

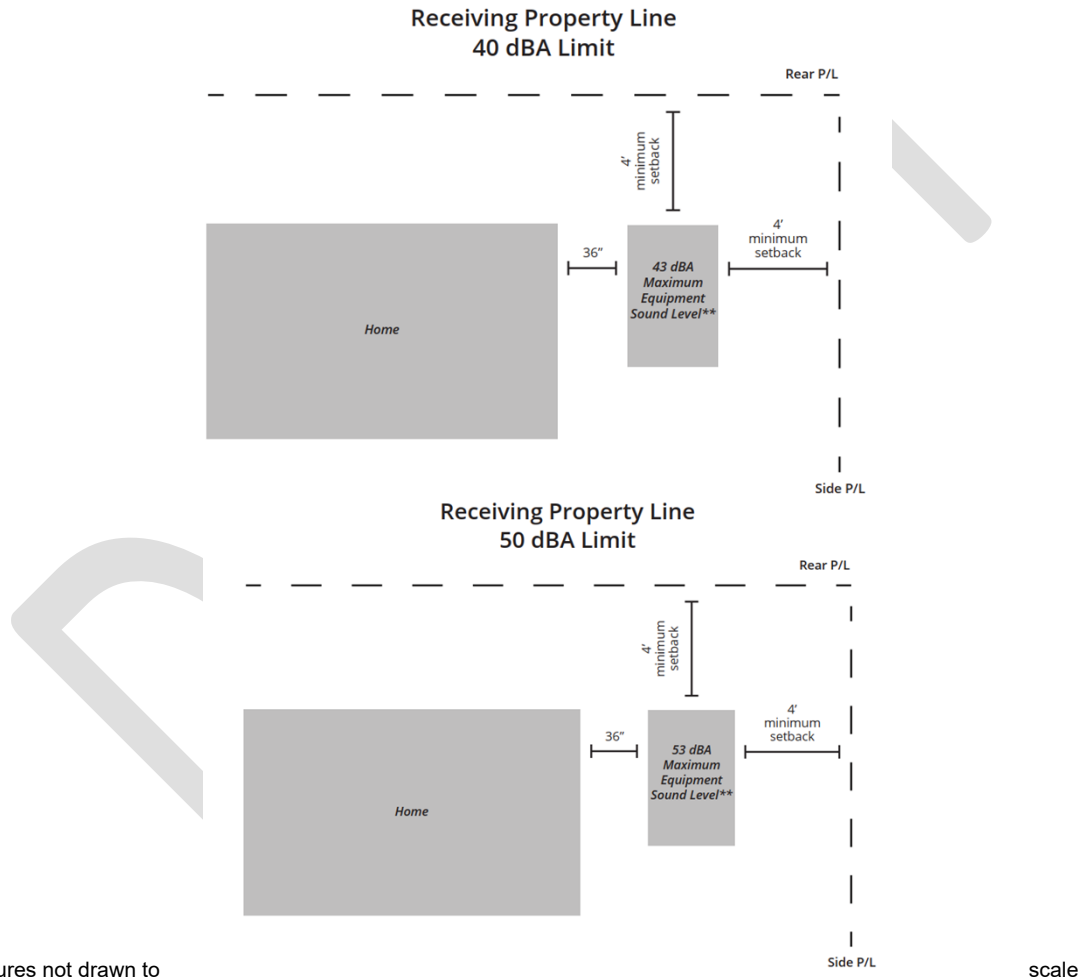


## PLANNING & DEVELOPMENT SERVICES

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### Residential Electrification Equipment: Noise Standards and Placement Guidelines

The City of Palo Alto Municipal Code allows for noise-producing electrification equipment, such as heat pump water heaters and heat pump HVAC equipment, to be placed in the rear and side yard setbacks. The Planning and Development Services Department has determined setback requirements for locating noise-producing electrification equipment to meet the Noise Ordinance limit of 40 dBA and 50 dBA, where applicable, at the property line. The figures illustrate the minimum setback requirements given the manufacturers dBA for the equipment. As the manufacturer's dBA for the equipment increases, the setback would increase as shown in Table 1.



**Table 1 – Setback Requirements**

Equipment Sound Level (dBA) in 40 dBA Area	Equipment Sound Level (dBA) in 50 dBA Area	Setback from Receiving Property Line (ft.)
43	53	4

44	54	5
46	56	6
47	57	7
49	59	8
50	60	9
51	61	10
52	62	12
53	63	13
54	64	15
55	65	17
56	66	19
57	67	22
58	68	24
59	69	27
60	70	30

All noise producing electrification equipment will need to maintain a 36-inch separation between structures. If the proposed electrification equipment exceeds the dBA listed in Table 1, then the setback shall be determined by the Planning Department upon consultation with a professional noise consultant. Further, if installing multiple units, the applicant shall provide a certified noise consultant report verifying compliance with the setback requirements.

#### **EQUIPMENT PLACEMENT AND RECOMMENDATIONS**

To further promote good neighbor relations, staff recommends the following measures:

- Select the quietest equipment possible and utilize the manufacturer's noise control packages where applicable.
- Place equipment as far as possible from adjacent property lines or in areas shielded by structures or noise barriers. Note that acoustical enclosures may not be feasible noise control options as air-flow requirements, building setbacks, or other constraints may limit their effectiveness.
- Orient the equipment take advantage of the directionality of the noise source (i.e., point the noise source away from receptors).

#### **BUILDING PERMIT SUBMITTAL REQUIREMENTS FOR PLANNING APPROVAL (2 COPIES OF EACH)**

1. **Site plan** – Showing property lines, building footprint, location of electrification unit(s), and setback to side and rear property lines measured from the face of the unit. The site plan shall have the model number(s) of the proposed units and the nominal size of the unit (i.e. tons).
2. **Manufacturer's Specifications (Product Data)** – Provide the title page and page showing the noise rating of the unit. For variable speed units, the highest noise rating of the unit will be used. Brochures or other marketing materials are not acceptable.