

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

MAREK KRUK,)	
)	
Complainant,)	
)	
v.)	PCB 2020-010
)	
NEW TRIER HIGH SCHOOL)	
DISTRICT NO. 203,)	
)	
Respondent.)	

**RESPONDENT’S REPLY IN SUPPORT OF ITS
MOTION FOR SUMMARY JUDGMENT**

NOW COMES, Respondent, New Trier High School District No. 203 (the “School District”), by and through its attorneys, Robbins Schwartz, Nicholas, Lifton and Taylor, Ltd, and for its Reply in Support of its Motion for Summary Judgment on Complainant’s Formal Complaint (the “Complaint”), states as follows:

I. Introduction

On August 23, 2019, Marek Kruk (“Complainant”) filed his Complaint with this State of Illinois Pollution Control Board, alleging noise pollution from the School District’s dust collector used within its wood shop and the rooftop equipment, although he was already aware that the equipment was within compliance of Illinois standards. In Complainant’s Response to the School District’s Motion for Summary Judgment (the “Response”), he provides no legal basis for his allegations, and, most importantly, lacks any facts to support a current violation of Illinois standards. Instead, Complainant continues to rely on a dated report and ignores the School District’s recent report which shows compliance with Illinois standards.

II. Complainant has Failed to Show Any Violation of Law.

The Complainant argues in his Response that it is the burden of the School District to prove its own compliance. See, i.e., Response, p. 9. However, this claim is unsupported, and actually

directly contrary to Illinois law. Pursuant to 415 ILCS 5/31(e)(2020) it is Kruk's burden, as the Complainant alleging violation of a numeric noise standard, to prove by an accurate measurement of sound emissions pursuant to the procedures outlined in Section 910.105, that there has been a violation of noise limits. See, *Gill v. CHS Inc. - Carrollton Farmers Elevator*, PCB 16-68, slip op. at 4 (January 21, 2016); and 35 Ill. Adm. Code 910.105. The Complainant has provided no measurements of sound emissions whatsoever and has therefore failed to meet this burden. Instead, Complainant introduces new videos into the record which feature no instrumentation or data. See Response, Exhibits V1-V4. However, the mere existence of sound is not enough to prove a violation of law, and with no material facts to support a current violation of Illinois sound levels, Kruk's Complaint is materially deficient on its face.

On the contrary, the School District voluntarily elected to obtain measurements of its own equipment performed by Shiner Acoustics LLC ("Shiner"), and voluntarily chose to implement sound mitigation efforts. See Affidavit of David Conway (the "Conway Affidavit"), attached to the School District's Motion for Summary Judgment and again hereto for convenience at **Exhibit 1**. This included insulating the dust collector motor, installing noise deflectors on rooftop equipment, moving a compressor indoors, installation of additional sound panels to the barrier wall. *Id.* Complainant continues to dismiss the School District's most recent Shiner Report, from June 2020, which states:

Sound level measurements were conducted on June 18, 2020 of the school's mechanical equipment, including the dust collector with new mitigation. Property line sound levels complied with the Illinois daytime limits in all frequency bands.

See **Exhibit B** of the Conway Affidavit. Furthermore, Kruk has not refuted any facts presented in the Conway Affidavit, and such unrefuted facts are deemed true. See, i.e., *Zedella v. Gibson*, 165

Ill.2d 181, 185 (1995)(holding that when supporting affidavits have not been challenged or contradicted by appropriate means, the facts stated therein are deemed admitted).

Ultimately, Complainant's arguments about what the sound levels might be at different locations, or that sound levels may change over time are mere conjecture, unsupported by any facts in the record. With no evidence of a current sound violation after the School District's mitigation efforts, the Complaint must fail; there is no question of material fact because the Complainant has presented no evidence compliant with the requirements of 415 ILCS 5/31 or 35 Ill. Adm. Code 910.105.¹

III. Relief Sought by Complainant is Arbitrary and Has No Basis in Law.

The Complainant invents numerous baseless standards in his Response, which the School District has no obligation to meet. For example, Complainant demands "significant compliance," with the explanation that "marginal measurement below the limit of less than 3 percent of the limit value would be unacceptable." See Response, p 13. Yet, this totally abstract standard is not what the law requires; the law simply requires compliance. The Complainant further demands testing in front of "all affected Woodland Avenue residents" and that the School District "be required to test noise levels periodically to ensure compliance." See Response, p. 17. These demands would improperly shift the burden to the School District, requiring significant efforts to continually prove that it is not violating a law which it has not been shown to be violating. This would set a dangerous precedent and is simply poor public policy.

¹ According to Section 910.105, a microphone tripod should be extended to a height between 3 feet 8 inches and 4 feet 10 inches above ground for testing. Complainant incorrectly argues that the School District must prove compliance with noise limits "measured at relevant elevation of 15 to 18 feet above the ground." See Response, p. 9. The School District's June 2020 report which shows compliance was performed with a microphone set to "about 5 feet above ground level."

