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)
   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.
   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 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.
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.

b. 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.

Alderman Wilhelm commented on the “Quarry Complaint Procedures” section. Alderman 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 Knupeppel 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.

Alderman 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 six members, two of who shall be Aldermen and four of who shall be citizens. One of the four citizen members will be a non-voting member.

B. 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 two 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 citizen members shall serve for three years; the Aldermen members shall serve for three years and only during his or her tenure in office, from May 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 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 Martínez-Montilla
Planning Manager
City of Franklin Planning Department
9229 W. Loomis Road
Franklin, WI 53132

Dear Mr. Martínez-Montilla,

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.

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<th>Site Name</th>
<th>Reclamation Permit #</th>
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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, 757-9972-000, 758-9922-000, 758-9987-001, 758-9987-002, 758-9987-003,

Site Address: 6211 Rawson Avenue, Franklin, WI 53132

Township: City of Franklin

Legal Description: Parts of Sections 10, 11, 14, and 15 of Town 5 North, Range 21 East

Applicant / Operator
Payne & Dolan, Inc.
N3 W23650 Badinger Road
Waukesha, WI 53187
(262) 524-1700
bbucholtz@payneanddolan.com

Acreage of Completed Reclamation: 0

Active, Unreclaimed Acreage: 150.7

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: [Signature]
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, 757-9971-000, 757-9972-000, 758-9922-000, 758-9987-001, 758-9987-002, 758-9987-003, 758-9990-000, 758-9991-000, 758-9993-000, 758-9994-000, 758-9995-002, 758-9997-000, 758-9998-000, 758-9999-000
Site Address: 6211 Rawson Avenue, Franklin, WI
Township: City of Franklin
Legal Description: Part of the E 1/2, NE 1/4 and the NE 1/4, SE 1/4 Section 10, lying east of the Root River and the SW 1/4 of Section 11, Town 5 North, Range 21 East

Applicant / Operator
Payne & Dolan, Inc.
N3 W23650 Badinger Road
Waukesha, WI 53187
(262) 524-1700
bbucholtz@payneanddolan.com

Acreage of Completed Reclamation: 25
Active, Unreclaimed Acreage: 92

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
Date 12-27-2019
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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

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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.
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
  - 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
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

Design with community in mind
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 quarry 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 quarry 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 co-located 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
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
January 24, 2020
Page 5 of 7

Reference: City of Franklin, WI – Franklin Aggregates Quarry Monitoring Summary
Period: 2019

- 10 households that complained once each
- 1 household that complained two (2) times
- 1 household that complained three (3) times
- 1 household that complained four (4) times
- 1 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
  - 2 weather: rain
  - 12 weather: partly to mostly cloudy, or cloudy
  - 9 weather: fair or scattered clouds
  - 12 time: prior to 12:00 pm (noon)
  - 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

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

Design with community in mind
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
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.

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Visit Announced or Unannounced</th>
<th>Street Sweeper Operating</th>
<th>Obvious Debris on Roadway(s)</th>
<th>Obvious Airborne Dust from Quarry Property and/or from Traffic on Adjacent Roadway</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ann.</td>
<td>Unann.</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
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<td>1</td>
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<td>October</td>
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<td></td>
<td>1</td>
<td>1</td>
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</table>

<table>
<thead>
<tr>
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<th>Obvious Airborne Dust from Quarry Property and/or Traffic on Adjacent Roadway</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Ann.</td>
<td>Unann.</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
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<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td></td>
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<td>August</td>
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</tr>
</tbody>
</table>

33% 67% 44% 56% 33% 67% 44% 56%
ATTACHMENT B

FRANKLIN QUARRY SEISMIC MONITORING SUMMARY – 2019
## Franklin Quarry Blast Monitoring Summary

