

CITY OF FRANKLIN
QUARRY MONITORING COMMITTEE*
MEETING AGENDA

Franklin City Hall, Council Chambers
9229 West Loomis Road, Franklin, Wisconsin 53132
Tuesday, August 22, 2023, 6:00 p.m.

- I. Call to Order, Roll Call and Pledge of Allegiance
- II. Approval of Minutes
 - a. Regular meeting of May 23, 2023.
- III. Citizen Comment Period
PLEASE NOTE: Each speaker may need to be limited to three minutes, allowing everyone who wishes the opportunity to speak
- IV. Business (Action may be taken on any item)
 - a. Quarterly presentation by Stantec Consulting Services, Inc., 2nd quarter of calendar year 2023 (April, May and June).
 - b. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan and Stantec (the City's consultant).
 - c. Discussion about quarry monitoring scope of services for calendar year 2024.
- V. Meeting scheduling discussion
- VI. Adjournment

** Notice is given that a majority of the Common Council may attend this meeting to gather information about an agenda item over which the Common Council has decision-making responsibility. This may constitute a meeting of the Common Council per State ex rel. Badke v. Greendale Village Board, even though the Common Council will not take formal action at this meeting.*

Notice is further given that upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information, please contact the Franklin City Clerk's office at (414) 425-7500.

City of Franklin
Quarry Monitoring Committee Meeting
Council Chambers, Franklin City Hall
6:00 PM
May 23, 2023
Minutes

unapproved

I. CALL TO ORDER

The May 23, 2023, Quarry Monitoring Committee meeting was called to order by Alderman Mike Barber at 6:00 p.m. in the Council Chambers at City Hall.

Chair Alderman Mike Barber, vice-chair Dina Swanson (non-voting), Alderman Yousef Hasan as well as members Edward Pings and Jon TenHaken were present. Also present were Planning Manager Laurie Miller, Principal Planner Régulo Martínez-Montilva; Clint Weninger and Wes Hine of Payne & Dolan; and Kristen Gunderson-Inden of Stantec Consulting Services.

II. APPROVAL OF MINUTES

- a. Regular meeting of January 24, 2023

Member TenHaken moved and member Pings seconded to approve the minutes as presented. On voice vote, all present voted 'aye'; the vote was 4-0-0, motion carried.

III. CITIZEN COMMENT PERIOD

Citizen comment period opened at 6:03 p.m. and closed at 6:07 p.m. 1 citizen comment.

IV. BUSINESS

- a. Welcome Alderman Hasan

No action taken.

- b. Selection of chair and vice-chair.

Alderman Hasan moved and member Pings seconded a motion to select Alderman Barber as chair and member Swanson as vice-chair. On voice vote, all present voted 'aye'; the vote was 4-0-0, motion carried.

- c. Quarterly presentation by Stantec Consulting Services, Inc., 1st quarter of calendar year 2023 (January, February and March).

Kristen Gunderson-Inden of Stantec Consulting Services presented the quarterly report.

- d. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan and Stantec (the City's consultant).

Principal Planner Martínez-Montilva informed the committee that 2 complaints were received during the month of April, recorded ground vibration and air blast levels for the blast events associated with these complaints were in compliance with the limits of the Planned Development Districts.

- e. Discussion about quarry monitoring scope of services for calendar year 2024.

Kristen Gunderson-Inden of Stantec Consulting Services presented an overview of the current quarry monitoring scope of services. This item is continued to the next meeting.

- f. 2022 Annual Reclamation Report.

No action taken.

V. SCHEDULE NEXT MEETING

Next meeting is scheduled for August 2023.

VI. ADJOURNMENT

Member Pings moved and member TenHaken seconded to adjourn the May 23, 2023 Quarry Monitoring Committee meeting at 6:39 p.m. All present voted 'aye'; motion carried.



Stantec Consulting Services Inc.
12080 Corporate Parkway, Suite 200
Mequon, Wisconsin 53092
Tel: (262) 241-4466

August 7, 2023

Regulo Martínez-Montilva
Principal Planner - Department of City Development
City of Franklin
9229 W. Loomis Road
Franklin, Wisconsin 53132
RMartinez-Montilva@franklinwi.gov

Reference: City of Franklin, WI – Franklin Aggregates Quarry Monitoring Summary
Period: 2nd Quarter 2023
Stantec Project: 193709433

Dear Mr. Martínez-Montilva:

The enclosed information summarizes monitoring activities completed during the second quarter of 2023 by Stantec Consulting Services Inc. (Stantec) pertaining to the Franklin Aggregates, Inc. quarry (owned by Payne & Dolan, Inc.) located at 6211 W. Rawson Avenue, Franklin, Wisconsin (the Quarry). Stantec was retained by the City of Franklin to conduct a combination of direct observation (visual) monitoring, seismic monitoring of the quarry operations, and evaluation of citizen complaints. Separate description of services and project background are provided in **Attachments A and B**, respectively. This letter summarizes the results.

Direct Observation (Visual) Monitoring

Copies of completed observation forms are prepared and posted to the project Teams site for review by City representatives. Copies of individual reports are not provided with this summary report.

Three observation events were completed during the monitoring period. Unannounced inspections were completed on April 12, May 4, and June 20. The street sweeper was observed in use on Rawson Avenue during one of the three site visits. Minor amounts of dust were observed on trucks exiting the site during all visits.

Seismic Monitoring

As contracted by the City, Stantec provided remote vibration monitoring using two seismographs co-located with two existing Payne & Dolan (Vibra-Tech) monitors at 7301 S. 51st Street (VT1 and S1) and 5800 W. Allwood Drive (VT4 and S2). The monitoring provides continuous (24/7) remote monitoring. Payne & Dolan also has monitors at 7526 S. 51st Street (VT2) and southeast of the quarry (VT3). Summaries of blasting data, comparing the Payne & Dolan unit recordings to the Stantec (Sauls Seismic) unit recordings, were prepared for the quarter, and are presented in **Attachment C. Figure 1** illustrates the locations of the blasts in the quarter.