IV. Conclusion

The Complainant has not presented any facts to support any noise violation pursuant to Illinois law or otherwise. Furthermore, the School District remains in compliance with Illinois law since at least June 18, 2020. Summary judgment must be granted if the pleadings, depositions, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law. 735 ILCS 5/2-1005(d)(West 2020). Here, no issues remain as to any question of material fact.

WHEREFORE, New Trier School District No. 203 respectfully requests that the Pollution Control Board consider the matters raised herein and that it grant the School District's Motion for Summary Judgment and for such other and further relief as the Pollution Control Board deems just and proper.

Respectfully Submitted,

NEW TRIER HIGH SCHOOL
DISTRICT NO. 203

By: /s/ Kenneth M. Florey
 One of its Attorneys

Dated: January 7, 2022

Kenneth M. Florey (kflorey@robbins-schwartz.com)
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312-332-7760 (ph)
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Cook County No. 91219

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

MAREK KRUK)	
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Complainant,)	
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v.)	PCB 2020-010
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NEW TRIER HIGH SCHOOL)	
DISTRICT NO. 203,)	
)	
Respondent.)	

AFFIDAVIT

The undersigned David E. Conway, being first duly sworn, deposes and states as follows:

1. I am the Director of Physical Plant Services at New Trier High School District No. 203 (the "District"). I have been employed by the District since July 28, 1988.
2. The District demolished three buildings and constructed a new building in 2017 on its campus located at 385 Winnetka Avenue, Winnetka, Illinois 60093.
3. After the new building was constructed, Marek Kruk notified the District of his noise concerns related to the rooftop mechanical equipment and a dust collector in the loading dock of the new building.
4. On information and belief, Kruk is the resident of 124 Woodland Avenue, Winnetka, Illinois 60093.
5. In May 2018, the District hired Shiner Acoustics, LLC ("Shiner Acoustics") to conduct environmental noise measurements and present a report regarding the new building's equipment.
6. On December 20, 2019, Shiner Acoustics rendered a report which explained that the rooftop ventilation equipment does not exceed the nighttime or daytime Illinois standards. See attached as **Exhibit A**. However, based on test conducted at the north property line of 124

Woodland Avenue on December 13, 2019, between 4:20 a.m. and 5:20 a.m., the operation of the dust collector could exceed daytime Illinois standards in the 2000 and 4000 Hz bands by 3 dB and 2 dB respectively. Exhibit A.

7. At the time of the December 13, 2019, Shiner Acoustics test, the District had already treated the dust collector motor with a one and one half inch thick insulated sheet metal enclosure.

8. The dust collector only operates during the daytime and does not operate at night.

9. The Shiner Acoustics report provided recommendations to treat the collector to reduce extra noise. Exhibit A. The District began to take actions to reduce the noise.

10. On August 23, 2019, Kruk filed his Complaint with the State of Illinois Pollution Control Board alleging noise pollution from the District's dust collector and the rooftop equipment.

11. The District moved a compressor indoors and installed noise deflectors on rooftop equipment. The District continued to treat the dust collector with additional noise reduction barriers.

12. On March 16, 2020, Shiner Acoustics performed additional testing on the public sidewalk at the northeast corner of the property line of 124 Woodland Avenue starting at 10:00 am. The testing indicated that the noise level of the dust collector was less than the Illinois daytime limit in all nine octave bands.

13. Despite the District's compliance with Illinois standards, the District then also installed an additional motor/fan enclosure.

14. On June 18, 2020, Shiner Acoustics performed additional testing on the public sidewalk at the northeast corner of the property line of 124 Woodland Avenue starting at 4:00 p.m.

See the Shiner Report Re: New Trier High School Dust Collector Noise Measurements dated March 1, 2021, attached as **Exhibit B**. The testing indicated that the noise level of the dust collector was acceptable and below Illinois standard limits.

15. Despite the District's compliance with Illinois standards, the District then also installed additional sound panels to increase the effectiveness of the sound barrier wall.

Under penalties provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct, except as to matters therein stated to be on information and believe and as to such matters the undersigned certifies as aforesaid that he verily believes the same to be true.



David E. Conway

October 12, 2021

Date

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

MAREK KRUK)	
)	
Complainant,)	
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v.)	PCB 2020-010
)	
NEW TRIER HIGH SCHOOL)	
DISTRICT NO. 203,)	
)	
Respondent.)	

AFFIDAVIT

The undersigned Brian L. Homans, being first duly sworn, deposes and states as follows:

1. I was previously employed by Shiner Acoustics, LLC (“Shiner”) as Managing Partner. I was employed by Shiner starting April 1, 1982 and retired on December 31, 2019.


