

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Discussion of Ordinance No. 818 - Repealing Shoreline Municipal Code Chapter 9.05 Public Disturbance Noise and Replacing it with a New Chapter 9.05 Noise Control
DEPARTMENT:	Planning & Community Development City Attorney's Office
PRESENTED BY:	Brian Lee, Senior Planner Julie Ainsworth-Taylor, Assistant City Attorney
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input type="checkbox"/> Motion <input checked="" type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

The City's existing Noise Code, titled Public Disturbance Noise, which is codified in Shoreline Municipal Code (SMC) Chapter 9.05, was originally adopted in 1997 and has not had any significant updates since that time. It is limited in its application and contains unclear and subjective metrics that make it both difficult to understand and regulate. The intent of the proposed repeal and replacement of the Noise Code is not to create stricter or less restrictive noise regulations, but rather to reflect the standards set forth in state law while allowing for differences to address the City of Shoreline's special needs.

Tonight, Council will discuss proposed Ordinance No. 818 (Attachment A), which would repeal the current SMC Chapter 9.05, Public Disturbance Noise, and replace it with a new Chapter 9.05, titled Noise Control (Exhibit A). Staff will be joined by Steve Quarterman from Landau Associates, who helped staff develop the proposed Noise Code. Ordinance No. 818 is scheduled to be brought back for adoption on April 16.

RESOURCE/FINANCIAL IMPACT:

Proper implementation of the Noise Code will require purchase of two (2) new noise measuring devices. Although equipment prices vary widely, staff is recommending mid-range models priced at approximately \$3,000 per unit. Funding for these devices will come from the current year budget.

RECOMMENDATION

No action is required by Council at this time. Staff recommends that Council ask questions of staff regarding the proposed Noise Code. Staff recommends adoption of Ordinance No. 818 when it is brought back to Council for potential adoption on April 16, 2018 with an effective date of August 1, 2018.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

In 1974, the Washington State Legislature enacted RCW 70.107, Washington's Noise Control Act, and tasked the Department of Ecology with establishing rules and regulations for implementing the Act. Washington Administrative Code (WAC) Chapters 173-58, Sound Level Measurement Procedures; 173-60 Maximum Environmental Noise Levels; and 173-62 Motor Vehicle Noise Performance Standards further implement the State Noise Control Act. The State authorizes local governments to enforce these standards and to regulate noise from any source deemed a nuisance.

The City's current noise regulations are codified in Shoreline Municipal Code (SMC) Chapter 9.05 - Public Disturbance Noise (Attachment B). Since its adoption in 1997, there has been one small amendment to the Noise Code in 2000 under Ordinance No. 250 which further defined public disturbance noise to exempt certain emergency activities.

As such, for more than 17 years, the Noise Code has remained virtually unchanged. Staff feels that the Code is insufficient to address the changes that have occurred in the City during this time. As well, there is an additional need to provide regulatory clarity regarding the City's noise regulations for the upcoming Sound Transit Link Light Rail project in Shoreline. Based on these considerations, staff, with the support of Landau Associates, developed a proposed Noise Code to replace the current SMC Chapter 9.05. The new Noise Code would be adopted by proposed Ordinance No. 818.

Tonight, staff will be joined by Steve Quarterman from Landau Associates to present the new Noise Code. Landau Associates completed a Noise Code review and gap analysis (Attachment C) for the City which informed the proposed changes to the Noise Code. Proposed Ordinance No. 818 is scheduled to be brought back to Council for adoption on April 16, 2018.

DISCUSSION

The proposed Noise Code does not recommend changes to the current noise level thresholds established in the WAC by the Department of Ecology. Rather the proposed Code clarifies some of the subjective language to facilitate more equitable and objective administration of the Noise Code. In its current form, the Noise Code lacks some of the basic elements of a thorough regulation, including a purpose statement, definitions, and specific noise level thresholds. The current Code also does not provide options for variances and appeals and uses antiquated terms like "tape players." The Noise Code also fails to address the more common issues the City now faces, such as noises created by back-up beepers and early morning refuse collection.

To address these regulatory gaps, the proposed Noise Code includes:

- A new Chapter title – Noise Control;
- A purpose statement;
- Additional definitions of terms used in the Code;
- How sounds may be measured;

- Maximum noise levels, including a decibel level threshold table from the State (WAC 173-60-040);
- References to Federal Interstate Commerce laws, Federal Railroad Administration laws, and Federal Transit Administration guidance that regulate the design and operation of railroad trains and light rail transit;
- Sounds that are exempt at all times as well as sounds that are exempt only during designated hours; and
- Specific processes for variances and appeals.

Environmental Review and Department of Ecology Approval

Staff conducted an environmental review of the proposed Noise Code. An Environmental Checklist (Attachment D) was prepared and a Request for SEPA Comments was routed to agencies on February 20, 2018, with the comment period ending March 7, 2018. No comments were received and a Determination of Non-Significance is tentatively scheduled to be issued in early April, 2018.

Included in the agencies receiving notice on February 20th was the Washington State Department of Ecology so as to satisfy RCW 70.107, which states that if the City adopts regulations that differ from the standards established by the Department Ecology, that the Department has 90 days to approve or disapprove such standards. Specifically, the proposed amendment differs by reducing daytime hours during Saturday/Sunday/Holidays from 7 am-10 pm to 9 am-10 pm, and clarifies penalties, such that each day in which a violation occurs or exists is a separate violation.

The Department of Ecology received a second copy of the City's proposed Noise Code on March 20, 2018. No comments have been received from the Department as of the date of this staff report and, pursuant to RCW 70.107, if the Department of Ecology does not comment within the statutory period, the regulations are deemed approved.

Implementation Steps

If Council approves proposed Ordinance No. 818, proper implementation of the Noise Code will require purchase of at least two (2) noise measuring devices (sound level meters), one to be used by Shoreline Police and one for the City's Customer Response Team (CRT). These devices are categorized into three different types: Type 1, Type 2, and Type 3, but per WAC 173-58-030, only Type 1 or Type 2 meters are to be used for the measurement of sound levels for enforcement purposes.

A cursory review conducted by staff revealed a wide range of models and prices available for consideration. A listing of some Type 1 and Type 2 sound level meters is attached as Attachment E. Staff will make the final decision on the specific model and number of units to purchase if Council approves proposed Ordinance No. 818, but will likely purchase Type 1 meters that cost roughly \$3,000 per meter. As well, staff will conduct training with all staff that will potentially use the sound level meters so that they are able to use them correctly when enforcing the noise thresholds.

Ordinance Effective Date

In order to allow sufficient time to conduct the implementation steps noted above, staff is recommending a three month delay (until August 1, 2018) of the effective date of proposed Ordinance No. 818. As well, upon adoption of proposed Ordinance No. 818, a copy of the ordinance and Noise Code regulations will be sent again to the Department of Ecology. The delayed effective date of the ordinance also allows for any comments the Department may have which have not been relayed or anticipated thus far.

COUNCIL GOAL(S) ADDRESSED

This agenda item addresses Council Goal 3: Continue preparation for regional mass transit in Shoreline. An updated Noise Code provides regulatory clarity for the standards applicable to light rail and the process for requesting noise variances when light rail night work must occur.

RESOURCE/FINANCIAL IMPACT

Proper implementation of the Noise Code will require purchase of two (2) new noise measuring devices. Although equipment prices vary widely, staff is recommending mid-range models priced at approximately \$3,000 per unit. Funding for these devices will come from the current year budget.

RECOMMENDATION

No action is required by Council at this time. Staff recommends that Council ask questions of staff regarding the proposed Noise Code. Staff recommends adoption of Ordinance No. 818 when it is brought back to Council for potential adoption on April 16, 2018 with an effective date of August 1, 2018.

ATTACHMENTS

Attachment A – Proposed Ordinance No. 818
Attachment A, Exhibit A – New Shoreline Municipal Code Chapter 9.05 – Noise Control
Attachment B – Current SMC Chapter 9.05 – Public Disturbance Noise
Attachment C – Landau Associates Noise Code Review Technical Memorandum
Attachment D – SEPA Environmental Checklist
Attachment E – Sound Level Meter Options

ORDINANCE NO. 818

AN ORDINANCE OF THE CITY OF SHORELINE, WASHINGTON REPEALING SHORELINE MUNICIPAL CODE CHAPTER 9.05 PUBLIC DISTURBANCE NOISE AND REPLACING IT WITH A NEW CHAPTER 9.05 NOISE CONTROL.

WHEREAS, the City of Shoreline is a non-charter optional municipal code city as provided in Title 35A RCW, incorporated under the laws of the state of Washington; and

WHEREAS, as authorized by RCW 70.107, Washington's Noise Control Act of 1974, the Washington State Department of Ecology adopted rules related to noise as set forth in Chapters 173-58, 173-60, and 173-62 WAC; and

WHEREAS, WAC 173-60 sets forth Maximum Environmental Noise Levels and permits the City to adopt measures for noise abatement and control and does not prevent the City from regulating noise from any source as a nuisance; and

WHEREAS, on March 24, 1997, the City of Shoreline adopted Ordinance No. 121 establishing Shoreline Municipal Code (SMC) Chapter 9.05 prohibiting public disturbance noise; SMC 9.05 was last amended on October 23, 2000 with the adoption of Ordinance No. 250; and

WHEREAS, it is the policy of the City to minimize the exposure of its citizens to the physiological and psychological dangers of excessive noise; and

WHEREAS, it is the express intent of the City Council to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment; and

WHEREAS, it is the express intent of the City Council that noise be prohibited when it exceeds certain levels or when it unreasonable disturbs the peace, comfort, and repose of others; and

WHEREAS, the problem of noise in the City of Shoreline has been observed by the City Council and the City Staff and is documented by the complaints received by both the City and the Shoreline Police Department On the basis of these observations and complaints, the City Council finds that special conditions exist within the City that make necessary any and all differences between this chapter and the regulations adopted by the Washington State Department of Ecology in Chapters 173-58, 173-60, and 173-62 WAC; and

WHEREAS, the City submitted a copy of the proposed regulations to the Washington State Department of Ecology for its review and comment as stated in RCW 70.107.060 on February 20, 2018 and again on March 20, 2018; and

WHEREAS, the City Council has considered the entire public record, public comments, written and oral, and considered the proposed regulations at its regularly scheduled meeting on April 2, 2018; and

WHEREAS, the City Council has determined that the noise control regulations are in the best interest of the public health, safety, and welfare;

THEREFORE, THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1. Repeal and Replacement of Shoreline Municipal Code Chapter 9.05. Shoreline Municipal Code (SMC) Chapter 9.05 Public Disturbance Noise, as adopted by Ordinance No.121 and amended by Ordinance No. 250, is repealed in its entirety and replaced with a new SMC Chapter 9.05 Noise Control as set forth in Exhibit A to this Ordinance.

Section 2. Corrections by City Clerk or Code Reviser. Upon approval of the City Attorney, the City Clerk and/or the Code Reviser are authorized to make necessary corrections to this ordinance, including the corrections of scrivener or clerical errors; references to other local, state, or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering and references.

Section 3. Directions to City Clerk to submit Ordinance to Department of Ecology. The City Clerk shall send a copy of this Ordinance to the Washington State Department of Ecology, Shorelands and Environmental Assistance Program, PO Box 47600, Olympia, WA 98504-7600.

Section 4. Severability. Should any section, subsection, paragraph, sentence, clause, or phrase of this ordinance or its application to any person or situation be declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portions of this ordinance or its application to any person or situation.

Section 5. Publication and Effective Date. A summary of this Ordinance consisting of the title shall be published in the official newspaper. This Ordinance shall take effect at 12:01 a.m. on August 1, 2018.

