements of that chapter.

**The site is unencumbered by critical areas or their buffers.**

- ix. Any property subject to site plan and design review that is within shoreline jurisdiction conforms to all requirements of that chapter.

**The property is not within shoreline jurisdiction.**

- x. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals.

**The purpose of Site Plan and Design Review to establish a comprehensive site plan and design review process that ensures compliance with the adopted plans, policies, and ordinances of the City. This application for Site Plan and Design Review permit is reviewed consistent with the adopted review process to ensure compliance with current plans, policies, and regulations.**

b. BIMC 2.16.050.D Conditional Use Permit – Decision Criteria

- i. The conditional use is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity of the subject property and with the physical characteristics of the subject property.

**The school is located on a 4.79-acre property that is adjacent to N. Madison Avenue, a secondary arterial road. The proposed buildings are two-story buildings that conform to the natural topography of the land and are designed to complement the natural setting. The total building coverage is half that could be approved if this was a residential development. The building design is residential in nature as the building architecture breaks the buildings up into smaller units with shed roofs and the building are set into the sloping topography giving the appearance of single story buildings from several elevations. The development will remove few trees for the access road and siting of the structures while preserving existing native vegetation buffers around the perimeter of the perimeter. Where no trees exist or the trees do not provide a full screen within the buffers, additional trees and shrubs are proposed to be planted (Condition #23). The house on the property to the north will be over 200 feet from the back**

of the school building. The closest house to the proposed school is on the property to the south of the subject property, which is over 100 feet to the play field and over 200 feet from the school buildings. As proposed and conditioned, a full screen buffer of new trees and shrubs along with a solid fence will be placed between on the subject property between the school facilities and this property to the south (Conditions #22).

- ii. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities.

**The City Engineer finds that the access and pedestrian ways are coordinated with Madison Avenue, which is a secondary arterial which serves the subject property. Per the city contracted traffic engineer and the City's Development Engineer the existing roads are adequate to accommodate anticipated traffic. The project will also be adequately served by public water, fire protection, on-site septic and storm drainage facilities. As conditioned, the City Engineer recommends project approval.**

**Prior to building permit issuance the applicant is required to obtain approval of their on-site septic system and obtain a binding water availability letter from KPUD (Condition #34). The Fire Marshal finds that as conditioned, the development provides adequate fire protection facilities (Condition #19).**

- iii. The conditional use will not be materially detrimental to uses or property in the immediate vicinity of the subject property.

**The proposed school is providing significant setbacks, landscape screening and fencing to ensure the development will not be materially detrimental to uses or property in the immediate vicinity. The stormwater system has been designed by a professional engineer and requires monitoring to ensure that water leaving the site is not increased due to the development. All outdoor lighting will be down lite and will not intrude on to neighboring properties. No high field lights will be permissible (Condition #32).**

- iv. The conditional use is in accord with the Comprehensive Plan and other applicable adopted community plans, including the Non-Motorized Transportation Plan.

**The development is in accord with economic and cultural goals contained in the Comprehensive Plan. The Madrona School provides a diverse Waldorf educational experience that is not available elsewhere on the Island.**

- v. The conditional use complies with all other provisions of the Bainbridge Island Municipal Code.

**The project complies with all applicable provisions of the municipal code as discussed in Section I.D.2.g. of this report.**

- vi. All necessary measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the immediate vicinity of the subject property.

**The project is conditioned to take special care to protect retained trees and**

**vegetation within buffers. The school has agreed to a carpooling/rideshare program to limit traffic and to staggered start times to ensure that traffic along N. Madison Avenue is not adversely affected during drop-off and pick-up times. The school has also provided a shuttle plan for alternative parking for large school events. Off-site parking and shuttle could occur from the Rolling Bay Presbyterian Church or Grange if the school and those facilities can come to a common agreement. No parking or drop-off/pick-up is allowed on Madison Avenue or Windsong loop (Condition #30)**

- vii. Noise levels shall be in compliance with BIMC 16.16.020 and 16.16.040.A.

**All development within the City is subject to noise limitations in BIMC 16.16.**

- vii. The City Engineer has determined that the conditional use meets the following decision criteria: The conditional use conforms to regulations concerning drainage in Chapters 15.20 and 15.21 BIMC; The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the applicable service(s) can be made available at the site; The conditional use conforms to the "City of Bainbridge Island Engineering Design and Development Standards Manual," unless the City Engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title 18.

**The City Engineer finds that, as conditioned, the project conforms to surface and stormwater requirements, will not cause undue burden on the drainage basin, and will not unreasonably interfere with the use and enjoyment of properties downstream. The stormwater management plan follows BIMC 15.20 and utilizes on-site dispersion, infiltration, and detention. Post-development off-site flows mimic pre-developed conditions. Ongoing monitoring and maintenance is required once the stormwater facilities are place (BIMC 15.20 / 15.21).**

**The traffic impact analysis demonstrates that the project passes the concurrency test, and the City Engineer issued a Certificate of Concurrency. Access to the public streets are located to have minimal impacts and meet safety requirements. Water and septic systems provide adequately for the site and as conditioned, the project conforms to the City Design and Construction Standards and Specifications manual. As conditioned, the City Engineer recommends project approval. (Conditions #8-10 and 34)**

- viii. A conditional use may be approved with conditions. If no reasonable conditions can be imposed that ensure the application meets the decision criteria of this chapter, then the application shall be denied.

**The project is conditioned to ensure compliance with all applicable regulations and address environmental impact (Conditions #1 – 12).**

ix. Additional Decision Criteria for Institutions in Residential Zones:

- a) All sites must front on roads classified as residential suburban, collector or arterial on the Bainbridge Island functional road classification map.

**The property fronts N. Madison Avenue NE classified as a secondary arterial road, and therefore the site meets this requirement.**

- b) If the traffic study shows an impact on the level of service, those impacts have been mitigated as required by the City Engineer.

**The City Engineer finds the traffic study shows an acceptable level of service impact with the conditional use and issued a certificate of concurrency.**

- c) If the application is located outside the Winslow Study Area, the project shall provide vegetated perimeter buffers in compliance with BIMC 18.15.010.

**The site is outside the Winslow Study Area. As provided in BIMC 18.15.010, buffer averaging is utilized to reduce the buffers to the minimum allowed width of 15 feet, while increasing the buffer in the areas that have existing mature trees and shrubs.**

- d) The proposal meets the Commercial / Mixed Use Design Guidelines.

**Compliance with the Commercial / Mixed Use guidelines, is discussed in Section D.1.f of this report above. The Design Review Board unanimously recommends approval of the project.**

- e) The scale of proposed construction including bulk and height and architectural design features is compatible with the immediately surrounding area.

**The buildings are two- story and incorporate various materials designed to be compatible with the natural/residential setting.**

- f) If the facility will have attendees and employees numbering fewer than 50 or an assembly seating area of less than 50, the Director may waive any or all of the additional decision criteria requirements for institutions in residential zones.

**This criterion is not applicable, as there are more than 50 students and staff.**

- g) Lot coverage does not exceed 50 percent of the allowable lot coverage in the zone in which the institution is located.

**Maximum lot coverage in the R-1 zoning district is 15 percent; institutions including religious facilities may not exceed 50 percent of the allowable lot coverage (i.e. 7.5 percent). Lot coverage is approximately 16,260 square feet, or 7.4 percent of the lot area, and therefore meets this requirement.**

## II. Conclusions

As conditioned, the proposed development is consistent with the Comprehensive Plan and zoning regulations. The project meets the decision criteria of BIMC 2.16.040 Site Plan and Design Review and BIMC 2.16.050 Conditional Use Permit.

Appropriate notice of application was made and comments were considered. The application is properly before the Planning Commission for recommendation to the Hearing Examiner.

A land use permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit within three years of the effective date of the permit unless the applicant has received an extension for the permit in accordance with BIMC 2.16.020.2.

**Reference Documents:**

*(note all reference material may be accessed via the City's Website Online Permit Portal-Smartgov or by clicking on the Hyper-links below)*

**Madrona School Site Plan Review**

**(The following reference documents can be found under the "submittals" and "notes" sections under this file number: [PLN18970B SPR](#))**

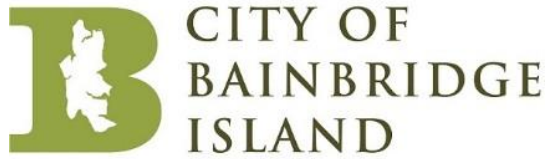
- A. 18970B SPR MADRONA SCHOOL APP
- B. 18970 CUP set (Drawings)

**Madrona School Conditional Use Permit**

**(The following reference materials can be found under the "submittals" and "notes" sections under this file number: [PLN18970B C UP](#) )**

- C. 18970B CUP MADRONA SCHOOL APP
- D. 18970B CUP SPR NOA for Mailing 101416
- E. 18970B CUP SPR Madrona School MDNS
- F. 18970 Traffic Impact Analysis
- G. 18970B CUP Traffic and parking mitigation plan
- H. 2017-01-24 Madrona School SR 305 Analysis
- I. 18970 CUP-SPR DE COA
- J. 18970B CUP Traffic and parking mitigation plan
- K. 18970 COC
- L. 18970B CUP Draft Design Review Board minutes





## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

### STAFF REPORT

Date: June 13, 2017  
To: Planning Commission  
From: Heather Wright, Senior Planner  
Gary Christensen, AICP, Director of Planning and Community Development  
Project: ROOST SPR & SSDP  
File Number: PLNSPR & SSDP50076 B

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**Applicant:** Roost Brick House LLC and Blue Moon Land Co

**Location:** The 2.47 acre rectangular site is located in Lynwood Center fronting Point White Drive NE.

**Request:** The site is currently developed with two historic homes and the applicant is requesting to remove and relocate one off-site and to retain and renovate the other into a lobby/office to support a proposed inn. The applicant is also requesting to construct the following in two phases:

Phase 1). Four, three-story buildings each with three townhouses and commercial space on the ground level for a total of twelve townhouses; and,

Phase 2). Renovate the existing historic home into a lobby/office for the proposed inn, construct an inn composed of eleven, detached, one-story rooms and a three-story building with four inn rooms, and a two-story restaurant.

A portion of the site is within the shoreline jurisdiction. The proposed uses within the shoreline jurisdiction include the restaurant and portions of the inn and accessory parking along Point White Drive.

**Environmental Review:** The project is subject to State Environmental Policy Act (SEPA) review as provided in Washington Administrative Code (WAC 197-11). Utilizing the optional DNS process provided in WAC 197-11-355, the City issued a combined Notice of Application/SEPA comment period on January 27, 2017. The 30-day comment period ended on February 27, 2017.

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## Recommendation:

In the case of a major site plan and design review application, the **planning commission** shall review the application prior to the final decision by the director. The director shall determine the major issues and specific aspects of the project that the planning commission should review, and shall forward this review directive to the planning commission. The **planning commission** shall **review the application** based on **the director's review directive, the DRB recommendation, and the decision criteria**, consider the **application at a public meeting where public comments will be taken**, and **forward its recommendation to the director** in accordance with BIMC [2.16.030.C](#) through E. The Planning Commission's recommendation is not a final decision and is not subject to appeal. The Planning Commission's written recommendation and other documents upon which its recommendation is based shall be transmitted to the director (Planning and Community Development).

Staff recommends approval of the Roost project subject to the following conditions:

### SEPA CONDITIONS

1. Civil construction plans, sections, profiles and details for all driveways and parking areas; detailed storm drainage facilities and water facilities and appurtenances, prepared by the developer's engineer shall be submitted with the A Stormwater Pollution Prevention Plan (SWPPP) prepared by a civil engineer licensed in the State of Washington is required prior to construction activities including clearing or grading or civil improvements for all phases of the project that complies with BIMC 15.20.
2. Engineer certified as-built construction plans shall be provided by the applicant prior to the first buildings final inspection.
3. Prior to any construction activities, the applicant shall apply for a Department of Ecology General Stormwater Construction Permit.
4. To ensure the protection of significant trees during construction, the applicant shall protect the identified areas of prohibited disturbance of the significant trees to be retained, buffers, areas of existing vegetation to be maintained, and future planting areas larger than 400 square feet. The applicant shall have an arborist on-site or available to monitor the site during grading activities within the critical root zones. In addition, the contractors shall follow the protection methods as outlined in BIMC 18.15.010 during construction and as indicated in the report provided by Fischer Bouma Partnership titled *Site Plan Review Landscape Plan Supplemental Information*.
5. The limits of clearing and grading shall be clearly marked in the field and inspected by the City of Bainbridge Island prior to any clearing or grading on site.
6. An ADA compliant access path available to the public shall be provided through the project site serving both public accessibility ADA egress through, connecting off the site and for accessible building egress and exit discharge.
7. The site contains a historic home that the Historic Preservation Commission has found to be eligible for the local register. The applicant has indicated they intend to relocate the house to a neighboring property. To ensure historic and cultural resource preservation, should the home not be relocated to the intended site, the home shall be offered for sale for relocation. To satisfy this condition, the applicant shall provide copies of any attempts to sale prior to receiving approval of a demolition permit for the home.

8. The contractor is required to stop work and immediately notify the Department of Planning and Community Development and the Washington State Department of Archaeology and Historic Preservation if any historical or archaeological artifacts are uncovered during excavation or construction.
9. All construction activities shall comply with the construction operating hours limitations contained in BIMC Chapter 16.16. Noise produced by this development must comply with the maximum environmental noise levels established by the Washington Administrative Code 173-60 or its successor.
10. All graded materials removed from the subject property shall be hauled to and deposited at City approved locations (Note: local regulations require that a grade/fill permit is obtained for any grading or filling of 50 cubic yards of material or more if the grading or filling occurs on sites that have not been previously approved for such activities. A SEPA Threshold Determination is required for any fill over 100 cubic yards on sites that have not been previously received a SEPA determination).
11. To mitigate the possible impact on adjacent properties from light and glare, all exterior lighting shall be hooded and shielded so that the bulb is not visible from adjacent properties. All landscape lighting shall be downcast and lighting within surface parking lots shall be no higher than 14 feet above grade. All exterior lighting shall comply with BIMC Chapter 15.34.
12. No use in this development shall produce emissions of smoke, dust and/or odors beyond the property boundary that may unreasonably interfere with any other property owners' use and enjoyment of his/her property. In addition, all sources and emission units are required to meet the emission and the ambient air quality standards specified in Chapter 173-400 WAC, and administered by the Puget Sound Air Pollution Control Authority (PSAPCA), and shall apply to all air contaminants listed in that regulation.
13. On site mobile fueling from temporary tanks are prohibited unless the applicant provides and is granted approval for a Permit and Best Management Plan that addresses proposed location, duration, containment, training, vandalism and cleanup. (Reference 1. Uniform Fire Code 7904.5.4.2.7 and 2. Department of Ecology, Stormwater Management Manual, August 2001, see Volume IV "Source Control BMPs for Mobile Fueling of Vehicles and Heavy Equipment".) (Chapter 173-304 WAC)
14. To mitigate impacts on air quality during earth moving activities, contractors should conform to Puget Sound Air Pollution Control Agency Regulations which insure that reasonable precautions are taken to avoid dust emissions.
15. To mitigate potential impacts on air quality, cleared vegetation shall be removed from the site, processed by chipper or processed using other methods of disposal that does not require burning.

#### NON-SEPA CONDITIONS

16. The project shall meet the requests of the fire marshal including: the applicable provisions of the fire code, fire flow, and provide for fire hydrants, fire sprinkler and alarm systems for proposed buildings and underground parking.
17. Prior to issuance of a building permit, the applicant shall provide binding commitments for the water and sewer demands of the project.

18. The structural building permit plans shall meet the recommendations of the geotechnical engineer to ensure safety during a seismic event, unless other approved recommendations are made. These recommendations include: 1) piling foundations used for building support, 2) re-use of near-surface fill soils only if at or near optimum moisture content and free of organic material; and, 3) performing earth work activities during the drier season (rainy season is Apr 1 –Oct 31). Prior to issuance of the building permits, the applicant shall record indemnification agreements.
19. The proposed buildings shall not exceed the following height restrictions: 30' maximum for those buildings within the shoreline and 35' maximum for the remaining proposed buildings. The project shall be reviewed for compliance at building permit submittal.
20. The uses shall meet the performance standards for noise, glare and heat, ground vibrations, water storage and disposal, air quality emissions, ground and soil contamination, electrical interference, fire and explosive hazards, lighting, outdoor storage and trash dumpsters and drainage as provided in BIMC 18.06.050. Building permit applications shall be reviewed for compliance with these standards and verified prior to final on a building permit.
21. The applicant shall receive a business license for each business proposed. The license shall be reviewed to ensure the proposed uses meet the permitted uses for those buildings within shoreline jurisdiction (water related and enjoyment) and zoning for those outside of shoreline jurisdiction.
22. The inn shall not exceed 15 guest rooms. Individual rooms may include a bar-type sink and under-counter refrigerator but may not include a full sink, full sized refrigerator or cooking range.
23. A shared or electric charging parking space shall be provided and indicated on the building permit and reviewed for construction prior to the Certificate of Occupancy on the first building.
24. Prior to issuance of a building permit, the applicant shall pay required traffic impacts fees associated with the building permit.
25. Internal pathways shall provide signage to indicate they are public at each entry point around the perimeter of the site and shall be surfaced with nonskid hard surfaces and be designed to provide a minimum of seven to not exceed ten feet of unobstructed width along the main pathways (Point White frontage and those between the inn units).
26. The applicant shall install landscaping as indicated on the approved landscaping plans, with the exception of the 10 foot buffer along Point White Drive. The landscape plans shall be revised to meet the filter screen requirement.
27. All landscaping shall be installed, or a performance assurance device shall be submitted and approved, prior to final inspection of the final building within the phase being constructed. The installation of landscaping shall be verified by the Landscape Professional or owner and a landscaping declaration shall be signed.
28. Landscape buffers shall be maintained with a maintenance assurance device for a period of three years. No vegetation within the buffers shall be disturbed without approval of the Department of Planning and Community Development through an approved clearing, grading or civil plan.
29. Unauthorized removal of trees shall result in at least one-and-one-half times (150 percent) of the

number of tree units removed. The trees removed shall be replaced with trees of the same type, evergreen or deciduous. Native shrubs and ground cover shall also be replaced when replacing tree stands due to unauthorized removal. Shrubs shall be one-gallon size planted four feet on center spacing; ground cover shall be one-gallon size planted three feet on center spacing. The shrubs and ground cover shall be planted within the limits of the previous tree stand canopy.

