STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF COMPLIANCE AND INSPECTION

In Re: P. J. Keating Company **File Nos.: OCI-AIR-18-111, OCI-AIR-19-57, OCI-AIR-19-88 and OCI-WP-18-134**
RIPDES Referral No.: 18-04

AAD No.: 20-001/ARE

CONSENT AGREEMENT

A. INTENT & PURPOSE

This Agreement is entered by and between the Rhode Island Department of Environmental Management ("RIDEM") and P. J. Keating Company ("Respondent"). This Agreement is entered in accordance with Section 42-17.1-2 et seq. of the Rhode Island General Laws ("R.I. Gen. Laws") for the purpose of resolving the alleged violations set forth in a Notice of Violation issued to Respondent by RIDEM on 27 January 2020 ("NOV").

B. STIPULATED FACTS

(1) WHEREAS the property is located at 875 Phenix Avenue in Cranston, Rhode Island ("Property"). The Property includes a facility engaged in the mining and processing of rock, sand, and gravel ("Quarry Facility") and a facility that manufactures concrete ("Concrete Facility").

(2) WHEREAS Respondent owns the Property and operates the Quarry Facility.

(3) WHEREAS Respondent leases a portion of the Property to Cullion Concrete ("Cullion"), which operates the Concrete Facility.

(4) WHEREAS on 23 September 2014 RIDEM issued Permit No. RI0023761 to Respondent ("Permit") to discharge stormwater from the Property from outfall pipe 002 to an unnamed tributary flowing into Furnace Hill Brook.

(5) WHEREAS on 2 January 2019 Respondent applied to RIDEM to renew the Permit.

(6) WHEREAS the Quarry Facility and the Concrete Facility are stationary sources of air pollutants subject to, but not limited to, Rhode Island's regulations titled *Fugitive Dust* ("Dust Rules") and *Emissions of Air Contaminants Detrimental to Person or Property* ("Emission Rules").

(7) WHEREAS on 27 January 2020 RIDEM issued a Notice of Violation ("NOV") to Respondent alleging certain violations of Rhode Island's *Water Pollution Act* ("WP Act"), *Water Quality Regulations* ("WQ Rules") and *Regulations for the Rhode Island Pollutant Discharge Elimination System* ("RIPDES Rules") regarding the Permit. The NOV also alleged certain violations of the Dust Rules and Emission Rules regarding dust traveling beyond the Property.

(8) WHEREAS Respondent requested an administrative hearing with the Administrative Adjudication Division ("AAD") to contest the NOV.

(9) WHEREAS AAD is a division of RIDEM.

(10) WHEREAS on 21 October 2020 Cullion submitted to RIDEM a letter regarding its operation by electronic correspondence. The letter described the actions taken to control dust at the Concrete Facility and stated that the facility is not a significant source of dust.

(11) WHEREAS on 21 July 2021 RIDEM reissued the Permit to Respondent. The Permit includes conditions that satisfy the Order section of the NOV.

(12) WHEREAS on 27 October 2021 RIDEM and Respondent entered into a Consent Agreement regarding compliance with the conditions in the Permit.

(13) WHEREAS on 4 February 2022 Respondent submitted to RIDEM by electronic correspondence a Particulate Matter Control Plan ("PMCP") that was developed to prevent dust from the Quarry Facility from traveling beyond the Property. The PMCP is attached hereto and incorporated herein as Attachment A.

(14) WHEREAS the PMCP includes a description of 4 air monitoring devices ("Monitoring Devices") installed on or adjacent to the Property that monitor, among other parameters, wind direction and speed and particulate matter. The monitoring devices are identified as follows:

(a) A device located on the west end of the Property by the power lines at the rear end of the Quarry Facility ("MD1").

(b) A device located at the City of Cranston, Rhode Island Department of Public Works facility on top of a truck trailer used for storage ("MD2").

(c) A device located at the City of Cranston, Rhode Island Van Parking Area ("MD3").

(d) A device located at the northern rim of the Quarry Facility ("MD4").

(15) WHEREAS RIDEM and Respondent acknowledge and agree that the PMCP is subject to modification as needed to reflect changes to operations, personnel, practices, and equipment at the Quarry Facility or Concrete Facility.

(16) WHEREAS in lieu of proceeding to an administrative adjudicatory hearing on the NOV and to effect a timely and amicable resolution of the NOV, RIDEM and Respondent hereby agree that it is in the best interest of the parties and in the public interest to resolve the issues raised in the NOV.

(17) WHEREAS RIDEM finds that this Agreement is a reasonable and fair settlement and adequately protects the public interest in accordance with the WP Act, WQ Rules, RIPDES Rules, Dust Rules and Emission Rules.

(18) WHEREAS Respondent finds that this Agreement is reasonable and fair and enters into this Agreement with full knowledge and understanding of its terms.

