



Freeland and Associates, Inc.

220 West Champion Street

Suite 200

Bellingham, Washington

360.650.1408

January 4, 2021

City of Bellingham Public Works  
Stormwater Division  
104 E. Magnolia Street  
Bellingham, WA 98225

**Subject: Preliminary Stormwater Proposal  
Plat of Barkley Meadows  
3615 Chandler Parkway  
TPN: 380316 372176**

To whom it may concern:

The existing parcel, located at 3615 Chandler Parkway in Bellingham, Washington, is proposed to be developed. Refer to *Figure 1 – Vicinity Map* for the project location. This letter serves as a preliminary stormwater proposal for the project.

#### *Existing Conditions*

The subject property is 11.22 acres in size and forms an irregular shape. At this time the property is undeveloped. Ground cover consists of trees, shrubbery, and pasture grasses. Topography of the site is sloped from east to west. Refer to *Figure 2 – Aerial Photograph* for the existing site conditions.

#### *Proposed Conditions*

The owner of the lot intends to subdivide the property to create a single-family residential plat and infill toolkit units. An extension of Sussex Drive is proposed to provide access to each lot. Associated improvements will include municipal utility connections, sidewalks, landscaping, and possible fencing along the property lines.

#### *Soils*

Soils on the site are mapped as a combination of Squalicum gravelly loam of hydrologic group 'B' and Whatcom silt loam of hydrologic group 'C'. Hydrologic group 'B' soils have a moderate infiltration rate when thoroughly wetted and contain a fine to coarse texture. Hydrologic group 'C' soils have a low

infiltration rate when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water.

### *Stormwater Management*

As a project creating and replacing more than 5,000 square feet of impervious surface, it will be subject to Minimum Requirements #1 through #9 as provided in City of Bellingham Municipal Code (BMC) 15.42.060. The preliminary site plan indicates that the project will exceed treatment and flow control thresholds set by BMC 15.42.060 (F)(6) and (F)(7).

MINIMUM REQUIREMENT SUMMARY LARGE PARCEL RE-DEVELOPMENT					
Minimum Requirement		Not Applicable	Variance Requested	Standard Requirements Incorporated	Comments (Report Section Reference or BMP Identifier)
#	Description				
1	Preparation of Stormwater Site Plans			✓	See Civil Plans.
2	Construction Stormwater Pollution Prevention Plan			✓	To be prepared with civil engineering construction documents.
3	Source Control of Pollution			✓	Enhanced stormwater treatment proposed. Garbage enclosures proposed.
4	Preservation of Natural Drainage Systems and Outfalls			✓	Natural drainage patterns maintained through collection and detention of stormwater onsite.
5	On-Site Stormwater Management			✓	Infiltration BMP's not feasible due to soil types and slopes. Stormwater will be collected, treated, and detained onsite.
6	Runoff Treatment			✓	Treatment provided within water quality treatment system.
7	Flow Control			✓	Flow control to be provided in detention vaults.
8	Wetlands Protection			✓	See attached mitigation plans and narrative below.
9	Operation and Maintenance			✓	To be prepared with construction documents.

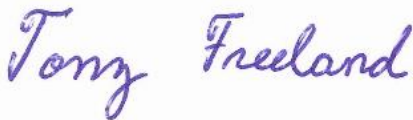
Due to the geotechnical investigation showing areas of poorly infiltrating soils; stormwater runoff will be managed with detention vaults. Multiple detention vaults will be constructed to allow for project phasing. The proposed detention facilities will be located in a tract of land dedicated to the City of Bellingham. Therefore, the City of Bellingham will own and be responsible for stormwater facility maintenance. Stormwater treatment will be provided by a water quality treatment system, such as Biopod. It is anticipated that some Low Impact Development (LID) techniques can be applied to the project to reduce stormwater runoff quantities. At a minimum, post construction soil quality and depth (BMP T5.13) will be employed.

#### *Wetlands Protection*

There are three existing wetlands located on the site. The final stormwater management design will meet Minimum Requirement #8 of the 2019 DOE Manual; which includes general protection, protection from pollutants, and wetland hydroperiod protection of the wetland. Wetland hydroperiod protection involves maintaining the existing hydrologic conditions experienced by the wetland. As described in the mitigation plan prepared by Miller Environmental Services, stormwater flowing down grade towards the wetlands is intercepted by the existing stormwater ditch within the access and utility easement. The preliminary stormwater design proposes to outfall to this ditch as well. During final design, the specific existing and proposed conditions of the wetland will be modeled to determine conditions are maintained as required.

