



**City of Bellevue
Development Services Department
Land Use Staff Report**

Proposal Name: Lakemont Bridge Lewis Creek Tributary Stabilization

Proposal Address: Lakemont Boulevard under Bridge #3 (no address)

Proposal Description: The applicant requests a Critical Areas Land Use Permit for stabilization of the stream bed and stream banks of a Type F stream.

File Number: 12-117271-LO

Applicant: Steve Costa, Bellevue Transportation Department

Decisions Included: Critical Areas Land Use Permit
(Process II. LUC 20.30P)

Planner: Kevin LeClair

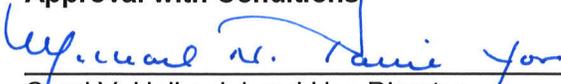
**State Environmental Policy Act
Threshold Determination:**

Determination of Non-Significance


Carol V. Helland, Environmental Coordinator
Development Services Department

Director's Decision:

Approval with Conditions


Carol V. Helland, Land Use Director
Development Services Department

Application Date:	July 2, 2012
Notice of Application Publication Date:	July 12, 2012
Decision Publication Date:	October 11, 2012
Project/SEPA Appeal Deadline:	October 25, 2012

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 100th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: City of Bellevue Department of Transportation

LOCATION OF PROPOSAL: Lakemont Boulevard under Bridge #3, Bellevue, WA

NAME & DESCRIPTION OF PROPOSAL:

Lakemont Boulevard Lewis Creek Tributary Stabilization - The applicant is proposing to stabilize the stream bed and stream banks of a Type F stream where it flows beneath the bridge of an arterial roadway. Erosion of the stream bed and banks is presenting a risk to the stability of the Lakemont Boulevard bridge support structure and causing downstream sedimentation in Lewis Creek, another Type F stream. The stabilization consists of stream cobble check dams to arrest the down-cutting of the stream and stabilization of the banks with gabion baskets.

FILE NUMBER: 12-117271-LO

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on **October 25, 2012**.
- This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.



Environmental Coordinator

October 11, 2012

Date

OTHERS TO RECEIVE THIS DOCUMENT:

State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers
Attorney General
Muckleshoot Indian Tribe

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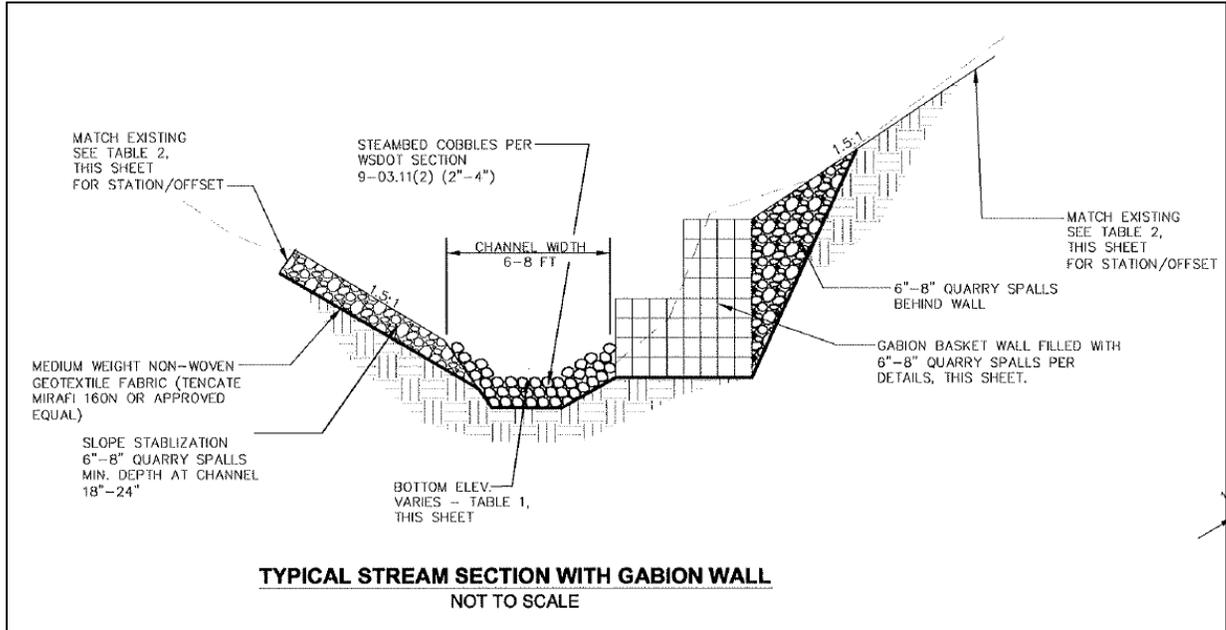
Attachments

1. Environmental Checklist
2. Site Plan

I. Proposal Description

The applicant is proposing to stabilize the stream bed and stream banks of a Type F stream where it flows beneath the bridge of an arterial roadway. Erosion of the stream bed and banks is presenting a risk to the stability of the Lakemont Boulevard bridge support structure and causing downstream sedimentation in Lewis Creek, another Type F stream. The stabilization consists of stream cobble check dams to arrest the down-cutting of the stream and stabilization of the banks with gabion baskets.

Land Use Code (LUC) 20.25H.075 prescribes a 100-foot critical area buffer from the edge of Type F streams. The request is to perform stabilization of stream. Stream “stabilization measures” are considered an allowed use within critical areas and critical area buffers per LUC 20.25H.055, provided the proposal complies with the performance standards for the specified use (LUC 20.25H.055.C.3.m) and the critical area (LUC 20.25H.080.A).

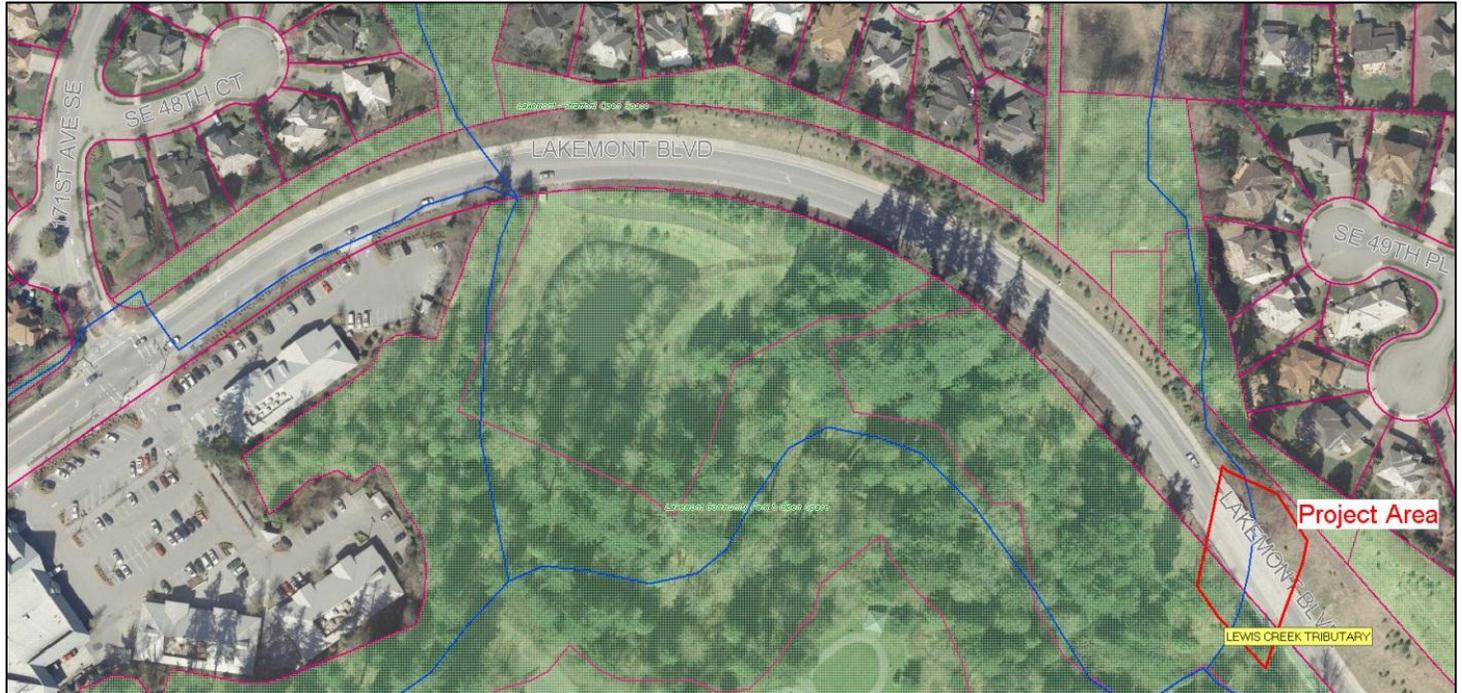


II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project location is beneath the bridge deck of Bridge #3 of Lakemont Boulevard. The bridge is located approximately 1,500 feet east of the intersection of Lakemont Boulevard and 171st Ave SE, in the Lakemont neighborhood of Bellevue.

The tributary under the bridge deck flows from north to south and originates approximately 1000 feet upstream out of a wetland that is protected in an assemblage of publicly-owned native growth protection area tracts and private NGPA easements.