Highlights of the seismic data include the following:

- Between April 1 and June 30, 2023, a total of 14 blasting events occurred. Twelve of 14 (86%) of these blasts were confirmed by the Stantec monitors.
- Per the Planned Development District agreements (PDD), 85% of the quarry's blasts within any calendar year must be below the maximum permissible vibration (of 0.30 inches per second (in/sec), measured at the closest residence or inhabited structure not owned or controlled by the quarry. This is more stringent than State of Wisconsin regulations which require quarry operators to report any ground vibration levels to the Wisconsin Department of Natural Resources that are above 0.75 in/sec.

- None of the blasting events measured by Payne & Dolan or Stantec had a vibration greater than 0.30 in/sec; thus 100% of the quarry's blasts were below this level. This is in conformance with the PDD.
- Per the PDD, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year, measured at the residence or inhabited structure closest to the site of the blast which is not owned or controlled by the Operator. Notwithstanding any other provision in this subsection, the Operator shall not exceed the airblast limitation imposed by Wis. Adm. Code, SPS Ch. 307.
 - None of the blasting events measured by Payne & Dolan or Stantec had an air overpressure (AO) greater than 123dB; thus 100% of the quarry's blasts this quarter were below this level. This is in conformance with the PDD.
- The corresponding blast data measured by Stantec with the Sauls Seismic monitors generally aligned with the readings at each Payne & Dolan sponsored Vibra-Tech monitors. There were some larger differences in the AO readings. It should be noted that in addition to the fact the monitors are produced by different manufacturers, there are a variety of variables that can influence actual PPV readings. The Sauls Seismic monitors were recalibrated in the late summer/early fall 2022 (5800 W. Allwood Dr. on 9/15/22 and 7301 S. 51st St. on 8/23/22); calibration is typically completed annually.
- In general, the largest blast readings at each monitor appear to correlate with the proximity of the nearest adjacent blast location.

Blast Complaint Evaluation

A compilation of all blast events and complaints received by Stantec for the period April 1 through June 30, 2023, is provided as **Attachment C**. Note that Attachment C does not provide the actual complainant details (name, address, and phone number) if known; it was decided to have this information remain confidential in this report. However, complainant identity may be released upon public records request to the City of Franklin. The locations of all blasts and complaints are shown on **Figure 1**. The following highlights the results of the complaint evaluation:

Complaints - General

- 7 complaints (formally submitted)
- 1 complaints (informally submitted, e.g., phone call)
- 1 complaints – regarding noise
- 0 complaints – regarding dust
- 0 complaints – miscellaneous
- 7 complaints – regarding vibration

Complaints – Blast Related

- 8 complaints – corresponding to actual blast events
- 0 complaints – not corresponding to actual blast events
- 8 complaints – complainant location identified
 - 8 households that complained once this quarter

Complaints (non-anonymous; confirmed blast related) - Locations

- 3 complaint – east of 51st Street
- 5 complaints – south of Drexel Avenue

- 0 complaints – west of Root River

Summary of Complaint Comments – Blast Related

- April 10, 2023 (highest readings at 7526 S. 51st Street meter – 0.178 in/sec PPV and SE of Quarry meter – 112.0 dB AO) – one complaint to the south – blast in the central pit
 - *“Strong rolling blast, windows rattled, glasses in cabinets clinked together, plant leaves shook. You are damaging my house with every blast.”*
- April 25, 2023, 2023 (highest readings at 7526 S. 51st Street meter – 0.143 in/sec PPV and 107.0 dB AO) – one complaint to the east – blast in the central pit
 - *“Blast felt earthquake like, shook the entire home, rattled wall hangings.”*
- May 17, 2023 (highest readings at 7301 S 51st Street meter – 0.165 in/sec PPV and 110.0 dB AO) – two complaints to the northeast – blast in the northern pit
 - *“Lots of shaking in my house.”*
 - *“Large blast and whole house shook heavily. Not the first time but one of the more intense blasts I’ve had while at home. Finding more cracking in the basement and walls from the blasts. Have concerns about my foundation.”*
- May 31, 2023 (highest readings at SE of Quarry meter– 0.073 in/sec PPV and 7526 S. 51st Street meter – 108.0 dB AO) – three complaints to the south – blast in the southern pit
 - *“My house shook so bad.”* (informal complaint)
 - *“Blast shook the whole house.”*
 - *“This afternoon we heard and experienced a terrible shake of our house – even worse than the last time and the worst in our 48 years of living here. I am becoming very concerned. I could feel it start at one end of the house and progress to the other end. It felt like the house was picked up and dropped.”*
- June 7, 2023 (highest readings at 7301 S 51st Street meter – 0.060 in/sec PPV and 113.0 dB AO) – one complaint to the south – blast in the northern pit
 - *“Excessively loud quarry blast.”*

Blast Events

- 14 blast events - during monitoring period 2Q2023 (shot numbers 11 through 24)
- 5 blast events - corresponding to complaints
 - 0 weather: rain
 - 4 weather: haze, partly to mostly cloudy, or cloudy
 - 1 weather: clear, fair, or scattered clouds
 - 1 time: prior to 12:00 pm (noon)
 - 4 time: after 12:00 pm
- 3 blast events with one complaint
- 1 blast event with two complaints
- 1 blast event with three complaints

Quarry Blast Locations Producing Complaints

- 1 southern area of quarry
- 2 central area of quarry
- 2 northern area of quarry

August 7, 2023

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Reference: City of Franklin, WI – Franklin Aggregates Quarry Monitoring Summary Period: 2Q2023

Upon review of these results outlined above, on Figure 1, and in Attachment C, the following observations are made:

- Very few, if any, quarry operational complaints are made regarding dust or truck traffic. Most complaints focus on quarry blasting and resulting ground vibrations.
- Just over half of the complaints in this quarter originate from residences south of Drexel Avenue and three to the east of South 51st Street.
- One complaint came from a home in the new subdivision to the east of South 51st Street. This is the first complaint from this area.
- Two complaints were from homes to the east of the northern portion of the quarry; this area has not had many complaints over the past several years.
- No blast this quarter had more than three complaints.
- One address has complained more than once so far year to date (once in the first quarter, once in the second quarter).
- No complaints came from west of the Root River.

