CITY OF FRANKLIN QUARRY MONITORING COMMITTEE* MEETING AGENDA

Franklin City Hall, **COUNCIL CHAMBERS** 9229 West Loomis Road, Franklin, Wisconsin 53132 Thursday, February 27, 2020, 6:00 p.m.

- I. Call to Order and Roll Call
- II. Approval of Minutes
 - a. Regular meeting of December 12, 2019.
- III. Citizen Comment Period

PLEASE NOTE: Due to the anticipated number of citizens who may attend, each speaker may need to be limited to three minutes, allowing everyone who wishes the opportunity to speak.

- IV. Hearings
- V. Business (Action may be taken on any item)
 - a. Review of the proposed amendments to the Municipal Code Section 10-19 Quarry Monitoring Committee, specifically: A. Composition, B. Appointment and C. Term.
 - b. Update on Professional Services Agreement to provide quarry monitoring services for calendar year 2020.
 - c. Update on the survey of the quarry extraction area.
 - d. Annual aerial photos (2019).
 - e. Annual reclamation report (2019).
 - f. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan, and on Stantec's (the City's consultant) quarry monitoring activities and information, including 2019 annual report prepared by Stantec.
- VI. Schedule Next Meeting
- VII. Adjournment

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.

^{*} 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.

City of Franklin Quarry Monitoring Committee Meeting December 12, 2019 Minutes

I. CALL TO ORDER

Alderwoman Wilhelm called the December 12, 2019 Quarry Monitoring Committee meeting to order at 6:01 p.m. in the Council Chambers at Franklin City Hall, 9229 West Loomis Road, Franklin, Wisconsin.

Present were Alderwoman Kristen Wilhelm, Alderman Mike Barber, Members Margie Shore and Fred Knueppel. Also present were consultant Mike Roznowski and Associate Planner Régulo Martínez.

II. APPROVAL OF THE MINUTES

a. Regular meeting of November 14, 2019

Alderwoman Wilhelm suggested corrections to Items V.a "Election of Committee Chair and Vice-Chair" and V.d "Update on any outstanding Council motions related to Council action taken on previous recommendations from the Quarry Monitoring Committee". Alderman Mike Barber moved, and Member Knueppel seconded, a motion to approve the minutes of the November 14, 2019, regular meeting as corrected by Alderwoman Wilhelm. All present voted 'aye'; motion carried.

III. CITIZEN COMMENT PERIOD

Citizen comment period opened at 6:05 p.m. and closed at 6:09 p.m. 2 citizen comments.

V. HEARINGS

a. None.

No action needed. None taken.

V. BUSINESS

a. Review of the Professional Services Agreement to provide quarry monitoring services for calendar year 2020, with suggested changes as previously discussed at the October 30 and November 14, 2019, regular meetings, including proposal received on November 19, 2019.

Mike Roznowski presented the services proposal dated November 19, 2019. Alderman Barber moved and Member Knueppel seconded:

A motion to recommend the Professional Services Agreement for calendar year 2020 for Common Council approval as presented in Exhibit A.

All present voted 'aye'; motion carried.

D. Update on recommendation to the Common Council from the Quarry Monitoring Committee to direct Staff to provide the Common Council with a status update on previous Council actions.

Alderwoman Wilhelm provided an update on the survey of the quarry extraction area, the kick-off meeting is tentatively scheduled for December 18, 2019. Alderwoman Wilhelm commented on the action sheet (item G.10) of the December 3, 2019, Common Council meeting.

c. Review and recommendation of Quarry information on the City's website, as previously directed to Staff by the Common Council.

Alderwoman Wilhelm commented on the "Quarry Complaint Procedures" section. Alderwoman Wilhelm moved and Alderman Barber seconded a motion to reopen the Citizen comment period. All present voted 'aye'; motion carried. 2 citizen comments regarding the quarry complaint form. Alderman Barber moved and Member Knueppel seconded a motion to close the Citizen comment period. All present voted 'aye'; motion carried. Citizen comment period opened at 6:55 p.m. and closed at 7:05 p.m.

Alderwoman Wilhelm suggested staff to work on the revisions to the Quarry information on the City's website as previously discussed and to include such revisions in next meeting agenda for further review.

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

Associate Planner Martínez presented a complaints report and noted that a blast event with a recorded air blast of 130 dB on 11/27/2019 exceeded the PDD air blast limits. However, a letter from Mike Spors (Vibra-Tech, Inc.) dated 12/10/2019 stated that "the recorded Peak Air Pressure for this event was 130dB. However, this event is not related to any blasting activity", it is the result of sustained wind gusts.

Alderman Barber suggested to review the blast data from Stantec to confirm the information on the Vibra-Tech letter.

VI. SCHEDULE NEXT MEETING

It was agreed that the next meeting of the Quarry Monitoring Committee would tentatively be on January 30, 2020, based on quorum.

VII. ADJOURNMENT

Alderman Barber moved and Member Shore seconded to adjourn the December 12, 2019 Quarry Monitoring Committee meeting at 7:31 p.m. All present voted 'aye'; motion carried.

§ 10-19 **Quarry Monitoring Committee.** ^[1] [Added 6-4-2012 by Ord. No. 2012-2077]

A.

Composition. The Quarry Monitoring Committee shall consist of <u>six five</u> members, two of who shall be Aldermen and <u>four three</u> of who shall be citizens. <u>One of the four citizen members will</u> be a non-voting member.

В.

Appointment. The members of the Committee shall be appointed as follows: the Aldermen members and one citizen member shall be appointed by the Mayor and confirmed by the Common Council. and each of the other—Itwo citizen members shall be separately appointed by the two Aldermen within whose districts the quarry is located, each of the two Aldermen separately appointing one citizen, which appointments shall be confirmed by the Common Council. One citizen non-voting member shall be selected by the Committee and confirmed by the Common Council, for a term of 3 years. At least one of the citizen members shall not be a member of any other City board, commission, or committee.

C.

Term. The initial appointment shall be made as follows: one citizen member shall serve for one year; one citizen member shall serve for two years; and two-one citizen members shall serve for three years; the Aldermen members shall serve for three-two-years and only during his or her tenure in office, from MayJune 1, in the year of his or her appointment. Thereafter, each citizen appointment shall be made for a term of three years, and each Aldermen appointment shall be for a term of three-two-years.

