



TO: Lake Oswego Planning Commission

FROM: Leslie Hamilton, Senior Planner

SUBJECT: Accessory Structures: Setbacks and Noise – Work Session #2
(PP 17-0005)

DATE: September 19, 2017 **MEETING DATE:** September 25, 2017

On September 25, 2017, the Planning Commission (Commission) will conduct a work session for proposed amendments to the Community Development Code (Chapter 50) to standardize setbacks for noise-producing accessory structures. The purpose of the work session is for the Commission to become familiar with and provide input on the proposed amendments. [Note: the amendments would apply only to noise-producing mechanical units, i.e., air conditioners, heat pumps, pool equipment, etc. Accessory structures such as sheds, pool houses, detached garages, etc., are not affected.]

Accessory Structure Setbacks – Standardize for Air Conditioning (AC) Units and Heat Pumps
[LOC 50.03.004.2.b and various].

In Lake Oswego, the setbacks for accessory structures such as AC units and heat pumps vary widely by zone and overlay, and by the date of development, as shown in Attachment A and below:

- For Planned Developments approved *before* August 2003, the setbacks for all accessory structures are the same as for the primary structure.
- For Planned Developments approved *after* August 2003, the setbacks for accessory structures are the same as the accessory structure setbacks of the underlying zone.
- For all residential zones, the side and rear setbacks for accessory structures range from 5-10 feet (interior sides), 10-20 feet (street sides) and 5-15 feet (rear).

The result is that similar properties can have widely different setbacks for mechanical units. To streamline the code, staff recommends standardizing setbacks for mechanical units such as AC units and heat pumps.

This is the second work session on this topic. At the first work session in July, the Commission requested that staff develop three alternatives for standardizing the setbacks for accessory structures in residential zones; these are described below. Additionally, the Commission requested information about the frequency and concentration of noise complaints related to mechanical units in order to gauge whether noise from this type of mechanical equipment is a community-wide problem that requires additional restrictions as the City establishes uniform setback requirements. In general, the Code Enforcement specialist estimates the City receives approximately 5-10 noise complaint calls per year related to noise-producing accessory structures; the complaints tend to be concentrated in the First Addition neighborhood and on flag lots. The complaints also tend to originate when an older home – without outdoor mechanical units – is replaced by a new home with AC. There is no enforcement process where a heat pump/pool pump was installed and permitted according to City codes. Staff notes that the standardized setbacks proposed below would only *increase* setbacks in the R-6 zone.

Option 1: This option standardizes the side and rear setbacks for accessory structures throughout all residential zones, including Planned Developments (PDs). Many setbacks would not be affected by the standardization. Certain setbacks would increase or decrease by 2.5 to 5 ft., which would not be noticeably perceptible on abutting properties. Additionally, decreases in Street Side Yard setbacks would not noticeably affect nearby properties because of the additional separation provided by the right-of-way. The setbacks affected are identified below:

Side Setbacks (Interior): Decrease from 10 ft. to 5 ft. in R-DD, R-0, R-2, R-3, R-5, R-10, R-15 and some PDs

Street Side Setback (Local Streets): Increase from 7.5 ft. to 10 ft. in R-6

Street Side Setback (Local Streets): Decrease from 15 ft. to 10 ft. in R-7.5, R-10, R-15, some PDs

Street Side Setback (Other): Decrease from 20 ft. to 15 ft. in R-6, R-7.5, R-10, R15 and some PDs

Rear Setback: Increase from 5 ft. to 10 ft. in R-6
Decrease from 15 ft. to 10 ft. in R-10, R-15 and some PDs

Option 2: This option uses the standardized setbacks described above in Option 1; additionally, it requires new noise-producing mechanical equipment to be rated for no more than 55 dBA. This would be a standard for the equipment itself, not an addition to the nuisance code. Manufacturers publish noise ratings for air conditioning units and other mechanical equipment. When properly installed and maintained, the equipment can be expected to generate noise at these levels (measured at the source). Adding this type of code requirement would add cost and delay to the permit process, because the applicant would be required to submit the manufacturer's specifications for staff review and approval of mechanical permits in compliance with the noise standard.