Please feel free to contact Mike Roznowski at 920-278-3200 or mike.roznowski@stantec.com; or Kristen Gunderson-Inden at 262-665-3447 or kristen.gunderson-inden@stantec.com if you have any questions.

Respectfully,

STANTEC CONSULTING SERVICES INC.



Kristen Gunderson-Inden
Senior Environmental Scientist



Michael B. Roznowski, CHMM
Senior Principal

Attachments A - Franklin Quarry Seismic Monitoring Description of Services
 B - Franklin Quarry Seismic Monitoring Project Background
 C - Summary of Seismic Data – 2nd Quarter 2023
 Figure 1 - Seismic Monitoring, Blasting, and Complaint Locations, 2nd Quarter 2023

ATTACHMENT A

FRANKLIN QUARRY SEISMIC MONITORING DESCRIPTION OF SERVICES

DESCRIPTION OF SERVICES

Direct Observation (Visual) Monitoring

During 2023, Stantec will conduct a total of eight (8) qualitative site visits at the quarry to observe and document whether the site was compliant with operational parameters defined in the existing Planned Development District (PDD) agreements, and to evaluate whether the quarry's general operations are consistent with best management practices employed by other similar quarries. Site visits are a combination of announced and unannounced, but all are conducted during normal business hours. The days of the week and times of the day for the visits vary. The observations are planned to be completed between April and October, when quarry operations are occurring, and airborne dust is more likely. Qualitative data to be collected includes the following:

- Visual observation of all aspects of the mining operation, including but not limited to:
 - Trucking operations, in particular pertaining to dust issues along Rawson Avenue
 - Operational issues that may affect local citizens in some form of adverse off-site impact
- Direct air quality observations, including:
 - General site and surrounding visual air quality, including opacity, in particular along Rawson Avenue
 - Dust control measures and issues on-site that may affect off-site receptors
 - Dust control issues directly adjacent off-site
 - Any other dust issues that may affect local citizens
- Quarry operations review (for announced visits), including:
 - Review of quarry records pertaining to dust control measures and recordkeeping, ensuring that the operator is following standard protocol to minimize off-site impacts, and evaluating how well and how quickly they respond to potential of actual off-site impact situations
 - Comparison of records to stated performance objectives and respective PDD compliance, only as they pertain to dust in general, and along Rawson Avenue in particular

The findings of each visit will be documented on a standard form previously approved by the City. The form will be filled out by hand during each site visit, and then scanned/posted to a project SharePoint site for review by City representatives. Stantec also will obtain photos to document site or directly adjacent off-site conditions, and short-duration video clips (e.g., showing dust impacts). These photos and videos are also uploaded to the project SharePoint site.

In addition to the observations and record review, Stantec also will obtain and document on the inspection forms local meteorological conditions that were relevant to the observations (e.g., temperature, wind speed, wind direction, humidity, and precipitation).

Stantec also will notify the City Planning Manager of any condition (pertaining to air or dust monitoring, or other PDD condition) that we become aware of that exceeds the allowances outlined in the PDD. This communication will be completed prior to noon the business day following the day we become aware of any such event.

Seismic Monitoring

Stantec provides remote vibration monitoring by using Nomis Seismographs. Sauls Seismic is subcontracted to operate two separate seismographs, each co-located with two existing Payne & Dolan (Vibra-Tech) monitors located at: 7301 S. 51st Street, and 5800 W. Allwood Drive. Each monitor was pole-mounted and provided with a weatherproof enclosure. Power is provided via an internal battery and an external battery connected to a solar panel. This type of configuration provides continuous (24/7) remote monitoring, allowing Stantec to have access to data anytime via the Internet.

Stantec also will notify the City Planning Manager of any condition (pertaining to blasting, noise or other PDD condition) that we become aware of that exceeded the allowances outlined in the PDD. This communication will be completed prior to noon the business day following the day we become aware of any such event.

Blast Complaint Evaluation

Periodically the City forwards to Stantec specific information pertaining to quarry complaints received. Stantec evaluates each one on a quarterly basis to determine the following corresponding collaborative conditions:

- Off-site dust complaints: weather conditions (wind direction and speed) the day of the complaint
- Off-site seismic complaints: seismic data from both Stantec (if monitoring at the time) and Payne & Dolan placed monitors
- On occasion, the City may request an exceptional blast complaint evaluation if a blast event receives an unusually high number of complaints. A letter report will be issued by Stantec within approximately one week of the request that describes:
 - seismic data from both Stantec and Payne & Dolan placed monitors
 - weather conditions (wind direction and speed) the day of the complaint
 - a figure showing location of blast and complaints

ATTACHMENT B

FRANKLIN QUARRY SEISMIC MONITORING PROJECT BACKGROUND

Background Summary

Seismic monitoring was completed to document whether the site was compliant with operational parameters defined in the existing Planned Development District (PDD) agreements. Prior to 2018, Stantec completed a variety of 2, 4, and 8-week seismic monitoring periods. During 2018, Stantec completed one 4-week period and one 16-week period of monitoring. Monitoring consisted of placing a city owned and maintained Instantel MiniMate Plus fixed seismograph equipped with an external geophone at one of two city-established blast monitoring sites or vaults for each period. Seismic data was downloaded once every two weeks. Due to equipment limitations the data could not be downloaded remotely as it occurs (i.e., real time).

