

TO: Mayor Shaun Sipma
Members of the City Council

FROM: Dan Jonasson, Public Works Director

DATE: October 1, 2019

SUBJECT: CONSTRUCTION NOISE INFORMATION

At the request of Alderman Wolsky, per his email from Sept. 6, 2019, (attached), we have taken a look into addressing the issue of noise from construction activities that are of concern to him and some citizens who have expressed concern.

Currently our city ordinance, regarding noise reads as follows, the portion of this ordinance that relates to Construction activities has been highlighted:

Sec. 23-107. - Unnecessary noise generally.

It shall be unlawful for any person to make any loud, unnecessary or unusual noise or any noise which either annoys, disturbs, injures or endangers the comfort, repose, health peace, or safety of others within the limits of the city. The penalty for a violation of section 23-107 shall be a fine of one hundred fifty dollars (\$150.00).

(Rev. Gen. Ords. 1962, § 17-0402; Ord. No. 4811, § 1)

Sec. 23-108. - Noises prohibited—Decibel provisions.

(a) *Definition.* For the purposes of this section of this article, certain words and phrases used herein are defined as follows:

- (1) "Ambient noise" is the all-encompassing noise associated with a given environment, being usually composite of sounds from many sources, near and far.
- (2) "'A' band level" is the total sound level of all noise as measured with a sound level meter using the "A" weighing network. The unit of measurement is the dB(A).
- (3) "Bel" is the common logarithmic value of any sound intensity as related to the standard threshold of audibility (minimum detectible sound or 10—12 watts per square meter).
- (4) "Decible" is one-tenth (1/10) of a bel as measured on the "A" scale of a standard sound meter using procedures recommended by the American Standard Association.
- (5) "Cycle" is the complete sequence of value of a periodic quantity that occur during a period.
- (6) "Frequency" of a function periodic in time is the reciprocal of the primitive period. The unit is the cycle per unit time and must be specified.
- (7) "Sound-level meter" is an instrument including a microphone, an amplifier, an output meter, and frequency weighing networks for the measurement of noise and sound levels in a specified manner.
- (8) "Person" is a person, person's firm, association, co-partnership, joint venture, corporation or any entity public or private in nature.
- (9) "Emergency work" is work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from an imminent exposure to danger.

- (10) "Emergency vehicles" are those vehicles such as ambulance, fire, police and other city vehicles operating in time of emergency.
- (b) *General provision; tests for unlawful noise.* The standards which shall be considered in determining whether a violation of section 23-107 exists shall include, but shall not be limited to, the following:
- (1) The volume of the noise.
 - (2) The intensity of the noise.
 - (3) Whether the nature of the noise is usual or unusual.
 - (4) Whether the origin of the noise is natural or unnatural.
 - (5) The volume and intensity of the background noise, if any.
 - (6) The proximity of the noise to residential sleeping facilities.
 - (7) The nature and zoning of the area within which the noise emanates.
 - (8) The density of inhabitation of the area within which the noise emanates.
 - (9) The time of the day or night the noise occurs.
 - (10) The duration of the noise.
 - (11) Whether the noise is recurrent, intermittent or constant.
 - (12) Whether the noise is produced by a commercial or noncommercial activity.
- (c) *Classification of use district; residential, planned development, mobile home district, commercial, industrial.* It shall be unlawful to project a sound or noise excluding noise emanating from a motor vehicle from one property into another, within the boundary of a use district which exceeds the limiting noise criteria set forth in Table I below.
- (1) Sound or noise projecting from one use district, into another use district with a different noise level limit, shall not exceed the limits of the district into which the noise is projected.
 - (2) The permissible levels in decibels set forth in Table I shall be modified so that any noise occurring on property deemed to be nonconforming use property shall be determined upon the conforming zoning designation of the property.

TABLE I. LIMITING NOISE LEVELS FOR ZONING DISTRICTS

	<i>Zoning District</i>		
	<i>Residential (R1, R2, R3, R4, PD-MH)</i>	<i>Commercial (C1, C2, C3, C4)</i>	<i>Industrial (M1, M2)</i>
Maximum number of decibels permitted from 7:00 a.m. until 11:00 p.m., daily	55	65	80
Maximum number of decibels permitted from 11:00 p.m. until 7:00 a.m. of the following day	50	60	75

- (d) *Motorized vehicles.* It shall be unlawful to operate a motorized vehicle within the city limits which creates a noise or sound which exceeds the noise level limits set out in Table II, as follows:

TABLE II. LIMITING NOISE LEVELS FOR
MOTOR VEHICLES

- (a) Trucks, buses, construction equipment, or any motor vehicle with a gross weight rating of ten thousand (10,000) pounds or more:
Maximum allowable limit: 88 dB measures at 25 feet.
- (b) Passenger cars, pickups, vans, motorcycles, snowmobiles, or any motor vehicle with a gross weight rating less than ten thousand (10,000) pounds:
Maximum allowable limit: 80 dB measured at 25 feet.
- (e) *Noises; aircraft.* It shall be unlawful for any person to operate or cause to be operated any type of aircraft over the city which produces noise levels exceeding eighty-eight (88) dB(A) within the city.
- (f) *Exemptions.* The following uses and activities shall be exempt from noise level regulations:
 - (1) Noises of safety signals, warning devices, and emergency relief valves.
 - (2) Noises resulting from any authorized emergency vehicles, when responding to an emergency call or acting in time of an emergency.
 - (3) Noises resulting from emergency work as defined in section 23-108(a)(9).
 - (4) Any construction or maintenance activities.
 - (5) Any other noise resulting from activities of a temporary duration permitted by law and for which a license or permit therefore has been granted by the city in accordance with section 23-108(g).
 - (6) Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations, and air traffic control instruction used pursuant to and within the duly adopted federal air regulations shall be exempt from the provisions of section 23-108(e) as well as other regulations of this section. Any aircraft operating under technical difficulties, in any kind of distress, under emergency orders of air traffic control or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations shall also be exempt from the provisions of section 23-108(e) as well as the other regulations of this section.
- (g) *Application for special permit.* Applications for a permit for relief from the noise level designated in this section on the basis of undue hardship may be made to the city engineer or his duly authorized representative. Any permit granted by the city engineer hereunder shall contain all conditions upon which said permit has been granted and shall specify a reasonable time that the permit shall be effective. The city engineer, or his duly authorized representative, may grant the relief as applied for if he finds:
 - (1) That additional time is necessary for the applicant to alter or modify his activity or operation to comply with this section; or
 - (2) The activity, operation or noise source will be of temporary duration, and cannot be done in a manner that would comply with other subsections of this section; and
 - (3) That no other reasonable alternative is available to the applicant; and
 - (4) The city engineer may prescribe any conditions or requirements he deems necessary to minimize adverse effects upon the community or the surrounding neighborhood.

(Rev. Gen. Ords. 1962, § 17-0403; Ord. No. 2012, § 1)

Sec. 23-109. - Same—Manner of enforcement.

The penalty for violation of the provisions of section 23-108 shall be in accordance with section 1-8 of the Minot Code of Ordinances.

(Ord. No. 2012, § 1) Sec. 23-110. - Same—Additional remedy, injunction.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle, or machinery in violation of any provision hereof and which cause discomfort or annoyance to reasonable persons of normal sensitiveness or which endangers the comfort, repose, health, or peace of residents in the area shall be deemed, and is declared to be, a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction.

(Ord. No. 2012, § 1)

sec. 23-111. - Operation of sound system in motor vehicle.

(a) Notwithstanding anything to the contrary in this article, no person shall operate a sound system in a motor vehicle-while the motor vehicle is on the public right of way or other public property-so that the sound system is audible more than thirty feet from the motor vehicle. As used herein the term "sound system" includes, but is not limited to, any device which is designed with the principal purpose of converting (with or without amplification) an electric current into sound waves, but excludes an auto horn used as a warning device.

(b) The fine for a violation of this section shall be twenty-five dollars (\$25.00), except that if the violation is the second violation by the defendant within the previous twelve (12) months, then the fine shall be one hundred dollars (\$100.00), or if the violation is the third violation by the defendant within the previous twelve months, then the fine shall be one hundred fifty dollars (\$150.00) (as will be all subsequent violations by the defendant within a consecutive twelve-month period).

(Ord. No. 3523, § 1; Ord. No. 3569, § 1)

I reached out to other City engineers and Public works directors in North Dakota to see how they deal with noise issues and the following is the responses or sections of their ordinances we received from a few of them:

Here is a question for the group and I may add it to the agenda for discussion also at the NDWPCC conference but how do each of you address noise in construction sites? In Minot, construction is exempt from noise ordinances. I know for some of your cities this is also true and some issue permits or don't allow construction noise from 10:00 or 11:00 PM to 6-7:00 AM.

If this is the case, how do you address a project where generators for sewer bypass pumping has to run 24 hours a day, or snow removal equipment back up alarms, or dewatering wellsthat need to rund 24/7 for an extended period of time and generators that need to run 24 hours a day?

Thanks

Dan

Dan Jonasson

City of Minot, Director of Public Works

Office 701-857-4140

PO Box 5006, Minot, ND 58702

[City of Minot Website](#)

[Official Facebook Page](#)

Bismarck:

Section 8-10-03 Unlawful Noise

Exception: 8-10-03.2.d: Any construction or reasonable and necessary maintenance activities except in residentially-zoned areas between the hours of 11:00 p.m. to 7:00 a.m.

Dickinson:

Section: 24.12.02020

Exception: 24.12.04060.d Any construction or maintenance activities.

Dickinson's Code also exempts City construction project from the noise ordinance. I don't recall this being a major issue in the past, but with everything becoming more litigious I wouldn't doubt it could be an issue in the future.

Craig F. Kubas
Dickinson City Engineer
(701) 456-7715

Fargo:

Section: 11-02 Noise Control and Radio Interference

Exception: 11-0207.D Any construction or maintenance activities at the construction or maintenance site.