A property owner may request removal of trees required to be retained pursuant to this chapter by applying for a clearing permit with a replanting plan. Trees will be approved for removal only if they meet the hazard tree requirements.

Failure to retain, replace or transplant trees will be enforced as follows; provided, that any fine shall be no less than three times the value of the trees, as determined by the current standards of the International Society of Arboriculture. The city may issue the following; stop work orders, injunction or abatement or any other appropriate action in courts and/or a civil infraction, subject to enforcement and fines.

30. Bicycle storage shall be provided to accommodate at least 11 bicycles.
31. Any changes in the design of the buildings are subject to the Lynwood Center Design Guidelines and may require additional review and approval from Staff and the Design Review Board to ensure consistency with the guidelines.
32. Given the complexity of the proposal, prior to submitting any building permit applications, the applicant shall schedule a pre-submittal meeting outlining the order of development improvements and buildings on the site. The applicant shall include information on the location of parking for construction vehicles, and all construction vehicle parking shall remain on-site.
33. Any proposed intensity of uses at the site will require analysis and a new evaluation to determine concurrency.
34. Proposed roadways and parking stalls shall be paved with asphalt, concrete or pervious pavement.
35. A right-of-way construction permit shall be required prior to any construction activities within the Point White Drive right-of-way. The ROW permit may be subject to separate conditions and bonding requirements.

## Staff Analysis

### LAND USE CODE ANALYSIS

#### I. FINDINGS OF FACT

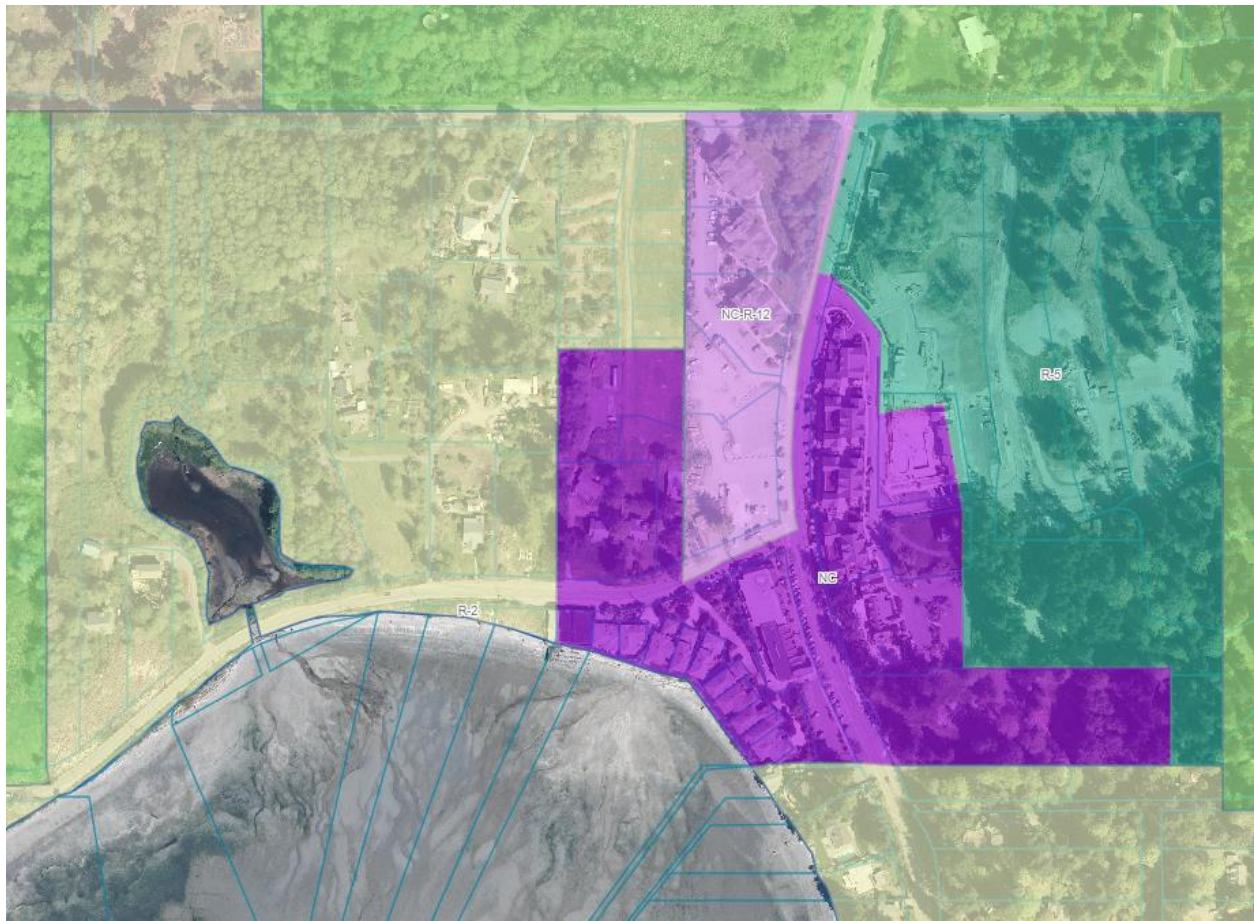
##### 1. Site Characteristics:

Tax Assessor Information:

- A. **Tax Lot Numbers:** 8528-000-001-0005 (.99 ac), 8528-000-000-0006 (.47 ac), 8528-000-002-0004 (1.01 ac)
- B. **Owners of Record:** Roost Brick House LLC (8528-000-001-0005), BLUE MOON LAND CO LLC (8528-000-002-0004 & 8528-000-000-0006)
- C. **Lot Size:** 2.47 acres or 107,593 square feet
- D. **Land Use:** Residential.

2. **Terrain:** The site is generally flat with a less than 10 feet vertical feet of elevation change.

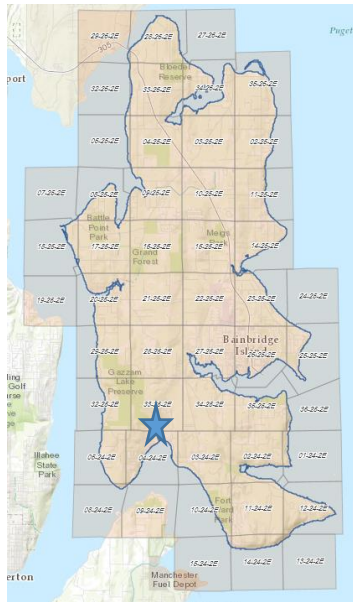
3. **Soils:** The site is underlain by uncontrolled fill and zones of loose, saturated sand that is prone to liquefaction and differential settlement.
4. **Existing Site Development:** The applicant submitted a report from Cultural Resource Consultants, Inc (ref doc J) that analyzed existing development and the potential for archeological remains. The report concluded that the house at 4569 Point White Drive NE has retained a high level of integrity and is a good example of a 1940's era Tudor Composite Style residence. The house is recommended eligible for the National Register of Historic Places (NRHP). The second home at 4565 Point White Drive NE also has a high level of integrity. It is also recommended for the NRHP as a good example of a 1930's era Tudor Composite style design.
5. **Proposed Access:** The proposed development will be accessed from Point White Drive NE, and connect through to Baker Hill Road.
6. **Public Services and Utilities:** City of Bainbridge Sewer and KPUD water.
7. **Zoning/Comprehensive Plan Designation:** The subject property is zoned Neighborhood Center (NC)
8. **Surrounding Zoning/Comprehensive Plan Designation:**
  - A. North: R-2, single family
  - B. South: Neighborhood Center (NC)
  - C. East: Neighborhood Center (NC) – R-12
  - D. West: R-2, OSR-2 units per acre



9. **Surrounding Uses:**
- A. North: Single-family residential with accessory dwelling units
  - B. South: Multi-family, Commercial
  - C. East: Commercial
  - D. West: Single-family residences



## Vicinity Map



## Aerial Photograph



## II. HISTORY

The original site plan and design review application was applied for in 2015 concurrently with an application to vacate the existing four lot subdivision and re-divide the lots into their current configuration. The underlying short plat was vacated and the site was subdivided on September 27, 2016 (PLN50076FSUB, ROOST). The subdivision was approved for five lots in the R-2 district and one lot in the NC district. The five R-2 lots are each under construction with a single family residence and an accessory dwelling unit.

During staff's review of the site plan application, the then recently constructed and operational Pleasant Beach Village pool (summer 2015) caused the sewer system to overload and utilized all existing conveyance capacity. The pool modified their filter system to mitigate maximum flow rates.

In parallel, the City Council authorized the Department of Public Works to begin pre-design studies for the modification to the sewer system. The City was authorized and successfully completed efforts to increase conveyance capacity via maintenance and repair efforts.

Due to the requirement for binding sewer availability letters for a site plan and design review application, the project was deemed incomplete. The applicant withdrew their application in April 2016. Following withdrawal of the application, the city revised the administrative manual to remove the requirement for binding sewer availability letters at project submittal but rather required them prior to building permit issuance. The applicant submitted their revised site plan application on December 22, 2016 (reference doc's A-M). The following chronology is specific to this site plan review application.

1. On January 20, 2017, the application was deemed complete.
2. On January 27, 2017, a joint notice of application and SEPA comment period was issued. The comment period ended on February 27, 2017 (reference doc R).
3. On February 17 and March 20, 2017, the project was reviewed by the Design Review Board (DRB) (reference doc U).

4. On April 20, 2017, revisions to the project to address DRB comments and design guidelines were received (reference doc V).

### III. PUBLIC/AGENCY COMMENT

#### 1. Agency/Public Comment.

##### **Agency Comment.**

**Fire Marshal:** On July 22, 2016, the fire marshal submitted the following comments (reference doc O): 1) the project shall comply with all applicable provisions of the adopted Fire Code and; 2. Fire flow is required for this project. Fire flow shall be not less than 1000 gpm and shall be demonstrated to the satisfaction of the Fire Marshal, 3) The proposed fire hydrants shall be located to the satisfaction of the Fire Marshal. An additional hydrant will be required to serve the “bunkhouses”. The hydrant can be located on Point White Drive and; 4) Residential fire sprinklers will be required for multi-family (>2) dwelling or buildings greater than 5,000 square feet of fire area; and, 5) Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. Access to the “Bunkhouses” shall be along normal routes of travel. This provision may be extended if residential fire sprinklers are installed. Access to the “Bunkhouses” shall comply with this comment. A possible solution is moving the proposed bollards farther into the project and improving the path to support fire apparatus BIMC 20.04.080; and 6) Access to the “Bunkhouses” will require a named street and appropriate addresses. BIMC 12.16.050. **The project is conditioned to meet the fire code, fire flow, provide hydrants, fire sprinkler, fire access roads and road naming (Condition 16).**

**Kitsap County Health District:** The City received a no comment from the Health District on February 7, 2017 (ref doc S). As this project is served by City sewer and KPUD water, the applicant submitted a Non-binding water availability letter from KPUD dated November 8, 2016 (ref doc K). The applicant also submitted a binding unlimited reservation and approval to connect for sewer availability letter dated October 30, 2015 (ref doc L). **Prior to issuance of a building permit, the applicant shall provide binding commitments for the water and sewer demands for the development (Condition 17).**

**Historic Preservation Commission:** The Historic Preservation Commission (HPC) was interested in the historic homes on the project site. They requested that the applicant provide a report so that the HPC could determine the impact on historic resources. The applicant consulted with Cultural Resource Consultants (CRC) to provide a report (ref doc J). CRC completed a historic property inventory update and evaluation of significance for the 4569 Point White Drive NE and 4565 Point White Drive NE and determined that they both have a high level of integrity and are good examples of a 1940's era Tudor Composite Style residence 1930's era Tudor Composite style design. The 4565 (1930's) residence is proposed for relocation and the 4569 (1940's) residence is proposed for retention. This information has been added to the historic property inventory record for the building on file in DAHP's online database, WISAARD. The Commission required this as a SEPA condition with the subdivision approval. **In the event the attempt to relocate the proposed home is unsuccessful, the applicant shall attempt to relocate to another site (Condition 7).**

**Development Engineer:** The City Engineer contracted with Heath & Associates, Inc for a traffic impact analysis. This analysis was received on May 9, 2017 (reference doc P). The report provided information on existing peak hour volumes and patterns, roadway improvements, pedestrian and

bicycle activity, public transit and existing level of service. The report concluded that based on field notes, sight distance is acceptable at the proposed accesses onto NE Baker Hill Road and Point White Drive NE. Existing delays at the studied intersections near the site, given in Table 1, are mild at LOS A to LOS B. Future 2017 and 2030 LOS delays will remain mild at LOS B or better. A left turn lane is not warranted at either project entrance based on 2030 PM peak hour volumes with project traffic included. Overall, the project will have a minimal impact on the surrounding roadway system. Based on the findings of the report the recommended mitigation for the site is as follows: Pay traffic impacts fees to the City of Bainbridge Island per Ordinance No. 2015-07. Exact fees and calculations will be determined by the City and no other mitigation was suggested.

The Development Engineer also recommended conditional approval of the project on June 13, 2017 (reference doc P). Along with this conditional approval (Conditions 1-3 & 33-35), the Engineer issued a certificate of concurrency for the project (reference doc P).

**Public Comment:** One public comment letter was received (reference doc T) for the proposed site plan application. The commenter expressed concerns about traffic and pedestrian safety, stormwater and pollution run off, groundwater recharge, local endangered species flooding, earthquake and tsunami risk, and native peoples historical significance. The applicant provided a response to the concerns voiced. The applicant expressed that they place a high value on being good stewards of the environment and are actively pursuing elements such as:

- Stormwater/groundwater recharge and potentially storage and reuse
- Runoff water quality care/management
- Preservation of open space/public access
- Low energy consumption buildings
- Traffic calming measures

Specific to these items concerns, the applicant provided information on specific project plans they were working on. Below is a write up from the applicant on how they plan on mitigating these concerns:

1. *They will be providing pet waste collection stations.*
2. *They will be minimizing impervious hardscape, and emphasizing walking paths and landscaping that promote aquifer recharge.*
3. *All phases of our project has extensive publicly accessible interconnected open/greenspace, including trails and includes wetland habitat preservation as part of PH1A of our project; that is not part of the project under the NC SPR Application.*
4. *The anchoring landscape element of the project is an active watercourse that may serve dual purpose as an aesthetic element as well as a rain garden to filter and return stormwater to the ground.*
5. *They also are investigating collecting roof runoff and reusing for landscape irrigation, as well as to use the water feature as a flow mitigator during heavy storm surges.*
6. *All or our building will use low flow plumbing fixtures, and they are advertising an ethos of conservation as part of their project marketing.*

*In their adjoining Roost residential project, not subject to the SPR Application, the applicants used advanced building envelope construction and high performance HVAC equipment, when combined with the offered PV panel system, should yield net zero energy performance. They plan to use the same construction methods on all building in the NC zoned portion of the project as well; again, emphasizing an ethos of environmental stewardship as a core neighborhood value. While they have not to date sought*

certification from a specific sustainability standard, they have employed many of the best practices of a variety of these standards, and have indicated to the City that they plan to continue to do so throughout their projects continued development.

Additionally, specific to traffic concerns, the applicant offered the following response:

1. *They expect that the dwelling units in their project will generate less than average trips per day, as the project lies at the center of a “walking village” that encourages residents to walk to incidental services that are immediately adjacent. Furthermore, they are providing an extensive set of inviting sidewalks, trails and walking paths that encourage, and make more enjoyable the prospect of walking vs getting in a vehicle.*
2. *As far as traffic speeds along Pt White Drive; the applicants believe there is a lot of engineering and planning data to support the notion that street parking combined with sidewalks actually promotes driver awareness of potential dangers, slows traffic, and provides pedestrians a safe walking path separated from traffic.*
3. *The applicants have been involved in many conversations surrounding neighbor concerns about traffic speeds near the public beach and new park near the estuary, and share those concerns. They hope that their project is the first piece in a safer walk and bikeway from Lynwood Center proper all the way to the beach and the park. The applicant, who is an avid cyclist, indicated that they will assure bike safety along the road frontage and will have conversations with neighbors to extend a safe bike path along the public beach frontage to the west.*
4. *While the applicants do not control the properties to the west, they hope to be able to collaborate with City of Bainbridge Island and their westerly neighbors to extend a broader safer district pedestrian and bike path network.*
5. *The applicants have indicated a desire work with City of Bainbridge Island to address traffic speed and bike safety along the Point White frontage of the property, and to add a textured and colored paving scheme to promote traffic slowing, and make drivers extra attentive to bike and pedestrian presence. **Of the proposals offered by the applicant to address the concerns voiced, they are not code requirements and the City is not currently proposing to condition the project to provide any of these improvements. However, these efforts are encouraged and supported by Staff.***

#### IV. COMPREHENSIVE PLAN GOALS AND POLICIES

The project is located in the Lynwood Center Special Planning Area (reference doc W). As such, the project was reviewed against both the Comprehensive Plan and the Lynwood Master Plan.

1. **Land Use Element, Neighborhood Center (NC)**
  - A. **NC 1.2, Lynwood Center**, Any new development or expansion of existing development in Lynwood Center will be required to connect to public sewer when available or meet other Health District requirements, when appropriate. **A shoreline exemption was secured and improvements were made to the sewer system to connect the site to public sewer as part of the plat utility permit improvements for the subdivision.**
2. **Lynwood Center, Special Planning Area Report & Recommendations**
  - Transportation Element**
    - A. **Traffic Circulation – Pedestrian/Bicycles**

Pedestrian and bike trails will go on the south side of Baker Hill Road. A pedestrian trail connecting Baker Hill Road and Point White Drive shall be located either along the City’s unvacated portion of Baker Hill Road and around the Schel-chelb estuary or along the stream corridor associated with the estuary. **The subdivision was approved to provide Design Standard C improvements to**

the south side of Baker Hill Road right-of-way. A neighborhood led effort by abutting property owners has resulted in a concerted movement for easements and the construction of trail thru the subject property to Lynwood Center to the east and Schel Chelb Park to the west. The Parks District helped coordinate this effort and as a result, the applicant agreed to provide a trail that bisects the property and runs east west. Proposed Point White Drive frontage improvements include the addition of a sidewalk along the project frontage and additional parking in the right-of-way.