In 2019, Stantec provided remote vibration monitoring by using Nomis Seismographs. Sauls Seismic was subcontracted to install two separate seismographs, each co-located with two existing Payne & Dolan (Vibra-Tech) monitors located at: 7301 S. 51st Street, and 5800 W. Allwood Drive. Each monitor was pole-mounted and provided with a weatherproof enclosure. Power was provided via an internal battery and an external battery connected to a solar panel. This type of configuration provided continuous (24/7) remote monitoring, allowing Stantec to have access to data anytime via the Internet.

As contracted by the City for 2023, Stantec is providing remote vibration monitoring using two seismographs co-located with two existing Payne & Dolan (Vibra-Tech) monitors at 7301 S. 51st Street and 5800 W. Allwood Drive. There is a chance one of these monitors may be moved to an alternate location during 2022. The monitor provided continuous (24/7) remote monitoring. Quarterly summaries of blasting data, comparing the Payne & Dolan (Vibra-Tech) unit recordings, to the Stantec (Sauls Seismic) unit recordings, will be prepared for calendar year 2023.

Per the PDD #23 and #24 Ordinances, 85% of the quarry's blasts within any calendar year must be below the maximum permissible vibration (also referred to as particle or ground velocity) of 0.30 inches per second (in/sec), measured at the closest residence or inhabited structure not owned or controlled by the quarry. This is more stringent than State of Wisconsin regulations (Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast [new reference now Wis. Adm. Code, Safety and Professional Services (SPS) Chapter 307]) which require quarry operators to report any ground vibration levels to the Wisconsin Department of Natural Resources that are above 0.75 in/sec.

Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year, measured at the residence or inhabited structure closest to the site of the blast which is not owned or controlled by the Operator. Notwithstanding any other provision in this subsection, the Operator shall not exceed the airblast limitation imposed by Wis. Adm. Code, SPS Ch. 307.

In addition to obtaining and reviewing the blast data from the city-owned, fixed seismograph, Stantec also received data from Payne & Dolan's Vibra-Tech meters, which provided independently monitored Franklin Aggregate blasting data for the entire calendar year. Four monitors are used by Vibra-Tech, three along South 51st Street, and one just south of West Drexel Avenue. This independently monitored data was compared to the Stantec-obtained data.

ATTACHMENT C

SUMMARY OF SEISMIC DATA – 1st QUARTER 2023

Payne & Dolan Blast Monitoring Data								Stantec Blast Monitoring Data		Comparison of P&D and Stantec Monitoring		Complaint Information			Weather (for complaints only)								
Date	Time	Activity Number	General Quarry Blast Location	Monitor Location	Distance (feet)	PPV (in/sec)	AO (dB)	PPV (in/sec)	AO (dB)	Difference in PPV Values	Difference in AO dB Values	Complaints?	#	Primary direction of complaints (from quarry)	Wind Direction	Wind Speed (mph)	Wind Gusts (mph)	Press-ure (in)	Humi-dity (%)	Condi-tions	Precip-itation	Temp. (°F)	
4/3/2023	45019.53542	11	south	5800 ALLWOOD	1,303	0.053	105.0	0.053	100.0	0.001	5	N											
4/3/2023	45019.53542	11	south	7301 S 51st Street	3190	N/D	N/D	N/D	N/D	--	--												
4/3/2023	45019.53542	11	south	7526 S. 51st Street	2,226	0.065	109.0																
4/3/2023	45019.53542	11	south	SE of Quarry	1,511	0.083	111.0																
4/7/2023	45023.55625	12	north	5800 ALLWOOD	4,226	N/D	N/D	N/D	N/D	--	--	N											
4/7/2023	45023.55625	12	north	7301 S 51st Street	1053	0.143	108.0	0.145	101.0	-0.002	7												
4/7/2023	45023.55625	12	north	7526 S. 51st Street	1,912	0.053	99.0																
4/7/2023	45023.55625	12	north	SE of Quarry	2,851	N/D	N/D																
4/10/2023	45026.525	13	central	5800 ALLWOOD	2,273	0.033	106.0	N/D	N/D	--	--	Y	1	south	WSW	13	none	29.55	24	mostly cloudy	none	67	
4/10/2023	45026.525	13	central	7301 S 51st Street	2,216	0.053	108.0	N/D	N/D	--	--												
4/10/2023	45026.525	13	central	7526 S. 51st Street	1,358	0.178	111.0																
4/10/2023	45026.525	13	central	SE of Quarry	1,184	0.168	112.0																
4/14/2023	45030.55278	14	central	5800 ALLWOOD	2,344	0.030	110.0	N/D	N/D	--	--	N											
4/14/2023	45030.55278	14	central	7301 S 51st Street	2149	0.080	103.0	0.0825	101.0	-0.003	2												
4/14/2023	45030.55278	14	central	7526 S. 51st Street	1,332	0.190	106.0																
4/14/2023	45030.55278	14	central	SE of Quarry	1,234	0.130	106.0																
4/25/2023	45041.47222	15	central	5800 ALLWOOD	2,439	N/D	N/D	N/D	N/D	--	--	Y	1	east	E	15	none	29.44	89	cloudy	none	38	
4/25/2023	45041.47222	15	central	7301 S 51st Street	2052	0.050	107.0	0.06	100.0	-0.010	7												
4/25/2023	45041.47222	15	central	7526 S. 51st Street	1,254	0.143	107.0																
4/25/2023	45041.47222	15	central	SE of Quarry	1,240	0.105	107.0																
5/11/2023	45057.45833	16	north	5800 ALLWOOD	4,001	N/D	N/D	N/D	N/D	--	--	N											
5/11/2023	45057.45417	16	north	7301 S 51st Street	1,752	0.045	116.0	0.05	109.2	-0.005	7												
5/11/2023	45057.45417	16	north	7526 S. 51st Street	2,353	0.035	111.0																
5/11/2023	45057.45833	16	north	SE of Quarry	3,070	N/D	N/D																
5/15/2023	45061.45833	17	north	5800 ALLWOOD	3,939	N/D	N/D	N/D	N/D	--	--	N											
5/15/2023	45061.45833	17	north	7301 S 51st Street	1903	0.073	103.0	0.08	98.8	-0.007	4												
5/15/2023	45061.45833	17	north	7526 S. 51st Street	2,447	0.063	107.0																
5/15/2023	45061.45833	17	north	SE of Quarry	3,112	0.025	104.0																
5/17/2023	45063.56597	18	north	5800 ALLWOOD	4,249	N/D	N/D	N/D	N/D	--	--	Y	2	east	NE	10	none	29.32	63	partly cloudy	none	51	
5/17/2023	45063.56667	18	north	7301 S 51st Street	1,085	0.165	110.0	0.15	102.8	0.015	7												
5/17/2023	45063.56667	18	north	7526 S. 51st Street	1,954	0.060	109.0																
5/17/2023	45063.56597	18	north	SE of Quarry	2,890	N/D	N/D																
5/30/2023	45076.44792	19	central	5800 ALLWOOD	2,531	N/D	N/D	N/D	N/D	--	--	N											
5/30/2023	45076.45139	19	central	7301 S 51st Street	1,965	0.040	107.0	N/D	N/D	--	--												
5/30/2023	45076.45139	19	central	7526 S. 51st Street	1223	0.088	109.0																
5/30/2023	45076.45139	19	central	SE of Quarry	1,305	0.068	110.0																
5/31/2023	45077.52778	20	south	5800 ALLWOOD	1,431	0.055	104.0	0.053	97.5	0.003	7	Y	3	south	SE	17	none	29.25	48	partly cloudy	none	85	
5/31/2023	45077.52778	20	south	7301 S 51st Street	3,056	N/D	N/D	N/D	N/D	--	--												
5/31/2023	45077.52778	20	south	7526 S. 51st Street	2,072	0.035	108.0																
5/31/2023	45077.52778	20	south	SE of Quarry	1,367	0.073	105.0																
6/7/2023	45084.52083	21	north	5800 ALLWOOD	3,897	N/D	N/D	N/D	N/D	--	--	Y	1	south	NE	17	none	29.18	56	fair	none	65	
6/7/2023	45084.52222	21	north	7301 S 51st Street	1,808	0.060	113.0	0.0525	108.0	0.008	5												
6/7/2023	45084.52222	21	north	7526 S. 51st Street	2340	0.058	112.0																
6/7/2023	45084.52083	21	north	SE of Quarry	3,017	N/D	N/D																