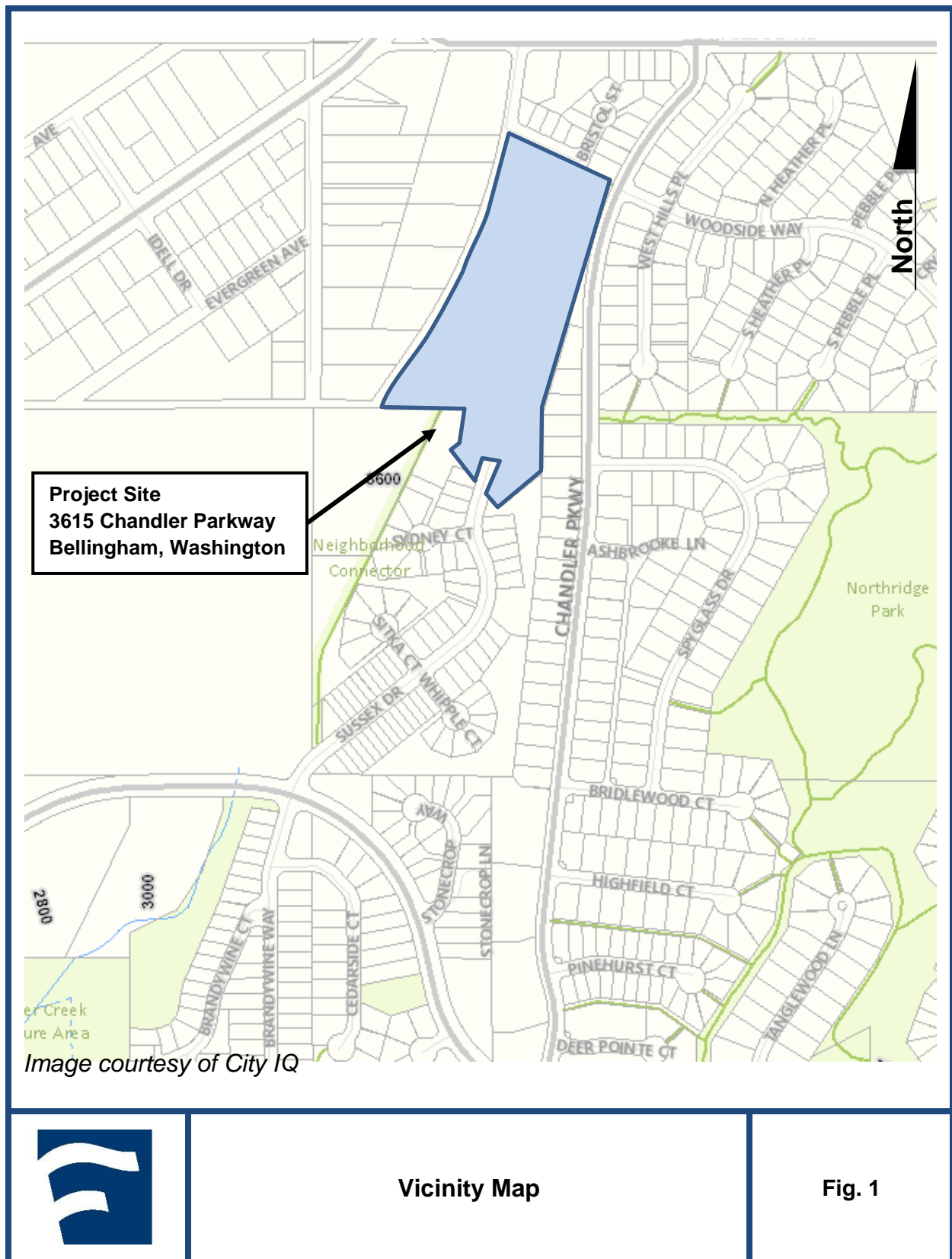
Please let us know if you have any questions or concerns about these observations.

Sincerely,  
Freeland and Associates, Inc.

