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

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

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

File No.	14-128563-LO
Project Name/Address:	**Plaza 520 Building D Stream and Landscape Improvements** 13000 NE 20th Street
Planner:	David Pyle / dpyle@bellevuewa.gov
Phone Number:	425-452-2973
Minimum Comment Period:	June 5, 2014, 5 PM

Materials included in this Notice:

- ☒ Blue Bulletin
- ☒ Checklist
- ☒ Vicinity Map
- ☒ Plans
- ☐ Other:

Plaza 520 Stream Improvements
14-128563-LO

City Parks
Parcels

NE 31ST PL
128TH AVE NE
131ST PL NE
NE 29TH ST
NE 28TH ST
126TH AVE NE
127TH AVE NE
NE 26TH PL
134TH AVE NE
NE 30TH ST
NE 29TH PL
NE 28TH ST
NE 27TH ST
NE 26TH PL
NE 25TH ST
NE 24TH ST
NE 23RD PL
Viewpoint Park
136TH PL NE
140TH AVE NE
NORTHUP WAY
NE 21ST PL
NE 20TH ST
130TH AVE NE
132ND AVE NE
134TH AVE NE
Highland Park and Community Center
NE 16TH ST
NE 15TH PL
NE 14TH ST
NE 14TH PL
NE 11TH ST
129TH PL NE

Locator Map

0 504 1,009
Scale 1:6,052 Feet

Map Generated on: 05/16/2014

ENVIRONMENTAL CHECKLIST

10/9/2009

Thank you in advance for your cooperation and adherence to these procedures. If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call Development Services (425-452-6800) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

INTRODUCTION
Purpose of the Checklist:

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

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly, with the most precise information known, or give the best description you can. You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer or if a question does not apply to your proposal, write "do not know" or "does not apply." Giving complete answers to the questions now may avoid unnecessary delays later.

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

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. Include reference to any reports on studies that you are aware of which are relevant to the answers you provide. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of a Checklist for Nonproject Proposals: *A nonproject proposal includes plans, policies, and programs where actions are different or broader than a single site-specific proposal.*

For nonproject proposals, complete the Environmental Checklist even though you may answer "does not apply" to most questions. In addition, complete the Supplemental Sheet for Nonproject Actions available from Permit Processing.

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

Attach an 8 ½" x 11 vicinity map which accurately locates the proposed site.

ENVIRONMENTAL CHECKLIST

4/11/2013

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call Development Services (425-452-6800) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

BACKGROUND INFORMATION

Property Owner: HARSH INVESTMENT PROPERTIES

Proponent:

Contact Person: BRIAN WILLIAMS
(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: PO BOX 2708 PORTLAND, OR 97208

Phone: 503-450-0809

Proposal Title: Plaza 520 Business Park - Building D

Proposal Location: 13000 NE 20th St., Bellevue, WA
(Street address and nearest cross street or intersection) Provide a legal description if available.

Please attach an 8 ½" x 11" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

1. General description: To provide mitigation for minor critical area buffer impacts and to realign Goff Creek
2. Acreage of site: 11.6 ACRES +/- LOTS 1,2,3,4
3. Number of dwelling units/buildings to be demolished: NA
4. Number of dwelling units/buildings to be constructed: NA
5. Square footage of buildings to be demolished: NA
6. Square footage of buildings to be constructed: NA
7. Quantity of earth movement (in cubic yards): Approximately 200 cy
8. Proposed land use: EXISTING
9. Design features, including building height, number of stories and proposed exterior materials:
   NA
10. Other

Estimated date of completion of the proposal or timing of phasing:

September 2014

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

NO

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

CRITICAL AREAS REPORT and MITIGATION PLAN
LANDSCAPE PERMIT 13-135614 6B

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

LANDSCAPE PERMIT 13-135614 6B

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

LANDSCAPE PERMIT 13-135614 6B
HYDRAULIC PROJECT APPROVAL from Washington Department of Fish & Wildlife
SECTION 404 PERMIT from Army Corps of Engineers

Please provide one or more of the following exhibits, if applicable to your proposal.
(Please check appropriate box(es) for exhibits submitted with your proposal):

☐ Land Use Reclassification (rezone) Map of existing and proposed zoning

☐ Preliminary Plat or Planned Unit Development
Preliminary plat map

☑ Clearing & Grading Permit
Plan of existing and proposed grading
Development plans

☐ Building Permit (or Design Review)
Site plan
Clearing & grading plan

☐ Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: ☐ Flat ☑ Rolling ☐ Hilly ☐ Steep slopes ☐ Mountains ☐ Other

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

33%

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

The Natural Resources Conservation Service mapped the soils as Everett gravelly sand loam.

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

NA

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

Realignment of Goff Creek to prevent flooding of public sidewalk. Approx. 200 cy obtained on site.

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

Yes, erosion may occur until stream is stabilized and planted.

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

NA

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

A TESC Plan & Stream Diversion Plan has been prepared to control erosion during construction.

2. AIR

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

NA

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

NA

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

NA

3. WATER

a. Surface

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

YES, GOFF CREEK, TYPE F

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

YES, realignment of Goff Creek, removal of existing culvert and raising existing public sidewalk to prevent flooding and to provide additional flood storage

(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.

Approximately 200 cy of cut/fill to realign Goff Creek and to raise the sidewalk to create a berm

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

NA

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

NA

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

NO

b. Ground

(1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description.

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.

NA

c. Water Runoff (Including storm water)

(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.

A temporary stream bypass will be installed to divert existing Goff Creek flows around the construction area. Two sand bag dams will be installed to prevent seepage of groundwater from entering or exiting the construction area. Sump pumps will be used to disperse stormwater to existing grassy detention area for infiltration.

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

NO

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

NA

4. Plants

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

- ☐ deciduous tree: alder, maple, aspen, other
- ☐ evergreen tree: fir, cedar, pine, other
- ☐ shrubs
- ☑ grass
- ☐ pasture
- ☐ crop or grain
- ☑ wet soil plants: cattail, buttercup, bulrush, 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?

Non-native mowed grasses and some native herbaceous vegetation

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

NA

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

The critical area buffer will planted with a variety of native woody/emergent vegetation after construction

5. ANIMALS

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

☑ Birds: hawk, heron, eagle, songbirds, other:

☐ Mammals: deer, bear, elk, beaver, other:

☐ Fish: bass, salmon, trout, herring, shellfish, other:

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

NA

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

NA

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

the critical area buffer will planted with a variety of native woody/emergent vegetation after construction

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 need? Describe whether it will be used for heating, manufacturing, etc.

NA

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

NA

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

NA

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.

NA

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

NA

(2) Proposed measures to reduce or control environmental health hazards, if any.

NA

b. Noise

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

NA

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

NA

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

NA

8. Land and Shoreline Use

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

RETAIL

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

NO

c. Describe any structures on the site.

BANK/ RETAIL

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

NO

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

BR-GC

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

Bel-Red General Commercial

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

NA

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

YES, Goff Creek

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

NONE

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

NONE

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

NA

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

NA

9. Housing

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

NA

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

NA

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

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?

NA

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

NA

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

NA

11. Light and Glare

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

NA

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

NA

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

NA

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

NA

12. Recreation

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

NA

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

NA

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

NA

13. Historic and Cultural Preservation

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

NA

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

NA

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

NA

14. Transportation

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

SR-520 & NORTHUP WAY, NE 20th ST & 130th AVE NE

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

Y

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

NA

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

NA

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

NA

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

NA

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

NA

15. Public Services

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

NA

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

NA

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

ELEC, GAS, WATER, TELEPHONE, SANI. SEWER, REFUSE SERVICE

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.

NA

Signature

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

Signature.....

Date Submitted.....

15. Public Services

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

NA

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

NA

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

ELEC, GAS, WATER, TELEPHONE, SANI. SEWER, REFUSE SERVICE

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.

NA

Signature

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

Signature..... Ann M. Olsen .....

Date Submitted..... 4-3-14 .....

CRITICAL AREAS REPORT AND MITIGATION PLAN

PLAZA 520 BUSINESS PARK – BUILDING D

BELLEVUE, WASHINGTON
PROJECT #s: 13-114935-BW (13-134973-EA)

Prepared For:

HARSCH INVESTMENT PROPERTIES
Portland, Oregon

Prepared By:

TALASAEA CONSULTANTS, INC.
Woodinville, Washington

3 April 2014

Critical Areas Report and Mitigation Plan

Plaza 520 Business Park – Building D

Bellevue, Washington
Project #s: 13-114935-BW (13-134973-EA)

Prepared for:

Harsch Investment Properties
1121 SW Salmon Street
Portland, Oregon 97205

Prepared by:

Talasaea Consultants, Inc.
15020 Bear Creek Road NE
Woodinville, Washington 98077
425-861-7550

3 April 2014

EXECUTIVE SUMMARY

PROJECTNAME:	Plaza 520 Business Park – Building D (the Site) Project #s: 13-114935-BW (13-134973-EA)
CLIENT:	Harsch Investment Properties, Mr. Brian Williams
SITE LOCATION:	Building D is located in the southwest corner of an 11.6-acre property known as Plaza 520 Business Park located in Bellevue, Washington. The Site address is 13000 NE 20th St. The Public Land Survey System is the northeast ¼ of T25N, R05E, and Section 28
PROJECT STAFF:	Bill Shiels, Principal; Ann Olsen, Senior Project Manager; David R. Teesdale, Senior Ecologist; Adam DeWolfe, Mitigation Planner/Landscape Designer
FIELD SURVEY:	Site investigations occurred on 17 February, 14, 17 and 20 March 2014

DETERMINATION: One stream, Goff Creek, was identified on the Site. Segments of the creek flow through both open conveyances and in culverts. Goff Creek is rated a Type F (fish bearing) water. Per City of Bellevue Land Use Code (BLUC) §20.25H.075.C.1, Type F streams on developed sites require a 50-foot buffer and a 50-foot structure setback.

HYDROLOGY: The Goff Creek basin is characterized by the City of Bellevue as one of the least urbanized basins in Bellevue. Goff Creek's headwaters are north of SR-520 within the southern portion of the Bridal Trails Park. Much of the upper reaches of Goff Creek within the City of Bellevue flows through buried pipes or steep-banked channels south to Bel-Red Road. Goff Creek flows through the Site from north to south and then easterly along the frontage of NE 20th St. where it enters a culvert at the business park entrance along NE 20th St. The culvert enters a control/conveyance structure on the east side of entrance that directs Goff Creek under NE 20th St. Goff Creek eventually flows into Kelsey Creek approximately 6,900 linear feet from the Plaza 520 site. Kelsey Creek flows for approximately 1.9 miles before commingling with Mercer Slough. Mercer Slough flows for approximately 2.6 miles before emptying into Lake Washington.

VEGETATION: Vegetation within the stream corridor is composed of non-native mowed grasses with some native herbaceous vegetation.

CRITICAL SPECIES: SalmonScape indicates that the stream is utilized by fall chinook, coho and sockeye salmon to a point south of Bellevue-Redmond Road. Goff Creek is piped from the south side of Bellevue-Redmond Road to the west side of NE 132nd Avenue, north of 16th Street NE, a distance of over 1,000 feet. The culvert under Bellevue-Redmond Road is identified by WDFW as a total fish passage blockage.

HABITAT ASSESSMENT: The result of the Bellevue Habitat Functional Assessment for the Plaza 520 site indicates the property has little value as wildlife habitat. The Site scored 7 points out of a total of 50 points. According to the Guidance documentation (The Watershed Company 2009), sites scoring less than 10 points have little or no functional wildlife habitat present. This makes sense since the Site and the property to the south are completely surrounded by urban development, busy city roads, and freeways. It is unlikely species other than birds would be able to access these properties.

PROJECT HISTORY: The Plaza 520 Building D project involved tenant improvements to the exterior of an existing building for future use by the Boeing Employees Credit Union (BECU). The improvements included removal of existing colonnade and mansard roof, exterior façade remodel, replacement of roof top mechanical units and structural upgrade to current code standards. Building D is a one-story structure with open-air parking below.

CRITICAL AREA IMPACTS: On November 5, 2013, the City inspector prepared an inspection notice stating: "It appears as though one of the two required exits from the space above passes

through the parking garage. Establish a clear exit path that takes people to the public way. Provide emergency lighting that is battery backup (or other approved means) in the exit path until the level of exit discharge is met (outside the garage)."

The Site contractor determined the best access route for the required exit path and constructed a gravel path from the southeast corner of the open-air parking area below the building southward to the public sidewalk along NE 20th St.

Carol Orr, Land Use Planner for the City of Bellevue, conducted a required land use inspection in early December 2013 and determined that the newly constructed path occurred within the critical area buffer for Goff Creek. As currently exists, the Building D development does not provide the standard 50-foot buffer or the 50-foot structure setback from the creek as required by the current critical areas code. In a letter dated December 4, 2013, Ms. Orr states that a Critical Areas Land Use Permit and a mitigation planting plan will be required equivalent to the square footage (sf) that was disturbed for the path. Approximately 184 sf of buffer area was impacted for the path.

VOLUNTARY NON-COMPENSATORY STREAM MITIGATION: On March 14th, 2014, we spoke with Michael Paine, Senior Environmental Planner at the City of Bellevue, to discuss the current flooding conditions of Goff Creek on the Plaza 520 site. During large storm events, the portion of the stream on the Site routinely breaches its current channel and floods the adjacent sidewalk to the south. In addition, the capacity of the existing culvert under the sidewalk is diminished due to increased sediment deposits which have filled in both the channel and the culvert. Currently, the culvert only has approximately 10 percent of its original capacity. We both agreed that to temporarily control the flooding, two temporary sand-bag walls would need to be installed along the stream to control flows from breaching the current channel. On March 15th and 20th, two sand bag walls were constructed.

Harsch Investment Properties realizes that this recurring problem must be fixed and is willing to work with the City to devise a plan that will resolve the current situation without being cost prohibitive. The proposed non-compensatory mitigation for the portion of Goff Creek adjacent to Building D will include:

- Reconfigure the stream alignment to increase the capacity of the channel, providing a low-flow channel for normal stream flows and creating a high-flow floodplain on both sides of the channel to allow for increased flows during large storm events;
- Installing deflector logs along stream bends to provide armor during high flow events;
- Raise the existing elevation of the sidewalk to create a berm on the south side of the stream corridor to prevent flooding of the sidewalk;
- Remove the existing culvert at the sidewalk to prevent constriction of storm flows and flooding;
- Construct a pedestrian bridge over the realigned stream channel to allow flows to pass through an open channel;
- Provide additional flood capacity storage along the realigned channel; and
- Plant appropriate native vegetation along the reconfigured stream corridor while maintaining visual access to the existing properties located in the business park.

Therefore, the overall goals of this mitigation plan are to replace and improve impacted buffer areas, improve stream habitat, provide additional flood storage, prevent flooding and reduce the threat to public health and safety. To accomplish these goals the proposed project will:

- Replace and restore 184 sf of buffer area;
- Improve the habitat function of Goff Creek;
- Increase flood storage;
- Prevent flooding of the sidewalk; and
- Enhance 10,665 sf of buffer area.

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CHAPTER 1. INTRODUCTION

1.1 Document Purpose

This mitigation plan has been prepared to describe impacts to critical areas and the proposed mitigation for these impacts at the Plaza 520 Business Park, Building D site in Bellevue, Washington (**Figure 1**). The Plaza 520 Business Park was developed in the late 1970's. Its uses include light industrial, office, restaurant and retail service users. Building D is situated in the southwest corner of the 11.6-acre business park and currently operates as a Boeing Employees Credit Union (BECU). This report represents information specifically associated with recent tenant improvement plans for Building D only.

Information presented in this report will be utilized by the City of Bellevue Land Use Departments to assist in the permitting of the proposed mitigation. The proposed mitigation plan is designed to meet the requirements as stated in the Bellevue Land Use Code (BLUC) Part 20.25H Critical Areas Overlay District.

This report will provide and describe the following information:

- Project location;
- Project history;
- Existing Site Analysis;
- Stream Determination;
- Habitat Functional Assessment;
- Critical Area Impacts,
- Proposed Mitigation;
- Goals, Objectives and Performance Standards;
- Mitigation Construction
- Monitoring, Maintenance and Contingency Measures;
- Financial Assurances; and
- Summary.

1.2 Statement of Accuracy

The information contained in this report was prepared by trained professionals at Talasaea Consultants, Inc., and adhered to the protocols, guidelines, and generally-accepted industry standards available at the time work was performed. The conclusions in this report are based on the results of analyses performed by Talasaea Consultants and represent our best professional judgment. To that extend, and within the limitations of the project scope and budget, we believe the information provided herein is accurate and true to the best of our knowledge. Talasaea Consultants does not warrant any assumptions or conclusions not expressly made in this report or based on information or analyses other than which included herein.

CHAPTER 2. PROJECT OVERVIEW

2.1 Project Location

Building D is located in the southwest corner of an 11.6-acre property known as Plaza 520 Business Park located in Bellevue, Washington. The Site address is 13000 NE 20th St. The Site is situated north of the intersection of NE 132nd Avenue and NE 20th St. The Public Land Survey System (PLSS) is the northeast ¼ of Section 28, T25N, R05E, Willamette Meridian. The Site is a roughly rectangular in shape and developed with one building and associated parking areas.

2.2 Project History

The Plaza 520 Building D project involved tenant improvements to the exterior of an existing building for future use by BECU. The improvements included removal of existing colonnade and mansard roof, exterior façade remodel, replacement of roof top mechanical units and structural upgrade to current code standards. Building D is a one-story structure with open-air parking below.

On November 5, 2013, the City inspector prepared an inspection notice stating: "It appears as though one of the two required exits from the space above passes through the parking garage. Establish a clear exit path that takes people to the public way. Provide emergency lighting that is battery backup (or other approved means) in the exit path until the level of exit discharge is met (outside the garage)."

The Site contractor determined the best access route for the required exit path and constructed a gravel path from the southeast corner of the building southward to the public sidewalk along NE 20th St. (**Photo 1**)

Photo 1. Constructed Path in Critical Area Buffer

Carol Orr, Land Use Planner for the City of Bellevue, conducted a required land use inspection in early December 2013 and determined that the newly constructed path occurred within the critical area buffer for Goff Creek. As currently exists, the Building D development does not provide the standard 50-foot buffer or the 50-foot structure setback from the creek as required by the current critical areas code. In a letter dated December 4, 2013, Ms. Orr states that a Critical Areas Land Use Permit and a mitigation planting plan will be required equivalent to the square footage (sf) that was disturbed for the path.

2.3 Temporary Measures to Control Flooding

During large storm events, the portion of Goff Creek on the Site routinely breaches its current channel and floods the adjacent sidewalk to the south (**Photo 2**). In addition, the capacity of the existing culvert under the sidewalk is diminished due to increased sediment deposits which have filled in both the channel and the culvert. Currently, the culvert only has approximately 10

percent of its original capacity. As a temporary measure to control the flooding, two temporary sand-bag walls were installed along the stream corridor to control high flows from breaching the current channel (**Photo 3**).

Photo 2. Goff Creek Flooding over Sidewalk

Photo 3. Temporary Sandbag Walls

CHAPTER 3. EXISTING SITE ANALYSIS

The existing site analysis involved a two-part effort. The first part consisted of a preliminary assessment of the Site and the immediate surrounding area using published environmental information. This information included

1) Stream information from resource agencies;
2) Critical areas information from the City of Bellevue;
3) Ortho-photography; and,
4) Relevant studies completed or ongoing in the vicinity of the Site.

The second part consisted of a site investigation where direct observations of existing environmental conditions were made. Observations included plant communities, soils, hydrology, and stream conditions. This information was used to help characterize the site and define the limits of mitigation.

3.1 Background Data Reviewed

Background information from the following sources was reviewed:

- City of Bellevue Land Use Code;
- City of Bellevue on-line map service;
- StreamNet databases; and
- Washington Department of Fish and Wildlife SalmonScape database.

Talasaea Consultants also worked on the original Plaza 520 redevelopment project from 2004-2006. We prepared a "*Sensitive Areas and Riparian Corridor Study Report and Enhancement Plan"* dated 15 June 2005. We reviewed this report for background information prior to developing the current mitigation plan for Goff Creek. The proposed enhancements to Goff Creek referenced in that report were not implemented during that phase of construction.

3.2 Analysis of Existing Information

The following sources of information provide indications of site conditions based on data compiled from resource agencies and local government.

3.2.1 City of Bellevue

The Goff Creek basin is characterized by the City of Bellevue as one of the least urbanized basins in Bellevue. Goff Creek's headwaters are north of SR-520 within the southern portion of the Bridal Trails Park. Much of the upper reaches of Goff Creek within the City of Bellevue flows through buried pipes or steep-banked channels south to Bel-Red Road. Fall chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*) and sockeye salmon (*Oncorhynchus nerka*) are known to utilize Goff Creek south of Bel-Red Road. Cutthroat trout (*Oncorhynchus clarki*) inhabit the entire length of Goff Creek from Kelsey Creek northward (The Watershed Company 2009).

3.2.2 SalmonScape and StreamNet Databases

SalmonScape indicates that the stream is utilized by fall chinook, coho and sockeye salmon to a point south of Bellevue-Redmond Road. Goff Creek is piped from the south side of Bellevue-Redmond Road to the west side of NE 132nd Avenue, north of 16th Street NE, a distance of over 1,000 feet. The culvert under Bellevue-Redmond Road is identified by WDFW as a total fish passage blockage.

3.2.3 Endangered Species (Federal)

No threatened or endangered species are known to utilize the immediate vicinity of the project site or project area.

3.3 Field Investigation

The Site was evaluated by Talasaea Consultants on 17 February, 14, 17 and 20 March 2014. The existing site conditions were recorded, including relevant information concerning Goff Creek. See **Sheet W1.0** in **Appendix B** for a map of existing conditions.

3.3.1 Stream Determination

One stream, Goff Creek, was identified on the Site. Goff Creek flows through the Site from north to south and then easterly along the frontage of NE 20th St. Segments of the creek flow through both open conveyances and in culverts. The stream exits the Site through a culvert at the vehicular entrance off of NE 20th St. then enters a control/conveyance structure on the east side of entrance that directs Goff Creek southward under NE 20th St. Goff Creek within the subject property has a streambed that is composed mostly of small gravel and sand.

Goff Creek is rated a Type F (fish bearing) water. Per City of Bellevue Land Use Code (BLUC) §20.25H.075.C.1, Type F streams on developed sites require a 50-foot buffer and a 50-foot structure setback. Vegetation within the stream corridor is composed of non-native mowed grasses with some native herbaceous vegetation.

3.3.2 Current Stream Conditions

Goff Creek enters the subject property through a perched 24-inch corrugated metal pipe (CMP) culvert that runs under SR-520 near the northwest property corner. Large rocks and debris dissipate the outfall of this point discharge, preventing the formation of a plunge pool. The stream generally flows south aboveground, then turns eastward before entering an existing 6-foot wide x 24-inch high arched CMP at the existing sidewalk. The existing culvert at the sidewalk is reduced in capacity by about 90% of the pipe cross-section due to bedload and sediment. South of the sidewalk along NE 20th St., the stream meanders slightly, but generally flows to the east. This area is within a pre-existing detention pond, which has been apparently filled in with bedload and sediment from off-site sources. The stream finally enters a second 6-foot wide x 24-inch arched CMP underneath the main vehicular entry to the Plaza 520 Business Park. Goff Creek eventually flows into Kelsey Creek approximately 6,900 linear feet from the Plaza 520 site. Kelsey Creek flows for approximately 1.9 miles before commingling with Mercer Slough. Mercer Slough flows for approximately 2.6 miles before emptying into Lake Washington.

The narrow channel and several years of sediment buildup, both in the channel and at the culvert at the sidewalk, combine to create flooding problems during periods of high storm events. The stream routinely breaches its current channel and floods the sidewalk thereby creating a pedestrian hazard.

CHAPTER 4. HABITAT FUNCTIONAL ASSESSMENT

This section describes the results of the Bellevue Urban Wildlife Habitat Functional Assessment (The Watershed Company 2009). This methodology evaluates the habitat potential of a property and a proportion of the surrounding areas in relation to levels of development.

4.1 Qualitative Functional Assessment

4.1.1 Goff Creek

The Goff Creek basin is characterized by the City of Bellevue as one of the least urbanized basins in Bellevue. Goff Creek's headwaters are north of SR-520 within the southern portion of the Bridal Trails Park. Much of the upper reaches of Goff Creek within the City of Bellevue flows through buried pipes or steep-banked channels south to Bel-Red Road. Fall chinook, coho, and

sockeye salmon are known to utilize Goff Creek south of Bel-Red Road. Cutthroat trout inhabit the entire length of Goff Creek from Kelsey Creek northward (The Watershed Company 2009).

4.2 Habitat Functional Assessment

This section of the report evaluates the habitat potential of the site for species of local concern. The City of Bellevue's list of Species of Local Concern is contained in **Table 1** below. This table also indicates the likelihood of a species occurring on or in the vicinity of the subject property. This analysis allowed for evaluation of the presence/absence of species most likely to be present on the Site. This assessment is based on existing site conditions, the availability of different habitat in the vicinity of the Site, and viable habitat connections or corridors between habitat and the property. The worksheet for the Bellevue Habitat Functional Assessment is contained in **Appendix A.**

Table 1. City of Bellevue Species of Local Importance

Scientific Name	Common Name	Likelihood of Presence
Haliaeetus leucocephalus	Bald Eagle	**Presence unlikely.** Trees along Lakes Washington and Sammamish may provide temporary perching areas and better prey base.
Falco peregrinus	Peregrine falcon	**Presence possible.** Peregrine falcons appear to be adapting high-rise buildings as nesting platforms, while urban pigeons provide a consistent prey base. There are known nesting areas in downtown Bellevue.
Gavia immer	Common loon	**Presence unlikely.** Loons require open water areas with healthy fish populations for prey base. The stream provides no habitat for loons.
Dryocopus pileatus	Pileated woodpecker	**Presence unlikely.** Pileated woodpeckers require forested areas with dead or dying trees to provide sufficient insect prey base. The site does not have dead or dying trees that pileated woodpeckers require.
Chaetura vauxii	Vaux's swift	**Presence unlikely**. Vaux's swifts are more common in areas with mature or old-growth forests and areas that have structures with vertical entrances that can be used for communal roosts and nesting. The City of Bellevue does not provide this type of habitat.
Falco columbarius	Merlin	**Presence unlikely.** Merlins prefer rugged habitat that contains both trees for nests and open areas for hunting. The urban environment characterized by the Site does not likely provide prey base for merlins.
Progne subis	Purple martin	**Presence unlikely.** Purple martins are the largest of the North American swallows. In many parts of the country, they are totally dependent upon human-supplied housing. Martins are very specific in their housing requirements in relation to trees, buildings and other vegetation. Suitable housing for martins is not available in the general vicinity of the Site.
Aechmophorus occidentalis	Western grebe	**Presence unlikely.** Western grebes, like common loons, require open water areas as habitat. The stream does not provide any habitat for western grebes.
Ardea herodias	Great blue heron	**Presence unlikely.** Great blue herons roost in rookeries, which have been mapped by WDFW. No rookeries are located on or in the near vicinity of the Site. The stream may provide some habitat and foraging resources for herons. However, the extensive usage of the site by humans will likely preclude usage by herons.

Table 1. City of Bellevue Species of Local Importance, continued

Pandion haliaetus	Osprey	**Presence unlikely.** Osprey nest on platforms, or in the larger branches of tall trees. They are generally piscivorous and prefer nesting sites within easy flying distance to open water and larger, salmon-filled streams. No preferred habitat for nesting was identified on the Site.
Butorides striatus	Green heron	**Presence possible but unlikely.** Green herons forage in wetlands and small streams, typically feeding on small fish, amphibians, benthic macroinvertebrates, and other small prey. The site does not provide habitat, prey base, or perching opportunities for green heron.
Buteo jamaicensis	Red-tail hawk	**Presence possible, but unlikely**. Red-tail hawks are a very successful species of hawk, easily expanding into areas influenced by human activities. This includes urban areas. While it may be possible for red-tail hawks to occasionally utilize the Site, it is unlikely that the Site would support a steady population of hawk.
Plecotus townsendii	Western big-eared bat	**Presence unlikely.** Western big-eared bat forages in forested areas and can roost in buildings. However, suitable roosting habitat not available in the vicinity of the site. .
Myotis keenii	Keen's myotis	**Presence unlikely.** Keen's myotis is one of the smallest bats in North America and appears to be restricted to conifer forests. Females seem to choose large-diameter trees with defects for roosting potentially due to favorable microclimate. These characteristics are more common in mature and old growth forests. The Site and the surrounding area do not provide suitable roosting habitat.
Myotis volans	Long-legged myotis	**Presence unlikely.** Long-legged myotis prefers mature and old growth forest with plenty of snags available for roosting. This type of habitat is not provided on the Site or in the near vicinity.
Myotis evotis	Long-eared myotis	**Presence unlikely.** Long-eared myotis prefer mature or old growth forest sites in close proximity to open water or riparian habitat. This type of habitat is not provided on the Site or in the near vicinity.
Rana pretiosa	Oregon spotted frog	**Presence unlikely.** Oregon spotted frogs require permanent open cool water for breeding. This habitat does not exist on the Site or in the near vicinity.
Bufo boreas	Western toad	**Presence unlikely.** Western toads require still, or barely moving water for breeding. This habitat does not exist on the Site.
Clemmys marmorata	Western pond turtle	**Presence unlikely.** Western pond turtles require areas with minimal impacts from non-native predators and travel connections between habitat areas. This habitat does not exist on the Site.
Oncorhynchus tshawytscha	Chinook salmon	**Presence unlikely.** Chinook salmon are known to utilize Goff Creek below Bel-Red Road. However, the culvert under Bel-Red Road is identified by the Washington Department of Fish and Wildlife as a total fish passage barrier. Goff Creek upstream of Bel-Red Road flows through a series of buried pipes and narrow, confined channels that provide no habitat for spawning.