In establishing the 55 dBA threshold, staff reviewed 12 noise ordinances that codify maximum residential noise levels (Attachment B). These cities established maximum residential noise levels between 50 dBA and 60 dB measured at the property line. Two cities, Los Angeles and Sacramento, set noise levels for new mechanical units at 55 dBA but did not identify a maximum noise level at the residential property line. A unit that is rated for 55 dBA will produce noise levels at the property line of less than 55 dBA as noise decreases logarithmically over distance.

Option 3: This option uses the standardized setbacks described above in Option 1; additionally, it requires mechanical units that are placed between 5 and 9.99 ft. from an interior side property line to be rated at no more than 45 dBA. All other setbacks are 10 feet or greater and no decibel level is proposed for those setbacks. The considerations for additional cost and delay in the permitting process that are described under Option 2 also apply to this option.

Pool Equipment: In addition to the options above for standardizing setbacks, staff recommends requiring pool equipment to be located within an enclosed structure. Pool equipment is often noisy, and if the equipment is less than 30" in height, zone setbacks do not apply. By requiring pool equipment to be located within a structure, zone setbacks would apply and the noise would be attenuated by the structure.

Attachments

- A. Accessory Structure Handout, 03/23/17
- B. Municipal Noise Ordinances Chart, 09/18/17
- C. Draft Text Amendments with Three Standardization Options, 09/18/17



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ACCESSORY STRUCTURES (RESIDENTIAL)

WHAT IS AN ACCESSORY STRUCTURE?

An accessory structure is any detached structure which is subordinate to the main building and which is consistent with the buildings and uses allowed in the zone in which it is located. Examples include (but are not limited to) detached garages, carports and workshops; detached guesthouses and secondary dwelling units; play structures, play houses, trellis structures, gazebos, outdoor fireplaces, above-ground pools and spas, heat pumps, AC units and pool equipment. Noise producing accessory structures such as AC units, heat pumps and pool equipment are subject to additional restrictions (see Exceptions to Required Setbacks, below).

WHAT PERMITS ARE REQUIRED FOR AN ACCESSORY STRUCTURE?

A building permit is not required for certain accessory structures that are less than 200 square feet in size; not on a concrete slab AND less than 10 feet in height (for building permit purposes, height is measured from finished floor area to average roof height); however, such structures do need to meet all applicable setbacks, and may require electrical, plumbing or mechanical permits depending on their amenities [Please check with the Building Division regarding permits].

DO ACCESSORY STRUCTURES COUNT TOWARD LOT COVERAGE?

Yes, all structures greater than 30" above grade, whether enclosed or not, count toward lot coverage, unless the code specifically exempts all or a portion of the structure from lot coverage calculations (i.e., boathouses, detached garages). In the residential zoning districts, maximum lot coverage ranges from 25% to 100% of the lot. Please contact the Planning Division for help in determining applicable lot coverage standards.

DO ACCESSORY STRUCTURES COUNT TOWARD MAXIMUM FLOOR AREA?

Yes, with some exceptions. In the R-0, R-2, and R-3 zones, detached garages and carports are exempt from the floor area calculation. Additionally, habitable areas of detached accessory structures in all residential zones, including garages, are exempt from the floor area calculations as follows:

- 200 square foot exemption for lot sizes up to 10,000 square feet
- 400 square foot exemption for lot sizes greater than 10,000 square feet.

WHAT ARE THE SETBACKS FOR ACCESSORY STRUCTURES?

Setbacks typically depend on the zone and the height of the accessory structure. For setback purposes, height is measured from grade to peak of roof.