The tributary flows behind a berm parallel to the north edge of the road, behind the sidewalk. At the upstream edge of the bridge, the tributary drops three feet into an incised area with nearly vertical banks that approach 6-8 feet tall. At the downstream edge of the bridge the top of the stream banks are nearly coincident with the ordinary high water mark.

Below the bridge, the tributary flows another 95 feet, dropping at a slope between 13 to 19 percent, in an unconfined channel until it terminates at the confluence with Lewis Creek.

The area under the bridge is devoid of vegetation. There are remnants of native vegetation that once grew along the stream banks before the bridge was installed in 1999. The lack of rainfall and sunlight has eliminated any positive growing conditions. The areas both above and below the bridge are dominated by native trees, shrubs and ground covers.

B. Zoning

The property is zoned R-5 and is within the Critical Areas Overlay District.

C. Land Use Context

The public Right-of-Way of Lakemont Boulevard is 110 feet wide at the project area. The developed portion of the Right-of-Way is approximately 60 feet wide and contains two vehicle travel lanes going northwest (uphill), one lane going southeast (downhill), bike lanes on both sides of the street, and a 10-foot sidewalk adjacent to the northwest lanes. Both shoulders of the roadway are vegetated primarily with tall grasses, and some native trees.

There is a developed residential neighborhood beginning approximately 80 feet to the north of the bridge. The area to the south of the bridge is undeveloped and is part of

Lakemont Park and Open Space, which is managed by the Bellevue Parks & Community Services Department.

D. Critical Areas Functions and Values

i. Streams and Riparian Areas

A healthy aquatic environment relies on a dynamic interaction between the stream and the adjacent riparian area. Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization. Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature.

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams. The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods. Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow.

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi- canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species. Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated. Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The site is located in the R-5 zoning district. No structures are proposed for development – therefore the dimensional standards for the district do not apply.

B. Critical Areas Requirements LUC 20.25H:

i. Performance Standards for Stabilization Measures LUC 20.25H.055.C.3.m

Proposed stabilization measures within a critical area or critical area buffer to

protect against streambank erosion may be approved in accordance with this subsection.

New stabilization measures shall be allowed only to protect existing primary structures and infrastructure, or in connection with uses and development allowed pursuant to subsection B of this section. Stabilization measures shall be allowed only where avoidance measures are not technically feasible.

The stabilization measure is proposed to arrest the erosion of the unvegetated stream banks under the Bridge #3 of Lakemont Boulevard. The applicant provided a critical areas report that contain and evaluation of various avoidance and minimization measures. The report states that the avoidance (no action) alternative would result in continued erosion and retreat of the streambanks, which would “jeopardize the structural integrity of the bridge and pose an eminent(sp?) risk to public safety.”

Given the advanced degree of the current erosion and the lack of vegetation to naturally stabilize the banks and bed, along with the visible recession of the soils around the bridge abutments, it is reasonable to expect that avoidance would lead to further degradation of the current condition.

The submitted critical areas report evaluated a “soft-stabilization” alternative of regrading to a sustainable slope and revegetating these slopes. The soft-stabilization alternative is not technically feasible due to low light conditions and lack of precipitation under the bridge.

The applicant is proposing a combination of gabion baskets to stabilize the soils surround the bridge abutments and wing walls, plus a series of rock check-dams to control the grade of the stream bed and prevent further down-cutting into the erosive sub soils. The applicant’s critical areas report contains an alternatives analysis and prefers this alternative because of its constructability, relatively lower cost, long-term effectiveness and maintainability, and minimal peripheral impacts to nearby higher quality critical area buffers.

ii. Performance Standards for Stream Critical Areas LUC 20.25H.080.A

Development on sites with a type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

a. Lights shall be directed away from the stream.

No lighting is associated with project.

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

The project is not proposing to construct any facilities that would generate noise. The existing bridge will not be modified.

c. Toxic runoff from new impervious area shall be routed away from the stream.

The propose project will not be creating and new impervious surface. The

project area is under a constructed roadway, which is already impervious. The runoff from the roadway is routed to an approved storm drainage facility, where it is treated and detained based on the standards that were in place at the time of construction. No modifications to the roadway design are proposed.

d. Treated water may be allowed to enter the stream critical area buffer.

The proposal will not be collecting or transporting any treated stormwater.

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

Pet or human use is not practically feasible under the bridge. The areas adjacent to the bridge are currently heavily vegetated. The proposal calls for mitigation and restoration plantings in the areas to be disturbed by the construction. These areas will be monitored for a period of three years to ensure successful establishment of the restoration plantings.

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

A condition of approval will be placed on the proposed mitigation and restoration plan that includes direction on the use of pesticides and fertilizers as part of the mitigation and restoration effort.

IV. Public Notice and Comment

Application Date:	July 2, 2012
Public Notice (500 feet):	July 12, 2012
Minimum Comment Period:	July 26, 2012

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on July 12, 2012. It was mailed to property owners within 500 feet of the project site. One set of comments was received from the Karen Walter, with the Muckleshoot Indian Tribe Fisheries Division, on July 25, 2012. The applicant responded to the comments in memorandum dated August 29, 2012. The following is a copy of the comments (**lettered A through D in bold typeface**) and responses.

- A. Has Bellevue confirmed the classification of this tributary described as being a "non-fish seasonal channel" in the checklist? The checklist provides limited data (stream gradient equal 19%) regarding the classification. Given its proximity to Lewis Creek (i.e. 95 feet from confluence) and a stream gradient of 19% (less than 20%), we would like to verify that this stream is not capable of supporting salmonids.**

The tributary classification was taken from the Final Report City of Bellevue Stream Typing Inventory (8/12/01) prepared by The Watershed Company. Of the many tributaries to Lewis Creek, The Watershed Company only observed fish in the tributary near SE 47th Way (roughly 1,000 feet to the west) and determined that all other

tributaries do not have sufficient flows to support fish. GeoEngineers fisheries biologists working on this project have not observed any fish in the tributary either.

The confluence with Lewis Creek is approximately 95 feet downstream of the project area. The downstream reach is a step-pool type channel with local gradients estimated in excess of 40-percent. GeoEngineers fisheries biologists believe these steep gradients prevent upstream movement of fish above the confluence.

B. Additional information is needed regarding the cause of the significant down-cutting. For example, is uncontrolled stormwater causing this outcome? If so, an alternative approach is to conduct some instream and bank stabilization features and control stormwater to prevent future erosive flows.

The erosion and channel incision documented between 2007 and 2012 is the result of a combination of factors:

- A steeply inclined reach upstream of the project area that increases the velocity of flows
- A high channel gradient through the project area
- Poorly consolidated silty, sandy soils within the project area

The erosional response of the channel is exacerbated by the presence of the large step located just upstream of the project area. The step is elevated about 4½ feet above the channel floor. High velocity flows shoot over the step and down onto the lower elevation streambed.

Instream and bank stabilization feature are a part of the design in the form of three 2 man rock dams in the stream channel and a gabion wall protecting the eroded abutment slope along the east side of the channel.

C. What is the proposed mitigation for filling 175 feet of stream channel with quarry spalls? While this approach may address the immediate erosion and bridge abutment concern, it does very little to improve instream conditions and downstream fish habitat (assuming the stream is a non-fish potential stream). For example, one improvement would be to replace the 6-8" quarry spall rock with rounded rock, that will at least provide some instream habitat benefits if this material mobilizes downstream to Lewis Creek.

Proposed mitigation will include a "logjam" consisting of five 10-inch diameter logs 20-foot long immediately downstream from the project area. Streambed cobbles will be used as fill within the stream channel.

D. The checklist indicates that some smaller deciduous trees will need to be removed but fails to specify how many, species, sizes and the fate of these removed trees. We recommend that any native tree that is 4 inches in diameter or greater and within 200 feet of the stream should be placed back into the stream as partial mitigation for its removal.

A note will be added to the plan indicating any tree greater than 4-inch diameter that is removed shall be placed in the stream channel.

V. Summary of Technical Reviews

Clearing and Grading:

The Clearing and Grading Division of the Development Services Department has reviewed the proposed development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development.

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

A. Earth and Water

The project site is mapped as an area of Blakely Formation bedrock consisting of medium to coarse grained sandstone, conglomerate and minor siltstone. The western corner of the southern bridge abutment is set in glacial till composed of a mixture of sand, silty-gravel and cobbles. When devoid of vegetated, these materials can be highly erodible. The applicant proposes to prepare a Construction Stormwater Pollution Prevention Plan and a Temporary Erosion Sediment Control Plan to mitigate potential erosion during construction. The applicant will also prepare a stream bypass plan to route the surface water flow around the project area during construction. Turbidity of surface water will be monitored during construction to ensure construction activities are not contributing to downstream sedimentation. The applicant will also be required to submit information regarding the use of pesticides, insecticides, and fertilizers to avoid impacts to water resources. See Section X for a related condition of approval.

B. Animals

The project site is under a bridge and may be used by some animals as a pathway from the larger open space to the south into the vegetated greenbelt areas to the north. In fact, the bridge was designed with the intent to allow wildlife access beneath it. The proposal will not impact this design objective.