2. At the request of New Trier High School District No. 203, I produced the acoustical consulting report “Re: New Trier High School December 13, 2019 Environmental Noise Measurements” dated December 20, 2019, incorporated herein as “2019 Report” and attached hereto as **Exhibit 1**.

3. The 2019 Report includes measurements taken at the west edge of the public sidewalk at the north property line of 124 Woodland Avenue on Friday, December 13, 2019, between 4:20 a.m. and 5:20 a.m. See *Id.*

4. The 2019 Report concluded that Property line sound level emissions could exceed the Illinois daytime limits in the 2000 and 4000 Hz frequency bands. Additionally, “daytime operation of the dust collector will likely be at or below ambient sound levels in those frequencies due to increased transportation noise in the area.” *Id.*

Under penalties provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct, except

as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that they verily believe the same to be true.



Brian L. Homans

September 14, 2021

Date

Robbins Schwartz
55 W. Monroe Street, Suite 800
Chicago, IL 60603

December 20, 2019

Attn: Mr. Kenneth Florey

Re: New Trier High School December 13, 2019 Environmental Noise Measurements

Dear Ken:

On the early morning of Friday, December 13, 2019, we returned to the school to conduct additional acoustical testing. The purpose of this testing was to reduce interference due to traffic noise and document property line sound levels due to New Trier rooftop and loading dock mechanical equipment operated during the nighttime and daytime hours. Previous dust collector readings were conducted on November 15, 2019, July 12, 2019, July 25, 2015 and May 31, 2018.

Acoustical Measurements

We again conducted sound level readings at the west edge of the public sidewalk at the north property line of 124 Woodland Ave. on Friday, December 13, 2019 between 4:20 a.m. and 5:20 a.m. This time was chosen to be a period when car traffic would be at a minimum.

We used the following instrumentation for these measurements:

- Norsonic 140 integrating sound level meter/real time analyzer
- Norr 1225 1/2 inch condenser microphone
- Norr 1209 preamplifier
- Nor 1251 Sound Calibrator
- Windscreen

A fiberglass mast was used to elevate the microphone to a height of 15 feet above ground level in order to simulate noise heard at the second floor of the 124 Woodland Avenue residence. Conditions were dry with no precipitation. Roadways were dry. The temperature decreased from 37° F to 36° F during the measurements. The wind was WSW at 6-7 mph. Traffic noise from the Edens Expressway, 2 miles to the west was audible. As the study progressed, noise from local and expressway traffic increased.

Because of experience with previous interference due to transportation noise in the area, 15 second readings were taken with various pieces of mechanical equipment operating. Ambient sound level readings were conducted at the beginning and end of the study (early morning and late morning ambient readings). Reported sound level data were corrected for ambient conditions. Although Illinois requires a measurement duration of one hour, noise from fans and blowers is steady state and does not vary with time.

The following mechanical equipment was measured:

- dock condensing unit,
 - rooftop energy recovery units (ERU's),
 - rooftop cafeteria fans (with normally operating nighttime equipment),
 - normally operating daytime equipment,
 - fume hoods (with normally operating daytime equipment) and
 - dust collector (with normally operating daytime equipment).
1. Dock Condensing Unit – This condensing unit periodically cycles on during the day and night. Although audible, we found the condensing unit to be in substantial compliance with the Illinois nighttime regulation limits. Sound levels in the 500 and 1000 Hz bands exceeded the Illinois limits but were at or below the early morning measured ambient.
 2. Energy Recovery Units (ERU's) – Energy recovery units operate continuously during the night. Sound levels in the 500 and 1000 Hz bands exceeded the Illinois limits but were at or below the early morning measured ambient. We believe that these units are in compliance with the Illinois limits.
 3. Cafeteria Fans (with ERU's operating) – Cafeteria fans run from approximately 4:30 a.m. to 9:30 a.m. when there is cooking in the kitchen. Sound levels measured at 4:40 a.m. in the 500 and 1000 Hz bands exceeded the Illinois nighttime limits but were below the late morning ambient.
 4. Fume Hoods and Normal Daytime Equipment - When measured at 4:59 a.m., fume hood equipment that operates normally during the daytime was below the Illinois limits in all frequency bands. We believe that fume hoods are in compliance with Illinois daytime limits.
 5. Normal Daytime Equipment – When measured at 4:55 a.m., corrected equipment that operates normally during the daytime was below the Illinois limits in all frequency bands.
 6. Dust Collector and Normal Daytime Equipment – With all normally operating daytime equipment running, dust collector noise exceeded the Illinois daytime limits by 3 dB and 2 dB in the 2000 and 4000 Hz octave bands.

Results of our study are shown in the table below and graphed in Figures 1-6.