In general, setbacks are as follows:

ZONE	FRONT	SIDE (INTERIOR)	SIDE (STREET)	REAR
R-DD (Old Town)	10'	10'	10'	10'
R-0	10'	10'	10'	10'
R-2	10'	10'	10'	10'
R-3	10'	10'	10'	10'
R-5	10'	10'	10'	10'
R-6, < 600 sf with walls ≤ 10 feet below eaves	20'	5'	7.5'/20' (1)	5'
R-6, additions to accessory structures ≤ 18 feet in height and built before July 1, 2010	20'	5'	7.5'/20' (1)	5' or 10' (2)
R-6, additions to accessory structures > 18 feet in height and built before July 1, 2010	20'	5' minimum, total combined 15' (3)	7.5'/20' (1)	5' or 10' (2)
R-6, other	20'	7.5	7.5'/20' (1)	10'
R-7.5, ≤ 18' in height	25'	5'	15/20 (1)	10'
R-7.5, > 18' in height	25'	5'	15/20 (1)	15'
R-10	25'	10'	15/20 (1)	15'
R-15	25'	10'	15/20 (1)	15'
PDs approved before Aug 2003	Same as primary structure setbacks.			
PDs approved after Aug 2003	Same as above setbacks			

- (1) The smaller street side setback applies adjacent to a local street; the larger setback applies adjacent to an arterial or collector.
- (2) 5 foot rear setback if accessory structure is less than 600 square feet in size and walls are < 10 feet below eaves; otherwise, 10 feet.
- (3) A multi-story structure may have a smaller side yard setback than required where the ground floor is set back a minimum of 5 feet and the remainder of the structure is stepped back from the building line by at least 4 feet on each side.

EXCEPTIONS TO THE REQUIRED SETBACK (LOC 50.03.004.2.b)

Except in the R-6 zone, the side setback may be reduced to 5 feet and the rear setback may be reduced to 3 feet (6 feet for flag lots) for accessory structures in all residential zones, including PDs, provided the following conditions are met:

1. The accessory structure is located more than 40 feet from any street (for the purposes of this exception, an alley is not considered a street). The side and rear setbacks for a detached garage obtaining access from an alley may be reduced to three feet or to the degree the garage maintains access that provides an outside front wheel turning radius of at least 25 feet, whichever is greater.
2. For an accessory structure greater than four feet in height, the accessory structure is detached from other buildings by three feet or more;
3. The accessory structure does not exceed a height of 10 feet nor an area of 600 square feet.

Note: This exception does not apply to noise-producing accessory structures (i.e., AC unit, heat pump, generator, pool equipment, etc.).

WHAT ARE THE DESIGN STANDARDS FOR ACCESSORY STRUCTURES?

In all residential zones except for R-DD (Old Town), the Street Front Setback Plane and the Side Yard Setback Plane standards apply to all accessory structures (see LOC 50.06.001.2).

In the Evergreen Overlay District, the roof pitch on new accessory structures exceeding 100 square feet in size must match the roof pitch of the primary structure (see LOC 50.05.002).

WHAT ARE THE SIZE LIMITATIONS FOR ACCESSORY STRUCTURES?

HEIGHT: In the R-0, R-2, R-3, R-5, R-6, R-7.5, R-10 and R-15 zones, accessory structure height is limited to the lesser of 24 feet or the height of the primary structure. In the R-DD zone, maximum height is 28 feet.

FLOOR AREA: In the R-6, R-7.5, R-10 and R-15 zones, accessory structures that are \leq 18 feet in height have a maximum floor area of 800 square feet, while accessory structures $>$ 18 feet in height are limited to 600 square feet in floor area; however, the floor area of the accessory structure cannot exceed that of the primary structure.

This publication summarizes portions of the Lake Oswego Community Development Code and is intended to be used solely as an informal discussion document. As such, it should not be relied on as a guarantee that a particular development request could be approved or denied. Please contact the Community Development Department of the City of Lake Oswego for more information.

