## IMPACT STATEMENT

**Legislation title:** Revise Noise Regulations for pile driving (Ordinance; amend Code Title 18)

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Presenter name:	Paul van Orden

### Purpose of proposed legislation and background information:

Proposed changes to Title 18, pile driving and appeals. These proposed amendments to Title 18 will reduce the allowed hours of pile driving, ensure notification is given to nearby residences when a construction project will require driven piles, and move the variance appeal process from City Council to the Code Hearings Officer.

### Financial and budgetary impacts:

This is proposed changes to Title 18. There are no financial or budgetary impacts.

### Community impacts and community involvement:

On May 14, 2014, a score of residents of the Pearl District testified to the Noise Review Board about the severe impact that noise from pile driving was having on their lives. At that time the Board committed to study the subject and to recommend to the City Council any needed Code changes. The Noise Review Board has heard testimony from developers, geotechnical engineers, construction contractors, pile driving contractors, construction workers, and many affected residents.

## **Budgetary Impact Worksheet**

## Does this action change appropriations?

**YES**: Please complete the information below. **NO**: Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount

#### Exhibit A

то:	Interested Persons
FROM:	David Sweet, Chair, Noise Review Board
SUBJECT:	Proposed changes to Title 18, The Noise Code
DATE:	April 7, 2015

The Pearl District is beset by construction noise. After the quiet of the recession, when little building occurred, Portland is experiencing a construction boom. The Pearl is already densely populated with apartment dwellers, and the multiple construction sites create an ongoing noise disturbance for myriad residents. When the City Noise Code, Title 18, was adopted in 1976, the Council recognized that construction was essential to the economic health of the City, and that it is necessarily loud. For this reason, the Code establishes fairly permissive limits on the daytime noise from construction equipment—no more than 85 decibels (dBA) at 50 feet. Equipment that cannot meet this permissive standard (pile drivers, pavement breakers, scrapers, concrete saws and rock drills) is exempt. Council chose to limit construction noise by limiting the hours it is allowed—Monday through Saturday, 7 a.m. to 6 p.m. Outside of those hours construction activities must meet the same property line noise standards as any other noise source.

### **Pile Driving**

Pile driving produces a particularly disturbing type of noise, and due to soil conditions, builders have found it necessary for most Pearl District construction. On May 14, 2014, a score of residents of the Pearl District testified to the Noise Review Board about the severe impact that noise from pile driving was having on their lives. At that time the Board committed to study the subject and to recommend to the City Council any needed Code changes. For the past six months, the Board and the staff of the Noise Control Office have conducted this study. We have reviewed codes related to pile driving from around the country and reached out to enforcement agencies in other cities. We have heard testimony from developers, geotechnical engineers, construction contractors, pile driving contractors, construction workers, and many affected residents. We have considered a variety of approaches to reducing the impact of pile driving on people in their homes. In this report I will review our proposed changes to Title 18, and comment on why we chose this approach and not others.

The loudest and most disturbing aspect of pile driving is the impact sound of a heavy weight (the "hammer") striking a pile—a metal rod or pipe being driven into the ground. After review, the Board is persuaded that there is no effective technology for mitigating this impact noise at the source. Some have experimented with hoisting a sound barrier to the point of impact (up to 120 feet high) and then lowering it as the pile is driven to deflect the sound from residents. The Board heard testimony that this technique compromises the safety of the operation and we do not recommend requiring such mitigation. It would be

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possible to mitigate the noise at the receiver by, for example, covering all facing windows with one-inch plywood. We did not see this as a viable approach.

We learned of an alternative method of placing piles known as continuous flight augering (CFA). This technique uses an auger to drill a hole which is then filled with concrete as the auger is withdrawn. This method has been used on some projects in the Pearl District. Project engineers have told us that CFA is not appropriate for every site and that the engineer needs to make the professional judgment as to whether it can and should be used. An additional consideration is that the Pearl District is being built on a landfill where unknown organic material has been deposited. The "spoils" brought up by the CFA process must be treated as hazardous waste, increasing both the risk and the cost of using this method. For these reasons, the Board did not choose to require CFA for placing piles.

We researched other less noisy methods of setting piles including vibrating them into place and pressing them in hydraulically. While we believe that such techniques show promise, we have heard that they do not meet the needs of Pearl builders at this time, and we are not comfortable mandating such a limit against the professional judgment of geotechnical engineers. The Board expects to revisit this question as the technology advances.

For the reasons enumerated above, the Board does not recommend requiring noise mitigation for pile driving or banning it outright. How then to bring relief to Pearl residents who are impacted by multiple current and future construction sites? Our recommendation follows the precedent established by the Council in 1976—limiting the hours of operation. We recommend that pile driving be allowed only Monday through Friday, from 8 a.m. to 6 p.m.. This reduces the allowed time by one hour per day and one day per week. (The City of Seattle allows pile driving from 8 a.m. to 5 p.m. on weekdays.) This proposal will give nearby residents more restful weekends, an extra quiet hour in the morning. As proposed, the hour limitations apply to "pile driving" rather than "pile drivers." The Board wishes to be clear that the new limitations apply to the act of driving piles, and not to the setup of pile driving equipment.

