

CITY OF KIRKLAND
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DEPARTMENT OF PUBLIC WORKS
PRE-APPROVED PLANS POLICY

Policy D-9: STORMWATER PUMP SYSTEM REQUIREMENTS

Pump systems may be used for conveyance of stormwater flows from a project site, if no other feasible option exists. Pumping should be used only as a last resort. Before proposing a pump system, it must be demonstrated that all other feasible gravity discharge options have been thoroughly evaluated and found infeasible. As part of this evaluation, the applicant shall pursue potential gravity discharge through adjoining properties. This includes requesting easements from neighboring property owners and offering fair market value compensation for such easements (actual dollar value with supporting appraisal). At minimum, a certified letter and receipt of the letter must be provided to show documentation that the offer has been made and received by the property owner. If all neighboring property owners declined, the applicant must provide documentation of the request, offers, and responses.

If the Public Works Department approves the use of a pump system, it shall meet the following minimum requirements:

- 1) Surface Water Adjustment will be required and shall discuss and justify Core requirements 1, 2, and 4 regardless of the level of the review.
- 2) The pump system must be privately owned and maintained. The pump system must have a dual pump (alternating), unless otherwise approved by the Public Works Department.
- 3) The pump system shall be used to convey water from one location or elevation to another within the project site, prior to gravity discharge to the public storm drainage system.
- 4) The pump system shall be connected to an emergency backup natural gas generator system. For all other alternatives, such as battery powered systems, may be proposed for review as a stormwater adjustment (see Policy D-11). A minimum of 48 hours of backup power is required onsite. Show the location of the generator pad on the site plan See 115.115.3p of KZC for location requirements and confirm with the Planning/Building Department prior to installation
- 5) To determine the flow to size the pump, use an approved model per the 2021 King County Surface Water Design Manual at a 15-minute time step.
- 6) All pumps shall be equipped with an external visual and audible alarm system.
- 7) The pump system shall not violate any City ordinances or codes.
- 8) The gravity-flow components of the drainage system to and from the pump system must be designed so that pump failure does not result in flooding of a building or emergency access, or overflow to a location other than the natural discharge point for the project site. An overflow/flooding hold-harmless agreement may be required at the discretion of Public Works.

- 9) The pump system shall be designed by a licensed Civil Engineer. At a minimum, the civil plans should specify the catch basin structure size/type (minimum Type 2 – 48in catch basin), pump size/type, rim and invert elevations, and a plan view of the force main and the transition to gravity sewer.
- 10) No forced main system shall be directly connected to the City's storm conveyance. All forced main from pump systems shall connect to a CB or yard drain on site and gravity to the storm system in the right-of-way.