Table 1. City of Bellevue Species of Local Importance, continued

Oncorhynchus kisutch	Coho salmon	**Presence unlikely.** Coho salmon are known to utilize Goff Creek below Bel-Red Road. However, the culvert under Bel-Red Road is identified by the Washington Department of Fish and Wildlife as a total fish passage barrier. Goff Creek upstream of Bel-Red Road flows through a series of buried pipes and narrow, confined channels that provide no habitat for spawning.
Salvelinus confluentus	Bull trout	**Presence unlikely.** Bull trout typically inhabit streams with very cold, clean water. It is unlikely that Goff Creek supplies water meeting the temperature requirements of bull trout.
Lampetra ayresi	River lamprey	**Presence unlikely.** The culvert under Bel-Red Road likely prevents upstream migration of river lamprey.

The result of the Bellevue Habitat Functional Assessment for the Plaza 520 Building D site indicates the property has little value as wildlife habitat. The Site scored 7 points out of a total of 50 points. According to the Guidance documentation (The Watershed Company 2009), sites scoring less than 10 points have little or no functional wildlife habitat present. This makes sense since the Site and the property to the south are completely surrounded by urban development, busy city roads, and freeways. It is unlikely species other than birds would be able to access these properties. Of the species of local importance listed above in **Table 1**, it is unlikely that any might be present in the vicinity of the Site.

CHAPTER 5. CRITICAL AREA IMPACTS AND MITIGATION

5.1 Critical Area Impacts

To accommodate a City requirement for a secondary exit path as noted in a November 5, 2013 inspection report, the Site contractor constructed a gravel path from the southeast corner of the open-air parking area below Building D southward to the public sidewalk along NE 20th St.

It was later determined that the newly constructed path occurred within the critical area buffer for Goff Creek. As currently exists, the Building D development does not provide the standard 50-foot buffer or the 50-foot structure setback from the creek as required by the current critical areas code. Approximately 184 sf of buffer area was impacted for the path (**Sheet W1.0** in **Appendix B**).

5.2 Proposed Mitigation

5.2.1 Agency Policies and Guidance

The mitigation proposed for critical areas impacts is in accordance with the following policies, codes, and regulatory guidance:

- Bellevue Land Use Code, Part 20.25H Critical Areas Overlay District

5.2.2 Proposed Mitigation to Resolve Violation

Approximately 184 sf of buffer area was impacted for the required exit path. To mitigate for this encroachment, 184 sf of replacement area will be added to the western side of the critical area buffer (**Sheet W1.0** in **Appendix B**). Mitigation measures will include:

- Remove non-native vegetation within the buffer area;
- Plant a variety of native vegetation in the critical area buffer; and
- Provide 3-inches of mulch around newly installed vegetation,

5.2.3 Voluntary Non-Compensatory Stream Mitigation

It has been observed that during large storm events, the portion of Goff Creek on the Site routinely breaches its current channel and floods the adjacent sidewalk to the south. Harsch Investment Properties realizes that this recurring problem must be fixed and is willing to work with the City to devise a plan that will resolve the current situation without being cost prohibitive. The proposed non-compensatory mitigation for the portion of Goff Creek adjacent to Building D will include:

- Reconfigure the stream alignment to increase the capacity of the channel, providing a low-flow channel for normal stream flows and creating a high-flow floodplain on both sides of the channel to allow for increased flows during large storm events;
- Installing deflector logs along stream bends to provide armor during high flow events;
- Raise the existing elevation of the sidewalk to create a berm on the south side of the stream corridor to prevent flooding of the sidewalk;
- Remove the existing culvert at the sidewalk to prevent constriction of storm flows and flooding;
- Construct a pedestrian bridge over the realigned stream channel to allow flows to pass through an open channel;
- Provide additional flood capacity storage along the realigned channel; and
- Plant appropriate native vegetation along the reconfigured stream corridor while maintaining visual access to the existing properties located in the business park.

5.3 Mitigation Goals, Objectives, and Performance Standards

The overall goals of this mitigation plan are to replace and improve impacted buffer areas, improve stream habitat, provide additional flood storage, prevent flooding and reduce the threat to public health and safety. To accomplish these goals the proposed project will:

- Replace and restore 184 sf of buffer area;
- Improve the habitat function of Goff Creek;
- Increase flood storage;
- Prevent flooding of the sidewalk; and
- Enhance 10,665 sf of buffer area;

Mitigation actions will be evaluated through the following objectives and performance standards. Mitigation monitoring will be performed by a qualified biologist.

Objective A: Increase the woody vegetation coverage and structural diversity in the replaced and restored buffer areas by planting a variety of native small trees and shrubs.

***Performance Standard A*:** In these areas, at least 8 species of desirable native woody plant species will be present at the end of Year 5. Woody plant coverage must be >10% by the end of Year 1, >30% by the end of Year 3, and > 50% by the end of Year 5. Woody coverage includes beneficial native woody plants that are naturally recruiting.

Objective B: Increase the woody species diversity in the buffer areas.

Performance Standard B: *Plant survival must be 100% for all installed native woody species at the end of Year 1 per the contractor's plant guarantee, and at least 75% during Years 2 through 5. Plants shall be replaced as needed to meet these standards in each of the monitoring years.*

Objective C: Limit the amount of invasive and exotic species within the restored buffer areas.

Performance Standard C: *No more than 10% cover of non-native or invasive woody plant species will occur in the buffer areas during the 5 year monitoring period.*

Objective D: Improve the on-site conditions of Goff Creek through channel modification including providing a more sinuous alignment, widening, providing additional flood storage, removing the existing culvert, and installing deflector logs to aid in preventing stream bank erosion.

Performance Standard D: *During each monitoring event, the realigned stream channel will be evaluated to ensure that redirected flow patterns are not eroding stream banks and that the deflector logs are secure.*

Objective E: Plant the realigned stream corridor with a variety of native small trees, shrubs and emergent vegetation. Woody species will be predominantly planted along the stream banks and emergent species will be planted in the flood storage areas.

Performance Standard E: *Plant survival must be 100% for all installed native woody species at the end of Year 1 per the contractor's plant guarantee, and at least 75% during Years 2 through 5 of the monitoring period.*

5.4 Mitigation Construction

5.4.1 Construction Sequence

The following provides the general sequence of activities anticipated to be necessary to complete this mitigation project. Some of these activities may be conducted concurrently as the project progresses.

1. Conduct a site meeting between the contractor, Talasaea Consultants, and the owner's representative to review the project plans, staging/stockpile areas, and material disposal areas.
2. Install silt fence at project construction limits.
3. Install upstream temporary bypass pipe to divert stream flows around construction work area. Bypass pipe shall be secured to base of existing rockery. All bypassed flows shall be discharged below work area.
4. Install sandbag dam and sump pump at upstream bypass area to pump any water that may seep through the rockery around work zone.
5. Install downstream sandbag dam to intercept any groundwater from work area. Install sump pump to pipe turbid water to a grassy area for infiltration.
6. Locate and saw cut existing sidewalk. Remove sidewalk and existing arched culvert and dispose of offsite.
7. Strip existing sod and remove from site.
8. Survey new stream alignment and set grade stakes as required.
9. Strip and stockpile acceptable topsoil from excavation and fill areas.
10. Complete the mitigation grading to rough grade, using acceptable clean fill materials from excavations to concurrently construct earthen berms shown on the plans.
11. Install and anchor deflector logs along stream route.
12. Place stockpiled topsoil along stream route.
13. Place approved rock mix in low flow stream channel.
14. Install new culvert to drain western portion of site.
15. Construct pedestrian bridge and new sidewalk.
16. Mulch all graded buffer areas.
17. Install plant material as indicated on the planting plans.
18. Partially introduce stream flows to new channel while maintaining upstream temporary bypass. Allow flows to pond at downstream sandbag dam and pump any turbid water to adjacent grassy area for infiltration.
19. Remove both upstream and downstream sandbag dams and sump pumps.
20. Remove temporary bypass pipe and allow stream flow naturally through new channel.

5.4.2 Construction Timing

Grading and filling activities shall occur during the drier summer months (as authorized by the City and WDFW through an HPA). This will reduce the likelihood of erosion or sedimentation occurring due to precipitation.

5.4.3 Diversion of Stream Flow, Treatment and Construction Dewatering

Goff Creek will be diverted upstream of the construction areas (see **Sheet W1.1** in **Appendix B**). Sandbags with PVC liners and other suitable temporary materials will be used for this purpose. A biologist with Talasaea would then electro-shock the stream to remove and carefully relocate any captured resident fish. Water upstream of the construction areas will be conveyed or pumped to the existing stream channel along NE 20th St. The pump intake would be screened to prevent fish entry. Bypass measures will be monitored during construction. Inlet protection and containment measures will be provided within the construction area.

Water contained within the construction zone will be allowed to settle, tested for turbidity, and pumped to the existing grassy areas along NE 20th St. for infiltration If additional treatment is required, or if water volumes exceed this treatment method, construction water will be contained on site for further treatment and testing prior to release.

As an additional contingency, turbid water may be removed from the site using Baker tanks and discharged at the nearest appropriate facility.

Restoration of Water Flow

At the conclusion of the construction activities, the bypass and diversion measures will be removed, restoring the normal flow of water through the systems. Diversion measures will be removed in such a manner to prevent water from rapidly entering the newly restored riparian corridors.

5.4.4 Grading Activities

Grading activities within critical areas shall use the minimum size of machine to accomplish the work (see **Sheet W2.0** in **Appendix B**). All work within critical areas shall be staged to minimize the movement of the machinery to the maximum extent practicable. Soils compacted by the use of machinery will be mechanically loosened. Streambed gravel will be provided within the realigned channel of Goff Creek.

Placement of Deflector Logs

Deflector logs shall be placed at intervals depicted on **Sheet W2.0** in the realigned channel of Goff Creek. The deflector logs provide flow energy reduction and provide structural habitat for macroinvertebrates.

All deflector logs shall be anchored to the stream bank using any combination of the following techniques:

- Use Duckbill earth anchors driven upstream of the logs to a minimum depth of at least four feet.
- Burying the ends of the deflector logs into the bank.

Placement or Replacement of Stream Bed Gravel

At the conclusion of the Goff Creek work, the streambed will be relined with an appropriate stream gravel mix for streams of this size.

New Culvert at West End of New Sidewalk

The far western portion of the frontage area of Building D was originally designed to retain stormwater. Due to sediment buildup and the construction of the new path, there is no outlet for the detained stormwater except to flood over the existing sidewalk. During mitigation construction, and before the new raised sidewalk is installed, a 6-inch culvert shall be installed

to allow detained stormwater in the western portion to pass to the stormwater detention area to the east and eventually into Goff Creek.

5.4.5 Pedestrian Bridge and Sidewalk

Following all grading activities, the pedestrian bridge and sidewalk will be constructed. A preliminary bridge detail is provided on **Sheet W2.0**. The final bridge detail will need to be reviewed and/or designed by a structural engineer to meet City of Bellevue engineering standards. The sidewalk will also be constructed per City of Bellevue details and guidelines.

5.4.6 Planting

Native small trees, shrubs and emergent species will be planted in the buffer areas to provide improved habitat value within the mitigation areas (see **Sheet W3.0** in **Appendix B**). The plant species depicted on the mitigation plan were chosen for a variety of qualities, including: adaptation to specific water regimes, value to wildlife, value as a physical or visual barrier, pattern of growth (structural diversity), and aesthetic values. Plant materials will consist of a combination of bare-root specimens and container plants. The buffer and flood storage areas will be revegetated using the plants listed in **Table 2**.

Table 2. List of Native Plants for Mitigation

Type	Scientific Name	Common Name
Small Trees/Large Shrubs	*Acer circinatum*	Vine maple
	Amelanchier anlifolia	Serviceberry
	Physocarpus capitatus	Pacific ninebark
	Ribes sanguineum	Red-flowering currant
	Sambucus racemosa	Red elderberry
Shrubs	*Cornus alba (sericea)*	Red-osier dogwood
	Gaultheria shallon	Salal
	Lonicera involucrata	Black twinberry
	Mahonia aquifolium	Tall Oregon grape
	Polystichum munitum	Sword fern
	Rosa nutkana	Nootka rose
	Vaccinium ovatum	Evergreen huckleberry
Emergents	*Carex obnupta*	Slough sedge
	Oenanthe sarmentosa	Pacific water-parsley
	Scirpus microcarpos	Small-fruited bulrush

Replanting of the buffer areas shall take place during the normal plant dormant season (typically mid-winter to early spring). Planting within this time frame reduces the stress on plants and helps increase chances of survival.

The buffer areas will be planted according to the mitigation plan illustrated on **Sheet W3.0**. Plants shall be installed using industry standard practices. These include the proper preparation of planting pits, placement of plants at the appropriate depth, backfilling, and applying mulch at the surface grade around the planting areas. Mulch deters residual invasive species from competing with new plant materials and retains soil moisture.

After plant installation, the mitigation area will be thoroughly watered to settle soil around the roots and remove air pockets. Watering will be provided at regular intervals to promote plant survival.

5.5 Post-Construction Approval

At the conclusion of the construction activities, the site will be inspected for conformance to the mitigation plan. This inspection will ensure that:

- All construction-related material has been removed from the mitigation areas.
- Stream flow has been restored to Goff Creek. Water quality and channels shall be inspected for turbidity and excessive erosion.
- Plants have been correctly installed using proper technique and are appropriately located for maximum survival.

Any items that require attention and correction will be noted in a memo to the contractor.

5.6 Post-Construction Assessment

Once construction is approved by the City, Talasaea Consultants shall conduct a post-construction assessment. The purpose of this assessment will be to establish baseline conditions for future monitoring. A Baseline Assessment report including as-built record drawings will be submitted to all of the required agencies. The as-built drawings will identify and describe any changes in planting in relation to the original approved plan.

5.7 Post-mitigation Critical Area Functions

We performed the Bellevue Habitat Functional Assessment for the post-mitigation conditions of the Site. The Site habitat functional assessment score for the site increased from 7 points to 27 points. Sites with scores of 26 to 40 provide both actual habitat and likely the opportunity for wildlife to use the habitat on the site.

However, the conditions that made it unlikely for species of local concern to utilize the Site prior to mitigation still exist. The Site is still surrounded by urban development, busy city roads, and freeways. The available habitat, while of higher quality post-mitigation, is still disconnected from other high-quality habitats in the region. We believe that the Site will likely not be utilized by the species of local concern identified in **Section 4.2** (**Table 1**).

CHAPTER 6. MONITORING PLAN

6.1 Monitoring Schedule

Performance monitoring of the mitigation areas will be conducted according to all applicable code/regulatory requirements and permit conditions. BLUC 20.25H.220.D outlines the basic requirements for monitoring for the City of Bellevue. Monitoring will occur for a minimum of five years. Monitoring will be conducted according to the schedule presented in **Table 3** below. Monitoring will be performed by a qualified biologist or ecologist.

Table 3: Projected Schedule for Performance Monitoring

Year	Date	Maintenance Review	Performance Monitoring	Report Due to City
1	Winter/Spring	X	BA*	X
	Fall	X	X	X
2	Spring	X		
	Fall	X	X	X
3	Spring	X		
	Fall	X	X	X
4	Spring	X		
	Fall	X	X	X
5	Spring	X		
	Fall	X	X	X**

* BA = Baseline Assessment following construction completion.

** Obtain approval for release of bond from City (presumes performance criteria are met).

6.2 Monitoring Reports

Each monitoring report will adhere to the requirements of the City of Bellevue report format standards and will also utilize the Corps document titled *Annual Monitoring Report Format Requirements* (USACE Regulatory Guidance Letter No. 08-03, OCT 2008). The reports will include: 1) Project Overview, 2) Requirements, 3) Summary Data, 4) Maps and Plans, and 5) Conclusions. If the performance criteria are met, monitoring for the City will cease at the end of year five, unless objectives are met at an earlier date and the City accepts the mitigation project as successfully completed.

6.3 Methods for Monitoring Vegetation Establishment

Vegetation monitoring methods may include counts; photo-points; random sampling; sampling plots, quadrats, or transects; stem density; visual inspection; and/or other methods deemed appropriate by the permitting agencies. Vegetation monitoring components shall include general appearance, health, mortality, colonization rates, percent cover, percent survival, volunteer plant species, and invasive weed cover.

Permanent vegetation sampling plots, quadrats, and/or transects will be established at selected locations to adequately sample and represent all of the plant communities within the mitigation project areas. The number, exact size, and location of transects, sampling plots, and quadrats will be determined at the time of the baseline assessment.

Percent areal cover of woody vegetation will be evaluated through the use of point-intercept sampling methodology. Using this methodology, a tape will be extended between two permanent markers at each end of an established transect. Woody vegetation intercepted by the tape will be identified, and the intercept distance recorded. Percent cover by species will then be calculated by adding the intercept distances and expressing them as a total proportion of the tape length.

Percent areal cover of herbaceous vegetation (emergent plant communities) will be measured using quadrats and/or sampling plots. Quadrats may be randomly located throughout the herbaceous community, or may be located along established transects. Larger sampling plots may also be established to evaluate large areas.

The established vegetation sampling locations will be monitored and compared to the baseline data during each performance monitoring event to aid in determining the success of plant establishment. Percent survival of woody vegetation will be evaluated in a 10-foot-wide strip along each established transect. The species and location of all woody vegetation within this area will be recorded at the time of the baseline assessment, and will be evaluated during each monitoring event to determine percent survival. .

6.4 Photo Documentation

Locations will be established within the mitigation area from which panoramic photographs will be taken throughout the monitoring period. These photographs will document general appearance and relative changes within the plant community. Review of the photos over time will provide a semi-quantitative representation of success of the planting plan. Vegetation sampling transect/plot/quadrat and photo-point locations will be shown on a map and submitted with the baseline assessment report and yearly performance monitoring reports.

6.5 Wildlife

Birds, mammals, reptiles, amphibians, and invertebrates observed in the mitigation areas (either by direct or indirect means) will be identified and recorded during scheduled monitoring events, and at any other times observations are made. Direct observations include actual sightings, while indirect observations include tracks, scat, nests, song, or other indicative signs. The kinds

and locations of the habitat with greatest use by each species will be noted, as will any breeding or nesting activities.

6.6 Water Quality

Water quality will be assessed qualitatively; unless it is evident there is a serious problem. In such an event, water quality samples will be taken and analyzed in a laboratory for suspected parameters. Qualitative assessments of water quality include:

- oil sheen or other surface films,
- abnormal color or odor of water,
- stressed or dead vegetation or aquatic fauna,
- turbidity, and
- absence of aquatic fauna.

6.7 Site Stability

Observations will be made of the general stability of slopes and soils in the mitigation areas during each monitoring event. Any erosion of soils or slumping of slopes will be recorded and corrective measures will be taken.

CHAPTER 7. MAINTENANCE AND CONTINGENCY

Regular maintenance reviews will be performed according to schedule presented in **Table 3** to address any conditions that could jeopardize the success of the mitigation project. Following maintenance reviews by the biologist or ecologist, required maintenance on the site will be implemented within ten (10) business days of submission of a maintenance memo to the maintenance contractor and permittee.

Established performance standards for the project will be compared to the yearly monitoring results to judge the success of the mitigation. If, during the course of the monitoring period, there appears to be a significant problem with achieving the performance standards, the permittee shall work with the City to develop a Contingency Plan in order to get the project back into compliance with the performance standards. Contingency plans can include, but are not limited to, the following actions: additional plant installation, erosion control, modifications to hydrology, and plant substitutions of type, size, quantity, and/or location. If required, a Contingency Plan shall be submitted to City by December 31st of any year when deficiencies are discovered.

The following list includes examples of maintenance (M) and contingency (C) actions that may be implemented during the course of the monitoring period. This list is not intended to be exhaustive, and other actions may be implemented as deemed necessary.

- During year one, replace all dead woody plant material (M).
- Water all plantings at a rate of 1" of water every week between June 15 – October 15 during the first two years after installation, and for the first two years after any replacement plantings (C & M).
- Replace dead plants with the same species or a substitute species that meets the goals and objectives of the mitigation plan, subject to Talasaea and agency approval (C).
- Re-plant area after reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.) (C).
- After consulting with City staff, minor excavations, if deemed to be more beneficial to the existing conditions than currently exists, will be made to correct surface drainage patterns (C).

- Remove/control weedy or exotic invasive plants (e.g., Scot's broom, Himalayan blackberry, purple loosestrife, Japanese knotweed, etc.) by manual or chemical means approved by permitting agencies. Use of herbicides or pesticides within the mitigation area would only be implemented if other measures failed or were considered unlikely to be successful, and would require prior agency approval. All invasive vegetation must be removed and disposed of off-site. (C & M).
- Weed all trees and shrubs to the dripline and provide 3-inch deep mulch rings 24 inches in diameter for shrubs and 36 inches in diameter for trees (M).
- Remove trash and other debris from the mitigation areas twice a year (M).
- Selectively prune woody plants per the approved vegetation management plan to meet the mitigation plan's goal and objectives (e.g., thinning and removal of dead or diseased portions of trees/shrubs) (M).
- Repair or replace damaged structures including: footbridge, signs (M).

7.1 Vegetation Management Plan Post Monitoring Period

A Vegetation Management Plan (VMP) has been prepared to guide general landscape maintenance practices for the Plaza 520 Building D site, as well as maintenance practices for the mitigation areas following the conclusion of the 5-year performance monitoring period. The goal of the VMP is to ensure long-term vegetation management that is consistent with the objectives and performance standards of the mitigation plan approved by the City of Bellevue in conjunction with the approval of the Critical Areas Mitigation Project. This includes vegetation management techniques as well as restrictions on activities in streams and associated buffers. **Appendix C** contains the complete VMP.

CHAPTER 8. PERFORMANCE ASSURANCE DEVICE

The Director may require assurance devices to ensure that any conditions of approval are fully implemented. Assurance devices shall be posted according to BLUC 20.40.490.

CHAPTER 9. SUMMARY

One stream, Goff Creek, was identified on the Site. Segments of the creek flow through both open conveyances and in culverts. Goff Creek is rated a Type F (fish bearing) water.

Goff Creek's headwaters are north of SR-520 within the southern portion of the Bridal Trails Park. Much of the upper reaches of Goff Creek within the City of Bellevue flows through buried pipes or steep-banked channels south to Bel-Red Road. Goff Creek is piped from the south side of Bellevue-Redmond Road to the west side of NE 132nd Avenue, north of 16th Street NE, a distance of over 1,000 feet. The culvert under Bellevue-Redmond Road is identified by WDFW as a total fish passage blockage.

The Plaza 520 Building D project involved tenant improvements to the exterior of an existing building. To accommodate a City requirement for a secondary exit path from the parking area below the building, the Site contractor constructed a gravel path from the southeast corner of the open-air parking area below Building D southward to the public sidewalk along NE 20th St. Approximately 184 sf of buffer area was impacted for the path. To mitigate for this encroachment, 184 sf of replacement area will be added to the western side of the critical area buffer.

The portion of Goff Creek on the Site routinely breaches its current channel and floods the adjacent sidewalk to the south. As a temporary measure to control the flooding, two temporary

sand-bag walls were installed along the stream corridor to control high flows from breaching the current channel. Harsch Investment Properties realizes that this recurring problem must be fixed and is willing to work with the City to devise a plan that will resolve the current situation without being cost prohibitive.

The overall goals of this mitigation plan are to replace and improve impacted buffer areas, improve stream habitat, provide additional flood storage, prevent flooding and reduce the threat to public health and safety.