D.

Duties. The Committee shall undertake actions reasonably necessary to assist the City in reviewing the monitoring of the operations and activities of the quarry operators for compliance with the regulations set forth under Planned Development District No. 23 and Planned Development District No. 24, and matters related thereto, and shall review and provide comment and recommendation to the Common Council on performance and monitoring data, reports, and complaints related to quarry extraction operations and control procedures.

E.

Common Council retains jurisdiction. The Committee shall be subject to the authority of the Common Council. All determinations of the Committee shall be advisory only to the Common Council.

F.

The Planning Department, operating under the general direction and supervision of the Mayor, shall provide staff support to the Quarry Monitoring Committee.

[1]

Editor's Note: Former § 10-19, Board of Electrical Examiners, added 3-6-2001 by Ord. No. 2001-1639, was repealed 4-5-2004 by Ord. No. 2004-1787.



January 23, 2020

Mr. Regulo Martinez-Montilva Department of City Development 9229 W. Loomis Road Franklin, WI 53132

Subject: Annual Aerial Photos (2019)

Dear Mr. Martinez-Montilva:

As required by PDD #97-1456 & PDD #97-1457 (or PDD #23 and PDD #24), I have enclosed two copies of the 2019 aerial photo of the Franklin Aggregates quarry located on Rawson Avenue. The photo was taken in September 2019 and encompasses an area large enough to include both PDD #23 and PDD #24.

Please do not hesitate to contact me in the office at (262) 524-1258, if you have any additional questions and/or would like some additional information.

Sincerely,

Payne & Dolan, Inc.

Clint Weninger, P.G.

Land Resources Manager







January 6th, 2020

Mr. Régulo Martinez-Montilva Planning Manager City of Franklin Planning Department 9229 W. Loomis Road Franklin, WI 53132

Dear Mr. Martinez-Montilva,

Enclosed are the 2019 annual reports and associated fees in the amount of \$2,850 for Payne & Dolan's nonmetallic mineral extraction sites located in the City of Franklin that have a received reclamation permit pursuant to Chapter NR135.18 Wisconsin Administrative Code and the City of Franklin Nonmetallic Mining Ordinance. These Sites Include.

| Site Name | Reclamation Permit # | Location | Unreclaimed Acres | Current Fee Amount |
|-------------------------|-------------------------|------------------|-------------------|--------------------|
| Franklin – West (80370) | NONE | City of Franklin | 92 | \$1,425 |
| Franklin – East (80370) | NONE | City of Franklin | 150.7 | \$1,425 |
| | | | Total | \$2,850 |

If you have any questions and/or need additional information please do not hesitate contact me at (262) 366 -5124, bbucholtz@payneanddolan.com.

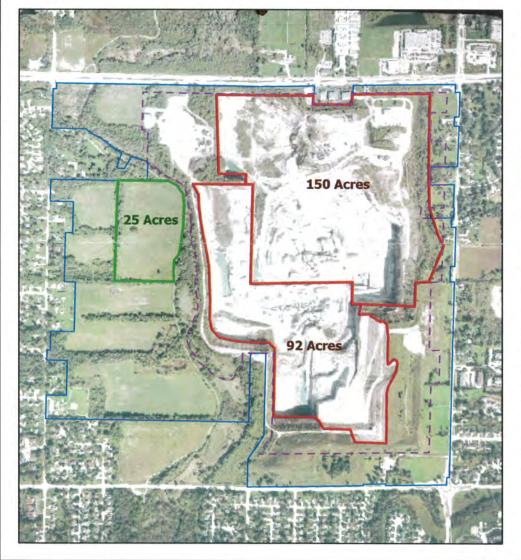
Sincerely,

Payne & Dolan, Inc.

Bryanna Bucholtz

Land Information Administrator

| Nonmetallic Mining Permit Number: NONE | |
|--|--|
| Site Name: Franklin (East) - 80370 | |
| Report Date: 12-27-2019 | |
| Parcel ID No: 757-9969-000, 757-9970-000, 757-9971-000, 758-9990-000, 758-9991-000, 758-9993-000, 758-9991-000, 758-9993-000, 758-9991-000, 758-9993-000, 758-9991-000, 758-9981-0000, 758-9981-0000, 758-9981-000, 758-9981-0000, 758-9981-0000, 758-9981-0000, 758-9981-00 | 57-9972-000, 758-9922-000, 758-9987-001, 758-9987-002, 758-9987-003, 58-9994-000, 758-9995-002, 758-9997-000, 758-9998-000, 758-9999-000 53132 |
| Township: City of Franklin | |
| Legal Description: Parts of Section 10, 11, 14, and | d 15 of Town 5 North, Range 21 East |
| Applicant / Operator | |
| Payne & Dolan, Inc. | |
| N3 W23650 Badinger Road | SAME |
| Waukesha, WI 53187 | SAI |
| (262) 524-1700 | |
| bbucholtz@payneanddolan.com | |



Acreage of Completed Reclamation: 0

Active, Unreclaimed Acreage: 150.7

Property Boundary

____ Active

Reclaimed

Nonmetallic Mine Site Certification:

"I hereby certify that this information is true and accurate and that the nonmetallic mining site described herein complies with all conditions of the applicable nonmetallic mining reclamation permit and chapter NR - 135, Wisconsin Administration Code."

Signature Symmian Date 12-27-2019



| Nonmetallic Mining Permit Number: NONE | |
|---|---|
| Site Name: Franklin (West) - 80370 | |
| Report Date: 12-27-2019 | |
| Parcel ID No: 757-9969-000, 757-9970-000, 757-9971-00 758-9990-000, 758-9991-000, 758-9993-00 Site Address: 6211 Rawson Avenue, Franklin, | 00, 757-9972-000, 758-9922-000, 758-9987-001, 758-9987-002, 758-9987-003, 00, 758-9994-000, 758-9995-002, 758-9997-000, 758-9998-000, 758-9999-000 WI |
| Township: City of Franklin | |
| | nd the NE 1/4, SE 1/4 Section 10, lying east of the Root Rive 11, Town 5 North, Range 21 East |
| | |
| Applicant / Operator | |
| Applicant / Operator Payne & Dolan, Inc. | |
| | -ME |
| Payne & Dolan, Inc. | SAME |
| Payne & Dolan, Inc. N3 W23650 Badinger Road | SAME |



Acreage of Completed Reclamation: 25

Active, Unreclaimed Acreage: 92

Property Boundary

Active

Reclaimed

Nonmetallic Mine Site Certification:

"I hereby certify that this information is true and accurate and that the nonmetallic mining site described herein complies with all conditions of the applicable nonmetallic mining reclamation permit and chapter NR - 135, Wisconsin Administration Code."