PASSED BY THE CITY COUNCIL ON APRIL 16, 2018

Mayor Will Hall

ATTEST:

APPROVED AS TO FORM:

Jessica Simulcik-Smith
City Clerk

Margaret King
City Attorney

Date of Publication: , 2018
Effective Date: , 2018

**Ordinance No. 818
Exhibit A**

**Chapter 9.05
NOISE CONTROL**

Sections:

- 9.05.010 Purpose and Authority.**
- 9.05.020 Definitions.**
- 9.05.030 Measurement of Sound.**
- 9.05.040 Maximum Permissible Environmental Noise Levels.**
- 9.05.050 Motor Vehicle Noise Performance Standards.**
- 9.05.060 Exemptions.**
- 9.05.070 Public Nuisance Noise.**
- 9.05.080 Variances.**
- 9.05.090 Violation – Penalty.**

9.05.010 Purpose and Authority.

- A. The purpose of this chapter is to minimize the exposure of the citizens of the City of Shoreline to the physiological and psychological dangers of excessive noise and to protect, promote, and preserve the public health, safety, and general welfare. It is the express intent of the City Council to control the level of noise in a manner which promotes commerce; the use, value and enjoyment of property; sleep and repose; and the quality of the environment.
- B. In determining a violation of this chapter, the content of the sound shall not be considered.
- C. This chapter is established in conformance with Chapter 70.107 RCW Noise Control, Chapter 173-58 WAC, Sound Level Measurement Procedures, Chapter 173-60 WAC Maximum Environmental Noise Levels, and Chapter 173-62 WAC Motor Vehicle Noise Performance Standards, as amended from time to time.
- D. Nothing herein shall be construed to limit or prohibit different or more restrictive hours for any activity authorized under a permit issued under any other chapter of the Shoreline Municipal Code as provided for in that chapter.

9.05.020 Definitions.

As used in this chapter, the following terms shall have the meanings set forth in this section.

- 1. "Construction" means any site preparation, including blasting or pile driving, assembly, erection, demolition, substantial repair, alteration or similar action on private or public property, buildings, structures, or utilities.
- 2. "Daytime" means 7:00 a.m. – 10:00 p.m., Monday through Friday, and 9:00 a.m. – 10:00 p.m., Saturday, Sunday and Holidays.

3. "dB(A)" means the sound level measured in decibels, using the A-weighted network on a sound level meter.
4. "EDNA" means environmental designation for noise abatement, which is an area or zone within which maximum permissible noise levels are established. EDNA classifications include the following zones as set forth in the city Unified Development Code, SMC Title 20, at SMC 20.40.20:
 - a. Class A EDNA: Residential zones and Mixed-use residential zones;
 - b. Class B EDNA: Non-residential zones;
 - c. Class C EDNA: Industrial land use zones.
5. "Emergency work" means work necessary to restore property to a safe condition following a public calamity, work required to protect persons or property from imminent exposure to danger, or work by private or public utilities to provide or restore immediately necessary utility service.
6. "Holidays" means the "legal holidays" set forth in RCW 1.15.050, as it may be amended from time to time.
7. "Motor vehicle" means any vehicle that is self-propelled, used primarily for transporting persons or property upon public highways, and required to be licensed under RCW 46.16.010. Aircraft, watercraft, and vehicles used exclusively on stationary rails or tracks are not "motor vehicles" as the term is used herein.
8. "Nighttime" means 10:00 p.m. – 7:00 a.m., Monday through Friday, and 10:00 p.m. – 9:00 a.m., Saturday, Sunday and Holidays.
9. "Noise" means the intensity, duration, and character of sounds from any and all sources.
10. "Permitting Authority" means the Director, or designee, of the city department that issues the permit, such as the Department of Community and Economic Development, Department of Public Works, and the Department of Parks, Recreation, and Cultural Resources.
11. "Person" means any individual, corporation, firm, partnership, association, or other entity, public or private.
12. "Property boundary" means the surveyed line at ground level which separates real property.
13. "Receiving property" means real property within which sound originating from outside the property is received.
14. "Sound level meter" means an electronic instrument that measure sound pressure levels so as to establish dBA.

9.05.030 Measurement of Sound.

- A. Sound level meter. The use of a sound level meter may not be required to verify all noise violations such as public disturbance noises which may be discrete and/or intermittent and, therefore, not measurable at the time of the occurrence. If the measurement of sound is made with a sound level meter, the instrument shall be in good operating condition and shall meet the requirement for a Type I or Type II instrument, as described in the most current American National Standards Institute Specifications.
- B. Location of Measurement. Unless otherwise specified in this chapter, the point of measurement shall be at the property boundary of the receiving property or anywhere within it.

- C. Multiple EDNAs. When the receiving property lies within more than one EDNA, the maximum permissible environmental noise levels shall be determined by the most sensitive EDNA.

9.05.040 Maximum Permissible Environmental Noise Levels.

- A. Maximum Noise Levels. No person shall cause or permit sound to intrude into the real property of another person that exceeds the maximum permissible environmental noise levels established by this section. For sound sources located within the city, the maximum permissible environmental noise levels shall be as follows:

Table 1. Maximum Permissible Environmental Noise Levels

EDNA of Noise Source	EDNA of Receiving Property			
	Class A (dBA)		Class B (dBA)	Class C (dBA)
	Daytime Hours	Nighttime hours		
Class A	55	45	57	60
Class B	57	47	60	65
Class C	60	50	65	70

- B. Deviations. The following deviations from the Maximum Permissible Environmental Noise Levels set forth in Table 1 of this Subsection are permitted:
 1. At any hour of the day or night, the applicable maximum permissible noise levels may be exceeded for any receiving property by no more than:
 - a. 5 dBA for 15 minutes in any one-hour period; or
 - b. 10 dBA for 5 minutes in any one-hour period; or
 - c. 15 dBA for 1.5 minutes in any one-hour period.

9.05.050 Motor Vehicle Noise Performance Standards.

No person shall operate any motor vehicle or any combination of such vehicle upon the public highways in violation of the standards specified in WAC 173-62-030, as amended from time to time, which is hereby adopted by reference.

9.05.060 Exemptions.

Nothing in these exemptions precludes the City from requiring the installation of best available noise abatement technology consistent with economic feasibility.

- A. The following sounds are exempt from the provisions of this chapter at any time:
 1. Sounds generated by construction or maintenance activities in the city’s right-of-way that have been conditioned by the city to minimize the impact on adjacent property owners.
 2. Sounds generated in the performance of necessary construction for emergency work.

3. Sounds generated by railroad trains engaged in interstate commerce and regulated by the Federal Railroad Administration pursuant to 49 CFR Part 210 and 49 CFR Part 222, as amended.
 4. Sounds generated by the normal operation of a light rail transit system consistent with the Federal Transit Administration guidance set forth in *Transit Noise and Vibration Impact Assessment (May 2006)*, as amended.
 5. Sounds generated during routine railroad or light rail transit way maintenance activities and does not involve the use of general construction equipment consistent with federal regulations or guidance as denoted in Subsection (A)(3) and (A)(4) of this Section.
 6. Sounds caused by auxiliary equipment on motor vehicles used for highway maintenance.
 7. Sounds caused by motor vehicle in the performance of emergency work for the immediate safety, health, or welfare of the community or of individuals of the community, or to restore property to a safe condition following a public calamity.
 8. Sounds created by emergency equipment and vehicles, such as police and fire, necessary in the interests of law enforcement or the health, safety or welfare of the community.
 9. Sounds caused by fire alarms.
 10. Sounds created by surface carriers engaged in interstate commerce by railroad.
 11. Sounds originating from aircraft in flight.
 12. Sounds created by the removal of refuse by the city's Authorized Collection Company consistent with contract terms as provided in SMC 13.14 Solid Waste Code.
 13. Sound from electrical substations and existing stationary equipment used in the conveyance of water, waste water, and natural gas by a utility.
 14. Sounds created by safety and protective devices where noise suppression would defeat the intent of the device or is not economically feasible.
- B. The following sounds are exempt from the provisions of this chapter between the hours designated:
1. Sounds generated by City-approved or sanctioned events at parks, including but not limited to, public address systems for sporting events or concerts, festivals, parades, or outdoor movies between the hours of 9:00 a.m. and 11:00 p.m.
 2. Sounds generated between the hours of 7:00 am and 10:00 pm, Monday through Friday, and 9:00 a.m. – 10:00 p.m., Saturday, Sunday and Holidays for the following:
 - a. Sounds originating from property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances, including but not limited to sounds from lawnmowers, power hand tools, snow removal equipment and composters.
 - b. Sounds created by construction and emanating from construction sites.
 - c. Sounds created by the installation or repair of essential utility services.
 - d. Sounds created by warning devices, including back-up beepers, bells, chimes, and carillons, not operating continuously for more than five minutes.

9.05.070 Public Nuisance Noise.

It is unlawful for any person knowingly to cause or make, or from any person in possession of property knowingly to allow to originate from property, sound that is a public nuisance. Public nuisance noise is

any sound which unreasonably annoys, injures, interferes with, or endangers the comfort, repose, health of a person or persons. The following sources of sound are defined to be public nuisance noise, except as otherwise provided in this chapter:

1. Frequent, repetitive or continuous sounding of any horn or siren attached to a motor vehicle or watercraft, except as a warning of danger or as specifically permitted or required by law.
2. Frequent, repetitive or continuous sounds made by any domesticated animal which unreasonably disturbs or interferes with the peace of residents, except that such sounds shall be exempt when originating from a lawfully operated animal shelter, commercial kennel, or veterinary offices between the hours of 7:00 a.m. and 10:00 p.m.
3. Creation of frequent, repetitive or continuous sounds in connection with the starting, operation, repair, rebuilding or testing of any motor vehicle, motorcycle, off-highway vehicle or internal combustion engine within a Class A EDNA so as to reasonably disturb or interfere with the peace, comfort, and repose of owners or possessors of real property.
4. The amplified or unamplified human voice, such as yelling, shouting, whistling, and singing, which unreasonably interferes with the peace, comfort and repose of property owners or possessors, particularly during the hours of 10:00 p.m. to 7:00 a.m.
5. Creation of frequent, repetitive or continuous sounds that emanate from any building, structure, apartment or condominium, such as sounds from musical instruments, audio sound systems, band sessions or social gatherings.
6. Sound from audio equipment or motor vehicle audio sound equipment, such as radios, compact disc players, and MP3 players, that area operated at a volume so as to be audible greater than 50 feet from the source, and if not operated upon the property of the operator.
7. Sounds from motor vehicle engines and/or exhaust systems in violation of performance standards provided in WAC 173-62-030.
8. The squealing, screeching or other such sounds from motor vehicle tires in contact with the ground or other roadway surface because of rapid acceleration, braking or excessive speed around corners or because of such other reason; provided that sounds which result from actions that are necessary to avoid danger shall be exempt from this section.
9. Sounds made by the construction activities outside the hours of 7:00 a.m. through 10:00 p.m., Monday through Friday and 9:00 a.m. through 10:00 p.m., Saturday, Sunday, and Holidays.
10. Sounds originating from residential property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances, including but not limited to sounds from lawnmowers, power hand tools, snow removal equipment and composters between the hours of 10:00 p.m. and 7:00 a.m.

9.05.080 Variances.

- A. Variances may be granted to any person from the noise level requirements of this chapter, if findings are made by the City that compliance with such requirement cannot be achieved because of special circumstances rendering compliance unreasonable in light of economic or physical factors, encroachment upon an existing noise source, or because of non-availability of feasible technology or control methods.

- B. Any such variance, or renewal thereof, shall be granted only for the minimum time period found to be necessary under the facts and circumstances.
- C. If the variance is related to a permitted activity, variances shall be approved by the Permitting Authority. If a variance is not related to a permitted activity, variances shall be approved by the City Manager, or designee. The applicant for a variance shall supply information including, but not limited to:
 - 1. The nature and location of the noise source for which the application is made;
 - 2. The reason for which the variance is requested, including the hardship that will result to the applicant and/or the public if variance is not granted;
 - 3. The nature and intensity of noise that will occur during the period of the variance; and
 - 4. A description of interim noise control measures to be taken by the applicant to minimize noise impacts.
- D. In authorizing a variance, the city may attach any conditions deemed necessary to carry out the purpose of this chapter, including maximum noise levels, duration, and public notice requirements
- E. The city's decision on a variance application may be appealed to the Hearing Examiner as set forth in SMC 20.30 Subchapter 4.

9.05.090 Violation – Penalty.

- A. Enforcement of violations of this chapter shall be subject to enforcement by the Code Enforcement Officer or the Shoreline Police Department.
- B. Any person found in violation of the provisions of this chapter shall be deemed to have committed a civil infraction. The penalty for each violation shall be a fine of \$100.00.
- C. For enforcement purposes, each day in which a violation occurs or exists shall constitute a separate violation.
- D. The Code Enforcement Officer or a Police Officer may issue a civil infraction in accordance with SMC 20.30.770(A) and Chapter 7.80 RCW, upon the person(s) responsible for the violation.
- E. Any person who receives a civil infraction may contest the determination by filing an appeal in the King County District Court – West Division (Shoreline).
- F. The penalties set forth in this chapter are not exclusive. The City reserves the right to seek any other remedies provided by law to prevent or remedy any violation.