**Period:** 2019  
**Prepared by:** Stantec Consulting Services Inc.

### Blast Monitoring Data

<table>
<thead>
<tr>
<th>Month</th>
<th>Blasts</th>
<th>Blasts Confirmed at 5800 W. Allwood</th>
<th>Blasts Confirmed at 7301 S. 51st St.</th>
<th>Highests PPV Readings</th>
<th>PPV readings exceeding 0.30 in/sec</th>
<th>Avg. PPV Value at 7301 S. 51st St.</th>
<th>Highest PPV recorded by P&amp;D Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Performed by P&amp;D</td>
<td>Confirmed by Stantec</td>
<td>P&amp;D</td>
<td>Stantec</td>
<td>P&amp;D</td>
<td>Stantec</td>
<td>P&amp;D</td>
</tr>
<tr>
<td>April</td>
<td>17</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0.128</td>
</tr>
<tr>
<td>May</td>
<td>18</td>
<td>13</td>
<td>16</td>
<td>13</td>
<td>17</td>
<td>1</td>
<td>0</td>
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<tr>
<td>June</td>
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<td>17</td>
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</tr>
<tr>
<td>November</td>
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<td>2</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0.112</td>
</tr>
</tbody>
</table>

### Notes

- **Highests PPV:**
  - Percentage of blasts with PPV readings exceeding 0.30 in/sec.
  - **Avg. PPV Value:**
    - Average PPV readings for confirmed blasts.
  - **Highest PPV recorded by P&D Monitor:**
    - Maximum PPV reading recorded by the P&D monitor during each month.

### PPV readings exceeding 0.30 in/sec

- **April:** 17 blasts with highest PPV readings exceeding 0.30 in/sec.
- **May:** 18 blasts with highest PPV readings exceeding 0.30 in/sec.
- **June:** 17 blasts with highest PPV readings exceeding 0.30 in/sec.
- **July:** 21 blasts with highest PPV readings exceeding 0.30 in/sec.
- **August:** 20 blasts with highest PPV readings exceeding 0.30 in/sec.
- **September:** 16 blasts with highest PPV readings exceeding 0.30 in/sec.
- **October:** 18 blasts with highest PPV readings exceeding 0.30 in/sec.
- **November:** 9 blasts with highest PPV readings exceeding 0.30 in/sec.
- **December:** 4 blasts with highest PPV readings exceeding 0.30 in/sec.

### Average PPV Value at 7301 S. 51st St.

- **April:** 0.128
- **May:** 0.130
- **June:** 0.131
- **July:** 0.138
- **August:** 0.105
- **September:** 0.137
- **October:** 0.109
- **November:** 0.090
- **December:** 0.112

### Highest PPV recorded by P&D Monitor

- **April:** 17
- **May:** 9
- **June:** 12
- **July:** 16
- **August:** 15
- **September:** 13
- **October:** 12
- **November:** 6
- **December:** 2
### Franklin Quarry Complaint Evaluation

**Period:** 2019

**Prepared by:** Stantec Consulting Services Inc.

#### Corresponding Blast Data (Measured by Vibra-Tech) *1, 2*

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location of Quarry</th>
<th>Corresponding Blast Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Jan</td>
<td>12:38 PM</td>
<td>SSW</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>15 Jan</td>
<td>10:56 AM</td>
<td>WSW</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>25 Jan</td>
<td>6:56 AM</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>21 Mar</td>
<td>11:36 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>21 Mar</td>
<td>10:45 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>21 Mar</td>
<td>11:56 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>2 Apr</td>
<td>9:53 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>5 Apr</td>
<td>10:56 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>8 Apr</td>
<td>10:24 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>29</td>
<td>10:24 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>15 Apr</td>
<td>11:45 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
<tr>
<td>15 Apr</td>
<td>11:45 AM</td>
<td>W</td>
<td>east portion of quarry</td>
</tr>
</tbody>
</table>

#### Weather

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location of Quarry</th>
<th>Weather Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Jan</td>
<td>12:38 PM</td>
<td>SSW</td>
<td>partly cloudy</td>
</tr>
<tr>
<td>15 Jan</td>
<td>10:56 AM</td>
<td>WSW</td>
<td>cloudy</td>
</tr>
<tr>
<td>25 Jan</td>
<td>6:56 AM</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>21 Mar</td>
<td>11:36 AM</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>21 Mar</td>
<td>10:45 AM</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>21 Mar</td>
<td>11:56 AM</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>2 Apr</td>
<td>9:53 AM</td>
<td>W</td>
<td>Light Rain</td>
</tr>
<tr>
<td>5 Apr</td>
<td>10:56 AM</td>
<td>W</td>
<td>Partly Cloudy</td>
</tr>
<tr>
<td>8 Apr</td>
<td>10:24 AM</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>10:24 AM</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>15 Apr</td>
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</tr>
<tr>
<td>15 Apr</td>
<td>11:45 AM</td>
<td>W</td>
<td></td>
</tr>
</tbody>
</table>