Signature Symmian Date 12-27-2019



Vibra-Tech HomeView

| AO | L/N | 106 | 109 | L/N | LN | 106 | 107 | 86 | L/N | 112 | 106 | 104 | L/N | 114 | 114 | 117 | L/N | 114 | 111 | 111 | L/N | L/N | 123 | 113 | L/N | 111 | 120 | L/N | L/N | 109 |
|------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------------|
| PPV | LN | 0.183 | 0.113 | LN | LN | 0.063 | 0.135 | 0.058 | LN | 0.058 | 0.125 | 0.048 | LN | 0.143 | 0.055 | 0.023 | LN | 0.200 | 0.095 | 0.035 | LN | LN | 0.038 | 0.023 | LN | 0.138 | 0.035 | LN | L/N | 0.128 |
| Seismo Loc | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) | Franklin Quarry(7526 S. 51st Street) | Franklin Quarry(SE of Quarry) | Franklin Quarry(5800 ALLWOOD) | Franklin Quarry(7301 S 51st Street) |
| Shot # | 161 | 161 | 161 | 161 | 162 | 162 | 162 | 162 | 159 | 159 | 159 | 159 | 160 | 160 | 160 | 160 | 157 | 157 | 157 | 157 | 158 | 158 | 158 | 158 | 156 | 156 | 156 | 156 | 155 | 155 |
| Time | 10:20 am | 10:17 am | 10:17 am | 10:20 am | 10:20 am | 10:19 am | 10:19 am | 10:19 am | 12:11 pm | 12:11 pm | 12:11 pm | 12:11 pm | 12:13 pm | 12:13 pm | 12:13 pm | 12:13 pm | 11:04 am | 11:04 am | 11:04 am | 11:04 am | 11:06 am | 11:06 am | 11:06 am | 11:06 am | 10:57 am | 10:57 am | 10:57 am | 10:57 am | 10:51 am | 10:51 am |
| Date | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/04/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 12/02/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/27/2019 | 11/19/2019 | 11/19/2019 | 11/19/2019 | 11/19/2019 | 11/19/2019 | 11/19/2019 |

Gail Olsen

From: Regulo Martinez-Montilva

Sent: Wednesday, February 5, 2020 2:14 PM

To: 'Clint Weninger'

Subject: RE: 2020 Blasting at Franklin Aggregates

Clint,

Thank you for the notice.

Régulo Martínez-Montilva, AICP

Associate Planner - Department of City Development City of Franklin 9229 W. Loomis Road Franklin, WI 53132

Phone (414) 425-4024 / 427-7564 RMartinez-Montilva@franklinwi.gov



From: Clint Weninger < cweninger@payneanddolan.com>

Sent: Wednesday, February 5, 2020 10:05 AM

To: Regulo Martinez-Montilva < RMartinez-Montilva@franklinwi.gov>

Cc: Mike Barber < MBarber@franklinwi.gov>; Dave Klein < DKlein@payneanddolan.com>; Derek Novotny

<DNovotny@payneanddolan.com>

Subject: 2020 Blasting at Franklin Aggregates

Good Morning Regulo.

I wanted to reach out as a courtesy and let you know that we plan on resuming blasting operations at the Franklin Aggregates quarry some time the end of February – either the week beginning February 17th or the week beginning February 24th. I cannot provide an exact date at this time as our schedule depends upon finalizing equipment repairs, inventory and weather. Our voluntary blasting notification process for neighbors will commence at that time as well.

Please let me know if you have any questions.

Thank you.



CLINT WENINGER
Land Resources Manager
262.524.1258 office
262.366.5429 mobile
www.payneanddolan.com
An Equal Opportunity Employer



Stantec Consulting Services Inc.



1165 Scheuring Road De Pere, Wisconsin 54115 Tel: (920) 592-8400 Fax: (920) 592-8444

January 24, 2020

Joel E. Dietl, AICP
Planning Manager
City of Franklin Planning Department
9229 W. Loomis Road
Franklin, Wisconsin 53132
Via email: jdietl@franklinwi.gov

REFERENCE: City of Franklin, WI – Franklin Aggregates Quarry Monitoring Summary

Period: 2019

Stantec Project: 193703639

Dear Mr. Dietl:

The enclosed information summarizes monitoring activities completed during 2019 by Stantec Consulting Services Inc. (Stantec) pertaining to the Franklin Aggregates, Inc. quarry (owned by Payne & Dolan, Inc.) located at 6211 W Rawson Ave, 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. This letter summarizes these efforts.

DESCRIPTION OF SERVICES

Direct Observation (Visual) Monitoring

Stantec conducted a total of nine (9) 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 were a combination of announced and unannounced but were all conducted during normal business hours. The days of the week and times of the day for the visits varied. The observations were completed between April and October, when quarry operations were occurring, and airborne dust was more likely. Qualitative data collected included 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
 - o Any other dust issues that may affect local citizens
- Quarry operations review, 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



Period: 2019

The findings of each visit were documented on a standard form that was approved by the City. The form was filled out by hand during each site visit, and then scanned/posted to a project file transfer protocol (FTP) site for review by City representatives.

Stantec also obtained photos to document site or directly adjacent off-site conditions, and short-duration video clips (e.g., showing dust impacts). These photos and videos were also uploaded to the project FTP site.

In addition to the observations and record review, Stantec also obtained and documented 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 notified the City Planning Manager of any condition (pertaining to air or dust monitoring, or other PDD condition) that we become aware of that exceeded the allowances outlined in the PDD. This communication was completed prior to noon the business day following the day we become aware of any such event.

Seismic Monitoring

Seismic monitoring was completed to document whether the site was compliant with operational parameters defined in the existing 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.