**Chapter 9.05
PUBLIC DISTURBANCE NOISE**

Sections:

9.05.010 Noise.

9.05.020 Violation – Penalty.

9.05.010 Noise.

A. General Prohibition. It is unlawful for any person to cause, or for any person in possession of property to allow to originate from the property, sound that is a public disturbance noise.

B. Definition. For purposes of this chapter, a “public disturbance noise” is any noise which unreasonably disturbs or interferes with the peace and comfort of owners or possessors of real property.

C. Illustrative Enumeration. The following sounds may, depending upon location, be public disturbance noises in violation of this chapter:

1. The frequent, repetitive or continuous sounding of any horn or siren attached to a motor vehicle, except as a warning of danger or as specifically permitted or required by law;
2. The creation of frequent, repetitive or continuous sounds in connection with the starting, operation, repair, rebuilding or testing of any motor vehicle, motorcycle, off-highway vehicle or internal combustion engine within a residential district;
3. Yelling, shouting, whistling or singing on or near the public streets, particularly between the hours of 10:00 p.m. and 8:00 a.m.;
4. The creation of frequent, repetitive or continuous sounds which emanate from any building, structure, apartment or condominium, such as sounds from musical instruments, audio sound systems, band sessions or social gatherings;
5. Sound from motor vehicle audio sound systems, such as tape players, radios and compact disc players, operated at a volume so as to be audible greater than 50 feet from the vehicle itself;
6. Sound from portable audio equipment, such as tape players, radios and compact disc players, operated at a volume so as to be audible greater than 50 feet from the source, and if not operated upon the property of the operator;

7. The squealing, screeching or other such sounds from motor vehicle tires in contact with the ground or other roadway surface because of rapid acceleration, braking or excessive speed around corners or because of such other reason; provided, that sounds which result from actions which are necessary to avoid danger shall be exempt from this section;

8. Sounds originating from construction sites, including but not limited to sounds from construction equipment, power tools and hammering between the hours of 10:00 p.m. and 7:00 a.m. on weekdays and 10:00 p.m. and 9:00 a.m. on weekends;

9. Sounds originating from residential property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances, including but not limited to sounds from lawnmowers, power hand tools, snow removal equipment and composters between the hours of 10:00 p.m. and 7:00 a.m. on weekdays and 10:00 p.m. and 9:00 a.m. on weekends.

D. Exclusion. This chapter shall not apply to the following:

1. Regularly scheduled events at parks, such as public address systems for baseball games or park concerts between the hours of 9:00 a.m. and 10:30 p.m.;

2. Construction or maintenance activities in the city's right-of-way that have been conditioned by the city manager or designee to minimize the impact on adjacent property owners;

3. Construction noise under subsection (C)(8) of this section or other noise generated in response to emergency situations; that is times when unexpected and uncontrollable events result in an imminent risk of physical harm or property damage. [Ord. 250 § 1, 2000; Ord. 121 § 1, 1997]

9.05.020 Violation – Penalty.

Any person who violates the provisions of this chapter shall be subject to a civil fine not to exceed \$250.00 for the first offense. For second and subsequent offenses, the person shall be guilty of a misdemeanor punishable as provided by RCW [9A.20.010\(2\)](#). [Ord. 121 § 2, 1997]

Technical Memorandum

TO: Brian Lee and Juniper Nammi, AICP; City of Shoreline
FROM: Steven Quarterman and Amy Maule
DATE: December 1, 2017
RE: **City Noise Code Review**
City of Shoreline, Washington

Introduction

This technical memorandum provides Landau Associates, Inc.'s (LAI's) review regarding noise regulations under the City of Shoreline (City) Municipal Code. The City has requested review, gap analysis, and recommendations for updating its existing noise regulations, specifically Shoreline Municipal Code Chapter 9.05 (Attachment 1). The City would like a code that is more easily administered and enforced and that will better protect residences from noise impacts. The City's code review, and any associated update of the code, is being initiated in anticipation of the Lynnwood Link Extension light rail to be constructed by Sound Transit within the City.

Methods

The evaluation provided in this technical memorandum is based on review of:

- Chapter 9.05 of the Shoreline Municipal Code
- Chapter 70.107 of the Revised Code of Washington (RCW; Noise Control Act of 1974)
- Chapter 173-58 of the Washington Administrative Code (WAC) – Sound level measurement procedures
- Chapter 173-60 WAC– Maximum environmental noise levels
- Chapter 173-62 WAC – Motor vehicle noise performance standard
- The following three municipal codes for jurisdictions in Washington, which were selected based on recent or ongoing Sound Transit light rail projects in the region:
 - City of Seattle – The Central Link Light Rail project, which runs between Seattle-Tacoma International Airport and the University District neighborhood in Seattle began construction in 2009 and was completed in 2016, and the Northgate Link Extension extending between the University District and Northgate is currently under construction.
 - City of Tukwila – Sound Transit light rail in the City of Tukwila includes a section of the Central Link as described above.
 - City of Bellevue – The Sound Transit East Link light rail extension, currently under construction, will connect downtown Seattle to the Redmond Technology Center, with multiple stops in Bellevue. Construction began in 2015 and service is anticipated to begin in 2023.

- Federal Transit Administration (FTA) Lynnwood Link Extension Record of Decision (ROD; USDOT FTA 2015)
- FTA Transit Noise and Vibration Impact Assessment (FTA Manual; USDOT FTA 2006)
- Sound Transit Executive Committee Board Motion M2004-08, Link Noise Mitigation Policy (Attachment 2).

A review of noise control regulations outside of the City’s jurisdiction provides a frame of reference for considering potential gaps in the regulatory coverage currently provided by Chapter 9.05 of the Shoreline Municipal Code.

Shoreline Noise Code Summary and Update Options

The public disturbance noise chapter is located under Title 9: Public Peace, Morals, and Welfare. “Public disturbance noise” is defined in Chapter 9.05.010(B) of the Shoreline Municipal Code as “... any noise which unreasonably disturbs or interferes with the peace and comfort of owners or possessors of real property.” The code (Attachment 1) includes broad interpretation of nuisance noise, but it does not provide quantitative thresholds for unacceptable noise impacts (relative) or unacceptable noise levels (absolute). Instead, the code generally identifies types of noise and timing of noise that may be considered a public nuisance. The code also establishes penalties for noise code violations and exclusions from the code’s applicability.

Based on our review of the RCW, WAC, other municipal codes, and FTA/Sound Transit documentation, we identified the following options for potential updates to the City’s noise regulations:

1. Identification of standards and quantitative criteria for determination of noise impacts
2. Expanding subsections related to construction noise
3. Adding conditions related to traffic noise associated with roadway improvements
4. Adding conditions related to vehicle noise
5. Adding conditions for variance from noise impact criteria
6. Adding conditions for enforcement of noise criteria.

Table 1 provides a summary gap analysis of the City’s noise code compared to City of Seattle, City of Bellevue, City of Tukwila, and FTA/Sound Transit Noise policy and procedures. A summary of the RCW, WAC, municipal code sections related to noise, FTA ROD and Manual, and Sound Transit policy are provided in Attachment 3.

Standards and Quantitative Criteria for Determination of Noise Impacts

The existing City of Shoreline code includes broad interpretation of nuisance noise. Although the City’s non-quantitative regulatory approach provides flexibility for the City to manage noise at its own discretion, its subjective nature may present challenges to both regulated parties and the general

public. Adoption of quantitative criteria for noise impacts, and approved standards for the modeling and/or measurement of noise, may provide greater consistency in evaluating potential noise impacts and/or violations throughout the City.

Quantitative criteria for noise levels are established for projects subject to the regulatory jurisdiction of Washington State. WAC 173-60-040 sets forth maximum permissible environmental noise levels for specific land uses, identified as Class A, Class B, and Class C environmental designations for noise abatement (EDNAs). The City of Bellevue has adopted the same classifications as the WAC. The cities of Seattle and Tukwila have adopted the same maximum permissible noise levels, but identify “districts” rather than classes of EDNA. In the event that the City adopts quantitative noise level criteria, use of criteria that are consistent with state regulations and other municipal codes should be considered. Such consistency creates a compliance framework that is more straightforward for projects with noise impacts that span multiple regulatory jurisdictions.

Chapter 173-58 WAC references the type of instrumentation for measuring sound (i.e., Type 1, Type 2, or Type 3 requirements of ANSI¹ S1.4-1971). The cities of Seattle, Tukwila, and Bellevue do not reference Chapter 173-58 WAC, but adopt similar instrumentation types for conducting noise assessments.

Adoption of quantitative noise level criteria, and noise modeling and/or noise measurement approaches for demonstrating compliance, when needed, would give the City’s noise code greater specificity, translating to 1) greater confidence in project proponents’ ability to comply with the code, and 2) a clearer understanding by the general public as to what noise levels might be anticipated as acceptable in any given area. As an example of quantitative noise level criteria that could be adopted by the City, refer to WAC 173-60-030 and WAC 173-60-040.

Construction Noise

The existing City code includes reference to nighttime construction noise as a potential public nuisance noise and as an excluded activity when occurring in the City’s right-of-way (as conditioned by the City manager or designee) or in cases of emergency. Similar to standards and quantitative criteria for determination of noise impacts described above, the City’s non-quantitative regulatory approach provides flexibility for the City to manage noise at its own discretion; however, its subjective nature may present challenges to both regulated parties and the general public. Adoption of quantitative criteria for construction noise impacts may provide greater consistency in evaluating potential noise impacts and/or violations throughout the City.

¹ American National Standards Institute.

WAC 173-60-040 includes provisions for short-term noise exceedances, which could be associated with construction activities. These short term exceedances are generally limited to 5 to 15 A-weighted decibel (dBA) increases over time periods of 5 to 15 minutes in any 1-hour period. Furthermore, the WAC references exemptions for sounds originating from temporary construction sites as a result of construction activity between the hours of 10 p.m. and 7 a.m.; although the exemption does not apply in residential areas.

The cities of Seattle, Tukwila, and Bellevue have adopted exemptions for construction activity during daytime hours.

The FTA Manual provides guidance on calculating construction noise and “reasonable criteria”² for the determination of impacts based on general land-use categories. The FTA Manual and ROD also provide strategies for mitigating construction noise impacts.

Adoption of quantitative construction noise level criteria for designated land uses would give the City’s noise code greater specificity, translating to 1) greater confidence in project proponents’ ability to comply with the code, and 2) a clearer understanding by the public as to what construction noise levels might be anticipated as acceptable in any given area during certain times of day. Code updates by the City could consider exemptions during daytime hours; however, consideration may be necessary to limits on exceedances in order to protect residents and/or businesses during daytime hours. Examples of quantitative construction noise-level criteria that could be adopted by the City include the short-term exceedances provided in WAC 173-60-040 and/or the reasonable criteria provided in the FTA Manual.

Traffic Noise

The existing City noise code does not include conditions associated with traffic noise associated with new or existing roadways. While the existing code references noise from individual vehicles as potential public nuisance noise, adoption of criteria associated with traffic on new or modified roadways may provide greater protection to property owners from noise impacts in the City.

The FTA Manual includes procedures for evaluating noise impacts from certain mass transit projects following Federal Highway Administration (FHWA) assessment procedures and noise abatement criteria. In accordance with FHWA criteria, the Washington State Department of Transportation (WSDOT) has developed noise policy procedures for conducting traffic noise analysis, evaluating traffic noise impacts, and determining the need for abatement consistent with federal highway traffic

² The FTA Manual provides background information on qualitative and quantitative construction noise assessments and indicates that there are no standardized criteria for assessing construction noise impacts. Consequently, criteria must be developed on a project-specific basis unless local ordinances can be found to apply.

noise standards for certain types of roadway projects. WSDOT/FHWA include their own classifications of land-use categories and noise impact criteria. Impact occurs when predicted traffic noise levels “approach or exceed” the applicable Noise Abatement Criteria (NAC), or result in a substantial increases in noise levels (i.e., increases of 10 dBA or more). When impact occurs, the FHWA requires study of noise abatement measures for feasibility and reasonability.