CHAPTER 10. REFERENCES

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FIGURES

Figure 1. Vicinity Map

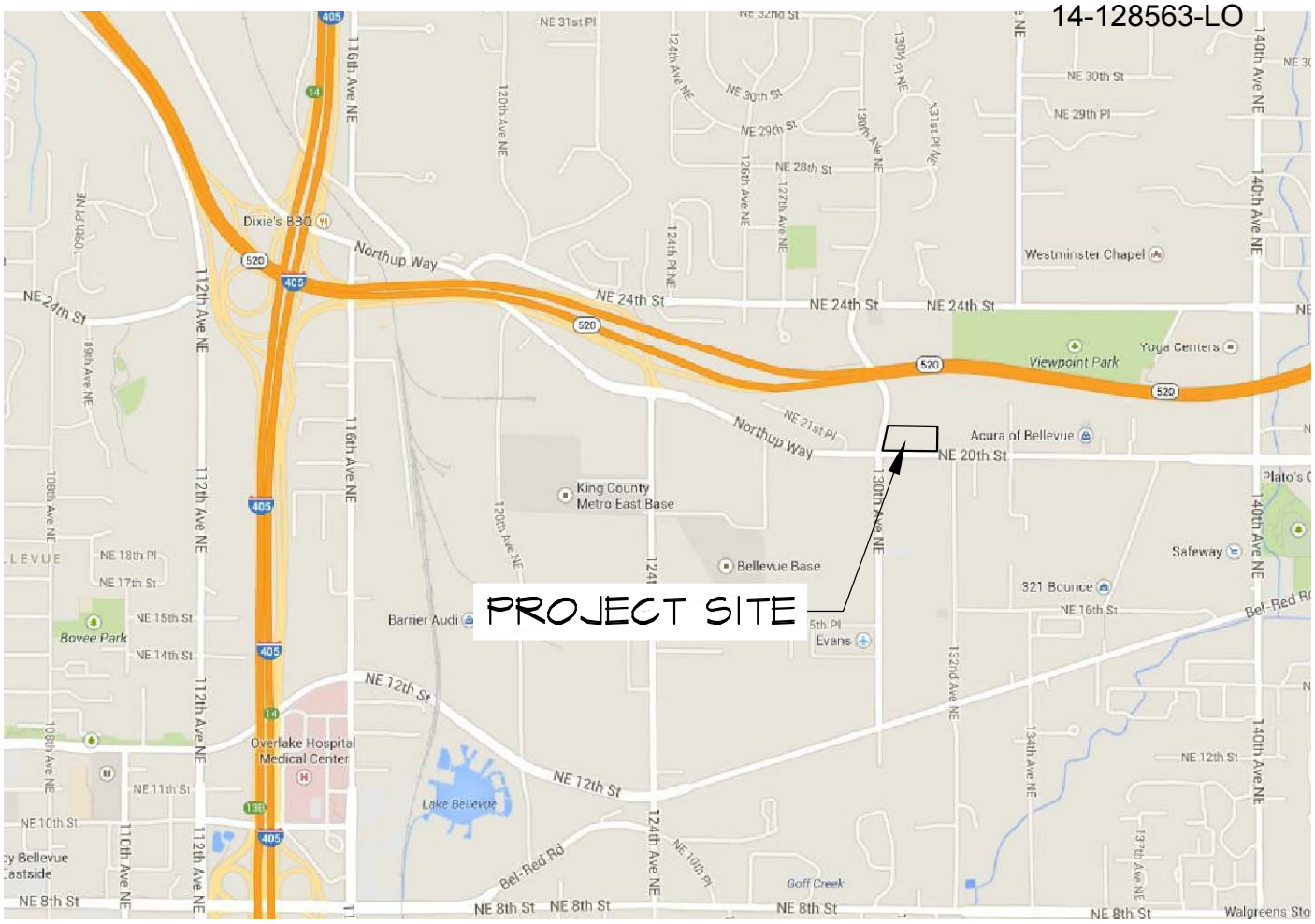

IMAGE SOURCE: GOOGLE MAPS, WWW.MAPS.GOOGLE.COM (ACCESSED 17 MAR 2014)

DRIVING DIRECTIONS:

1. FROM SEATTLE TAKE I-5 NORTH TOWARDS VANCOUVER
2. TAKE WA-520 TO NORTHUP WAY IN BELLEVUE
3. TAKE EXIT 124TH AVE NE FROM WA-520 E
4. TURN LEFT ONTO NORTHUP WAY/NE 20TH STREET
5. TAKE THE 3RD LEFT ONTO 130TH AVE NE
6. ARRIVE AT DESTINATION ON THE RIGHT

13000 NE 20TH STREET
BELLEVUE, WA 98005

NORTH

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast
Woodinville, Washington 98077
Bus (425)861-7550 – Fax (425)861-7549

FIGURE #1

VICINITY MAP & DIRECTIONS
PLAZA 520 - BUILDING D
CRITICAL AREA MITIGATION PLAN
BELLEVUE, WASHINGTON

DESIGN	DRAWN	PROJECT
AO	ABS	845
SCALE		
NTS		
DATE		
4-2-2014		
REVISED		

Z:\DRAWING\800-899\Ta1845\Plans\TAL-FIGURE.dwg

APPENDIX A

Habitat Functional Assessment Datasheets

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

Property address 13000 NE 20th st., Bellevue, WA

Location Range R5E Township 25N Section 28

Parcel number 2825059116

Property owner

Telephone number ( ) - -

Project name Plaza 520 - Existing Conditions

Project contact

Telephone number ( ) - -

Address

Staff David R. Teesdale

Date(s) of site visit(s) 3-18-2014

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Yes

1.0	PROPERTY DESIGNATION	Zone A	Zone B	Zone C	Zone D		Zone
1.1	Existing impervious surface	>90%	50-90%	20-50%	0-20%		A
2.0	**LANDSCAPE PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
2.1	Land use/development density	Zone A	Zone B	Zone C	Zone D		0
2.2	*Occurrence (number) of habitat types	0	1	2	3+		1
2.3	**Proximity of known critical areas (distance to edge)	>2,500 ft	<2,500 ft	<1,200 ft	<100 ft	+1 point if contiguous with critical area	1
2.4	Habitat connectivity and corridors	No connection to other habitat areas	≥50-foot-wide connection to vegetated areas of at least 1 acre	≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks***	≥50-foot-wide connection King County wildlife network or listed parks***	+1 point for ≥150-foot-wide connection King County wildlife network or listed parks***	0
2.5	Patch size	<0.-1.0 ac	1.0-5.0 ac	>5-10 ac	10-42 acres	>42 acres = 4 points	0

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for upland habitat

2.0	LANDSCAPE PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
2.6	***Interspersion of habitat patches (excluding patches <1 ac in area)**	No or isolated patch (no others within 0.5-ac circle)	Low	Moderate	High	+1 point if wildlife network or listed park is included	0
3.0	**LOCAL PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
3.1	**Size of native trees on site**	No significant trees on site	6-12" dbh tree(s) present	12-20" dbh tree(s) present	>20" dbh tree(s) present	+1 point if tree(s) >30" dbh are present	0
3.2	**Coniferous component**	No conifers on site	Conifers very sparse or present in understory only	Conifers co- or sub-dominant in overstory	Conifers dominant	+1 point if conifers >30" dbh are present	0
3.3	**Percent cover (sample vegetated areas only)**						
	Ground layer (0-2.3 ft) (5-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%; -1 point if mowed grass is >50%	-1
	Shrub layer (2.3-25 ft) (10-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	0
	Canopy (>25 ft) (30-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	0
3.4	**Vegetative vertical structural diversity (foliage height diversity)**	FHD = 0	FHD < 0.70	FHD = 0.70-0.90	FHD > 0.90		0
3.5	**Vegetative species richness**	0-1 species	2-5 species	6-19 species	20+ species		1
3.6	**Invasive species component**	>75% cover	25-75% cover	10-25%cover	<10% cover		2

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

3.0	LOCAL PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
3.7	**Proximity to year-round water**	>1.0 mi or artificial feature with maintained /invasive buffer present within 0.3-1 mi	0.3-1.0 mi or artificial feature with maintained/ invasive buffer present within <0.3 mi	<0.3 mi or artificial feature with maintained/ invasive buffer present within patch	Natural water feature present within patch with native buffer		3
3.8	**Snags (≥4 in dbh)**	No snags on site	1/ac or fewer	2-6/ac	>7/ac	Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh	0
3.9	**Other habitat features**	None	1	2-4	5 or more		0
Landscape parameters points							7
Local parameters points							
TOTAL POINTS							7

* Use circle of the appropriate size for the property's zone:

Zone A – 0.5 ac
Zone B – 5.0 ac
Zone C – 100 ac
Zone D – 250 ac

** PHS data required for sites in Zone D

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

Property address 13000 NE 20th Street / Bellevue, WA

Project name Plaza 520 Post-Mitigation

Location Range R5E Township 25N Section 28

Project contact

Parcel number 2825059116

Telephone number( ) - -

Property owner

Address

Telephone number( ) - -

Staff David R. Teesdale

Date(s) of site visit(s) 3.18.2014

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Yes

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2.1	Land use/development density	Zone A	Zone B	Zone C	Zone D		0
2.2	*Occurrence (number) of habitat types	0	1	2	3+		1
2.3	**Proximity of known critical areas (distance to edge)	>2,500 ft	<2,500 ft	<1,200 ft	<100 ft	+1 point if contiguous with critical area	1
2.4	Habitat connectivity and corridors	No connection to other habitat areas	≥50-foot-wide connection to vegetated areas of at least 1 acre	≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks***	≥50-foot-wide connection King County wildlife network or listed parks***	+1 point for ≥150-foot-wide connection King County wildlife network or listed parks***	0
2.5	Patch size	<0.-1.0 ac	1.0-5.0 ac	>5-10 ac	10-42 acres	>42 acres = 4 points	0

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for upland habitat

2.0	LANDSCAPE PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
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3.2	**Coniferous component**	No conifers on site	Conifers very sparse or present in understory only	Conifers co- or sub-dominant in overstory	Conifers dominant	+1 point if conifers >30" dbh are present	3
3.3	**Percent cover (sample vegetated areas only)**						
	Ground layer (0-2.3 ft) (5-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%; -1 point if mowed grass is >50%	2
	Shrub layer (2.3-25 ft) (10-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
	Canopy (>25 ft) (30-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	3
3.4	**Vegetative vertical structural diversity (foliage height diversity)**	FHD = 0	FHD < 0.70	FHD = 0.70-0.90	FHD > 0.90		3
3.5	**Vegetative species richness**	0-1 species	2-5 species	6-19 species	20+ species		2
3.6	**Invasive species component**	>75% cover	25-75% cover	10-25%cover	<10% cover		3

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

3.0	LOCAL PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
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3.8	**Snags (≥4 in dbh)**	No snags on site	1/ac or fewer	2-6/ac	>7/ac	Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh	1
3.9	**Other habitat features**	None	1	2-4	5 or more		1
Landscape parameters points							2
Local parameters points							25
TOTAL POINTS							27

* Use circle of the appropriate size for the property's zone:

Zone A – 0.5 ac
Zone B – 5.0 ac
Zone C – 100 ac
Zone D – 250 ac

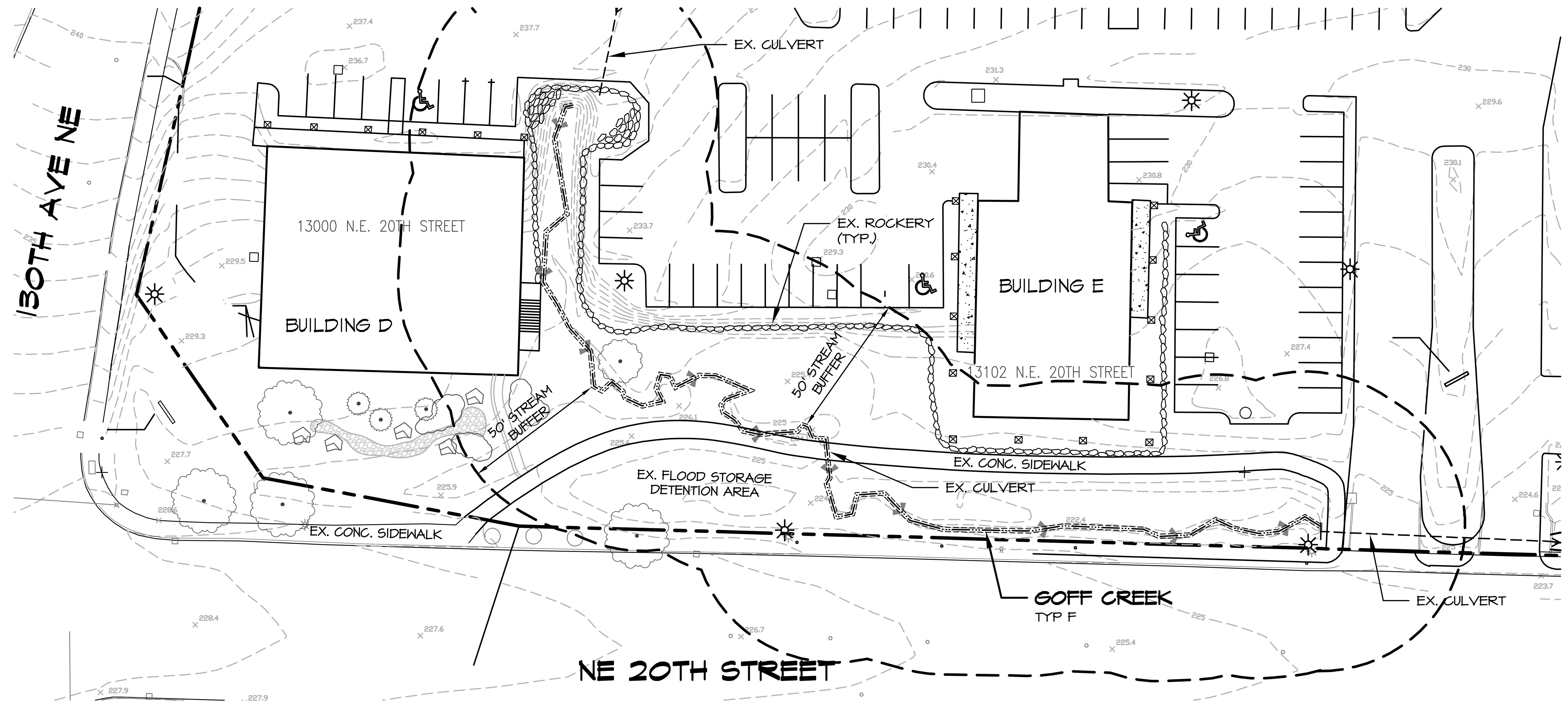
** PHS data required for sites in Zone D

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network

APPENDIX B

Critical Area Mitigation Plans

Sheet W1.0: Existing Conditions & Impacts & Mitigation Overview Plans
Sheet W1.1: DEMO & TESC Plan, Details & Notes
Sheet W2.0: Grading Plan, Section & Details
Sheet W2.1: Grading Specifications
Sheet W3.0: Planting Plan, Plant Schedule & Notes
Sheet W3.1: Planting Specifications & Details

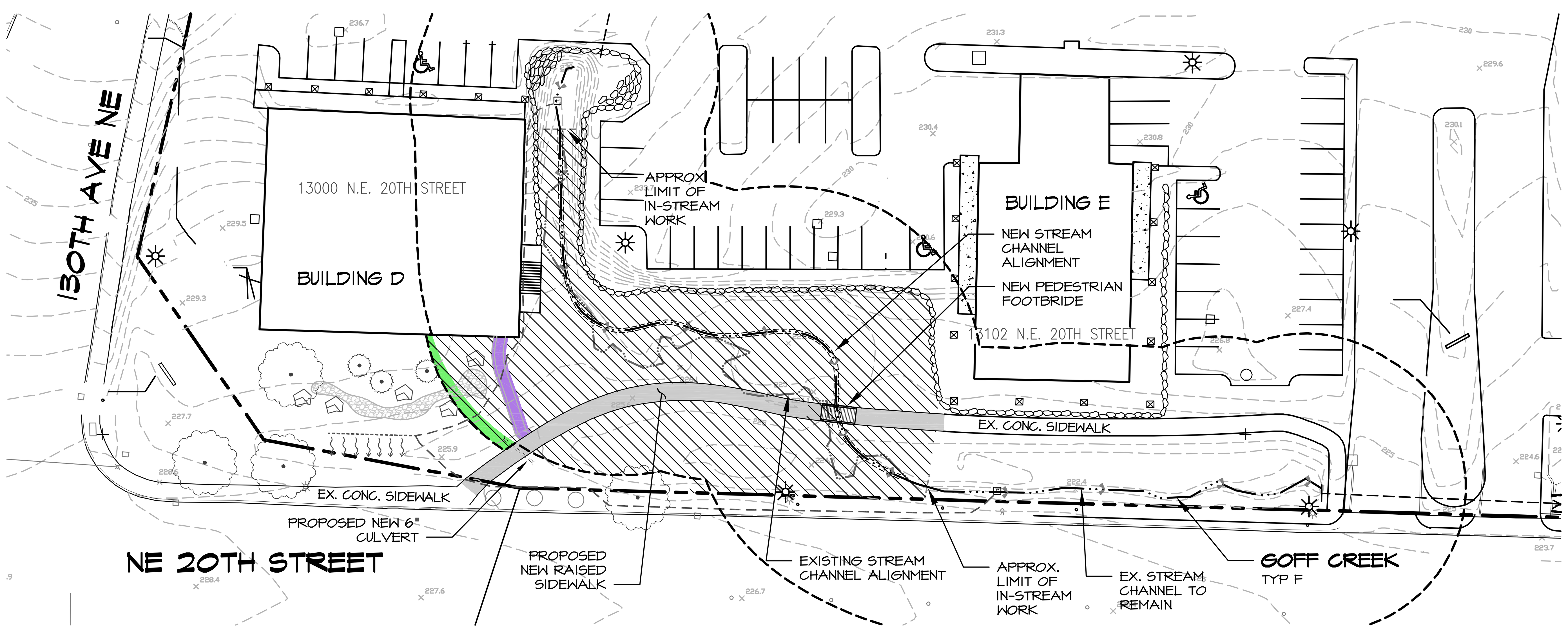


EXISTING CONDITIONS PLAN

GRAPHIC SCALE
(IN FEET)
0 15 30 60
SCALE: 1"=30'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING STREAM CENTERLINE AND DIRECTION OF FLOW
- ORDINARY HIGH WATER MARK (APPROX.)
- STANDARD 50' STREAM BUFFER
- EXISTING 2' CONTOUR
- EXISTING DECIDUOUS/CONIFEROUS TREES



IMPACTS & MITIGATION OVERVIEW PLAN

GRAPHIC SCALE
(IN FEET)
0 15 30 60
SCALE: 1"=30'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING STREAM CENTERLINE
- PROPOSED NEW STREAM CHANNEL ALIGNMENT (APPROX. 18" CHANNEL WIDTH)
- POST-CONSTRUCTION 50' STREAM BUFFER
- EXISTING 2' CONTOUR
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

IMPACTS LEGEND

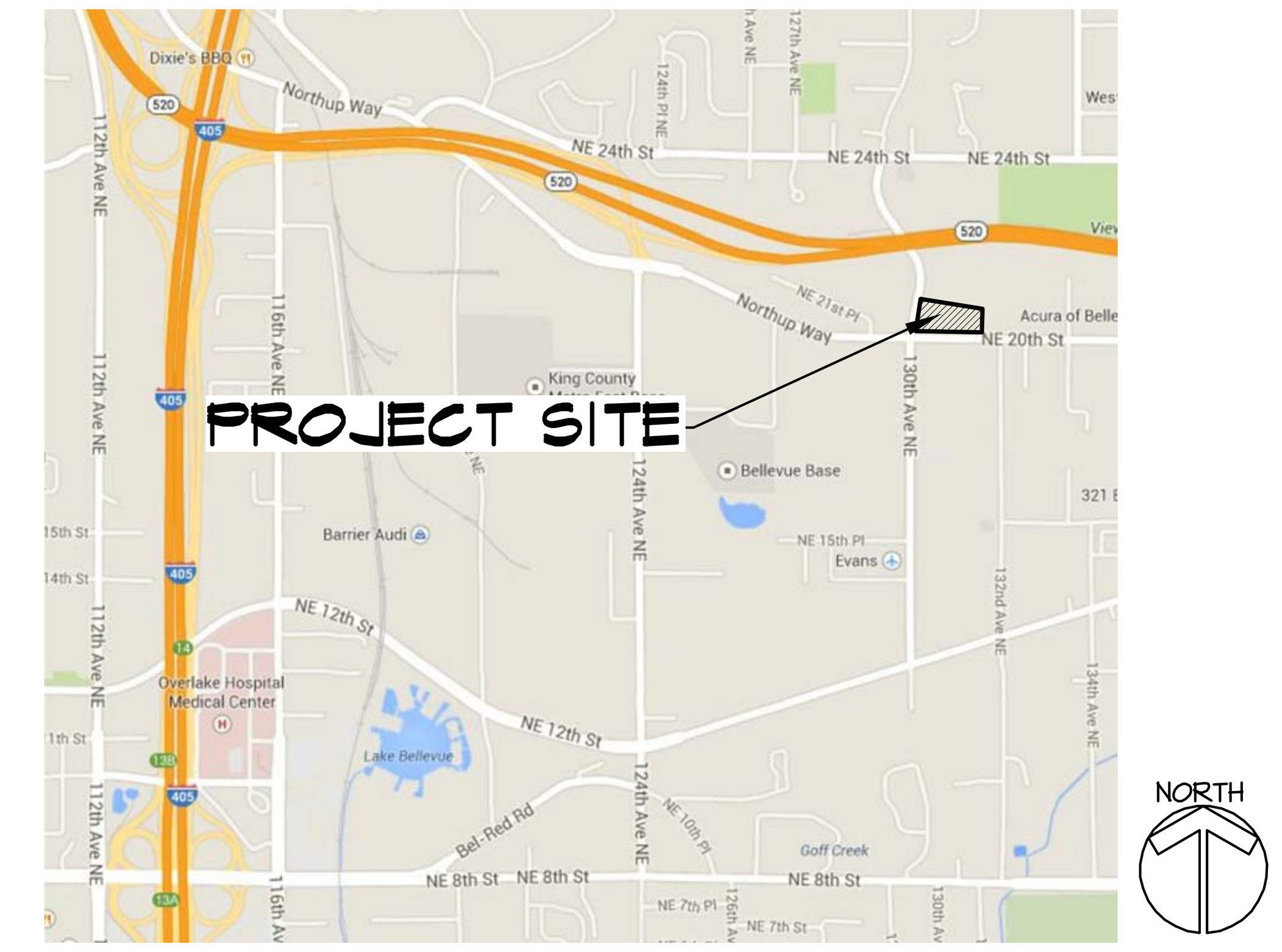
STREAM BUFFER REDUCTION	± 184 SF

MITIGATION LEGEND

STREAM BUFFER REPLACEMENT	± 184 SF
STREAM BUFFER ENHANCEMENT	10,665 SF

VICINITY MAP

N.T.S.



SOURCE: GOOGLE MAPS, WWW.MAPS.GOOGLE.COM (ACCESSED MARCH 14 2014)

CONTACTS

OWNER/APPLICANT:
HARSCH INVESTMENT PROPERTIES
1121 SW SALMON ST.
PORTLAND, OR 97205

PHONE: (503)242-2900
CONTACT: BRIAN WILLIAMS

ARCHITECT:
TISCARENO ASSOCIATES
500 UNION STREET, SUITE 926
SEATTLE, WA 98101

PHONE: (206)299-2149 EXT.513
CONTACT: ANDREW TSAI

ENVIRONMENTAL CONSULTANT:
TALASAEA CONSULTANTS, INC.
15020 BEAR CREEK RD. NE
WOODINVILLE, WA 98077

PHONE: (425)861-7550
CONTACT: ANN OLSEN, SENIOR PROJECT MANAGER
DAVID TEESDALE, SENIOR ECOLOGIST

SHEET INDEX

NOTES

1. SURVEY PROVIDED BY SITTS & HILL ENGINEERS, INC. 2901 SOUTH 40TH ST., TACOMA, WA 98409. (253)474-9449.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE:

811
Know what's below. Call before you dig.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
ANN MARIE OLSEN
CERTIFICATE NO. 777
EXPIRES 4/1/14

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:
SUBJECT TO REVISION

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 – Fax (425) 861-7549

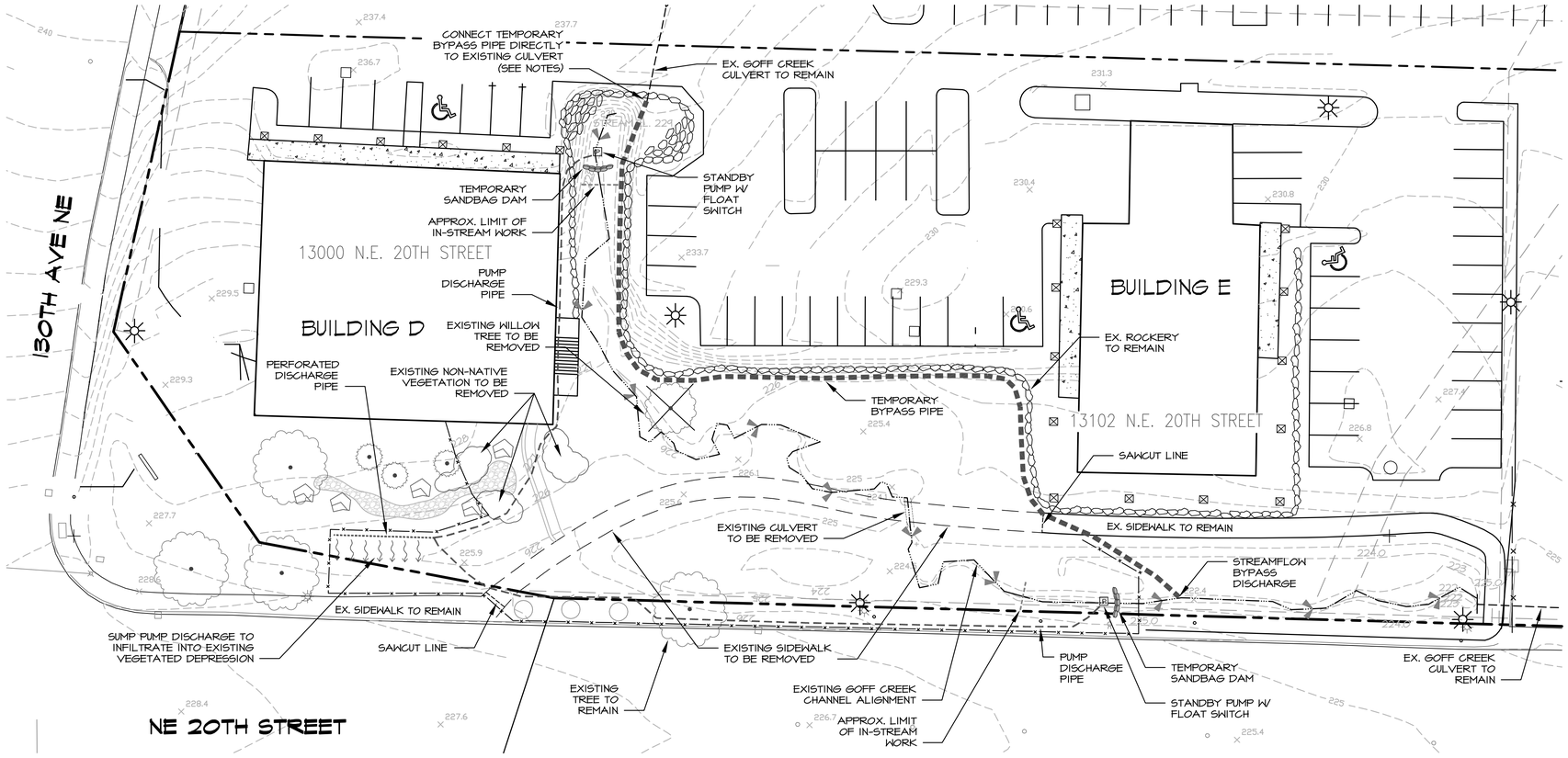
CRITICAL AREAS MITIGATION PLAN
EXISTING CONDITIONS & IMPACTS & MITIGATION OVERVIEW PLANS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions | Date | By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W1.0



DEMO & TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) PLAN

GRAPHIC SCALE (IN FEET)
0 10 20 40
SCALE: 1"=20'

NORTH

PLAN LEGEND

- PROPERTY LINE
- 100 EXISTING CONTOUR
- EXISTING STREAM CHANNEL CENTERLINE
- EXISTING DECIDUOUS/CONIFEROUS TREES TO BE REMOVED
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

TESC LEGEND

- SILT FENCE
- STREAM BYPASS PIPE
- PUMP DISCHARGE PIPE
- P STANDBY SUMP PUMP WITH FLOAT SWITCH

TEMPORARY STREAM BYPASS NOTES

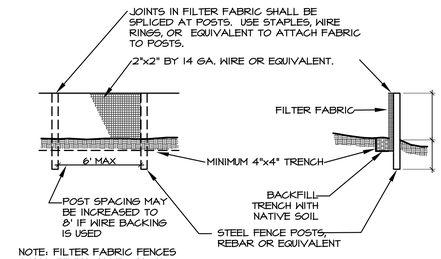
1. FOR WORK LOCATED WITHIN GOFF CREEK, THE WORK AREA SHALL BE ISOLATED FROM THE EXISTING STREAM FLOWS BY A TEMPORARY, GRAVITY-FED BYPASS TO DIVERT FLOWS AROUND THE WORK AREA AND PREVENT SEDIMENTS FROM ENTERING THE STREAM.
2. THE TEMPORARY BYPASS SHALL BE IN PLACE PRIOR TO INITIATION OF ANY WORK WITHIN THE EXISTING STREAM CHANNEL.
3. A SANDBAG DAM SHALL BE INSTALLED UPSTREAM AND DOWNSTREAM OF THE WORK AREA WHERE DEPICTED ON THIS PLAN AND CONSTRUCTED PER THE DETAIL SHOWN ON THIS PLAN.
4. THE CONTRACTOR SHALL INSTALL AN ADS N-12 OR EQUIVALENT PIPE OF SUFFICIENT SIZE TO DIVERT ALL FLOWS THROUGH THE BYPASS AND AROUND THE WORK AREA FOR THE DURATION OF CONSTRUCTION. BYPASS PIPE SHALL BE DIRECTLY CONNECTED TO THE UPSTREAM CULVERT OUTLET WITH A FLEXIBLE CONNECTOR AND BAND-TYPE PIPE CLAMPS.
5. ONCE THE SANDBAG DAMS AND BYPASS PIPE ARE INSTALLED, THE WORK AREA SHALL BE DEWATERED AS NECESSARY USING A PORTABLE PUMP. DISCHARGE FROM DEWATERING OPERATIONS WITHIN THE WORK AREA SHALL BE DISPERSED IN THE EXISTING VEGETATED DEPRESSION SOUTH OF BUILDING D AS SHOWN ON PLAN.
6. DURING CONSTRUCTION, ONE PUMP SHALL BE STATIONED UPSTREAM OF THE WORK AREA TO INTERCEPT ANY SEEPAGE/LEAKAGE FROM THE EXISTING CULVERT THAT ACCUMULATES ABOVE THE UPSTREAM SANDBAG DAM. ANOTHER PUMP SHALL BE STATIONED ABOVE THE DOWNSTREAM SANDBAG DAM TO REMOVE ANY WATER THAT ACCUMULATES AT THE LOWER END OF THE WORK AREA. THE PUMPS SHALL BE MAINTAINED ON STANDBY FOR THE DURATION OF IN-STREAM WORK AND EQUIPPED WITH AUTOMATIC FLOAT SWITCHES. PUMP DISCHARGE SHALL BE DISPERSED THROUGH A PERFORATED PIPE INTO THE EXISTING VEGETATED DEPRESSION WHERE SHOWN ON PLAN.
7. UPON COMPLETION OF THE PROJECT, ALL MATERIAL USED IN THE TEMPORARY BYPASS SHALL BE REMOVED FROM THE SITE AND THE SITE SHALL BE RETURNED TO PRE-PROJECT OR IMPROVED CONDITIONS.