Stantec prepared monthly summaries of blasting data, comparing the Payne & Dolan (Vibra-Tech) unit recordings, to the Stantec (Sauls Seismic) unit recordings. This allowed the City to better evaluate the validity of the current seismic monitoring and the actual blasts being conducted by Payne & Dolan. These monthly reports were posted to the project FTP site for review by City representatives.

Stantec also notified 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 was completed prior to noon the business day following the day we become aware of any such event.

Blast Complaint Evaluation

Periodically through the year the City forwarded to Stantec specific information pertaining to quarry complaints received during the year. Stantec evaluated each one 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



Period: 2019

SUMMARY OF RESULTS

As previously indicated copies of completed observation forms and reports providing a summary of the fixed-location blast monitoring were prepared and posted to the project FTP site for review by City representatives. Thus, this end-of-year summary letter is not intended to describe specific details from each previously posted document. Copies of individual reports are not provided with this summary report.

Direct Observation (Visual) Monitoring

Stantec conducted a total of nine (9) qualitative observation site visits at the quarry. A summary of these visits is provided as Attachment A. Note the following:

- 6 of the 9 visits (67%) were unannounced to representatives of Franklin Aggregates.
- During the announced visits, Stantec was allowed guided access to the property; otherwise all observations were completed from the guarry perimeter.
- A street sweeper was observed during 5 of the 9 visits (53%). We also periodically observed operations of an on-site water truck and sprinkler systems.
 - From 2015 through 2018 the percentage of visits the street sweeper was observed operating was 50%, 57%, 42% and 45%, respectively.
- Noticeable debris (e.g., aggregate; sand) on the adjacent roadways was observed during 6 of the 9 visits (67%).
 - From 2015 through 2017 the percentage of visits with noticeable debris was observed was 26%, 33%, 63% and 25%, respectively.
- Noticeable opacity impacts (e.g., airborne dust) was observed during 5 of the 9 visits (56%). The dust was noticed primarily at the entrance along Rawson Avenue. Upon observation Stantec communicated with the guarry and they dispatched a street sweeper to the area.
 - From 2015 through 2017 the percentage of visits noticeable airborne dust was 26%, 0%, 0% and 5%, respectively.
 - The observations of noticeable airborne opacity coincided with the periods which had the highest wind speed, which at the time ranged from 12 to 17 mph.
- On-site review of quarry records pertaining to dust control measures and recordkeeping appeared to be maintained by site representatives. This is consistent with previous years.
- The quarry operator appears to be following standard protocol (e.g., street sweeper; sprinklers) to minimize off-site impacts. Truck traffic used the west entrance only; thus, no trucks were observed transporting material using the east entrance, therefore the wheel wash was not used. Only site level traffic was observed at the east entrance with no customer products leaving through this entrance.

It is important to note that Attachment A provides merely a small snapshot in time compared to the overall quarry operations during 2019. In addition, a different Stantec employee was assigned to conduct monitoring compared to prior years; this too could have produced additional variability in the results.

Seismic Monitoring

As contracted by the City, Stantec provided remote vibration monitoring using two seismographs colocated with two existing Payne & Dolan (Vibra-Tech) monitors at 7301 S. 51st Street and 5800 W. Allwood Drive. The monitor provided continuous (24/7) remote monitoring. Monthly summaries of blasting data, comparing the Payne & Dolan (Vibra-Tech) unit recordings, to the Stantec (Sauls Seismic) unit recordings, were prepared for the months April through December.

Per the PDD, 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 Administrative Code, Safety and*



Period: 2019

Professional Services 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.

- In addition to obtaining and reviewing the blast data from the city-owned, fixed seismograph, Stantec also retrieved blasting data from the Vibra-Tech web site, which provides 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 then compared to the Stantec-obtained data.
- Summaries of the seismic data is provided in Attachment B. The previously submitted monthly letter reports provides additional details. Highlights include the following:
 - Between April 1 and December 31, 2019, a total of 140 blasting events occurred. A total of 118 (84%) of these blasts were confirmed by the Stantec monitors.
 - Very few blasts were confirmed by the Payne & Dolan (7, 5%) or Stantec (1, 0.7%) monitors located at 5800 W/ Allwood Drive. Almost all blasts were confirmed by the Payne & Dolan (137, 98%) or Stantec (117, 84%) monitors located at 7301 S. 51st Street. This is because the predominance of blasts occurred along the eastern portion of the quarry, and not the southern portion.
 - The highest PPV readings were consistently measured by the Payne & Dolan monitor compared to the Stantec monitor, indicating the Payne & Dolan monitors may be providing a slightly more conservative PPV measurement. 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.
 - 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.

Blast Complaint Evaluation

A compilation of all complaints received by Stantec for the period January 1 through December 31, 2019 is provided as Attachment C. This was the second year that the City provided to Stantec the detailed complaint data. 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. The following highlights the results of the complaint evaluation:

Complaints - General

| • | 38 | complaints - total |
|---|----|---|
| | | (Note: several complaints were for multiple reasons and /or blast events) |
| • | 5 | complaints – regarding noise |
| • | 4 | complaints – regarding dust |
| • | 1 | complaint - miscellaneous |
| • | 38 | complaints - regarding blast events |
| | | |

Complaints - Blast Related

| • | 35 | complaints – corresponding to actual blast events |
|---|----|--|
| • | 2 | complaints - corresponding to possible blast events |
| • | 1 | complaint - not corresponding to actual blast events |
| • | 27 | complaints – complainant location identified |



Period: 2019

households that complained once each
 household that complained two (2) times
 household that complained three (3) times
 household that complained four (4) times
 household that complained eight (8) times

• 8 complaints – no name and address provided

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

• 0 complaints – east of 51st Street

• 25 complaints – south of Drexel Avenue

2 complaints – west of Root River

Blast Events

• 162 blast events - during monitoring period 2019 (shot numbers 1 through 162)

• 23 blast events - corresponding to complaints

o 2 weather: rain

o 12 weather: partly to mostly cloudy, or cloudy

9 weather: fair or scattered clouds12 time: prior to 12:00 pm (noon)

o 9 time: after 12:00 pm

18 blast events with one (1) complaint
2 blast events with two (2) complaints
2 blast events with two (2) complaints

• 1 blast events with nine (9) complaints (September 23, 2019)

Quarry Blast Locations Producing Complaints

16 eastern area of quarry

• 6 slightly northwest of eastern area of quarry

3 southern area of quarry

Monitor Locations (Vibra-Tech) with highest recorded blast readings

| Monitor ID | Blast Numbers | Comments |
|------------|---|--|
| VT1 | 4; 6; 23; 28; 29; 32; 33; 34; 42; 111; 117; 123; 132; 153 | Corresponds with a variety of the blasts in the eastern area of the quarry, along with all of those slightly northwest of this area. |
| VT2 | 20; 26; 41; 48; 65; 105; 130; 159 | Corresponds with a variety of the blasts in the eastern area of the quarry. |
| VT3 | 127 | Blast in southern area of quarry. |
| VT4 | None | |



Period: 2019

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

1. Very few, if any, quarry operational complaints are made regarding noise, dust, or truck traffic. Most complaints focus on quarry blasting and resulting ground vibrations.