The City of Bellevue includes conditions for noise assessments of arterial improvements in residential areas, and includes conditions for evaluating the feasibility and reasonability of noise abatement when impacts occur.

Adoption of noise criteria associated with roadway projects would give the City’s noise code greater oversight to regulate the cumulative impact of vehicles by considering traffic noise. Code updates by the City could consider adoption of similar assessment and abatement procedures for roadway projects to that of WSDOT or the City of Bellevue.

Vehicle Noise

The existing City noise code references frequent, repetitive, or continuous sounding of horns or sirens, sounds from motor vehicle audio systems, and motor vehicle noise associated with tires in contact with the roadway under certain driving conditions as potential public disturbance noise. While the code recognizes some sources of vehicle noise, it is not comprehensive as it does not specifically reference noise that may be associated with motor vehicle engines or exhaust. Adoption of quantitative criteria for noise impacts associated with the operation of vehicles may provide greater consistency and oversight in evaluating potential noise impacts and/or violations throughout the City.

Chapter 70.107 RCW instructs the Washington State Department of Ecology to prioritize adoption of motor vehicle noise performance due to the significant impact of public highways on environmental noise levels. Chapter 173-62 WAC establishes noise emission standards for new motor vehicles and for operation of motor vehicles on public highways. Rules apply to motors, exhaust systems, brakes, and tires in contact with the ground, and require that vehicles operate in a manner as to not exceed maximum permissible sound levels for specific categories of vehicles.

The cities of Seattle and Tukwila directly address vehicle noise, while the City of Bellevue’s code includes a reference to Chapter 173-62 WAC. None of the municipal codes include specific references to noise created by light rail.

Adoption of quantitative vehicle noise level criteria would give the City’s noise code greater specificity, translating to 1) greater confidence in vehicle owner/operators ability to comply with the code, and 2) a clearer understanding by the general public as to what vehicle noise levels are acceptable. As an example of quantitative noise level criteria that could be adopted by the City, refer to WAC 173-62-030.

Variance from Noise Impact Criteria

The existing City noise code identifies types of noise that may be considered public nuisance noise and types of noise excluded from the regulations. The subjective nature of the City's noise code provides challenges for approving projects or activities that may have special circumstances not addressed in the regulations. Adoption of criteria and procedures for variance from noise impact criteria may provide the City greater flexibility to review/approve activities with special circumstances.

The WAC, Seattle Municipal Code, Tukwila Municipal Code, and Bellevue City Code all include allowances for variances to be granted for specific properties, uses, or equipment if noise reduction requirements cannot be achieved. Variances allow flexibility for projects/activities when limiting noise would be infeasible due to excessive cost, equipment requirements, or other conditions.

Furthermore, the City may codify a minimum requirement that project types without specific noise criteria—or projects for which a variance is requested—comply with guidelines established for similar projects that are subject to federal criteria. Federal noise criteria provide reasonable design guidelines for applicants to reduce impacts to the extent reasonable and feasible, and supports the City's basis for establishing condition(s) for granting a variance or other approval. Adoption of variance criteria/procedures would give the City's noise code greater specificity, translating to 1) a clear procedure for review of variance requests, and 2) conditions that may be considered special circumstances that could be considered for variance from noise impact requirements. An example of a regulation that could be adopted by the City that includes variance criteria is Chapter 25.08, Subchapter VII of the Seattle Municipal Code.

Enforcement of Noise Criteria

The current City noise code includes penalties for violation of the noise requirements, but does not provide reference to how the regulations are to be enforced. Adoption of rules associated with enforcement of the noise code may provide clarity on the procedure of identifying and responding to potential noise violations.

The RCW and WAC include specific provisions allowing municipalities to regulate and enforce nuisance noise from any source, acknowledging that the function of noise abatement and control should be primarily the role of local government. The cities of Seattle, Tukwila, and Bellevue include provisions for enforcement of their respective noise codes. The provisions include identifying departments responsible for certain enforcement activities and procedures for inspection of potential violations of the noise code, notice of violations, and issuance of citations.

Adoption of rules associated with enforcement of the City's noise code would 1) provide clarity on the City's role/responsibilities in administering the code, and 2) provide clarity on procedures for issuance of citations associated with violations of the noise code. Examples of enforcement provisions

incorporated into municipal codes can be found in Chapter 25.08, Subchapter IX of the Seattle Municipal Code, Chapter 8.45 of the City of Tukwila Municipal Code, and Chapter 9.18.060 of the City of Bellevue Municipal Code.

Conclusion

The City of Shoreline is seeking to update the noise control chapter in the municipal code. A review of state, other local, and federal policies/procedures associated with public transportation projects has identified potential gaps in the City's ability to comprehensively regulate noise impacts in the City. Development of code updates may be guided by the criteria provided in the WAC and other state/federal standards (i.e., FTA, WSDOT/FHWA impact criteria).

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USDOT FTA. 2015. Lynnwood Link Extension Record of Decision. Federal Transit Administration, US Department of Transportation. July 14.

Attachments

Table 1: Gap Analysis Comparing Municipal and Agency Standards

Attachment 1: Chapter 9.05 of the City of Shoreline Municipal Code: Public Disturbance Noise

Attachment 2: Sound Transit Link Noise Mitigation Policy

Attachment 3: Review of Washington State and Other Municipal Noise Codes

Table 1
Gap Analysis Comparing Municipal and Agency Standards
City Noise Code Review
City of Shoreline, Washington

	Primary Location of Noise Criteria within the Code		References or Incorporates Standards of Chapter 173-58 WAC (Sound Level Measurement Procedures)?	References or Incorporates Standards of Chapter 173-60 WAC (Maximum Environmental Noise Levels)?	References or Incorporates Standards of Chapter 173 62 WAC (Motor Vehicle Noise Performance Standards)?	Includes Conditions for Construction Noise?	Includes Conditions for Light Rail Noise?	Includes Conditions for Traffic Noise?	Includes Conditions for Variance from Criteria?	Includes Provisions Specific to Enforcement?
City of Shoreline	Title 9: Public Peace, Morals and Welfare		No	No	No	Yes. Exclusion for construction noise during specific hours.	No	No	No	No
City of Seattle	Title 25: Environmental Protection and Historic Preservation (Also addressed under Title 11: Vehicles and Traffic and Title 23: Land Use)		Yes. Limited to types of instrumentation.	Yes. Uses the same maximum noise levels, based on district (residential, commercial, industrial) rather than EDNA.	No, but addresses motor exhaust and tire noise, modifications to vehicles, and sales of vehicles.	Yes. Specific sound level limits and hours for construction, which vary by zoning and type of equipment.	No	No	Yes	Yes
City of Tukwila	Title 8: Public Peace, Morals and Safety		Yes. Limited to types of instrumentation.	Yes. Uses the same maximum noise levels, based on district (residential, commercial, industrial) rather than EDNA.	No, but addresses motor vehicle noise, including tire noise and modifications to vehicles.	Yes. Exemptions for construction noise by time of day; posting of construction hours.	No	"Regular traffic" is excluded from "sound-producing source" definition	Yes	Yes
City of Bellevue	Title 9: Health and Safety		Yes. Limited to types of instrumentation.	Yes. Uses the same EDNA-based maximum permissible sound levels.	Yes, direct reference.	Yes. Exemptions for construction noise by time of day.	No	Yes	Yes	No
Sound Transit Noise Policy	N/A		No	No	No	Yes. General instructions to meet applicable federal, state, and local regulations and requirements.	Yes	No	N/A	N/A
FTA Noise and Vibration Manual	N/A		No	No	No	Yes. Guidance for determination of construction-related noise, impacts, and mitigation.	Yes	Yes. For certain types of transit projects.	N/A	N/A

**Chapter 9.05 of the City of Shoreline Municipal Code:
Public Disturbance Noise**

**Chapter 9.05
PUBLIC DISTURBANCE NOISE**

Sections:

9.05.010 Noise.

9.05.020 Violation – Penalty.

9.05.010 Noise.

A. General Prohibition. It is unlawful for any person to cause, or for any person in possession of property to allow to originate from the property, sound that is a public disturbance noise.

B. Definition. For purposes of this chapter, a “public disturbance noise” is any noise which unreasonably disturbs or interferes with the peace and comfort of owners or possessors of real property.

C. Illustrative Enumeration. The following sounds may, depending upon location, be public disturbance noises in violation of this chapter:

1. The frequent, repetitive or continuous sounding of any horn or siren attached to a motor vehicle, except as a warning of danger or as specifically permitted or required by law;
2. The creation of frequent, repetitive or continuous sounds in connection with the starting, operation, repair, rebuilding or testing of any motor vehicle, motorcycle, off-highway vehicle or internal combustion engine within a residential district;
3. Yelling, shouting, whistling or singing on or near the public streets, particularly between the hours of 10:00 p.m. and 8:00 a.m.;
4. The creation of frequent, repetitive or continuous sounds which emanate from any building, structure, apartment or condominium, such as sounds from musical instruments, audio sound systems, band sessions or social gatherings;
5. Sound from motor vehicle audio sound systems, such as tape players, radios and compact disc players, operated at a volume so as to be audible greater than 50 feet from the vehicle itself;
6. Sound from portable audio equipment, such as tape players, radios and compact disc players, operated at a volume so as to be audible greater than 50 feet from the source, and if not operated upon the property of the operator;

Attachment C

7. The squealing, screeching or other such sounds from motor vehicle tires in contact with the ground or other roadway surface because of rapid acceleration, braking or excessive speed around corners or because of such other reason; provided, that sounds which result from actions which are necessary to avoid danger shall be exempt from this section;

8. Sounds originating from construction sites, including but not limited to sounds from construction equipment, power tools and hammering between the hours of 10:00 p.m. and 7:00 a.m. on weekdays and 10:00 p.m. and 9:00 a.m. on weekends;

9. Sounds originating from residential property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances, including but not limited to sounds from lawnmowers, power hand tools, snow removal equipment and composters between the hours of 10:00 p.m. and 7:00 a.m. on weekdays and 10:00 p.m. and 9:00 a.m. on weekends.

D. Exclusion. This chapter shall not apply to the following:

1. Regularly scheduled events at parks, such as public address systems for baseball games or park concerts between the hours of 9:00 a.m. and 10:30 p.m.;
2. Construction or maintenance activities in the city's right-of-way that have been conditioned by the city manager or designee to minimize the impact on adjacent property owners;
3. Construction noise under subsection (C)(8) of this section or other noise generated in response to emergency situations; that is times when unexpected and uncontrollable events result in an imminent risk of physical harm or property damage. [Ord. 250 § 1, 2000; Ord. 121 § 1, 1997]

9.05.020 Violation – Penalty.

Any person who violates the provisions of this chapter shall be subject to a civil fine not to exceed \$250.00 for the first offense. For second and subsequent offenses, the person shall be guilty of a misdemeanor punishable as provided by RCW [9A.20.010\(2\)](#). [Ord. 121 § 2, 1997]

[Mobile Version](#)

Sound Transit Link Noise Mitigation Policy

Link Noise Mitigation Policy

This Link Noise Mitigation Policy (“Policy”) establishes Sound Transit policies intended to guide both the assessment and mitigation, as appropriate, of noise impacts associated with Link Light Rail project components.

I. ASSESSMENT OF LINK NOISE IMPACTS

As a general matter, the assessment of potential Link noise impacts will occur as part of the environmental review process. The following policies shall guide Sound Transit’s assessment and control of potential Link noise impacts:

- A. Sound Transit shall comply with applicable federal, state, and local noise requirements in evaluating noise impacts, determining appropriate mitigation measures, and implementing Link projects;
- B. Sound Transit will seek to identify potential noise impacts and potential mitigation measures early in the project development process, as practicable;
- C. Sound Transit will seek to reduce expected noise impacts, as practicable, through reductions in source emissions and project design;
- D. Sound Transit will seek to work with local jurisdictions to provide that development occurs which is compatible with expected or existing project operational noise.

II. GENERAL MITIGATION POLICIES

A. Consistency with Sound Transit Scope Control Policy

In implementing noise mitigation for each Link project, Sound Transit shall comply with the Scope Control Policy (Board Motion M2002-121) for both construction-related and operational mitigation.