#### Stantec Comments

- For the time period from 10 January to 27 April, the City of Franklin received and logged 16 complaints. However, some of these complaints may have been incorrectly logged. Atantec assumes the "time" of the complaint may have been incorrectly logged.

- Location of the complaints:
  - Allwood Dr. (VT1)
  - 5800 S. 75th St. (VT2)
  - 7301 S. 51st St. (VT3)
  - 7526 S. Allwood Dr. (VT4)

- The evaluation includes the use of Vibra-Tech to measure the corresponding blast data.

- The corresponding blast data is measured at different locations within the quarry, as indicated by the location codes (VT1, VT2, VT3, VT4).

- The conditions at the time of the blast are noted, including wind direction, wind speed, and weather conditions.

- The comments section provides additional details about the nature of each complaint, including the type of event, date/time of the complaint, location of the blast, and any notable observations.

- Each complaint is classified as official or unofficial, with details on whether a call back was requested and any further actions taken.

- The table includes columns for the date, time, location of the complaint, description of the event, wind conditions, temperature, and corresponding blast data.

- The evaluation notes the presence of multiple blasts, with some days having multiple complaints due to the occurrence of multiple blasts.

- The comments section highlights the sensitivity of the area to blast noise, with some residents indicating that they were not notified about the blasts.

- The evaluation concludes with a summary of the complaints and the corresponding blast data, providing insights into the effectiveness of the monitoring and reporting systems.
28-Aug 4:00 PM NA 1 Unofficial complaint about gravel on Rawn Avenue, most from the quarry, possibly some from other construction site. WSW 20 29 Partly Cloudy 0 75 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). ENE 9 0 Pair 0 69 1 117 12:25 PM eastern portion of quarry N/T N/T 0.080 0.215 Note 6

16-Sep unknown 123 1 1 Unofficial complaint noted she had received three complaints about a blast Thursday, and that there were complaints on Facebook also. W 16 24 Mostly Cloudy 0 83 1 123 11:10 AM eastern portion of quarry N/T N/T 0.055 0.128 11:10 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. Staff called on 10/9/19 (2:10pm), complainant said that this blast damaged the pool, extremely loud. WWN 18 26 Pair 0 71 1 127 11:03 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. Blast rattled the house, and the floor. Staff called on 10/9/19 (1:58pm), complainant said that blast shook the house. Staff left a voice message on 10/9/19 (1:51pm), complainant said that limits should be lowered. WWN 18 26 Pair 0 71 1 127 11:01 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. Bigger blast, rattled doors and windows. Staff left a voice message on 10/9/19 (1:58pm). NINE 14 0 Partly Cloudy 0 74 1 105 11:37 AM eastern portion of quarry N/T 0.090 0.190 0.115 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), complainant said that blast should be lowered. NINE 14 0 Partly Cloudy 0 74 1 105 11:37 AM eastern portion of quarry N/T 0.090 0.190 0.115 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 (1:58pm), complainant said that blast should be lowered. NINE 14 0 Partly Cloudy 0 74 1 105 11:37 AM eastern portion of quarry N/T 0.090 0.190 0.115 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 11:06 AM eastern portion of quarry N/T 0.021 0.050 0.080 11:06 AM 0.07

28-Aug 4:00 PM NA 1 Unofficial complaint about gravel on Rawn Avenue, most from the quarry, possibly some from other construction site. 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). ENE 9 0 Pair 0 69 1 117 12:25 PM eastern portion of quarry N/T N/T 0.080 0.215 Note 6

