

Long Residence

Downstream Analysis Report

Mercer Island Permit No.: 2508-232

October 17, 2025

For:

Boreth Long

6905 96th Ave SE,

Mercer Island, WA 98040

Prepared By:

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Offsite Analysis

Task 1 Study Area Definition and Maps

The project site (Parcel No. 302405-9103; 6905 96th Ave SE, Mercer Island) is a rectangular 0.47-acre lot located southwest of the intersection of SE 69th St and 96th Ave SE.

Task 2 Resource Review

There are no Wetlands on the site or in the immediate vicinity.

There are no potential steep slope hazards on the site or in the immediate vicinity.

The project site is not mapped as susceptible to groundwater contamination.

The project site is not in a critical aquifer recharge area.

The site is mapped as a Wind Speed-Up area.

The site is mapped as infeasible for infiltration.

The southeastern portion of the lot is mapped as a potential slide hazard.

The southeastern portion of the lot is mapped as a potential erosion hazard area.

Task 3 Field Inspection

Upstream Tributary Area

The adjacent properties to the west (upstream) are similar developed small residential lots. Minimal offsite flows enter the project site.

Downstream Drainage

Under existing conditions any flows that leave the site flow east into 96th Ave SE and are collected by the existing City of Mercer Island stormwater infrastructure. There are no documented downstream drainage complaints at this time.

Threshold Discharge Area Downstream Flow Path Photos:



Picture 1

Traveling along SE 69th St, facing east towards 96th Ave SE. The subject is to the right of the CB #1. CB #1 shown (Per City of Mercer Island GIS SD-CB-40a-64, Type I), receives flows from the west and directs them east approximately 22 ft.



Picture 2

At the intersection of SE 69th St and 96th Ave SE, facing southwest from the east side of 96th Ave SE. CB #2 shown (Per City of Mercer Island GIS SD-CB-40a-34, Type I), receives flows from the west (CB #1) and directs them south approximately 59 ft.



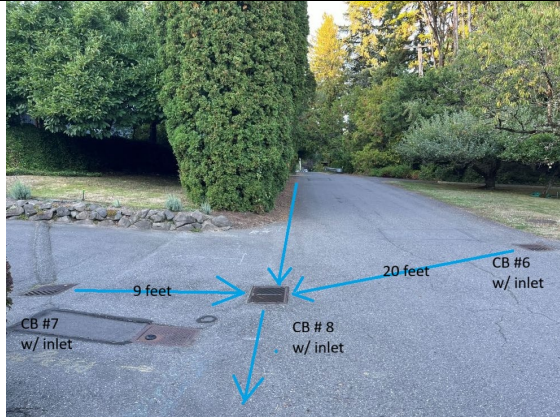
Picture 3

Traveling along 96th Ave SE facing south. CB #3 shown (Per City of Mercer Island GIS SD-CB-40a-40, Type I), collects road runoff and is routed 14 ft to CB #4. CB #4 shown (Per City of Mercer Island GIS SD-CB-40a-41, Type I), receives flows from the east (CB #3), and from the north (CB #2), and directs them south approximately 65 ft.



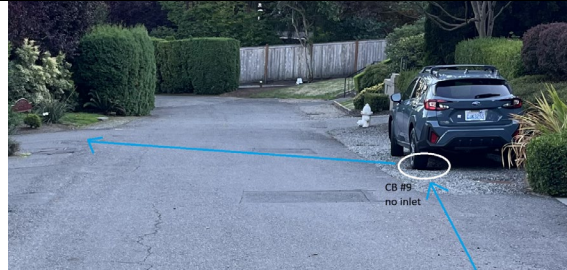
Picture 4

Traveling along 96th Ave SE facing south. CB #5 shown (Per City of Mercer Island GIS CB SD-CB-40a-19, Type II) receives flows from the north (CB #4) and directs them south approximately 63 ft.



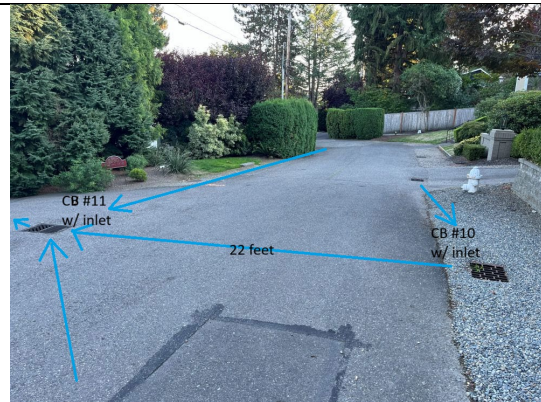
Picture 5

Traveling along 96th Ave SE facing north. CB #8 shown (Per City of Mercer Island GIS SD-CB-40a-20, Type I) receives flows from the north (CB #5), from the west (CB #7 shown, Per City of Mercer Island GIS SD-CB-40a-21, Type I), and from the east (CB #6 shown, Per City of Mercer Island GIS SD-CB-40a-43, Type I) directs them to the south approximately 41 ft.