B. Construction Noise Mitigation

Sound Transit will seek to limit construction noise impacts associated with the development of the Link projects. To this end, Sound Transit will meet applicable federal, state, and local construction noise regulations and requirements, including any requirement to obtain required noise variances. Project-specific efforts to minimize construction noise impacts may include: the use of noise barriers between major construction sites and nearby noise-sensitive uses; restricting the use of noise generating equipment during nighttime hours unless appropriate mitigation is in place; the use of truck haul routes that will serve to minimize potential noise impacts; and temporary relocation of sensitive receptors, where appropriate.

C. Operational Noise Mitigation

Sound Transit will assess whether a Link project will result in operational noise impacts in accordance with applicable federal, state, and/or local law, and relevant guidance. Source treatment measures, which serve to prevent noise impacts, shall be the preferred means of mitigation. After the implementation of source treatment operational measures, the use of path measures (between the source and receiver) shall be the preferred method of mitigating noise impacts. This will primarily consist of noise barriers, alignment modifications, acquisitions or buffer zones. Sound insulation of buildings will be used to mitigate noise impacts only where path measures are ineffective, unreasonable and/or infeasible forms of mitigation.

D. Final Identification of Project Noise Impacts

Sound Transit shall continue to reevaluate project noise impacts associated with Link projects, as appropriate, during project design. The final identification and design of noise mitigation measures will occur preferably between the 60% to 90% design level, taking into account the implementation of source treatment operational measures and other means of noise reduction, as appropriate. This will ensure that noise impacts associated with Link are accurately characterized and mitigated as appropriate.

E. Community Outreach

A noise mitigation community outreach program, that addresses both construction and operational noise impacts, will be included in the community outreach plan for relevant Link projects or project segments prior to the start of construction. Each plan shall identify effective means of raising public awareness and providing information regarding Sound Transit's Link Noise Mitigation Policy, expected noise impacts, and associated mitigation efforts. The plan shall further provide for regular communication between Sound Transit's Link Community Outreach staff and affected property owners, business owners, and tenants regarding the implementation of the Link Noise Mitigation Policy. Sound Transit's Link Community Outreach program shall develop these noise mitigation community outreach plans, including all written materials, under the direction of the Link Director, or designee, and in coordination with Link Project Development, Real Estate, and Legal. The plans shall reflect applicable Sound Transit policies, as well as any ROD and/or other project requirements.

III. NOISE BARRIERS

The following policies shall govern Sound Transit's implementation of permanent noise barriers as a form of operational noise mitigation for Link projects. This section does not apply to the use of temporary noise barriers used during construction.

A. Criteria for Noise Barrier Use

Noise barriers may be considered as a form of noise mitigation for Link projects when justified by the scope of an identified noise impact that cannot be reduced or eliminated through operational or other source reduction measures. Noise barriers will be used only along elevated and at-grade trackway and only where the use of such barriers is reasonable and feasible. Whether the use and location of such barriers is reasonable and feasible will be determined in consideration of the following: noise reduction; limits to effectiveness (e.g., the existence of a multi-story building); whether the use of a noise barrier would result in potential safety, visual, or other impacts; cost-effectiveness; or other factors as appropriate.

B. Coordination with Affected Property Owners

Sound Transit decisions to use noise barriers, as well as barrier locations and designs, will be made in consultation with affected property owners, as appropriate. This coordination will be implemented under the direction of the Link Director, or designee, jointly by Link Project Development and Link Community Outreach, in consultation with Real Estate and Legal. Final decisions on noise barrier use and location in consideration of property owner interests and the criteria described in Policy IIIA, Criteria for Noise Barrier Use will be made under the direction of the Link Director, or designee.

IV. RESIDENTIAL SOUND INSULATION

The following policies shall guide Sound Transit's implementation of residential sound insulation program (RSIP) as a form of noise mitigation for Link projects. The RSIP manager, responsible for managing the RSIP contracts, shall be the designee of the Link Director.

A. Criteria for Residential Sound Insulation Use

Sound Transit shall implement residential sound insulation as a noise mitigation measure when justified by the scope of an identified impact that cannot be reduced or eliminated through source control or other operational measures. Residential sound insulation shall be used only when the use of source or path treatments, such as noise barriers is ineffective, unreasonable, and/or infeasible.

B. Noise Reduction Levels

Unless otherwise required, sound insulation will use the Housing and Urban Development (HUD) interior 45 dBA Ldn as the reference value for interior noise level reduction of light rail impacts and WSDOT's 51 dBA peak hour Leq criteria as the reference value for traffic noise impacts. For those locations where both light rail and traffic noise impacts are identified, the interior noise levels will meet whichever criterion achieves the greatest level of noise reduction.

C. Scope of Required Improvement

The scope of required residential sound insulation improvements will be determined on a case-by-case basis. Improvements will be based on the need to meet the noise reduction levels in policy IV.B. Improvements will be limited to those necessary to install the required sound insulation measures and that are consistent with the Scope Control Policy (Board Motion M2002-121). Potential measures may include, as appropriate: the installation of replacement windows and doors and, if required, added insulation. Required improvements shall not include major structural improvements/modifications, property upgrades or any other improvements not required to meet applicable noise reduction levels.

D. RSIP Contracting

Sound Transit shall provide for the installation of required residential sound insulation and related work in affected buildings through the use of qualified contractors and subcontractors. In addition to providing for the completion of the residential sound installation in accordance with stated requirements, the contractual documents shall provide for the following:

1. Appropriate coordination of installation of required improvements with affected property owner/tenants, in consultation and coordination with Sound Transit;
2. The implementation of practicable measures to minimize inconvenience to affected property owners and tenants during the installation process, such as the use of dust-proofing measures and limiting work to daytime hours only; and
3. Reference of inquiries regarding the scope of required residential insulation measures to the RSIP manager.

E. Coordination with Affected Property Owners/Tenants

Sound Transit shall coordinate testing associated with the residential sound insulation, the identification of appropriate residential sound insulation measures, and the installation of sound insulation measures with affected property owners. This coordination will be implemented under the direction of the Link Director, or designee, and jointly by the RSIP manager and Link Community Outreach manager. Final decisions relating to the scope of required residential sound insulation measures for all affected properties in consideration of property owner interests and the criteria described in Policy IV.A, Criteria for Residential Sound Insulation Use will be made under direction of the Link Director, or designee.

F. Documentation

The Link RSIP manager, in consultation with Legal and in coordination with Link Community Outreach and Real Estate shall provide for the development of appropriate documentation associated with installation of residential sound insulation as a form of Link noise mitigation. Such documentation should include the following: the use of

written access agreements for testing and installation with property owners; written agreements with property owners providing for the installation of required insulation measures; written documentation from the contractor installing the mitigation and the property owners indicating the completion of required insulation measures; and liability releases as appropriate.

G. Homeowner Elections to Forego Improvements

The decision to permit Sound Transit's installation of residential insulation measures designed to mitigate noise impacts is within the discretion of affected property owners. Property owners may, accordingly, elect to forego recommended improvements. However, Sound Transit shall not provide monetary or other forms of compensation to property owners as an alternative to providing recommended noise mitigation measures.

**Review of Washington State and
Other Municipal Noise Codes**

Attachment 3

Review of Washington State and Other Municipal Noise Codes

Revised Code of Washington/Washington Administrative Code Review

Chapter 70.107 of the Revised Code of Washington (RCW; Noise Control Act of 1974) empowers the Washington State Department of Ecology (Ecology) to expand statewide efforts toward the abatement and control of noise, considering the social and economic impact upon the community and the state. The authority provided in the Noise Control Act of 1974 provides the statutory authority for the guidance in Chapter 173-58 of the Washington Administrative Code (WAC) – Sound level measurement procedures, Chapter 173-60– Maximum environmental noise levels, and Chapter 173-62 – Motor vehicle noise performance standards. Key elements of the Noise Control Act of 1974 and corresponding guidance in the WAC are summarized below.

RCW 70.107 – Noise Control Act of 1974

The Noise Control Act of 1974 establishes that Ecology, with assistance from a technical advisory committee, “...shall adopt, by rule, maximum noise levels permissible in identified environments in order to protect against adverse affects [*sic*] of noise on the health, safety and welfare of the people, the value of property, and the quality of environment.” The Act defines noise as “the intensity, duration and character of sounds from any and all sources.”

In establishing the maximum noise levels, Ecology shall take into account the economic and practical benefits to be derived from the use of various products in each such environment, whether the source of the noise or the use of such products is permanent or temporary in nature, and the state of technology relative to the control of noise generated by all such sources of the noise or the products.

The Act directs Ecology to adopt rules consistent with the Federal Noise Control Act of 1972 for noise abatement and control, and allows local governments to impose limits or control sources different from those adopted or controlled by Ecology upon a finding that such requirements are necessitated by special conditions. Similarly, the Act establishes civil penalties, but allows local governments to enforce local noise ordinances.

The legislature recognizes that the operation of motor vehicles on public highways contributes significantly to environmental noise levels and instructs Ecology to give first priority to the adoption of motor vehicle noise performance standards. The Act also provides exemptions or specially limited regulations related to recreational shooting and emergency or law enforcement equipment where appropriate in the interests of public safety.

Chapter 173-58 WAC – Sound Level Measurement Procedures

The purpose of Chapter 173-58 WAC is to establish standardized procedures for the measurement of sound levels of sources regulated by Ecology. In general, this chapter specifies the type of

instrumentation for measuring sound, preparation and use of the instrumentation, ambient conditions for conducting noise measurements, and noise measurement procedures related to vehicles (i.e., noise from vehicle exhaust, and exclusive of traffic or vehicles in motion).

Chapter 173-60 WAC – Maximum Environmental Noise Levels

The purpose of Chapter 173-60 WAC is to establish maximum noise levels permissible in identified environments, and thereby to provide standards related to the reception of noise within such environments. This chapter defines three zones, based on land use and established maximum permissible noise levels, called the environmental designation for noise abatement (EDNA), as follows:

- Class A EDNA: Lands where human beings reside and sleep (such as single- and multi-family residential, camping, and community service establishments used for human habitation), or areas zoned Residential by local ordinance.
- Class B EDNA: Lands involving uses requiring protection against noise interference with speech (such as commercial, recreation, and community areas not used for human habitation), or areas zoned Commercial by local ordinance.
- Class C EDNA: Lands involving economic activities where higher noise levels are anticipated (such as warehouse, industrial, and agricultural property) or areas zoned Industrial by local ordinance.

Chapter 173-60-040 WAC sets forth maximum permissible environmental noise levels for each EDNA (Table 1). The code states that “No person shall cause or permit noise to intrude into the property of another person which noise exceeds the maximum permissible noise levels” as described in Table 1. Maximum permissible noise levels are further reduced between the hours of 10 p.m. and 7 a.m. for receiving properties within Class A EDNAs.

Table 1: WAC Maximum Permissible Noise Levels

EDNA of Noise Source	EDNA of Receiving Property (dBA)			
	Class A	Class A 10 p.m.-7 a.m.	Class B	Class C
Class A	55	45	57	60
Class B	57	47	60	65
Class C	60	50	65	70

dBA = A-weighted decibel

Short-term exceedances of the noise levels are allowed during day or night, as follows:

- 5 dBA for a total of 15 minutes in any 1-hour period
- 10 dBA for a total of 5 minutes in any 1-hour period
- 15 dBA for a total of 1.5 minutes in any 1-hour period.

Certain sounds are exempt from the above-noted limits, including (but not limited to) the following:

- Sounds originating from temporary construction sites as a result of construction activity (between the hours of 10 p.m. and 7 a.m., with the exception of Class A EDNAs)
- Sounds created by motor vehicles when regulated by Chapter 173-62 WAC
- Sounds created by surface carriers engaged in interstate commerce by railroad
- Sounds created by warning devices not operating continuously for more than 5 minutes, or bells, chimes, and carillons.

Variations may also be granted if requirements cannot be achieved based on special circumstances.

This chapter includes the provision that local governments are not prevented from regulating noise from any source as a nuisance, and acknowledges that the function of noise abatement and control is primarily the role of local government.

Chapter 173-62 WAC – Motor Vehicle Noise Performance Standards

The purpose of these rules is to establish noise emission standards for new motor vehicles and noise emission standards for operation of motor vehicles on public highways. Motor vehicles are defined as vehicles that are self-propelled, used primarily for transporting persons or property upon public highways. Aircraft, watercraft, and vehicles used exclusively on stationary rails or tracks are not motor vehicles under this chapter. The chapter requires that motor vehicles operate in such a manner as to not exceed maximum permissible sound levels established for specific categories of vehicles. The rules apply to vehicles' motors, exhaust systems, brakes, or tires in contact with the ground.