We have heard from contractors and developers that such reduced hours will make it difficult for them to keep a project on schedule. We acknowledge that this will add challenges to their work. We believe, however, that just as the industry has adjusted to the hour and day limits of the existing Code, it can adjust to these new limits. As pile driving contractors bid on future contracts, they will structure their bids to accommodate to the new restrictions. For this reason, we recommend that the restricted hours not be imposed immediately, but apply to projects for which construction permits are issued after July 1, 2015.

We are also recommending that nearby residents be given advance notice that pile driving will take place, and the anticipated dates for the work. Research has shown that noise is less disturbing when people know in advance that it is coming and when it is likely to end. We acknowledge that this notice requirement creates an additional burden and expense for

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developers. We believe that the public benefit from such notice justifies this expense. It is similar to the notifications the Board requires of applicants for noise variances.

## Zoning

The Board is also recommending a change in the way one land use zone is classified in Title 18 for establishment of allowable noise levels. The Central Employment (EX) Zone has always been classed as "Industrial" for purposes of noise enforcement. Because industrial uses tend to be noisier than others, allowable noise levels are higher in industrial zones than in commercial or residential zones. However, while certain low-impact manufacturing uses are allowed in EX zones, for the most part these zones are being used for mixed use development and are predominantly residential in character along with some retail. Much of the new development on North Williams Avenue is taking place in EX zones, and the Pearl District is almost exclusively zoned EX.

With the current Mixed Use Zones Project, the Bureau of Planning and Sustainability anticipates changing all EX zoned property to one of the new CM—Mixed Use Commercial zones. Such a change would require a change in Title 18, as these properties would be considered Commercial rather than Industrial. In anticipation of that change, which might be two years away, the Board recommends that EX zones be considered Commercial for purposes of noise enforcement. This change would reduce the allowable noise levels by as much as 10 dBA. A reduction of 10 dBA is perceived as a halving of loudness. The sound levels allowed in commercial zones are more appropriate for the uses we find in EX zones. This change will allow the Noise Control Office to offer greater protection to Pearl residents and others, from various noise sources, including construction activities outside of the permitted construction times.

### **Appeals of Variances**

The Noise Review Board recommends that appeals of noise variances be heard by the Code Hearings Officer rather than the City Council. When Title 18 was adopted nearly 40 years ago, the Code Hearings Office did not yet exist. It was standard practice for the Council to hear all manner of appeals, including those for nuisance abatement charges. Since that time, bureaus have shifted most administrative appeals to the Code Hearings Officer. If we are late in proposing this change, it is because there have been so few appeals of noise variances. The Board believes that this change will promote speedier and more efficient adjudication of appeals.

## ORDINANCE No.

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Revise Noise Regulations for pile driving (Ordinance; amend Code Title 18)

The City of Portland ordains:

Section 1. The Council finds:

- 1. The City of Portland is becoming a more densely inhabited city and larger developments in the City are being built in close proximity to many residential neighbors. Pile drivers operated in the City are one of the loudest pieces of construction equipment and single projects have the ability to impact large numbers of neighbors.
- 2. The Noise Review Board and City Council have heard from concerned citizens that pile driving regulations should be reviewed to better meet the changing needs of a growing, denser city. The Noise Review Board responded by taking testimony from stakeholders in the community including residential neighbors and parties in the development industry at multiple public hearings. The Board also reviewed the best practices of other cities to see what lessons might be incorporated into Title 18.
- 3. City Code should be amended to limit the start time for pile driving to establish a later start time at 8 AM, and by placing a limit on pile driving on Saturdays in excess of existing land use zone based decibel levels found in Title 18.10.010. This will limit all but the quietest forms of driving piles on Saturdays.
- 4. The time it takes for a citizen or other stakeholder to move an appeal through City Council on a decision of given noise variance is not as timely as relocating the venue for the appeals process for noise variances before the Code Hearing Office. The Noise Review Board of the City recommends unanimously that appeals of noise variances should be brought before the Code Hearings Officer.
- 5. EX zoning in the City of Portland has evolved over the years into a more commercially and residentially focused set of land uses than was originally conceived. Currently, EX zoning operates under the noise code as an Industrial land use zone for the purposes of establishing the permitted decibel levels. This higher industrial decibel level is becoming incompatible with the health needs of citizens to get a restful nights' sleep and enjoy the use of their residence, dwelling, hotel room, or other place citizens might legally inhabit.
- 6. The Noise Review Board recommends that EX zoning in the City be amended from an industrial land use zone classification to a commercial land use zone for purposes of determining permitted decibel levels under Title 18.10.010.