## **V. LAND USE CODE ANALYSIS**

### **1. BIMC 16.20 Critical Areas**

The site does contains a liquefaction hazard critical area as found in BIMC 16.20. Liquefaction hazard areas are defined as areas of cohesionless, loose or soft, saturated soils of low density in association with a shallow groundwater table that are subject to settlement and/or liquefaction from ground shaking. **The applicant submitted a report with recommendations from Coastal Solutions LLC (reference doc M). These recommendations include: 1) piling foundations used for building support, 2) re-use of near-surface fill soils only if at or near optimum moisture content and free of organic material, and 3) performing earth work activities during the drier season.** To ensure the buildings are constructed safely, the building design shall follow the recommendations in the report, unless other recommendations are made and approved by the geotechnical and City Engineers (Condition 18).

### **2. BIMC 16.12 Shoreline Master Program**

The southernmost portion of the site closest to Point White Drive is within the 200' shoreline jurisdiction. The portion of the project within shoreline jurisdiction is separated from the shoreline community by Point White Drive, two residential homes, and the Bainbridge Lumber building.

The Shoreline Designation is Urban. The purpose of the urban designation is to provide for high-intensity water-oriented commercial, transportation, industrial, mixed-use, multifamily residential, public access and recreational uses while protecting existing natural resources, ecological functions and ecosystem-wide processes, and restoring ecological functions in areas that have been previously degraded. **The proposed mixed use project meets the purpose of the Urban designation by providing high-intensity, water-oriented commercial, mixed-use, and multifamily residential. Additionally, the four-unit inn building also proposes a viewing area and kayak rentals to maximum public access and recreational uses along the waterfront. Since this project is separated from the shoreline by a road and development, the opportunity to restore ecological functions is not feasible.**

#### **Table 16.12.030-1. Shoreline Use and Modification**

Water related or enjoyment commercial development is a permitted use in the Urban shoreline designation. Parking is an accessory use to the proposed water enjoyment uses.

Water-enjoyment use is defined as: a recreational use, or other use facilitating public access to the shoreline as a primary characteristic of the use, or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as general characteristic of the use and which through the location, design, and operation ensure the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public, and the shoreline-oriented space

within the project must be devoted to the specific aspects of the use that foster shoreline enjoyment. Primary water-enjoyment uses may include, but are not limited to, parks, piers, and other improvements facilitating public access to shorelines of the state. General water-enjoyment uses may include, but are not limited to, restaurants, museums, aquariums, educational/scientific reserves, resorts, and mixed use commercial, provided that such uses conform to the above water-enjoyment specifications and the provisions of the Master Program.

**The proposed restaurant (greenhouse) and inn (shed) are general water-enjoyment uses that are permitted in the shoreline Urban environments.**

#### **Table 16.12.030-2. Dimensional Standards**

Water Related or enjoyment commercial development has a 50' setback from the Ordinary High Water Mark (OHWM). The maximum height for these uses is 30'. Accessory parking shall be a minimum of 50' from OHWM. **The proposed buildings are found to meet and are conditioned to comply with these dimensional standards.**

**The proposed water enjoyment uses are setback between 130 and 170 feet from OHWM, exceeding the 50' minimum setback. The accessory parking is approximately 100' from the OHWM, exceeding the 50' minimum.**

#### **Table 16.12.030-3. Shoreline Buffer Standards**

The subject property is developed property with a shoreline Upland designation of Urban. It has a shoreline buffer requirement of 30' from the OHWM and does not extend onto the project site. **Buffers function to limit human intrusion when there are dense vegetation communities which humans cannot penetrate. The Roost project site is buffered by existing homes, which will lessen the impact to the shoreline by preventing noise and light impacts from reaching the shoreline environment.**

#### **C. BIMC Section 16.12.030 (B)2: Environmental Impacts**

Compliance with the applicable provisions of Section 4.1.2 are summarized below, including: impact analysis and no net loss standard, revegetation standards, mitigation standards and sequencing, surety and monitoring and maintenance.

All shoreline development, uses and activities are required to result in no net loss of ecological functions and processes necessary to sustain shoreline resources. In order to demonstrate compliance with this provision, an applicant is required to submit either a site-specific impact analysis and mitigation plan, when needed, or may use the Standard Residential Mitigation Manual (standard manual). **The applicant submitted a site specific impact analysis prepared by Ecological Land Services (reference doc x) that demonstrates that the project will result in no net loss of shoreline ecological values. The report looked at the shoreline environment, wildlife inventory and buffer functions. It concluded the existing residential development between the project area and the shoreline will provide a buffer to the construction activities and prevent impacts to the shoreline environment. Particularly, noise generated during onsite construction will not affect use of the shoreline environment because the homes will function to filter noise generated during construction. The site will not generate any new pollutants or sediments and there will be no change to the buffer functions. No special management recommendations were recommended for this project because there are no endangered, threatened, sensitive species or rare habitat areas in the immediate project area and no significant adverse impacts are**



anticipated.

**D. BIMC Section 16.12.030(B)3: Vegetation Management**

Development within the shoreline jurisdiction must be located and designed to protect existing native vegetation from disturbance and to mitigate impacts to existing vegetation. **The project proposes development on the landward side of substantial development that comprises most of the shoreline buffer. Residential development lies between the project area and the shoreline so there is no functional vegetative buffer. There are a total of seven trees within the shoreline jurisdiction and the proposal included the removal of three significant trees. Following conversations with the applicant, they have proposed to retain these trees. In the event the applicant chooses to pursue their removal, the downed trees have to either be retained on the site to provide or enhance wildlife or marine habitat and/or be topped for safety and remain as a wildlife snag. Additionally, mitigation would be required and should be included with any clearing permit.**

**E. BIMC Section 16.12.030 (B)5: Water Quality and Stormwater Management**

The project connects to existing water, storm sewer and sewer municipal systems. The stormwater generated at the site will be conveyed to the existing storm sewer system. Stormwater from pollution generating surfaces on the site will be filtered prior to entering the storm sewer. Impact to the water quality of the shoreline will be negligible. While not required, the applicant is proposing to anchor the landscape element of the project as an active watercourse that may serve dual purpose as an aesthetic element as well as a rain garden to filter and infiltrate stormwater. The applicant is also investigating collecting roof runoff and reusing for landscape irrigation, this water feature may also provide for mitigation of heavy storm surges. Finally, to reduce water consumption, all the buildings will use low-flow plumbing fixtures, and the applicants are advertising an ethos of conservation as part of their project marketing.

**F. BIMC Section 16.12.060: Critical Areas**

Shoreline-specific critical areas policies and regulations apply to critical areas within the shoreline designation. Development proposals located on or within geologically hazardous areas must prepare a geotechnical analysis addressing the impacts the proposal may have on the critical area. **The site is identified as liquefaction, a seismic hazard area. The applicant submitted a geotechnical report with recommendations on the foundations for the proposed development. The applicant shall record an indemnification agreement for all building permits (Condition 18) and follow all geotechnical recommendations (Condition 18).**

**3. BIMC Title 18 Zoning**

**A. BIMC 18.06.050, Neighborhood Center (NC)**

The purpose of the neighborhood center is to provide a mix of neighborhood-scale residential, commercial, and service activity that is compatible with the scale, character, and intensity of the surrounding residential neighborhood and that minimizes the impact of noise, odor, lighting, fire hazard, and transportation on the neighborhood and the impact on water quality, stormwater runoff, and critical areas. **The proposed mixed use development proposes a mix of neighborhood-scale residential, commercial and service activity that is compatible with the neighborhood. The project is an expansion of development patterns that have been occurring within this service center. Along Point White Drive, the buildings have been designed to exhibit a Tudor architectural design, while the buildings removed from the**



**(name) street will feature fewer Tudor design elements. The proposal will create a site that provides cohesiveness and yet distinction from the neighboring developments by proposing a style unique from its neighbors, while providing a mix of similar and compatible uses.**

B. **Performance Standards.** All uses allowed in the NC district shall conform to the performance standards of this section. It shall be the responsibility of the operator and/or the proprietor of any allowed use to provide such reasonable evidence and technical data as the director may require to demonstrate that the use or activity is or will be in compliance with the environmental performance standards. Failure of the director to require such information shall not be construed as relieving the operator and/or proprietor from compliance with all applicable environmental performance standards of this code.

1. Noise. All uses shall comply with the noise performance standards of BIMC 18.06.030.B.1.
2. Glare and Heat. Any operation producing intense glare or heat shall be conducted within an enclosed building or with other effective screening in such a manner as to make such glare or heat completely imperceptible from any point along the property line.
3. Ground Vibrations. No ground vibration other than that caused by highway vehicles or construction activity shall be permitted that is discernible, without instruments, at or beyond the property line for the use concerned.
4. Waste Storage and Disposal, Including Hazardous Waste. The storage or disposal of industrial waste shall be in compliance with the regulations and requirements of the Kitsap County health district, the State Department of Ecology, and Chapter [70.105](#) RCW as amended, and the BIMC.
5. Air Quality Emissions. All uses shall comply with air quality emissions standards of BIMC 18.06.030.B.2.
6. Ground and Soil Contamination. Materials used or produced in any manufacturing process shall be handled in such a manner as to prevent ground or soil pollution that destroys or endangers the support of natural vegetation or that may contaminate underground aquifers, or other natural drainage systems.
7. Electrical Interference. Provisions must be made for necessary shielding or other preventive measures against interference caused by mechanical, electrical, or nuclear equipment uses or processes with electrical apparatus in nearby buildings or use areas.
8. Fire and Explosive Hazards. The manufacture, use, processing or storage of flammable liquids or materials, liquids or gases that produce flammable or explosive vapors or gases shall be permitted in accordance with the regulations of the adopted fire code and the building code. A hazardous materials impact analysis, conforming to the requirements of the Bainbridge Island fire district, shall be required to determine potential off-site impacts and mitigation precautions.
9. Lighting. Lighting standards set forth in BIMC [18.15.040](#) shall apply to the NC district.
10. Outdoor Storage and Trash Dumpsters.

- a. Screening of Outdoor Storage. The screen height is determined by the height of the material or equipment being screened. Chain-link fencing with neutral colored slating is permitted along with vegetative screening when vegetative screening alone is not sufficient to block the outdoor storage from public view and where the fencing is not visible from the street. Exterior storage should be confined to portions of the site least visible from public view. **No outdoor storage is currently proposed.**
- b. Trash dumpsters or any outdoor equipment, whether on the roof or side of a structure or on the ground, shall be screened from view. Screening shall be architecturally consistent with the adjacent structure in terms of materials. Mechanical equipment should be located below the highest vertical element of the building. **The applicant is proposing to enclose trash and recycling on site abutting landscaping.**

**To ensure compliance with these development standards, each building permit shall be reviewed to ensure the use meets these standards (conditions 1-3, 9, 11, 13-15 & 20).**

Natural Resource Protection Standards. The following provisions are intended to supplement those natural resource protection standards and requirements contained in BIMC Titles [16](#) (Environment) and [17](#) (Subdivisions), and specifically to supplement those provisions in Chapters [16.12](#) (Shoreline Master Program) and [16.20](#) BIMC (Critical Areas), which remain the primary source of regulation in those areas. In the event of a conflict between the provisions of this section and the provisions of BIMC Title [15](#) (Buildings and Construction) or Chapter [16.12](#) or [16.20](#) BIMC, the provisions of BIMC Title [15](#) or [16](#) shall apply.

1. Drainage. Surface and stormwater shall be managed in accordance with the management standards in Chapter [15.20](#) BIMC. Stormwater runoff shall be detained and disposed of on site or disposed of in a system designed for such runoff and that does not flood or damage adjacent properties. Systems designed for runoff detention and control shall comply with specifications provided by the city and shall be subject to its review and approval, and shall, moreover, comply with Chapter [15.20](#) BIMC, pertaining to community facilities. **In May, 2015 the City undertook a stormwater pipe project that bisected the lower portion of the site and terminated at Rich Passage, across the street and to the west of the project site. The project involved the removal of a restriction in the pipe, replacement and reorientation of the pipe and the installation of a tidal valve at the pipe's terminus. The project was completed in July 2015 and has resolved some localized flooding on Point White Drive as well as eliminated odors from the backing up of deleterious materials. The project also resulted in the addition of a stormwater easement in the lower southeast corner of the project site.**
2. Industrial Wastewater Disposal. Industrial wastewater shall not be discharged into an on-site septic system. Other relevant sections of the BIMC shall apply. **This condition is not applicable as the project is not proposing industrial wastewater disposal and the project is serviced by sewer.**

**C. BIMC 18.09.02 Use TABLE**

Multifamily, Restaurants, an Inn and Offices for Personal and Professional Uses are permitted uses in the NC district.

For clarification, personal and professional services and inn's are defined as:

“Personal service” means an establishment that provides on-site service(s) in a nonoffice environment including, but not limited to, beauty shops, shoe repair, laundry, dry cleaning services, animal care services, and tanning salons. Auto repair and body shops are not included under this definition.

“Professional service” means a business or agency that provides services in an office environment and includes, but is not limited to, legal services, counseling services, real estate offices, financial services, insurance services, and government offices. Professional service does not include a health care clinic.

“Inn” means a building or group of buildings containing up to 15 guest rooms, where, for compensation, lodging is provided for transient visitors. An inn may contain a kitchen and/or dining room for serving meals to its guests. Individual rooms may include a bar-type sink and under-counter refrigerator but may not include a full sink, full-sized refrigerator or cooking range. An inn is not a hotel, motel or bed and breakfast lodging as defined and regulated elsewhere in this title.

**Prior to establishing uses in the mixed-use buildings, each occupant shall obtain a business license from the City of Bainbridge Island (Condition 21). The inn rooms shall be reviewed for compliance with these standards at building permit submittal (Condition 22).**

D. BIMC 18.09.030 Use-specific standards.

**Multifamily Dwellings:** Multifamily dwellings must be in accordance with zoning in the R-2 district, except that bonus densities may be obtained if applicable under BIMC [18.12.020](#) and 18.12.030.D.

**Commercial Residential Mixed Use Development.** In the NC district, residential units must be located above the ground floor if the building is located on a collector or secondary arterial or higher road classification; however, for mixed use projects, if the building fronts on a local or private street, residential units can be located on the ground floor. Density for mixed use projects in the NC district shall be calculated pursuant to BIMC 18.12.030.D. **The applicant is proposing residential units (townhomes) above commercial and is proposing to utilize the density bonus available in BIMC 18.12.030.D. See analysis below.**

E. **BIMC 18.12.020-3, Standard Lot Dimensional Standards for Residential Zone Districts**

a. **Maximum Residential FAR:** In the NC district there is no FAR limit, limited by other standards.

**Maximum with Bonus:** Bonus densities require compliance with BIMC 18.12.030.D.

b. **Minimum Lot Dimensions.** There are not any area, depth or width requirements in this zoning district.

c. **Maximum Lot Coverage:** The maximum lot coverage was established with the underlying Roost subdivision. The maximum lot coverage for this Lot is 37,609 square feet. **The proposed lot coverage is less than this maximum at approximately 20,901 square feet.**

d. **Minimum Setbacks.** Setbacks were established in the Roost Subdivision and include the following: 15’ rear (NC to R-2), 20’ western side yard, and 10’ buffer to Point White Drive. The proposed driveway has a 10’ setback on either side. **The project is found to meet all setback requirements.**

e. **Maximum Building Height.** The maximum building height in this district is 35’, however buildings within the shoreline jurisdiction are limited to 30’. Therefore, the shed and greenhouse are limited to 30’ in height and the mixed use and inn units are limited to 35’ outside of the shoreline jurisdiction.

- F. **BIMC 18.12.030 Additional dimensional provisions.** Bonus Density in NC District. Bonus density shall be available in the NC district as follows:

Three units per acre if the development is commercial/residential mixed use and public sewer and public water are not provided, or five units per acre if the mixed use development is on public water and sewer. The residential units must be located above the ground floor if the building is located on a collector or secondary arterial or higher road classification; however, for mixed use projects, if the building fronts on a local or private street, residential units can be located on the ground floor.

**Since this is a mixed use development served by public sewer and water, it can achieve a maximum density of 13 units (R-5 zoning). The applicant is proposing 12 units total, with three units in each mixed use building.**

2. **BIMC 18.15 Development Standards and Guidelines**

C. **BIMC 18.15.010: Landscaping and Screening**

a. **Landscape Requirements by Zone District**

Landscaping standards were established with the Roost subdivision approval and include the following:

**Perimeter Buffer:** A 20' full screen buffer is required when NC abuts residential development that is not zoned NC. This buffer was applied to the western border and northern border of the NC portion of the site. Also, a 10' filtered screen is required when NC abut NC. This applies to Point White Drive. **The site plan does not meet the filtered screen requirement and shall be revised at building permit submittal to demonstrate compliance with the filtered screen requirement (Condition 26).**

**Tree Units:** The applicant provided a survey of all the existing trees to be retained as part of the proposed development, including the species and dbh. The applicant is proposing as many tree units after the proposed development as it had before the development. Existing and new trees in roadside and perimeter buffers do not count towards the tree unit requirements. Conversely, the existing trees in those protected areas and buffers will not count towards the "pre-development" amount of tree units. The site currently has 23.4 tree units for 10.3 tree units per acre. The applicant originally proposed retaining 6.2 tree units, and has since agreed to retain 3 more trees within the shoreline jurisdiction. More than 50 new trees are proposed outside of the landscape buffer and parking lot landscaping, doubling the minimum requirement.

**Parking Lot Landscaping.** Parking lot landscaping standards are specific to the Neighborhood Center Overlay District and the proximity of the buildings and the parking lot to the public rights of way. The project proposes internal parking. The Code requires the following standard for parking lots not abutting the right-of-way:

- i. One tree for every eight parking stalls; and
- ii. One hundred percent of the trees may be deciduous; and
- iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting; and

- iv. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and
- v. A landscaped area at the end of parking aisles.

The landscape plan shows that there is more than one tree for every eight parking stall and landscaped areas as the end of the parking aisles. As proposed, the parking lot landscaping is exceeding the minimum landscaping requirements.