Lakemont Park and Open Space is known to contain habitat for number of species of local concern, such as Pileated Woodpecker and Merlin. Lewis Creek is about 95 feet downstream from the project area and is known to support habitat for trout and likely several other aquatic animals. No threatened or endangered species are known to be in the vicinity of the project area. The applicant is proposing minimize the removal of significant trees to the greatest extent possible to complete the construction and any trees that area removed will be placed within the stream critical area buffer to be support future wildlife habitat. See Section X for related conditions of approval.

C. Plants

Mitigation for temporary and permanent disturbance will be approved pursuant to an approved re-vegetation and monitoring plan. The final construction plan shall document the area to be disturbed and specify native plant restoration for these areas of disturbance. See Section X for related conditions of approval.

D. Noise

The site is adjacent to single-family residences whose residents are most sensitive to disturbance from noise during evening, late night and weekend hours when they are likely to be at home. Construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC) which regulates construction hours and noise levels. If work outside of these hours is needed due to the located of the project with the public right-of-way, adjacent residents will be notified in advance. See Section X for a related condition of approval.

VII. Changes to proposal as a result of City review

The original proposal called for the infill of the channel with quarry spalls (clean, angular rock). Based on the comments received from the Muckleshoot Indian Tribe Fisheries Division and the Washington Department of Fish and Wildlife, the project was modified to include rounded cobbles for the in-stream fill and the gabion baskets. Finally, the project was modified to include an engineered log-jam immediately downstream of the project site, but above the confluence with Lewis Creek. The log-jam is proposed as mitigation for the disturbance associated with the project and as a habitat enhancement feature that has the potential to retain some sediment in the tributary before flowing into Lewis Creek.

VIII. Decision Criteria

A. Critical Areas Land Use Permit Decision Criteria 20.30P

The Director may approve or approve with modifications an application for a critical areas land use permit if:

1 The proposal obtains all other permits required by the Land Use Code;

Finding: The proposed project is required to obtain a clearing and grading permit before construction can commence. The clearing and grading permit will be the mechanism for the city to review and approve of the final versions of the Construction Stormwater Pollution Prevention Plan, Temporary Erosion and Sediment Control Plan, Stream Dewatering/Bypass Plan, and the Mitigation and Restoration Plan for temporary disturbance associated with the project.

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

Finding: As discussed in Section III, the applicant investigated several alternatives

and is proposing a method that will result in a minimal amount of impact to the critical area and critical area buffer, while also protecting downstream habitat.

3 The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: As discussed in Section III, the applicant has incorporated the performance standards for stabilization measures, as well as those for stream critical areas and critical area buffers.

4 The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: The project area is currently served by adequate public facilities. The project will not change the need for public services.

5 The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: The applicant has proposed a preliminary restoration plan that includes a selection of native plants and performance standards for survival for a period of three-years. This plan meets the requirement of LUC 20.25H.210 and will be finalized for review and approval as part of the required clearing and grading permit. The final plan will document the areas of disturbance associated with the proposal and specify native plant restoration for the affected area.

6 The proposal complies with other applicable requirements of this code.

Finding: As discussed in Section III and V of this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the proposal to stabilize the bed and banks of the tributary of Lewis Creek under Lakemont Boulevard bridge #3.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Clearing and Grading Permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	Kevin LeClair, 425-452-2928
Noise Control- BCC 9.18	Kevin LeClair, 425-452-2928

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1 Mitigation and Restoration Plan for Areas of Temporary Disturbance: A final mitigation and restoration plan for all areas of temporary and permanent disturbance is required to be submitted for review and approval by the City of Bellevue prior to the issuance of the Clearing and Grading Permit. The plan shall include documentation of existing site conditions and shall identify the restoration measures to return the site to its existing conditions per LUC 20.25H.220.H.

At a minimum the plan shall include a variety of native plants, including but not limited to the following species:

- Red-osier dogwood (*Cornus sericea*)
- Pacific ninebark (*Physocarpus capitatus*)
- Oceanspray (*Holodiscus discolor*)
- Snowberry (*Symphoricarpos albus*)
- Swordfern (*Polystichum munitum*)

The quantity of plants shall be based on the total disturbed area and be installed at a minimum of 3 feet on center and be at least a 1-gallon size. Additional species and quantities may be approved if the same aerial coverage and native plant restoration intent is met.

The mitigation and restoration plan shall also provide for three-years of monitoring of the restoration effort. The monitoring shall report on the restoration effort's success at meeting the following minimum performance standards:

- Year 1 – 100% survival of all installed plants and 0% encroachment by non-native invasives.
- Year 2 – 90% survival of all installed plants and <10% encroachment by non-native invasives.
- Year 3 – 50 percent areal coverage of native plants, including naturally established plants and <10% encroachment by non-native invasives.

Authority: Land Use Code 20.25H.220.H
Reviewer: Kevin LeClair, Land Use

2 Rainy Season restrictions: Due to the proximity to Lewis Creek, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

Authority: Bellevue City Code 23.76.093.A,
Reviewer: Tom McFarlane, Clearing and Grading

3 Pesticides, Insecticides, and Fertilizers: The applicant must submit as part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

Authority: Land Use Code 20.25H.220.H
Reviewer: Kevin LeClair, Land Use

4 Noise Control: Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

Authority: Bellevue City Code 9.18
Reviewer: Kevin LeClair, Land Use

5 State and Federal Permits: Due to the proximity of the project area to navigable waters, the project shall document project approval from the Washington Department of Fish and Wildlife with an issued Hydraulic Project Approval (HPA) and approval from the Army Corps of Engineers with a Section 404 permit. The conditions of approval of these two permits shall be adopted as conditions on the subsequent clearing and grading permit. Photocopies of the approved permits shall be sufficient documentation of approval.

Authority: Land Use Code 20.30P.140
Reviewer: Kevin LeClair, Land Use

6 Tree Removal and Mitigation: Due to the proximity of stream with fish habitat, the proposal calls for minimization of tree removal. However, if trees are required to be removed, they should be shown on the approved clearing and grading plans and be mitigated based on the following schedule.

- For trees between 4"–8" diameter, the tree debris shall be left to lie in ground contact within the stream.

- For trees >8" diameter, the tree debris shall be left to lie in ground contact within the stream and at least one native conifer tree per 8 inches of diameter shall be planted in the vicinity of the project area.

Authority:

Reviewer: Kevin LeClair, Land Use

To be reviewed under Bellevue Permit
file # 12-117271-LO
Reviewer: Kevin LeClair
Contact: kleclair@bellevuewa.gov
425-452-2928

WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

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

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

Use of checklist for nonproject proposals:

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

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

A. BACKGROUND

1. Name of proposed project, if applicable: **Lewis Creek Restoration at Lakemont Blvd SE**

Retitled: Lakemont Bridge Lewis
Creek Tributary Stabilization

2. Name of applicant: **City of Bellevue**

3. Address and phone number of applicant and contact person:

Steve C Costa, P.E.
450 – 110th Avenue NE
Bellevue, WA 98009

4. Date checklist prepared: **6/26/12**

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

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

The current target for construction is fall 2012 ahead of the rainy season. If this window is not met then the project will be weathered over for construction in 2013 during the dry season.

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

Does not apply

The site will be monitored following construction to ensure stabilization methods and restoration have been successful.

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

Biological Evaluation Report by GeoEngineers (6/12)

Draft Critical Areas Report by GeoEngineers (5/12)

Geotechnical Engineering and Geomorphic by GeoEngineers (5/12)

Geotechnical Consultation Memorandum by GeoEngineers (2/07)

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

Does not apply

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

Right of Way Use Permit (TK)

Critical Areas Land Use Permit (LO)

Clearing and Grading in Critical Areas Permit (GH)

Hydraulic Permit Approval (HPA)

Section 404

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The City of Bellevue is proposing to stabilize an unnamed tributary to Lewis Creek where it passes underneath Lakemont Boulevard at Lakemont Bridge No. 3 (bridge closest to the top of the hill). Significant down-cutting and bank failure has created a deep incision in the unnamed tributary, and the ongoing erosion threatens to undermine the bridge abutments. Although the unnamed tributary is classified as non-fish seasonal channel, the ongoing erosion also affects downstream aquatic habitat in Lewis Creek. Stabilization of the eroded stream banks and bridge abutments will be accomplished by infilling the incised area with quarry spalls. A gabion wall will also be constructed at the corner of the southwest bridge abutment. The affected portion of the unnamed tributary covers about 175 linear feet or 13,000 square feet.

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

The proposed work location is where the unnamed tributary crosses under Lakemont Boulevard SE at Bridge No. 3 (approximately 1500 feet east of the 171st Avenue SE intersection).

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other
- b. What is the steepest slope on the site (approximate percent slope)?

The unnamed tributary has a gradient of about 19 percent underneath Bridge No 3 with deep incisions varying from 10 to 20 feet. The left bank face is vertical for about 7 feet before sloping back to meet the adjacent bridge abutment. The right bank face has a 60 percent gradient and is nearly 20 feet high at the downstream end.