MUNICIPAL NOISE ORDINANCES – RESIDENTIAL NOISE LEVELS AT PROPERTY LINE

CITY	dBA at Property Line	City	dBA at Property Line
Portland, OR	50	Miami, FL	55
Tualatin, OR	50	Boston, MA	50
Tigard, OR	40	Kansas City, MO	55
Newport Beach, CA	50	Omaha, NB	55-60
Anchorage, AK	50	Charlotte, NC	60
Denver, CO	50	San Antonio, TX	63

SETBACKS FOR AC UNITS (ETC.):

Portland:	Zone front, five feet side and rear; can be reduced to 0 feet if screened and not more than 5 feet tall.
Tualatin:	Two feet all setbacks
Tigard:	Zone front; five feet side and rear.
Newport Beach:	All mechanical equipment must be screened if visible from ROW. Generally no setbacks if less than 6 feet in height and less than 150 square feet in area.
Anchorage:	20 feet front, 5 feet side, 10 feet rear
Denver:	10 feet front, 5 feet side and rear
Miami, FL:	10 feet front, 5 feet side and rear
Kansas City:	Zone front, 1.5 feet side and rear
Charlotte:	Zone front, 50% of side or rear yard setback
San Antonio:	Zone front, 5 feet side and rear

Sources:

Kinetics Noise Control, http://www.kineticsnoise.com/industrial/noise_ordinance.html, accessed August 2017.

Municipal Noise Ordinances for Portland, OR; Tualatin, OR; Tigard, OR; Newport Beach, CA; Anchorage, AK; Denver, CO; Miami, FL; Boston, MA; Kansas City, MO; Omaha, NB; Charlotte, NC; San Antonio, TX; Los Angeles, CA; and Sacramento, CA.

09/18/2017

Accessory Structure Code Amendments

PP 17-0005

ATTACHMENT B/PAGE 1 OF 1

50.03.004 Accessory Structures and Uses

2. ACCESSORY STRUCTURES

a. Structure Specific Regulations

i. Pool Covers and Equipment:

(1) Pool covers shall not exceed 15 ft. in height.

(2) Pool equipment shall be located within an enclosed structure.

ii. "Parabolic antennas" that have a diameter greater than 40 in. may only be placed in rear yards, on the ground, and must be screened by landscaping.

iii. Except as provided in LOC 50.05.010, Sensitive Lands Overlay Districts, boathouses and docks along Oswego Lake and its canals may be placed on a property line.

iv. Residential hHeat pumps, air conditioners or similar noise-producing mechanical equipment shall meet the required front setbacks of the zone. Notwithstanding the side and rear setbacks of the zone, the equipment shall be set back from the side, street side and rear property lines as follows:

Interior Side Yard: 5 ft.

Street Side Yard, Local Street: 10 ft.

Street Side Yard, All Other: 15 ft.

Rear: 10 ft.

b. Reduction of Side or Rear Yard Setbacks for Accessory Structures

i. **Regular Lot.** On a nonflag lot, a rear yard setback may be reduced to three ft. and a side yard setback may be reduced to five ft. for an accessory structure in a residential zone if the structure complies with the following criteria:

(1) The accessory structure is erected more than 40 ft. from any street. For the purposes of this subsection, an alley shall not be considered a street. The side and rear setbacks for a detached garage obtaining access from an alley may be reduced to three ft. or to the degree the garage maintains access that provides an outside front wheel turning radius of at least 25 ft., whichever is greater.

- (2) For an accessory structure greater than four ft. in height, the accessory structure is detached from other buildings by three ft. or more.
 - (3) The accessory structure does not exceed a height of ten ft. nor an area of 600 sq. ft. footprint.
- ii. **Flag Lots.** A side or rear yard setback may be reduced to six ft. on a flag lot when the criteria in subsections 2.b.i(1) through (3) of this section are met.
- iii. The setback exception authorized by subsection 2.b.i or 2.b.ii of this section does not apply to:
 - (1) Setbacks required by LOC [50.04.002](#), Special Street Setbacks;
 - (2) Noise-producing accessory structures such as heat pumps, air conditioners, swimming pool motors, etc.;
 - (3) Lot is zoned R-6;
 - (4) Accessory structures used as secondary dwelling units.