**Performance Assurance.** Performance assurance is required to assure the city that the landscaping required by this section is properly installed, will become established and adequately maintained. The required landscaping shall be installed prior to the issuance of a temporary certificate of occupancy for the project. A Washington landscape architect, Washington certified nursery professional or Washington certified landscaper shall submit a landscaping declaration to the department to verify installation in accordance with the approved plans. **The project is conditioned to meet this requirement (Condition 27).**

**Maintenance Assurance.** The property owner shall replace any unhealthy or dead plant materials in conformance with the approved planting plan. A maintenance assurance device shall be required for a period of three years after acceptance by the city of the new planting or transplanting of vegetation to ensure proper installation, establishment, and maintenance. **The project is conditioned to meet this requirement (Condition 28).**

**Enforcement:** Unauthorized removal or trees required for protection are subject to enforcement and fines as provided in the municipal code and condition 29.

#### **D. BIMC 18.15.020 Parking and Loading**

- a. **General Requirements.** When a new commercial or mixed use development is required to provide parking for more than 25 cars, at least one parking space near the entrance must be reserved and signed for use by a shared-car program or electric vehicle charging station. **The project is conditioned to meet this requirement (Condition 23).**
- b. **Number of Spaces Required.** Above-ground parking lots exceeding the number of spaces required by this section are not allowed unless approved by the planning commission; spaces provided in underground parking garages are exempt from parking maximums.

The Code requires the following amount of spaces:

- 1 space per primary dwelling unit Dwelling units situated directly above a commercial use or directly above parking serving a commercial use in the NC district.
- The director may require guest parking up to a maximum additional 0.5 stall per dwelling unit, if there is inadequate guest parking on the subject property.
- Retail, commercial and personal service in a building with 1,000 square feet of floor or more requires 4 spaces per 1,000 square feet of floor area.
- Places of public accommodation serving food and beverage require 1 space for each 4 occupants.

- Inns require 1 space per sleeping room

| Building/Unit Type       | Units/Square footage proposed | Space Requirement   | Amount of spaces required |
|--------------------------|-------------------------------|---------------------|---------------------------|
| Residential              | 12                            | 1/unit              | 12                        |
| Guest Parking            | 12                            | .5/unit             | 6                         |
| Retail, Personal Service | 5,640 sq ft                   | 4/1000 square feet  | 23                        |
| Public accommodation     | 1,803 square feet             | 1 space/4 occupants | 74 occupants/4= 18        |
| Inn                      | 15                            | 1/sleeping room     | 15                        |
| <b>Total:</b>            |                               |                     | <b>74</b>                 |

Spaces are proposed on Point White Drive (13 total), on-site and for each residential use within the parking garage (12). **Staff finds that each townhome unit is providing two parking spaces per unit within an under unit garage and a driveway that could accommodate an additional 18 spaces for a total of 42 residential spaces.**

**The site is providing 57 spaces along the drive aisle and Point White Drive to accommodate the retail, restaurant and inn uses. In total, the site is providing 99 spaces while 74 are required. The applicant is seeking approval from the planning commission on this increase in parking spaces.**

**Location of Spaces.** Parking shall be located behind, to the side of or under buildings. Parking shall not be located between a building and the front lot line, unless an applicant can demonstrate that locating parking between a building and the front lot line is the only feasible location. **Design Guideline #2 encourages parking to be placed behind buildings or in a single row along the street. The project is providing parking along the street. The streetscape is dominated by buildings, with parking perpendicular to the road, along the proposed internal road.**

For on-street parking spaces, handicap parking shall be distributed throughout the street and shall be separated from other handicap parking spaces by at least 10 nonhandicap spaces, or as required by the building official. **One on-street handicap parking space is proposed and the project shall be reviewed at building permit to ensure accessibility standards are being met for the proposed mixed use buildings.**

- c. **Design Standards.** Space depth shall be measured exclusive of access drives, aisles and other physical obstructions. Small car spaces may total no more than 30 percent of the required number. **The site plan depicts 90 and 45 degree parking as well as parallel. The spaces meet the depth and aisle width requirements. The aisle width is 20' when there is no parking spaces and 24' where there are parking spaces utilizing the aisle. The proposed 17 compact spaces are found to not exceed 30% maximum.**

**E. BIMC 18.15.030 Mobility and Access**

- a. **Circulation and Walkways.** The Municipal Code addresses safety, efficiency and the buffering of parking lots through landscaping. It also provides standards for pedestrian and internal walkways. **The project is providing permeability through the site, and is connecting the site to adjacent paths and development. Specifically, the northern portion of the site that abuts the Roost single family development is providing trail connectivity to Lynwood Center and Schel Chelb Park. The project is conditioned to provide the internal walkways with nonskid hard surfaces, to meet accessibility requirements and to provide a minimum of seven not to exceed ten feet of unobstructed width for the main internal walkways (not those in front of the townhouse buildings and the drive aisles) as depicted on revised Sheet A 0.21 (Condition 25) (as encouraged by Design Guideline #4).**
- b. **Bicycle Facilities.** One bicycle space shall be provided for every five parking spaces with a minimum of four spaces provided for each parking lot. **The site plan (Revised Sheet A 0.21) shows two bicycle racks. The project is conditioned to ensure a minimum of 11 spaces (57 spaces/5) are provided prior to the CO on the last building (Condition 30).**

**F. BIMC 18.15.040 Lighting.**

- a. **General Standards.** All outdoor lighting fixtures installed on private property shall comply with this chapter. The Municipal Code provides for general standards for outdoor lighting to prevent light trespass and pollution. **The project shall provide a lighting plan at building permit submittal and the project shall be reviewed for compliance with the lighting guidelines (Condition 11).**

**G. BIMC 18.18.030 Specific Design Regulations and Guidelines**

Design guidelines were developed specific for Lynwood Center. The project was reviewed for consistency with those guidelines at three Design Review Board meetings, and various iterations of the building design were submitted to address DRB concerns. The design guideline that warranted the most conversation and resulted in revisions was in regards to building design and specific to guideline # 3 “the Tudor character should be retained with features such as pitched roofs, a mix of external materials, exposed timbering and small, mullioned windows. Restoration of the existing Tudor building is encouraged”. Staff and the DRB were initially concerned that the project did not meet this guideline as this project is not traditional Tudor and was initially described by the applicant as ‘Tudor deconstructed’; and now is being described as ‘modern Tudor’.

On February 17, 2017, staff met with the DRB and both parties expressed concern that the design did not meet the traditional Tudor design. The applicant introduced their project to the DRB and described their building design as ‘sympathetic to Tudor style’. Their approach was to provide Tudor design buildings along Point White Drive and less so toward the interior of the project. Based on the DRB’s pre-application conference suggestions, they had changed the pitch of the roof of their buildings. Following discussions, the DRB asked that they return with a revised plan that better met the Design Guidelines.

The applicant returned with revised plans on March 20, 2017. The revisions included reduction in length of some of the buildings to create a more upright, narrow appearance, revising the pitch of the roof and the use of asphalt shingles. The revised design also included a variety of materials, small pane windows and stairwells constructed with crisscross bracing



materials to imply a Tudor pattern. It was suggested that the applicants reduce the width of the road and due to the angle of parking on Point White Drive and the pedestrian activity, a crosswalk should be added to their design.

The traffic impact analysis did provide information about pedestrian and bicycle activity. It noted that the site supported a moderate amount of pedestrian traffic. It also noted that existing crosswalks were available in close proximity to the site. It was expected that Roost project patrons would continue to use these existing crosswalk facilities. Site distance along Point White Drive was also analyzed. No safety issues were anticipated or detected with the proposed layout and location. As such, no crosswalk was suggested. The road is as narrow as allowed by the Code, and is not recommended for reduction.

The DRB made a unanimous motion to recommend approval of the project. Staff believes that this project has created a new, modern Tudor style that is sympathetic to Tudor while not meeting the traditional design. Staff recommends that any revisions to the building design be reviewed by staff and or possibly the DRB to ensure that the proposed Tudor elements continue to meet the guidelines (Condition 31).

1. **BIMC 2.16.040 Site Plans and Design Review**

**Decision Criteria.**

- i. The site plan and design is in conformance with the Bainbridge Island Municipal Code, unless a standard has been modified as a Housing Design Demonstration Project pursuant to BIMC 2.16.020. **As conditioned, the proposal complies with all applicable provisions of the Code. The uses, their location, the density and the style of development has been reviewed against the Code and the recorded subdivision and found to comply with the standards without modification.**
- ii. The location of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe and efficient. **The project was designed to provide safe and efficient pedestrian and bicycle passage through the site with limited vehicle interaction. The internal site provides centrally located public open space comprised of a park. The site provides pedestrian, bicycle and vehicular circulation that is found to be adequate, safe and efficient. The site will provide two-way vehicular traffic through the site to Point White Drive and Baker Hill Road. Sidewalks are proposed through the development and along Point White Drive frontage. The applicant shall coordinate with the City's Public Works Department to determine if a cross walk would be warranted.**
- iii. The proposal will be served by adequate public facilities including roads, transit, water, fire protection, sewage disposal facilities and storm drainage facilities. **As conditioned, the existing and proposed infrastructure is adequate for the traffic impacts, fire protection, water, sewage disposal and storm drainage needs of the project as discussed under the land use code analysis of this report. As conditioned, the development has received approval from the Bainbridge Island Fire District and the Development Engineer. (Conditions 1-3, 16 & 33-35)**
- iv. The site plan and design is consistent with the design guidelines contained in BIMC 18.18.030.B unless strict adherence to a guideline has been modified as a Housing Design Demonstration Project pursuant to BIMC 18.38. **The proposed residential designs were reviewed in accordance with the Lynwood Center design guidelines at**

three DRB meetings. The project is found to be in compliance with the design guidelines, as recommended by the DRB.

- v. No harmful or unhealthful conditions are likely to result from the proposed site plan. **No harmful or unhealthful conditions are likely to result from the proposed site plan. Infrastructure improvements are provided to ensure that water and sewer and storm systems continue to operate without causing any harm. The project is also conditioned to comply with SEPA requirements to avoid or mitigate any potentially harmful impacts.**
- vi. The site plan and design is in conformance with the comprehensive plan and other applicable adopted community plans. **Staff has determined that the site plan and design is in conformance with the Comprehensive Plan and other adopted community plans. The project provides mixed uses (residential and personal/professional services), a restaurant and an inn within the Neighborhood Center. It also provides non-motorized improvements and internal, publicly accessible pathways to encourage neighbors to utilize non-motorized transportation options for recreation and to patronize local businesses. The project also encourages the preservation of historic resources by repurposing a historic home into a lobby/office for the proposed inn, the relocation of the other historic residence and the recording of historical documents at the State database.**
- vii. Property which contains a critical area as defined in BIMC 16.20 conforms to all requirements of that chapter. **The subject property contains liquefaction and all structures will be reviewed at building permit to ensure that they are constructed using methods to ensure safety during a seismic event. (Condition 18)**

2. **BIMC 2.16.165 Shoreline Substantial Development Permit (SSDP) Decision Criteria**

The decision criteria for SSDP's outlined in BIMC 2.16.165.F.3.b is described below. In making the decision, the administrator may approve, approve with modifications, or deny any substantial development permit. In making the decision, the administrator shall grant a substantial development permit only when the development proposed is consistent with the following:

(A) The applicable policies, guidelines, and regulations of the Shoreline Management Act of 1971; Chapter [90.58](#) RCW, as amended; and Chapters [173-26](#) and [173-27](#) WAC or their successors; **The Bainbridge Island SMP is consistent with the SMA; as such, compliance with the local program demonstrates consistency with the SMA.**

(B) The goals, policies, objectives and regulations of the city of Bainbridge Island shoreline master program; **Compliance with the Bainbridge Island SMP is outlined (in Section IV, below.)**

(C) The city of Bainbridge Island comprehensive plan and municipal code; all other applicable law; and any related documents and approvals. **The proposal was reviewed for consistency with the Bainbridge Island Comprehensive Plan and was found to support its goals for open space residential development, environmental protection and aquatic resources and avoids adverse impacts to shoreline ecological functions and ecosystem-wide processes. The proposal was reviewed for consistency with the Bainbridge Island Municipal Code (BIMC) and found to meet all use and dimensional and use standards.**

The administrator shall also consider whether the cumulative impact of additional past and future requests that reasonably may be made in accordance with the comprehensive plan, or similar planning document, for like actions in the area will result in substantial adverse effects on the shoreline environment and shoreline resources. **Staff considered whether approval of the applicant's proposal would lead to similar request from owners on adjacent or nearby lots. Very few NC lots exist that could support such uses. However, the proposed uses are encouraged and supported as they are 1) proposed across from the shoreline and bifurcated by the street, and 2) provide public enjoyment of the water. Uses that provide public enjoyment are encouraged by the shoreline master program.**

## CONCLUSIONS

As conditioned, the proposed development is consistent with the Comprehensive Plan and the applicable standards of BIMC Chapter 18.09, *Zoning*; BIMC Chapter 2.16.040, *Site Plan Review*; and BIMC Chapter 2.16.165, *Shoreline Substantial Development Permit*.

### Reference Documents:

*(note all reference material may be accessed via the City's Website Online Permit Portal-Smartgov)*

### [ROOST PLN50076B SPR](#)

**(The following reference materials can be found under the "submittals" and "notes" and "approval steps" sections under this file number: PLN50076B SPR)**

### Submittals

- A. Tree valuation report received 12/22/2016
- B. Erosion control plans received 12/22/2016
- C. Elevation plans received 12/22/2016
- D. Outdoor lighting plans received 12/22/2016
- E. Stormwater management plans (SWM) Plan received 12/22/2016
- F. Design guideline checklist received 12/22/2016
- G. Traffic impact analysis received 12/22/2016
- H. Landscape plans received 12/22/2016
- I. Tree retention plan received 12/22/2016
- J. Project narrative received 12/22/2016
- K. Water availability letter received 12/22/2016
- L. Sewer availability letter received 12/22/2016
- M. Project application received 12/22/2016
- N. Site plan received 12/22/2016

### APPROVAL STEPS

- O. Fire Department Review
- P. Development Engineer Review

### NOTES

- Q. Material Palette A0.61
- R. Memo from Planner Notice of Application dated 1/27/2017
- S. Health Comments on SPR 2/7/2017

- T. Public Comment attached 2/18/2017
- U. Design Review Board Minutes 3/20/2017
- V. Revised Site Plan Sheets to respond to DRB 4/20/2017



## Department of Planning and Community Development

### Staff Report

Date: March 12, 2018  
To: Planning Commission  
From: Kelly Tayara, Associate Planner  
Project: Wyatt Apartments  
File No: PLN 50165B SPR

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**Request:** The Department of Planning and Community Development requests Planning Commission recommendation on application for Site Plan and Design Review permit for Wyatt Apartments, a 42-unit multi-family development comprised of a 36-unit apartment building and six townhomes.

As provided in BIMC 2.16.040, in the case of a major Site Plan and Design Review (SPR) application, the Planning Commission ("Commission") shall review the application prior to the final decision by the Department of Planning and Community Development Director ("Director"). The Director shall determine the major issues and specific aspects of the project that the Commission should review, and shall forward this review directive to the Commission. The Commission shall review the application based on the Director's review directive, the Design Review Board (DRB) recommendation, and the decision criteria, consider the application at a public meeting where public comments will be taken, and forward its recommendation to the Director in accordance with BIMC 2.16.030.C through E. The director will make the final decision based on the decision criteria in BIMC 2.16.040.E, the recommendation of the Planning Commission, the DRB recommendation, and consideration of any public comments received.

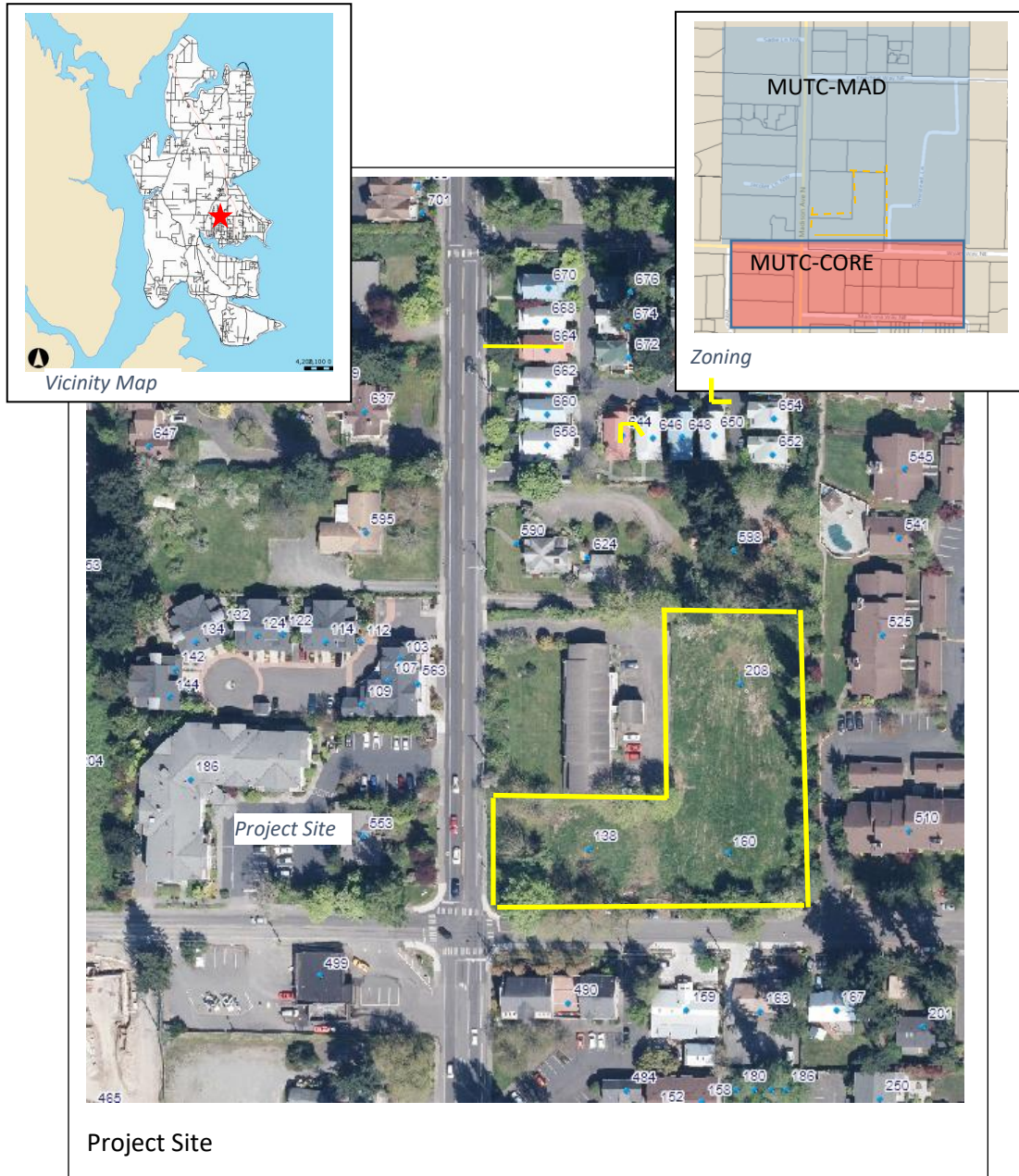
**Applicant:** Madison Avenue Development Inc.  
2930 Westlake Ave N  
Seattle, WA 98109

**Location:** 138 Wyatt Way NE

## Part I: General Information and Site Characteristics

### 1. Tax Assessor Information:

- a. Tax Lot Number: 262502-2-129-2007
- b. Site Address: 138 Wyatt Way NE
- c. Owner of record: Madison Avenue Development Inc.
- d. Lot size: 1.38 acres
- e. Land use: Currently undeveloped / Multi-family residential use proposed



2. Zoning Designation:

The subject property is within the Mixed Use Town Center – Madison Avenue Overlay District (MUTC-MAD). Except for properties to the south which are within the Mixed Use Town Center - Core Overlay District (MUTC-CORE), the surrounding properties are also designated MUTC-MAD.