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

The site is located within an area mapped as Blakely Formation bedrock (Tb) that consists of medium to coarse grained sandstone, conglomerate and minor siltstone. The bedrock ranges from fresh to highly weathered near the ground surface. The western corner of the southern bridge abutment is set in glacial till (Qvt), composed of a dense mixture of sand, silty, gravel and cobbles, or an unmapped colluvium composed of the Blakely Formation and till.

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

GeoEngineers visited the site in January 2007 at the request of the City of Bellevue. Down-cutting and bank failure was observed at that time. GeoEngineers issued a Draft Geotechnical Memorandum, dated February 9, 2007, describing the site conditions and presenting conceptual mitigation measures. The City of Bellevue monitored the site for increases in erosion and threats to the bridge abutments.

GeoEngineers revisited the site in October 2011 at the request of the City of Bellevue. The site had deteriorated to its current condition where a substantial amount of soil beneath the bridge has been displaced undermining of the bridge abutments in some areas. The City installed temporary mitigation measures consisting of sandbags and erosion mat with the intent of constructing a permanent mitigation scheme in the dry season.

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

Approximately 300 cubic yards of earth will be temporarily removed from the hillside adjacent to Lakemont Boulevard in order to create a construction access to the unnamed tributary. One the repair work is complete the hillside will be restored using the native material that was removed.

Approximately 810 cubic yards of quarry spalls will be used to infill the channel. The infill will prevent future channel incision and buttress the failing and eroded bridge abutment slopes. The spalls will be of sufficient size (potentially 4 to 8 inches) to resist flows in the unnamed tributary. The spalls will be placed at an inclination of 1½:1 (horizontal to vertical) against the abutment slopes. A minimum amount of spalls will be used to reduce potential impacts to the existing channel profile. Quarry spalls are commonly available.

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

Erosion could occur during the creation of the construction access, clearing and preparation of the channel, and infilling activities. Note the unnamed tributary also has an ongoing erosion problem which this proposal will repair.

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

Does not apply

The project site is largely covered by impervious surface from bridge deck.

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

A Construction Stormwater Pollution Prevention Plan (CWSPPP) and a Temporary Erosion and Sediment Control (TESC) Plan will be prepared to address and mitigate potential erosion during construction. Standard Best Management Practices (BMPs) will be used to prevent soil erosion and turbid stormwater discharge from migrating beyond the immediate work area and will be installed prior to any earth-disturbing work. The BMPs will include silt fencing and a stream bypass system. The stream bypass system will create a dry working condition to minimize the risk of stormwater runoff from the work area. Flows from the unnamed tributary will be impounded at a location upstream of the work area using a sand bag dam, or similar, routed around the work area, and released downstream from the work area. An energy dissipation device will be installed at the stream bypass system outfall to avoid unnecessary erosion and/or scour. A similar impoundment area will also be installed at the downstream end of the work area to catch any stormwater runoff from construction activities.

2. **Air**

Erosion control BMPs are required per BCC 23.76

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

Does not apply

There will be short term emissions created by equipment carrying out the proposed stabilization.

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

Does not apply

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

Does not apply

The contractor's equipment will be required to be in good operating condition in order to limit excessive emissions to the environment.

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.

The proposed project is within an unnamed tributary to Lewis Creek and the confluence with Lewis Creek is about 95 feet downstream from the site.

The tributary is classified as a Type N stream, Lewis Creek is a Type F (fish-bearing) stream.

- 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.

Stabilization of the eroded stream banks and bridge abutments will be accomplished by infilling the incised area with quarry spalls. A gabion wall will also be constructed at the corner of the southwest bridge abutment. To help mitigate the seepage induced erosion of the north abutment soils, the slope should be covered with an erosion mat and/or vegetated.

- 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 810 cubic yards of quarry spalls will be used to infill the channel. Quarry spalls are commonly available.

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

The BMPs will include a stream bypass system. The stream bypass system will create a dry working condition to minimize the risk of stormwater runoff from the work area. Flows from the unnamed tributary will be impounded at a location upstream of the work area using a sand bag dam, or similar, routed around the work area, and released downstream from the work area. An energy dissipation device will be installed at the stream bypass system outfall to avoid unnecessary erosion and/or scour.

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

There are no floodplains within the project area.

Does not apply

- 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.

Does not apply

b. Ground:

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

Does not apply

- 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.

Does not apply

c. Water runoff (including stormwater):

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

The unnamed tributary receives water from a wetland located in the residential neighborhood northeast of the site as well as surface water runoff from nearby residential homes and Lakemont Boulevard. The unnamed tributary terminates at the confluence with Lewis Creek approximately 95 feet downstream from Lakemont Bridge No. 3.

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

Since the majority of this proposal involves infilling the possibility of having waste construction materials is small. In regards to any construction equipment used onsite, the CSWPPP and TESC Plan will address accidental releases of waste material such as fuel leaks or spills of petroleum fuel products.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any: Required per BCC 23.76

A CWSPPP and TESC Plan will be prepared to address and mitigate potential erosion during construction. BMPs will be used to prevent soil erosion and turbid stormwater discharge from migrating beyond the immediate work area and will be installed prior to any earth-disturbing work. The BMPs will include silt fencing and a stream bypass system. The stream bypass system will create a dry working condition to minimize the risk of stormwater runoff from the work area. Flows from the unnamed tributary will be impounded at a location upstream of the work area using a sand bag dam, or similar, routed around the work area, and released downstream from the work area. An energy dissipation device will be installed at the stream bypass system outfall to avoid unnecessary erosion and/or scour. A similar impoundment area will also be installed at the downstream end of the work area to catch any stormwater runoff from construction activities.

The project will comply with the State of Washington Water Quality Standards identified in WAC 173-201A. Sediment migration will be monitored visually and turbidity measurements will be taken by the contractor during construction. If there is a risk that measured turbidity could exceed the relevant background criteria the work will be halted until the condition is no longer present and the cause of the sediment discharge has been addressed. It is anticipated that the project will not impact water quality downstream of the site beyond allowable limits.

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, bullrush, 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?

Construction access requires removal of some of the smaller deciduous trees along the northeast corner of the bridge

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

Does not apply

There are no known threatened or endangered species on or near the project site.

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

Disturbed areas will be stabilized and vegetated in accordance with the site restoration plan. Ground surface treatment will include placement of composted mulch, seeding, and/or planting native plant materials.

5. Animals

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

birds: hawk, heron, eagle, songbirds, other: **Merlin, Pileated woodpecker**

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.

Does not apply

There are no known threatened or endangered species on or near the project site.

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

Does not apply

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

Does not apply

Work will be conducted in the late -summer to early-fall to minimize impacts to fish species.

6. Energy and natural resources

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

Does not apply

The project will require the use of gasoline and diesel fuel to operate the equipment necessary to complete the project.

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

Does not apply

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

Does not apply

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.

Does not apply

REVIEWED
By Kevin LeClair at 1:59 pm, Jul 09, 2012

1) Describe special emergency services that might be required.

Does not apply

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

Does not apply

As part of the required Construction Stormwater Pollution Prevention Plan, a spill response plan will be required to ensure toxic or hazardous materials are prevented from entering the nearby stream.

b. Noise

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

Traffic

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

The site is located within the largely undeveloped area of the Lewis Creek Canyon with single family residential homes around the perimeter and above the work area. Vehicles traveling along Lakemont Boulevard characterize background noise levels at approximately 64.5 dBA. The trees surrounding the site will reduce noise at an approximate rate of 7.5 dBA per doubling distance (WSDOT, 2012).

The project will utilize typical diesel-powered earth moving and material handling equipment, such as, skid steers, small excavators, and trucks. This type of equipment is expected to generate point source noise of up to 92 decibels (dBA) at a distance of 50 feet (WSDOT, 2012). The hours for construction activity in the City of Bellevue are generally Monday through Friday, 7:00am to 6:00pm. The inspector assigned to the project may alter the work hours to a more suitable time with approval by the City of Bellevue ROW Use Office.

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

Does not apply

8. Land and shoreline use

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

Roadway and open space

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

Does not apply

c. Describe any structures on the site.

Lakemont Bridge No. 3 crosses the work area and the unnamed tributary. The bridge deck contains three lanes, bike lanes, a sidewalk, and safety railing. Abutment walls and gabions make up the supports beneath the bridge deck.

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

Does not apply

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

Residential, 5 units per acre (R-5)

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

Public Facilities (PF), Single-family Low-density (SF-L)

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

Does not apply

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

Steep slopes (over 40%), Urban Natural Open Space

also Stream Critical Area and Critical Area Buffer.

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

Does not apply

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

Does not apply

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

Does not apply

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

Does not apply

9. Housing

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

Does not apply

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

Does not apply

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

Does not apply

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?

Does not apply

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

Does not apply

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

Does not apply

11. Light and glare

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

Does not apply

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

Does not apply

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

Does not apply

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

Does not apply

12. Recreation

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

Sidewalk and bike lanes along Lakemont Boulevard, Lewis Creek trail system

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

Does not apply

No displacement will occur.

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

Does not apply

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.

Does not apply

None are known to exist.

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

Does not apply

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

Does not apply

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.

Lakemont Boulevard SE crosses over the site via Lakemont Bridge No. 3

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

The nearest transit stop is at the NE 171st Street intersection approximately 1500 feet east of the site

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

Does not apply

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).