Conclusion

The December 13, 2019 dust collector measurements (test 6) were conducted during early morning hours when ambient sound levels were low. Property line sound level emissions exceeded the Illinois daytime limits in the 2000 and 4000 Hz frequency bands. As previous testing has shown, daytime operation of the dust collector will likely be at or below ambient sound levels in those frequencies due to increased transportation noise in the area.

The dust collector and associated duct work are partially enclosed by a barrier wall. There are minimal areas of sound absorptive treatment behind the barrier wall and on the east dock wall. In order to reduce the 2000 and 4000 Hz emissions further, we recommend increasing the area of sound absorptive treatment in the dock area to approximately 70% of available wall surface area on the east, north (behind the dust collector) and south walls.

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Robbins Schwartz

December 20, 2019

Should sound absorptive treatment not result in the desired attenuation, we recommend treating radiated noise from the motor and associated ductwork. Lag the inlet and discharge round and rectangular ducts for a distance of 15-20 ft on each side of the motor enclosure. Wrap duct with 2" thick 5 pcf fiberglass and lag with 2 psf mass loaded vinyl (e.g., Kinetics KNM-200AL). Follow the manufacturer's instructions and tape or band all seams. The baghouse should also be treated in a similar manner.

If you have questions concerning this report, please do not hesitate to contact us.

Respectfully submitted,

Shiner Acoustics, LLC



Brian L. Homans

BLH/mt/13

**Table 1. Results of December 13, 2019 Environmental Noise Measurements
(4:20 a.m. to 5:20 a.m.)**

Octave Band Sound Pressure Level, dB re 20 μ Pa

	31.5	63	125	250	500	1000	2000	4000	8000	Awt
All Off 4:27 a.m. (early ambient)	51	51	48	44	44	39	26	14	14	43
1. Condensing Unit 4:29 a.m.	49	52	53	46	43	39	27	16	14	45
2. Energy Recovery Units 4:37 a.m.	51	51	50	45	44	39	22	16	18	45
3. Cafeteria Fans 4:40 a.m.	54	43	53	48	45	41	26	17	17	46
Illinois Nighttime Limit	63	61	55	47	40	35	30	25	25	44
4. Normal day equipment 4:55 a.m.	51	53	53	48	45	41	27	16	13	46
5. Fume Hoods 4:59 a.m.	50	51	53	48	44	41	27	18	18	46
6. Dust Collector 5:04 a.m.	58	65	56	56	49	44	42	36	27	52
All Off 5:16 a.m. (late ambient)	51	54	53	48	46	43	34	25	15	47
Illinois Daytime Limit	72	71	65	57	51	45	39	34	32	55

Figure 1. Condensing Unit
New Trier High School - 124 Woodland Ave. - December 13, 2019

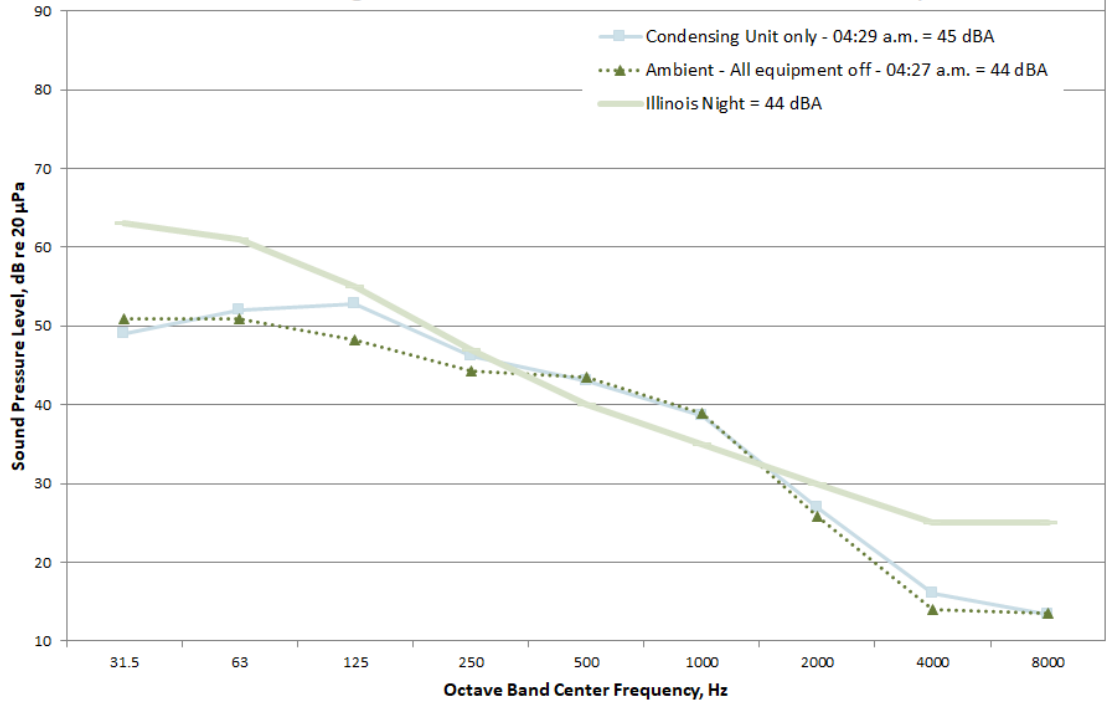


Figure 2. Energy Recovery Unitss
New Trier High School - 124 Woodland Ave. - December 13, 2019