6/15/2023	45092.54792	22	north	5800 ALLWOOD	4,336	N/D	N/D	N/D	N/D	--	--	N		
6/15/2023	45092.54792	22	north	7301 S 51st Street	1,062	0.145	113.0	0.14	107.5	0.005	6			
6/15/2023	45092.54792	22	north	7526 S. 51st Street	1994	0.048	107.0							
6/15/2023	45092.54792	22	north	SE of Quarry	2,953	N/D	N/D							
6/27/2023	45104.49653	23	central	5800 ALLWOOD	3,056	N/D	N/D	N/D	N/D	--	--	N		
6/27/2023	45104.49653	23	central	7301 S 51st Street	1,491	0.045	106.0	0.0475	101.9	-0.003	4			
6/27/2023	45104.49653	23	central	7526 S. 51st Street	1,157	0.065	104.0							
6/27/2023	45104.49653	23	central	SE of Quarry	1,694	0.035	103.0							
6/29/2023	45106.49514	24	south	5800 ALLWOOD	1,416	0.053	106.0	0.065	98.8	-0.012	7	N		
6/29/2023	45106.49306	24	south	7301 S 51st Street	3071	N/D	N/D	N/D	N/D	--	--			
6/29/2023	45106.49514	24	south	7526 S. 51st Street	2,080	0.048	110.0							
6/29/2023	45106.49514	24	south	SE of Quarry	1,363	0.085	106.0							
Totals		14	blast events									5	8	events with complaints / total complaints

Notes: Shaded cells do not have a meter in that location
 N/D = not detected, meter did not detect blast
 complaints was an informal

FIGURE 1

SEISMIC MONITORING, BLASTING, AND COMPLAINT LOCATIONS, 1st QUARTER 2023

V:\1937\Active\193709433\03_data\gis_sad\gis\mxd\2023_2nd_Quarter_Report\fig1_Seismic_Complaints_19370487.mxd Revised: 2023-07-19 By: aswam

