

Some of the enclosures that were originally attached to the SEPA memo have been incorporated into the Staff Report and are identified in the table below. The left column provide the enclosure number that was removed and the right column lets you know where to locate that document in the staff report attachments.

SEP08-00009 Enclosure #	ZON06-00025 Attachment #
5	5
8.a	7.a
8.b	7.b
8.c	7.c
8.d	7.d
8.e	7.e
8.f	7.f
8.g	7.g
8.h	7.h
8.i	7.i
8.j	7.j
8.k	7.k

ENCLOSURE SEPA 6a
ZON06-00025



CITY OF KIRKLAND

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MEMORANDUM

To: Rob Jammerman, Development Engineering Manager
From: Stacey Rush, PE, Surface Water Utility Engineer
Date: 04/23/07
Subject: 10850 NE 68th Street – Stormwater Review (revised memo)

A review of the preliminary drainage design for the proposed project at 10850 NE 68th St (ZON06-00025) has been completed. Surface Water review comments are listed below, along with comments regarding additional permit conditions:

1. Conveyance – pipe size requirements

- If a new culvert is installed to contain the open channel stream, it must be able to convey at least 48.04 cfs (based on the downstream analysis). The following design options are recommended in the downstream analysis:
 - 18" diameter at minimum slope of 17.73%
 - 21" diameter at minimum slope of 7.79%
 - 24" diameter at minimum slope of 3.82%
 - 30" diameter at minimum slope of 1.16%

- The existing pipe directly downstream from the open channel is 18" diam. Our storm maps do not indicate a pipe slope, but it is likely to be less than 17.73% and therefore undersized. If this project drains to the stream, then the downstream pipes may need to be replaced. This project will likely drain to the storm system on NE 68th St, which has sufficient capacity.

I have added PW surface water conditions #8 and #9 to permit ZON06-00025 to reflect the required pipe size & slope, and potential pipe replacement if the project drains to the stream.

2. Downstream Analysis - incorrect information

- The Downstream Analysis submitted by the applicant contains the following incorrect information:
 - The open channel stream is called a "ditch" throughout the report.
 - The report incorrectly states flow control is not required. Level 1 flow control is required for all impervious area created by this project.
 - The report incorrectly states a Temporary Erosion and Sediment Control Plan is not required. A TESC Plan is required per the 1998 KCSWDM.

Existing conditions on permit ZON06-00025 require the above information to be submitted, so additional conditions are not necessary.

3. Submitted Plan

- Sheet A-1.1 calls out an 18" culvert, but does not include the 17.73% slope required by the downstream analysis. 17.73% slope may be unreasonable for the project site, so the 21" diameter pipe at 7.79% slope is more applicable to this project.

- No other drainage structures are shown on the plans, but they will be necessary when submitted for the LSM or BLD permit.

Existing conditions on permit ZON06-00025 require the above information, so additional conditions are not necessary.

cc: Desiree Goble, Planner