

Bulletin

Heat Pumps for Ground-Oriented Dwellings

Effective November 27, 2018

Last amended July 30, 2021

Authority: Director of Planning

Background and Context

The purpose of this bulletin is to provide clarification regarding the process and submission requirements for installing heat pumps in existing ground-oriented dwellings.

It is the responsibility of the owner and the licensed electrical contractor to ensure the heat pump is sited to minimize noise and other impacts on neighbouring properties as required by the City of Vancouver Noise By-Law 6555.

For units located on balconies in multi-family buildings, please refer to the “Air Conditioning Units and/or Heat Pumps on Balconies” bulletin.

For general information about heat pumps, please visit vancouver.ca/heatpumps.

1 Ground-Mounted Air Source Heat Pump Applications

Air source heat pumps will be considered as outright development in residential district schedule areas provided that the installation of the heat pump meets the following conditions (see Appendix A):

- (a) The outdoor mechanical unit must be (1) electric-based (2) ground-mounted and (3) an inverter variable speed model with a maximum noise output of 55 dB(a);
- (b) The mechanical unit is located in the FRONT or REAR yard, and fully backing against the building (see section 3: Heat Pump Siting) in a location that is least visible/audible to neighbours;
- (c) A maximum of one exterior unit per yard is permitted. Stacked units (multiple fans) are permitted in the front yard if screened from street view by landscape features.

If the above criteria are met, a licensed contractor can:

- (d) Apply directly for an electrical permit online; and
- (e) Apply online for a gas and/or plumbing permit if altering, adding or decommissioning gas or plumbing appliances are within the scope of work.

Proposals that meet the criteria in (a) but not (b) and (c) can apply for an electrical permit online, but it may require further review.

Installation:

- (f) Ensure that the mechanical unit is installed as per the manufacturer’s instructions; and
- (g) For homes with a 125 amp electrical panel or smaller, the licensed electrical contractor should complete a load calculation to ensure sufficient service capacity.

2 Other Heat Pump Applications

Most wall-mounted applications will require a review of site location and potential structural impact on the building. A combined Development and Building Permit may be required, in addition to the electrical permit.

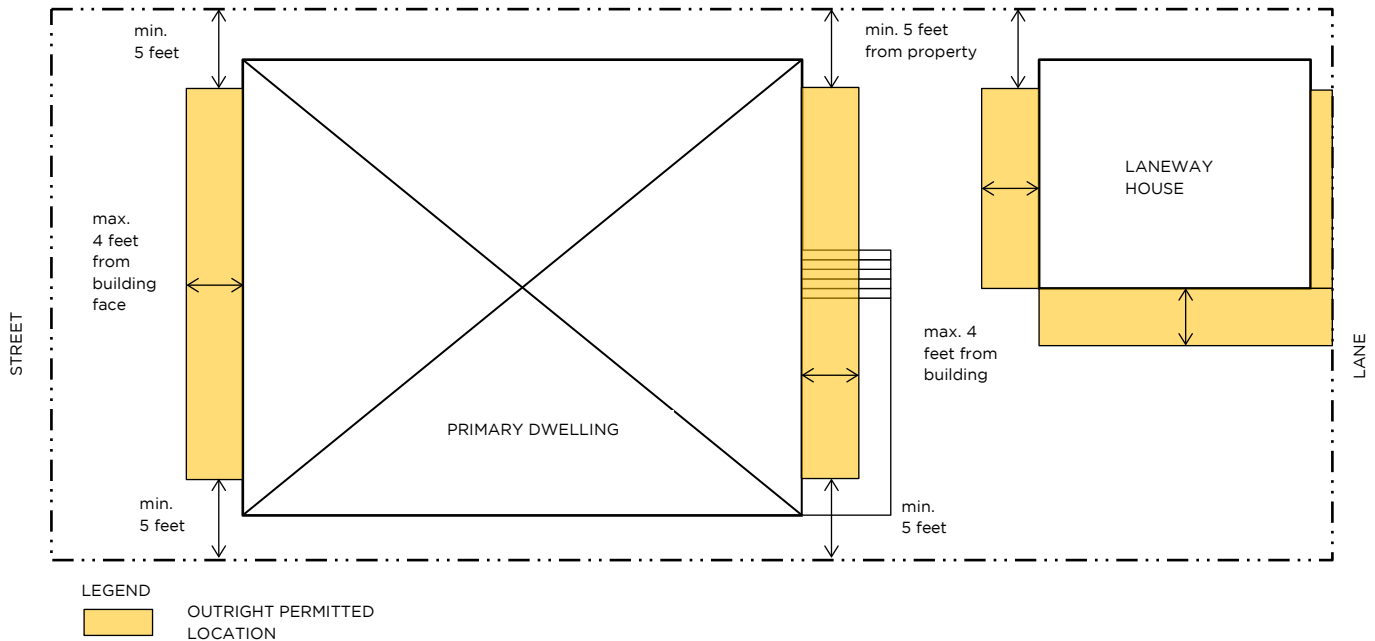
Heat pumps that extract heat from water (water-source) or from underground (ground-source) require additional review.

For questions about the permit process for installing heat pumps in existing ground-oriented dwellings, please contact HP Retrofit Permit Information at hp-retrofit-permits@vancouver.ca.