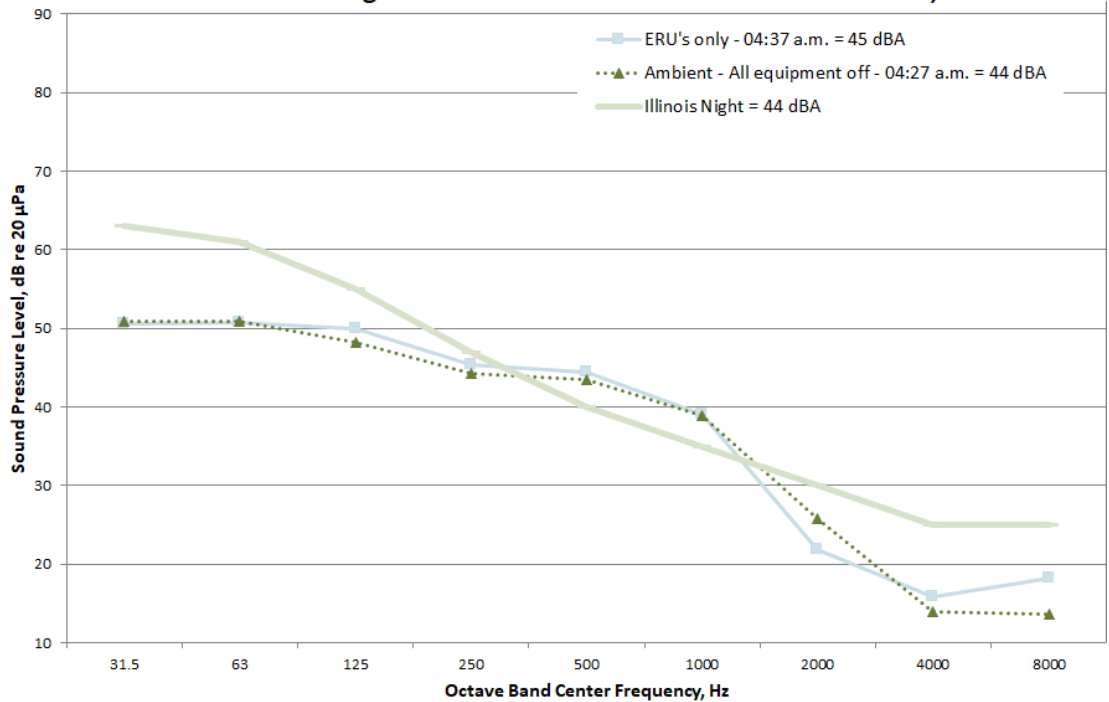


Figure 3. Cafeteria Fans and Night Equipment
New Trier High School - 124 Woodland Ave. - December 13, 2019