C. AGREEMENT

(1) RIDEM has jurisdiction over the subject matter of this Agreement and has personal jurisdiction over Respondent.

(2) This Agreement shall have the full force and effect of a final compliance order issued after a full hearing on the merits pursuant to the Administrative Procedures Act, R.I. Gen. Laws Section 42-35-1 et seq. and R.I. Gen. Laws Section 42-17.7-1 et seq. from which no timely appeal was taken, and which is enforceable in Superior Court in accordance with R.I. Gen. Laws Section 42-17.1-2(21)(vi).

(3) The provisions of this Agreement shall apply to and be binding upon RIDEM, Respondent and its agents, servants, employees, successors, assigns and all persons, firms and corporations acting under, through and for Respondent in the performance of work relating to or impacting the requirements of this Agreement.

(4) Respondent shall complete the following actions to comply with the Order section of the NOV:

(a) **IMMEDIATELY upon execution of the Agreement**, always comply with all conditions of the PMCP.

(b) **Within 1 business day of RIDEM's receipt of a complaint about dust that RIDEM believes to be reasonably attributable to the Property**, RIDEM shall notify Respondent by electronic correspondence sent to Douglas Vigneau douglas.vigneau@pjkeating.com 978-732-3761 ("Complaint Notification"). The Complaint Notification shall be deemed received by Respondent upon RIDEM's transmission to Respondent.

(c) **Within 1 business day of Respondent's receipt of a complaint about dust from the Property that Respondent believes to be reasonably attributable to the Property from someone, other than RIDEM,** Respondent shall notify RIDEM by electronic correspondence sent to DEM.Compliance2@dem.ri.gov. The notification shall include the date and time of the complaint, the name of the person that filed the complaint and contact information (if provided) and a description of the complaint.

(d) **Within 1 business day of Respondent's determination that weather conditions may cause dust from the Property to travel beyond the Property**, Respondent shall notify RIDEM by electronic correspondence sent to DEM.Compliance2@dem.ri.gov. The notification must include an explanation of the weather conditions and all actions taken to minimize dust from the Property to travel beyond the Property.

(e) **Within three business days of Respondent's receipt of a complaint pursuant to subsections C(4)(b) and C(4)(c) above**, Respondent shall complete an investigation of the complaint and submit a report to RIDEM that includes the following information: a summary of the complaint (including date and time of the complaint, the name of the complainant and contact information if provided, and a description of the complaint); the actions taken to investigate the complaint; the findings of the investigation; and any changes made to the practices or procedures at the Property resulting from the investigation. Investigations shall include, but not be limited to, the following: an evaluation of Property activities, equipment, compliance with the PMCP, weather conditions at the time of the complaint (if known), including wind direction and wind speed and other data from the Monitoring Devices; inspections of the Property and area(s) which were the subject of the complaint to determine the presence of dust, and interviews with relevant Quarry Facility and Concrete Facility personnel; and corrective actions identified and implemented if dust from the Property is determined to have traveled beyond the Property. Reports submitted to RIDEM pursuant to this paragraph shall be submitted by electronic mail to the Administrator of RIDEM's Office of Compliance and Inspection ("OCI") with copies to the air pollution program managers within OCI. The names and email addresses of the individuals currently in these positions are as follows:

Shawna Smith, Principal Environmental Scientist
shawna.smith@dem.ri.gov

Patrick Hogan, Environmental Engineer IV
patrick.hogan@dem.ri.gov

David E. Chopy, Administrator
david.chopy@dem.ri.gov

(f) **Within 7 days of execution of the Agreement**, Respondent shall provide RIDEM with 24/7 access to view the data from the Monitoring Devices.

(g) **Within 30 days of whenever any of the following occur**, Respondent shall amend the PMCP and submit it to RIDEM:

(i) Changes to operations, personnel, practices or equipment at the Quarry Facility or Concrete Facility are made that may affect dust traveling beyond the Property.

(ii) The findings of an investigation in subsection C (4)(e) above identify corrective actions.

(iii) Inspections by RIDEM document that dust has traveled beyond the Property and RIDEM has identified reasonable corrective actions that can be implemented to prevent a recurrence that are not described in the PMCP.

Amended plans submitted to RIDEM pursuant to this paragraph shall be submitted by electronic mail to the Administrator of OCI with copies to the air pollution program managers within OCI. The names and email addresses of the individuals currently in these positions are as follows:

Shawna Smith, Principal Environmental Scientist
shawna.smith@dem.ri.gov

Patrick Hogan, Environmental Engineer IV
patrick.hogan@dem.ri.gov

David E. Chopy, Administrator
david.chopy@dem.ri.gov

(5) Respondent shall pay to RIDEM $40,000 in administrative penalties assessed as follows:

(a) **Upon execution of this Agreement by Respondent**, Respondent shall pay to RIDEM $40,000.