- 2. Aside from blast number 127 which occurred on September 23 in the southern area of the quarry, most complaints were generated from blasts completed in the eastern area of the quarry.
- 3. A fair number of complainants chose to remain anonymous.
- 4. A large percentage of complaints (non-anonymous; confirmed blast related) originate from residences south of Drexel Avenue. Most of these were related to blast number 127 which occurred on September 23. This was the only blast identified in the southern portion of the quarry during the monitoring period.
- 5. No complaints came from households directly east of the quarry, adjacent the majority of blast events.
- 6. Two complaints came from west of the Root River, one of which was well removed into the adjacent neighborhood.
- 7. Blasts along the eastern area of the quarry correspond to the highest readings on monitors in that vicinity; however, no complaints are directly adjacent this area, the complaints are all south of Drexel Avenue.
- 8. In general, the largest blast readings at each Payne & Dolan sponsored Vibra-Tech monitors appear to correlate with the proximity of the nearest adjacent blast location.
- 9. None of the blasting events measured by Vibra-Tech had a vibration greater than 0.30 in/sec.
- 10. The corresponding blast data measured by Stantec with the Sauls Seismic monitors, closely aligned with the readings at each Payne & Dolan sponsored Vibra-Tech monitors.
- 11. Complaints were made on days with varying types of weather. Most, however, were on rainy or cloudy days.

CONCLUSIONS AND RECOMMENDATIONS

Based on historical results, the quarry appears to be operating within the limits of the PDD. This conclusion is based on both 365/7/24 monitoring during the period April-December for seismic monitoring, and also periodic visual assessments during small windows of random time periods. Increasing or decreasing the degree or extent of monitoring will likely produce the same results. Thus, it's our opinion that future monitoring should not be viewed as a means to find or verify fault with the quarry's compliance with the PDD, but rather to simply confirm the operations remain consistent with the PDD limits. With this in mind, direct observation (visual) monitoring and seismic monitoring adjacent the Franklin quarry should continue to be considered as a tool to gauge the operator's on-going compliance with the PDD limits.

Particulate debris impacts continue to appear minimal around the perimeter of the quarry. Periodic debris sometimes appears adjacent the western quarry property entrance along Rawson Avenue. Continued use of the street sweeper is highly recommended. In addition, use of tarps by all trucks departing the property is highly encouraged.

Seismic monitoring should continue to focus along the southern and eastern side of the quarry due to current operations. It is noted as unusual that although blasts along the eastern area of the quarry correspond to the highest readings on monitors in that vicinity, the corresponding complaints do not come



Reference:

City of Franklin, WI – Franklin Aggregates Quarry Monitoring Summary

Period: 2019

from the adjacent area but instead south of Drexel Avenue. Any blasts in the southern portion of the quarry, which is closer to the residences south of Drexel Avenue, should be closely controlled to minimize blast effects.

Please feel free to contact Mike Roznowski at 920.278.3200 or mike.roznowski@stantec.com if you have any questions or concerns.

Respectfully,

STANTEC CONSULTING SERVICES INC.

Kristen Gunderson-Inden Environmental Scientist

David Boyd, PE Senior Engineer

Michael B. Roznowski, CHMM

Principal

Attachments A - Franklin Quarry Observation Summary – 2019

B - Franklin Quarry Seismic Monitoring Summary - 2019

C - Franklin Quarry Complaint Summary - 2019



ATTACHMENT A

FRANKLIN QUARRY OBSERVATION SUMMARY - 2019

FRANKLIN QUARRY OBSERVATION SUMMARY

Period: 2019

Prepared by: Stantec Consulting Services Inc.

| Month | Day | | ounced or ounced | | weeper | | Debris on way(s) | Proper | | Oust from Quarry from Traffic on Roadway |
|-----------|-----|----------|---------------------|----------|----------|----------|---------------------|----------|----------|--|
| WOTH | Day | Ann. | Unann. | No | Yes | No | Yes | No | Yes | Wind Direction (speed - mph) |
| April | 3 | | 1 | 1 | | | 1 | | 1 | WSW / 17 |
| | 19 | | 1 | 1 | | | 1 | 1 | | NW / 0 |
| Мау | 7 | | 1 | 1 | | | 1 | | 1 | NNW / 14 |
| | 13 | 1 | | | 1 | | 1 | | 1 | NE / 12 |
| June | 14 | | 1 | | 1 | | 1 | | 1 | W / 12 |
| July | 11 | | 1 | 1 | | | 1 | 1 | | NE / 9 |
| August | 7 | 1 | | | 1 | 1 | | 1 | | SW / 3 |
| September | 6 | | 1 | | 1 | 1 | | | 1_ | WSW / 14 |
| October | 10 | 1 | | | 1 | 1 | | 1 | | ESE / 11 |
| | | 3 33% | 6 67% | 4 44% | 5 56% | 3 33% | 6 67% | 4 44% | 5 56% | |



ATTACHMENT B

FRANKLIN QUARRY SEISMIC MONITORING SUMMARY - 2019

FRANKLIN QUARRY BLAST MONITORING SUMMARY

Period: 2019

Prepared by: Stantec Consulting Services Inc.