[Cross-Reference: LOC [50.04.001.2.e.ii](#) – R-6 Yard Setback Standards.]

Option 1: Standardized setbacks for noise-producing accessory structures. Establishes standard setbacks for residential mechanical units. No change to front setbacks – all mechanical units must meet zone front setback. Sides and rear would range from 5-15 feet (currently side and rear setbacks range from 5-10 (interior side), 10-20 (street side) and 5-15 (rear))

Current Interior Sides:	5-10 ft.	Proposed Interior Sides:	5 ft.
Current Street Sides:	10-20 ft.	Proposed Street Sides:	10-15 ft.
Current Rear:	5-15 ft.	Proposed Rear:	10 ft.

Front setbacks for AC (i.e., noise producing), NO CHANGES PROPOSED:

10 feet: R-DD, R-0, R-2, R-3, R-5, some PDs
20 feet: R-6, some PDs
25 feet: R-7.5, R-10, R-15, some PDs

Side setbacks for AC (i.e., noise producing) before exception:

5 feet: R-6, R-7.5, some PDs
10 feet: R-DD, R-0, R-2, R-3, R-5, R-10, R-15, some PDs – *these setbacks would decrease to 5 ft.*

Street side setbacks for AC (i.e., noise producing) before exception

10 feet, all streets: R-DD, R-0, R-2, R-3, R-5, some PDs
7.5 feet, local streets: R-6 – *these setbacks would increase to 10 ft.*
15 feet, local streets: R-7.5, R-10, R-15, some PDs – *these setbacks would decrease to 10 ft.*
20 feet, arterial and collector streets: R-6, R-7.5, R-10, R-15, some PDs – *these setbacks would decrease to 15 ft.*

Rear setbacks for AC (i.e., noise producing) before exception

5 feet: R-6, some PDs – *these setbacks would increase to 10 ft.*
10 feet: R-DD, R-0, R-2, R-3, R-5, R-7.5, some PDs
15 feet: R-10, R-15, some PDs – *these setbacks would decrease to 10 ft.*

Pool Equipment: Requires pool equipment to be located within an enclosed structure; this will provide noise attenuation and the application of setbacks.

50.03.004 Accessory Structures and Uses

2. ACCESSORY STRUCTURES

a. Structure Specific Regulations

i. Pool Covers and Equipment:

(1) Pool covers shall not exceed 15 ft. in height.

(2) Pool equipment shall be located within an enclosed structure.

ii. "Parabolic antennas" that have a diameter greater than 40 in. may only be placed in rear yards, on the ground, and must be screened by landscaping.

iii. Except as provided in LOC 50.05.010, Sensitive Lands Overlay Districts, boathouses and docks along Oswego Lake and its canals may be placed on a property line.

iv. Residential hHeat pumps, air conditioners or similar noise-producing mechanical equipment installed after (insert effective date of ordinance) shall meet the required front setbacks of the zone and shall have a maximum manufacturer's specified noise level of 55 dBA. Notwithstanding the side and rear setbacks of the zone, the equipment shall be set back from the side, street side and rear property lines as follows:

Interior Side Yard: 5 ft.

Street Side Yard, Local Street: 10 ft.

Street Side Yard, All Other: 15 ft.

Rear: 10 ft.

b. Reduction of Side or Rear Yard Setbacks for Accessory Structures

i. **Regular Lot.** On a nonflag lot, a rear yard setback may be reduced to three ft. and a side yard setback may be reduced to five ft. for an accessory structure in a residential zone if the structure complies with the following criteria:

(1) The accessory structure is erected more than 40 ft. from any street. For the purposes of this subsection, an alley shall not be considered a street. The side and rear setbacks for a detached garage obtaining access from an alley may be reduced to three ft. or to the degree the garage maintains access that provides an outside front wheel turning radius of at least 25 ft., whichever is greater.