Does not apply

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

Does not apply

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

Does not apply

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

Does not apply

15. Public services

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

Does not apply

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

Does not apply

16. Utilities

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

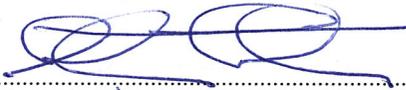
Does not apply

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.

Does not apply

C. SIGNATURE

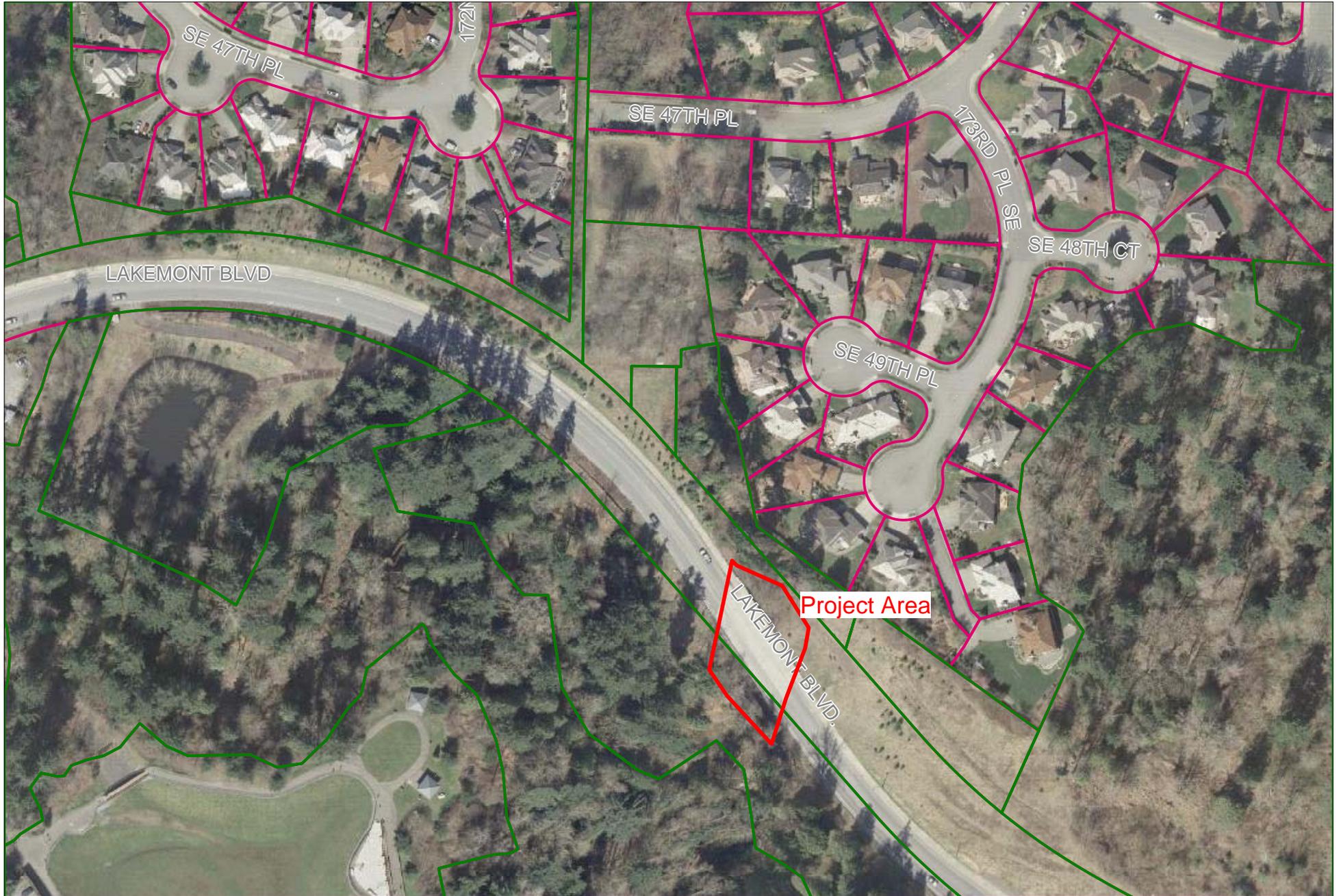
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

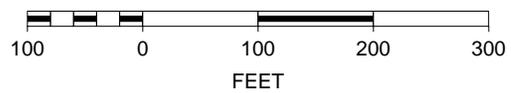
Date Submitted: 7/2/12

REVIEWED
By Kevin LeClair at 2:10 pm, Jul 09, 2012

Lakemont Bridge Lewis Creek Tributary Stabilization 12-117271-LO



SCALE 1 : 1,986



N





CITY OF BELLEVUE

TRANSPORTATION DEPARTMENT

LEWIS CREEK TRIBUTARY RESTORATION AT LAKEMONT BLVD SE

CITY MANAGER
STEVE SARKOZY

DEPUTY MAYOR
JENNIFER ROBERTSON

MAYOR
CONRAD LEE

CITY COUNCIL
CLAUDIA BALDUCCI
JOHN CHELMINIAK
DON DAVIDSON
JOHN STOKES
KEVIN WALLACE

DIRECTOR OF TRANSPORTATION
DAVID BERG

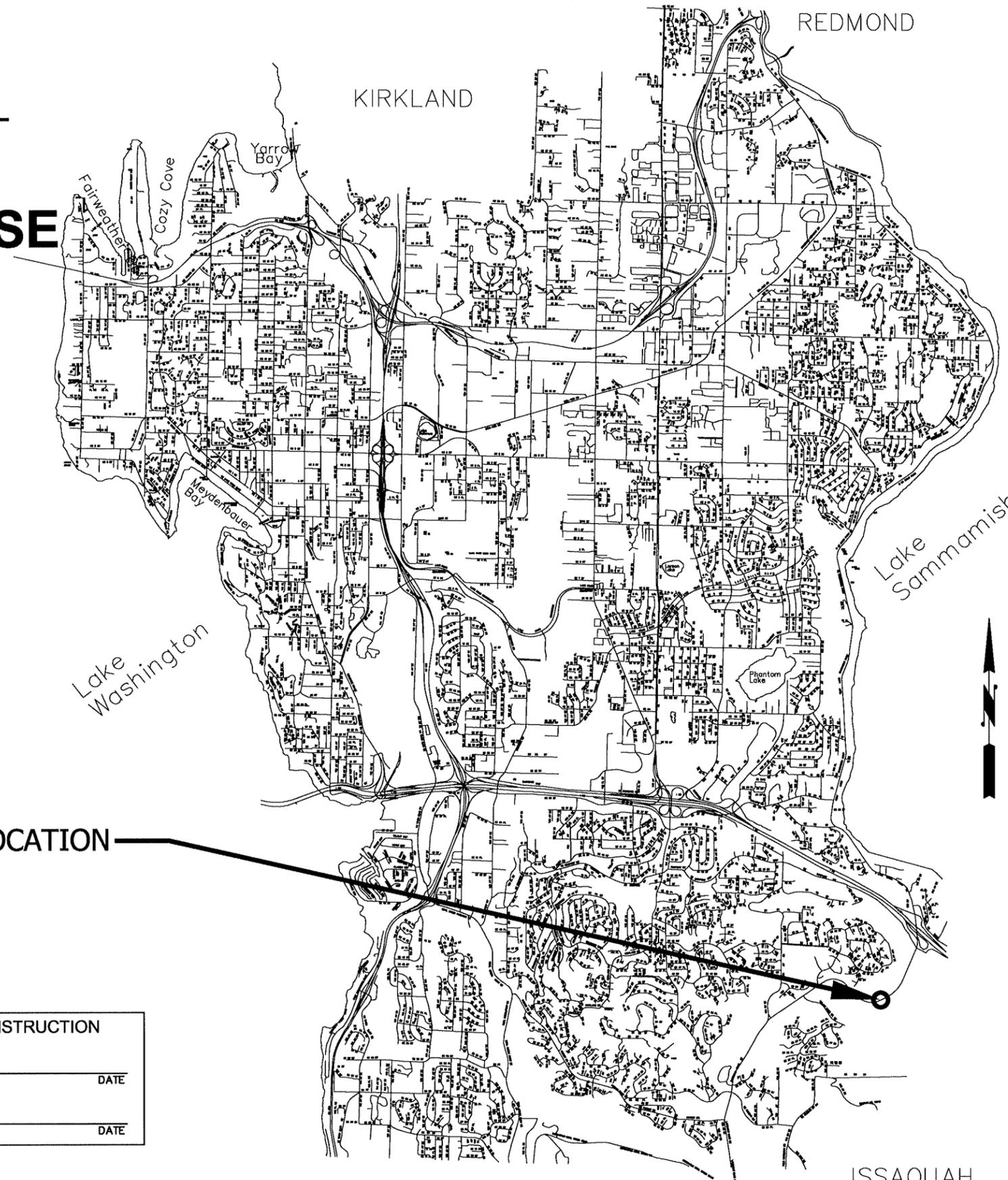
SCHEDULE OF DRAWINGS

SHEET	DRAWINGS
1	COVER SHEET
2	SITE PREPARATION AND EROSION CONTROL PLAN
3	CIVIL PLAN AND PROFILE
4	TYPICAL SECTIONS & DETAILS
5	LANE CLOSURE & TRAFFIC CONTROL PLAN