#### NOW, THEREFORE, the Council directs:

- a. City Code Section 18.10.060 Construction Activities and Equipment is amended by adding Subsection F. as follows:
  - F. Pile Drivers:
    - 1. Notwithstanding Subsection B above, the permissible sound levels of Section 18.10.010 shall apply to pile drivers from 6 p.m. to 8 a.m. the following morning, and 6 p.m. Friday to 8 a.m. the following Monday, and on legal holidays.
    - 2. The owner of a site on which pile driving will occur shall cause a notice to be mailed to all residences within 500 feet of the site. Mailing will occur no fewer than 30 days prior to the commencement of pile driving. The notice shall list the expected starting and ending dates for pile driving and give a telephone number for further information.
- b. City Code Subsection 18.14.020 I. is amended as follows:

I. Appeals to <u>City Council Code Hearings Office</u>. A variance decision of the Noise Control Officer or the Noise Review Board may be appealed to the <u>City</u> <u>Council Code Hearings Office</u> as follows:

- 1. Eligibility to appeal. A variance decision may be appealed by the applicant, his legal representative, any affected neighborhood association, or any person who has submitted oral or written testimony on the application.
- 2. Appeal acceptance criteria. Notice of intent to appeal shall be in writing to the City Auditor's Office Code Hearings Office within 10 days of the effective date of the decision. The notice shall identify the decision that is being appealed, and include the appellant's name, address, and signature, phone number, relationship to the variance decision action, and a clear statement of the specific reason(s) for the appeal including any alleged misapplication of City Codes.
- 3. Upon receipt of such appeal, the Auditor shall then place the matter upon the Calendar of the City Council. <u>The Code Hearings Office shall have</u> jurisdiction to hear the appeal as provided for in Chapter 22.10 of this <u>Code.</u>
- 4. At the time of the hearing, the City Council may consider such new matter as it deems appropriate, as well as the record developed before the Noise Control Officer or the Noise Review Board, and thereafter may affirm, reverse, modify or remand the decision.

c. City Code Subsection 18.04.040 FF. is amended as follows:

FF. Zone: A classification of area of the City of Portland as described in Title 33 of the City Code, relating to the use to which property may be put. For the purposes of this title, the zones are based upon the Land Use Zones, as defined in Title 33 as follows:

Category Open Space

Residential

Zones Open Space

Residential Farm/Forest Residential 20,000 Residential 10,000 Residential 7,000 Residential 5,000 Residential 2,500 Residential 3,000 Residential 2,000 Residential 1,000 High Density Residential Central Residential Institutional Residential

Neighborhood Commercial 1 Neighborhood Commercial 2 Office Commercial 1 Office Commercial 2 Mixed Commercial Residential Storefront Commercial General Commercial Central Commercial Central Employment

Commercial

3

## Industrial

General Employment 1 General Employment 2 Central Employment General Industrial 1 General Industrial 2 Heavy Industrial

Passed by the Council:

Mayor Charlie Hales Prepared by: Paul van Orden Date Prepared: June 25, 2015

# Mary Hull Caballero

Auditor of the City of Portland By

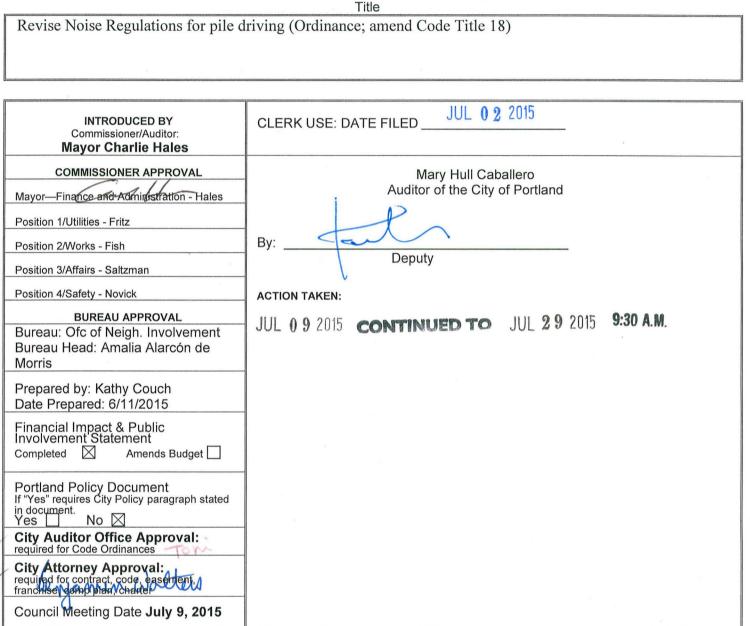
Deputy

# 755803

This document was substituted with a revised version. See final document: -187272

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Agenda No. ORDINANCE NO.



AGENDA	FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:	
TIME CERTAIN X Start time: <u>3:00 pm</u>		YEAS NAYS	
Total amount of time needed: <u>2 hours</u> (for presentation, testimony and discussion)	1. Fritz	1. Fritz	
	2. Fish	2. Fish	
	3. Saltzman	3. Saltzman	
REGULAR ⊠ Total amount of time needed: 2 hours	4. Novick	4. Novick	
(for presentation, testimony and discussion)	Hales	Hales	