DEMO NOTES

1. EXISTING CONCRETE SIDEWALK TO BE SAWCUT AND REMOVED WHERE SHOWN ON PLANS, INCLUDING REMOVAL OF ALL BASE COURSE MATERIAL.
2. EXISTING CULVERT UNDER SIDEWALK TO BE REMOVED.
3. EXISTING SOD WITHIN GRADING LIMITS TO BE GRUBBED OUT PRIOR TO GRADING.
4. ALL DEMOLITION DEBRIS TO BE DISPOSED OF AT AN APPROVED OFF-SITE DUMP LOCATION.

CONSTRUCTION SEQUENCE

1. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, TALASAEA CONSULTANTS, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, STAGING/STOCKPILE AREAS, AND MATERIAL DISPOSAL AREAS.
2. INSTALL SILT FENCE AT PROJECT CONSTRUCTION LIMITS.
3. INSTALL UPSTREAM TEMPORARY BYPASS PIPE TO DIVERT STREAM FLOWS AROUND CONSTRUCTION WORK AREA. BYPASS PIPE SHALL BE SECURED TO BASE OF EXISTING ROCKERY. ALL BYPASSED FLOWS SHALL BE DISCHARGED BELOW WORK AREA.
4. INSTALL SANDBAG DAM AND SUMP PUMP AT UPSTREAM BYPASS AREA TO PUMP ANY WATER THAT MAY SEEP THROUGH THE ROCKERY AROUND WORK ZONE.
5. INSTALL DOWNSTREAM SANDBAG DAM TO INTERCEPT ANY GROUNDWATER FROM WORK AREA. INSTALL SUMP PUMP TO PIPE TURBID WATER TO A GRASSY AREA FOR INFILTRATION.
6. LOCATE AND SAW CUT EXISTING SIDEWALK. REMOVE SIDEWALK AND EXISTING ARCHED CULVERT AND DISPOSE OF OFFSITE.
7. STRIP EXISTING SOD AND REMOVE FROM SITE.
8. SURVEY NEW STREAM ALIGNMENT AND SET GRADE STAKES AS REQUIRED.
9. STRIP AND STOCKPILE ACCEPTABLE TOPSOIL FROM EXCAVATION AND FILL AREAS.
10. COMPLETE THE MITIGATION GRADING TO ROUGH GRADE, USING ACCEPTABLE CLEAN FILL MATERIALS FROM EXCAVATIONS TO CONCURRENTLY CONSTRUCT EARTHEN BERMS SHOWN ON THE PLANS.
11. INSTALL AND ANCHOR DEFLECTOR LOGS ALONG STREAM ROUTE.
12. PLACE STOCKPILED TOPSOIL ALONG STREAM ROUTE.
13. PLACE APPROVED ROCK MIX IN LOW FLOW STREAM CHANNEL.
14. INSTALL NEW CULVERT TO DRAIN WESTERN PORTION OF SITE.
15. CONSTRUCT PEDESTRIAN BRIDGE AND NEW SIDEWALK.
16. MULCH ALL GRADED BUFFER AREAS.
17. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLANS.
18. PARTIALLY INTRODUCE STREAM FLOWS TO NEW CHANNEL WHILE MAINTAINING UPSTREAM TEMPORARY BYPASS. ALLOW FLOWS TO POND AT DOWNSTREAM SANDBAG DAM AND PUMP ANY TURBID WATER TO ADJACENT GRASSY AREA FOR INFILTRATION.
19. REMOVE BOTH UPSTREAM AND DOWNSTREAM SANDBAG DAMS AND SUMP PUMPS.
20. REMOVE TEMPORARY BYPASS PIPE AND ALLOW STREAM FLOW NATURALLY THROUGH NEW CHANNEL.

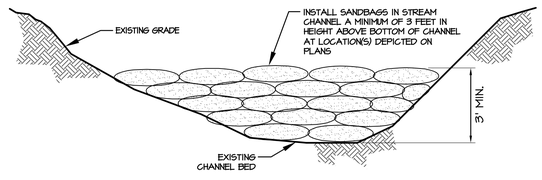


NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

ELEVATION CROSS SECTION

SILT FENCE MAINTENANCE STANDARDS:
1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPSLOPE OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
3. CONTRACTOR SHALL CHECK THE UPSLOPE SIDE OF THE FENCE FOR SIGNS OF CLOGGING AND SUBSEQUENT CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS 6" IN DEPTH.

1 SILT FENCE DETAIL
SCALE: NTS



SECTION

2 SANDBAG DAM DETAIL
SCALE: NTS

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ANN MARIE OLSEN
CERTIFICATE NO. 771
EXPIRES 4/1/14

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NOTES

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3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE PLANNING
AND COMMUNITY DEVELOPMENT DEPT.

DATE:

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15600 West Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7500 - Fax (425) 861-7749

CRITICAL AREAS MITIGATION PLAN
DEMO & TESC PLAN, DETAILS, & NOTES
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	By	Date

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W1.1

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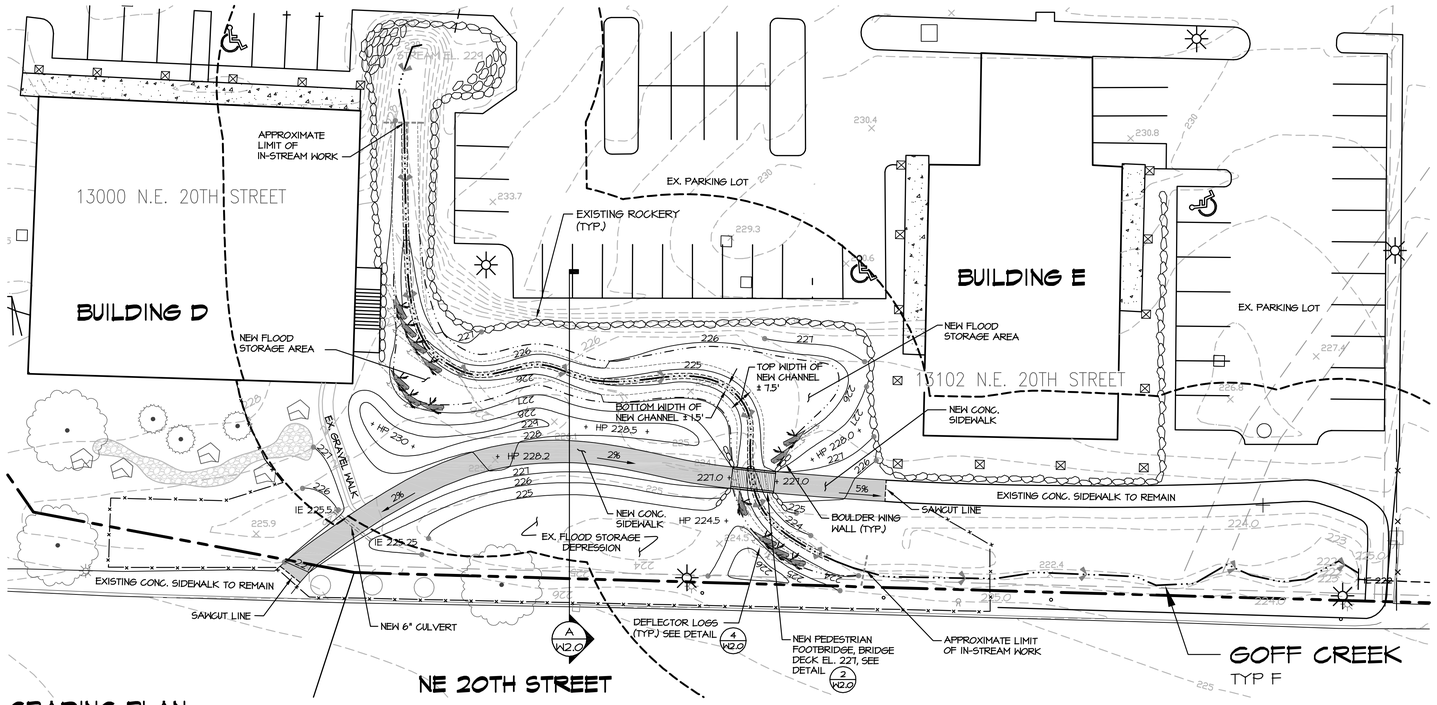


GRADING PLAN

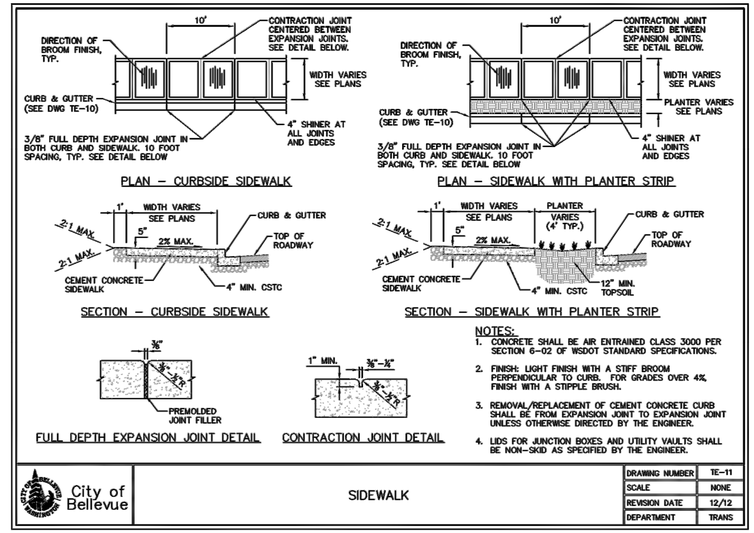
GRAPHIC SCALE (IN FEET)
0 10 20 40
SCALE: 1"=20'
NORTH

PLAN LEGEND

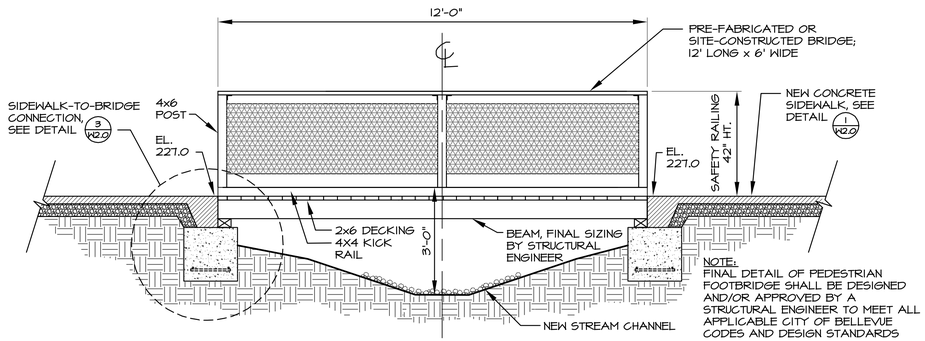
- PROPERTY LINE
- 100 EXISTING CONTOUR
- EXISTING STREAM CHANNEL ALIGNMENT TO REMAIN
- POST-CONSTRUCTION STREAM BUFFER
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

GRADING LEGEND

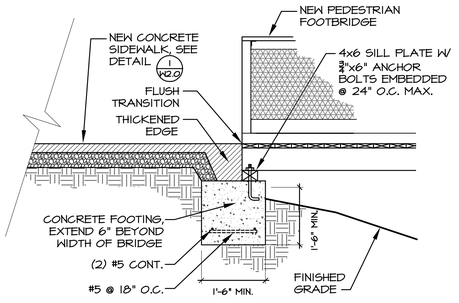
- SILT FENCE
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- 100 + PROPOSED SPOT ELEVATION
- PROPOSED NEW STREAM CHANNEL ALIGNMENT
- PROPOSED TOP OF BANK
- APPROX. BOUNDARY OF NEW FLOODWAY AREA
- DEFLECTOR LOG



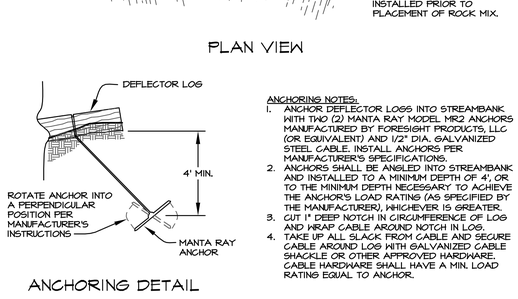
1 CITY OF BELLEVUE STANDARD SIDEWALK DETAIL
SCALE: NTS



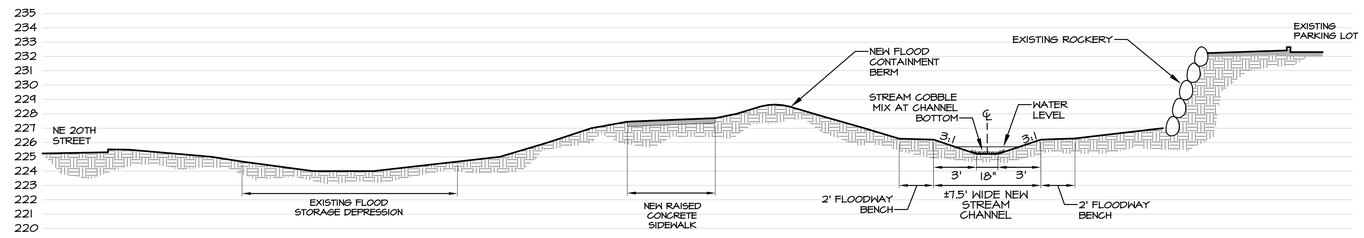
2 PRELIMINARY PEDESTRIAN BRIDGE DETAIL EXAMPLE
SCALE: NTS



3 BRIDGE CONNECTION TO SIDEWALK DETAIL
SCALE: NTS



4 TYPICAL DEFLECTOR LOG DETAIL
SCALE: NTS



A SECTION A
SCALE: 1"=5' H&V

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CRITICAL AREAS MITIGATION PLAN
GRADING PLAN, SECTION, & DETAILS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W2.0

GRADING SPECIFICATIONS

PART 1 - GENERAL PERMIT CONDITIONS

APPROVED PLANS AND PERMITS

A copy of the current approved plans and other agency permits must be on site whenever construction is in progress and shall remain on site until project completion. Contractor shall keep a separate complete record set of prints at the job site during construction for the sole purpose of "red-lining" changes or modifications to the approved plans and shall update said information on a daily basis. Such changes will only be made with approval of Talasaea Consultants.

Construction must be performed in accordance with Agency standards, codes, permit conditions, and other applicable ordinances and policies. The applicant is responsible for obtaining any other related or required permits prior to the start of construction.

PRE-CONSTRUCTION MEETING

No construction work shall commence until there is a meeting between the City, Client, Talasaea Consultants, and the General, Clearing, and Earthwork Contractors. The approved plans and specifications shall be reviewed to allow parties involved to understand the intent and the specific details related to the construction documents, specifications, and site constraints.

PART 2 - GENERAL SITE CONDITIONS

NOTICE TO PROCEED

Contractor shall give Talasaea Consultants a minimum of ten (10) days notice prior to intention to proceed with construction.

A qualified wetland consultant shall be on site, as necessary, to monitor construction and approve minor revisions to the plan.

EXISTING CONDITIONS

Locations of existing utilities have been established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the Contractor to: (1) independently verify the accuracy of utility locations and (2) discover and avoid any utilities within the stream relocation area not shown which may be affected by implementation of this plan. Such areas are to be clearly marked in the field. Talasaea Consultants shall resolve any conflicts with the approved grading plan prior to start of construction.

Topographic elevations represented on this plan are based upon topographic maps supplied by Sitts & Hill. Final elevations may vary depending on site-specific conditions. It is the responsibility of the Contractor to verify pre-construction topographic elevations for accuracy prior to grading. Contractor shall notify Talasaea Consultants immediately if any modifications to the plans may be necessary due to inaccuracies of the original survey.

PART 3 -- LIMITS OF CLEARING AND EROSION CONTROL

STAKE & FLAG LIMITS OF CLEARING

Prior to any construction, contractor shall stake and flag clearing limits. Clearing limits are depicted on Sheet W1.1. Talasaea Consultants shall review clearing limits located within the stream relocation and enhanced buffer areas prior to any vegetation removal.

EROSION CONTROL MEASURES

Contractor shall install erosion control measures (silt fencing, wattles, etc.) on the project site prior to any construction activity as depicted on the TESC Plan on Sheet W1.1.

Contractor shall maintain erosion control measures during implementation of the stream relocation plan. As construction progresses and seasonal conditions dictate, erosion control facilities shall be maintained and/or altered as required to ensure continued erosion/sedimentation control. These measures shall remain in place until written authorization is given for removal or adjustment.

Site areas exposed during grading and construction must be covered with straw, erosion control netting, plastic sheeting, or permanent erosion control within 48 hours of disturbance on slopes steeper than 33 percent (3:1).

During construction, the Contractor must use materials and construction methods that prevent toxic material and other pollutants from entering the stream and buffer areas. Preventative measures shall be used to protect existing storm drainage systems, existing utilities, and roads.

Where possible, existing natural ground cover vegetation shall remain and be maintained for silt control.

If surface ponding is experienced during excavation within the stream relocation area, turbid water will be pumped to an adjacent upland temporary erosion control area for infiltration (see Sheet W1.1).

PART 4 -- CLEAR AND GRUB

CLEAR AND GRUB

Contractor shall clear and grub areas within the clearing limits of the stream relocation and buffer areas. Cleared and grubbed vegetation shall be exported from the site. Particular care must be given to ensure complete removal of tops and roots of reed canarygrass plants and any other invasive/exotic plant species. Invasive/exotic plant species to be removed and treated in the stream relocation and buffer areas are: Scot's broom, English ivy, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, hedge bindweed (morning glory), Japanese knotweed, thistle, and creeping nightshade.

Talasaea Consultants to designate any additional plant species to be removed/treated prior to construction.

INSTALL TREE PROTECTION FENCING

One tree is present in the buffer area adjacent to the proposed work. Trees located outside the clearing limits are to be retained, but some trees outside the clearing limits may be adversely affected by construction activities. Talasaea Consultants shall flag retained trees prior to clearing. Contractor shall install tree protection around flagged trees. Flagged trees shall not be disturbed beyond tree protection fencing. Fencing shall remain in place until the completion of earthwork.

Contractor shall be responsible for avoiding disturbance to existing vegetation located outside the clearing limits. No removal of any vegetation shall occur without prior approval by Talasaea Consultants.

Any living woody plant that is damaged during construction shall be treated within 24-hours of occurrence. Talasaea Consultants shall be notified immediately of incident. Wound shaping treatment shall be done and includes, but is not limited to: evenly cutting broken branches, exposed roots and damaged tree bark immediately after damage occurs. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survivability.

PART 5 -- GRADE STAKING AND EXCAVATION

SURVEY AND GRADE STAKE ROUGH GRADES

A licensed surveyor shall survey and grade stake rough grades in the stream relocation area following clearing and grubbing. Surveyor shall supply grade stakes along transects through the new stream corridor at 20' intervals and shall include the centerline of the new stream channel. Transects shall be located 40-feet apart along the entire length of the relocated stream corridor. Talasaea Consultants shall approve grade staking prior to excavation down to rough grade and shall monitor during construction.

SURVEY AND GRADE STAKE SUB-GRADES

After initial mass excavation has been completed, surveyor shall survey and grade stake sub-grades along transects through the rough graded stream corridor at 20' intervals and also shall include the centerline of the new stream channel, top of bank of the primary channel, toe of slope of the floodway bench, and edge of buffer. Transects shall be located 40-feet apart along the entire length of the relocated stream corridor. Talasaea Consultants shall approve grade staking prior to excavation to subgrade and shall monitor during construction.

EXCAVATE

Contractor shall excavate new stream corridor per grading plan. Talasaea Consultants shall make minor field adjustments to grading plan, as necessary, to ensure proper function of stream hydraulics.

In the primary channel, Contractor shall over-excavate 6" below finished elevation shown on plans to allow for later placement of 6" of rock mix. Rock mix is to be placed throughout the entire length of the new stream channel.

In remaining graded buffer areas, Contractor shall over-excavate 6" below finished elevation shown on plans to allow for later placement of 6" of stockpiled or to imported topsoil. Excavated soils shall be used on-site; if possible, otherwise they shall be exported off site.

Upon completion of subgrade excavation, a licensed surveyor shall provide spot elevations at subgrade of: 1) the top of bank of the primary channel and 2) at edge of floodplain prior to installation of the deflector logs and rock mix. Talasaea Consultants shall review subgrade elevations.

PART 6 - DEFLECTOR LOGS & ROCK MIX

INSTALL DEFLECTOR LOGS

Talasaea Consultants shall flag locations of deflector logs prior to installation. Talasaea Consultants shall approve deflector log placement prior to installation (see Detail on Sheet W2.0). Deflector logs should not block more than 1/3 flow of channel at Ordinary High Water Mark (OHWM).

PLACE ROCK MIX IN PRIMARY CHANNEL

Contractor shall place rock mix in primary channel after subgrade approved. Rock mix shall consist of clean, rounded, uniformly-graded gravel with a size composition of:

15 percent of 4.0 to 3.0 inches;
40 percent of 3.0 to 1.5 inches;
45 percent of 1.5 to 0.25 inches, with

fines less than 0.25 inches not exceeding 3.0 percent total volume. Talasaea Consultants shall approve rock mix placement.

PART 7 - TOPSOIL

PLACE TOPSOIL/COMPOST

Talasaea Consultants shall approve subgrade earthwork in the stream relocation area prior to placement of stockpiled or imported topsoil. Subgrade shall be 6" lower than finish grade shown on plan.

If imported topsoil is necessary, Contractor shall import topsoil that is fertile, friable, sandy loam, surface soil, free of subsoil, clay lumps, brush, weeds and other litter, and free of roots, stumps, stones larger than 1" in any dimension, and other extraneous or toxic matter harmful to plant growth from a local distributor. Contractor shall provide a sample of proposed topsoil to Talasaea Consultants for review and approval prior to delivery at the project site.

In all graded mitigation areas, 6" of stockpiled or imported topsoil shall be placed over subgrade. Topsoil shall be lightly track-walked on sloped areas to prevent rilling and erosion.

In non-graded planted portions of the buffer, planting pits shall be backfilled with imported topsoil and amended with fertilizer and a soil moisture retention agent as noted in the planting specifications (see General Planting Installation Notes).

PART 8 - CONSTRUCTION DELAYS

SOIL STABILIZATION

If there is a delay in construction for any reason, Contractor, unless otherwise stated in writing, shall be responsible for maintenance of erosion control measures and drainage during construction delay period.

PART 9 - CONSTRUCTION APPROVAL

POST GRADING EVALUATION BY TALASAEA

Upon completion of final grading and structure installation, Contractor shall provide Talasaea Consultants with a set of clearly marked prints designating the actual locations of elements within the stream relocation and enhanced buffer areas.

Talasaea Consultants shall approve grading work and structure installation prior to plant installation to confirm that the stream relocation plans were properly implemented. If items are to be corrected, a punch list shall be prepared by Talasaea Consultants and submitted to the Contractor for completion. After punch list items have been completed, the project shall be reviewed for final internal acceptance of grading plan implementation and planting may then proceed.

WARRANTY

Contractor shall ensure that construction related activities do not damage off-site features or adjacent vegetation. Talasaea Consultants shall be notified immediately if accidental damage occurs.

Contractor shall ensure that adjacent roads are maintained and clear of soil and/or other debris at all times during construction. Contractor shall comply with the City of Everett codes regarding street maintenance/cleaning during construction.

Any changes or modifications to this plan must receive prior approval from Talasaea Consultants.

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EXPIRES 9/7/14

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Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7550 - Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
GRADING SPECIFICATIONS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W2.1

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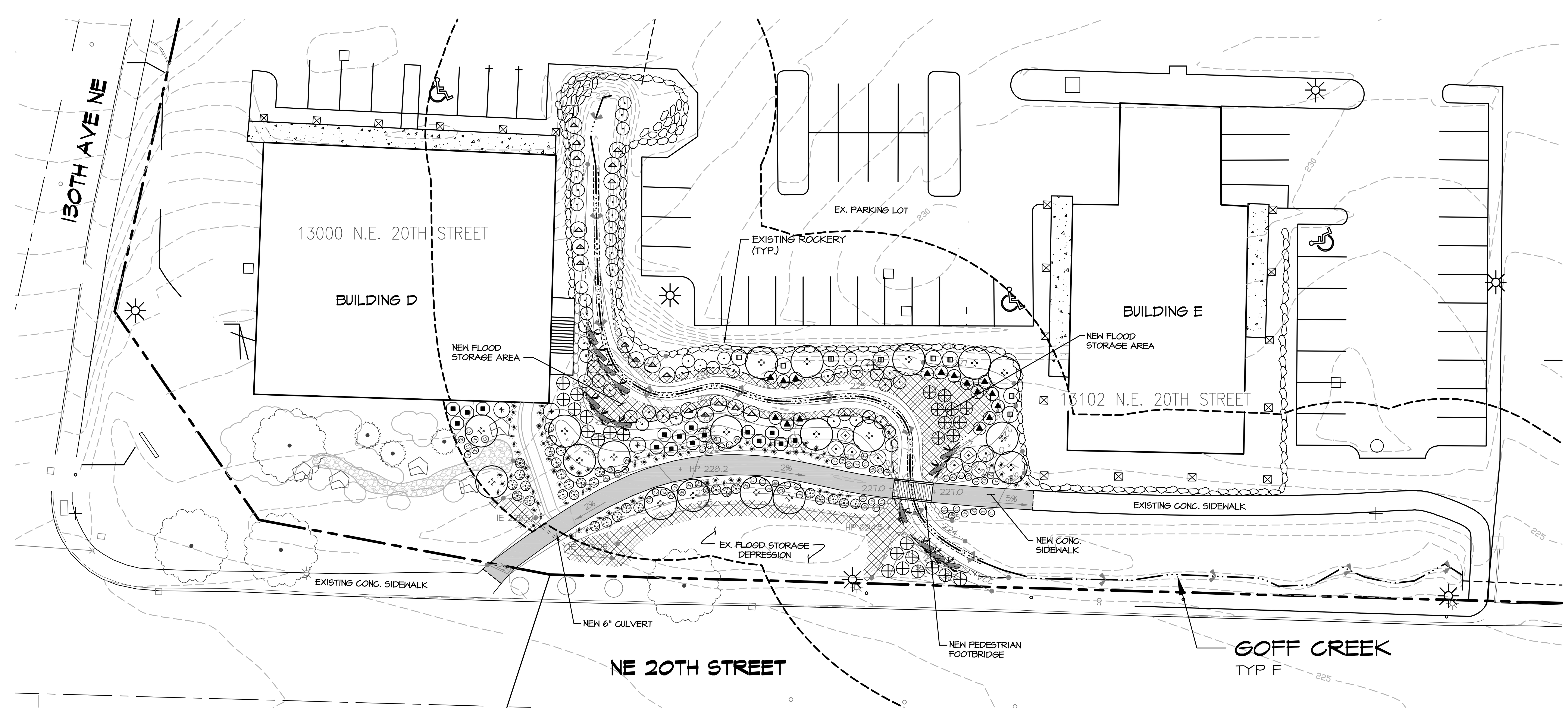
Plaza 520 Stream Improvements
14-128563-LO



PLANTING PLAN

GRAPHIC SCALE
(IN FEET)
0 10 20 40
SCALE: 1"=20'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- NEW STREAM CHANNEL ALIGNMENT
- POST-CONSTRUCTION STREAM BUFFER
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

PLANT SCHEDULE

SMALL TREES & LARGE SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	ACER CIRCINATUM	VINE MAPLE	FACU	AS SHOWN	19	4' HT.	MULTI-STEM (3 MIN.)
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	FACU	5' O.C.	3	24" HT.	MULTI-CANE (3 MIN.)
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	FACW	5' O.C.	18	24" HT.	MULTI-CANE (3 MIN.)
	RIBES SANGUINEUM	RED CURRANT	NL	5' O.C.	8	24" HT.	MULTI-CANE (3 MIN.)
	SAMBUCUS RACEMOSA	RED ELDERBERRY	FACU	5' O.C.	8	24" HT.	MULTI-CANE (3 MIN.)

MASSING SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD	FACW	4' O.C.	49	18" HT.	MULTI-CANE (3 MIN.)
	GAULTHERIA SHALLON	SALAL	FACU	24" O.C.	66	1 GAL.	FULL & BUSHY
	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	FAC	4' O.C.	16	18" HT.	MULTI-CANE (3 MIN.)
	MAHONIA AQUIFOLIUM	TALL OREGONGRAPE	FACU	4' O.C.	16	18" HT.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	FACU	3' O.C.	83	1 GAL.	FULL & BUSHY
	ROSA NUTKANA	NOOTKA ROSE	FAC	4' O.C.	27	18" HT.	MULTI-CANE (3 MIN.)
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	FACU	4' O.C.	31	1 GAL.	FULL & BUSHY

EMERGENTS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	CAREX OBNUPTA	SLOUGH SEDGE	OBL	18" O.C.**	350	BARE-ROOT	
NO SYMBOL	OENANTHE SARMENTOSA	PACIFIC WATER PARSLEY	OBL	18" O.C.*	150	BARE-ROOT	
	SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH	OBL	18" O.C.**	350	BARE-ROOT	

EMERGENT NOTES:
* PACIFIC WATER PARSLEY SHALL BE PLANTED ALONG EDGES OF NEW STREAM CHANNEL IN GROUPS OF 5-10 AT SPACING SHOWN APPROXIMATELY EVERY 10 LF.
** SLOUGH SEDGE AND SMALL-FRUITED BULRUSH SHALL BE PLANTED IN SINGLE-SPECIES GROUPINGS OF 20-30 AT SPACING SHOWN WITH SPACE LEFT BETWEEN GROUPINGS.