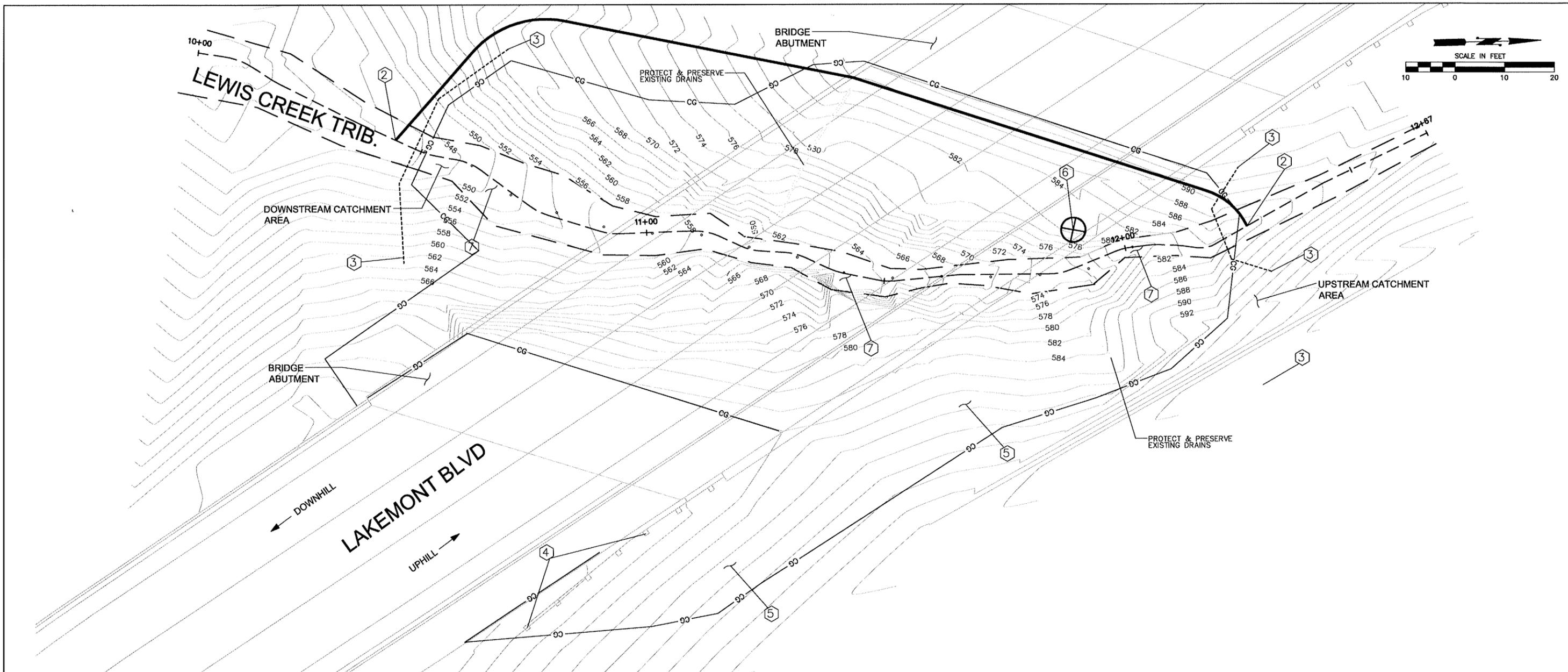
60% DESIGN

C.I.P. NUMBER PW-M-1
BID NUMBER XXXXX

APPROVED FOR CONSTRUCTION	
TRANSPORTATION DESIGN MANAGER	DATE
PROJECT MANAGER	DATE



PROJECT LOCATION

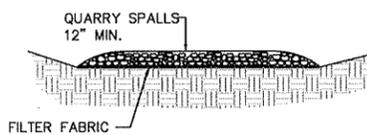


SITE PREPARATION EROSION CONTROL GENERAL NOTES

1. CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 48 HOURS PRIOR TO CONSTRUCTION.
2. PROVIDE, INSTALL, AND MAINTAIN TEMPORARY CHAIN LINK FENCE AROUND LIMITS OF THE PROJECT SITE FOR THE DURATION OF CONSTRUCTION.
3. THE CONTRACTOR SHALL SUBMIT A FINAL TESC PLAN AND CSWPPP REFLECTING THE CONTRACTORS OPERATIONS PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL PROVIDE PROVIDE A TURBIDITY MONITORING PLAN AND MONITOR TURBIDITY THROUGHOUT THE PROJECT AS REQUIRED BY THE CITY OF BELLEVUE CLEAR AND GRADE PERMIT.
5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A BYPASS PLAN TO THE CITY FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE BYPASS PLAN SHALL INCLUDE LOCATION OF FLOW DIVERSION, BYPASS PIPE SIZE AND MATERIAL, PUMP SIZE, EMERGENCY PROCEDURES FOR HIGH FLOW EVENTS INCLUDING ADDITIONAL PIPES AND PUMPS.
6. USE OF HEAVY EQUIPMENT SHALL BE LIMITED TO THE WORK AREAS DELINEATED ON THE PLAN.
7. FOR CENTERLINE AND SITE RESTORATION INFORMATION, SEE SHEET 3.

LEGEND

- TREE STUMP TO BE REMOVED
- APPROX. HAUL ROAD LOCATION
- APPROX. CLEAR AND GRUBB LIMITS/WORK LIMITS
- SILT FENCE



TEMPORARY HAUL ROAD SECTION
NOT TO SCALE

SITE PREPARATION AND EROSION CONTROL NOTES

- ① PROVIDE AND INSTALL CATCH BASIN INLET PROTECTION PER COB STD. DWG. NO. EC-6.
- ② PROVIDE AND INSTALL TEMPORARY DRAINAGE BYPASS AROUND THE WORK AREA, PRIOR TO THE START OF THE CLEARING AND EXCAVATION. SEE GENERAL NOTE 5 FOR ADDITIONAL REQUIREMENTS.
- ③ PROVIDE AND INSTALL SILT FENCE PER WSDOT STD. PLAN NO. 1-30.15-00.
- ④ REMOVE EXISTING GUARDRAIL TERMINAL. STRAIGHT SECTIONS OF GUARDRAIL TO REMAIN
- ⑤ CONSTRUCT TEMPORARY HAUL ROAD PER SECTION, THIS SHEET. RESTORE SLOPE TO PRE-CONSTRUCTION CONDITIONS AFTER CONSTRUCTION IS COMPLETE. HYDROSEED RESTORED SLOPE.
- ⑥ REMOVE TREE STUMP.
- ⑦ CLEAR CHANNEL AND SLOPES OF ROCKS, DEBRIS, AND VEGETATION WITHIN THE LIMITS SHOWN.