Other Municipal Noise Code Review

City of Seattle

Chapter 25.08 of the Seattle Municipal Code (SMC) addresses noise control, under Title 25, Environmental Protection and Historic Preservation.

The SMC defines the following three districts, based on land use and established maximum permissible noise levels: residential, commercial, and industrial. Chapter 25.08.410 of the SMC sets forth maximum permissible environmental noise levels for each district. These levels are identical to the EDNA-based levels defined by the WAC (Table 1). The code states that "Between the hours of 10 p.m. and 7 a.m. during weekdays, and between the hours of 10 p.m. and 9 a.m. on weekends and legal holidays, the exterior sound level limits are reduced by 10 dB(A) where the receiving property lies within a residential district of the City."

Like the WAC, exemptions are available for construction and maintenance equipment; however, more restrictive hours apply to the exemptions within residential areas, and additional limits apply between the hours of 8 p.m. and 5 p.m. in commercial areas.

Subchapter IV, beginning with SMC Chapter 25.08.430, addresses motor vehicles and specifies a limit for motor vehicle exhaust and tire noise. The subchapter prohibits modification of motor vehicles in any manner that will amplify or increase the noise, and restricts the sale of new motor vehicles that exceed certain noise limits. The subchapter also limits noise made from watercraft, with exemptions for commercial activities, sanctioned events, and other special situations.

Subchapter V, beginning with SMC Chapter 25.08.490, addresses public nuisance noises, defined as noises that unreasonably disturb other people. Loud and repetitive animal noises, horns, engines, musical instruments, and voices, are included in this category. This subchapter also addresses nightlife disturbances, residential disturbances, abatement of chronic violations, noise from portable audio equipment, and noise in public parks and places.

Subchapter VI list exemptions to the provisions described above. Subchapter VII describes situations in which a variance can be granted, with conditions, for specific properties, uses, processes or equipment; and includes basis for variances on technical and economic basis and for major public project construction. Subchapter VII describes the administration and measurement of noise. Subchapter IX describes the enforcement of provisions described in Chapter 25.08, and includes conditions for right of entry, stop work orders, notice of violations, civil enforcement and criminal penalties, nightlife disturbance violations, and citations and penalties.

In addition to Chapter 25.08, the SMC addresses noise in Chapter 11.46.030 (Vehicles and Traffic) and Chapter 23 (Land Use). SMC 11.46.030 is specific to mufflers on gas-powered motorized foot scooters. Chapter 23 includes various subchapters that describe noise-related standards as they apply to zoning and permitting processes.

The SMC chapters related to noise do not reference the WAC, but incorporate many of the same standards. The SMC does not include any provisions related to light rail or train traffic.

City of Tukwila

Chapter 8.22 of the Tukwila Municipal Code (TMC) addresses noise control, under Title 8, Public Peace, Morals and Safety. Like the SMC, TMC 8.22.050 establishes maximum permissible sound levels based on the district of the producing and receiving properties (residential, commercial, and industrial), using the same noise levels as the WAC (Table 1). Nighttime hours are defined as 10 p.m. through 7 a.m., Monday through Friday and 10 p.m. through 8 a.m., Saturday, Sunday, and state-recognized holidays. Short-term exceedances allowed by the TMC correspond to the WAC, as described above.

TMC 8.22.060 through 090 address motor vehicle noise, requiring that vehicles have mufflers in good working order, that vehicles not be modified in a way that permits sound to be emitted that exceeds the limits prescribed by TMC 8.22, and that no person may operate a motor vehicle in such a way as to produce tire noise due to excessive acceleration, speed, or deceleration other than in an

emergency. Automobile audio systems and vehicles operated off public highways are subject to the provisions of TMC 8.22.50. Vehicles used exclusively on stationary rails or tracks are not considered motor vehicles under the TMC.

Similar to the SMC, the TMC exempts certain sounds during all hours (for example: aircraft in flights, safety, emergency, and warning devices, or equipment or facilities engaged in commerce by railroad) or during daytime hours (for example: bells or carillons, maintenance and construction equipment).

TMC 8.22.120 allows for the granting of variances, with conditions, for certain types of noise. TMC 8.22.150 describes penalties for violating Chapter 8.22, and includes reference to enforcement under TMC 8.45.050 Investigation, Civil Infraction, and Violation Notice and Order. TMC 8.45.050 includes conditions for authority of site access and investigation, issuance of civil infractions, and notice of violation.

The TMC chapters related to noise do not reference the WAC, but incorporate many of the same standards. The TMC does not include any provisions specifically related to light rail, other than excluding vehicles used on stationary rails from the definition of motor vehicles.

City of Bellevue

The Bellevue City Code (BCC) Chapter 9.18 addresses noise control under Title 9, Health and Safety. BCC 9.18.020 specifies sounds that are exempt from the chapter, including but not limited to natural phenomena, sounds created by emergency equipment, surface carriers engaged in interstate commerce by railroad, and sounds created by safety and protective warning devices. Additional exemptions apply to specified sounds during daytime hours. Sounds created by construction are exempt between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, and 9:00 a.m. and 6:00 p.m. on Saturdays that are not legal holidays. Additional exemptions apply to sounds originating from parks and playgrounds, and sounds created by amplification equipment pursuant to issuance of a permit.

BCC 9.18.025 and 030 apply EDNA-based maximum permissible sound levels, as used by WAC 173-60-040 and described above, and apply the same nighttime hours and increases for noises of short duration.

BCC Chapter 9.18.040 addresses noise disturbances, such as noises created by audio equipment, human voices, and emergency devices when no emergency exists, construction noises outside of allowed hours. BCC Chapter 9.18.041 designates specific parks as quiet zones and BCC 9.18.042 describes noises specifically prohibited in quiet zones. BCC Chapter 9.18.044 describes when notice of construction hours must be posted. BCC 9.18.045A describes the procedures and criteria associated with sound amplification permits.

BCC 9.18.045B addresses development restrictions so as to prevent noise-sensitive uses from being developed in areas with existing noise exceeding specified levels. New residential structures in areas

with exterior noise levels over 65 dBA are required to incorporate sound attenuation measures. Play areas require sound attenuation measures if the daytime sound levels at the site exceed 55 dBA. Arterial improvements in residential areas (Class A EDNAs) require a noise analysis of the affected environment when:

- a. The existing exterior noise level exceeds 67 dBA peak hour equivalent sound level (Leq); or
- b. The projected exterior noise level as a result of the project is estimated to increase beyond 67 dBA peak-hour Leq; or
- c. The exterior noise level is expected to increase by 5 dBA more as a result of the project.

In cases of noise impacts associated with arterial improvements, noise mitigation measures intended to reduce exterior noise levels to a 60 dBA day/night average sound level (Ldn) or lower may be approved, in consideration of the following factors:

- a. Whether reasonable noise mitigation measures are available that will reduce exterior noise levels by 3 dBA or more; and
- b. Whether the financial impacts of noise mitigation measures are not disproportionate to the overall cost of the arterial improvement project; and
- c. Whether benefited property owners contribute to the cost of mitigation; provided, that this factor applies only if existing exterior noise levels exceed 67 dBA peak-hour Leq; and
- d. Whether the benefited community is supportive of noise mitigation measures.

BCC 9.18.046 through 9.18.080 address variances, penalties for violation, administration and authority, and severability. The chapter on administration and authority includes enforcement, which identifies the responsibility for civil noise infractions, civil violations, and construction hours posting by the police department, development services department, and building official, respectively.

The BCC includes references to Chapter 173-62 WAC related to motor vehicle noise and Chapter 173-70 WAC related to watercraft. BCC 9.18 does not include any provisions related to light rail.

Federal Transit Administration/Sound Transit Noise Policy and Requirements

The following section summarizes the Record of Decision (ROD) issued by the Federal Transit Administration (FTA) related to the Lynnwood Link project, FTA's noise and vibration manual (limited to noise), and Sound Transit's noise policy.

Federal Transit Administration Lynnwood Link Record of Decision

In July 2015, the FTA issued the Lynnwood Link Extension ROD, finding that the requirements of the National Environmental Policy Act had been satisfied for the construction of the Lynnwood Link Extension by the Central Puget Sound Regional Transit Authority (Sound Transit; USDOT FTA 2015). The ROD includes discussion of The Noise Control Act (as amended by the Quiet Communities Act), which requires federal agencies to develop programs to promote an environment free of noise that jeopardizes public health and welfare. This act requires that the agencies comply with state and local

noise ordinances. The FTA consequently developed criteria, documented in the Transit Noise and Vibration Impact Assessment Manual (USDOT FTA 2006), for measuring, assessing, and mitigating noise impacts from transit and transit/highway projects. The ROD references impacts and mitigation identified in the Final Environmental Impact Statement (USDOT FTA and Sound Transit 2015), consistent with these methods.

Mitigation specific to noise impacts referenced in the Lynnwood Link Extension ROD include:

1. Sound Transit will prevent and mitigate noise impacts consistent with its Light Rail Noise Mitigation Policy (Motion No. M2004-08). During final design, Sound Transit will review all predicted impacts and mitigation measures for verification. If it finds that equivalent mitigation can be achieved by a method less costly than what had been planned, or if the detailed analysis shows no impact, then the mitigation measure may be modified or eliminated.
2. To avoid noise impacts from light rail operations, Sound Transit will either (a) incorporate in the guideway a noise barrier 4 to 8 feet high on the edge of the structure closest to the noise-sensitive uses; or (b) install at-grade noise walls from 4 to 10 feet above the track height, or from the top of retaining walls built as part of the project.
3. Sound Transit will mitigate impacts from buses and cars operating in park-and-ride lots (at NE 185th Street and the Mountlake Terrace Station) by building noise barriers along the edge of the facility, applying sound insulation, or revising the design of the facility to move access driveways and bus loading areas farther from residences.
4. To avoid impacts from the replacement of existing noise walls, Sound Transit will build replacement noise walls 6 to 24 feet high.
5. To avoid impacts caused by wheel squeal, Sound Transit will regularly lubricate all curves with radii less than 600 feet near noise-sensitive uses. It may use a wayside or vehicle-mounted lubrication system. It will design all curves with radii between 600 and 1,250 feet near noise-sensitive uses to accommodate a wayside track lubrication system that it will install should wheel squeal occur during operation.
6. If the above-noted techniques are infeasible or will not be entirely effective at reducing noise levels below the FTA impact criteria or applicable requirement, Sound Transit will evaluate and offer sound insulation to residential properties where the existing building does not already achieve a sufficient exterior-to-interior reduction of noise levels. While the mitigation described above is based on predicted impacts, Sound Transit will provide further noise mitigation if operations cause noise impacts for which mitigation is necessary and appropriate under FTA noise impact criteria.
7. Special trackwork with low-impact frogs will be used in place of conventional frogs where cross-overs (the point at which two rails cross) will cause a noise or vibration impact that cannot be mitigated through other measures.
8. Where existing noise walls will require relocation, Sound Transit will relocate them as early in the construction process as practical so that the relocated walls will reduce noise from the ongoing construction activities. Sound Transit will seek appropriate noise variances from the local jurisdiction.

-
9. Construction noise and vibration control mitigation will meet required noise limits and minimize vibration by using the following measures as necessary:
- a) Install construction site noise barrier or noise wall by noise-sensitive receivers where feasible
 - b) Use smart backup alarms during nighttime work, or lower the alarm level or tone based on the background noise level, or switch off back-up alarms and replace with spotters
 - c) Use low-noise emission equipment
 - d) Implement noise-deadening measures for truck loading and operations
 - e) Monitor and maintain equipment to meet noise limits
 - f) Use lined or covered storage bins, conveyors, and chutes with sound-deadening material
 - g) Use acoustic enclosures, shields, or shrouds for equipment and facilities
 - h) Install high-grade engine exhaust silencers and engine-casing sound insulation
 - i) Prohibit aboveground jack-hammering and impact pile-driving during nighttime hours
 - j) Minimize the use of generators or use whisper-quiet generators to power equipment
 - k) Limit use of public address systems
 - l) Use movable noise barriers at the source of the construction activity
 - m) Use oscillatory pile-casing techniques where appropriate
 - n) Avoid using variable-frequency vibratory hammers in dense residential areas, such as around the NE 130th Street, NE 145th Street, NE 155th Street, and NE 185th Street Stations
 - o) Use resonance-free vibratory hammers or variable eccentric moment vibrators or other appropriate substitutes for conventional vibratory hammers or pile-drivers.
 - p) Limit or avoid certain noisy or high-vibration activities during nighttime hours.