16-Sep unknown 123 1 1 Unofficial complaint noted she had received three complaints about a blast Thursday, and that there were complaints on Facebook also. W 16 24 Mostly Cloudy 0 83 1 123 11:10 AM eastern portion of quarry N/T N/T 0.055 0.128 11:10 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. Staff called on 10/9/19 (2:10pm), complainant said that this blast activated her security alarm. WWN 18 26 Pair 0 71 1 127 11:01 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. This blast made waves in the pool, extremely loud. WWN 18 26 Pair 0 71 1 127 11:01 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. Confidential WWN 18 26 Pair 0 71 1 127 11:01 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

23-Sep 11:02 AM 127 1 1 Official complaint. No visible damage but foundation damage would be unknown. WWN 18 26 Pair 0 71 1 127 11:01 AM southern portion of quarry 0.090 0.138 0.083 0.020 11:04 AM 0.09

14-Jun 10:48 AM NA 1 Confidential complaint. Staff called on 10/9/19 (1:58pm), complainant did not want a call back. SW 20 37 Mostly Cloudy 0 79 1 0.09 10:07 AM eastern portion of quarry N/T 0.0300 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. Staff called on 10/9/19 (1:58pm), complainant did not want a call back. NINE 14 0 Partly Cloudy 0 74 1 105 11:37 AM eastern portion of quarry N/T 0.090 0.190 0.115 11:37 AM 0.10

20-May 2:25 PM 48 1 Official complaint. Two very large blasts within a few minutes of one another. Complainant did not request a call back. NINE 15 25 Mostly Cloudy 0 44 1 48 2:34 PM eastern portion of quarry N/T N/T 0.0900 0.1900 1:04 PM 0.08

19-Apr 9:30 AM 34 1 Official complaint. Complainant 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 an official complaint until 5-29-19. N 22 36 Partly Cloudy / Likely 0 45 1 34 9:38 AM eastern portion of quarry N/T N/T 0.0900 0.2080 9:38 AM 0.12

7-May 1:00 PM 41 1 Official complaint. Two very large blasts within a few minutes of one another. Complainant did not request a call back. NINE 15 25 Mostly Cloudy 0 44 1 41 1:04 PM eastern portion of quarry N/T 0.0300 0.2290 0.1380 1:04 PM 0.08

20-May 2:25 PM 48 1 Official complaint. Two very large blasts within a few minutes of one another. Complainant did not request a call back. NINE 15 25 Mostly Cloudy 0 44 1 42 1:07 PM eastern portion of quarry N/T 0.0400 0.1900 0.1200 1:07 PM 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 experienced 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. 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

18-Sep 2:22pm 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

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

26-Sep 1:07pm 130 1 Official complaint. Long vibration, it sounded different. W 15 26 Fair 0 70 1 130 1:05 PM southern portion of quarry 0.025 0.083 0.243 0.153 1:06 PM 0.11

27-Sep 1:07pm 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 1:49pm NA 1 Official complaint. No cover on dump trucks. WNW 22 35 Fair / Cloudy 0 74 NA NA NA NA NA NA NA

3-Oct 10:47am NA 1 Unofficial complaint. W 8 0 Light Rain 0 75 1 132 10:47 AM east-northeast portion of quarry N/T N/T 0.045 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 0.023 0.050 0.008 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

2-Dec 12:12pm 159 1 Official complaint. Rattled windows and scared dogs. NW 9 0 cloudy 0 33 1 159 12:11 PM eastern portion of quarry N/T 0.048 0.075 0.056 Note 6

Note 1 From weather history. https://www.wunderground.com/history/
Note 2 Blast data is the highest Peak Particle Velocity (PPV) value (max) recorded (longitudinal, transverse, or vertical) at monitor location. (N/T=monitor verification of blast was "not triggered")
Note 3 Monitor with highest PPV measurement 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 not 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.
SEISMIC COMPLAINTS TRACKING FIGURE
VICINITY OF PAYNE & DOLAN QUARRY
CITY OF FRANKLIN, WISCONSIN

1165 Scheuring Road, Green Bay, Wisconsin 54115
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DATE: 1/15/20  DRAWN BY:  MBR  PROJECT MANAGER: MBR  PROJECT NUMBER: 193703639  FIGURE 1

SCALE IN FEET
0 40 80
0 40 80