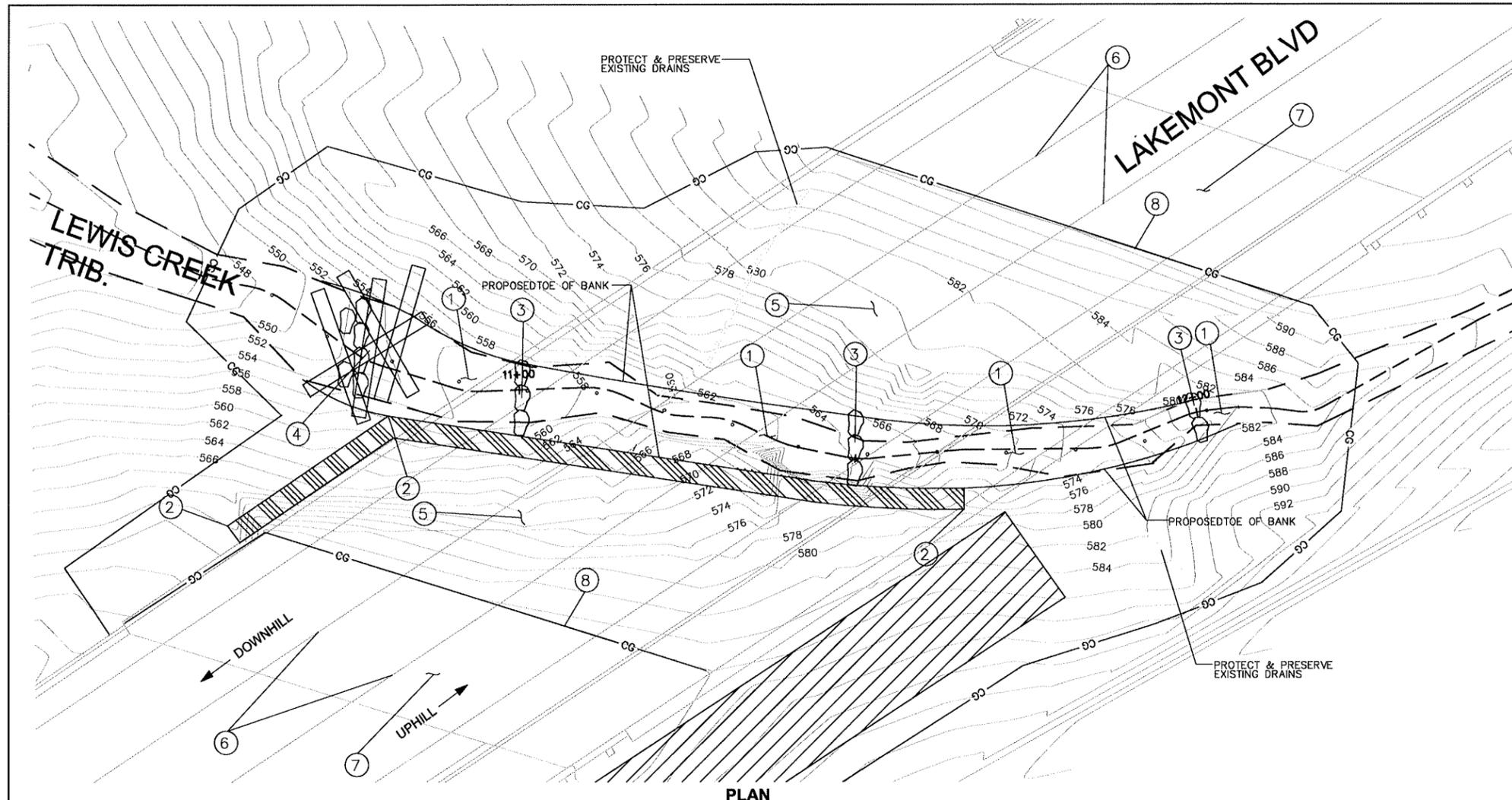
NO.	DATE	BY	APPR.	REVISIONS

Approved By	
TRANSPORTATION DESIGN MANAGER	DATE
PROJECT MANAGER	DATE

CM/SC	06/12
DESIGNED BY	DATE
C. Maak	06/12
DRAWN BY	DATE
S. Costa	06/12
CHECKED BY	DATE

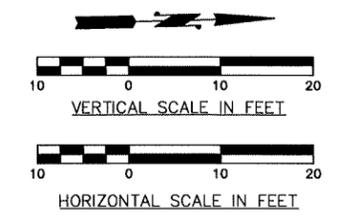


LEWIS CREEK TRIBUTARY RESTORATION AT LAKEMONT BLVD SE



LEGEND

- 2 MAN ROCK
- APPROX. HAUL ROAD LOCATION
- APPROX. CLEAR AND GRUBB LIMITS/WORK LIMITS
- GABION WALL



CONSTRUCTION NOTES

- ① EXCAVATE AND GRADE NEW STREAMBED CHANNEL PER PROFILE THIS SHEET, AND GRADING TABLES & TYPICAL STREAM SECTIONS, SHEET 4
- ② EXCAVATE AND CONSTRUCT GABION WALL PER WSDOT STD. PLAN NO. D-6 AND DETAILS, SHEET 4.
- ③ PROVIDE AND INSTALL 2 MAN ROCK DAMS IN STREAM CHANNEL AT STA. 11+00, 11+50 AND 12+00 PER DETAILS AND TYPICAL PROFILE, SHEET 4. PLACE STREAMBED COBBLES IN THE STREAMBED CHANNEL PER TYPICAL SECTIONS AND TYPICAL PROFILE, SHEET 4.
- ④ PROVIDE LARGE WOOD MATERIAL AND CONSTRUCT LOGJAM PER DETAILS, SHEET 5.
- ⑤ PROVIDE AND INSTALL 4"-8" QUARRY SPALLS AT A SLOPE OF 1.5:1 FOR SLOPE PROTECT ABOVE THE CHANNEL AND GABION WALL.
- ⑥ REMOVE EXISTING RAISED PAVEMENT MARKINGS FROM BRIDGE DECK AND PRESSURE THE BRIDGE DECK.
- ⑦ PRESSURE WASH, SHOT BLAST AND SEAL EXISTING BRIDGE DECK.
- ⑧ REMOVE EXISTING BRIDGE EXPANSION JOINT AND REPLACE WITH NEW ELASTOMERIC COMPRESSION SEAL MANUFACTURED BY DS BROWN, WATSON BOWMAN ACME OR APPROVED EQUAL.

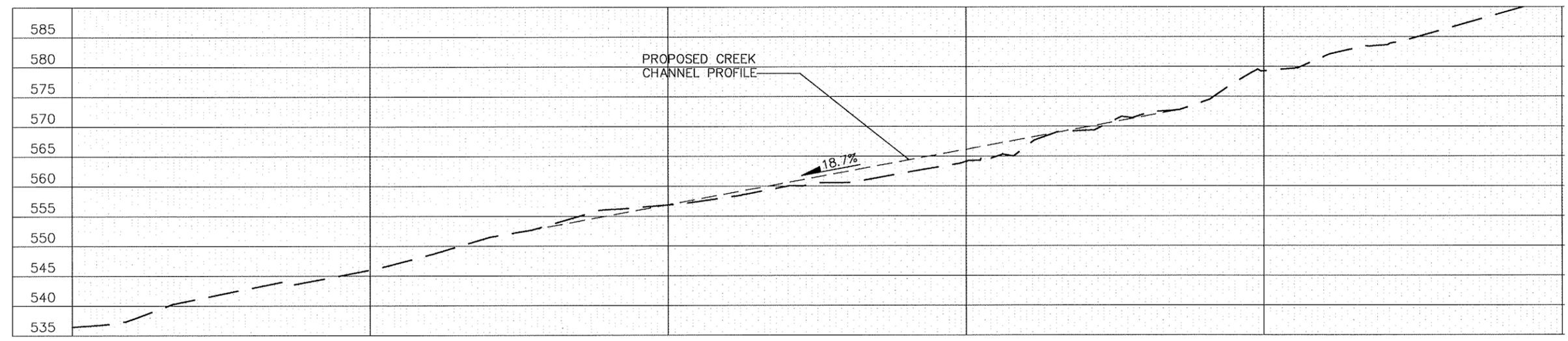
CONSTRUCTION GENERAL NOTES

1. CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 48 HOURS PRIOR TO CONSTRUCTION.
2. PROVIDE, INSTALL, AND MAINTAIN TEMPORARY CHAIN LINK FENCE AROUND PROJECT SITE FOR THE DURATION OF CONSTRUCTION.
3. USE OF HEAVY EQUIPMENT SHALL BE LIMITED TO THE WORK AREAS DELINEATED ON THE PLAN.
4. FOR SITE PREPARATION AND EROSION CONTROL PLAN, SEE SHEET 2.

TRAFFIC CONTROL NOTES

1. TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE CITY.
2. WORK HOURS FOR CONSTRUCTION INCLUDING LANE CLOSURES WILL BE 7 AM TO 6 PM MONDAY THROUGH FRIDAY.
3. CONTRACTOR SHALL PROVIDE PROJECT SPECIFIC TRAFFIC CONTROL PLAN AT LEAST 10 DAYS PRIOR TO CONSTRUCTION.
4. THE CITY HAS PROVIDED A TRAFFIC CONTROL PLAN FOR THE CLOSURE OF THE UPHILL RIGHT LANE FOR STAGING CONSTRUCTION ON SHEET X. THE CONTRACTOR SHALL SUBMIT PROJECT SPECIFIC TRAFFIC CONTROL PLAN REFLECTING THEIR WORK ACTIVITIES IF THEY DIFFER FROM THE TRAFFIC CONTROL PLANS SHOWN IN THE CONTRACT PLANS. REVISED TRAFFIC CONTROL PLANS SHALL APPROVED BY THE CITY AND SHALL BE SUBMITTED LEAST 10 DAYS PRIOR TO CONSTRUCTION.