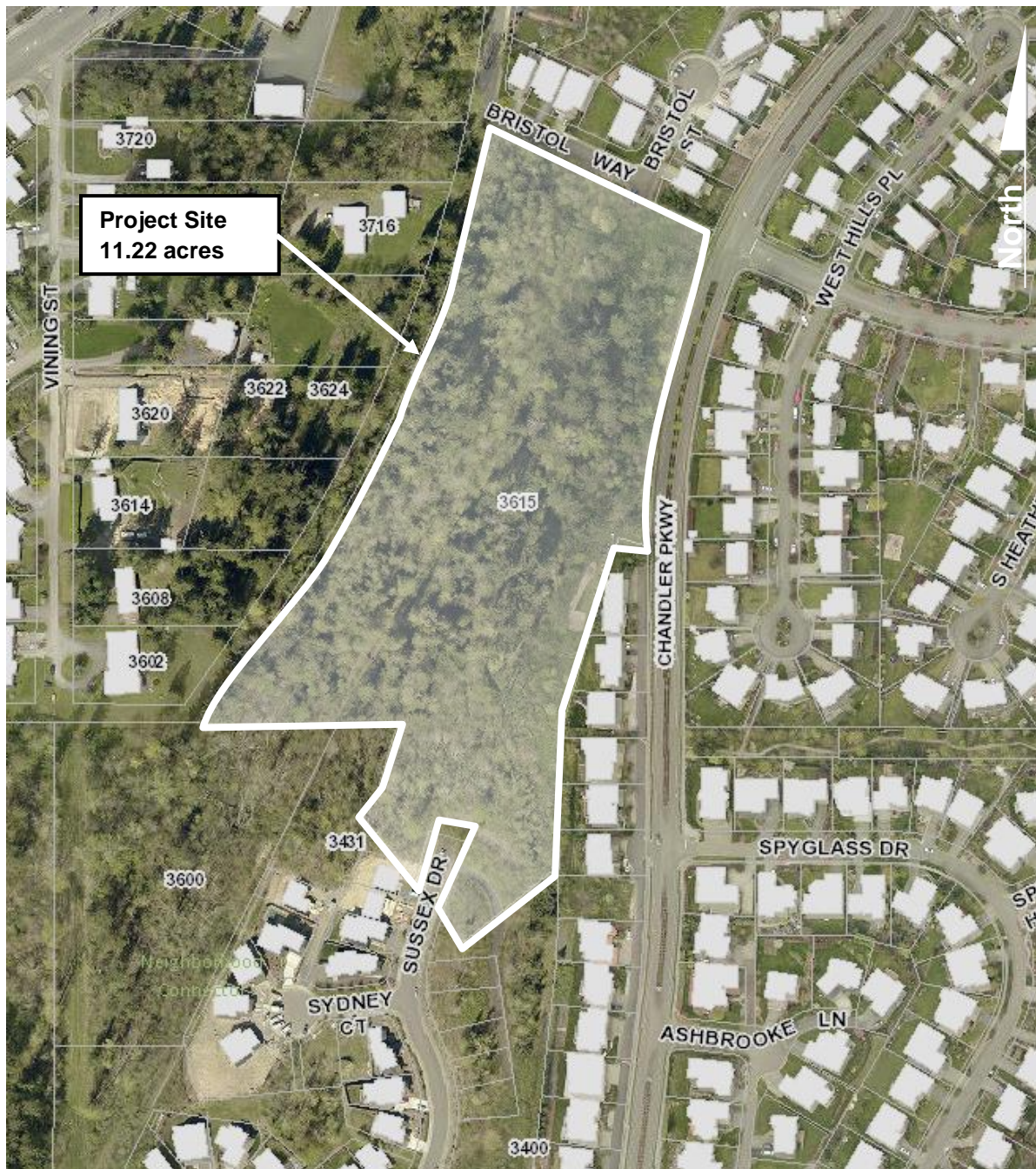


Tony Freeland, P.E.

*Encl.    Vicinity Map  
         Aerial Photograph  
         Drainage Exhibit*








Aerial Photograph of Site

Fig. 2

**Fig. 3 Drainage Exhibits**



DRAINAGE LEGEND	
<div></div>	FOREST 240,648 SF (5.525 AC)
	TOTAL 240,648 SF (5.525 AC)



220 W. Champion Street, Suite 200  
Bellingham, WA 98225

t: 360.650.1408  
f: 360.650.1401

**F R E E L A N D**  
& A S S O C I A T E S




SHEET CONTENTS

PRE DEVELOPMENT DRAINAGE  
EXHIBIT

JOB #	18107	DATE	06-25-2020
DRAWING #	18107SP30.DWG	SHEET NAME	D1





DRAINAGE LEGEND	
	POLLUTION GENERATING HARD SURFACE 65,605 SF (1.506 AC)
	NON-POLLUTION GENERATING HARD SURFACE 65,846 SF (1.512 AC)
	PASTURE 109,197 SF (2.507 AC)
	TOTAL 240,648 SF (5.525 AC)

220 W. Champion Street, Suite 200  
Bellingham, WA 98225  
t: 360.650.1408  
f: 360.650.1401

**FREELAND**  
& ASSOCIATES

SHEET CONTENTS

POST DEVELOPMENT DRAINAGE  
EXHIBIT

JOB #  
18107

DATE  
06-25-2020

DRAWING #  
18107SP30.DWG

SHEET NAME  
D2