Federal Transit Administration Noise and Vibration Manual

The FTA's guidance manual on transit noise, Transit Noise and Vibration Impact Assessment (Manual; USDOT FTA 2006), details the procedures for producing impact assessments for federally-funded transit projects, including light rail projects. The Manual contains chapters describing transit noise impact criteria, transit noise assessment procedures, including construction noise assessment and mitigation.

Different approaches are taken in evaluating noise impacts from transit projects depending on the type of project and the agencies involved. Because some projects are strictly transit projects while other projects are basically highway projects that include a transit component, two different sets of criteria are required as follows:

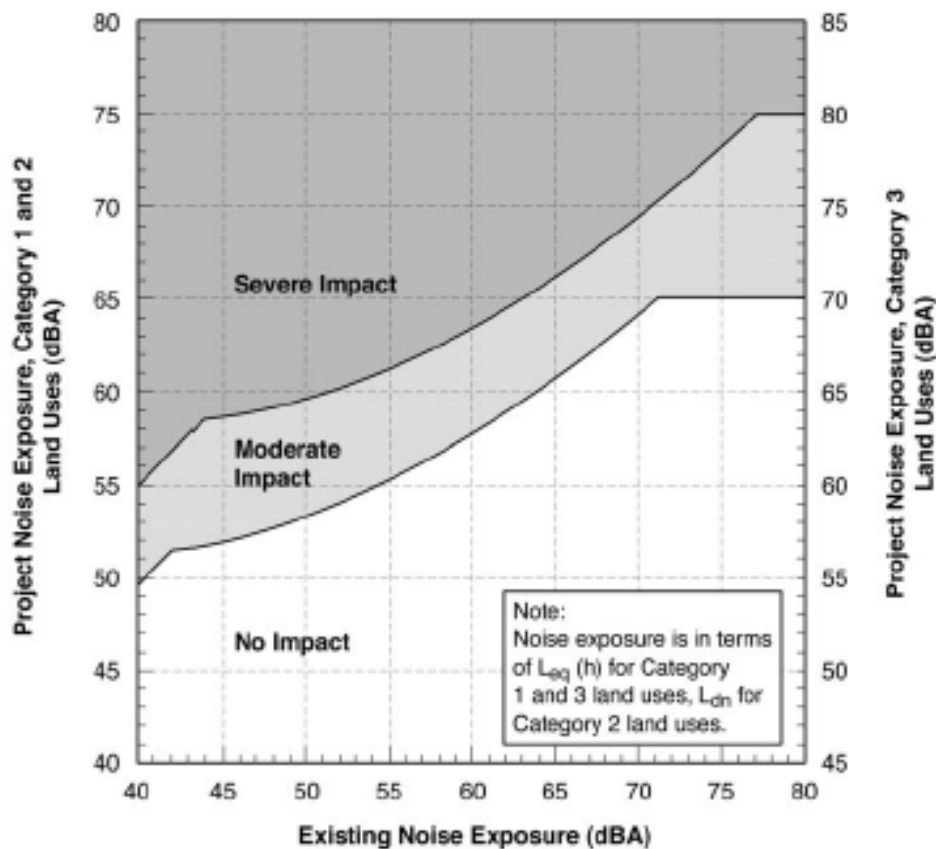
- **Rail and Bus Facilities:** This category includes all rail projects (e.g., rail rapid transit, light rail transit, commuter rail, and automated guideway transit), as well as fixed facilities such as storage and maintenance yards, passenger stations and terminals, parking facilities, substations, etc. Also included are rail transit projects built within a highway or railroad corridor.
- **Highway/Transit Projects:** This category includes projects that involve transit as part of new highway construction or modification of existing highways (e.g., projects that involve traffic lanes with preferential treatment for buses or high-occupancy vehicles).

Transit Criteria

The Manual establishes land-use categories and metrics for transit noise impact assessments:

Land-Use Category	Noise Metric (dBA)	Description of Land-Use Category
1	Outdoor Leq(h)	Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use. Also included are recording studios and concert halls.
2	Outdoor Ldn	Residences and buildings where people normally sleep. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
3	Outdoor Leq(h)	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material. Places for meditation or study associated with cemeteries, monuments, museums, campgrounds, and recreational facilities can also be considered to be in this category. Certain historical sites and parks are also included.
dBA = A-weighted decibel Leq(h) = Equivalent continuous sound level for the noisiest hour of transit-related activity during hours of noise sensitivity Ldn = Day/night average sound level		

Noise impact criteria for transit projects are based on the comparison of the existing outdoor noise levels and the future outdoor noise levels from the proposed project. They incorporate both absolute criteria, which consider activity interference caused by the transit project alone, and related criteria, which consider annoyance due to the change in the noise environment caused by the transit project. The noise impact criteria for transit projects are presented in the figure below.



Noise projections in the range of “No Impact” are considered acceptable by the FTA and mitigation is not required. At the other extreme, noise projections in the “Severe” range represent the most compelling need for mitigation. If it is not practical to avoid Severe impacts by changing the location of the project, mitigation measures must be considered. Impacts in this range have the greatest adverse impact on the community; thus, there is a presumption by the FTA that mitigation will be incorporated in the project unless there are truly extenuating circumstances that prevent it. The goal is to gain substantial noise reduction through the use of mitigation measures, not simply to reduce the predicted levels to just below the Severe Impact threshold. Because the FTA has to determine whether the mitigation is feasible and prudent, the evaluation of specific measures should include the noise-reduction potential, the cost, the effect on transit operations and maintenance, and any other relevant factors. Projected noise levels in the Moderate Impact range also require consideration and adoption of mitigation measures when it is considered reasonable. The range of Moderate Impact

delineates an area where project planners are alerted to the potential for adverse impacts and complaints from the community and must then carefully consider project specifics as well as details concerning the affected properties in determining the need for mitigation. Cost is an important consideration in reaching decisions about noise-mitigation measures. The decision to include noise mitigation in a project is made by the FTA after public review of the environmental document. This decision is reached in consultation with the project sponsor. If mitigation measures are deemed necessary to satisfy the statutory requirements, they will be incorporated as an integral part of the project, and subsequent grant documents will reference these measures as contractual obligations on the part of the project sponsor.

Traffic Criteria

Under specific circumstances, noise impacts from a mass transit project should be determined using Federal Highway Administration (FHWA) assessment procedures and noise abatement criteria, instead of the FTA procedures and guidelines. The FHWA requires state departments of transportation to develop noise policies that will apply to projects within that state. The Washington State Department of Transportation (WSDOT) has developed noise policy procedures for conducting traffic noise analysis, evaluating traffic noise impacts, and determining the need for abatement consistent with federal highway traffic noise standards (23 CFR 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise"). Noise studies are required by WSDOT for:

1. Construction of a highway in a new location
2. Significant changes to the horizontal or vertical alignment of an existing highway
3. Increases in the number of traffic lanes on an existing highway
4. Substantial alteration to the ground contours surrounding roadways.

WSDOT/FHWA include their own classification of land-use categories and noise impact criteria. Impact occurs when predicted traffic noise levels "approach or exceed"¹ the applicable Noise Abatement Criteria (NAC) presented below; WSDOT also considers an increase of 10 dBA or more to be a substantial increase and a traffic noise impact:

¹ WSDOT considers a predicted sound level of 1 dBA below the NAC as sufficient to satisfy the condition of "approach," or approaching the NAC.

Activity Category	Leq(h) at Evaluation Location (dBA)	Description of Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 (exterior)	Residential (single- and multi-family units)
C	67 (exterior)	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F. Includes undeveloped land permitted for these activities.
F	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	-	Undeveloped lands that are not permitted

When impact occurs by either method of assessment, NAC or substantial increase, the FHWA requires a study of noise abatement measures. Measures that are both feasible and reasonable² must be incorporated into the project. Noise-abatement measures are feasible if they can technically achieve a noise reduction of 5 decibels or more.

Construction Criteria

The Manual provides background information on qualitative and quantitative construction noise assessments and indicates that there are no standardized criteria for assessing construction noise impacts. Consequently, criteria must be developed on a project-specific basis unless local ordinances can be found to apply. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. In regard to quantitative noise assessments, the Manual provides a

² In general, feasibility deals with engineering considerations, and reasonability considers overall noise abatement benefits that outweigh the overall adverse social, economic, and environmental effects, as well as the abatement cost.

“General Assessment Procedure” and “Detailed Assessment Procedure” as guidelines that “... can be considered reasonable criteria for assessment.”

The General Assessment combines noise levels in 1 hour from the two noisiest pieces of equipment, assuming they operate at the same time, then identifies locations where the level exceeds the following:

Land Use	1-hour Leq (dBA)	
	Day	Night
Residential	90	80
Commercial	100	100
Industrial	100	100

The Detailed Assessment predicts noise levels in terms of 8-hour Leq and 30-day averaged Ldn, and compares criteria to the following:

Land Use	8-hour Leq (dBA)		Ldn (dBA)
	Day	Night	30-day Average
Residential	80	70	75 ^a
Commercial	85	85	80 ^b
Industrial	90	90	85 ^b

^a In urban areas with very high ambient noise levels (Ldn > 65 dB), Ldn from construction operations should not exceed existing ambient + 10 dB.
^b 24-hour Leq, not Ldn.

Following identification of potential impacts from construction noise, appropriate control measures are identified, which are generally categorized as:

- Design Considerations and Layout
- Sequence of Operations, and
- Alternative Construction Methods.

In some cases, it is appropriate to describe and commit to a mitigation plan. Components of the plan may include some or all of the following provisions:

- Equipment noise emission limits
- Lot-line construction noise limits
- Operational and/or equipment restrictions
- Noise abatement requirements
- Noise monitoring plan requirements
- Noise control plan requirements
- Compliance enforcement program
- Public information and complaint response procedures.

Sound Transit Noise Policy

Sound Transit Executive Committee Board Motion M2004-08 establishes Sound Transit's Link Noise Mitigation Policy for assessment and mitigation of noise impacts associated with Link Light Rail project components (Attachment 2 of the City Noise Code Review technical memorandum). The policy addresses both construction-related and operational noise impact assessment and mitigation. Both construction and operational noise impacts and mitigation shall be assessed and determined in compliance with applicable federal, state, and local noise regulations early in project development (normally part of the environmental review process). Final mitigation will be determined during final design.

The policy for mitigation of construction noise indicates project-specific efforts to minimize noise impacts may include: the use of noise barriers between major construction sites and nearby noise-sensitive uses; restricting the use of noise-generating equipment during nighttime hours unless appropriate mitigation is in place; the use of truck haul routes that will serve to minimize potential noise impacts; and temporary relocation of sensitive receptors, where appropriate.

The policy for mitigation of operational noise includes the following hierarchy:

1. Source treatment measures
2. The use of path measures (i.e., between the source and the receiver, commonly noise barriers)
3. Residential Sound Insulation Program (RSIP), which is used only where path measures are ineffective, unreasonable, and/or infeasible.

RSIP will use the US Department of Housing and Urban Development interior 45 dBA Ldn as the reference value for interior noise-level reduction of light rail impacts and WSDOT's 51 dBA peak-hour Leq criterion as the reference value for traffic noise impacts. If impacts are identified from both, the interior noise levels will meet whichever criterion achieves the greatest level of noise reduction. The decision to permit Sound Transit's installation of RSIP is within the discretion of affected property owners, and property owners may, accordingly, elect to forgo recommended improvements.

The policy includes a community outreach program to be included in a community outreach plan. Each plan shall identify effective means of raising public awareness and providing information regarding Sound Transit's Link Noise Mitigation Policy, expected noise impacts, and associated mitigation efforts. The plan shall further provide for regular communication between Sound Transit and affected property owners and tenants regarding the implementation of the Link Noise Mitigation Policy.

References

USDOT FTA. 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Federal Transit Administration, US Department of Transportation. May.

USDOT FTA. 2015. Lynnwood Link Extension Record of Decision. Federal Transit Administration, US Department of Transportation. July 14.

USDOT FTA and Sound Transit. 2015. Lynnwood Link Extension Final Environmental Impact Statement. US Department of Transportation and Central Puget Sound Regional Transit Authority. April.