TALASAEA CONSULTANTS SHALL APPROVE LAYOUT OF ALL PLANTS, INCLUDING EMERGENTS, PRIOR TO PLANTING.

GENERAL PLANT INSTALLATION NOTES

1. PLANT TREES AND/OR SHRUBS 1" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES AND/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET AND OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR ROOTBALL, IN LINE WITH THE PREVAILING WIND. STAKES SHALL BE LOOSELY ATTACHED USING CHAIN-LOCK TREE TIES TO ALLOW FOR SOME TRUNK MOVEMENT.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER PLANTS IMMEDIATELY UPON PLANTING, THEN PROVIDE MANUAL WATERING OR A TEMPORARY IRRIGATION SYSTEM (IF SPECIFIED IN THE PLANTING SPECIFICATIONS) TO PREVENT PLANT MORTALITY AND ENSURE PROPER PLANT ESTABLISHMENT. PLANTS SHALL RECEIVE A MINIMUM OF APPROXIMATELY ONE INCH OF WATER EVERY WEEK DURING THE DRY SEASON (GENERALLY JUNE 15TH - OCTOBER 15TH, OR EARLIER OR LATER IF CONDITIONS WARRANT) FOR THE FIRST SEASON AFTER PLANTING. IRRIGATION AMOUNTS MAY NEED TO BE INCREASED DURING PROLONGED PERIODS OF HOT, DRY WEATHER.
6. FERTILIZE ALL TREES AND SHRUBS WITH A SLOW-RELEASE GENERAL PURPOSE GRANULAR FERTILIZER OR SLOW-RELEASE TABLETS AT MANUFACTURER'S SPECIFIED RATE.

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BY:
CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE:

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 - Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
PLANTING PLAN, PLANT SCHEDULE, & NOTES
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W3.0

PLANTING SPECIFICATIONS

PART 1: GENERAL

1.1 SEQUENCING

A. General Construction

1. Contractor shall give Talasaea Consultants a minimum of ten (10) days notice prior to commencing construction.
2. No construction work shall commence until there is a meeting between the client, Talasaea Consultants, and the contractor(s). The approved plans and specifications shall be reviewed to ensure that all parties involved understand the intent and the specific details related to the construction documents, specifications, and site constraints.
3. Locations of any existing utilities shown on mitigation plans have been established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to: (1) independently verify the accuracy of utility locations, and (2) discover and avoid any utilities within the mitigation area(s) that are not shown, but which may be affected by implementation of the plan. Such area(s) are to be clearly marked in the field. Talasaea Consultants shall resolve any conflicts with the approved mitigation plan prior to start of construction.
4. A copy of the approved plans must be on site whenever construction is in progress, and shall remain on site until project completion.
5. Construction must be performed in accordance with all agency standards, rules, codes, permit conditions, and/or other applicable ordinances and policies.
6. The project owner/applicant is responsible for obtaining any other related or required permits prior to the start of construction.
7. A qualified wetland consultant shall be on site, as necessary, to monitor construction and approve minor revisions to the plan.
8. During construction, the contractor must use materials and construction methods that prevent toxic substances and other pollutants from entering mitigation areas or other natural waters of the State.
9. Preventative measures shall be used to protect existing storm drainage systems, existing utilities, and roads.
10. Provide sediment and erosion controls around the project area as necessary prior to soil disturbance from construction activity.

B. Mitigation Construction: The following provides the general sequence of activities anticipated to be necessary to complete the mitigation project. Some of these activities may be conducted concurrently as the project progresses.

1. Conduct a site meeting between the contractor, Talasaea Consultants, and the owner's representative to review the project plans, staging/stockpile areas, and material disposal areas.
2. Install silt fence at project construction limits.
3. Install upstream temporary bypass pipe to divert stream flows around construction work area. Bypass pipe shall be secured to base of existing rockery. All bypassed flows shall be discharged below work area.
4. Install sandbag dam and sump pump at upstream bypass area to pump any water that may seep through the rockery around work zone.
5. Install downstream sandbag dam to intercept any groundwater from work area. Install sump pump to pipe turbid water to a grassy area for infiltration.
6. Locate and saw cut existing sidewalk. Remove sidewalk and existing arched culvert and dispose of offsite.
7. Strip existing sod and remove from site.
8. Survey new stream alignment and set grade stakes as required.
9. Strip and stockpile acceptable topsoil from excavation and fill areas.
10. Complete the mitigation grading to rough grade, using acceptable clean fill materials from excavations to concurrently construct earthen berms shown on the plans.
11. Install and anchor deflector logs along stream route.
12. Place stockpiled topsoil along stream route.
13. Place approved rock mix in low flow stream channel.
14. Install new culvert to drain western portion of site.
15. Construct pedestrian bridge and new sidewalk.
16. Mulch all graded buffer areas.
17. Install plant material as indicated on the planting plans.
18. Partially introduce stream flows to new channel while maintaining upstream temporary bypass. Allow flows to pond at downstream sandbag dam and pump any turbid water to adjacent grassy area for infiltration.
19. Remove both upstream and downstream sandbag dams and sump pumps.
20. Remove temporary bypass pipe and allow stream flow naturally through new channel.

1.2 SUBMITTALS

A. Product Data: Furnish the following with each plant material delivery:

1. Invoices indicating sizes and variety of plant material.
2. Certificates of inspection required by state and federal agencies.

B. Quality Control Submittals:

1. Prior to delivery of materials, certificates of compliance attesting that materials meet the specified requirements shall be furnished for the following: plants, topsoil, fertilizer, and organic mulch. Certified copies of the material certificates shall include the following:
   a. Plant Materials: botanical name, common name, size, quantity by species, and location where grown.
   b. Imported Topsoil: particle size, pH, organic matter content, textural class, soluble salts, chemical and mechanical analyses.
   c. Fertilizer: chemical analysis and percent composition.
   d. Imported Mulch: composition and source.

1.3 REFERENCES

A. Size and Grading Standards: Shall conform to the current edition of the American Standard for Nursery Stock, published by the American Nursery and Landscape Association.

1.4 QUALITY ASSURANCE

A. Worker's Qualifications: The persons performing the planting and their supervisor(s) shall be personally experienced with planting and caring for plant material, and shall have been regularly employed by a company engaged in planting and caring for plant material for a minimum of 2 years.

B. Plant Material: All plant materials shall be locally grown or regionally acclimatized to the Pacific Northwest.

1.5 DELIVERY, INSPECTION, STORAGE AND HANDLING

A. Delivery: A delivery schedule shall be provided at least 10 calendar days prior to the first day of delivery. Plant materials shall be delivered to the job site not more than 7 working days prior to their respective planting dates.

B. Protection During Delivery: Plant material shall be protected during delivery to prevent desiccation and damage to the branches, trunk, root system, or earth ball. Branches shall be protected by tying-in. Exposed branches shall be covered during transport.

C. Fertilizer: Fertilizer shall be delivered in manufacturer's standard sized bags showing weight, analysis, and manufacturer's name. Store under a waterproof cover or in a dry place as designated by the owner's representative.

D. Inspection: All plant materials shall be inspected upon arrival at the job site by the owner's representative for conformity to type and quantity with regard to their respective specifications.

E. Mulch: A mulch sample shall be inspected by Talasaea Consultants prior to the mulch being delivered to the site.

F. Storage:

1. Plant material not installed on the day of arrival at the site shall be stored and protected in designated areas. Plants stored on the project site shall be protected from extreme weather conditions by insulating the roots, root balls or containers with sawdust, soil, compost, bark or woodchips. Plant material shall be protected from direct exposure to wind and sun. Bare-root plant material shall be heeled-in. Cuttings and emergent plants must be protected from drying at all times and shall be heeled-in with moist soil or other insulating material. All plant material stored on-site shall be watered daily until installed.
2. Storage of other materials shall be in designated areas.

1.6 SCHEDULING

A. Planting Season: Install woody plants between October 1 and February 15 whenever the temperature is above 32 degrees F and the soil is in a workable condition, unless otherwise approved in writing. Cuttings shall only be used if planting occurs between December 1st and April 1st.

B. Plant Installation: Except for container-grown plant material, the maximum time between the digging and installation of plant material shall be 21 days. The maximum time between plant installation and mulch placement shall be 72 hours.

1.7 WARRANTY

A. Warranty Period: The contractor-provided warranty shall extend for a period of one year from the date of physical completion. Physical completion for the work of this section is the date when all clearing/grubbing, planting, irrigation, and related work has been completed and is accepted by the owner's representative, Talasaea Consultants, and applicable agencies.

B. Warranty Terms: Contractor's warranty shall include replacement of plants due to mortality (same size and species shown on the drawings). Plants replaced under this warranty shall be warranted for an additional year after replacement.

C. Exceptions: Loss due to excessively severe climatological conditions (substantiated by 10-year recorded weather charts), or cases of neglect by Owner, or cases of abuse/damage by others.

PART 2: PRODUCTS AND MATERIALS

2.1 PLANTS

A. General: All plant material will conform to the varieties specified or shown in the plant list(s) indicated on the mitigation plans and be true to botanical name as listed in: Hitchcock, C.L., and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press.

B. Shrubs and Trees:

1. Talasaea shall examine plant material prior to planting. Any material not meeting the required specifications shall be immediately removed from the site and replaced with like material that meets the required standards. Plant material shall meet the requirements of state and federal laws with respect to plant disease and infestations. Inspection certificates, required by law, shall accompany each and every shipment and shall be submitted to Talasaea upon contractor's receipt of plant material.
2. Plant materials shall be locally grown (western Washington, western Oregon, or western BC), healthy, bushy, in vigorous growing condition, and guaranteed to be true to size, name, and variety. If replacement of plant material is necessary due to construction damage or plant failure within one year of installation, the sizes, species, and quantities shall be equal to specified plants, as indicated on the plans.
3. Plants shall be nursery grown, well-rooted, of normal growth and character, and free from disease or infestation. Talasaea Consultants reserves the right to require replacement or substitution of any plants deemed unsuitable.
4. Trees shall have uniform branching, single straight trunks (unless specified as multi-stem, multi-cane, or multi-trunk), and an intact and undamaged central leader. Container stock shall have been grown in a container for at least one full growing season and shall have a well developed root system. Plant material that is root-bound or has damaged root zones or broken root balls will not be accepted.
5. Coniferous trees shall be nursery grown, full and bushy, with uniform branching and a natural, non-sheared form. Original central leader must be healthy and undamaged. Maximum gap between branching shall not exceed 9 inches, and length of top leader shall not exceed 12 inches.
6. Shrubs shall have a minimum of three stems and shall be a minimum height of 18 inches.
7. Trees and shrubs shall have developed root and branch systems. Do not prune branches before delivery.
8. Native plant cuttings shall be grown and collected in the maritime Pacific Northwest. Cuttings shall be of one to two-year-old wood, ½ inch diameter minimum. Cuttings shall be a minimum of 4 feet in length with 4 lateral buds exposed above ground after planting. The top of each cutting shall be a minimum of 1 inch above a leaf bud, the bottom cut 2 inches below a bud. The basal ends of the cuttings shall be cut at a 45 degree angle and marked clearly so that the rooting end is planted in the soil. Cuttings must be kept covered and moist during storage and transport, and no cuttings shall be stored more than three days from date of cutting. Cuttings shall only be used if planting occurs between December 1st and April 1st. For planting between April 1st and December 1st, container plants shall be used.
9. Plants shall be free of splits and checks, bark abrasions, and disfiguring knots.
10. For deciduous plants, buds shall be intact and reasonably closed at time of planting, if dormant.
11. Balled and burlapped plants shall hold a natural ball. Manufactured root balls are unacceptable.
12. Plants shall conform to sizes indicated on the plant schedule. Plants may be larger than the minimum sizes specified.

C. Noxious Species: All plant stock and other re-vegetation materials shall be free from the seed or other plant components of any noxious or invasive species, as identified by the King County Noxious Weed Control Board.

D. Substitutions: Substitutions will not be permitted without a written request and approval from the owner's representative, Talasaea Consultants, and applicable agencies.

2.2 PLANTING SOIL

A. Topsoil: If suitable stockpiled native topsoil is not available for mitigation plantings, topsoil shall be obtained from outside sources. Stockpiled or imported topsoil shall be fertile, friable, sandy loam surface soil, free of subsoil, clay lumps, brush, weeds, roots, stumps, stones larger than 1 inch in any dimension, litter, or any other extraneous or toxic matter harmful to plant growth.

B. Organic Content: Imported topsoil shall consist of organic materials amended as necessary to produce a bulk organic content of at least 10 percent and not greater than 20 percent, as determined by AASHTO-T-194.

C. Compost: Compost shall meet the definition for composted materials as defined by the Washington State Department of Ecology.

D. Soil Amendments: Woody plantings shall be fertilized with a slow-release general granular fertilizer (16-16-16), with application rates as specified by manufacturer. Fertilizer shall be applied after planting pit is backfilled, and prior to application of mulch. Fertilizer shall not be applied between November and March.

2.3 MULCH

A. Bark or woodchip mulch shall be derived from Douglas fir, pine or hemlock species. The mulch shall not contain resin, tannin or other compounds in quantities that would be detrimental to animal, plant life or water quality.

B. Mulch shall be ground so that a minimum of 95% of the material will pass through a 1.5-inch sieve and not more that 55%, by loose volume, will pass through a US No. 4 sieve.

2.4 MISCELLANEOUS MATERIALS

A. Stakes, Deadmen and Guy Stakes: Sound, durable, western red cedar, or other approved wood, free of insect or fungus infestation.

B. Chain-Lock Tree Ties: ½-inch wide, plastic.

PART 3: EXECUTION

3.1 SOIL PREPARATION

A. Planting Area Conditions: Contractor shall verify that plant installation conditions are suitable within the project area(s). Any unsatisfactory conditions shall be corrected prior to start of work. When conditions detrimental to plant growth are encountered, such as rubble fill, poor drainage, compacted soils, significant existing or invasive vegetation, or other obstructions, contractor shall notify Talasaea Consultants prior to planting. The beginning of work by the Contractor constitutes acceptance of conditions as satisfactory.

B. Planting Soil: In all graded/cleared/grubbed project areas, 9 inches of stockpiled or imported topsoil shall be placed over subgrade, or existing soils shall be amended with compost to create the equivalent of a 9-inch depth of topsoil.

C. Planting in Graded/Cleared/Grubbed Areas: Plants shall be installed in newly placed or amended topsoil.

D. Soil Decompaction/Scarification: Soils in graded/disturbed areas that are compacted and unsuitable for proper plant growth shall be decompacted and/or scarified to a minimum depth of 6" prior to topsoil installation.

3.2 PLANTING

A. Plant Layout: Proposed locations of trees and shrubs shall be staked and identified with an approved coding system or by placement of the actual plant material. For large groupings of a single species of shrub, Landscape Contractor may stake the planting boundaries.

B. Obtain layout approval from Talasaea Consultants prior to excavation of planting pits.

C. Planting Pit Dimensions:

1. Pit Depth: Not to exceed the root ball or container depth.
2. Pit Width: Measured at the ground surface, 2 times the width of the root ball or container, as indicated in typical planting details.
   a. Bare-Root Plants: Diameter equal to the width of the root spread.

D. Setting Plants:

1. Balled Plants: Set plants in position and backfill 1/2 depth of ball. Completely remove cage and twine from plant and pull burlap down as far as possible. Complete backfill and settle with water. Root collar shall remain 1 inch above adjacent grade.
2. Bare-Root Plants: Prune bruised or broken roots. Set plant in position and place wetland planting soil around roots. Use care to avoid bruising or breaking roots when firming soil. Settle with water.
3. Shrub/Tree Planting: Shrub and tree stock shall be planted in hand-dug holes according to planting details shown on the mitigation plans. Shrub and tree root balls shall be set so that root collars are 1 inch above adjacent grade. All backfill shall be gently tamped in place.
4. Surface Finish: Form a saucer as indicated on typical planting details, or as directed. Grade soil to form a basin on the lower side of slope plantings to catch and retain water.
5. In forested areas, Contractor shall loosely tie a 2 foot piece of biodegradable flagging to the top portion of all planted vegetation to facilitate post-construction performance and maintenance review by Talasaea Consultants and regulatory agencies.
6. Actual plant symbol quantities shown on the plans shall prevail over quantities shown on the plant schedule in the event of a discrepancy.

E. Mulching:

1. Graded/Cleared/Grubbed Buffer Areas: Shall be mulched after topsoil installation and prior to plant installation with a 3-inch layer of medium bark mulch.
2. Non-Graded Buffer Areas: Provide a 36-inch diameter, 3-inch deep mulch ring around the base of each tree, and a 24-inch diameter, 3-inch deep mulch ring around the base of each shrub.
3. Water plants thoroughly after mulching.

F. Pruning: Prune immediately after planting only as directed by Talasaea Consultants.

G. Tree Stakes and Ties: Stake deciduous and evergreen trees 4 feet or over in height with one (1) stake per tree. Stake trees immediately after planting. Place stake at the outer edge of the roots or ball, in line with the prevailing wind, and at a 10 degree angle from the tree trunk. Loosely attach stake to tree using chain-lock ties; tree should be able to sway.

H. Flagging: All new plants shall be marked with a piece of colored surveyor's flagging to facilitate identification for future monitoring. Flagging shall be tied to the top of each plant.

I. Installing Temporary Irrigation

1. General Requirements: Contractor shall provide an above-ground temporary irrigation system capable of full head-to-head coverage of all cleared & grubbed planted project areas. The temporary irrigation system shall either utilize controller and point of connection (POC) from the site irrigation system or shall include a separate POC and controller with a backflow prevention device per water jurisdiction inspection and approval. The system shall be zoned to provide optimal pressure and uniformity of coverage, as well as separation between areas of full sun and shade and for slopes in excess of 5 percent.
2. System Design and Materials: Electronic valves shall be the same manufacturer as those used for the site irrigation system, or shall be Rain Bird PEB Series or equal if system is not contiguous with the site system. Valves shall be sized to accommodate pressure and zone consumption requirements of the system and shall be installed below grade in Carson (or equal) valve boxes. Wiring shall be insulated multi-strand, taped to the main at 6-inch intervals with duct tape wraps. On-grade main and lateral lines shall be Class 200 PVC bell pipe with solvent welded fittings, secured in-place with wire staples where necessary on sloped areas. Lines shall be placed 12 inches below grade in 4 inch PCV sleeves where vehicular or maintenance access is needed across lines to the project area(s). Maximum main line size shall be 1½ inches and may be looped back to the POC to reduce pressure loss. Lateral lines shall be sized in decreasing downstream order per Rain Bird design standards; the minimum lateral size shall be ¾ inch. Heads shall be rotor or impact type installed 4 feet above finished grade on 2-inch diameter wood tree stakes. Stakes shall be secure in the ground, embedded to a minimum depth of 24 inches. Heads and ¾ inch PVC risers shall be secured to stakes with constricting hose clamps; no funny pipe shall be used. Heads and nozzles shall provide matched precipitation rates for each zone.
3. Programming: Irrigation system shall be programmed to provide approximately 1/2 inch of water every three days during the dry season (approximately June 15th to October 15th). Irrigation amounts in zones located in the shade or on steep slopes may be reduced if approved by Talasaea Consultants or the project ecologist/biologist.
4. Water and Power Supply for System: The owner shall provide water and electricity for the system.
5. As-Built Drawing: A chart describing the location of all installed or open zones and corresponding controller numbers shall be provided by the contractor and placed inside the controller and given to the owner's representative.
6. Warranty: The irrigation system shall include a one-year warranty against defects in materials and workmanship from the date of final project acceptance. The warranty shall include system activation and winterization for the first year and immediate repair of the system if it is observed to be malfunctioning.

J. Critical Areas Fence and Signs: Install critical areas fence and critical areas signs where shown on plans per installation details provided on plans.

K. Restore existing natural or landscaped areas:

1. Existing natural or landscaped areas that are damaged during construction shall be restored to their original condition, unless improvements or modifications are specified for those areas.
2. Contractor shall exercise care to prevent injury to the trunk, roots, or branches of any trees or shrubs that are to remain. Any living, woody plant that is damaged during construction shall be treated within 24 hours of occurrence, and Talasaea Consultants shall be notified immediately of the incident. Damage treatment shall include evenly cutting broken branches, broken roots, and damaged tree bark. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survival.

L. Final Inspection and Approval: The Contractor shall notify Talasaea Consultants in writing at least ten days prior to the requested date of a project completion inspection. If items are to be corrected, a punch list shall be prepared by Talasaea Consultants and submitted to the contractor for completion. After punch list items have been completed, Talasaea Consultants shall review the project again for final acceptance of plan implementation. If punch list items require plant replacement, and the inspection occurs outside of a suitable planting season, plants shall be replaced during the next planting season.

M. As-Built Plan: Contractor is responsible for verifying plant locations and quantities on the plant schedule with those represented as symbols on the mitigation plans. Contractor shall keep a complete set of prints at the job site during construction for the purpose of recording in-the-field changes or modifications to the approved plans. This information shall be updated on a daily basis as necessary.

PART 4: ONE YEAR CONTRACTOR WARRANTY

A. Review of Maintenance Requirements: Contractor shall review landscape maintenance recommendations with a qualified wetland biologist from Talasaea Consultants who is familiar with the stated goals and objectives of the project plan.

B. Maintenance Activities: Contractor shall maintain trees and shrubs for a period of one year from the date of final acceptance in order to maintain healthy growth and habitat diversity. Maintenance activities shall include, but are not limited to: (a) replacing plants due to mortality, (b) tightening and repairing tree stakes, (c) resetting plants to proper grades and upright positions, and (d) correcting drainage problems as required.

C. Irrigation:

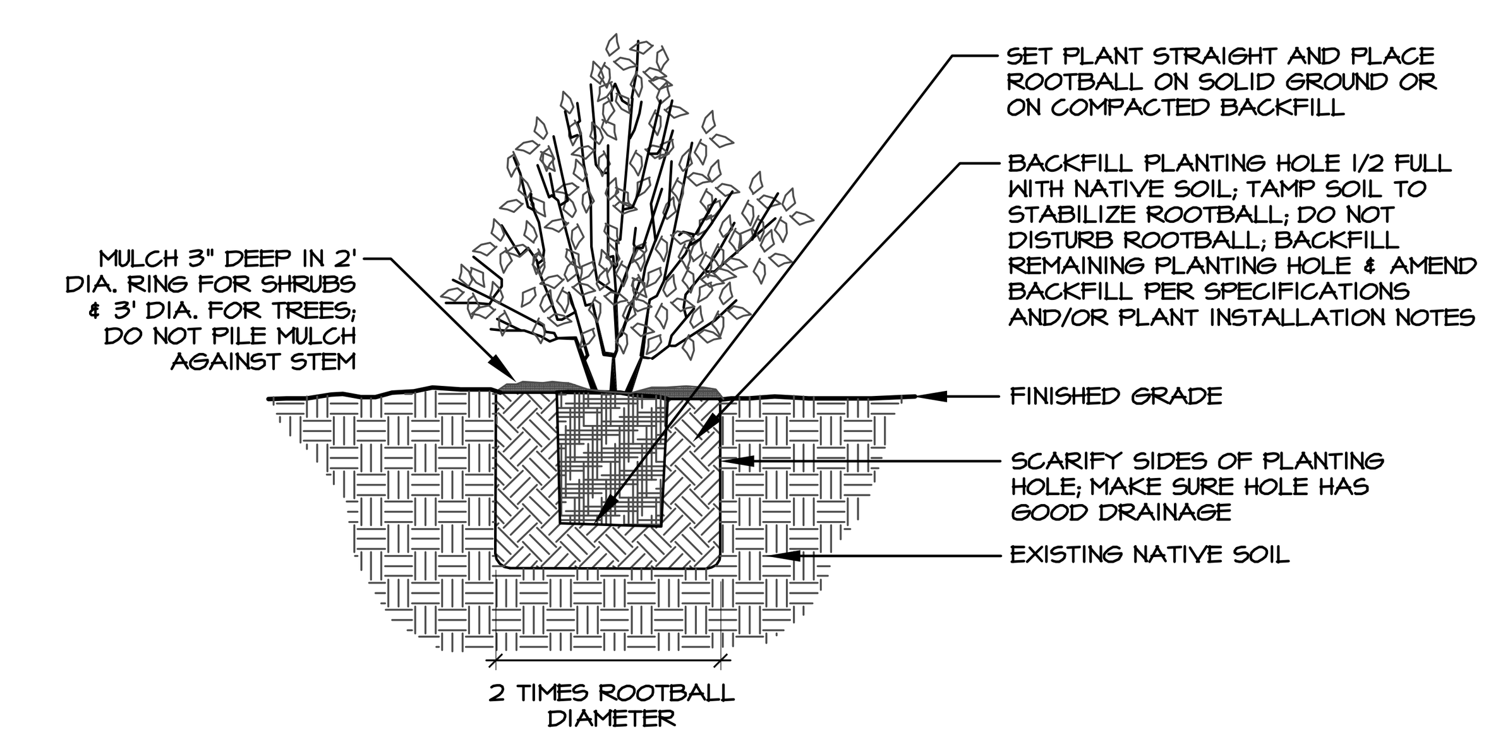
1. System Maintenance and Repair: The contractor shall be responsible for activating, winterizing, maintaining, and continually verifying the adequate operation of the temporary irrigation system for the first growing season following installation. System function (including electronic valve and controller function) shall be inspected for operation and full coverage of all planted areas during each maintenance visit. The system shall be repaired immediately if found to be damaged or malfunctioning. System shall be programmed and maintained to provide approximately ½ inch of water every three days.

D. Stake and Tie Removal: Contractor shall remove tree stakes and ties one year after installation, unless receiving written permission from Talasaea Consultants to delay removal of stakes and ties

E. Erosion and Drainage: Contractor shall correct erosion and drainage problems as required.

F. Irrigation System Removal: Contractor shall remove irrigation system approximately 2 years after planting, or as approved by Talasaea Consultants.

G. Final Maintenance Inspection and Approval: Upon completion of the one-year maintenance period, an inspection by Talasaea Consultants shall be conducted to confirm that the project area was properly maintained. If items are to be corrected, a punch list shall be prepared and submitted to the contractor for correction. Upon correction of the punch list items, the project shall be reviewed by Talasaea Consultants for final closeout of plan implementation.



1 CONTAINER STOCK PLANTING DETAIL
N.T.S.

NOTES

1. SURVEY PROVIDED BY SITTS & HILL ENGINEERS, INC. 2901 SOUTH 40TH ST., TACOMA, WA 98409. (253)479-9449.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY:

CITY OF BELLEVUE PLANNING
AND COMMUNITY DEVELOPMENT DEPT.

DATE:

811
Know what's below.
Call before you dig.

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:
SUBJECT TO REVISION

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
ANN MARIE OLSEN
CERTIFICATE NO. 777
EXPIRES 9/7/14

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 • Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
PLANTING SPECIFICATIONS & DETAILS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date	4-3-2014
Scale	AS NOTED
Designed	AD/AO
Drawn	AD/AS
Checked	AO
Approved	BS
Project #	845
Sheet #	W3.1

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APPENDIX C

Vegetation Management Plan

VEGETATION MANAGEMENT PLAN

Plaza 520 Business Park – Building D
Bellevue, Washington
April 2, 2014

This Vegetation Management Plan (VMP) is intended to guide general landscape maintenance practices for the Plaza 520 Business Park – Building D, as well as maintenance practices for the mitigation areas following the conclusion of the 5-year performance monitoring period. The goal of the VMP is to ensure long-term vegetation management that is consistent with the objectives and performance standards of the mitigation plan approved by the City of Bellevue in conjunction with the approval of the Critical Areas Mitigation Project. This includes vegetation management techniques as well as restrictions on activities in streams and associated buffers.

The VMP is intended for general application. Enforcement of the VMP shall be the responsibility of the Plaza 520 Business Park – Building D, hereinafter referred to as "PBP".