Grand Forks:

Section 10-0502 Noises Prohibited

Exception: (C)

Construction .

1.

For construction other than principle arterial roadway construction, operating or permitting the operation of any tools or equipment used in construction, drilling, or demolition work, between the hours of 10:00 p.m. and 6:30 a.m. the following day on weekdays or at any time on Sundays or holidays such that the sound therefrom creates a noise disturbance across a residential real property boundary except for emergency work of the city or public service utilities or by special variance issued pursuant to [section 10-0505](#).

2.

For principle arterial roadway construction, operating or permitting the operation of any tools or equipment used for the construction, repair or maintenance of a primary arterial roadway or associated infrastructure, between the hours of 10:00 p.m. and 6:30 a.m. the following day on weekdays such that the sound therefrom creates a noise disturbance across a residential real property boundary except for emergency work of the city or public service utilities or by special variance issued pursuant to [section 10-0505](#).

In Grand Forks, our ordinance allows for a variance to the noise ordinance. This is issued through our health dept. Pretty routine for construction. Often the contractor is required to notify close by properties of the expectation of afterhours noise. One of our big ones is concrete saw cutting. When the slab is ready, you need to get on it no matter the hour.

AI

Allen R. Grasser, PE
City Engineer
City of Grand Forks
PO Box 5200
Grand Forks, ND 58206
701-746-2640
701-787-3744 (fax)

Mandan

Mandan's noise ordinances makes exceptions for nine items. One of the exceptions is for reasonable construction that does not take place in a residential zone between the hours of 11pm and 7am. Another exception of note is for noises resulting from work of an emergency nature.

https://library.municode.com/nd/mandan/codes/code_of_ordinances?nodeId=PT2CO_CH16NU_ART6NONU_S16-6-4TAEX

Justin Froseth, PE
Planning and Engineering Director
City of Mandan
205 2nd Ave NW
Mandan ND 58554
Office (: 701.667.3227
Fax (: 701.667-3623

✉: jfroseth@cityofmandan.com
www.cityofmandan.com

Williston

The City of Williston's Nuisance Ordinances prohibit construction between 10:00 PM and 7:00 AM.

Should a contractor need to work after hours—for concrete sawing, etc.—we ask the City Commissions to waive this requirement for the specific project and nights that after hours work is required.

We have on rare occasions continued working past 10:00 to close up a project in advance of approaching weather, complete water main break repairs, complete water main connections, etc., and ask for forgiveness later.

Bob Hanson, P.E. | Senior Engineering Advisor
City of Williston | Engineering
1121 5th Street East | PO Box 2437, Williston ND 58802
T. 701-577-8100 | Ext: 2401 | C. 701-770-1662
www.cityofwilliston.com

Mandan:

Dan Excellent question and we have had a brief discussion about it this past spring and did not come to a real conclusive policy. (we ran into the exact same thing with a sewer bypass that required night time work due to flows...

Mitch

Mitch L. Bitz
Director of Public Works
City of Mandan
701-667-3240

As you can see from the responses from the other cities that responded to the questions asked, there is a variation of ordinances, but all of them in one way or another whether it is through a permit process or ordinance exemption, make an allowance for construction and emergency related activities.

Consideration needs to be taken into account for the following circumstances with our limited months of construction we have in North Dakota. Other items that we feel need to be taken into consideration if modifications are made to the ordinance are:

1. Allowance for saw cutting concrete or placement of concrete as hot temperatures may call for placement in early morning hours and saw cutting the expansion areas needs to happen before the concrete starts to cure or concrete failure of newly poured slabs will occur.
2. Dewatering of a trench or site since it can not be shut down and started up randomly. Dewatering needs to be able to run continuously until work is complete.
3. Bypass pumping of a sanitary sewer project where mainline work is being done or sewer backup will occur, impacting properties.
4. Snow removal equipment and use of backup alarms on equipment.
5. Emergency repairs for water main or sewer lines.

For reference and comparison while looking at our ordinance decibel levels, I have attached a decibel level comparison chart from Yale University.

In reference to the complaints that Alderman Wolsky refers to in his email. The one complaint was from work being completed on our levee under the SWIF contract with Park Construction. Generators were run at two different times to operate dewatering wells that need to run 24/7 to draw the water level down in the ground where the soils are very silty and unstable near the river. In order for the contractor to have a stable, firm base for removal and installation of the pipe and backfilling. The pumps ran for approximately 9 days in late may and again for 11 days in late august/early September. There was no other way to complete this work that I am aware of without dewatering wells running.

The other item referenced in regards to Mr. Holbach, I am not aware of the work or issues that created the noise, other than we were told by Mr. Holbach, when he came to the Public Works facility the same day that construction noise kept him up that was coming from the Walmart parking lot.

Any construction projects that are bid by the city does either add provisions in the contract documents or are brought up at the pre-construction conference that construction should be limited to day light hours or some provisions say 7:00 AM to 7:00 pm and only allow work outside of these hours with prior approval.