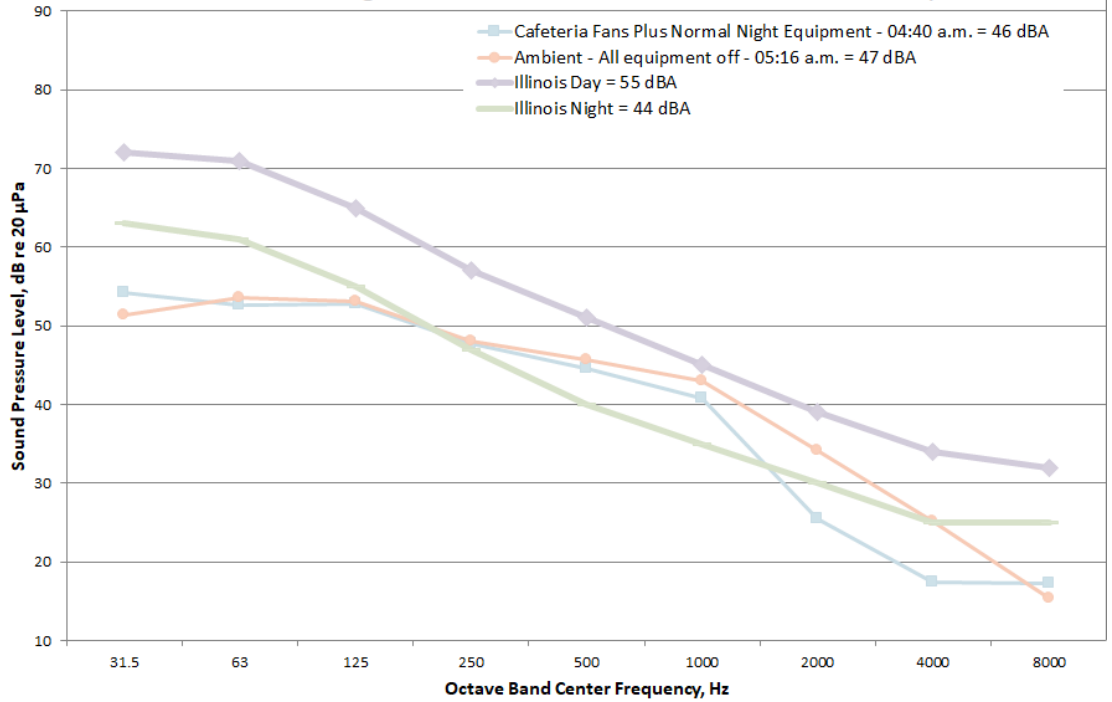
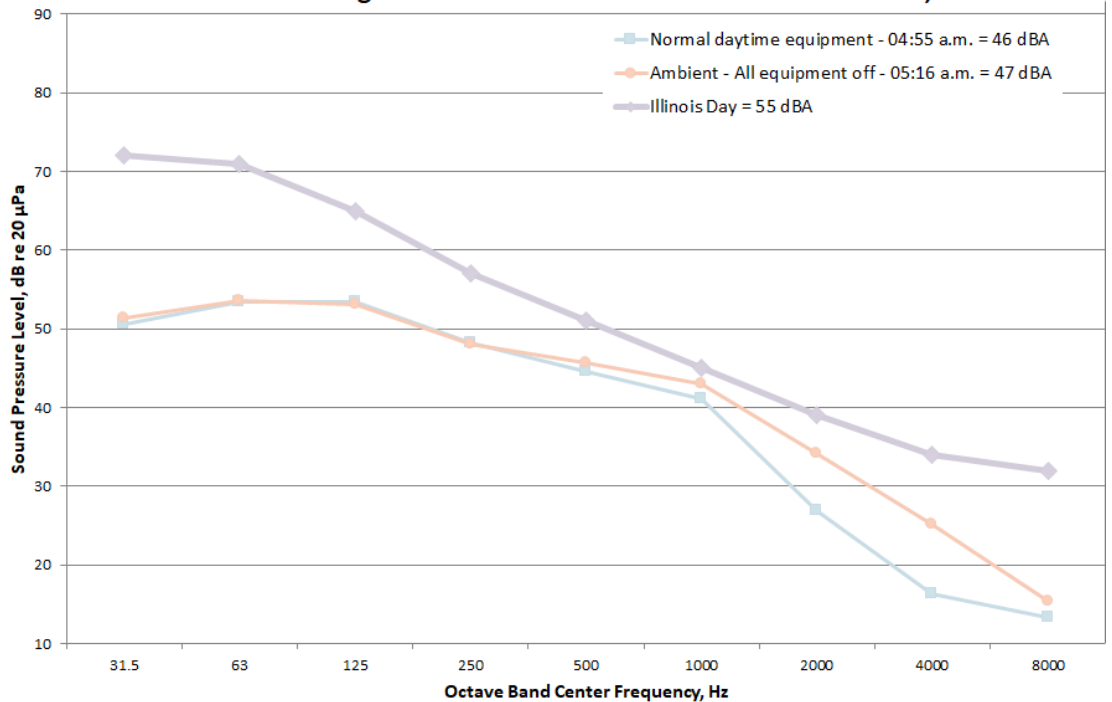
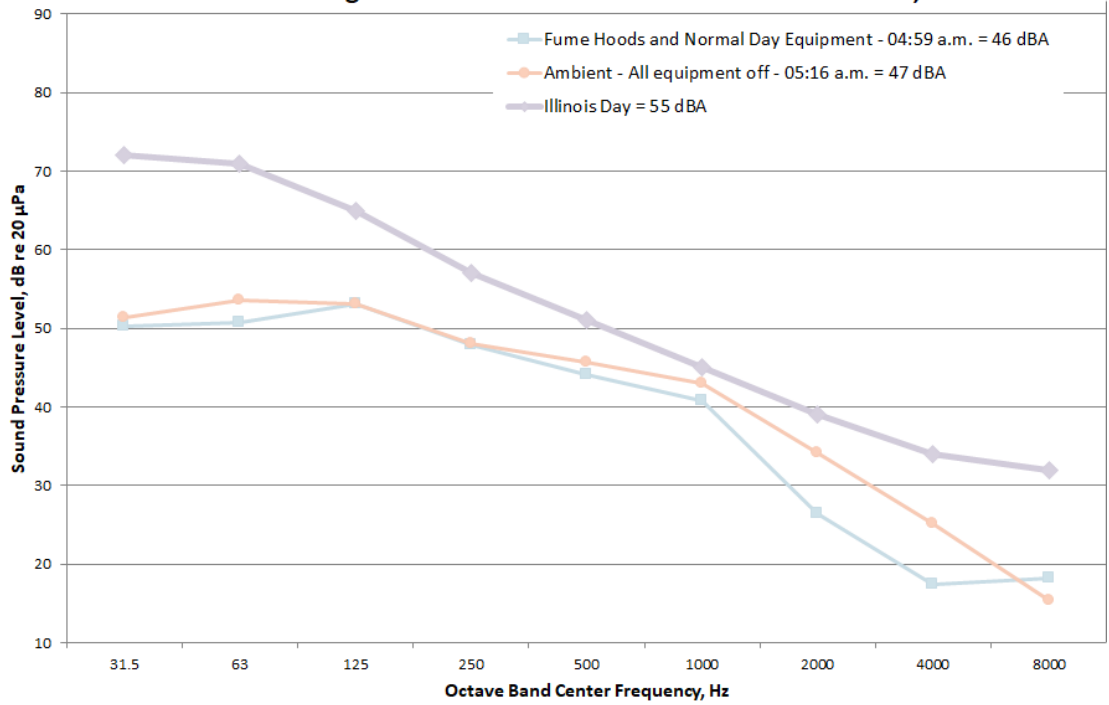