This VMP is adopted for the following purposes, which shall be considered in the administration of this plan. They are as follows:

- To preserve and enhance the physical and aesthetic character and ecological functions of the critical areas (streams and buffers) on the site;
- To promote landscape maintenance practices that result in a minimal disturbance to the natural environment;
- To promote the existence of wildlife through the establishment of native plantings;
- To allow future replanting and augmentation of native vegetation;
- To promote maintenance practices that are consistent with the Goals, Objectives and Performance Standards of the approved Mitigation Plan (Talasaea Consultants, 2 April 2014);
- To ensure prompt restoration, replanting, and effective erosion control of soil disturbances;
- To prevent and/or control erosion, and prevent stray sediment and polluted water from entering the adjacent natural systems;
- To support the goals and policies of the State of Washington Environmental Policy Act, the Federal Endangered Species Act, and the Clean Water Act;
- To maintain the Plaza 520 Business Park – Building Din accordance with City of Bellevue Code.

1.0 GENERAL SITE LANDSCAPE MAINTENANCE & MANAGEMENT

1.1 Fertilizer

Any fertilizer shall be carefully applied to avoid direct and indirect entry of fertilizer into streams or water bodies. In order to accurately determine fertilizer inputs, it is recommended that a soil sample be collected by PBP for sampling of the major nutrients Nitrogen, Phosphorous, and Potassium (NPK), micronutrients, pH, and organic matter. The King Conservation District has a soil testing laboratory that will send back recommendations specific to the site and plant material so that the appropriate type and amount of fertilizer can be applied and potential contamination of surface and groundwater resulting from excess fertilizer can be avoided.

1.2 Control of Invasive/Noxious Species

Non-native and noxious species include Scot's broom, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, field bindweed, knotweed sp., English ivy, Canada thistle, and bittersweet nightshade. Herbicides shall be utilized only if manual control methods are not effective. Rodeo, or an equivalent approved by the City of Bellevue (such as Aquamaster), shall be the only herbicide allowed in the protected critical areas. Recommendations for manual and chemical removal of invasive/ noxious weed species shall be in compliance with the Best Management Practices established by the King County Noxious Weed Control Board. All invasive/noxious weeds or other non-native species shall be systematically and periodically removed on a specimen-by-specimen basis and disposed of off-site at an approved dump location.

2.0 CRITICAL AREAS MAINTENANCE & MANAGEMENT

After the conclusion of the 5-year performance monitoring period, maintenance of the mitigation areas and protection of on-site critical areas shall be the responsibility of HISH. The Director of Maintenance and Operations shall:

- Ensure the ongoing protection of the critical areas at the HISH by encouraging people and pets to stay within designated areas.
- Ensure removal of all trash and debris on a routine basis.
- Coordinate the immediate control and/or removal of any erosion, stray sediment, and polluted water.
- Coordinate the protection of the installed native plant material.
- Provide routine maintenance of all newly planted (or replanted) vegetation.
- Ensure the removal of invasive/noxious species as listed on the King County Noxious Species List.
- Coordinate cleaning and maintenance of signage to maintain visibility and repair damage.
- Provide maintenance for all structures (e.g., culverts, etc.) that are required to be cleaned and repaired as needed to maintain proper function.

2.1 Maintenance Schedule Guidelines

PBP's Maintenance Director shall inspect the restored critical areas and shall take action to adequately address intrusion of invasive/noxious species; trash and debris erosion, stray sediment, and/or polluted water; and plant mortality on a routine basis. It is recommended that these inspections be performed on a quarterly basis each year.

2.2 Contingency Items

Contingency items include, but are not limited to: additional plant installation, irrigation, erosion control, and invasive/noxious species control (Section 1.3 below). Contingency items include many of the items listed below, and shall be implemented if the purposes for adopting the VMP, as defined on page one, are not met.

Replanting – At the direction of the Director of Maintenance and Operations, PBP will replant areas that may experience plant mortality as necessary to maintain plant survival after the 5-year monitoring period. Areas will be replanted with the same species or a substitute species approved by the City of Bellevue.

Irrigation -- At the direction of the Director of Maintenance and Operations, PBP shall coordinate the watering of any newly installed plants from June 15th through October 15th. Watering shall be by manual means or through provision of a temporary irrigation system. During the first year

after re-planting, irrigation shall be at the rate of 1/2" of water twice per week. During the second year, irrigation shall be at the rate of 1/2" of water once per week.

Erosion Control – PBP shall promptly coordinate the correction of any erosion and shall prevent any stray sediment or polluted water from entering adjacent water bodies.

2.3 Control of Invasive/Noxious Species

PBP shall coordinate the routine removal and control of invasive/noxious weeds or other non-native species with the goal of maintaining them below 10% of the total areal cover in the protected critical areas. These non-native and noxious species include Scot's broom, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, field bindweed, Japanese knotweed, English ivy, Canada thistle, and bittersweet nightshade. Complete or near-complete removal of these species shall be performed by manual means whenever reasonably possible. Herbicides shall be utilized in the protected critical areas only if manual control methods are not effective. Rodeo, or an equivalent approved by King County (such as Aquamaster), will be the only herbicide allowed in the protected critical areas.

Recommendations for manual and chemical removal of invasive/ noxious weed species shall be in compliance with the Best Management Practices established by the King County Noxious Weed Control Board. All invasive/noxious weeds or other non-native species shall be systematically and periodically removed on a specimen-by-specimen basis and disposed of off-site at an approved dump location.

2.4 General Maintenance Items

1. PBP shall coordinate the ongoing protection of the critical areas by encouraging the public to stay within designated areas.
2. PBP shall coordinate the removal of all trash and other debris on a routine basis. Large and/or hazardous items or large accumulations shall be removed promptly upon their discovery.
3. PBP shall coordinate the routine maintenance of all newly planted trees and shrubs. These measures include maintaining and weeding mulch rings, including removal of all herbaceous plants within the mulch ring or dripline of all woody shrubs and trees. Invasive/noxious non-native plants shall be removed and/or controlled in all critical areas.
4. PBP shall coordinate the pruning of trees and large woody plants (e.g., thinning and removal of dead or diseased portions of trees/shrubs) within the critical areas at the direction of a qualified arborist.
5. PBP shall coordinate cleaning and maintenance of critical areas signage and check signage for visibility and damage. These efforts shall occur at least twice yearly.
6. PBP shall coordinate cleaning and maintenance of all structures (e.g., culverts, etc.) to be cleaned and repaired as needed to maintain proper function.
7. PBP acknowledges that the critical areas are not to be maintained like traditional ornamental landscaping. Grasses and other herbaceous vegetation (other than reed canarygrass and other invasive/noxious species) shall be left alone.

2.5 Tree Protection and Maintenance

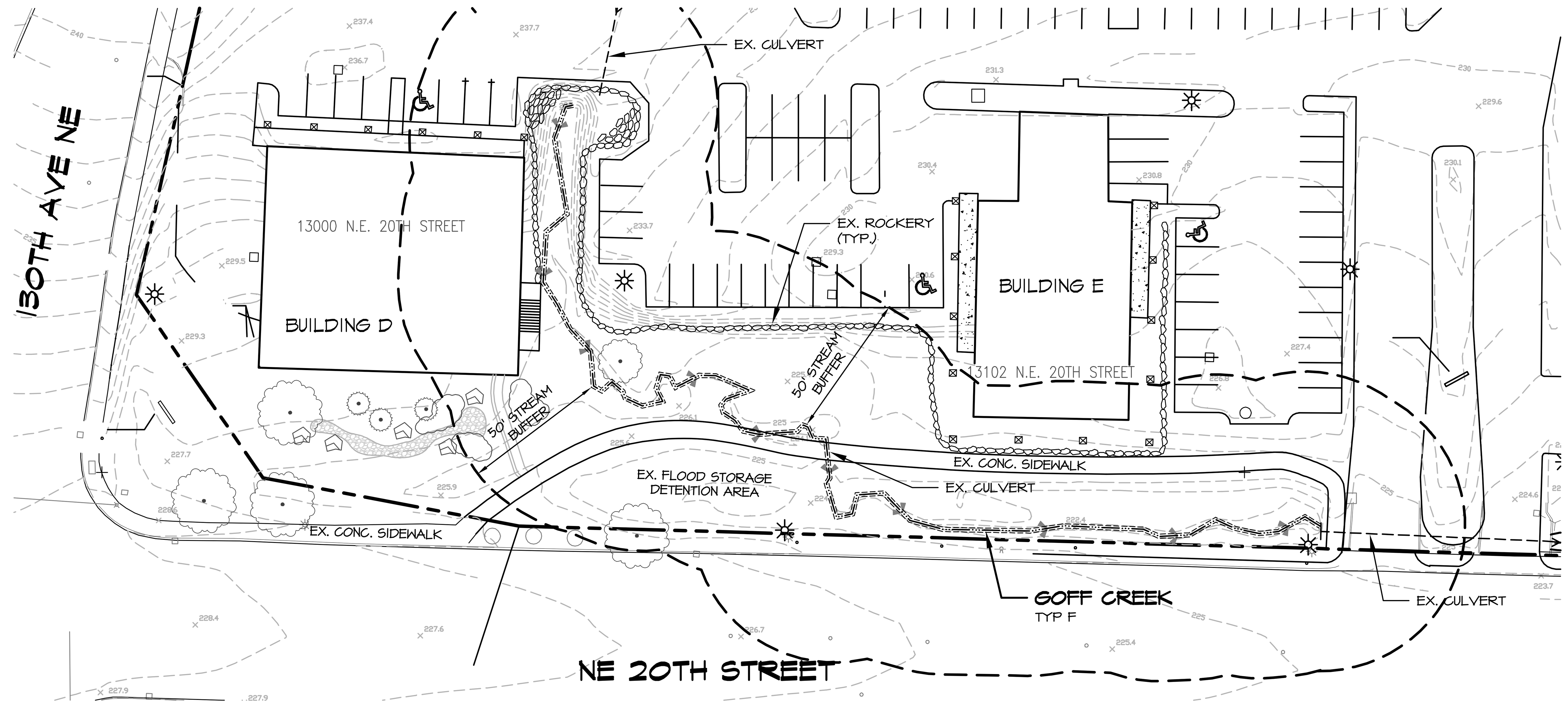
All retained trees shall be maintained in healthy condition by PBP in perpetuity, unless otherwise approved by the City of Bellevue.

Pruning and maintenance of trees shall be consistent with best management practices in the field of arboriculture and shall further the long-term health of the tree. Excessive pruning shall not be allowed unless necessary to protect life and property.

Hazardous trees may be removed if the hazardous tree exhibits threat of injury to people or damage to property and if the City of Bellevue approves removal. The following conditions are some indications of a potentially hazardous tree:

- large dead or detached branches;
- significant cavities or rotten wood along the trunk or in major branches;
- fungal infection;
- significant cracks or splits in the bark;
- strong lean of the trunk;
- poor branching structure;
- a damaged root system;
- previously topped or heavily pruned.

The City requires that the hazardous condition of a tree be confirmed by a Certified Arborist and that all proper permits be obtained (per applicable City code) prior to tree removal, except in the event of an emergency that poses an imminent threat to human health and/or property.

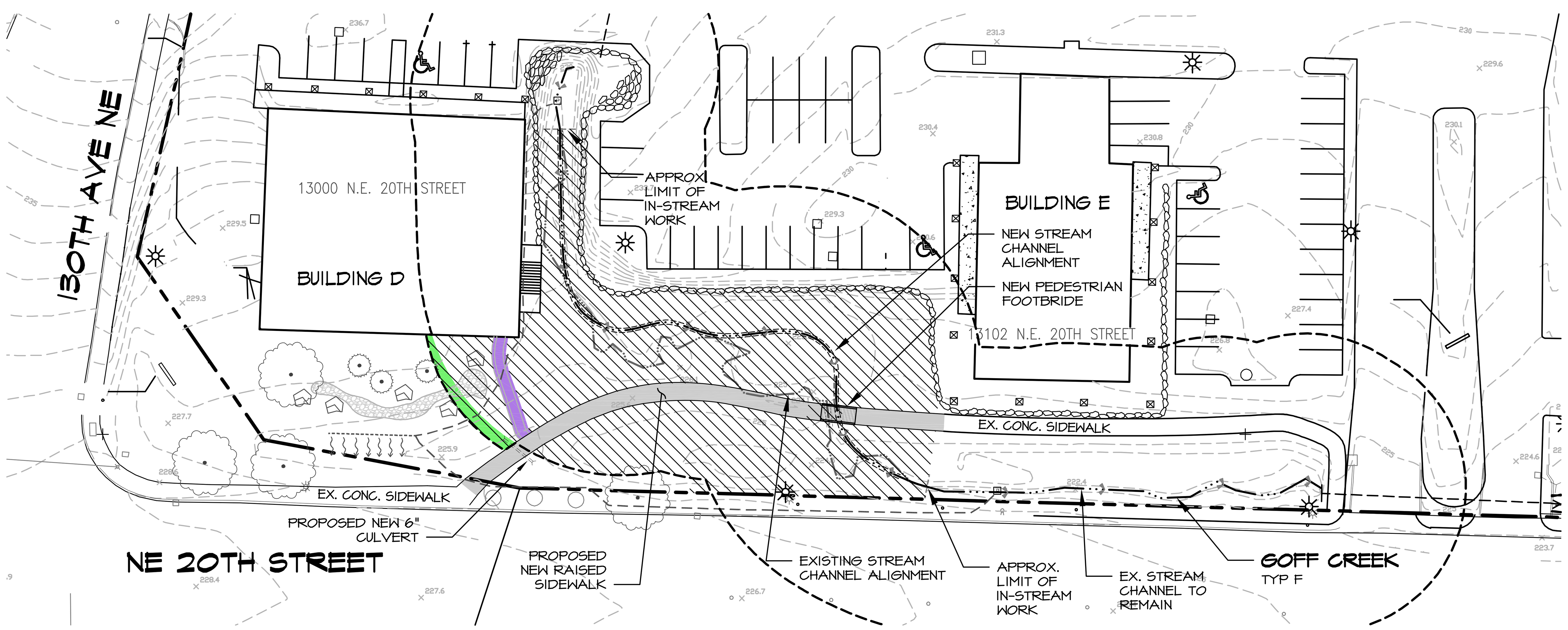


EXISTING CONDITIONS PLAN

GRAPHIC SCALE
(IN FEET)
0 15 30 60
SCALE: 1"=30'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING STREAM CENTERLINE AND DIRECTION OF FLOW
- ORDINARY HIGH WATER MARK (APPROX.)
- STANDARD 50' STREAM BUFFER
- EXISTING 2' CONTOUR
- EXISTING DECIDUOUS/CONIFEROUS TREES



IMPACTS & MITIGATION OVERVIEW PLAN

GRAPHIC SCALE
(IN FEET)
0 15 30 60
SCALE: 1"=30'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING STREAM CENTERLINE
- PROPOSED NEW STREAM CHANNEL ALIGNMENT (APPROX. 18" CHANNEL WIDTH)
- POST-CONSTRUCTION 50' STREAM BUFFER
- EXISTING 2' CONTOUR
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

IMPACTS LEGEND

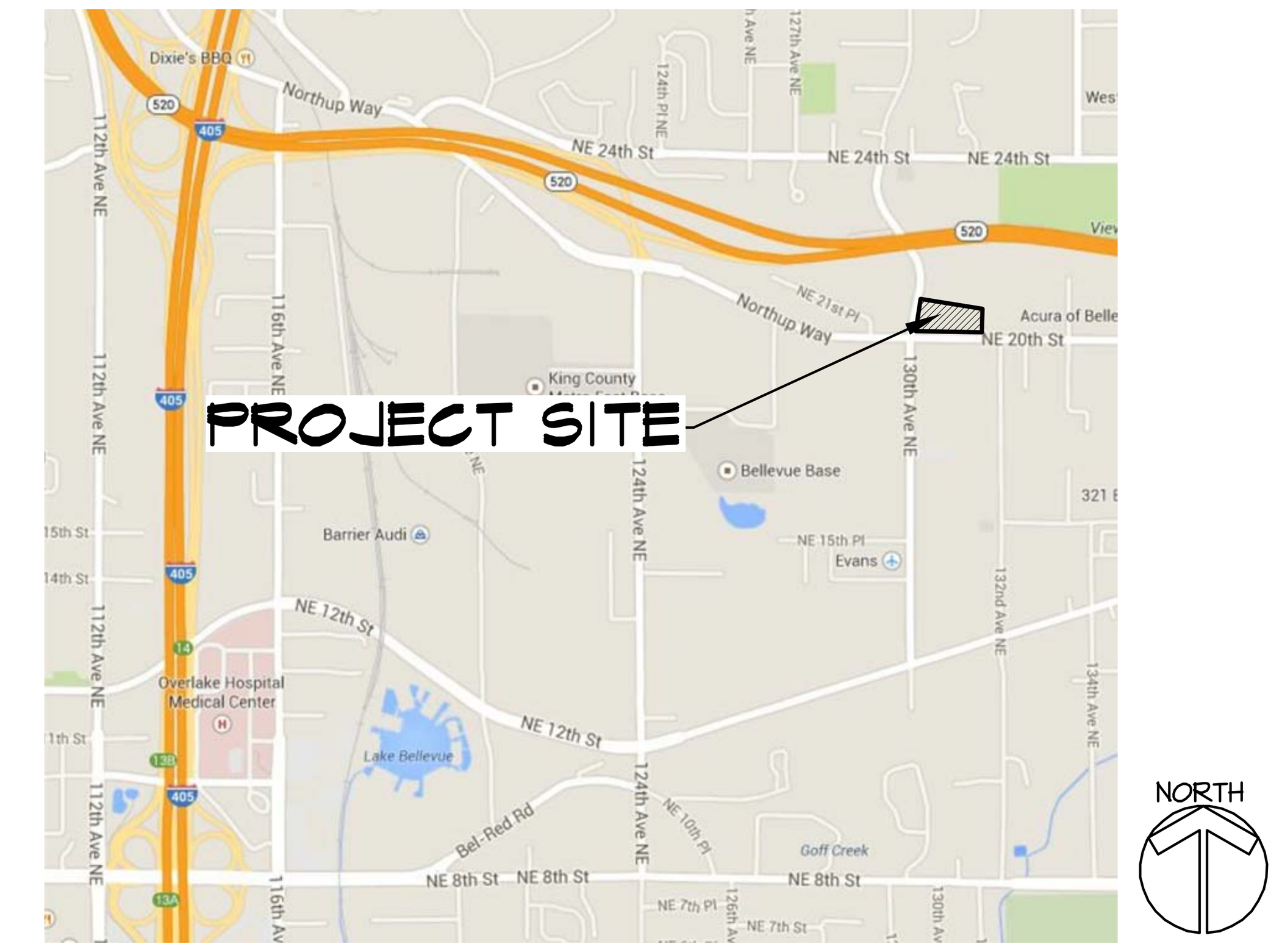
STREAM BUFFER REDUCTION		± 184 SF

MITIGATION LEGEND

STREAM BUFFER REPLACEMENT		± 184 SF
STREAM BUFFER ENHANCEMENT		10,665 SF

VICINITY MAP

N.T.S.



SOURCE: GOOGLE MAPS, WWW.MAPS.GOOGLE.COM (ACCESSED MARCH 14 2014)

CONTACTS

OWNER/APPLICANT:
HARSCH INVESTMENT PROPERTIES
1121 SW SALMON ST.
PORTLAND, OR 97205

PHONE: (503)242-2900
CONTACT: BRIAN WILLIAMS

ARCHITECT:
TISCARENO ASSOCIATES
500 UNION STREET, SUITE 926
SEATTLE, WA 98101

PHONE: (206)299-2144 EXT.513
CONTACT: ANDREW TSAI

ENVIRONMENTAL CONSULTANT:
TALASAEA CONSULTANTS, INC.
15020 BEAR CREEK RD. NE
WOODINVILLE, WA 98077

PHONE: (425)861-7550
CONTACT: ANN OLSEN, SENIOR PROJECT MANAGER
DAVID TEESDALE, SENIOR ECOLOGIST

SHEET INDEX

NOTES

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3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE:

811
Know what's below. Call before you dig.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
ANN MARIE OLSEN
CERTIFICATE NO. 777
EXPIRES 4/1/14

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TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 • Fax (425) 861-7549

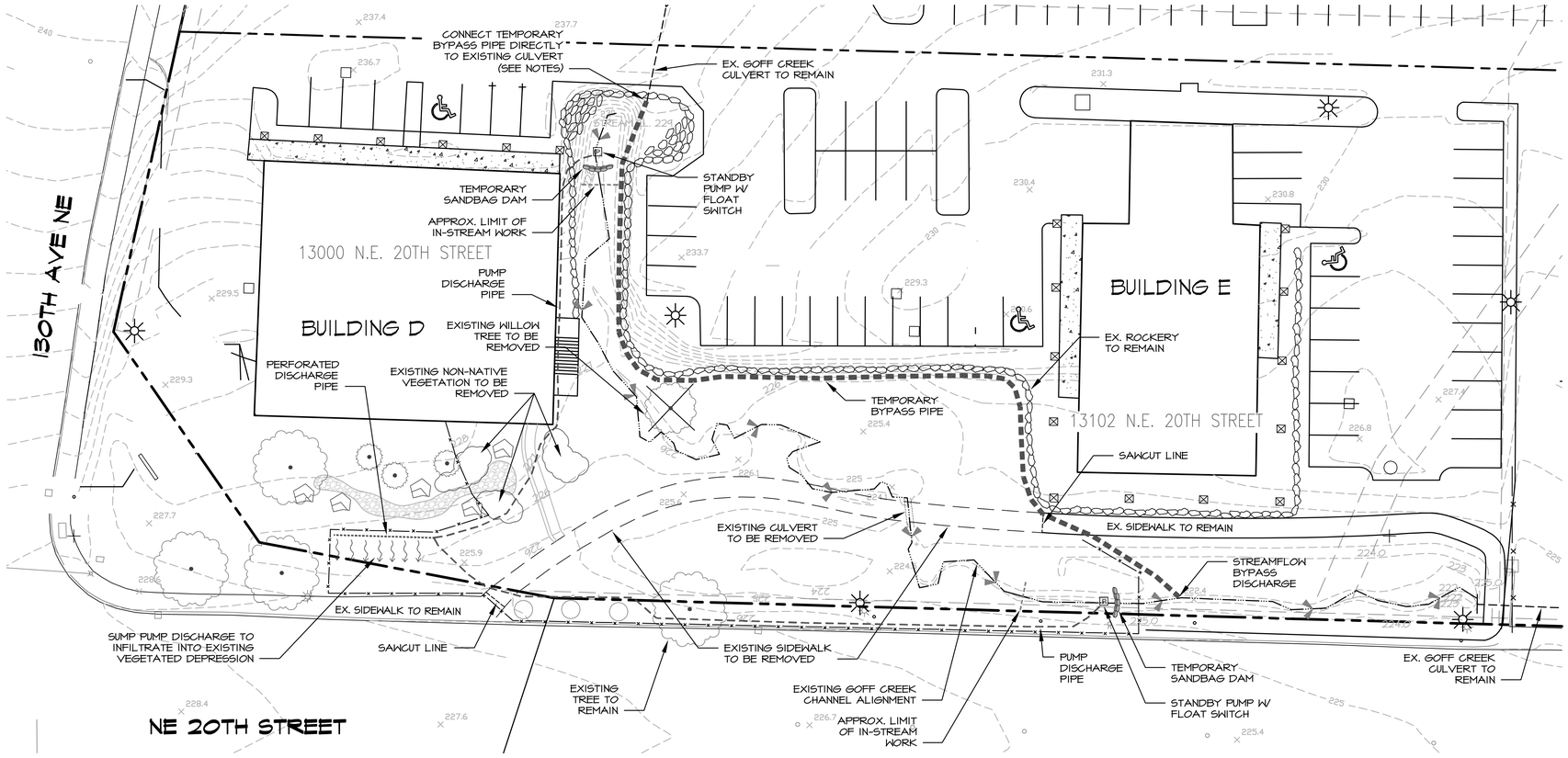
CRITICAL AREAS MITIGATION PLAN
EXISTING CONDITIONS & IMPACTS & MITIGATION OVERVIEW PLANS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W1.0



DEMO & TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) PLAN

GRAPHIC SCALE (IN FEET)
0 10 20 40
SCALE: 1"=20'

NORTH

PLAN LEGEND

- PROPERTY LINE
- 100 EXISTING CONTOUR
- EXISTING STREAM CHANNEL CENTERLINE
- EXISTING DECIDUOUS/CONIFEROUS TREES TO BE REMOVED
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

TESC LEGEND

- SILT FENCE
- STREAM BYPASS PIPE
- PUMP DISCHARGE PIPE
- P STANDBY SUMP PUMP WITH FLOAT SWITCH

TEMPORARY STREAM BYPASS NOTES

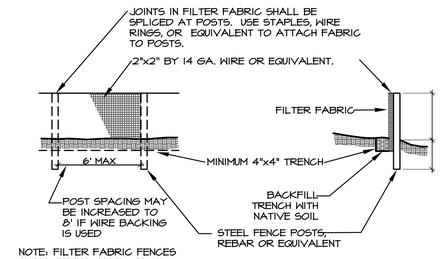
1. FOR WORK LOCATED WITHIN GOFF CREEK, THE WORK AREA SHALL BE ISOLATED FROM THE EXISTING STREAM FLOWS BY A TEMPORARY, GRAVITY-FED BYPASS TO DIVERT FLOWS AROUND THE WORK AREA AND PREVENT SEDIMENTS FROM ENTERING THE STREAM.
2. THE TEMPORARY BYPASS SHALL BE IN PLACE PRIOR TO INITIATION OF ANY WORK WITHIN THE EXISTING STREAM CHANNEL.
3. A SANDBAG DAM SHALL BE INSTALLED UPSTREAM AND DOWNSTREAM OF THE WORK AREA WHERE DEPICTED ON THIS PLAN AND CONSTRUCTED PER THE DETAIL SHOWN ON THIS PLAN.
4. THE CONTRACTOR SHALL INSTALL AN ADS N-12 OR EQUIVALENT PIPE OF SUFFICIENT SIZE TO DIVERT ALL FLOWS THROUGH THE BYPASS AND AROUND THE WORK AREA FOR THE DURATION OF CONSTRUCTION. BYPASS PIPE SHALL BE DIRECTLY CONNECTED TO THE UPSTREAM CULVERT OUTLET WITH A FLEXIBLE CONNECTOR AND BAND-TYPE PIPE CLAMPS.
5. ONCE THE SANDBAG DAMS AND BYPASS PIPE ARE INSTALLED, THE WORK AREA SHALL BE DEWATERED AS NECESSARY USING A PORTABLE PUMP. DISCHARGE FROM DEWATERING OPERATIONS WITHIN THE WORK AREA SHALL BE DISPERSED IN THE EXISTING VEGETATED DEPRESSION SOUTH OF BUILDING D AS SHOWN ON PLAN.
6. DURING CONSTRUCTION, ONE PUMP SHALL BE STATIONED UPSTREAM OF THE WORK AREA TO INTERCEPT ANY SEEPAGE/LEAKAGE FROM THE EXISTING CULVERT THAT ACCUMULATES ABOVE THE UPSTREAM SANDBAG DAM. ANOTHER PUMP SHALL BE STATIONED ABOVE THE DOWNSTREAM SANDBAG DAM TO REMOVE ANY WATER THAT ACCUMULATES AT THE LOWER END OF THE WORK AREA. THE PUMPS SHALL BE MAINTAINED ON STANDBY FOR THE DURATION OF IN-STREAM WORK AND EQUIPPED WITH AUTOMATIC FLOAT SWITCHES. PUMP DISCHARGE SHALL BE DISPERSED THROUGH A PERFORATED PIPE INTO THE EXISTING VEGETATED DEPRESSION WHERE SHOWN ON PLAN.
7. UPON COMPLETION OF THE PROJECT, ALL MATERIAL USED IN THE TEMPORARY BYPASS SHALL BE REMOVED FROM THE SITE AND THE SITE SHALL BE RETURNED TO PRE-PROJECT OR IMPROVED CONDITIONS.

DEMO NOTES

1. EXISTING CONCRETE SIDEWALK TO BE SAWCUT AND REMOVED WHERE SHOWN ON PLANS, INCLUDING REMOVAL OF ALL BASE COURSE MATERIAL.
2. EXISTING CULVERT UNDER SIDEWALK TO BE REMOVED.
3. EXISTING SOD WITHIN GRADING LIMITS TO BE GRUBBED OUT PRIOR TO GRADING.
4. ALL DEMOLITION DEBRIS TO BE DISPOSED OF AT AN APPROVED OFF-SITE DUMP LOCATION.