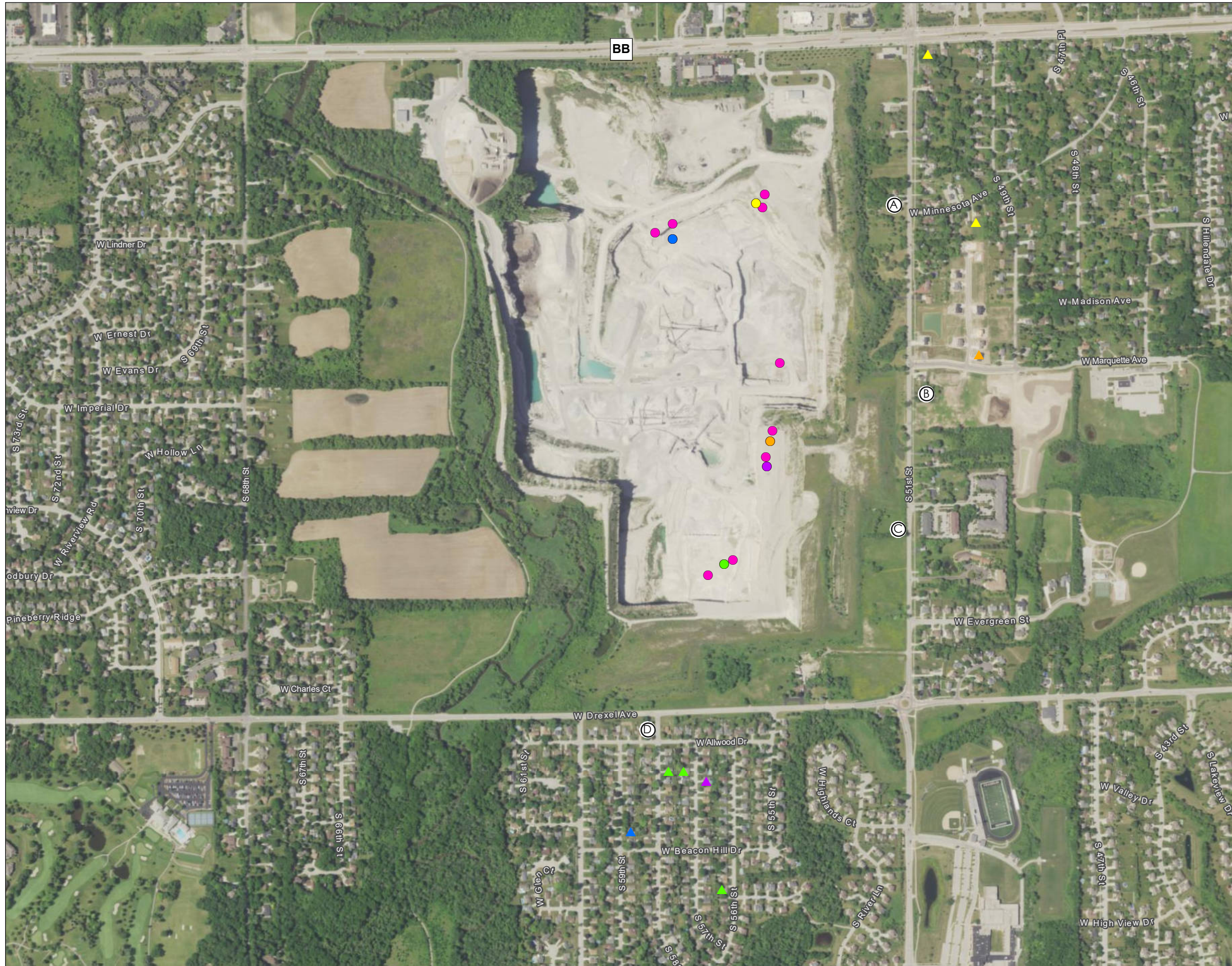
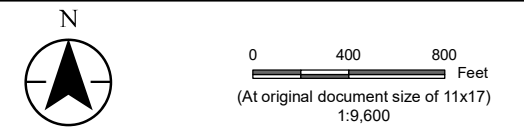


Figure No. **1**

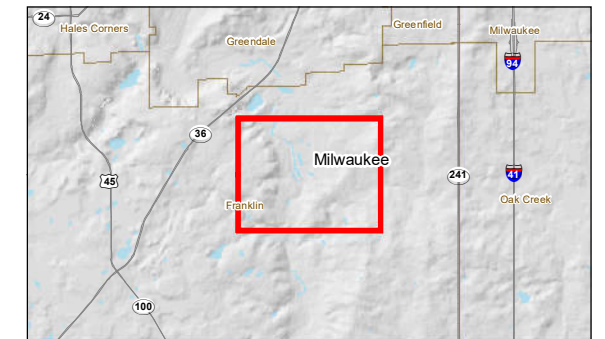
Title **Seismic Monitoring, Blasting, and Complaint Locations - 2nd Quarter 2023**

Client/Project **City of Franklin** 193709433
Vicinity of Payne and Dolan Quarry

Project Location **C. of Franklin, Milwaukee Co., WI** Prepared by AJS on 2023-07-18
TR by RA on 2023-07-18
IR by KGI on 2023-07-18



- Legend
- Seismic Monitoring Location
- (A) Vibra-Tech(VT1) and Stantec(S1)
 - (B) Vibra-Tech(VT2)
 - (C) Vibra-Tech(VT3)
 - (D) Vibra-Tech(VT4) and Stantec(S2)
- Blast Location
- Non-complaint Blast Location
 - Blast #13
 - Blast #15
 - Blast #18
 - Blast #20
 - Blast #21
- Blast Complaint
- ▲ Blast #13
 - ▲ Blast #15
 - ▲ Blast #18
 - ▲ Blast #20
 - ▲ Blast #21



Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources: Stantec, SCO, WDNR, WisDOT
3. Orthophotography: 2022 NAIP



Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
April 2023

Time	Activity	Location	Distance	PPV	Freq	AO
4/25/2023 11:20	15	5800 ALLWOOD	2,439	N/T	N/T	N/A
4/25/2023 11:20	15	7526 S. 51st Street	1,254	0.143	9.4	107
4/25/2023 11:20	15	SE of Quarry	1,240	0.105	13.9	107
4/25/2023 11:20	15	7301 S 51st Street	2,052	0.05	11.1	107
4/14/2023 13:16	14	5800 ALLWOOD	2,344	0.03	13.5	110
4/14/2023 13:16	14	7526 S. 51st Street	1,332	0.19	15.2	106
4/14/2023 13:16	14	SE of Quarry	1,234	0.13	13.9	106
4/14/2023 13:16	14	7301 S 51st Street	2,149	0.08	11.9	103
4/10/2023 12:36	13	5800 ALLWOOD	2,273	0.033	12.2	106
4/10/2023 12:36	13	7526 S. 51st Street	1,358	0.178	13.9	111
4/10/2023 12:36	13	SE of Quarry	1,184	0.168	17.9	112
4/10/2023 12:36	13	7301 S 51st Street	2,216	0.053	10.4	108
4/7/2023 13:21	12	5800 ALLWOOD	4,226	N/T	N/T	N/A
4/7/2023 13:21	12	7526 S. 51st Street	1,912	0.053	17.2	99
4/7/2023 13:21	12	SE of Quarry	2,851	N/T	N/T	N/A
4/7/2023 13:21	12	7301 S 51st Street	1,053	0.143	16.1	108
4/3/2023 12:51	11	5800 ALLWOOD	1,303	0.053	31.3	105
4/3/2023 12:51	11	7526 S. 51st Street	2,226	0.065	18.5	109
4/3/2023 12:51	11	SE of Quarry	1,511	0.083	25	111
4/3/2023 12:51	11	7301 S 51st Street	3,190	N/T	N/T	N/A

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).

Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
May 2023

Time	Activity	Location	Distance	PPV	Freq	AO
5/31/2023 12:40	20	5800 ALLWOOD	1,431	0.055	13.9	104
5/31/2023 12:40	20	7526 S. 51st Street	2,072	0.035	12.8	108
5/31/2023 12:40	20	SE of Quarry	1,367	0.073	23.8	105
5/31/2023 12:40	20	7301 S 51st Street	3,056	N/T	N/T	N/A
5/30/2023 10:50	19	5800 ALLWOOD	2,531	N/T	N/T	N/A
5/30/2023 10:50	19	7526 S. 51st Street	1,223	0.088	12.8	109
5/30/2023 10:50	19	SE of Quarry	1,305	0.068	17.2	110
5/30/2023 10:50	19	7301 S 51st Street	1,965	0.04	12.5	107
5/17/2023 13:36	18	5800 ALLWOOD	4,249	N/T	N/T	N/A
5/17/2023 13:36	18	7526 S. 51st Street	1,954	0.06	31.3	109
5/17/2023 13:36	18	SE of Quarry	2,890	N/T	N/T	N/A
5/17/2023 13:36	18	7301 S 51st Street	1,085	0.165	12.8	110
5/15/2023 11:00	17	5800 ALLWOOD	3,939	N/T	N/T	N/A
5/15/2023 11:00	17	7526 S. 51st Street	2,447	0.063	19.2	107
5/15/2023 11:00	17	SE of Quarry	3,112	0.025	17.2	104
5/15/2023 11:00	17	7301 S 51st Street	1,903	0.073	11.9	103
5/11/2023 10:54	16	5800 ALLWOOD	4,001	N/T	N/T	N/A
5/11/2023 10:54	16	7526 S. 51st Street	2,353	0.035	17.9	111
5/11/2023 10:54	16	SE of Quarry	3,070	N/T	N/T	N/A
5/11/2023 10:54	16	7301 S 51st Street	1,752	0.045	9.6	116

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).

Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
June 2023

Time	Activity	Location	Distance	PPV	Freq	AO
6/29/2023 11:53	24	5800 ALLWOOD	1,416	0.053	41.7	106
6/29/2023 11:53	24	7526 S. 51st Street	2,080	0.048	16.7	110
6/29/2023 11:53	24	SE of Quarry	1,363	0.085	23.8	106
6/29/2023 11:53	24	7301 S 51st Street	3,071	N/T	N/T	N/A
6/27/2023 11:55	23	5800 ALLWOOD	3,056	N/T	N/T	N/A
6/27/2023 11:55	23	7526 S. 51st Street	1,157	0.065	33.3	104
6/27/2023 11:55	23	SE of Quarry	1,694	0.035	31.3	103
6/27/2023 11:55	23	7301 S 51st Street	1,491	0.045	38.5	106
6/15/2023 13:09	22	5800 ALLWOOD	4,336	N/T	N/T	N/A
6/15/2023 13:09	22	7526 S. 51st Street	1,994	0.048	27.8	107
6/15/2023 13:09	22	SE of Quarry	2,953	N/T	N/T	N/A
6/15/2023 13:09	22	7301 S 51st Street	1,062	0.145	12.5	113
6/7/2023 12:32	21	5800 ALLWOOD	3,897	N/T	N/T	N/A
6/7/2023 12:32	21	7526 S. 51st Street	2,340	0.058	19.2	112
6/7/2023 12:32	21	SE of Quarry	3,017	N/T	N/T	N/A
6/7/2023 12:32	21	7301 S 51st Street	1,808	0.06	9.4	113

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch. ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).

Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
July 2023

Time	Activity	Location	Distance	PPV	Freq	AO
7/27/2023 11:54	30	5800 ALLWOOD	2,443	0.023	17.9	114
7/27/2023 11:54	30	7526 S. 51st Street	1,207	0.218	22.7	109
7/27/2023 11:54	30	SE of Quarry	1,179	0.138	25	103
7/27/2023 11:54	30	7301 S 51st Street	2,045	0.058	14.7	106
7/27/2023 11:48	29	5800 ALLWOOD	2,339	0.028	13.5	112
7/27/2023 11:48	29	7526 S. 51st Street	1,253	0.093	16.1	99
7/27/2023 11:48	29	SE of Quarry	1,106	0.085	21.7	98
7/27/2023 11:48	29	7301 S 51st Street	2,149	0.035	23.8	101
7/24/2023 10:00	28	5800 ALLWOOD	2,372	0.053	15.6	117
7/24/2023 10:00	28	7526 S. 51st Street	1,338	0.238	25	122
7/24/2023 10:00	28	SE of Quarry	1,275	0.133	25	123
7/24/2023 10:00	28	7301 S 51st Street	2,125	0.045	11.9	115
7/18/2023 12:23	27	5800 ALLWOOD	2,568	0.035	11.9	116
7/18/2023 12:23	27	7526 S. 51st Street	1,190	0.23	8.2	111
7/18/2023 12:23	27	SE of Quarry	1,305	0.118	20.8	110
7/18/2023 12:23	27	7301 S 51st Street	1,927	0.07	10	111
7/13/2023 10:29	26	5800 ALLWOOD	2,335	0.03	11.4	115
7/13/2023 10:29	26	7526 S. 51st Street	1,287	0.195	29.4	111
7/13/2023 10:29	26	SE of Quarry	1,156	0.118	38.5	112
7/13/2023 10:29	26	7301 S 51st Street	2,152	0.075	13.5	109
7/11/2023 11:20	25	5800 ALLWOOD	2,256	0.05	16.1	118
7/11/2023 11:20	25	7526 S. 51st Street	1,336	0.155	29.4	111
7/11/2023 11:20	25	SE of Quarry	1,125	0.145	17.2	105
7/11/2023 11:20	25	7301 S 51st Street	2,231	0.05	10.6	109