| Month | Bla | asts | | nfirmed at Allwood | | nfirmed at 51st St. | | ests PPV dings | exceed | adings ling 0.30 sec | | / Value at . 51st St. | Highest I | PPV record | led by P&I | D Monitor |
|---------------------|---------------------|----------------------|---------|-----------------------|-----|------------------------|-----|-------------------|--------|----------------------------|-------|--------------------------|---------------------|---------------------------|---------------------|-----------------|
| May June July | Performed by P&D | Confirmed by Stantec | P&D | Stantec | P&D | Stantec | P&D | Stantec | P&D | Stantec | P&D | Stantec | 7301 S. 51st st. | 5800 W. Allwood Dr. | 7526 S. 51st St. | SE of Quarry |
| April | 17 | 16 | 1 | 0 | 17 | 16 | 16 | 1 | 0 | 0 | 0.128 | 0.098 | 17 | 0 | 0 | 0 |
| May | 18 | 13 | 1 0 | | 16 | 13 | 17 | 1 | 0 | 0 | 0.130 | 0.095 | 9 | 0 | 8 | 0 |
| June | 17 | 16 | 1 0 3 0 | | 17 | 16 | 17 | 0 | 0 | 0 | 0.131 | 0.104 | 12 | 0 | 5 | 0 |
| July | 21 | 19 | 0 | 0 | 20 | 19 | 17 | 3 | 0 | 0 | 0.138 | 0.103 | 16 | 0 | 4 | 0 |
| August | 20 | 18 | 0 | 0 | 20 | 18 | 15 | 5 | 0 | 0 | 0.105 | 0.099 | 15 | 0 | 5 | 0 |
| September | 16 | 14 | 2 | 1 | 16 | 13 | 11 | 4 | 0 | 0 | 0.137 | 0.118 | 13 | 0 | 2 | 1 |
| October | 18 | 13 | 0 | 0 | 18 | 13 | 17 | 1 | 0 | 0 | 0.109 | 0.082 | 12 | 0 | 6 | 0 |
| November | 9 | 7 | 0 | 0 | 9 | 7 | 6 | 3 | 0 | 0 | 0.090 | 0.083 | 6 | 0 | 3 | 0 |
| December | 4 | 2 | 0 | 0 | 4 | 2 | 4 | 0 | 0 | 0 | 0.112 | 0.115 | 2 | 0 | 2 | 0 |
| | 140 | 118 | 7 | 1 | 137 | 117 | 120 | 18 | 0 | 0 | | | 102 | 0 | 35 | 1 |
| | 100% | 84% | 5% | 0.7% | 98% | 84% | 87% | 13% | | | | | 74% | 0% | 25% | 0.7% |



ATTACHMENT C

FRANKLIN QUARRY COMPLAINT SUMMARY - 2019

FRANKLIN QUARRY COMPLAINT EVALUATION

Period: 2019

Prepared by: Stantec Consulting Services Inc.

| City of F Complaint: | | | | Complain | | | Complaint: Description | Wind Wind Procini Temp | | | | | | | Blast at Tim | ne of Blast or cident | | | esponding E ured by Vib | | 3 | | | ponding Blast ured by Stante | | | |
|-------------------------|---|---------|------|----------------|------------------|-------|--|------------------------|------------------------|------------------------|---------------|--------------------|-------|----|--------------|--------------------------|--|------------------|--|--------------------------|--------------------------|-------------------------------|------------------------------|---------------------------------|--------------------------------|-----------------------------|---|
| Date Time | Location of Complaintant or Figure ⁴ | n Noise | Dust | Vibra- tion | Truck Traffic | Other | Description | Wind Direction | Wind Speed (mph) | Wind Gusts (mph) | Conditions | Precipi- tation | Temp. | No | Yes | Maybe | Location of Blast on Figure ⁵ | Time Measured | Location | 5800 Allwood (VT4) | SE of Quarry (VT3) | 7526 S. 51st. St. (VT2) | 7301 S. 51st St. (VT1) | Time Measured | 5800 W. Allwood Dr. (S2) | 7301 S. 51st St. (S1) | Stantec Comments |
| 10-Jan 12:38 PM | 4 | | | 1 | | | Official complaint. It was strongly felt and rattled the windows and shook the house. Did not request a call back. | Calm | 0 | 0 | partly cloudy | 0 | 23 | | 1 | | 4 | 12:38 PM | eastern portion of quarry | N/T | 0.0280 | 0.0630 | 0.1450 | Note 5 | | | |
| 15-Jan 10:56 AM | 6 | | | 1 | | | Unofficial complaint to Ald. Barber. No details provided, other than a comment that it was a very noticeable blast. | WSW | 16 | 28 | cloudy | 0 | 30 | | 1 | | 6 | 10:56 AM | eastern portion of quarry | N/T | 0.0250 | 0.0680 | 0.1200 | Note 5 | | | |
| 25-Jan 6:56 AM | NA | | | | | 1 | Unofficial complaint (email to Ald. Barber) complaint about the City's complaint process. Taken to the 1-31-19 QMC meeting. | | | | | | | | | | | NA | NA | NA | NA | NA | NA | | | | |
| 21-Mar 11:56 AM | NA | | | 1 | | | Official complaint, but the complainant wished to remain confidential. | W | 14 | 0 | Fair | 0 | 48 | | 1 | | 20 | 11:57 AM | eastern portion of quarry | N/T | 0.0630 | 0.2200 | 0.1450 | Note 5 | | | |
| 21-Mar 11:56 AM | 20 | | | 1 | | | Unofficial complaint. Complaintant did not request a call back. | W | 14 | 0 | Fair | 0 | 48 | | 1 | | 20 | 11:57 AM | eastern portion of quarry | N/T | 0.0630 | 0.2200 | 0.1450 | Note 5 | | | |
| 21-Mar 11:56 AM | 20 | | | 1 | | | Unofficial complaint. Complaintant did not request a call back. | W | 14 | 0 | Fair | 0 | 48 | | 1 | | 20 | 11:57 AM | eastern portion of quarry | N/T | 0.0630 | 0.2200 | 0.1450 | Note 5 | | | |
| 2-Apr 9:53 AM | 23 | | | 1 | | | Official complaint. Complaintant indicated that there were two blasts at 9:53 and two blasts at 9:55. However, P&D records indicate only one blast at 9:53 and one blast at 9:55. Complaintant indicated they did not want the City to contact them. | NW | 6 | 0 | Light Rain | 0 | 41 | | 1 | | 23 | 9:53 AM | eastern portion of quarry | N/T | 0.0380 | 0.0900 | 0.1250 | 9:53 AM | | 0.08 | |
| 5-Apr 10:45 AM | 26 | | | 1 | | | Official complaint. Complaintant indicated that the blast shook the house. That it was a cloudy day and that they said they avoid blasting on cloudy days. And that it is a public nuisance. Joel called, left a message. | E | 12 | 0 | Partly Cloudy | 0 | 49 | | 1 | | 26 | 10:45 AM | eastern portion of quarry | 0.0200 | 0.0580 | 0.1530 | 0.0930 | 10:45 AM | | 0.05 | |
| 8-Apr 10:24 AM | 28 | | | 1 | | | Official complaint. Complaintant indicated that the blast shook the house and rattled the windows, but was barely felt outside. Did not | SW | 9 | 0 | Fair | 0 | 71 | | | 1 | 28 | 12:21 PM | eastern portion of quarry | N/T | 0.0380 | 0.1050 | 0.1330 | 12:22 PM | | 0.11 | Atantec assumes the "time" of the complaint may have been incorrectly logged. |
| | 29 | | | 1 | | | request a call back. | SW | 9 | 0 | Fair | 0 | 71 | | | 1 | 29 | 12:24 PM | eastern portion of quarry | N/T | 0.0430 | 0.0850 | 0.1180 | 12:24 PM | | 0.1 | |
| 15 Apr. 11/45 ANA | 32 | | | 1 | | | Official complaint. Complaintant indicated that there were two blasts, the first blast was strong, but the second blast was very strong, | SSW | 13 | 0 | Fair | 0 | 50 | | 1 | | 32 | 11:45 AM | eastern portion of quarry | N/T | 0.0250 | 0.1300 | 0.1580 | 11:45 AM | | 0.18 | |
| 15-Apr 11:45 AM | 33 | | | 1 | | | rattled the windows and the house did shake. Joel called resident and confirmed it was the second blast that was the worst. | SSW | 13 | 0 | Fair | 0 | 50 | | 1 | | 33 | | east-northeast portion of quarry | N/T | N/T | 0.0380 | 0.0580 | Note 6 | | | |
| 15-Apr 11:45 AM | NA | | | 1 | | | Confidential complaint. Complaintant did not want any information about them released. Did indicate that both blasts shook the house | SSW | 13 | 0 | Fair | 0 | 50 | | 1 | | 32 | 11:45 AM | eastern portion of quarry | N/T | 0.0250 | 0.1300 | 0.1580 | 11:45 AM | | 0.18 | |
| | NA | | | 1 | | | and a picture fell off the wall. Did not want a call back. | SSW | 13 | 0 | Fair | 0 | 50 | | 1 | | 33 | 11:47 AM | east-northeast portion of quarry | N/T | N/T | 0.0380 | 0.0580 | Note 6 | | | |