CONSTRUCTION SEQUENCE

1. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, TALASAEA CONSULTANTS, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, STAGING/STOCKPILE AREAS, AND MATERIAL DISPOSAL AREAS.
2. INSTALL SILT FENCE AT PROJECT CONSTRUCTION LIMITS.
3. INSTALL UPSTREAM TEMPORARY BYPASS PIPE TO DIVERT STREAM FLOWS AROUND CONSTRUCTION WORK AREA. BYPASS PIPE SHALL BE SECURED TO BASE OF EXISTING ROCKERY. ALL BYPASSED FLOWS SHALL BE DISCHARGED BELOW WORK AREA.
4. INSTALL SANDBAG DAM AND SUMP PUMP AT UPSTREAM BYPASS AREA TO PUMP ANY WATER THAT MAY SEEP THROUGH THE ROCKERY AROUND WORK ZONE.
5. INSTALL DOWNSTREAM SANDBAG DAM TO INTERCEPT ANY GROUNDWATER FROM WORK AREA. INSTALL SUMP PUMP TO PIPE TURBID WATER TO A GRASSY AREA FOR INFILTRATION.
6. LOCATE AND SAW CUT EXISTING SIDEWALK. REMOVE SIDEWALK AND EXISTING ARCHED CULVERT AND DISPOSE OF OFFSITE.
7. STRIP EXISTING SOD AND REMOVE FROM SITE.
8. SURVEY NEW STREAM ALIGNMENT AND SET GRADE STAKES AS REQUIRED.
9. STRIP AND STOCKPILE ACCEPTABLE TOPSOIL FROM EXCAVATION AND FILL AREAS.
10. COMPLETE THE MITIGATION GRADING TO ROUGH GRADE, USING ACCEPTABLE CLEAN FILL MATERIALS FROM EXCAVATIONS TO CONCURRENTLY CONSTRUCT EARTHEN BERMS SHOWN ON THE PLANS.
11. INSTALL AND ANCHOR DEFLECTOR LOGS ALONG STREAM ROUTE.
12. PLACE STOCKPILED TOPSOIL ALONG STREAM ROUTE.
13. PLACE APPROVED ROCK MIX IN LOW FLOW STREAM CHANNEL.
14. INSTALL NEW CULVERT TO DRAIN WESTERN PORTION OF SITE.
15. CONSTRUCT PEDESTRIAN BRIDGE AND NEW SIDEWALK.
16. MULCH ALL GRADED BUFFER AREAS.
17. INSTALL PLANT MATERIAL AS INDICATED ON THE PLANTING PLANS.
18. PARTIALLY INTRODUCE STREAM FLOWS TO NEW CHANNEL WHILE MAINTAINING UPSTREAM TEMPORARY BYPASS. ALLOW FLOWS TO POND AT DOWNSTREAM SANDBAG DAM AND PUMP ANY TURBID WATER TO ADJACENT GRASSY AREA FOR INFILTRATION.
19. REMOVE BOTH UPSTREAM AND DOWNSTREAM SANDBAG DAMS AND SUMP PUMPS.
20. REMOVE TEMPORARY BYPASS PIPE AND ALLOW STREAM FLOW NATURALLY THROUGH NEW CHANNEL.

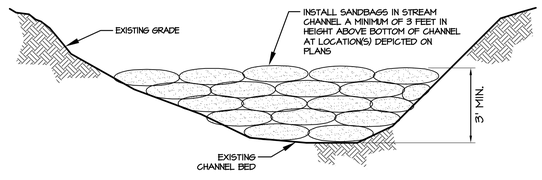


NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

ELEVATION CROSS SECTION

SILT FENCE MAINTENANCE STANDARDS:
1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPSLOPE OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
3. CONTRACTOR SHALL CHECK THE UPSLOPE SIDE OF THE FENCE FOR SIGNS OF CLOGGING AND SUBSEQUENT CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS 6" IN DEPTH.

1 SILT FENCE DETAIL
SCALE: NTS



SECTION

2 SANDBAG DAM DETAIL
SCALE: NTS

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ANN MARIE OLSEN
CERTIFICATE NO. 771
EXPIRES 4/1/14

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APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE PLANNING
AND COMMUNITY DEVELOPMENT DEPT.

DATE:

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15600 West Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7500 - Fax (425) 861-7749

CRITICAL AREAS MITIGATION PLAN
DEMO & TESC PLAN, DETAILS, & NOTES
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	By	Date

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W1.1

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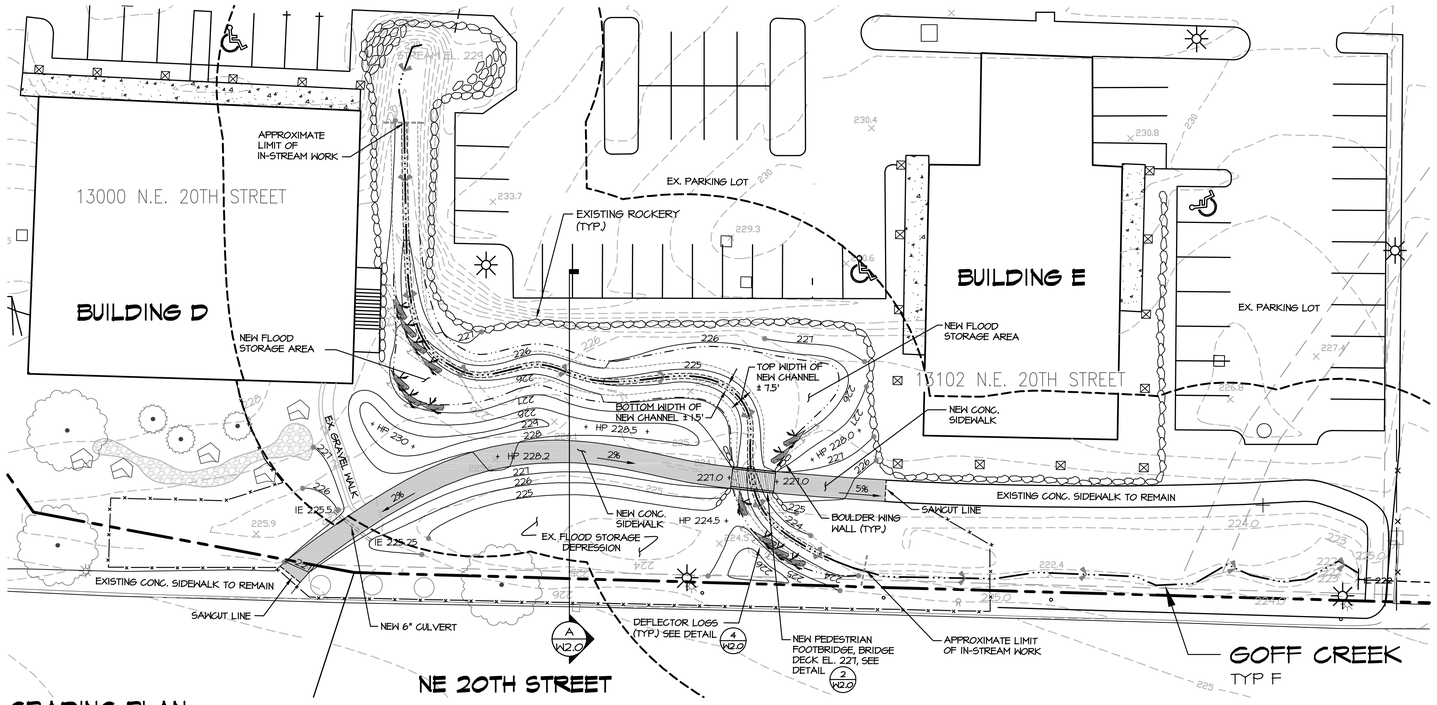


GRADING PLAN

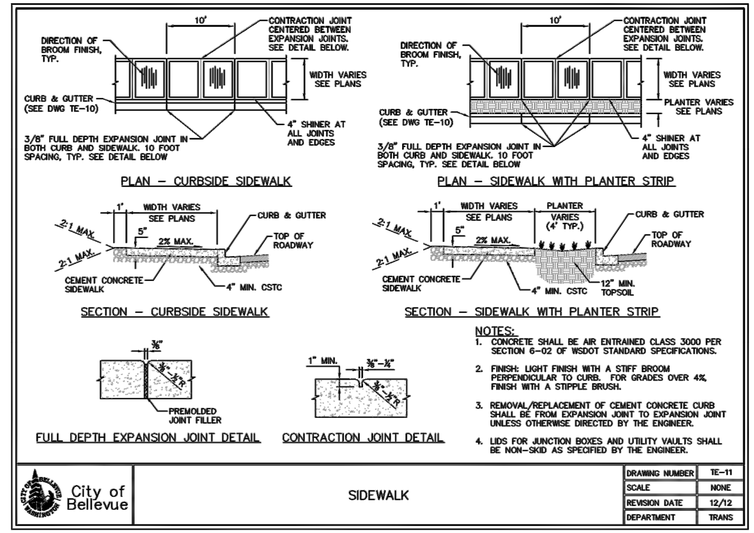
GRAPHIC SCALE (IN FEET)
0 10 20 40
SCALE: 1"=20'
NORTH

PLAN LEGEND

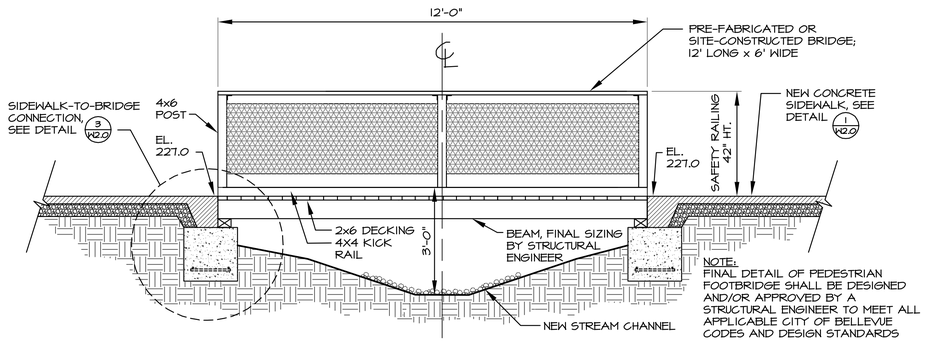
- PROPERTY LINE
- 100 EXISTING CONTOUR
- EXISTING STREAM CHANNEL ALIGNMENT TO REMAIN
- POST-CONSTRUCTION STREAM BUFFER
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

GRADING LEGEND

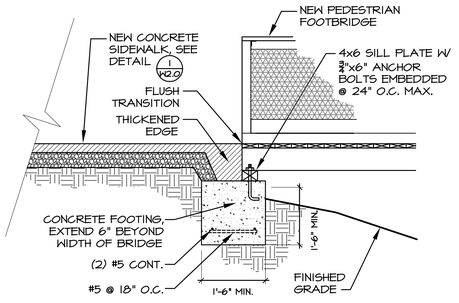
- SILT FENCE
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- 100 + PROPOSED SPOT ELEVATION
- PROPOSED NEW STREAM CHANNEL ALIGNMENT
- PROPOSED TOP OF BANK
- APPROX. BOUNDARY OF NEW FLOODWAY AREA
- DEFLECTOR LOG



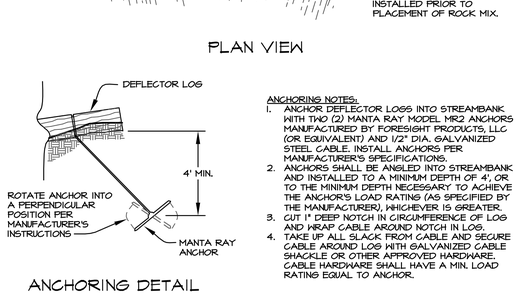
1 CITY OF BELLEVUE STANDARD SIDEWALK DETAIL
SCALE: NTS



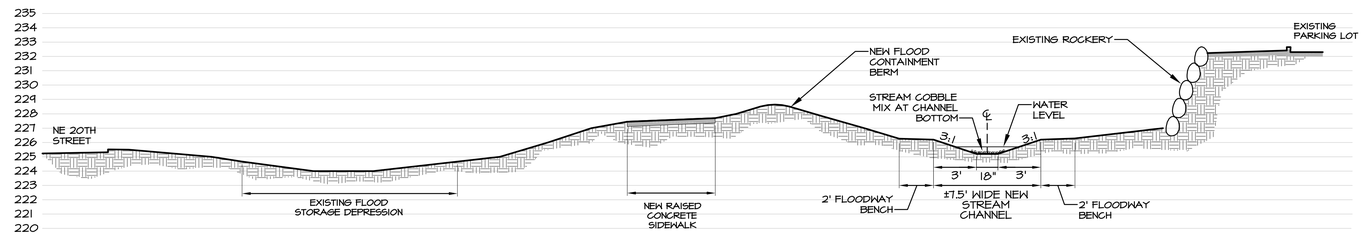
2 PRELIMINARY PEDESTRIAN BRIDGE DETAIL EXAMPLE
SCALE: NTS



3 BRIDGE CONNECTION TO SIDEWALK DETAIL
SCALE: NTS



4 TYPICAL DEFLECTOR LOG DETAIL
SCALE: NTS



A SECTION A
SCALE: 1"=5' H&V

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ANN MARIE OLSEN
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Resource & Environmental Planning
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CRITICAL AREAS MITIGATION PLAN
GRADING PLAN, SECTION, & DETAILS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W2.0

GRADING SPECIFICATIONS

PART 1 - GENERAL PERMIT CONDITIONS

APPROVED PLANS AND PERMITS

A copy of the current approved plans and other agency permits must be on site whenever construction is in progress and shall remain on site until project completion. Contractor shall keep a separate complete record set of prints at the job site during construction for the sole purpose of "red-lining" changes or modifications to the approved plans and shall update said information on a daily basis. Such changes will only be made with approval of Talasaea Consultants.

Construction must be performed in accordance with Agency standards, codes, permit conditions, and other applicable ordinances and policies. The applicant is responsible for obtaining any other related or required permits prior to the start of construction.

PRE-CONSTRUCTION MEETING

No construction work shall commence until there is a meeting between the City, Client, Talasaea Consultants, and the General, Clearing, and Earthwork Contractors. The approved plans and specifications shall be reviewed to allow parties involved to understand the intent and the specific details related to the construction documents, specifications, and site constraints.

PART 2 - GENERAL SITE CONDITIONS

NOTICE TO PROCEED

Contractor shall give Talasaea Consultants a minimum of ten (10) days notice prior to intention to proceed with construction.

A qualified wetland consultant shall be on site, as necessary, to monitor construction and approve minor revisions to the plan.

EXISTING CONDITIONS

Locations of existing utilities have been established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the Contractor to: (1) independently verify the accuracy of utility locations and (2) discover and avoid any utilities within the stream relocation area not shown which may be affected by implementation of this plan. Such areas are to be clearly marked in the field. Talasaea Consultants shall resolve any conflicts with the approved grading plan prior to start of construction.

Topographic elevations represented on this plan are based upon topographic maps supplied by Sitts & Hill. Final elevations may vary depending on site-specific conditions. It is the responsibility of the Contractor to verify pre-construction topographic elevations for accuracy prior to grading. Contractor shall notify Talasaea Consultants immediately if any modifications to the plans may be necessary due to inaccuracies of the original survey.

PART 3 -- LIMITS OF CLEARING AND EROSION CONTROL

STAKE & FLAG LIMITS OF CLEARING

Prior to any construction, contractor shall stake and flag clearing limits. Clearing limits are depicted on Sheet W1.1. Talasaea Consultants shall review clearing limits located within the stream relocation and enhanced buffer areas prior to any vegetation removal.

EROSION CONTROL MEASURES

Contractor shall install erosion control measures (silt fencing, wattles, etc.) on the project site prior to any construction activity as depicted on the TESC Plan on Sheet W1.1.

Contractor shall maintain erosion control measures during implementation of the stream relocation plan. As construction progresses and seasonal conditions dictate, erosion control facilities shall be maintained and/or altered as required to ensure continued erosion/sedimentation control. These measures shall remain in place until written authorization is given for removal or adjustment.

Site areas exposed during grading and construction must be covered with straw, erosion control netting, plastic sheeting, or permanent erosion control within 48 hours of disturbance on slopes steeper than 33 percent (3:1).

During construction, the Contractor must use materials and construction methods that prevent toxic material and other pollutants from entering the stream and buffer areas. Preventative measures shall be used to protect existing storm drainage systems, existing utilities, and roads.

Where possible, existing natural ground cover vegetation shall remain and be maintained for silt control.

If surface ponding is experienced during excavation within the stream relocation area, turbid water will be pumped to an adjacent upland temporary erosion control area for infiltration (see Sheet W1.1).

PART 4 -- CLEAR AND GRUB

CLEAR AND GRUB

Contractor shall clear and grub areas within the clearing limits of the stream relocation and buffer areas. Cleared and grubbed vegetation shall be exported from the site. Particular care must be given to ensure complete removal of tops and roots of reed canarygrass plants and any other invasive/exotic plant species. Invasive/exotic plant species to be removed and treated in the stream relocation and buffer areas are: Scot's broom, English ivy, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, hedge bindweed (morning glory), Japanese knotweed, thistle, and creeping nightshade.

Talasaea Consultants to designate any additional plant species to be removed/treated prior to construction.

INSTALL TREE PROTECTION FENCING

One tree is present in the buffer area adjacent to the proposed work. Trees located outside the clearing limits are to be retained, but some trees outside the clearing limits may be adversely affected by construction activities. Talasaea Consultants shall flag retained trees prior to clearing. Contractor shall install tree protection around flagged trees. Flagged trees shall not be disturbed beyond tree protection fencing. Fencing shall remain in place until the completion of earthwork.

Contractor shall be responsible for avoiding disturbance to existing vegetation located outside the clearing limits. No removal of any vegetation shall occur without prior approval by Talasaea Consultants.

Any living woody plant that is damaged during construction shall be treated within 24-hours of occurrence. Talasaea Consultants shall be notified immediately of incident. Wound shaping treatment shall be done and includes, but is not limited to: evenly cutting broken branches, exposed roots and damaged tree bark immediately after damage occurs. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survivability.

PART 5 -- GRADE STAKING AND EXCAVATION

SURVEY AND GRADE STAKE ROUGH GRADES

A licensed surveyor shall survey and grade stake rough grades in the stream relocation area following clearing and grubbing. Surveyor shall supply grade stakes along transects through the new stream corridor at 20' intervals and shall include the centerline of the new stream channel. Transects shall be located 40-feet apart along the entire length of the relocated stream corridor. Talasaea Consultants shall approve grade staking prior to excavation down to rough grade and shall monitor during construction.

SURVEY AND GRADE STAKE SUB-GRADES

After initial mass excavation has been completed, surveyor shall survey and grade stake sub-grades along transects through the rough graded stream corridor at 20' intervals and also shall include the centerline of the new stream channel, top of bank of the primary channel, toe of slope of the floodway bench, and edge of buffer. Transects shall be located 40-feet apart along the entire length of the relocated stream corridor. Talasaea Consultants shall approve grade staking prior to excavation to subgrade and shall monitor during construction.

EXCAVATE

Contractor shall excavate new stream corridor per grading plan. Talasaea Consultants shall make minor field adjustments to grading plan, as necessary, to ensure proper function of stream hydraulics.

In the primary channel, Contractor shall over-excavate 6" below finished elevation shown on plans to allow for later placement of 6" of rock mix. Rock mix is to be placed throughout the entire length of the new stream channel.

In remaining graded buffer areas, Contractor shall over-excavate 6" below finished elevation shown on plans to allow for later placement of 6" of stockpiled or to imported topsoil. Excavated soils shall be used on-site; if possible, otherwise they shall be exported off site.

Upon completion of subgrade excavation, a licensed surveyor shall provide spot elevations at subgrade of: 1) the top of bank of the primary channel and 2) at edge of floodplain prior to installation of the deflector logs and rock mix. Talasaea Consultants shall review subgrade elevations.

PART 6 - DEFLECTOR LOGS & ROCK MIX

INSTALL DEFLECTOR LOGS

Talasaea Consultants shall flag locations of deflector logs prior to installation. Talasaea Consultants shall approve deflector log placement prior to installation (see Detail on Sheet W2.0). Deflector logs should not block more than 1/3 flow of channel at Ordinary High Water Mark (OHWM).

PLACE ROCK MIX IN PRIMARY CHANNEL

Contractor shall place rock mix in primary channel after subgrade approved. Rock mix shall consist of clean, rounded, uniformly-graded gravel with a size composition of:

15 percent of 4.0 to 3.0 inches;
40 percent of 3.0 to 1.5 inches;
45 percent of 1.5 to 0.25 inches, with

fines less than 0.25 inches not exceeding 3.0 percent total volume. Talasaea Consultants shall approve rock mix placement.

PART 7 - TOPSOIL

PLACE TOPSOIL/COMPOST

Talasaea Consultants shall approve subgrade earthwork in the stream relocation area prior to placement of stockpiled or imported topsoil. Subgrade shall be 6" lower than finish grade shown on plan.

If imported topsoil is necessary, Contractor shall import topsoil that is fertile, friable, sandy loam, surface soil, free of subsoil, clay lumps, brush, weeds and other litter, and free of roots, stumps, stones larger than 1" in any dimension, and other extraneous or toxic matter harmful to plant growth from a local distributor. Contractor shall provide a sample of proposed topsoil to Talasaea Consultants for review and approval prior to delivery at the project site.

In all graded mitigation areas, 6" of stockpiled or imported topsoil shall be placed over subgrade. Topsoil shall be lightly track-walked on sloped areas to prevent rilling and erosion.

In non-graded planted portions of the buffer, planting pits shall be backfilled with imported topsoil and amended with fertilizer and a soil moisture retention agent as noted in the planting specifications (see General Planting Installation Notes).

PART 8 - CONSTRUCTION DELAYS

SOIL STABILIZATION

If there is a delay in construction for any reason, Contractor, unless otherwise stated in writing, shall be responsible for maintenance of erosion control measures and drainage during construction delay period.

PART 9 - CONSTRUCTION APPROVAL

POST GRADING EVALUATION BY TALASAEA

Upon completion of final grading and structure installation, Contractor shall provide Talasaea Consultants with a set of clearly marked prints designating the actual locations of elements within the stream relocation and enhanced buffer areas.

Talasaea Consultants shall approve grading work and structure installation prior to plant installation to confirm that the stream relocation plans were properly implemented. If items are to be corrected, a punch list shall be prepared by Talasaea Consultants and submitted to the Contractor for completion. After punch list items have been completed, the project shall be reviewed for final internal acceptance of grading plan implementation and planting may then proceed.

WARRANTY

Contractor shall ensure that construction related activities do not damage off-site features or adjacent vegetation. Talasaea Consultants shall be notified immediately if accidental damage occurs.

Contractor shall ensure that adjacent roads are maintained and clear of soil and/or other debris at all times during construction. Contractor shall comply with the City of Everett codes regarding street maintenance/cleaning during construction.

Any changes or modifications to this plan must receive prior approval from Talasaea Consultants.

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STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
ANN MARIE OLSEN
CERTIFICATE NO. 777
EXPIRES 9/7/14

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:
SUBJECT TO REVISION

NOTES

1. SURVEY PROVIDED BY SITTS & HILL ENGINEERS, INC. 2901 SOUTH 40TH ST., TACOMA, WA 98409. (253)479-9449.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY: ______

CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE: ______

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7550 - Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
GRADING SPECIFICATIONS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W2.1

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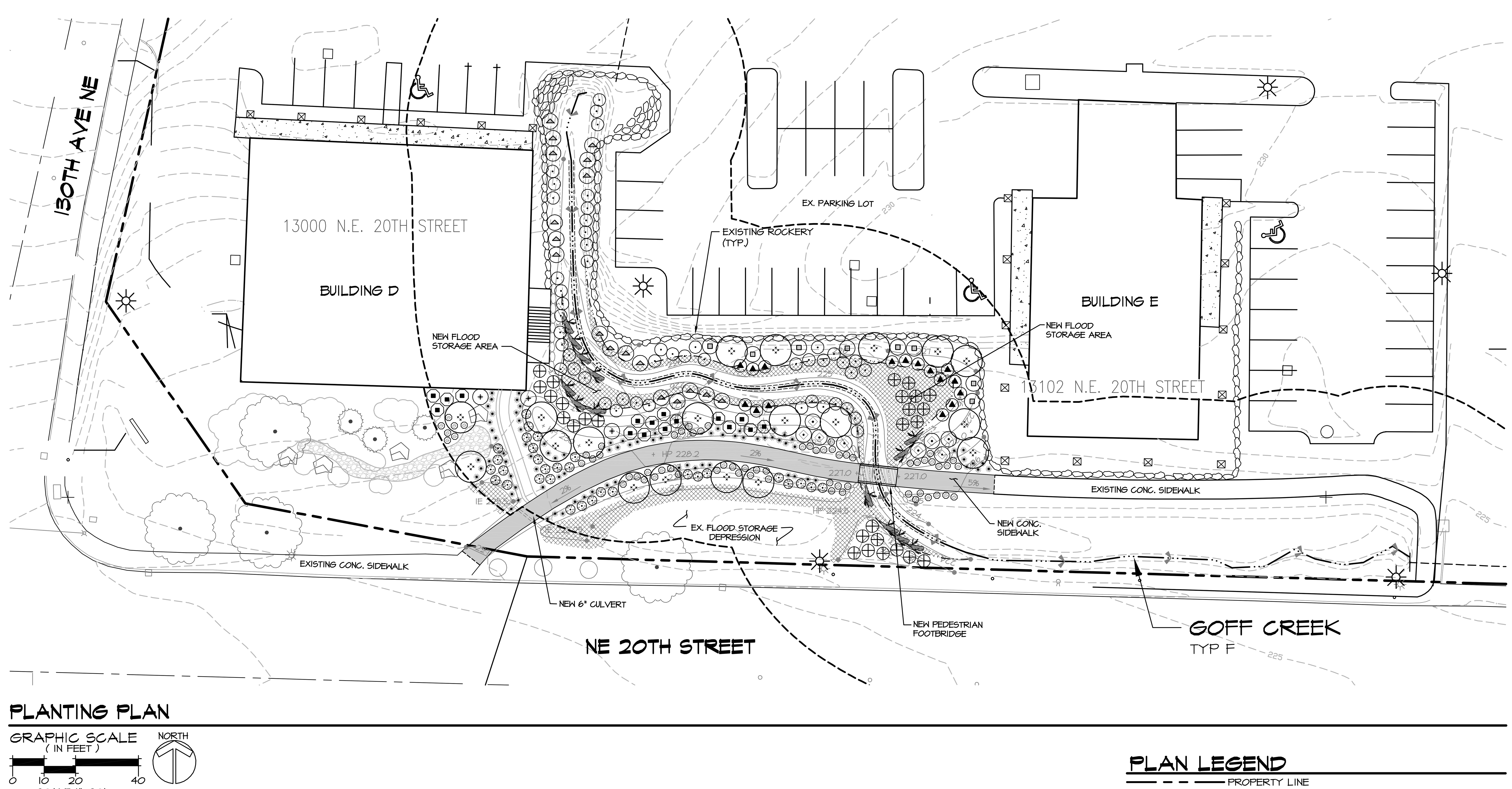

PLANTING PLAN

PLAN LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- NEW STREAM CHANNEL ALIGNMENT
- POST-CONSTRUCTION STREAM BUFFER
- EXISTING DECIDUOUS/CONIFEROUS TREES TO REMAIN

PLANT SCHEDULE

SMALL TREES & LARGE SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	ACER CIRCINATUM	VINE MAPLE	FACU	AS SHOWN	19	4' HT.	MULTI-STEM (3 MIN.)
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	FACU	5' O.C.	3	24" HT.	MULTI-CANE (3 MIN.)
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	FACW	5' O.C.	18	24" HT.	MULTI-CANE (3 MIN.)
	RIBES SANGUINEUM	RED CURRANT	NL	5' O.C.	8	24" HT.	MULTI-CANE (3 MIN.)
	SAMBUCUS RACEMOSA	RED ELDERBERRY	FACU	5' O.C.	8	24" HT.	MULTI-CANE (3 MIN.)