3. Comprehensive Plan Designation:

The Comprehensive Plan designation for the subject property is MUTC-MAD district and except for properties to the south which are designated MUTC-CORE, the surrounding properties are also designated MUTC-MAD.

4. Existing Development:

The subject property is undeveloped. One property to the north is a park (Madison Avenue Tot Lot) and one contains a multi-family building. The property to the east contains multi-family buildings. Of the properties to the south, across Wyatt Way, one contains a mixed-use commercial and multi-family development, one houses a yoga studio, and one is developed with a funeral home. To the west, across Madison Avenue, one property contains a retirement center and one is developed with an automobile repair shop and carwash facility.

In 2016 the property received Site Plan and Design Review approval for Wyatt Cottages, a 28-unit development, but that project was not pursued (City File No. PLN50165 SPR).

5. Access:

Vehicular access is proposed from Wyatt Way with additional emergency service access via access easement from Madison Avenue.

6. Soils and Terrain:

Site soils are composed of Ragnar Fine Sandy Loam. The site gently slopes down from south to north at approximately six percent.

7. Public Services and Utilities:

- a. Police: City of Bainbridge Island Police Department
- b. Fire: Bainbridge Island Fire District
- c. Water: City of Bainbridge Island
- d. Sewer / Septic: City of Bainbridge Island
- e. Storm drainage: Storm drainage connects to existing systems in Wyatt Way and Madison Avenue. Pervious pavement with under-drain collection system is used for the parking facility.



## Part II: Comprehensive Plan Guiding Principles, Goals and Policies

The Comprehensive Plan designation for the site is Mixed Use Town Center-Madison Overlay District (MUTC-MAD). The Winslow Master Plan builds on the guiding principles, goals and policies in the Comprehensive Plan. These guiding principles, goals and policies, along with implementing regulations in the Municipal Code, are used to evaluate the proposal and weigh the project benefits and impacts. The following land use Comprehensive Plan guiding principles, goals and policies apply to the development proposal:

### 1. Comprehensive Plan Land Use Element

- a. Winslow Town Center Goal LU-7 and Policy LU 7.5: The Winslow mixed use and commercial districts are designed to strengthen the vitality of downtown Winslow as a place for people to live, shop and work. The Mixed Use Town Center (MUTC) is intended to have a strong residential component to encourage a lively community during the day and at night. The purpose of the Madison Avenue Overlay District is to provide for a mix of residential and small-scale non-residential development.

### 2. Winslow Master Plan

- a. Overall Land Use Goal WMP 2-1: Strengthen Winslow - the Island's commercial, cultural and commuter hub - as a sustainable, affordable, diverse, livable and economically vital community, by: Encouraging downtown living; Providing an enhanced pedestrian experience, with linked access to retail shopping, the ferry, major public facilities, open space and residential areas; Promoting the efficient use of land; Promoting development that is sustainable and supports community values.
- b. Overall Land Use Goal WMP 2-2: Ensure the Compatibility of New Development in the Mixed-Use Town Center
  - 1) Policy WMP 2-2.1: To promote compatibility between and within districts of the Mixed-Use Town Center, variations in development standards and design guidelines may be provided within districts.
  - 2) Policy WMP 2-2.3: Minimize driveways and encourage use of joint driveways.
- c. Overall Land Use Goal WMP 2-3: Maintain and Enhance Community Character in the Mixed-Use Town Center
  - 1) Policy WMP 2-3.1: Promote architecture that encourages green building, natural light, ventilation and rooftop gardens.
  - 2) Policy WMP 2-3.2: Through the use of design guidelines, development standards and incentives, promote the development of courtyards that create a pattern of linked public and private gardens and gathering places, providing opportunities for pedestrian movement.
  - 3) Policy WMP 2-3.3: Through the use of design guidelines, development standards and incentives encourage stepped-back buildings that result in a softer street edge, the retention and enhancement of visual connections to Eagle Harbor and the creation and preservation of sun-filled public gathering spaces.
  - 4) Policy WMP 2-3.5: Retain and expand the historic pattern of narrow pedestrian passages.
  - 5) Policy WMP 2-3.6: Enhance the livability of the downtown with trees and small gardens on the streets, along paths and in courtyards.

### Part III: Public Notice and Agency Review:

#### 1. Environmental Review / Public Notice

A pre-application conference was held on April 17, 2017. A public participation meeting was held on May 22. Application for Site Plan and Design Review was received on June 28; the application was deemed incomplete on July 25 and, after receipt of additional information, deemed complete on August 21. A public meeting was held with the Design Review Board on September 18 and the applicant presented the project to the Planning Commission during a public meeting on March 8, 2018.

The project is subject to State Environmental Policy Act (SEPA) review (WAC 197-11-800). Utilizing the optional DNS process (WAC 197-11-355), the City issued a combined Notice of Application/SEPA comment period on September 1, 2017. The 14-day comment period ended on September 15, 2017. The City, acting as lead agency, will issue a SEPA threshold determination with decision.

#### 2. Public Comment Summary

Four public comments were received, as summarized below:

- A roundabout should replace the four-way stop sign at the intersection of Madison Avenue and Wyatt Way as a mitigation measure for increased traffic congestion.
- The Fire District should review the site and ensure adequate turn radius for fire trucks, and the development should provide a fire prevention system with alarm and monitoring capabilities.
- The applicant should provide a public trail along the east side of the development to connect to the existing trail which emanates on the northeast side of City Hall and terminates at Wyatt Way.
- The proposal is different than the project approved in 2016.
- There are insufficient water aquifer resources available on the Island to support further development.

*Staff response: The City is constructing a roundabout, and construction is likely to occur after the project utility work. The Island Wide Transportation Plan identifies a trail on the adjacent property for the length of the east property line. The City has not determined that Island aquifer resources are insufficient to support future development.*

#### 3. Agency Comment

Kitsap Transit requested that the development provide an improved bus stop along Madison Avenue to improve the transit access: The existing bus stop is served by Route 90, linking the project site to Poulsbo, and an additional bus stop across Madison Avenue allows passengers access to the Ferry terminal. The agency provided specifications and commented that they are open to any applicant design that accommodates Americans with Disability Act (ADA) requirements.

The Kitsap Public Health District approved the application, and subsequent building permits are subject to Health District approval.

The Bainbridge Island Fire District commented as follows: The project must comply with the Fire Code; residential fire sprinklers and fire hydrants are required; Madison Avenue access must meet District standards; Class I standpipes are required where the floor level of the highest story is located more than 30 feet above the lowest level of District vehicle access; aerial fire apparatus is required along Wyatt Way; overhead utility and power lines shall not be located over the access road or between the aerial fire apparatus road and the building; tree retention on Wyatt Way shall not impede aerial access to the building; landscaping shall provide for clear access and a minimum of 36-inch clearance around all fire appliances including hydrants, connections, post indicator valves and all other fire/life safety equipment.

## Part IV: Land Use Code Analysis

*The Municipal Code is presented in normal font, and **staff discussion in bold font.***

### 1. BIMC Title 18 Zoning

#### a. BIMC 18.09.020 Use Table

Multi-family use is permitted in the Mixed Use Town Center.

#### b. BIMC 18.12.020-3 Dimensional Standards Table

| Dimensional Standard   | Requirement                        | Proposed / Compliance Evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Floor Area Ratio (FAR) | .4 maximum                         | Floor area is a calculation based on the area of all floors within the exterior vertical walls of a building. FAR is determined by dividing the floor area by the lot area (prior to dedication of any right-of-way). Base FAR is 22,498 square feet (56,245 x .4).                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| FAR Bonus Density      | .6 maximum                         | Projects may achieve a maximum level of development above base FAR by using bonus provisions identified in BIMC 18.12.030.E. The proposed development seeks full bonus FAR to 33,552 square feet (56,245 x .6).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Lot Dimensions         | N/A                                | There are no standards for the district.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Lot Coverage           | 35% maximum                        | Proposed lot coverage is 25.1% (approximately 14,270 sf) and complies with this requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Front Setback          | 10 feet minimum<br>20 feet maximum | The property fronts both Madison Avenue and Wyatt Way. The proposed setback is ten feet and meets this requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Side Setback           | 0 feet                             | For properties with more than one front lot line, the remaining lot lines are sides (BIMC 18.12.050). The proposal meets this requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Building Height        | 25 feet maximum                    | Height is measured as the vertical distance above "grade" to the midpoint of the roof. Grade is the average elevation of the original ground surface. Grade at elevation 141 for the multi-family building is depicted on Sheet D 3. Based on the information on Sheet D 1, grade for the townhomes is approximately elevation 151. While building height is not depicted in compliance with the Rules of Measurement (BIMC 18.12.050), information submitted on Sheets D 1, D 3 and D 5 is sufficient to determine that the multi-family building height is 24.5 feet and the townhomes are approximately 20 feet in height. Compliance with height requirements is verified during building permit review. |

c. BIMC 18.15.010 Landscaping, Screening, and Tree Retention, Protection, Replacement

In the Mixed Use Town Center Madison Overlay districts, the intent is to retain the character of landscape front yards and to provide landscape development to screen uses from single-family residential properties and to soften the appearance of surface parking areas.

Development within this district is subject to landscaping, screening and tree retention requirements identified in BIMC Table 18.15.010-1.

1) Tree Retention, Protection and Replacement

Trees and tree stands located in the perimeter areas required to be landscaped pursuant to BIMC 18.15.010.D, Perimeter Buffering and Screening, and BIMC 18.15.010.E, Street Frontage Landscaping, shall be retained and protected as described in BIMC 18.15.010.C.4.

**Because the property is not adjacent to a single-family residential district, perimeter buffers are not required (BIMC Table 18.15.010-3). Unless a property abuts State Route 305, roadside buffers are not required (BIMC Table 18.15.010-4) in the Mixed Use Town Center.**

2) Total Site Tree Unit Requirements

The development parcel shall have at least 40 tree units per acre following the proposed development or redevelopment (BIMC 18.15.040.G.4). The applicant may choose to retain trees or to plant new trees to meet this requirement.

**Sheet L 4 contains the tree unit calculation. The project requires 56 tree units to meet total tree unit requirements (1.38 x 40). The parking lot tree requirements (paragraph below) are added to this total, so altogether 62 tree units are required. The project retains 5.8 tree units, comprised of a big-leaf maple and several cedar trees. A total of 73 new trees are proposed, which exceeds total site tree unit requirements. For trees to be retained, the applicant is required to provide International Society of Arboriculture valuation of the trees.**

3) Parking Lot Landscaping

Requirements for parking lots located behind buildings and not adjacent to rights-of-way:

- One tree for every eight parking stalls
- One hundred percent of the trees may be deciduous
- Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting
- Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years
- A landscaped area at the end of aisles
- Standards:
  - Maintain shrubs at a maximum three feet height within parking lots so views between vehicles and pedestrians will not be blocked.
  - Landscape in planting islands or strips shall have an area of at least 100 square feet and with a narrow dimension of not less than five feet if wheel stops are provided to prevent vehicle overhang. A narrow dimension of not less than eight feet may be provided if the vehicle overhang area is included in the planting area.

- Provide permanent curbs or wheel stops to protect the plantings from vehicle overhang.
- Significant trees and tree stands may be used in lieu of new landscape requirements if they are in addition to the significant tree and tree stand retention requirements.
- Clustering of new plant material within parking lots may be approved or required by the director if the intent of this section is met.
- Refer to the suggested landscape materials matrix in the administrative manual for tree species appropriate for parking lots.

**The landscape plans are contained on Sheets L 1 – L 4. For 42 parking spaces, at least six trees are required. The proposed trees are six-to-eight feet in height at time of planting, and the landscape plan contains evergreen shrubbery designed to adequately vegetate landscaping areas.**

#### 4) Protection During Construction and Development.

In order to preserve future ecological function, the applicant shall identify areas of prohibited disturbance, generally corresponding to the dripline or critical root zone (as identified by a consulting arborist) of the existing vegetation, trees and /or tree canopy of tree stands to be retained, buffers, areas of existing vegetation to be maintained, future rain gardens, and future planting areas larger than 400 square feet (i.e. landscape islands in parking lots).

A temporary five-foot high chain link fence with tubular steel poles or “T” posts shall delineate the area of prohibited disturbance, identified in the above paragraph, unless the Director approves use of a four-foot high plastic net fence as an alternative. The fencing must be posted with signage denoting the vegetation protection area.

No impervious surfaces, fill, excavation, vehicle operations, compaction, removal of native soil or storage of construction materials shall be permitted within the area defined by the required construction fencing. If construction and compaction in future planting areas is unavoidable, the landscape plan for the project shall include methods for aerating and/or augmenting compacted soil to prepare for new planting.

**The application materials include two arborist’s evaluations. Civil plans provided for construction should provide a level of detail sufficient to allow review of compliance with these requirements. The civil plans should identify areas of prohibited disturbance, fencing locations and any additional provisions necessary to adequately protect those areas of prohibited disturbance which are in proximity to construction activities.**

#### d. BIMC 18.15.020 Parking Spaces Required

The number of parking spaces required is identified in BIMC Table 18.15.020-2. A minimum of one space per primary dwelling unit that is a studio or one-bedroom unit and two spaces for all other primary dwelling units is required. The Director of Planning and Community Development may require guest parking in excess of the required parking spaces up to a maximum additional 0.5 stall per dwelling unit, if there is inadequate guest parking on the subject property.

Residential parking requirements may be reduced by 50 percent for dwelling units located within a one-half-mile radius and 25 percent for dwelling units located between one-half mile and a one-mile radius of the ferry terminal providing scheduled service to Seattle. This provision may not be used in conjunction with senior housing or other parking reduction arrangements, and the required number of parking spaces shall not be reduced below one space per parking unit. This provision does not preclude the authority of the Director to require guest parking as described in the table.

Small car spaces may total no more than 30 percent of the required number of parking spaces.

**The project provides three two-bedroom, 29 one-bedroom and four studio units within the apartment building and six two-bedroom townhome units. The required parking is 52 units  $[(32 \times 1) + (10 \times 2) = 52]$ . The property is located less than one-half mile from the ferry terminal, and therefore parking requirements may be reduced by 25 percent, to not less than 39 spaces  $(52 \times .75 = 39)$ . The proposal provides 42 on-site spaces and four off-site street parking spaces on Madison Avenue. Based on the number of required parking spaces, a maximum of 15 compact car spaces are allowed  $(52 \times .3)$ , and 14 are proposed, as depicted on Sheet D 2.**

e. BIMC 18.15.030 Mobility and Access

1) Circulation and Walkways for Non-residential Development

Parking lots and driveways shall provide well-defined, safe and efficient circulation for motor vehicles, bicycles and pedestrians. Entrances from the right-of-way, ends of parking aisles and the circulation pattern shall be defined by landscaped areas with raised curbs. Pedestrian walkways should be provided around buildings to assure safe access. Internal walkways shall be surfaced with nonskid hard surfaces, meet accessibility requirements and provide at least five feet of unobstructed width. Walkways that cross driving lanes shall be constructed of contrasting materials or maintained painted markings. Walkways must be curbed and raised six inches above adjacent vehicular surface grade, except where the walkway crosses vehicular driving lanes or to meet accessibility standards.

**The City Development Engineer finds that the site plan conforms to the City of Bainbridge Island Design and Construction Standards and Specifications. Civil plans provided for construction should provide a level of detail sufficient to allow review of compliance with these requirements. The civil plans should identify raised curbs and walkways should be constructed and maintained to meet Municipal Code and ADA requirements.**

2) Bicycle facilities

The development must provide one bicycle space for every five vehicle parking spaces, with a minimum of four spaces provided for each parking lot.

**Based on the 42 on-site vehicle parking spaces proposed, nine bicycle spaces are required; a proposed 14-bicycle rack is depicted on Sheet D 2.**

f. BIMC 18.15.040 Outdoor Lighting

All outdoor lighting must result in no light trespass. Outdoor lighting must be shielded and aimed downward, with no escaping direct light permitted to contribute to light pollution by

shining upward into the sky or onto adjacent properties. Spotlighting on landscaping and foliage is limited to 150 watts incandescent (2,220 lumens output).

**The applicant proposes tree and entry downlighting as depicted in lighting plan Sheet D 10.**

g. BIMC Chapter 18.18 Design Guidelines

The project is subject to the 'Design Guidelines for Mixed Use Town Center and High School Road Districts' which include 'Guidelines Applicable to All Overlay Districts' (also referred to as 'General Guidelines' and 'Guidelines Applicable to the Madison Avenue Overlay District'.