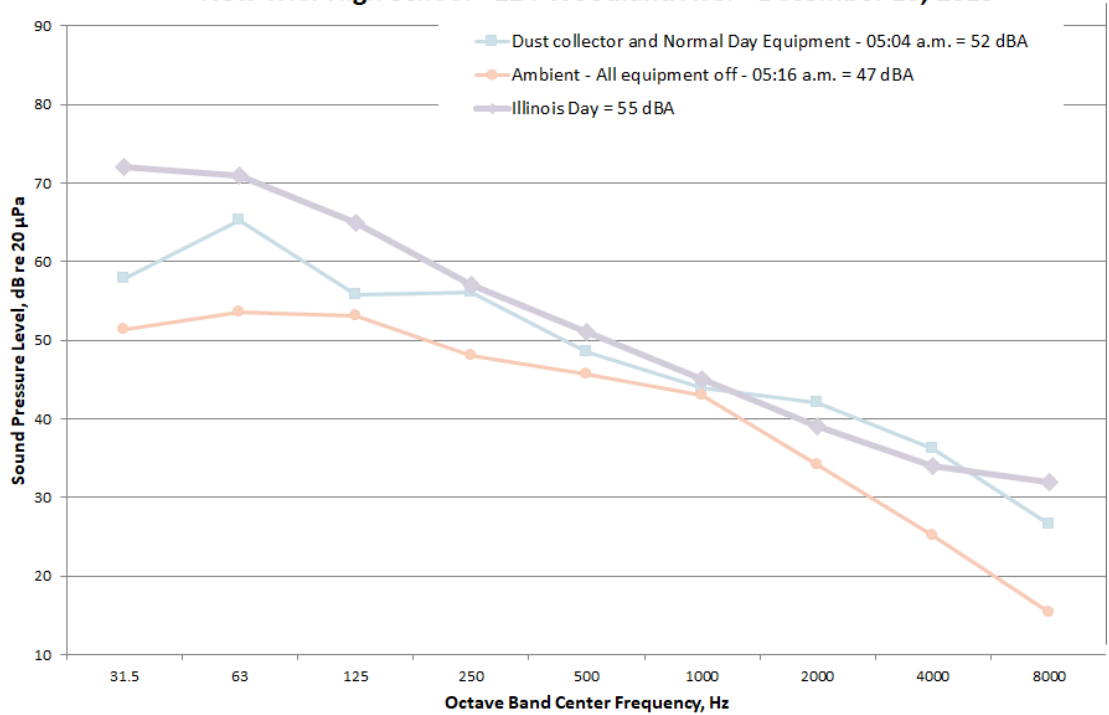
Figure 4. All Daytime Equipment
New Trier High School - 124 Woodland Ave. - December 13, 2019



**Figure 5. Fume Hoods and Daytime Equipment
New Trier High School - 124 Woodland Ave. - December 13, 2019**



**Figure 6. Dust Collector and Daytime Equipment
New Trier High School - 124 Woodland Ave. - December 13, 2019**



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Complainant,)	
)	
v.)	PCB 2020-010
)	
NEW TRIER HIGH SCHOOL)	
DISTRICT NO. 203,)	
)	
Respondent.)	

AFFIDAVIT

The undersigned Cameron J. Baillie, being first duly sworn, deposes and states as follows:

1. I am a Professional Engineer licensed in Alberta, Canada employed by Shiner Acoustics, LLC (“Shiner”). I have been employed by Shiner since November 15, 2004.