Picture 6

Traveling along 96th Ave SE facing south. CB #9 shown (Per City of Mercer Island GIS SD-CB-40a-65, Type II / Manhole), receives flows from the north (CB #8) and directs them to the southeast approximately 32 ft.



Picture 7

Traveling along 96th Ave SE facing north. CB #11 shown (Per City of Mercer Island GIS SD-CB-40a-23, Type I) receives flows from the northwest (CB #9), from the east (CB #10 shown, Per City of Mercer Island GIS SD-CB-40a-22, Type I), and from the south (CB not shown, Per City of Mercer Island GIS SD-CB-40a-18, Type I) and directs them east along the private drive approximately 137 ft.



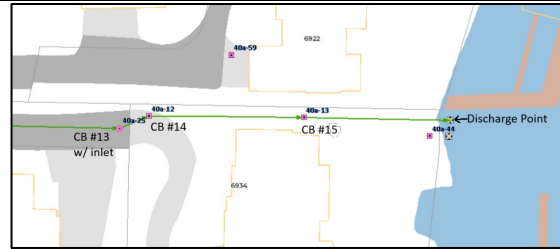
Picture 8

Traveling along the private drive off of 96th Ave SE (across from 6921 96th Ave SE), facing east. CB #12 shown (Per City of Mercer Island GIS SD-CB-40a-24, Type I), receives flows from the west (CB #11) and directs them to the east approximately 36 ft.



Picture 9

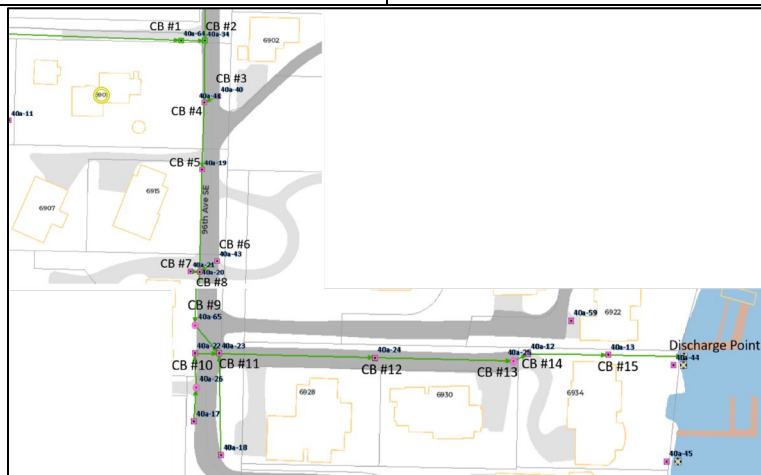
Traveling along the private drive off of 96th Ave SE (across from 6921 96th Ave SE), facing west. CB #13 shown (Per City of Mercer Island SD-CB-40a-25, Type II / Manhole), receives flows from the west and directs them east approximately 150 ft through two other CBs to a discharge point directly into Lake Washington.



Picture 10

CB #13 flows northeast 15 ft to CB #14 (Per City of Mercer Island GIS SD-CB-40a-12, Type: unknown), 70ft east to CB #15 (Per City of Mercer Island GIS SD-CB-40a-13, Type: unknown), and then 65 ft east to the discharge point into Lake Washington.

Downstream of CB #13 to the discharge location are connected by 12” concrete pipe. CB #14 and #15 and the discharge point were not visually inspected due to private property restrictions.



Picture 11

Aerial View of ¼ Mile Downstream Stormwater Infrastructure Network
(Per City of Mercer Island GIS).

Downstream Drainage Review

During the field inspection downstream drainage conditions were confirmed to flow south within 96th Ave SE and then east within the private drive, located across from 6921 96th Ave SE, through a series of catch basin until reaching the discharge point into Lake Washington. No concerns were documented during the field inspection. It is not anticipated that the proposed project will negatively impact the existing downstream drainage system.

Task 4 Drainage System Description and Potential Problems

Flows onsite generally travel east where they enter into the street and are collected by the existing City of Mercer Island stormwater infrastructure in 96th Ave SE. There are no known public drainage system concerns in the vicinity of the site.

Task 5 Mitigation of Existing and Potential Problems

Downstream Drainage Problems Requiring Special Attention

Type 1 – Conveyance System Nuisance Problems

There are no known, reported, or observed current downstream conveyance problems.

Type 2 – Severe Erosion Problems

There are no known, reported, or observed current downstream severe erosion problems.

Type 3 – Severe Flooding Problems

There are no known, reported, or observed current downstream severe flooding problems.