Franklin Quarry Complaint Evaluation - 2019

| | T | | 1 | 1 | | | | I | | 1 | 1 | | | | <u> </u> | | | <u> </u> | | <u> </u> | | | | |
|--------|----------|-----|---|---|---|--|-----|----|----|--------------------------|---|----|---|-----|----------|--|--------|----------|--------|----------|----------|------|-------|--|
| 19-Apr | 9:30 AM | 34 | | | 1 | Official complaint. Complaintant said the blast rattled the house and windows, and that ongoing blasts will damage the window seals. Requested a call back, but did not submit official complaint until 5-29-19. | Ν | 22 | 36 | Partly Cloudy / Windy | 0 | 45 | 1 | 34 | 9:38 AM | east-northeast portion of quarry | N/T | N/T | 0.0650 | 0.2080 | 9:38 AM | | 0.12 | |
| 7-May | 1:00 PM | 41 | | | 1 | Unofficial complaint. Two very large blasts within a few minutes of one another. | NNE | 15 | 25 | Mostly Cloudy | 0 | 44 | 1 | 41 | 1:04 PM | eastern portion of quarry | N/T | 0.0300 | 0.2250 | 0.1380 | 1:04 PM | | 0.08 | |
| 7-May | 1.001101 | 42 | | | 1 | Complaintnant did not request a call back. | NNE | 15 | 25 | Mostly Cloudy | 0 | 44 | 1 | 42 | 1:07 PM | eastern portion of quarry | N/T | 0.0400 | 0.0900 | 0.1200 | 1:07 PM | | 0.09 | |
| 20-May | 2:35 PM | 48 | | | 1 | Official complaint. Complaintant felt the blast, and there was another at 2:44pm. Did not want a call back. | E | 3 | 0 | Cloudy | 0 | 47 | 1 | 48 | 2:34 PM | eastern portion of quarry | 0.0200 | 0.0480 | 0.1150 | 0.0700 | 2:44 PM | | 0.085 | |
| 14-Jun | 10:08 AM | NA | | | 1 | Confidential complaint. Complaintant did not want any information about them released. Did indicate that the blast shook the house and spilled their coffee cup. Did not want a call back. | SW | 20 | 37 | Mostly Cloudy | 0 | 79 | 1 | 65 | 10:07 AM | eastern portion of quarry | 0.0280 | 0.0500 | 0.1230 | 0.1100 | 10:07 AM | | 0.065 | |
| 15-Aug | 11:38 AM | 105 | | | 1 | Official complaint. Blast was felt both inside and outside the house, it was very loud and shook the house. Did not want a call back. | NNE | 14 | 0 | Partly Cloudy | 0 | 74 | 1 | 105 | 11:37 AM | eastern portion of quarry | N/T | 0.090 | 0.190 | 0.113 | 11:37 AM | | 0.10 | |
| 15-Aug | 11:38 AM | 105 | | | 1 | Official complaint. Very large blast that shook the house and the floor. Staff called on 10/9/19 (1:51pm), complainant said that limits should be lowered. | NNE | 14 | 0 | Partly Cloudy | 0 | 74 | 1 | 105 | 11:37 AM | eastern portion of quarry | N/T | 0.090 | 0.190 | 0.113 | 11:37 AM | | 0.10 | |
| 15-Aug | 11:38 AM | 105 | | | 1 | Official complaint. Bigger blast, rattled doors and windows. Staff left a voice message on 10/9/19 (1:58pm). | NNE | 14 | 0 | Partly Cloudy | 0 | 74 | 1 | 105 | 11:37 AM | eastern portion of quarry | N/T | 0.090 | 0.190 | 0.113 | 11:37 AM | | 0.10 | |
| 23-Aug | 11:06 AM | 111 | | | 1 | Official complaint. Blast shook the home, doors, and windows. Did not want a call back. | ENE | 14 | 0 | Mostly Cloudy | 0 | 72 | 1 | 111 | 11:05 AM | east-northeast portion of quarry | N/T | 0.025 | 0.050 | 0.080 | 11:06 AM | | 0.07 | |
| 28-Aug | 4:00 PM | NA | | 1 | | Unofficial complaint about gravel on Rawson Avenue, most from the quarry, possibly some from other construction sites. | WSW | 20 | 29 | Partly Cloudy | 0 | 75 | | NA | NA | NA | NA | NA | NA | NA | NA | | NA | |
| 5-Sep | 12:25 PM | 117 | 1 | 1 | 1 | Official complaint. Blast rattled the windows and knocked a rack off the wall. WANTS A CALL BACK. Staff left a voice message on 10/9/19 (2:00pm). | ESE | 9 | 0 | Fair | 0 | 69 | 1 | 117 | 12:25 PM | eastern portion of quarry | N/T | N/T | 0.090 | 0.215 | Note 6 | | | |
| 16-Sep | unknown | 123 | | | 1 | Unofficial complaint noted she had received three complaints about a blast this day, and that there were complaints on Facebook also. | W | 16 | 24 | Mostly Cloudy | 0 | 83 | 1 | 123 | 11:10 AM | east-northeast portion of quarry | N/T | N/T | 0.053 | 0.128 | 11:10 AM | | 0.09 | |
| 23-Sep | 11:02 AM | 127 | | | 1 | Official complaint. Staff called on 10/9/19 (2:10pm), complainant said that this blast activated her security alarm. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM | 0.09 | | |
| 23-Sep | 11:02 AM | 127 | 1 | | 1 | Official complaint. This blast made waves in the pool, extremely loud. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM | 0.09 | | |
| 23-Sep | 11:02 AM | NA | | | 1 | Official complaint. Confidential | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM | 0.09 | | |
| 23-Sep | 11:02 AM | 127 | 1 | | 1 | Official complaint. No visible damage but foundation damage would be unknown. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM | 0.09 | | |