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).



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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
8/03/2023	9:56 am	31	Franklin Quarry (5800 ALLWOOD)	0.033	115
8/03/2023	9:56 am	31	Franklin Quarry (SE of Quarry)	0.193	117
8/03/2023	9:56 am	31	Franklin Quarry (7301 S 51st Street)	0.050	112
8/03/2023	9:56 am	31	Franklin Quarry (7526 S. 51st Street)	0.330	117
7/27/2023	11:54 am	30	Franklin Quarry (5800 ALLWOOD)	0.023	114
7/27/2023	11:54 am	30	Franklin Quarry (SE of Quarry)	0.138	103
7/27/2023	11:54 am	30	Franklin Quarry (7526 S. 51st Street)	0.218	109
7/27/2023	11:54 am	30	Franklin Quarry (7301 S 51st Street)	0.058	106
7/27/2023	11:48 am	29	Franklin Quarry (SE of Quarry)	0.085	98
7/27/2023	11:48 am	29	Franklin Quarry (7526 S. 51st Street)	0.093	99

Showing 1 to 10 of 264 entries

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Franklin Quarry

ATTACHMENT A - QUARRY MONITORING SERVICES

SCOPE OF WORK AND ASSOCIATED COST

The following scope of work items, each with their own associated professional fee, is offered to the City by Stantec for calendar year 2023.

DESCRIPTION	EVENT PERIOD	COST PER EVENT	# OF EVENTS	SUBTOTAL	NOTES REGARDING SCOPE OF SERVICES
Operations Monitoring	daily	\$800	8	\$6,400	Visual assessments around quarry perimeter, concentrating on Rawson Avenue adjacent to the quarry entrances. Will include weather data as part of observation summary, along with photos and short duration videos during periods of high winds. A percentage of the visits will also include on-site observations and records review.
Blast Monitoring	monthly	\$1,900	12	\$22,800	Stantec will provide remote vibration monitoring by using Nomis Seismographs. We plan to subcontract Sauls Seismic to assist with this scope of work. Two separate seismographs will be installed, each co-located with two existing Payne & Dolan (Vibra-Tech) monitors located at: 7301 S. 51 st Street and 5800 W. Allwood Drive. Each monitor will be provided with an enclosure and will either be pole mounted or located in a short-stack weatherproof enclosure. Power will be provided via an internal battery and an external battery connected to a solar panel. All maintenance/repair and annual calibration of seismographs are included. This type of configuration will provide continuous (24/7) remote monitoring, allowing Stantec to have access to data anytime via the Internet. No written reports or summaries will be provided monthly.
Exceptional Blast Complaint Evaluation	Per City request	\$1,000	1	\$1,000	For unusual blast events (e.g., resulting in multiple complaints), at the City's request, Stantec will prepare a brief summary report describing: seismic data from both Stantec/Payne & Dolan placed monitors; wind direction and speed the day of the complaint, a figure showing blast and complaint locations. (Note: If no exceptional blast complaints occur, this portion of the budget may be used for another purpose as requested by the City.)
Quarterly Reports and Presentation	Quarterly (May, August, November 2023, and February 2024)	\$3,700	4	\$14,800	<p>Stantec will prepare a quarterly report (to be distributed/presented as part of the regularly scheduled Quarry Monitoring Committee meetings) describing:</p> <ul style="list-style-type: none"> • Operations monitoring completed in prior quarter • Blast monitoring completed in prior quarter (summary of blasting data, comparing the Payne & Dolan unit recordings, to the Stantec unit recordings) • Citizen complaints received by the City of Franklin in prior quarter <ul style="list-style-type: none"> ○ For off-site dust complaints <ul style="list-style-type: none"> ▪ weather conditions (wind direction and speed) the day of the complaint ○ For off-site seismic complaints <ul style="list-style-type: none"> ▪ seismic data from both Stantec and Payne & Dolan placed monitors ▪ weather conditions (wind direction and speed; temp.; humidity; precipitation) the day of the complaint ▪ a figure showing locations of blasts along with location of complaints ▪ a short summary of the nature of any complaints <p>The February 2024 quarterly report and presentation will also present highlights of the operations, blast monitoring, and complaint evaluations, completed during calendar year 2023. This annual report is not meant to repeat what has already been provided in the prior quarterly reports; rather, it is intended to be a brief summary.</p>

\$45,000 TOTAL (compared to budget: \$45,000)

Note: The number of Exceptional Blast Complaint Evaluations is estimated, since the exact number cannot be determined at this time. In addition, based on prior years Stantec is estimating approximately 25 different blasts will result in complaints needing to be evaluated as part of the quarterly reports and presentations. Stantec agrees to be flexible with the City regarding this scope of work as the year progresses as the actual number of events are determined, and agrees not to exceed the approved budget without prior approval.