- i. Site Design. Development should provide facilities near or visible from the sidewalk for outdoor public use (such as seating areas, courtyards, small plazas). Development should include pedestrian walkways, raised and separated from traffic lanes, that offer access from the public sidewalk to the main entrance to the building. Pedestrian walkways should offer connections to adjoining properties. Parking lots should be located behind or to the side of buildings. Within parking lots, pedestrian walkways should allow people to traverse the lot without being forced to use vehicular aisles. Most common open space serving residents should be designed to allow walking throughout the development, to any adjacent commercial or recreational areas, and to surrounding streets. Some place for children to play should be provided. Exterior lighting should not exceed 14 feet in height and should incorporate shields. Trash containers should be shielded from view. Landscaped front setbacks are encouraged along Madison Avenue.
- ii. Building Design. Buildings should utilize elements such as massing, materials, windows, canopies, and pitched or terraced roof forms to create a visually distinct base and cap. Building materials and patterns should be varied to produce variations in texture. Building elevations shall be vertically and horizontally modulated to avoid massive scale. Facades facing public ways shall incorporate setbacks or articulation and shall include features such as columns or recessed entries. Blank walls shall not be visible to public spaces. Building designs should respond to nearby buildings by using shared elements, materials or massing. Principal entrances should be visually prominent and incorporate elements such as setbacks, recesses, and porches. Rooftop mechanical equipment should be concealed by and integrated within the roof form. Visually prominent buildings should be encouraged at Madison Avenue intersections. Buildings should have pitched roof forms, with the pitch being at least 4:12 and no more than 12:12.

**The Design Review Board (DRB) met on September 18, 2017 to review the proposal and provided the following recommendations: The project should advance as submitted with recommendations of widening the driveway, including canopies on both south and north elevations, considering contrasting pavement in the entry drive, considering moving the handicapped accessible parking space to the west, planting larger caliper trees and retention of existing willow trees.**

**In response to the DRB comments, on December 14, the applicant submitted two new plan sheets (D 2 and D 4) which contain a potential reconfiguration of the northerly townhomes with the intent of breaking up the scale of the buildings along with entry cover over common entries along Wyatt Way, modification to the rain screen siding and modified fencing design.**



## 2. BIMC 2.16.040.E Site Plan and Design Review - Decision Criteria

The Commission shall review the application based on the Director's review directive, the Design Review Board (DRB) recommendation, and the decision criteria below:

- a. The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district.

**Consistency with zoning standards, including dimensional standards, design guidelines, landscaping and parking requirements, is discussed above in Part IV 1. Continued compliance with standards and any project conditions is ensured at time of building permit review.**

- b. The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the Island-Wide Transportation Plan.

**The City Development Engineer finds that the site plan conforms to the City of Bainbridge Island Design and Construction Standards and Specifications. The Island Wide Transportation Plan identifies a "Trails School/Pvt Maintained" along the length of the east property line.**

- c. The Kitsap County Health District has determined that the site plan and design meets the following decision criteria: The proposal conforms to current standards regarding domestic water supply and sewage disposal.

**The Kitsap Public Health District recommends approval of the proposal.**

- d. The City Engineer has determined that the site plan and design meets the following decision criteria: The site plan and design conforms to regulations concerning drainage in BIMC 15.20 and 15.21; The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; The site plan and design conforms to the "City of Bainbridge Island Engineering Design and Development Standards Manual" unless the City Engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title 18.

**The City Development Engineer completed review of the project materials received on June 28<sup>th</sup>, 2017 with revisions received on December 14<sup>th</sup>, 2017. The Development Engineer recommends conditioned approval based on the following findings:**

- **The site plan conforms to regulations concerning drainage in BIMC 15.20 and 15.21;**
- **The site plan will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream;**
- **The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic;**
- **The site will rely on public water and sewer services. There is adequate capacity in the water and sewer system and those services can be made available at the site;**
- **The site plan conforms to the City of Bainbridge Island Design and Construction Standards and Specifications, "the Standards", except as noted;**

- The site plan and design is in conformance with the applicable portions of the comprehensive plan pertaining to streets, roads, and utilities.

In 2016 the property received Site Plan and Design Review approval for Wyatt Cottages, a 28-unit development, but that project was not pursued (City File No. PLN50165 SPR). During the review process for that permit, a willow tree located along Wyatt Way was the subject of considerable discussion: City staff recommended that the tree be removed, and the Planning Commission recommended that it be retained. The Development Engineer provides the following discussion regarding the willow tree:

The Development Engineer does not recommend retention of the willow tree on the southeast corner of the lot. Replacement with a more appropriate street tree is recommended to minimize pedestrian and traffic hazards and limit potential damage to the proposed street improvements caused by its toppling or future removal. An arborist was commissioned by the City in 2014 to assess the willow. The assessment was triggered by citizen concerns about safety. The arborist recommended that the tree be removed. The arborist assessed a risk rating of 10 (on a scale of 3 to 12), meaning, *"The assessed issues have now become very clear. The probability of failure is now getting serious, or the target rating and/or site context have changed such that mitigation measures should now be on a schedule with a clearly defined timeline for action."*

The applicant provided two additional reports with this application, one prepared in 2015 and another in 2016 by the same author of the 2014 study referenced above. The 2015 report found no signs of insects, decay, fungi or sap flow in the trunk and included recommendations to prune out dead branches, cable the tree to address safety concerns, and boost vigor prior to development. The 2016 report found for a second time the willow to be in poor condition with multiple areas of rot with extensive dieback and poor structure, noted it is a poor candidate for retention, and recommended removal prior to construction activities.

In addition to the arborist reports, the City Public Works Department has reported drainage issues with a culvert adjacent to the tree being clogged by roots and causing flooding issues. No information has been provided by the applicant on the effect of installing new storm drain pipes, an 8-inch water line proposed as part of the development, and curb and road construction on the tree's further health or viability. Tree failure is expected in the near-term and would result in possible damage to City facilities and put financial liability on the citizens to repair what appears to be avoidable damage.

- e. The site plan and design is consistent with applicable design guidelines.

The Design Review Board recommended approval of the project and recommended that the driveway be widened, canopies be included on both the south and north elevations, contrasting pavement be considered in the entry drive, moving the handicapped accessible parking space to the west be considered, planting larger caliper trees and retaining existing willow trees.

- f. No harmful or unhealthful conditions are likely to result from the proposed plan.

This staff report identifies the regulations and provides reviewer comments regarding public health, safety and welfare, and public use and interest. Specifically, the report addresses

**transportation, access, including pedestrian and emergency services access, water, sewer, and stormwater facilities.**

- g. The site plan and design is in conformance with the Comprehensive Plan and other applicable adopted community plans.

**The project provides for residential development within the Mixed Use Town Center which meets the intent of the district.**

- h. Any property subject to site plan and design review that contains a critical area or buffer conforms to all requirements of that chapter.

**The site is unencumbered by critical areas or their buffers.**

- i. Any property subject to site plan and design review that is within shoreline jurisdiction conforms to all requirements of that chapter.

**The property is not within shoreline jurisdiction.**

- j. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals.

**The purpose of Site Plan and Design Review to establish a comprehensive site plan and design review process that ensures compliance with the adopted plans, policies, and ordinances of the City. This application for Site Plan and Design Review permit is reviewed consistent with the adopted review process to ensure compliance with current plans, policies and regulations.**

## **Part V. Conclusions**

This report includes the standards of review, relevant Municipal Code and Comprehensive Plan provisions and provisions of other permitting agencies. The staff report includes findings based on evidence in the record. The project file contains the official record and basis for findings, including technical information and documentation.

Appropriate notice of application was provided, and comments considered. The application is properly before the Planning Commission for recommendation. Should the Commission recommend approval, staff suggests that the following conditions be considered:

## **SEPA CONDITION**

1. To mitigate transportation and public service impacts, the project shall provide a bus shelter on Madison Avenue. The bus shelter shall meet Americans with Disabilities Act (ADA) requirements, and the shelter design and installation shall be coordinated with Kitsap Transit and City Public Works Department. The shelter shall be installed and achieve final inspection prior to occupancy of any buildings.

## **PROJECT CONDITIONS**

2. The authorization for construction activities automatically expires and is void if the applicant fails to file for a building permit or other necessary development permit within three years of the effective date of the Site Plan and Design Review permit.
3. Construction plans shall substantially conform to plans submitted with application as revised by sheets submitted on August 9, 2017 (Sheets D1, D1.1, D1.2, D1.3, D2, D3, D4, D8, D11) as further revised by sheets submitted on December 14, 2014 (Sheets D2, D4).
4. Prior to any construction activities, the applicant shall obtain the appropriate permits from the City of Bainbridge Island, including but not limited to clearing, grading, and/or building permits.
5. The project shall comply with the following conditions of the City Survey Program Manager:
  - a. Right-of-Way Dedication
    - 1) Madison – 5.00' dedication for a total of 30.00' from section line between Sections 26 & 27
    - 2) Wyatt – 30.00' dedication north of the East-West centerline of Section 26 (this will include any right-of-way previously dedicated or granted)
    - 3) Additional right-of-way or easements may be required accommodate the Wyatt Way Reconstruction Project
6. The project shall comply with the following conditions of the City Engineer:
  - a. General
    - 1) Civil improvement plans, reports, and computations, prepared by a civil engineer registered in the State of Washington shall be submitted with the application(s) for a construction permit (building, grading, ROW, etc.) to COBI for review and approval to construct all necessary infrastructure and utilities serving the site. Certificate of occupancy will not be issued for any building until all civil improvements are completed and finalized.
    - 2) As-built civil construction plans stamped by a civil engineer shall be provided by the applicant prior to final.
  - b. Facilities Extension
    - 1) A Developer Extension Agreement (DEA) shall be executed at the site utilities construction permitting application phase for the construction of utilities to be inspected and accepted by the City.
    - 2) A right-of-way (ROW) construction permit will be required prior to any construction activities within the right-of-way in addition to completing the DEA and obtaining other

necessary construction permits. The ROW permit will be subject to separate conditions and bonding requirements.

- 3) Coordination of construction phasing with the adjacent Wyatt Way Improvement Project, including the planned construction of a roundabout at the intersection of Wyatt Way NE and Madison Avenue North, shall be undertaken prior to or at the time of executing the DEA. A moratorium on pavement cuts within the newly constructed roundabout improvements will require coordination of all utility extensions, frontage improvements, and bus shelter construction.
- 4) ROW dedication shall be required consistent with the City's survey program manager's requirements. The public sidewalk along Wyatt Way NE must be located within a City ROW or an easement granted to the City for public pedestrian access. Coordination for ROW dedication shall occur with the Wyatt Way Improvement project.
- 5) ROW improvements along Wyatt Way NE shall conform to the Standards for an urban collector roadway that requires a 10-foot travel lane, and a 3-foot paved shoulder clear of the parallel parking stalls. Parallel parking stall width shall comply with the minimums stated in BIMC 18.15.

c. Access

- 1) Access to the site shall be provided as modeled in the traffic impact analysis with primary ingress and egress from Wyatt Way NE. The emergency fire access at the northwestern corner of the project shall be marked with signage or bollards precluding non-emergency access from the adjacent parcel via Madison Avenue North.

d. Utilities

- 1) Trenching and excavation work performed within the drip line or critical root zone of significant trees to be retained shall be monitored by a certified arborist.
- 2) Abandonment and/or removal of the existing 4-inch asbestos concrete (AC) water main in Wyatt Way NE shall be performed by a contractor certified in asbestos abatement and removal.
- 3) On-site water main extensions shall include a utility easement granted to the City to the meters and/or backflow prevention devices.
- 4) Retention of the willow tree on the southeast corner of the lot is not recommended per the project arborist's report. Replacement with a more appropriate street tree is recommended to minimize pedestrian and traffic hazards and limit potential damage to the proposed street improvements caused by its toppling or future removal.

e. Stormwater

- 1) A Stormwater Pollution Prevention Plan (SWPPP) prepared by a civil engineer licensed in the State of Washington is required prior to construction activities including clearing or grading or civil improvements for all phases of the project that complies with BIMC 15.20.
- 2) A final stormwater report shall be submitted with the building permit detailing compliance with all applicable minimum requirements as required by BIMC 15.20, prepared by a civil

engineer licensed in the State of Washington.

- 3) Prior to building permit final, the applicant shall submit an operation and maintenance plan for the on-going maintenance of the storm drainage system.
- 4) New and replaced hard surfaces associated with frontage improvements, including on-street parallel parking stall construction shall be subject to on-site and water quality stormwater requirements per BIMC 15.20. Treatment shall be provided for these surfaces.
- 5) All on-site stormwater facilities shall remain privately owned and maintained. The owner(s) shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded before final plat submittal. The approved language for the Declaration of Covenant is found in BIMC Chapter 15.21, Exhibit A.

f. Permitting

- 1) Application for a building permit shall require binding water and sewer availability letters from the City.
- 2) The proposed action(s), phased or concurrent, in their totality would result in more than one (1) acre of earth disturbance on the site and drain to waters of the State. A Construction Stormwater General Permit shall be obtained from the Washington State Department of Ecology and the site shall be monitored for discharge of pollutants and sediment to the wetlands and stream for the duration of the project. No land clearing or construction permits shall be issued prior to obtaining the State permit.

7. The project shall comply with the following conditions of the Fire Marshal:

- a. The project must comply with the Fire Code
- b. Residential fire sprinklers are required in all buildings
- c. Fire hydrants are required
- d. Access from Madison Avenue must meet Fire District standards
- e. Class I standpipes are required where the floor level of the highest story is located more than 30 feet above the lowest level of Fire District vehicle access
- f. Aerial fire apparatus access is required along Wyatt Way
- g. Overhead utility and power lines shall not be located over the access road or between the aerial fire apparatus road and the building
- h. Tree retention on Wyatt Way, at the east end of the project, shall not impede aerial access to the building, as required
- i. Landscaping plans shall provide for a minimum of 36" clearance around all fire department appliances including fire hydrants, fire department connections, post indicator valves and other fire and life safety equipment. Clear access shall also be provided to such appliances and equipment.

8. The project may achieve a maximum level of development above the base Floor Area Ratio (FAR) in BIMC Table 18.12.020-3 by using one, or a combination of, the FAR bonus provisions identified in BIMC 18.12.030.E. FAR bonus provisions may be combined to achieve the maximum level of development established for each district. In no case shall the total residential FAR exceed the maximum FAR as provided for in BIMC Table 18.12.020-3.
9. Bicycle facilities shall allow secure locking of both the frame and wheels of a bicycle.
10. All trees that are required to be retained through this approval shall be depicted on the site plan, civil plan and landscape plan submitted for building permit.
11. Building permit application shall include the International Society of Arboriculture valuation for trees which are required to be retained through this approval.
12. The project is subject to tree retention replacement, enforcement and penalty regulations in BIMC 18.15.010.C.
13. The civil plan submitted with building permit shall identify the dripline or critical root zone (as identified by a consulting arborist) of trees and /or tree canopy of tree stands required to be retained, future rain gardens, and future planting areas larger than 400 square feet (i.e. landscape islands in parking lots).
  - a. These areas shall be identified as no-disturbance or for soil amendment, as applicable.
  - b. Temporary chain link fencing a minimum five feet in height with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance.
  - c. Prior to permit issuance for any construction activity, fencing shall be erected and posted with signs to protect no-disturbance areas. Protective fencing and signage shall remain until construction is complete, and removal of any portion of the fencing is subject to approval of the Department of Planning and Community Development.
  - d. Fencing materials and signage shall be approved by the Planning Division prior to installation.
14. All plantings shall be installed or installation financially assured in accordance with BIMC 18.15.010.H. prior to occupancy of any of the new buildings. After installation approval by the Department, maintenance assurity shall be required in accordance with BIMC 18.15.010.H.
15. Internal walkways shall be surfaced with nonskid hard surfaces, meet handicapped-accessibility requirements and be designed to provide a minimum of five feet of unobstructed width.
16. Where walkways cross vehicular driving lanes, the walkways shall be constructed of contrasting materials or with maintained painted markings. The walkway adjacent to the pick-up / drop-off lane shall be curbed and raised six inches above adjacent vehicular surface grade, except where required to meet accessibility standards.
17. Raised curbs shall be used to define driveways from the public right-of-way, landscape areas within the parking lot, the ends of parking aisles, and the vehicular circulation pattern.
18. Outdoor trash / recycle receptacles shall be enclosed with a solid structure / gated and screened from view with evergreen vegetation.