Franklin Quarry Complaint Evaluation - 2019

| 23-Sep | 11:02 AM | 127 | | | 1 | | Official complaint. Terrible shake of our house, worse than we have previously experience during our 45 years living at same residence. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM 0.09 | | |
|--------|----------|-----|---|---|---|---|---|-----|----|------|--------------|---|----|--------|-----|----------|--|-------|-------|-------|-------|---------------|------|--|
| 23-Sep | 11:02 AM | 127 | | | 1 | | Official complaint. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM 0.09 | | |
| 23-Sep | 11:02 AM | 127 | | | 1 | | Official complaint. Bigger blast, rattled doors and windows. Staff left a voice message on 10/9/19 (1:58pm). | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM 0.09 | | |
| 23-Sep | 11:02 AM | 127 | | | 1 | | Official complaint. Staff called on 10/9/19 (2:22pm), blast within PDD limits. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM 0.09 | | |
| 23-Sep | 11:02 AM | 127 | | | 1 | | Official complaint. Called back and provided copy of Stantec Report. | WNW | 18 | 26 | Fair | 0 | 71 | 1 | 127 | 11:01 AM | southern portion of quarry | 0.090 | 0.138 | 0.083 | 0.030 | 11:04 AM 0.09 | | |
| 26-Sep | 1:07pm | 130 | | | 1 | | Official complaint. Long vibration, it sounded different. | W | 15 | 26 | Fair | 0 | 70 | 1 | 130 | 1:05 PM | eastern portion of quarry | 0.025 | 0.083 | 0.243 | 0.153 | 1:06 PM | 0.11 | |
| 27-Sep | 1:05pm | NA | | | 1 | | Official complaint. Blast was extremely tiny compared to 9/23 blast. | S | 10 | 0 | cloudy | 0 | 66 | 1 | NA | NA | NA | NA | NA | NA | NA | Note 7 | NA | |
| 23-Sep | 1:45pm | NA | | 1 | | | Official complaint. No cover on dump trucks. | WNW | 22 | 35 F | air / Cloudy | 0 | 74 | | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 1-Oct | 10:47am | NA | 1 | | 1 | | Unofficial complaint. | W | 8 | 0 | Light Rain | 0 | 75 | 1 | 132 | 10:47 AM | east-northeast portion of quarry | N/T | N/T | 0.043 | 0.055 | 10:47 AM | 0.06 | |
| 12-Nov | 11:10am | 153 | | | 1 | | Complainant did not request a call back. | NW | 12 | 0 | fair | 0 | 16 | 1 | 153 | 10:38 AM | east-northeast portion of quarry | NA | 0.025 | 0.050 | 0.058 | 10:38 AM | 0.06 | |
| 20-Nov | 9:41am | NA | | 1 | | | Huge build-up on Rawson Ave, it may be gravel (not confirmed). Quarry took clean up action, which was verified by DPW. | S | 5 | 0 | Haze | 0 | 42 | | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 2-Dec | 12:12pm | 159 | 1 | | 1 | 0 | Official complaint. Rattled windows and scared dogs. | NW | 9 | 0 | cloudy | 0 | 33 | 1 35 2 | 159 | | eastern portion of quarry | N/T | 0.048 | 0.125 | 0.058 | Note 6 | | |

Note 1 From weather history. https://www.wunderground.com/history/

Note 2 Blast data is the highest Peak Particle Velocity (PPV) value (in/sec) recorded (longitudinal, transverse, or vertical) at monitor location. (N/T = monitor verification of blast was "not triggered")

Note 3 Monitor with highest PPV measurement is in red bold font.

Note 4 Corresponds to Payne & Dolan actual blast shot number.

Note 5 Stantec was not monitoring at the time of this blast event.

Note 6 Blast complaint. Actual blast did occur. Stantec monitors were operating but did not detect blast event.

Note 7 Blast complaint. Actual blast did NOT occur. Stantec monitors were operating but did not detect blast event.

Franklin Quarry Complaint Evaluation - 2019