MASSING SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD	FACW	4' O.C.	49	18" HT.	MULTI-CANE (3 MIN.)
	GAULTHERIA SHALLON	SALAL	FACU	24" O.C.	66	1 GAL.	FULL & BUSHY
	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	FAC	4' O.C.	16	18" HT.	MULTI-CANE (3 MIN.)
	MAHONIA AQUIFOLIUM	TALL OREGONGRAPE	FACU	4' O.C.	16	18" HT.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	FACU	3' O.C.	83	1 GAL.	FULL & BUSHY
	ROSA NUTKANA	NOOTKA ROSE	FAC	4' O.C.	27	18" HT.	MULTI-CANE (3 MIN.)
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	FACU	4' O.C.	31	1 GAL.	FULL & BUSHY

EMERGENTS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	SPACING	QTY.	SIZE (MIN.)	NOTES
	CAREX OBNUPTA	SLOUGH SEDGE	OBL	18" O.C.**	350	BARE-ROOT	
NO SYMBOL	OENANTHE SARMENTOSA	PACIFIC WATER PARSLEY	OBL	18" O.C.*	150	BARE-ROOT	
	SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH	OBL	18" O.C.**	350	BARE-ROOT	

EMERGENT NOTES:
* PACIFIC WATER PARSLEY SHALL BE PLANTED ALONG EDGES OF NEW STREAM CHANNEL IN GROUPS OF 5-10 AT SPACING SHOWN APPROXIMATELY EVERY 10 LF.
** SLOUGH SEDGE AND SMALL-FRUITED BULRUSH SHALL BE PLANTED IN SINGLE-SPECIES GROUPINGS OF 20-30 AT SPACING SHOWN WITH SPACE LEFT BETWEEN GROUPINGS.

TALASAEA CONSULTANTS SHALL APPROVE LAYOUT OF ALL PLANTS, INCLUDING EMERGENTS, PRIOR TO PLANTING.

GENERAL PLANT INSTALLATION NOTES

1. PLANT TREES AND/OR SHRUBS 1" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES AND/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET AND OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR ROOTBALL, IN LINE WITH THE PREVAILING WIND. STAKES SHALL BE LOOSELY ATTACHED USING CHAIN-LOCK TREE TIES TO ALLOW FOR SOME TRUNK MOVEMENT.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER PLANTS IMMEDIATELY UPON PLANTING, THEN PROVIDE MANUAL WATERING OR A TEMPORARY IRRIGATION SYSTEM (IF SPECIFIED IN THE PLANTING SPECIFICATIONS) TO PREVENT PLANT MORTALITY AND ENSURE PROPER PLANT ESTABLISHMENT. PLANTS SHALL RECEIVE A MINIMUM OF APPROXIMATELY ONE INCH OF WATER EVERY WEEK DURING THE DRY SEASON (GENERALLY JUNE 15TH - OCTOBER 15TH, OR EARLIER OR LATER IF CONDITIONS WARRANT) FOR THE FIRST SEASON AFTER PLANTING. IRRIGATION AMOUNTS MAY NEED TO BE INCREASED DURING PROLONGED PERIODS OF HOT, DRY WEATHER.
6. FERTILIZE ALL TREES AND SHRUBS WITH A SLOW-RELEASE GENERAL PURPOSE GRANULAR FERTILIZER OR SLOW-RELEASE TABLETS AT MANUFACTURER'S SPECIFIED RATE.

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APPROVED FOR CONSTRUCTION

BY:

CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE:

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 – Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
PLANTING PLAN, PLANT SCHEDULE, & NOTES
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date 4-3-2014
Scale AS NOTED
Designed AD/AO
Drawn AD/AS
Checked AO
Approved BS

Project # 845

Sheet # W3.0

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PLANTING SPECIFICATIONS

PART 1: GENERAL

1.1 SEQUENCING

A. General Construction

1. Contractor shall give Talasaea Consultants a minimum of ten (10) days notice prior to commencing construction.
2. No construction work shall commence until there is a meeting between the client, Talasaea Consultants, and the contractor(s). The approved plans and specifications shall be reviewed to ensure that all parties involved understand the intent and the specific details related to the construction documents, specifications, and site constraints.
3. Locations of any existing utilities shown on mitigation plans have been established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to: (1) independently verify the accuracy of utility locations, and (2) discover and avoid any utilities within the mitigation area(s) that are not shown, but which may be affected by implementation of the plan. Such area(s) are to be clearly marked in the field. Talasaea Consultants shall resolve any conflicts with the approved mitigation plan prior to start of construction.
4. A copy of the approved plans must be on site whenever construction is in progress, and shall remain on site until project completion.
5. Construction must be performed in accordance with all agency standards, rules, codes, permit conditions, and/or other applicable ordinances and policies.
6. The project owner/applicant is responsible for obtaining any other related or required permits prior to the start of construction.
7. A qualified wetland consultant shall be on site, as necessary, to monitor construction and approve minor revisions to the plan.
8. During construction, the contractor must use materials and construction methods that prevent toxic substances and other pollutants from entering mitigation areas or other natural waters of the State.
9. Preventative measures shall be used to protect existing storm drainage systems, existing utilities, and roads.
10. Provide sediment and erosion controls around the project area as necessary prior to soil disturbance from construction activity.

B. Mitigation Construction: The following provides the general sequence of activities anticipated to be necessary to complete the mitigation project. Some of these activities may be conducted concurrently as the project progresses.

1. Conduct a site meeting between the contractor, Talasaea Consultants, and the owner's representative to review the project plans, staging/stockpile areas, and material disposal areas.
2. Install silt fence at project construction limits.
3. Install upstream temporary bypass pipe to divert stream flows around construction work area. Bypass pipe shall be secured to base of existing rockery. All bypassed flows shall be discharged below work area.
4. Install sandbag dam and sump pump at upstream bypass area to pump any water that may seep through the rockery around work zone.
5. Install downstream sandbag dam to intercept any groundwater from work area. Install sump pump to pipe turbid water to a grassy area for infiltration.
6. Locate and saw cut existing sidewalk. Remove sidewalk and existing arched culvert and dispose of offsite.
7. Strip existing sod and remove from site.
8. Survey new stream alignment and set grade stakes as required.
9. Strip and stockpile acceptable topsoil from excavation and fill areas.
10. Complete the mitigation grading to rough grade, using acceptable clean fill materials from excavations to concurrently construct earthen berms shown on the plans.
11. Install and anchor deflector logs along stream route.
12. Place stockpiled topsoil along stream route.
13. Place approved rock mix in low flow stream channel.
14. Install new culvert to drain western portion of site.
15. Construct pedestrian bridge and new sidewalk.
16. Mulch all graded buffer areas.
17. Install plant material as indicated on the planting plans.
18. Partially introduce stream flows to new channel while maintaining upstream temporary bypass. Allow flows to pond at downstream sandbag dam and pump any turbid water to adjacent grassy area for infiltration.
19. Remove both upstream and downstream sandbag dams and sump pumps.
20. Remove temporary bypass pipe and allow stream flow naturally through new channel.

1.2 SUBMITTALS

A. Product Data: Furnish the following with each plant material delivery:

1. Invoices indicating sizes and variety of plant material.
2. Certificates of inspection required by state and federal agencies.

B. Quality Control Submittals:

1. Prior to delivery of materials, certificates of compliance attesting that materials meet the specified requirements shall be furnished for the following: plants, topsoil, fertilizer, and organic mulch. Certified copies of the material certificates shall include the following:
   a. Plant Materials: botanical name, common name, size, quantity by species, and location where grown.
   b. Imported Topsoil: particle size, pH, organic matter content, textural class, soluble salts, chemical and mechanical analyses.
   c. Fertilizer: chemical analysis and percent composition.
   d. Imported Mulch: composition and source.

1.3 REFERENCES

A. Size and Grading Standards: Shall conform to the current edition of the American Standard for Nursery Stock, published by the American Nursery and Landscape Association.

1.4 QUALITY ASSURANCE

A. Worker's Qualifications: The persons performing the planting and their supervisor(s) shall be personally experienced with planting and caring for plant material, and shall have been regularly employed by a company engaged in planting and caring for plant material for a minimum of 2 years.

B. Plant Material: All plant materials shall be locally grown or regionally acclimatized to the Pacific Northwest.

1.5 DELIVERY, INSPECTION, STORAGE AND HANDLING

A. Delivery: A delivery schedule shall be provided at least 10 calendar days prior to the first day of delivery. Plant materials shall be delivered to the job site not more than 7 working days prior to their respective planting dates.

B. Protection During Delivery: Plant material shall be protected during delivery to prevent desiccation and damage to the branches, trunk, root system, or earth ball. Branches shall be protected by tying-in. Exposed branches shall be covered during transport.

C. Fertilizer: Fertilizer shall be delivered in manufacturer's standard sized bags showing weight, analysis, and manufacturer's name. Store under a waterproof cover or in a dry place as designated by the owner's representative.

D. Inspection: All plant materials shall be inspected upon arrival at the job site by the owner's representative for conformity to type and quantity with regard to their respective specifications.

E. Mulch: A mulch sample shall be inspected by Talasaea Consultants prior to the mulch being delivered to the site.

F. Storage:

1. Plant material not installed on the day of arrival at the site shall be stored and protected in designated areas. Plants stored on the project site shall be protected from extreme weather conditions by insulating the roots, root balls or containers with sawdust, soil, compost, bark or woodchips. Plant material shall be protected from direct exposure to wind and sun. Bare-root plant material shall be heeled-in. Cuttings and emergent plants must be protected from drying at all times and shall be heeled-in with moist soil or other insulating material. All plant material stored on-site shall be watered daily until installed.
2. Storage of other materials shall be in designated areas.

1.6 SCHEDULING

A. Planting Season: Install woody plants between October 1 and February 15 whenever the temperature is above 32 degrees F and the soil is in a workable condition, unless otherwise approved in writing. Cuttings shall only be used if planting occurs between December 1st and April 1st.

B. Plant Installation: Except for container-grown plant material, the maximum time between the digging and installation of plant material shall be 21 days. The maximum time between plant installation and mulch placement shall be 72 hours.

1.7 WARRANTY

A. Warranty Period: The contractor-provided warranty shall extend for a period of one year from the date of physical completion. Physical completion for the work of this section is the date when all clearing/grubbing, planting, irrigation, and related work has been completed and is accepted by the owner's representative, Talasaea Consultants, and applicable agencies.

B. Warranty Terms: Contractor's warranty shall include replacement of plants due to mortality (same size and species shown on the drawings). Plants replaced under this warranty shall be warranted for an additional year after replacement.

C. Exceptions: Loss due to excessively severe climatological conditions (substantiated by 10-year recorded weather charts), or cases of neglect by Owner, or cases of abuse/damage by others.

PART 2: PRODUCTS AND MATERIALS

2.1 PLANTS

A. General: All plant material will conform to the varieties specified or shown in the plant list(s) indicated on the mitigation plans and be true to botanical name as listed in: Hitchcock, C.L., and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press.

B. Shrubs and Trees:

1. Talasaea shall examine plant material prior to planting. Any material not meeting the required specifications shall be immediately removed from the site and replaced with like material that meets the required standards. Plant material shall meet the requirements of state and federal laws with respect to plant disease and infestations. Inspection certificates, required by law, shall accompany each and every shipment and shall be submitted to Talasaea upon contractor's receipt of plant material.
2. Plant materials shall be locally grown (western Washington, western Oregon, or western BC), healthy, bushy, in vigorous growing condition, and guaranteed to be true to size, name, and variety. If replacement of plant material is necessary due to construction damage or plant failure within one year of installation, the sizes, species, and quantities shall be equal to specified plants, as indicated on the plans.
3. Plants shall be nursery grown, well-rooted, of normal growth and character, and free from disease or infestation. Talasaea Consultants reserves the right to require replacement or substitution of any plants deemed unsuitable.
4. Trees shall have uniform branching, single straight trunks (unless specified as multi-stem, multi-cane, or multi-trunk), and an intact and undamaged central leader. Container stock shall have been grown in a container for at least one full growing season and shall have a well developed root system. Plant material that is root-bound or has damaged root zones or broken root balls will not be accepted.
5. Coniferous trees shall be nursery grown, full and bushy, with uniform branching and a natural, non-sheared form. Original central leader must be healthy and undamaged. Maximum gap between branching shall not exceed 9 inches, and length of top leader shall not exceed 12 inches.
6. Shrubs shall have a minimum of three stems and shall be a minimum height of 18 inches.
7. Trees and shrubs shall have developed root and branch systems. Do not prune branches before delivery.
8. Native plant cuttings shall be grown and collected in the maritime Pacific Northwest. Cuttings shall be of one to two-year-old wood, ½ inch diameter minimum. Cuttings shall be a minimum of 4 feet in length with 4 lateral buds exposed above ground after planting. The top of each cutting shall be a minimum of 1 inch above a leaf bud, the bottom cut 2 inches below a bud. The basal ends of the cuttings shall be cut at a 45 degree angle and marked clearly so that the rooting end is planted in the soil. Cuttings must be kept covered and moist during storage and transport, and no cuttings shall be stored more than three days from date of cutting. Cuttings shall only be used if planting occurs between December 1st and April 1st. For planting between April 1st and December 1st, container plants shall be used.
9. Plants shall be free of splits and checks, bark abrasions, and disfiguring knots.
10. For deciduous plants, buds shall be intact and reasonably closed at time of planting, if dormant.
11. Balled and burlapped plants shall hold a natural ball. Manufactured root balls are unacceptable.
12. Plants shall conform to sizes indicated on the plant schedule. Plants may be larger than the minimum sizes specified.

C. Noxious Species: All plant stock and other re-vegetation materials shall be free from the seed or other plant components of any noxious or invasive species, as identified by the King County Noxious Weed Control Board.

D. Substitutions: Substitutions will not be permitted without a written request and approval from the owner's representative, Talasaea Consultants, and applicable agencies.

2.2 PLANTING SOIL

A. Topsoil: If suitable stockpiled native topsoil is not available for mitigation plantings, topsoil shall be obtained from outside sources. Stockpiled or imported topsoil shall be fertile, friable, sandy loam surface soil, free of subsoil, clay lumps, brush, weeds, roots, stumps, stones larger than 1 inch in any dimension, litter, or any other extraneous or toxic matter harmful to plant growth.

B. Organic Content: Imported topsoil shall consist of organic materials amended as necessary to produce a bulk organic content of at least 10 percent and not greater than 20 percent, as determined by AASHTO-T-194.

C. Compost: Compost shall meet the definition for composted materials as defined by the Washington State Department of Ecology.

D. Soil Amendments: Woody plantings shall be fertilized with a slow-release general granular fertilizer (16-16-16), with application rates as specified by manufacturer. Fertilizer shall be applied after planting pit is backfilled, and prior to application of mulch. Fertilizer shall not be applied between November and March.

2.3 MULCH

A. Bark or woodchip mulch shall be derived from Douglas fir, pine or hemlock species. The mulch shall not contain resin, tannin or other compounds in quantities that would be detrimental to animal, plant life or water quality.

B. Mulch shall be ground so that a minimum of 95% of the material will pass through a 1.5-inch sieve and not more that 55%, by loose volume, will pass through a US No. 4 sieve.

2.4 MISCELLANEOUS MATERIALS

A. Stakes, Deadmen and Guy Stakes: Sound, durable, western red cedar, or other approved wood, free of insect or fungus infestation.

B. Chain-Lock Tree Ties: ½-inch wide, plastic.

PART 3: EXECUTION

3.1 SOIL PREPARATION

A. Planting Area Conditions: Contractor shall verify that plant installation conditions are suitable within the project area(s). Any unsatisfactory conditions shall be corrected prior to start of work. When conditions detrimental to plant growth are encountered, such as rubble fill, poor drainage, compacted soils, significant existing or invasive vegetation, or other obstructions, contractor shall notify Talasaea Consultants prior to planting. The beginning of work by the Contractor constitutes acceptance of conditions as satisfactory.

B. Planting Soil: In all graded/cleared/grubbed project areas, 9 inches of stockpiled or imported topsoil shall be placed over subgrade, or existing soils shall be amended with compost to create the equivalent of a 9-inch depth of topsoil.

C. Planting in Graded/Cleared/Grubbed Areas: Plants shall be installed in newly placed or amended topsoil.

D. Soil Decompaction/Scarification: Soils in graded/disturbed areas that are compacted and unsuitable for proper plant growth shall be decompacted and/or scarified to a minimum depth of 6" prior to topsoil installation.

3.2 PLANTING

A. Plant Layout: Proposed locations of trees and shrubs shall be staked and identified with an approved coding system or by placement of the actual plant material. For large groupings of a single species of shrub, Landscape Contractor may stake the planting boundaries.

B. Obtain layout approval from Talasaea Consultants prior to excavation of planting pits.

C. Planting Pit Dimensions:

1. Pit Depth: Not to exceed the root ball or container depth.
2. Pit Width: Measured at the ground surface, 2 times the width of the root ball or container, as indicated in typical planting details.
   a. Bare-Root Plants: Diameter equal to the width of the root spread.

D. Setting Plants:

1. Balled Plants: Set plants in position and backfill 1/2 depth of ball. Completely remove cage and twine from plant and pull burlap down as far as possible. Complete backfill and settle with water. Root collar shall remain 1 inch above adjacent grade.
2. Bare-Root Plants: Prune bruised or broken roots. Set plant in position and place wetland planting soil around roots. Use care to avoid bruising or breaking roots when firming soil. Settle with water.
3. Shrub/Tree Planting: Shrub and tree stock shall be planted in hand-dug holes according to planting details shown on the mitigation plans. Shrub and tree root balls shall be set so that root collars are 1 inch above adjacent grade. All backfill shall be gently tamped in place.
4. Surface Finish: Form a saucer as indicated on typical planting details, or as directed. Grade soil to form a basin on the lower side of slope plantings to catch and retain water.
5. In forested areas, Contractor shall loosely tie a 2 foot piece of biodegradable flagging to the top portion of all planted vegetation to facilitate post-construction performance and maintenance review by Talasaea Consultants and regulatory agencies.
6. Actual plant symbol quantities shown on the plans shall prevail over quantities shown on the plant schedule in the event of a discrepancy.

E. Mulching:

1. Graded/Cleared/Grubbed Buffer Areas: Shall be mulched after topsoil installation and prior to plant installation with a 3-inch layer of medium bark mulch.
2. Non-Graded Buffer Areas: Provide a 36-inch diameter, 3-inch deep mulch ring around the base of each tree, and a 24-inch diameter, 3-inch deep mulch ring around the base of each shrub.
3. Water plants thoroughly after mulching.

F. Pruning: Prune immediately after planting only as directed by Talasaea Consultants.

G. Tree Stakes and Ties: Stake deciduous and evergreen trees 4 feet or over in height with one (1) stake per tree. Stake trees immediately after planting. Place stake at the outer edge of the roots or ball, in line with the prevailing wind, and at a 10 degree angle from the tree trunk. Loosely attach stake to tree using chain-lock ties; tree should be able to sway.

H. Flagging: All new plants shall be marked with a piece of colored surveyor's flagging to facilitate identification for future monitoring. Flagging shall be tied to the top of each plant.

I. Installing Temporary Irrigation

1. General Requirements: Contractor shall provide an above-ground temporary irrigation system capable of full head-to-head coverage of all cleared & grubbed planted project areas. The temporary irrigation system shall either utilize controller and point of connection (POC) from the site irrigation system or shall include a separate POC and controller with a backflow prevention device per water jurisdiction inspection and approval. The system shall be zoned to provide optimal pressure and uniformity of coverage, as well as separation between areas of full sun and shade and for slopes in excess of 5 percent.
2. System Design and Materials: Electronic valves shall be the same manufacturer as those used for the site irrigation system, or shall be Rain Bird PEB Series or equal if system is not contiguous with the site system. Valves shall be sized to accommodate pressure and zone consumption requirements of the system and shall be installed below grade in Carson (or equal) valve boxes. Wiring shall be insulated multi-strand, taped to the main at 6-inch intervals with duct tape wraps. On-grade main and lateral lines shall be Class 200 PVC bell pipe with solvent welded fittings, secured in-place with wire staples where necessary on sloped areas. Lines shall be placed 12 inches below grade in 4 inch PCV sleeves where vehicular or maintenance access is needed across lines to the project area(s). Maximum main line size shall be 1½ inches and may be looped back to the POC to reduce pressure loss. Lateral lines shall be sized in decreasing downstream order per Rain Bird design standards; the minimum lateral size shall be ¾ inch. Heads shall be rotor or impact type installed 4 feet above finished grade on 2-inch diameter wood tree stakes. Stakes shall be secure in the ground, embedded to a minimum depth of 24 inches. Heads and ¾ inch PVC risers shall be secured to stakes with constricting hose clamps; no funny pipe shall be used. Heads and nozzles shall provide matched precipitation rates for each zone.
3. Programming: Irrigation system shall be programmed to provide approximately 1/2 inch of water every three days during the dry season (approximately June 15th to October 15th). Irrigation amounts in zones located in the shade or on steep slopes may be reduced if approved by Talasaea Consultants or the project ecologist/biologist.
4. Water and Power Supply for System: The owner shall provide water and electricity for the system.
5. As-Built Drawing: A chart describing the location of all installed or open zones and corresponding controller numbers shall be provided by the contractor and placed inside the controller and given to the owner's representative.
6. Warranty: The irrigation system shall include a one-year warranty against defects in materials and workmanship from the date of final project acceptance. The warranty shall include system activation and winterization for the first year and immediate repair of the system if it is observed to be malfunctioning.

J. Critical Areas Fence and Signs: Install critical areas fence and critical areas signs where shown on plans per installation details provided on plans.

K. Restore existing natural or landscaped areas:

1. Existing natural or landscaped areas that are damaged during construction shall be restored to their original condition, unless improvements or modifications are specified for those areas.
2. Contractor shall exercise care to prevent injury to the trunk, roots, or branches of any trees or shrubs that are to remain. Any living, woody plant that is damaged during construction shall be treated within 24 hours of occurrence, and Talasaea Consultants shall be notified immediately of the incident. Damage treatment shall include evenly cutting broken branches, broken roots, and damaged tree bark. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survival.

L. Final Inspection and Approval: The Contractor shall notify Talasaea Consultants in writing at least ten days prior to the requested date of a project completion inspection. If items are to be corrected, a punch list shall be prepared by Talasaea Consultants and submitted to the contractor for completion. After punch list items have been completed, Talasaea Consultants shall review the project again for final acceptance of plan implementation. If punch list items require plant replacement, and the inspection occurs outside of a suitable planting season, plants shall be replaced during the next planting season.

M. As-Built Plan: Contractor is responsible for verifying plant locations and quantities on the plant schedule with those represented as symbols on the mitigation plans. Contractor shall keep a complete set of prints at the job site during construction for the purpose of recording in-the-field changes or modifications to the approved plans. This information shall be updated on a daily basis as necessary.

PART 4: ONE YEAR CONTRACTOR WARRANTY

A. Review of Maintenance Requirements: Contractor shall review landscape maintenance recommendations with a qualified wetland biologist from Talasaea Consultants who is familiar with the stated goals and objectives of the project plan.

B. Maintenance Activities: Contractor shall maintain trees and shrubs for a period of one year from the date of final acceptance in order to maintain healthy growth and habitat diversity. Maintenance activities shall include, but are not limited to: (a) replacing plants due to mortality, (b) tightening and repairing tree stakes, (c) resetting plants to proper grades and upright positions, and (d) correcting drainage problems as required.

C. Irrigation:

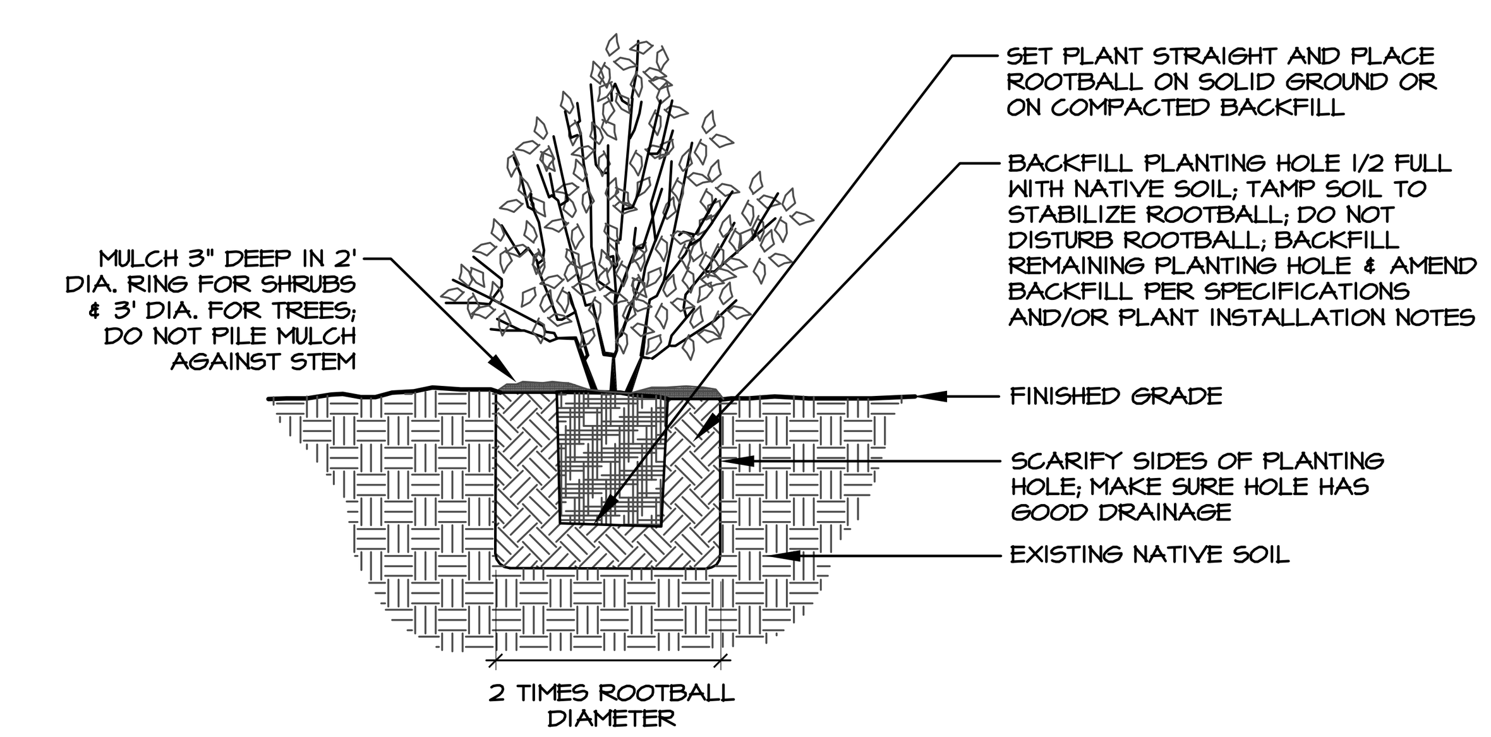
1. System Maintenance and Repair: The contractor shall be responsible for activating, winterizing, maintaining, and continually verifying the adequate operation of the temporary irrigation system for the first growing season following installation. System function (including electronic valve and controller function) shall be inspected for operation and full coverage of all planted areas during each maintenance visit. The system shall be repaired immediately if found to be damaged or malfunctioning. System shall be programmed and maintained to provide approximately ½ inch of water every three days.

D. Stake and Tie Removal: Contractor shall remove tree stakes and ties one year after installation, unless receiving written permission from Talasaea Consultants to delay removal of stakes and ties.

E. Erosion and Drainage: Contractor shall correct erosion and drainage problems as required.

F. Irrigation System Removal: Contractor shall remove irrigation system approximately 2 years after planting, or as approved by Talasaea Consultants.

G. Final Maintenance Inspection and Approval: Upon completion of the one-year maintenance period, an inspection by Talasaea Consultants shall be conducted to confirm that the project area was properly maintained. If items are to be corrected, a punch list shall be prepared and submitted to the contractor for correction. Upon correction of the punch list items, the project shall be reviewed by Talasaea Consultants for final closeout of plan implementation.



1 CONTAINER STOCK PLANTING DETAIL
N.T.S.

NOTES

1. SURVEY PROVIDED BY SITTS & HILL ENGINEERS, INC. 2901 SOUTH 40TH ST., TACOMA, WA 98409. (253)474-9449.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN APRIL 2014.

APPROVED FOR CONSTRUCTION

BY:

CITY OF BELLEVUE PLANNING AND COMMUNITY DEVELOPMENT DEPT.

DATE:

811 Know what's below. Call before you dig.

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
ANN MARIE OLSEN CERTIFICATE NO. 771 EXPIRES 4/7/14

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:
SUBJECT TO REVISION

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast • Woodinville, Washington 98077
Bus (425) 861-7550 • Fax (425) 861-7549

CRITICAL AREAS MITIGATION PLAN
PLANTING SPECIFICATIONS & DETAILS
PLAZA 520 - BUILDING D
BELLEVUE, WA

Revisions	Date	By

Date	4-3-2014
Scale	AS NOTED
Designed	AD/AO
Drawn	AD/AS
Checked	AO
Approved	BS
Project #	845
Sheet #	W3.1