**CITY OF BAINBRIDGE ISLAND, WASHINGTON  
HEARING EXAMINER**

**REPORT AND DECISION**

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project:</b>                      | Blakely Elementary School<br>Conditional Use Permit/Site Plan and Design Review/Habitat Management Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>File Number:</b>                  | PLN50767SPR, CUP & HMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Applicant:</b>                    | Bainbridge Island School District #303                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Location:</b>                     | 4704 Blakely Avenue, bordered on the west side by Blakely Avenue NE, with Islandwood on the remaining three sides.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Request:</b>                      | The existing Captain Johnson Blakely School is proposed for demolition and replacement by a new school building of approximately 65,000 square feet. Because portions of the existing development lie within a Category I/II wetland habitat buffer and will be redeveloped, the proposal includes a habitat management plan (HMP) to mitigate wetland habitat buffer impacts. The school also requires a conditional use permit (CUP), which as a bonus allows its height to be increased from 30 feet to 35 feet. The northern access drive to the school is to be realigned opposite to NE Baker Hill Road. The existing school is proposed to remain in operation until the summer of 2019, to be demolished when the replacement development is completed. |
| <b>SEPA Review:</b>                  | A Mitigated Determination of Non-Significance was issued on November 1, 2017.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Zoning and Plan Designations:</b> | R-0.4, Residential zone, one unit per 2.5 acres<br>OSR-0.4, Open Space Residential, one unit per 2.5 acres                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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**FINDINGS OF FACT**

**Site Characteristics**

1. Tax Assessor Information:

Tax Lot Numbers: 032402-2-004-2005

Owners of Record: Bainbridge Island School District

Lot Size: 12.17 acres or 530,125 square feet

Land Use: Educational, Public School

2. **Terrain:** The western half of the site, now occupied by the existing school building, parking areas and south play field, slopes gently to the southwest from elevation 276 feet down to elevation 266 feet. The eastern and western portions of the site are separated by a 10-foot-tall, west-facing, 25 percent slope (14 degrees). East of this west-facing slope the topography is generally flat.
3. **Soils:** Soil mapping indicates that is the predominant soil type on the site is Kapowsin gravelly ashy loam (Soil Survey of Kitsap County Area, Washington; U.S. Department of Agriculture, Soil Conservation Service, 1977).
4. **Existing Site Development:** The site is currently developed with the Captain Johnson Blakely Elementary School, which is situated in the western and southern portions of the site. The one-story, 41,259 square-foot school was constructed in 1963. Play fields occupy the eastern and southern portions of the site. The existing school facilities will remain open and occupied during the design and construction of the new elementary school, with anticipated demolition occurring in the summer of 2019.
5. **Proposed Access:** The proposed development will be publicly accessed from Blakely Avenue NE, with a new access drive proposed directly across from Baker Hill Road.
6. **Public Services and Utilities:** Two abandoned septic drainfields are located in the southwestern and southeastern corners of the site beneath grass-covered play fields. The school is now served by a City of Bainbridge Island (COBI) public sewer. A water main extends through the site from west to east, passing south of the existing school building; this water line is also present in the northern half of the site along the east boundary. A well to be decommissioned also exists on the property.
7. **Zoning/Comprehensive Plan Designation:** The subject property is zoned R-0.4 and OSR-0.4.
8. **Surrounding Zoning/Comprehensive Plan Designation:**
  - North: R-0.4, One unit per 2.5 acres
  - South: R-0.4, One unit per 2.5 acres
  - East: R-0.4, One unit per 2.5 acres
  - West: R-1, One unit per 1 acre
9. **Surrounding Uses:**
  - North: Islandwood
  - South: Islandwood
  - East: Islandwood
  - West: Blakely Avenue NE and single family residential

## **Procedural History**

10. A pre-application conference was held on March 14, 2017, following a public participation meeting on March 6, 2017. Applications for Site Plan Review and a Conditional Use Permit were received on April 20, 2017. The original HMP was submitted on July 1, 2017, and, after a series of revisions, was ultimately determined to be adequate by staff on October 26, 2017. Public meetings were held before the Design Review Board and the Planning Commission.
11. The project is subject to State Environmental Policy Act (SEPA) review. Utilizing the optional DNS process provided in WAC 197-11-355, the City first issued a combined Notice of Application/SEPA comment period on May 6, 2017, with a revised notice issued on July 21, 2017. The City, acting as lead agency, issued a SEPA Mitigated Determination of Nonsignificance (MDNS) for this proposal on November 1, 2017. The SEPA appeal period expired on November 15, 2017, with no appeals having been filed.
12. As provided in BIMC 2.16.170, an applicant for a single project proposal requiring more than one of the land use applications identified at BIMC 2.16.010 may request processing pursuant to consolidated project review. The applicant has requested consolidated review of the Site Plan and Design Review, Conditional Use Permit and the Habitat Management Plan applications. Based on the requirements for CUP review, a consolidated public hearing on the conjoined applications was held by the Hearing Examiner on November 22, 2017.
13. At the public participation meeting held in March, 2017, and during the public comment period questions were raised about use of outdoor play areas during construction, construction impacts to the neighborhood, potential impacts to the wetland and the buffer, and tree preservation. After consultation with the Fire Marshal the fire access road location was revised to minimize impacts to the wetland buffer while still meeting the fire access requirements. During review of the building permit application, the Kitsap County Health District indicated it will require an existing well on the site to be decommissioned.
14. The Design Review Board (DRB) first reviewed the application at a meeting held during the pre-application phase. The DRB review was centered primarily on the location of the proposed entrance and exit driveway for the school. The DRB strongly suggested that the Board realign the driveway to place its entrance directly opposite the Baker Hill Road intersection, a recommendation that would also impact utilities, result in additional clearing of trees and create additional stormwater requirements. The DRB approved a final re-design conditioned on adding a footpath from the southwest corner of the site to the east side of the bus parking area and for further development of the landscaping plan as it affects the main entry “spine” of the campus.
15. The City’s development engineer completed a preliminary review of the project on October 13, 2017, focusing primarily on stormwater and traffic issues. Since current site development is unsupported by any significant stormwater management infrastructure, its proposed redevelopment will entail a major upgrade. Stormwater detention will reduce offsite peak flows after development to below existing levels and water quality treatment will be provided.
16. The original site traffic analysis was erroneously predicated on an increase of site use to accommodate 600 students rather than the currently planned 450. This further expansion could occur under a subsequent addition but is not part of the present project. The report's recommendation to meet concurrency at the Blakely Avenue NE / NE Bucklin Hill Road intersection by having the applicant construct a new roundabout, while perhaps identifying an eventual necessity, is not a

requirement triggered by the amount of new traffic to be generated by the current proposal.

### **Comprehensive Plan Consistency**

17. The staff report at pages 12 and 13 documents project consistency with the Capital Facilities, Economic, Land Use and Environmental Elements of the Comprehensive Plan. This discussion is satisfactory and adopted herein by reference.

### **Regulatory Compliance**

#### **BIMC Title 18 Zoning**

18. Educational Facilities are a conditional use in the R-0.4 zoning district pursuant to the BIMC 18.09.020 Use Table. The maximum lot coverage permitted for educational buildings is 15% (BIMC 2.16.110). The existing site contains 12.17 acres or 530,125 square feet. The allowable lot coverage is thus 79,519 square feet, with the lot coverage proposed being 53,566 square feet or approximately 10.1%. The proposed school building meets or exceeds standard zoning minimum setbacks.

19. The base building height for this district is 30 feet, but a 5 foot bonus for nonresidential uses is allowed with a conditional use permit. The School District is proposing to have portions of the building extend to a height of nearly 35 feet. There is no evidence that adverse visual impacts to offsite properties will result from either relocation of the school buildings as proposed or a small increase in their overall height.

20. As a nonresidential use in a residential district Blakely School is mandated to comply with the following requirements of BIMC Chapter 18.15: significant tree and tree stand retention, perimeter landscaping, parking lot landscaping, total site tree unit requirements, and planting, irrigation and maintenance requirements.

21. Significant trees and tree stands may be removed only if a consulting arborist determines that the vegetation is a safety hazard or comprises a damaged, diseased or dead tree. The original site plan proposed trees for removal near the southern site boundary in order to accommodate a fire lane. After meeting with the Fire Marshal, the District modified its plan to relocate the fire lane away from existing trees within the wetland buffer. The project will also be conditioned to protect retained trees during the construction phase.

22. Pursuant to BIMC Table 18.15.010-3, nonresidential uses in areas outside Winslow require 25 foot full screen landscaping where the site's perimeter abuts residential development. The surrounding properties are zoned residential and the 25 foot full screen buffer requirement has been determined by staff to apply along the perimeter of the site. The full screen requirement mandates planting "*one tree for every 10 feet of buffer length*" (BIMC 18.15.010.D(4)(iv)). Supplemental plantings are thus required and proposed along Blakely Avenue. An overlapping but less stringent requirement is set forth in BIMC Table 18.15.010-4 for street frontage landscaping, where the 25 foot buffer requirement may be met by partial screen landscaping.

23. The School District would like to obtain relief from the rigid necessity of planting a tree every 10 feet along its Blakely Avenue frontage within a limited section where the direct view from the street is toward the main school building without any intervening driveway or parking lot development. Aside from aesthetic factors, the District contends that having a limited visual opening to the street would enhance both school security and site surveillance for arriving first responders. The District is willing to plant the total number of trees required but is seeking some flexibility as to their specific

placement.

24. The District's request is a reasonable one within the context of Blakely School's particular circumstances but problematic as a precedent for City review of future similar proposals at other locations because it seeks to alter an explicit code requirement. The more relaxed standard of BIMC Table 18.15.010-4 appears unavailable because it is designed to apply to interior street frontages within a subdivision that do not also lie on the project perimeter. A better solution from the standpoint of avoiding creation of a potentially troublesome precedent would be for the applicant to consider seeking a variance from the strict application of BIMC 18.15.010.D or submitting to the City Council a code amendment authorizing some landscaping flexibility for public facilities with security concerns.

25. Parking lot landscaping meeting code standards is proposed for both sides of the parking areas to provide a continuous canopy and shade along the eastern edge of the parking lot. The western edge, which is in close proximity to the perimeter landscape buffer, is to be enhanced with additional trees and shrubs.

26. The District proposal is to have at least the same number of tree units onsite after redevelopment as it had before. The plan is to remove 58 existing trees from the site with a total tree unit value of 199.8. The District intends to fully replace these tree units to meet code requirements; meeting this standard is also a condition for approving the applicant's final landscaping plan.

27. BIMC 18.15.020 requires the following amount of parking spaces: 1 space per 50 students and 1 space per employee. The new campus is forecasted to serve 450 students by 2019. The current site plan shows 67 marked vehicle spaces in the primary lot, including 48 angled parking spaces for staff and teacher parking and 19 parallel spaces for student pick-up and drop-off. The amount of spaces proposed substantially exceeds the minimum requirement. With Planning Commission support the District is requesting approval of the additional spaces to accommodate potential peak demands and provide parallel parking for safe drop-off and pick-up of students.

28. As noted, the northern driveway will be relocated to become effectively the eastern extension of Baker Hill Road. The new onsite eastern leg is proposed to have a right-turn lane for vehicles exiting to the north and a shared through-left turn lane. The northern driveway will provide access to the primary public parking lot and be oriented for one-way counterclockwise traffic circulation. The existing southern driveway will be retained, with its service area reconfigured for school buses and some staff parking (five spaces). The bus area will accommodate drop-off, pick-up and bus parking.

29. The project is conditioned to construct its internal walkways with nonskid hard surfaces, to meet accessibility requirements and to provide a minimum of five feet of unobstructed width. Bicycle facilities are required to accommodate security locking of both the frame and wheels. Covered bicycle parking is proposed near the entrance of the school. A minimum of 13 bicycle parking spaces are required. The District has submitted a lighting plan to be reviewed with its building permit submittal for compliance with guidelines for avoiding adverse outdoor lighting impacts.

### **BIMC Chapter 16.20 Critical Areas**

30. The site is located in a seismically active area within the Seattle Fault zone, a shallow crustal tectonic structure that has the potential to cause future earthquakes. The recurrence interval of earthquakes in this fault zone is believed to be on the order of a thousand years or more. The site also lies within an area at risk from strong shaking from subduction zone earthquakes, with a recurrence interval on the order of about 500 years. The most recent subduction zone earthquake occurred in 1700. Deep intraslab earthquakes also occur in the region every decade or two, including the 2001 Nisqually

earthquake. These deeper earthquakes are generally less severe than the shallow crustal and subduction zone earthquakes but have the potential to cause damage to older structures.

31. The Municipal Code requires a 50-foot setback from known active faults. While the preliminary investigation by Aspect Consulting did not identify an active fault on the site, inherent data uncertainties and limitations suggest it would be prudent to locate the proposed school building as far north on the site as practical, at a minimum 50 feet north of the southern site boundary. The proposed placement of the school meets this minimum distance requirement. Regarding construction, in the opinion of Aspect designing the new structures to comply with the current version of the International Building Code (IBC) will mitigate seismic hazards to acceptable risk levels.

32. The adjoining Islandwood property located east and northeast of the site contains a large wetland area. The east side of the Blakely School site contains portions of a 300-foot Category I/II Wetland buffer (consisting of a 100-foot inner water quality buffer plus a 200-foot outer habitat buffer). Currently, the buffer comprises forest/shrub cover, lawn play areas and the eastern edge of the existing school and its hardscape. Construction proposed within the buffer includes a new waterline, a fire lane and portions of the proposed school, totaling approximately 34,200 square feet.

33. The applicant submitted a Habitat Management Plan to mitigate for the impacts of its proposal to construct new facilities within the outer 200 foot wetland habitat buffer. Approval of the HMP pursuant to BIMC 16.20.060.A requires that the applicant *“shall clearly demonstrate that greater protection of the functions and values of critical areas can be achieved through the HMP than could be achieved through providing the prescribed habitat buffers.”*

34. Based on staff review and agency comments, early iterations of the HMP were found to be inadequate. A final plan addendum submitted on October 25, 2017 by Raedeke Associates, Inc. included the following: 29,968 square feet of buffer restoration/enhancement to establish a full native forest/shrub community within the degraded portions of the habitat and water quality buffers that now consist of lawn and play areas. This proposed additional forested area exceeds the amount of new buildings and hardscape (26,126 square feet) planned for the buffer. Further, relocation of portions of the new buildings and the now smaller fire lane will eliminate the need to cut trees within the undisturbed forest portion of the buffer.

35. After review of these latest modifications, staff currently recommends approval of the revised HMP as compliant with the standard set forth at BIMC 16.20.060.A. A detailed narrative of the HMP review process and applicable implementation, maintenance and monitoring requirements is provided in the staff report at pages 13 through 22.

36. The revised HMP will achieve a greater net critical areas function by preserving existing high functioning forest/shrub habitat and enhancing currently low functioning habitat (lawn and areas dominated by invasive species) through new native forest/shrub plantings. Under the plan, the proposed forest/shrub plantings would eventually increase the total area of higher functioning buffer from a current level of 45.8% to over 60%. Thus the proposed mitigation provides habitat functions and values that will become greater after development than would occur if the prescribed buffers were simply retained.

## CONCLUSIONS

1. BIMC 2.16.040E states the following criteria to be applicable to a site plan and design review approval:

1. *The site plan and design is in conformance with applicable code provisions and development standards of the applicable zoning district, unless a standard has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#);*
2. *The locations of the buildings and structures, open spaces, landscaping, pedestrian, bicycle and vehicular circulation systems are adequate, safe, efficient and in conformance with the nonmotorized transportation plan;*
3. *The Kitsap County health district has determined that the site plan and design meets the following decision criteria:*
  - a. *The proposal conforms to current standards regarding domestic water supply and sewage disposal; or if the proposal is not to be served by public sewers, then the lot has sufficient area and soil, topographic and drainage characteristics to permit an on-site sewage disposal system.*
  - b. *If the health district recommends approval of the application with respect to those items in subsection E.3.a of this section, the health district shall so advise the director.*
  - c. *If the health district recommends disapproval of the application, it shall provide a written explanation to the director.*
4. *The city engineer has determined that the site plan and design meets the following decision criteria:*
  - a. *The site plan and design conforms to regulations concerning drainage in Chapters [15.20](#) and [15.21](#) BIMC; and*
  - b. *The site plan and design will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and*
  - c. *The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and*
  - d. *The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and*
  - e. *If the site will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the site, and the applicable service(s) can be made available at the site; and*
  - f. *The site plan and design conforms to the “City of Bainbridge Island Engineering Design and Development Standards Manual,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title [18](#).*
5. *The site plan and design is consistent with all applicable design guidelines in BIMC Title [18](#), unless strict adherence to a guideline has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#);*
6. *No harmful or unhealthful conditions are likely to result from the proposed site plan;*
7. *The site plan and design is in conformance with the comprehensive plan and other applicable adopted community plans;*

8. Any property subject to site plan and design review that contains a critical area or buffer, as defined in Chapter [16.20](#) BIMC, conforms to all requirements of that chapter;

9. Any property subject to site plan and design review that is within shoreline jurisdiction, as defined in Chapter [16.12](#) BIMC, conforms to all requirements of that chapter;

10. If the applicant is providing privately owned open space and is requesting credit against dedications for park and recreation facilities required by BIMC [17.20.020.C](#), the requirements of BIMC [17.20.020.D](#) have been met;

11. The site plan and design has been prepared consistent with the purpose of the site design review process and open space goals;

12. For applications in the B/I zoning district, the site plan and development proposal include means to integrate and re-use on-site storm water as site amenities.

2. As summarized in the findings above and documented in both the staff report and the materials submitted by the applicant, the proposal, as conditioned, is in conformance with the Bainbridge Island Comprehensive Plan and Municipal Code, with the exception of building height, which is subject to modification through the conditional use approval. The proposed development provides for the replacement of an existing educational facility, a use conditionally allowed by the Municipal Code within the R-0.4 zoning district. The requirements of BIMC 17.20.020 are not relevant to this application because the proposal contains no new dwelling units and is not located within the B/I zoning district.

3. The Health District reviewed the project and raised no objections. The City's Development Engineer reviewed the submitted civil plans and, subject to appropriate conditions, found them to be consistent with applicable requirements. The proposed development was evaluated and recommended for approval by the Design Review Board. The proposed school building was reviewed against the Commercial and Mixed Use design guidelines at two Design Review Board meetings. All suggestions made by the DRB were implemented by the applicant. The project is found to be in compliance with the City's design guidelines, as recommended and conditioned by the Design Review Board.

4. The proposed site plan provides building layout, parking and circulation systems that are an efficient use of the available land while providing required setbacks and screening from the adjacent properties as well as open space. The subject property contains geologically hazardous and wetland buffer critical areas. The geologically hazardous fault zone requires a 50' buffer. After extensive review, wetland buffer impacts will be mitigated through an HMP such that greater protection of the functions and values of the critical area will be achieved than would be obtained through providing the prescribed habitat buffers

5. The proposed site plan was prepared consistent with the overall purpose and goals of the Site Plan and Design Review process. This process provided a means for guiding the development in a logical, safe, attractive and expedient manner. The requirements of BIMC 2.16.040E for a site plan and design review approval have been met by the proposal.