- (2) For an accessory structure greater than four ft. in height, the accessory structure is detached from other buildings by three ft. or more.
 - (3) The accessory structure does not exceed a height of ten ft. nor an area of 600 sq. ft. footprint.
- ii. **Flag Lots.** A side or rear yard setback may be reduced to six ft. on a flag lot when the criteria in subsections 2.b.i(1) through (3) of this section are met.
- iii. The setback exception authorized by subsection 2.b.i or 2.b.ii of this section does not apply to:
 - (1) Setbacks required by LOC [50.04.002](#), Special Street Setbacks;
 - (2) Noise-producing accessory structures such as heat pumps, air conditioners, swimming pool motors, etc.;
 - (3) Lot is zoned R-6;
 - (4) Accessory structures used as secondary dwelling units.

[Cross-Reference: LOC [50.04.001.2.e.ii](#) – R-6 Yard Setback Standards.]

Option 2: Standardized setbacks plus a manufacturer’s spec limit of 55 dBA for new mechanical units.

Pool Equipment: Requires pool equipment to be located within an enclosed structure; this will provide noise attenuation and the application of setbacks.

50.03.004 Accessory Structures and Uses

2. ACCESSORY STRUCTURES

a. Structure Specific Regulations

i. Pool Covers and Equipment:

(1) Pool covers shall not exceed 15 ft. in height.

(2) Pool equipment shall be located within an enclosed structure.

ii. "Parabolic antennas" that have a diameter greater than 40 in. may only be placed in rear yards, on the ground, and must be screened by landscaping.

iii. Except as provided in LOC 50.05.010, Sensitive Lands Overlay Districts, boathouses and docks along Oswego Lake and its canals may be placed on a property line.

iv. Residential hHeat pumps, air conditioners or similar noise-producing mechanical equipment installed after (insert effective date of ordinance) shall meet the required front setbacks of the zone. Notwithstanding the side and rear setbacks of the zone, the equipment shall be set back from the side, street side and rear property lines as follows:

Interior Side Yard: 5 ft. if rated at 45 dBA or less

Interior Side Yard: 10 ft. if rated more than 45 dBA

Street Side Yard, Local Street: 10 ft.

Street Side Yard, All Other: 15 ft.

Rear: 10 ft.

b. Reduction of Side or Rear Yard Setbacks for Accessory Structures

i. **Regular Lot.** On a nonflag lot, a rear yard setback may be reduced to three ft. and a side yard setback may be reduced to five ft. for an accessory structure in a residential zone if the structure complies with the following criteria:

(1) The accessory structure is erected more than 40 ft. from any street. For the purposes of this subsection, an alley shall not be considered a street. The side and rear setbacks for a detached garage obtaining access from an alley may be reduced to three ft. or to the degree the garage maintains access that provides an outside front wheel turning radius of at least 25 ft., whichever is greater.

- (2) For an accessory structure greater than four ft. in height, the accessory structure is detached from other buildings by three ft. or more.
- (3) The accessory structure does not exceed a height of ten ft. nor an area of 600 sq. ft. footprint.
- ii. **Flag Lots.** A side or rear yard setback may be reduced to six ft. on a flag lot when the criteria in subsections 2.b.i(1) through (3) of this section are met.
- iii. The setback exception authorized by subsection 2.b.i or 2.b.ii of this section does not apply to:
 - (1) Setbacks required by LOC [50.04.002](#), Special Street Setbacks;
 - (2) Noise-producing accessory structures such as heat pumps, air conditioners, swimming pool motors, etc.;
 - (3) Lot is zoned R-6;
 - (4) Accessory structures used as secondary dwelling units.

[Cross-Reference: LOC [50.04.001.2.e.ii](#) – R-6 Yard Setback Standards.]

Option 3: Standardized setbacks plus requires a dBA rating of 45 for mechanical units placed less than 10 feet from a property line.

Pool Equipment: Requires pool equipment to be located within an enclosed structure; this will provide noise attenuation and the application of setbacks.