2. At the request of New Trier High School District No. 203, I produced the acoustical consulting report “Re: New Trier High School Dust Collector Noise Measurements” dated March 1, 2021, incorporated herein as “2021 Report” and attached hereto as **Exhibit 1**.

3. The 2021 Report includes measurements taken on the public sidewalk at the northeast corner of the property line of 124 Woodland Avenue on Thursday, June 18, 2020 starting at about 4:00 p.m. See *Id.*

4. The 2021 Report concludes that property line sound levels complied with Illinois daytime limits in all frequency bands. *Id.*

Under penalties provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that they verily believe the same to be true.

Exhibit B



Cameron J. Baillie, P. Eng.

____September 14, 2021____
Date

Robbins Schwartz
55 W. Monroe Street, Suite 800
Chicago, IL 60603

March 1, 2021

Attn: Mr. Kenneth Florey

Re: New Trier High School Dust Collector Noise Measurements

Dear Mr. Florey:

On Thursday, June 18, 2020, we returned to the school to conduct observations and additional acoustical testing. The purpose of this testing was to document property line sound levels due to New Trier mechanical equipment following the implementation of mitigation to reduce sound levels.

One of the sources of neighbor complaints is the dust collector located in the loading dock, which has a fan and motor located on top of the housing. The fan has a backward-inclined wheel and is directly driven by the motor, and there is a duct silencer on the discharge or clean air side of the fan.

Previous measurements in 2018, 2019, and January 2020 were performed prior to the completion of noise mitigation. Preliminary measurements in March, 2020 showed compliance in all nine octave bands with temporary mitigation. A new acoustical enclosure was recently (May and June 2020) installed around the fan, motor, and duct silencer, and includes ventilation silencers. The intent of the most recent measurements was to determine compliance with the Illinois code with the permanent enclosure around the dust collector.

Measurements

The measurements were taken on the public sidewalk at the northeast corner of the property line of 124 Woodland Ave. on Thursday, June 18, 2020 starting at about 4:00 p.m. We used a Norsonic 140 integrating sound level meter and real time analyzer to conduct the measurements. The microphone was positioned at about 5 feet above ground level. Conditions were a temperature 87°F, relative humidity 26 to 27%, and calm to light wind speed.

The sound level meter and calibrator carry current laboratory calibration. Field calibration was performed prior to and following the measurements, and there was a 0.2 dB difference in the calibration level.

Background sound level readings were conducted at the beginning of the study, with the meter paused for transient events such as passing vehicles, aircraft overflights, trains, and pedestrians.

All of the following mechanical equipment operates normally during the day and were operated for the sound measurements:

- Dock condensing unit (operates intermittently);
- Rooftop energy recovery units (ERUs) (four total);
- Rooftop exhaust fans (seven total: cafeteria, science lab, arts, general, laser cutter);

Exhibit 1

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Robbins Schwartz

March 1, 2021

- Rooftop fume hoods (three total); and
- Dust collector.

Although Illinois requires a measurement duration of one hour, noise from this equipment is steady-state and does not vary with time. Therefore, the measurement period was 10 minutes and the meter was paused for transient events as with the background sound measurements.

Measured sound levels were corrected for background sound levels, per the procedure in the Illinois code, to determine source sound levels. It should be noted that in four octave bands (1000 to 8000 Hz), sound levels with and without the equipment the equipment operating were essentially the same (i.e. within three dB) and were therefore indistinguishable.

The measurements are documented in Table 1 and show that equipment noise was less than the Illinois daytime limit in all nine octave bands.

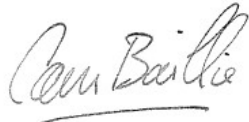
Conclusion

Sound level measurements were conducted on June 18, 2020 of the school's mechanical equipment, including the dust collector with new mitigation. Property line sound levels complied with the Illinois daytime limits in all frequency bands.

If you have questions concerning this report, please do not hesitate to contact us.

Respectfully submitted,

Shiner Acoustics, LLC



Cameron J. Baillie, P.Eng.
CJB/mm/20
1180514

Table 1. June 18, 2020 Sound Measurements

	Sound Pressure Level, dB re 20 μ Pa									
	Octave Bands									Awt
	31.5	63	125	250	500	1000	2000	4000	8000	
All daytime equipment as measured	60	69	61	51	44	41	35	30	23	50
All equipment off (background sound)	55	57	51	45	41	41	35	28	22	45
All daytime equipment (corrected for background sound)	58	69	61	50	42	ind	ind	ind	ind	48
Illinois daytime limit	72	71	65	57	51	45	39	34	32	55
Exceedance	0	0	0	0	0	0	0	0	0	n/a

Note: 'ind' indicates that equipment noise and background noise were within three dB and were therefore indistinguishable