6. BIMC 2.16.110D and E provide the decisional criteria governing approval of a major conditional use permit application in a residential zone:

*D. Decision Criteria.*

*1. A conditional use may be approved or approved with conditions if:*



- a. The conditional use is harmonious and compatible in design, character and appearance with the intended character and quality of development in the vicinity of the subject property and with the physical characteristics of the subject property; provided, that in the case of a housing design demonstration project any differences in design, character or appearance that are in furtherance of the purpose and decision criteria of BIMC [2.16.020.Q](#) shall not result in denial of a conditional use permit for the project; and*
- b. The conditional use will be served by adequate public facilities including roads, water, fire protection, sewage disposal facilities and storm drainage facilities; and*
- c. The conditional use will not be materially detrimental to uses or property in the vicinity of the subject property; and*
- d. The conditional use is in accord with the comprehensive plan and other applicable adopted community plans, including the nonmotorized transportation plan; and*
- e. The conditional use complies with all other provisions of the BIMC, unless a provision has been modified as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#); and*
- f. All necessary measures have been taken to eliminate or reduce to the greatest extent possible the impacts that the proposed use may have on the immediate vicinity of the subject property; and*
- g. Noise levels shall be in compliance with BIMC [16.16.020](#) and [16.16.040.A](#); and*
- h. The vehicular, pedestrian, and bicycle circulation meets all applicable city standards, unless the city engineer has modified the requirements of BIMC [18.15.020.B.4](#) and [B.5](#), allows alternate driveway and parking area surfaces, and confirmed that those surfaces meet city requirements for handling surface water and pollutants in accordance with Chapters [15.20](#) and [15.21](#) BIMC; and*
- i. The city engineer has determined that the conditional use meets the following decision criteria:*
  - i. The conditional use conforms to regulations concerning drainage in Chapters [15.20](#) and [15.21](#) BIMC; and*
  - ii. The conditional use will not cause an undue burden on the drainage basin or water quality and will not unreasonably interfere with the use and enjoyment of properties downstream; and*
  - iii. The streets and pedestrian ways as proposed align with and are otherwise coordinated with streets serving adjacent properties; and*
  - iv. The streets and pedestrian ways as proposed are adequate to accommodate anticipated traffic; and*
  - v. If the conditional use will rely on public water or sewer services, there is capacity in the water or sewer system (as applicable) to serve the conditional use, and the applicable service(s) can be made available at the site; and*

*vi. The conditional use conforms to the “City of Bainbridge Island Engineering Design and Development Standards Manual,” unless the city engineer has approved a variation to the road standards in that document based on his or her determination that the variation meets the purposes of BIMC Title [17](#).*

*j. If a major conditional use is processed as a housing design demonstration project pursuant to BIMC [2.16.020.Q](#), the above criteria will be considered in conjunction with the purpose, goals, policies, and decision criteria of BIMC [2.16.020.Q](#).*

*2. If no reasonable conditions can be imposed that ensure the application meets the decision criteria of this chapter, then the application shall be denied.*

*E. Additional Decision Criteria for Institutions in Residential Zones.*

*Applications to locate any of those uses categorized as educational facilities, governmental facilities, religious facilities, health care facilities, cultural facilities, or clubs in Table 18.09.020 in residential zones shall be processed as major conditional use permits and shall be required to meet the following criteria, in addition to those in subsection D of this section:*

*1. All sites must front on roads classified as residential suburban, collector, or arterial on the Bainbridge Island functional road classification map.*

*2. If the traffic study shows an impact on the level of service, those impacts have been mitigated as required by the city engineer.*

*3. If the application is located outside of Winslow study area, the project shall provide vegetated perimeter buffers in compliance with BIMC [18.15.010](#).*

*4. The proposal meets the requirements of the commercial/mixed use design guidelines in BIMC [18.18.030.C](#).*

*5. The scale of proposed construction including bulk and height and architectural design features is compatible with the immediately surrounding area.*

*6. If the facility will have attendees and employees numbering fewer than 50 or an assembly seating area of less than 50, the director may waive any or all the above requirements in this subsection E, but may not waive those required elsewhere in the BIMC.*

*7. Lot coverage does not exceed 50 percent of the allowable lot coverage in the zone in which the institution is located, except that existing public schools and governmental facilities, as defined in BIMC Title [18](#), shall be allowed 100 percent of the lot coverage established in the underlying zoning district in which it is located unless conditions are required to limit the lot coverage to mitigate impacts of the use.*

7. The proposed development is for the replacement of an older existing public school with a modestly larger similar new facility. With few nearby single-family residential uses, the Blakely School, which has been in existence and operation at this location since 1963, fits well into the neighborhood pattern. Adjacent properties to the east are dominated by a large wetland and its buffer. Development proposed within the onsite portion of the wetland buffer will be satisfactorily mitigated under an approved HMP. No offsite residential impacts have been identified. No offsite impacts are associated with the proposed minor increase in building height. The proposed conditional use is consistent with the goals and policies of the Comprehensive Plan.

8. As conditioned, the proposed use will be adequately served by public roads, water, sewer, fire protection and storm drainage facilities. Allowing the replacement of the school will not be materially detrimental to existing uses in the vicinity because the site's function, although slightly intensified, will continue much as it has for many years. Proper access, parking, circulation, landscaping are being provided. The conditional use complies, as do the buildings analyzed within the Site Plan Review, with applicable provisions of the BIMC. The DRB reviewed the project and provided a recommendation of approval.

9. The Site Plan Review and Conditional Use Permit applications have been reviewed by the City's development engineer and, as conditioned, the vehicular, pedestrian, and bicycle facilities plans meet all applicable City standards and pollution controls. The project trip generation data did not demonstrate an increased level of traffic requiring mitigation. New site stormwater management facilities will both increase water quality and decrease peak flows for runoff leaving the site.

10. Based on the record as a whole, the school replacement application meets the requirements of BIMC 2.16.110D and E for the issuance of a major conditional use permit.

## **DECISION**

The Blakely School Conditional Use Permit and Site Plan and Design Review applications, including the Habitat Management Plan element (file no. PLN50767SPR/ CUP/ HMP), are APPROVED, subject to the following conditions:

### **SEPA Conditions**

1. To avoid impacts to vegetation, no construction activity shall occur in landscape buffers or within the critical root zone of significant trees within the forested wetland buffer, landscape buffers, including staging, storage, materials laydown, parking, construction vehicle turnaround, or equipment unless otherwise approved by the Department of Planning and Community Development.
2. Prior to clearing permit or construction permit issuance, fencing shall be erected and posted with signage to protect areas of prohibited disturbance to include a chain link fence around the dripline or critical root zone, whichever is greater. Signs shall be affixed to the fence every 50 feet indicating the protected area. Fencing shall be inspected and remain in place until construction is complete, and removal shall be subject to approval of the Department of Planning and Community Development. No construction activities, including grading and/or vegetation removal, shall occur prior to a 'area of disturbance' plan approval, and inspection and approval of the fencing installation, by the Department of Planning and Community Development.
3. Prior to commencing any construction activity, the District shall have the proposed habitat wetland buffer, as shown in the Habitat Management Plan Addendum, dated October 25, 2017, temporarily fenced between the areas of construction activity. The location of the fence shall be reviewed with the building permit application documents. The fence shall be made of durable material and shall be highly visible. The fence shall be inspected as part of the building

permit. The temporary fencing shall be removed once the construction activity is complete and replaced with permanent fencing.

4. A split-rail type fence shall be installed along the edge of the wetland buffer mitigation area. The fence may contain gates to access the restoration area and shall provide a clear distinction between native vegetation buffer area and any future landscaped area. The rails shall be high enough to allow small mammals and wildlife to pass through. The fence shall be indicated on the building permit application and in place prior to final inspection of the building permit.
5. Prior to issuing a final on a building permit, signs indicating the presence of a protected wetland buffer shall be placed on the fence. Signs shall be made of metal or similar durable material and shall be between 64 and 144 square inches in size.
6. All graded materials removed from the subject property shall be hauled to and deposited at City approved locations (Note: local regulations require that a grade/fill permit is obtained for any grading or filling of 50 cubic yards of material or more if the grading or filling occurs on sites that have not been previously approved for such activities. A SEPA Threshold Determination is required for any fill over 100 cubic yards on sites that have not been previously received a SEPA determination).
7. To meet the requests of the Department of Ecology, all mercury containing lights shall be properly disposed of, and any lead or asbestos building materials shall be managed appropriately and disposed at approved disposal locations.
8. All construction activities shall comply with the construction operating hours limitations contained in BIMC Chapter 16.16. Noise produced by this development must comply with the maximum environmental noise levels established by the Washington Administrative Code 173-60 or its successor.
9. Contractor is required to stop work if any historical or archaeological artifacts are uncovered during excavation or construction and immediately notify the Department of Planning and Community Development and the Washington State Office of Archaeology and Historic Preservation.
10. To address the concerns of the Historic Preservation Commission, the school shall install historical photographs within the school prior to the final on the building permit.
11. To mitigate the possible impact on adjacent properties from light and glare, all exterior lighting shall be hooded and shielded so that the bulb is not visible from adjacent properties. All landscape lighting shall be downcast and lighting within surface parking lots shall be no higher than 20 feet above grade. All exterior lighting shall comply with BIMC Chapter 15.34. High field lights are not permissible.
12. Prior to building permit issuance, the District shall submit a revision to Section 8.0, Wetland Buffer Mitigation Plan, of the July 19, 2017 Critical Areas and Habitat Management Report (HMP) prepared by Raedeke Associates, Inc. that includes:
  - a. Project revisions provided in the October 25, 2017 Addendum to the HMP prepared by Raedeke Associates, Inc. The mitigation plan shall include an updated figure depicting the “restoration planting area” of approximately 30,000

square feet including native species appropriate to the site and sufficient to provide wetland protection and forested buffer functions. The mitigation plan shall be in substantial compliance with BIMC 16.20.110 – Mitigation Plan Requirements and guidance provided in [Wetland Mitigation in Washington State: Part 2 - Developing Mitigation Plans](#) (Version 1, March 2006, Publication #06-06-011b); and

b. Recommendations as provided in the Habitat Buffer Functional Assessment prepared by City staff dated October 26, 2017; including; 1) Ensure measures to minimize impacts of adjacent land use are required to the extent feasible; 2) Maximize structural diversity in planting plan; consider adding emergent or groundcover species; 3) Increase number of plant species in planting plan; 4) Consider enhancement to existing forested habitat buffer; 5) Include special habitat features; e.g., downed large woody debris in restoration planting area; 6) Require low-impact fencing at edge of restoration planting area (in accordance with Condition 4, above); 7) Further refine non-planting mitigation measures (e.g.; soil amendment, invasive species removal); and 8) Explore potential to provide shrub plant community instead of “ecolawn”.

The Department of Planning and Community Development shall approve the revised wetland mitigation plan as part of the building permit review and plantings shall be installed or bonded for prior to final building permit inspection.

13. To reduce impacts from light and glare on the wetland and its buffer, the applicant shall limit the amount of lighting on the exterior of the school and shall have only motion sensor lights to the rear of the school facing the wetland.
14. A wetland buffer monitoring report shall be submitted annually, on or before December 31st of each monitoring year, for a period of seven years. A restoration maintenance assurance device shall be submitted and accepted prior to the completion of the restoration and shall be held during the monitoring period.
15. Due to the seismic hazard, an indemnification or hold harmless agreement shall be required prior to the commencement of construction or site alteration. The building permit shall follow the recommendations of their geotechnical engineer to ensure the school is safely constructed to meet all geotechnical requirements of the building code.
16. The district shall create a plan with the Fire Department to notify neighbors for updates on construction and potential impacts to the neighborhood.
17. School staff and teachers shall assist with site vehicle and pedestrian traffic circulation during student drop-off and pick-up times. School administrators shall as part of the standard operating procedures at the school regularly remind parents of students to utilize on-site parking and pick-up/drop-off areas (not permissible on Blakely) so as not to impact adjacent neighborhoods.
18. Blakely Avenue NE fronting the property to the west is classified as a secondary arterial suburban roadway per the City of Bainbridge Island Comprehensive Plan. A 6-foot wide paved bike lane and 3-foot gravel shoulder shall be provided along the adjacent full frontage of the property per the Standards detail drawing for a secondary arterial suburban roadway, DWG. 7-

020.

19. Additional supporting design information shall be submitted by the applicant with a building permit application to show that the site accesses are designed appropriately and that the median bisecting the north driveway is reasonable to accommodate vehicle paths, turn movements, and clearances.

## **Project Conditions**

20. Civil improvement plans ready for construction shall be submitted with an application for a building permit to the City of Bainbridge Island for review and approval to construct all necessary infrastructure serving the school.
21. As-built civil construction plans stamped by a civil engineer shall be provided by the applicant prior to final occupancy.
22. A Developer Extension Agreement shall be executed for offsite construction of roads and utilities to be inspected and accepted by the City prior to final on the school.
23. Issuance of a building permit will be subject to islandwide Transportation Impact Fees (TIFs) pursuant to BIMC 15.30. The fee will be based on the cost of additional trips set at the time of building permit application. The net additional trips proposed by the project is estimated at 53. Credits towards the TIFs will be given only for land, improvements, and/or facility construction for system improvements listed in the TIF rate study.
24. To ensure the Blakeley Elementary School facility remains compatible with the surrounding neighborhood, the school is limited to an occupancy of 450 students and 27 teachers for standard school days (this limitation does not apply to special events or functions).
25. The site currently has 14 Equivalent Residential Units (ERUs) for sewage participation with the City of Bainbridge Island and the Sewer District 7 wastewater treatment plant. The school expansion will require a total of 20 ERUs. The 6 additional ERUs can be made available to the applicant.
26. A Stormwater Pollution Prevention Plan (SWPPP) prepared by a civil engineer licensed in the State of Washington is required prior to construction activities including clearing or grading or civil improvements for all phases of the project that complies with BIMC 15.20.
27. A final stormwater report shall be submitted detailing compliance with all applicable minimum requirements as required by BIMC 15.20, prepared by a civil engineer licensed in the State of Washington.
28. Pollution generating pervious surfaces (PGPSs), such as play and sports fields (including natural or artificial turf) or areas subject to use of pesticides, fertilizer, or loss of soil shall be subject to Minimum Requirement No. 6 - Runoff Treatment. Water quality facilities shall be provided for these project surfaces where there will be a surface discharge in a natural or man-made conveyance from these areas.

29. With the building permit submittal, the applicant shall submit an operation and maintenance plan for the on-going maintenance of the on-site storm drainage system.
30. All on-site stormwater facilities shall remain privately owned and maintained. The owner(s) shall be responsible for maintenance of the storm drainage facilities for this development following construction. Annual inspection and maintenance reports shall be provided to the City. A Declaration of Covenant for stormwater system operation and maintenance will be required to be recorded before final building occupancy.
31. A right-of-way (ROW) construction permit will be required prior to any construction activities within the right-of-way. The ROW permit will be subject to separate conditions and bonding requirements.
32. Application for a building permit shall require binding sewer and water availability at building permit submittal.
33. A separate grade and fill permit shall be submitted for all sitework not associated with a permittable structure.
34. The proposed action(s), phased or concurrent, in their totality would result in more than one (1) acre of earth disturbance on the site and drain to waters of the State. A Construction Stormwater General Permit shall be obtained from the Washington State Department of Ecology and the site shall be monitored for discharge of pollutants and sediment to the wetlands and stream for the duration of the project. No land clearing or construction permits shall be issued prior to obtaining the State permit.
35. Except for modifications reflecting compliance with these conditions of approval, building plans shall substantially conform to plans submitted on October 11, 2017.
36. Prior to any construction activities, the applicant shall obtain the appropriate permits from the City of Bainbridge Island.
37. Raised curbs shall be used to define driveways from the public right-of-way, landscape areas within the parking lot, the ends of parking aisles, and the vehicular circulation pattern.
38. Internal pathways shall be surfaced with nonskid hard surfaces, meet accessibility requirements and be designed to provide a minimum of five feet of unobstructed width.
39. The project shall meet the requests of the fire marshal to address of the fire code and fire flow.
40. The applicant shall record a notice to title of the presence of the wetland, the mitigation area and shall include a note that the area limits the use of pesticides prior to the issuance of the building permit.
41. The applicant shall provide landscaping as indicated on the landscaping plans dated October 10, 2017. As indicated and conditioned, the plans shall meet the landscaping screening requirements along the perimeter of the site, parking lot landscaping and tree unit requirements.
42. All landscaping shall be installed, or a performance assurance device shall be submitted and approved, prior to final inspection of the final building within the phase being constructed.

The installation of landscaping shall be verified by the Landscape Professional or owner and a landscaping declaration shall be signed.

43. Landscape buffers shall be maintained with a maintenance assurance device for a period of three years. No vegetation within the buffers shall be disturbed without approval of the Department of Planning and Community Development through an approved clearing, grading or civil plan.
44. The District shall provide their contractor a sheet with the trees proposed for retention and removal clearly marked. The following regulations shall be included on that sheet:

Unauthorized removal of trees shall result in at least one-and-one-half times (150 percent) of the number of tree units removed. The trees removed shall be replaced with trees of the same type, evergreen or deciduous. Native shrubs and ground cover shall also be replaced when replacing tree stands due to unauthorized removal. Shrubs shall be one-gallon size planted four feet on center spacing; ground cover shall be one-gallon size planted three feet on center spacing. The shrubs and ground cover shall be planted within the limits of the previous tree stand canopy.

A property owner may request removal of trees required to be retained pursuant to this chapter by applying for a clearing permit with a replanting plan. Trees will be approved for removal only if they meet the hazard tree requirements.

Failure to retain, replace or transplant trees will be enforced as follows; provided, that any fine shall be no less than three times the value of the trees, as determined by the current standards of the International Society of Arboriculture. The city has the authority to administer the following; stop work orders, injunction or abatement or any other appropriate action in courts and/or a civil infraction, subject to enforcement and fines.

Exception to discretion statement above: Any tree identified on a development project's required landscaping plan as retained and given a monetary value per subsection G.3.a.iii of this section that is removed, or dies during the surety period due to improper protection during construction, shall be subject to an automatic fine of three times the tree's stated value. All of the project's active permits shall also be suspended until the fine is paid and all restoration work completed.

45. Parking space and aisle dimensions shall meet the design standards in BIMC 18.15.020.J. Spaces for compact cars shall not exceed 30% of the amount of spaces.
46. A minimum of 13 bicycle parking facilities are required to be provided prior to certificate of occupancy of the school.
47. Prior to the issuance of the building permit, a well decommission application shall be reviewed and approved by the Kitsap Health District.
48. Minor adjustments to an approved major conditional use permit or site plan review may be made after review and approval by the director. Minor adjustments are those that entail small changes in dimensions or siting of structures or the location of public amenities, but do not entail changes to the intensity or character of the use.
49. Major adjustments to an approved major conditional use permit or site plan review require an



amended application and shall be processed in the same manner as a new conditional use or site plan review application. Major adjustments are those that change the basic design, intensity, density, and/or use.

ORDERED December 4, 2017.

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Stafford L. Smith, Hearing Examiner  
City of Bainbridge Island

The Hearing Examiner is authorized to make the City of Bainbridge Island's final decision on conjoined Conditional Use Permit and Site Plan and Design Review applications. A party with standing may seek judicial review of this decision by filing a timely suit in Kitsap County Superior Court under the Land Use Petition Act.

The exhibit list prepared by the Clerk of the Hearing Examiner's Office is attached.