For other questions, please contact the Development, Buildings, and Licensing department at <https://vancouver.ca/home-property-development/contact-development-buildings-or-licensing.aspx>. Phone service is available at 311.

3 Heat Pump Siting

The outright locations for heat pumps on a residential lot are shown in the yellow boxes in this plan.

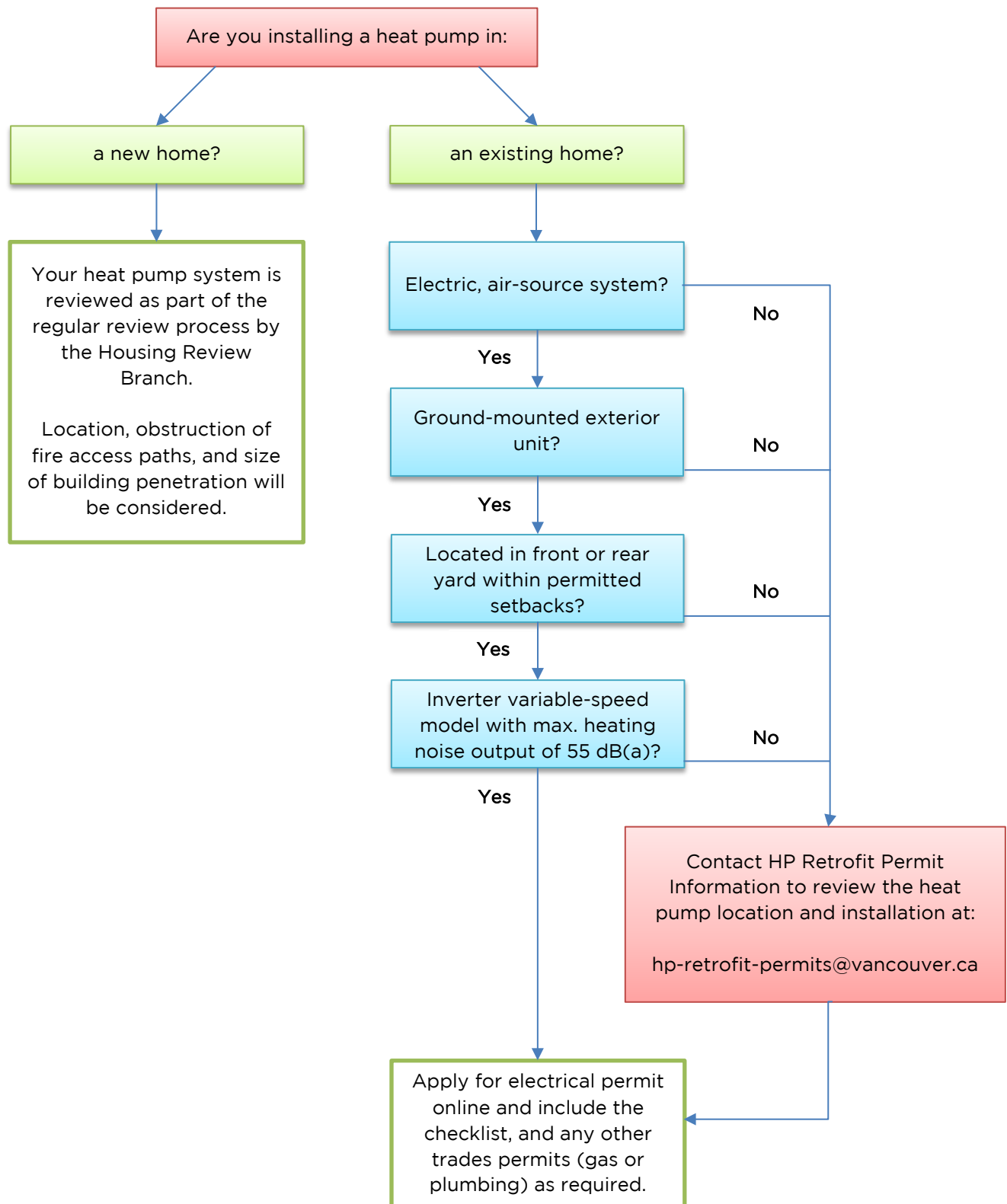


NOTES

The exterior unit must not:

- 1) interfere with parking access;
- 2) block suite access; or
- 3) have condensation outlets that are located to drain onto pathways

Appendix A: Air-Source Heat Pump Permitting Process





Checklist – Electrical Permit Application for Heat Pump for Ground-Oriented Dwelling

(May 2021)

Project Address:		Date:
<p>This application meets the criteria in Section 1 and 3 of the Heat Pumps for Ground-Oriented Dwellings bulletin, including:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Electric-based inverter variable speed model <input type="checkbox"/> Ground mounted <input type="checkbox"/> Maximum noise output of 55 dB(a) <input type="checkbox"/> Located in the front or rear yard, at least 5 feet away from a side property line, and within 4 feet of the building <input type="checkbox"/> Maximum of one exterior unit per yard <input type="checkbox"/> Stacked units (multiple fans) if located in the front yard are screened from street view by landscape features 		
<p>If, at any point, the installation does not meet the requirements as outlined in this bulletin, the owner may be required to obtain a development or building permit.</p> <p>For strata buildings, written permission for the installation shall be obtained before work commences.</p>		
Applicant Signature:	Date:	