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

Noise Code Amendment – Chapter 9.05

2. Name of applicant:

City of Shoreline

3. Address and phone number of applicant and contact person:

Brian Lee, Senior Planner
City of Shoreline
17500 Midvale Ave. N.
Shoreline, WA 98133
blee@shorelinewa.gov (206) 801-2553

4. Date checklist prepared:

February 09, 2018

5. Agency requesting checklist:

City of Shoreline

6. Proposed timing or schedule (including phasing, if applicable):

Planning Commission Public Hearing: April 2, 2018
City Council Adoption: April 16, 2018

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Additional amendments may be necessary in the future to accommodate changes or corrections. Those amendments will be evaluated in a subsequent SEPA review.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Latest Final Environmental Impact Statement for the City's Comprehensive Plan was issued – November, 2014.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No, this Code Amendment does not directly affect a specific property, rather the entire City. As such, no other pending approvals affect this amendment.

10. List any government approvals or permits that will be needed for your proposal, if known.

City Council approval.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Code amendment to the City's Municipal Code, Title 9 – Public Peace, Morals and Welfare; Subsection 05 – Public Disturbance Noise. The proposed amendment is a comprehensive attempt to update the Noise Code that has not been revised since 2001.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

City of Shoreline – the proposed regulation will apply citywide.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: (Circle one): Flat, rolling, hilly, steep slopes, mountainous, other.

The proposed amendment will affect the whole city and will include sites that are flat, rolling, hilly, steep slopes, treed, urban, paved, and developed.

b. What is the steepest slope on the site (approximate percent slope)?

The City contains areas of slopes over 40 percent in some areas, especially on the western-most and eastern-most portions of the City.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Recent geologic mapping of King County (Booth and Wisher, 2006) identifies the City as being underlain primarily by glacially derived or glacially overridden soils.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Landslide hazard areas within the City of Shoreline occur predominantly along the western perimeter of the City, where the highlands descend to Puget Sound, or within steeply incised natural drainages, such as Boeing and McAleer Creeks.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Not applicable – non-project action.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Not applicable – non-project action.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Not applicable – non-project action.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Not applicable – non-project action.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Not applicable – non-project action.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Not applicable – non-project action.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Not applicable – non-project action.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Not applicable – non-project action.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Not applicable – non-project action.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Not applicable – non-project action.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Not applicable – non-project action.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Not applicable – non-project action.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Not applicable – non-project action.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Not applicable – non-project action.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals . . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Not applicable – non-project action.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Not applicable – non-project action.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Not applicable – non-project action.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Not applicable – non-project action.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Not applicable – non-project action.

4. Plants

a. Check the types of vegetation found on the site:

- X deciduous tree: alder, maple, aspen, other
- X evergreen tree: fir, cedar, pine, other
- X shrubs
- X grass

- ___ pasture
- ___ crop or grain
- ___ Orchards, vineyards or other permanent crops.
- X wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- X water plants: water lily, eelgrass, milfoil, other
- X other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Not applicable – non-project action.

c. List threatened and endangered species known to be on or near the site.

Not applicable – non-project action.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Not applicable – non-project action.

e. List all noxious weeds and invasive species known to be on or near the site.

Not applicable – non-project action.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

- Birds: hawk, heron, eagle, songbirds, other _____
- Mammals: deer, bear, elk, beaver, other _____
- Fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.

Not applicable – non-project action.

c. Is the site part of a migration route? If so, explain.

Not applicable – non-project action.

d. Proposed measures to preserve or enhance wildlife, if any:

Not applicable – non-project action.

e. List any invasive animal species known to be on or near the site.

Not applicable – non-project action.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not applicable – non-project action.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Not applicable – non-project action.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Not applicable – non-project action.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

Not applicable – non-project action.

Describe any known or possible contamination at the site from present or past uses.

Not applicable – non-project action.

- 1) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Not applicable – non-project action.

- 2) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Not applicable – non-project action.

- 3) Describe special emergency services that might be required.

Not applicable – non-project action.

- 4) Proposed measures to reduce or control environmental health hazards, if any:

Not applicable – non-project action.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Not applicable – non-project action.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)?
Indicate what hours noise would come from the site.

Not applicable – non-project action.

- 3) Proposed measures to reduce or control noise impacts, if any:

Not applicable – non-project action.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Not applicable – non-project action.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Not applicable – non-project action.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversized equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Not applicable – non-project action.

- c. Describe any structures on the site.

Not applicable – non-project action.

- d. Will any structures be demolished? If so, what?

Not applicable – non-project action.

- e. What is the current zoning classification of the site?

Not applicable – non-project action.

- f. What is the current comprehensive plan designation of the site?

Not applicable – non-project action.

- g. If applicable, what is the current shoreline master program designation of the site?

Not applicable – non-project action.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Not applicable – non-project action.

i. Approximately how many people would reside or work in the completed project?

Not applicable – non-project action.

j. Approximately how many people would the completed project displace?

Not applicable – non-project action.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable – non-project action.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Not applicable – non-project action.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Not applicable – non-project action.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Not applicable – non-project action.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable – non-project action.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable – non-project action.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Not applicable – non-project action.

b. What views in the immediate vicinity would be altered or obstructed?

Not applicable – non-project action.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Not applicable – non-project action.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Not applicable – non-project action.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not applicable – non-project action.

- c. What existing off-site sources of light or glare may affect your proposal?

Not applicable – non-project action.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable – non-project action.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Not applicable – non-project action.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

Not applicable – non-project action.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Not applicable – non-project action.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

Not applicable – non-project action.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Not applicable – non-project action.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [h

Not applicable – non-project action.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Not applicable – non-project action.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Not applicable – non-project action.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Not applicable – non-project action.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Not applicable – non-project action.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Not applicable – non-project action.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Not applicable – non-project action.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Not applicable – non-project action.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Not applicable – non-project action.

h. Proposed measures to reduce or control transportation impacts, if any:

Not applicable – non-project action.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Not applicable – non-project action.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Not applicable – non-project action.

16. Utilities

a. Circle utilities currently available at the site:

Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Not applicable – non-project action.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Not applicable – non-project action.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____


Brian Lee
Senior Planner, City of Shoreline

Date Finalized: February 15, 2018

D. supplemental sheet for nonproject actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The proposed code amendment may result in increase of noise after-hours through the inclusion of the new Variance process.

Proposed measures to avoid or reduce such increases are:

The proposed Variance process may only be granted from the noise level requirements if findings are made by the City that compliance with such requirements cannot be achieved because of special circumstances rendering compliance unreasonable in light of economic or physical factors, encroachment upon an existing noise source, or because of non-availability of feasible technology or control methods. Any such variances shall be granted only for the minimum time period found to be necessary under the facts and circumstances. The City may also attach conditions deemed necessary to reduce impacts.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The proposed Code amendment would be unlikely, in any measurable manner, to affect plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

No measures proposed.

3. How would the proposal be likely to deplete energy or natural resources?

The proposed regulation will not deplete energy or natural resources.

Proposed measures to protect or conserve energy and natural resources are:

Not applicable.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The proposed regulation will likely, in any measurable manner, not affect environmentally sensitive areas or areas designated for governmental protection.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Not applicable.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The proposed regulation will likely not affect land and shoreline use.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Not applicable.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposed Code amendment will not increase demands on transportation or public services and utilities. A variance process is often used to avoid impacts to transportation systems, especially along arterial streets and Interstate 5.

Proposed measures to reduce or respond to such demand(s) are:

Not applicable.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The intent of the proposed Code amendment is to help clarify City regulations and should not conflict with local, state, or federal laws or requirements for the protection of the environment.

Attachment E

Sound Level Meters

MAC 173-58-030:

"(1) Sound level meter. The sound level meter shall meet the Type 1, Type 2, or Type 3 requirements of ANSI S1.4-1971. The meter weighting and response mode will be set as required in the specific procedure used. The sound level meter shall be returned to the manufacturer or a qualified laboratory at least once a year, to be calibrated to standards traceable to the National Bureau of Standards.

Type 1, Type 2, or Type 3 sound level meters shall be used for any initial inspection procedures, but only Type 1 or Type 2 sound level meters shall be used for the measurement of sound levels for enforcement purposes.

(2) Sound level calibrator. An acoustically coupled calibrator shall be used periodically to assure the accuracy of the sound level meter and microphone. The calibrator shall be returned to the manufacturer or a qualified laboratory at least once a year to be calibrated to standards traceable to the National Bureau of Standards."

Type 2 Meters

<i>Manufacturer</i>	<i>Extech</i>	<i>Amprobe</i>	<i>Reed</i>	<i>NoiseMeters</i>	<i>Extech</i>
Model	407732	SM-20A	R8080 Sound Level Meter/Datalogger	CEL240	SDL600 Sound Level Meter/Datalogger
Standards	ANSI and IEC 651 Type 2	ANSI 1.4 Type 2 and IEC 651 Type 2	ANSI 1.4 Type 2 IEC 61672-1 Class 2	ANSI S1.4 and IEC 60651 Type 2	ANSI and IEC 61672-1 Type 2
Range	Low: 35dB-100dB High: 65dB-130dB	A: 30dB-130dB C: 35dB-130dB	30dB-130dB	30db-100db 60-130dB	30dB - 130dB
Accuracy	+/-1.5dB	+/-1.5dB	+/-1.4dB		+/-1.4 dB
Frequency		31.5Hz-8KHz	20Hz to 8Khz		31.5Hz to 8Khz
Weighting	A, C	A, C	A, C	A, C	A, C
Response time	Fast, Slow	Fast (125ms) Slow (1s)	Fast (125ms) Slow (1s)	Fast, slow and impulse	Fast (125ms) Slow (1s)
Battery life		Approx. 50 hrs	Approx. 50 hrs		
Cost	\$152-\$199.99*	\$271.41	\$329	\$423	\$629***
Cost with accessory kit				\$895**	
Calibrator	407766 94/114dB Calibrator \$420 407744 94dB Calibrator \$330	SM-CAL1 \$186.58	Reed R8090 Calibrator \$199	CEL120/2	407766 94/114dB Calibrator \$420 407744 94dB Calibrator \$330
Other accessories			Windshield \$6; hard carrying case \$59		

*Includes wind screen and battery

**Kit includes meter, calibrator, windshield and case

***Includes wind screen, hard carrying case and SD card

Manufacturer	Model	Standards	Range	Weightings	Battery life	Accuracy	Frequency	Cost	Cost with accessories	Calibrator
Sper Scientific	840015 Type 1 Sound Level Meter	Type 1 ANSI S1.4, IEC61672	30-130 dB	A, C	24 hours	+/- 1dB	125Hz to 4khz	\$377 \$410 with certification	\$2444*	Model 850016 -
NoiseMeters Inc.	840015	Type 1 to ANSI S1.4, 60804 and IEC 61672-1:2002 Class 1	24 to 140 dB(A), 143 dB(C) Peak	A, C	22 hours (alkaline) 30 hours (lithium)			\$1766	\$2444*	P105 - \$533 (possibly included in accessories)
Larson Davis	LXT1-NFR-PK1	ANSI S1.43-1997 IEC 61672-2002 Class 1	38-140dB "A" 37-140dB "C"	A, C, Z	15 hours			\$3215	\$3,170**	Included in accessories
NoiseMeters Inc.	WPK-633A1	ANSI S1.4 and ANSI S1.43 to Type 1 or Type 2 IEC 61672 Class 1 or 2	20dB-140dB	A, C, Z	15 hours			\$3215	\$7150***	
Rion	NL-52	ANSI S1.43-1997 Type 1 IEC 61672-1:2002 Class 1	25 dB-138dB "A" 33 dB to 138dB "C"	A, C, Z	15 hours			Have to request a quote		NC-74
Casella	63X series	NSI S1.4 type 1 and 2 (1983) IEC 61672 Class 1 and 2	20dB-140dB	A, C, Z	15 hours		16Hz-16khz	Have to request a quote		CEL-120 - price

*Accessories include Acoustic Calibrator, Windshield for microphone, hard carrying case, tripod (this is a guess, the website is not specific)
 **Accessories include field mic, preamp, windshield, calibrator, portable printer and cable, padded carrying case
 ***Accessories include calibrator, case, rechargeable battery, software, outdoor microphone and extension cable, windshield, tripod

Type 1 meters