PLAN

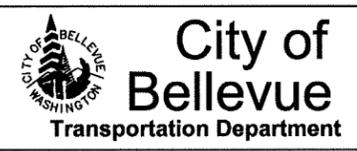


STREAM CENTERLINE PROFILE

NO.	DATE	BY	APPR.	REVISIONS

Approved By	
TRANSPORTATION DESIGN MANAGER	DATE
PROJECT MANAGER	DATE

CM/SC	08/12
DESIGNED BY	DATE
C. Marek	08/12
DRAWN BY	DATE
S. Costa	08/12
CHECKED BY	DATE



LEWIS CREEK TRIBUTARY RESTORATION AT LAKEMONT BLVD SE

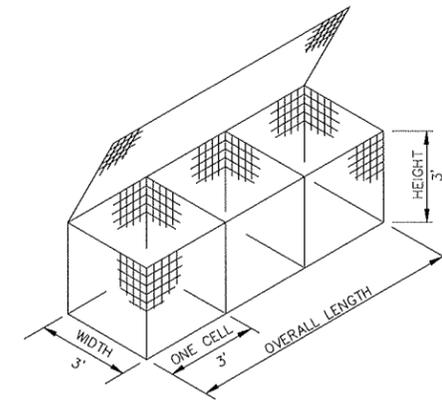
CIVIL PLAN & PROFILE

TABLE 1: STREAMBED CENTERLINE CONTROL

TO BE ADDED AFTER DESIGN IS FINALIZED

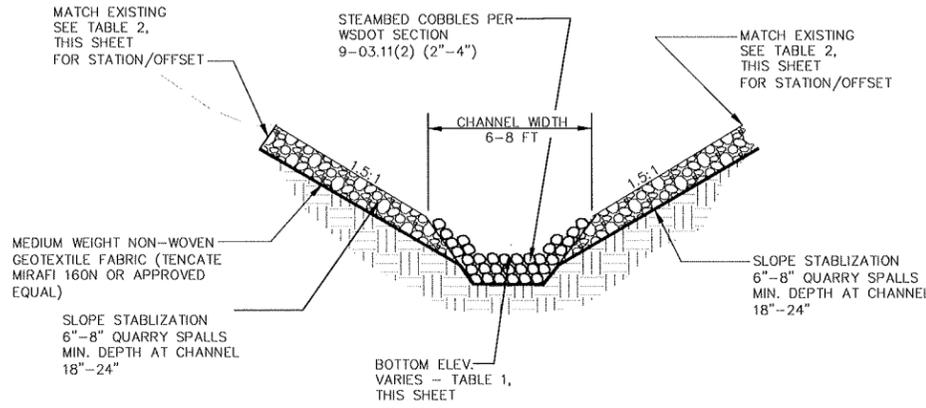
TABLE 2: GRADING AND MATCH POINT TABLE

TO BE ADDED AFTER DESIGN IS FINALIZED

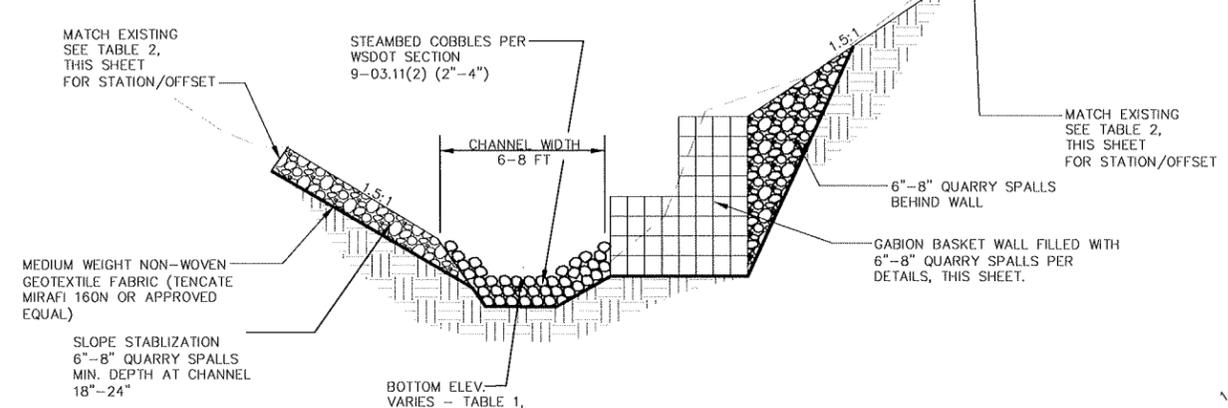


UNIT A - 2 CELL GABION = 6'
 UNIT B - 3 CELL GABION = 9'
 UNIT C - 4 CELL GABION = 12'

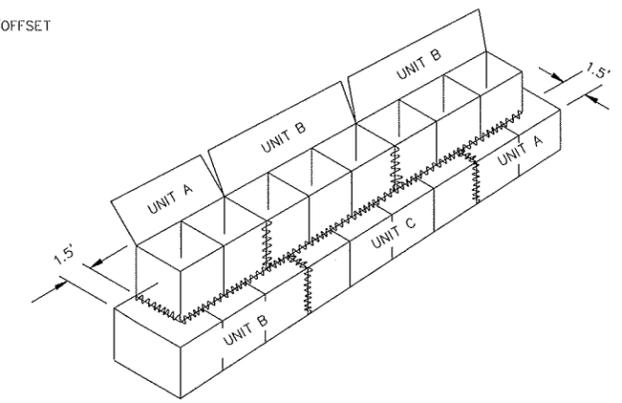
TYPICAL GABION BASKET
NOT TO SCALE



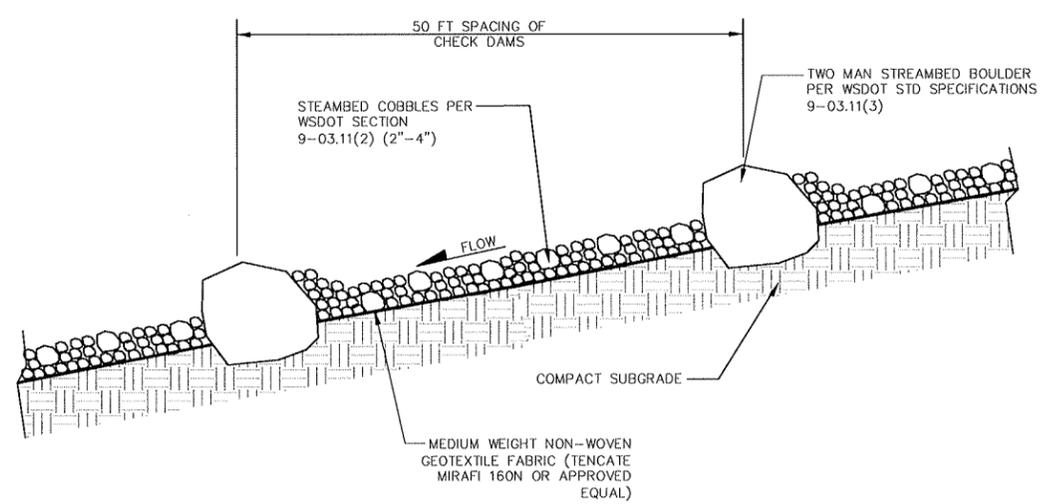
TYPICAL STREAM SECTION WITHOUT GABION WALL
NOT TO SCALE



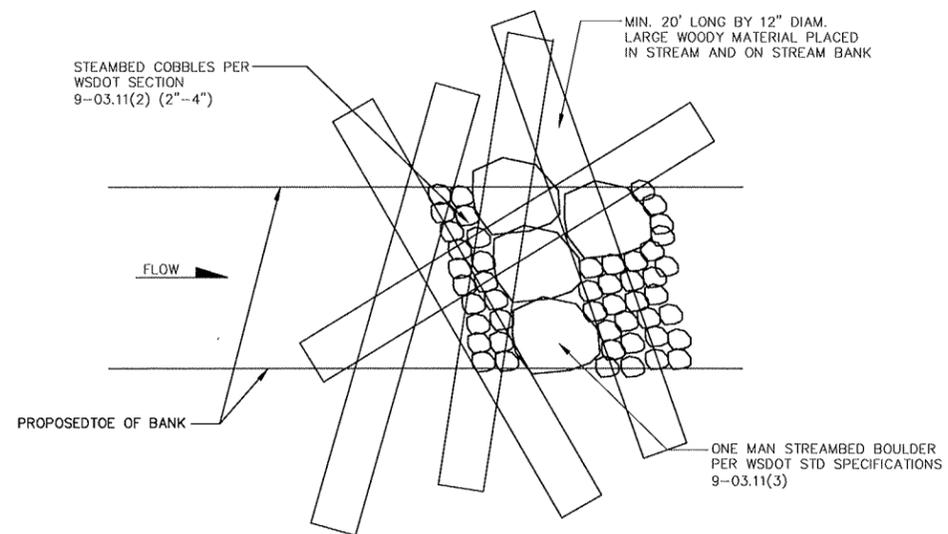
TYPICAL STREAM SECTION WITH GABION WALL
NOT TO SCALE



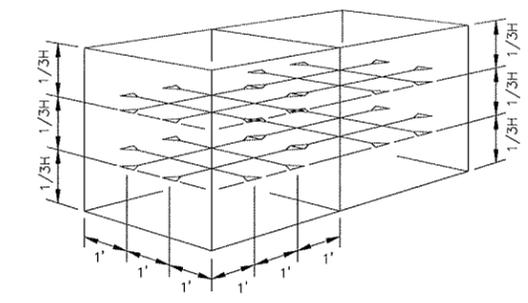
TYPICAL GABION STACKING AND FASTENING DETAIL
NOT TO SCALE



TYPICAL CHANNEL PROFILE
NOT TO SCALE



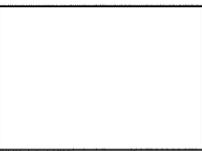
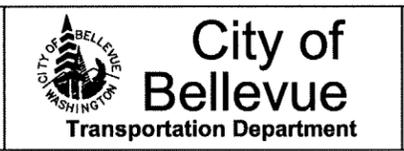
LOGJAM DETAIL
NOT TO SCALE



TYPICAL GABION CONNECTING WIRE DETAILS
NOT TO SCALE

NO.	DATE	BY	APPR.	REVISIONS

Approved By		CM/SC	08/12
TRANSPORTATION DESIGN MANAGER	DATE	DESIGNED BY	DATE
		C. Masek	08/12
PROJECT MANAGER	DATE	DRAWN BY	DATE
		S. Costa	08/12
		CHECKED BY	DATE



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