(b) Penalties that Respondent agrees to pay in this Agreement are penalties payable to and for the benefit of the State of Rhode Island and are not compensation for actual pecuniary loss.

(c) Penalty payments shall be by one of two methods:

(i) By check made payable to the **General Treasury – Water and Air Protection Program** and forwarded to:

Administrator, RIDEM Office of Compliance and Inspection
235 Promenade Street, Suite 220
Providence, RI 02908-5767.

(ii) By wire transfer in accordance with instructions provided by RIDEM.

(6) RIGHT OF ACCESS - Respondent provides to RIDEM, its authorized officers, employees, and representatives an irrevocable right of access to the Property at all reasonable times to monitor compliance with this Agreement. Respondent shall ensure that assignees, successors in interest, lessees, sublessees, tenants in possession and/or occupants of the Property shall provide the same access and cooperation if they control the Property. Respondent shall provide a copy of this Agreement to any current lessee, sublessee, tenant in possession and/or occupant of the Property as of the effective date of this Agreement. Any subsequent leases, subleases, assignments or transfers of the Property or an interest in the Property shall include this right of access provision and shall otherwise be consistent with the terms of this Agreement.

D. COMPLIANCE

(1) Compliance with and fulfillment of this Agreement shall be deemed to resolve all issues raised in the NOV.

(2) This Agreement shall expire 5 years from the date of execution.

(3) If Respondent fails to comply with the items specified in subsection C (4) of the Agreement, Respondent shall pay a stipulated penalty of $250 per day for each day during which the noncompliance continues, except that RIDEM may, for good cause shown, defer or reduce such penalty. The payment of a penalty in accordance with this section shall not preclude RIDEM from seeking any other appropriate remedy (e.g., injunctive relief in Superior Court).

(4) Compliance with the PMCP shall not operate to shield Respondent from compliance with the Dust Rules nor does it limit RIDEM from taking additional enforcement action for violations of the Dust Rules RIDEM may allege occur after execution of the Agreement.

(5) Compliance with the terms of this Agreement does not relieve Respondent of any obligation to comply with any other applicable laws or regulations administered by, through or for RIDEM or any other governmental entity.

(6) Upon a determination by the Director that there is a threat to the public health or the environment, or upon discovery of any new information, RIDEM reserves the right to take additional enforcement actions as provided by statute or regulation, including, but not limited to, the issuance of "Immediate Compliance Orders" as authorized by R.I. Gen. Laws Section 42-17.1-2(21). This Agreement shall not restrict any right to hearing or other right available by statute or regulation that Respondent may have regarding any new enforcement action commenced by RIDEM after the execution of this Agreement.

(7) This Agreement shall not operate to shield Respondent from liability arising from future activities, as of the date of execution of this Agreement.

(8) The scope of the Agreement is limited to violations alleged in the NOV.

(9) Communications regarding this Agreement shall be directed to:

Shawna Smith
RIDEM Office of Compliance and Inspection
235 Promenade Street
Providence, RI 02908-5767
(401) 222-1360 ext. 2777427

shawna.smith@dem.ri.gov

Christina Hoefsmit, Esquire
RIDEM Office of Legal Service
235 Promenade Street
Providence, RI 02908-5767
(401) 222-6607

christina.hoefsmit@dem.ri.gov

Douglas Vigneau
P.J. Keating Company
998 Reservoir Road
Lunenburg, MA 01462
(978) 732-3761

(a) At any time prior to full compliance with the terms of this Agreement, Respondent agrees to notify RIDEM in writing of any change in ownership of the Property, Quarry Facility or Concrete Facility and provide the name and address of the new owner(s). Notice of any change in address/telephone/fax of either party shall be sent to all other parties by certified mail.

(b) All communications regarding compliance with this Agreement shall be forwarded to the above-referenced addressees by certified mail.

(10) The Director may, for good cause shown, defer any of the compliance dates prescribed herein. Good cause for deferral of any compliance date shall be forwarded to RIDEM in writing at least 15 days prior to the prescribed deadline.

(11) The Agreement may be amended by agreement of the parties in writing.

(12) This Agreement shall be deemed entered as of the date of execution by all parties.

IN WITNESS WHEREOF, the undersigned consent to this Agreement in substance and in form.

P. J. Keating Company

By: _____
Print Name: _____ Title: _____

Dated: _____

In my capacity, as _____ of P. J. Keating Company, I hereby aver that I am authorized to enter into this Agreement and thereby bind P. J. Keating Company to satisfy any obligation imposed upon it pursuant to said Agreement.

STATE OF RHODE ISLAND
COUNTY OF _____

In _____, in said County and State, on this _____ day of _____, 2022, before me personally appeared _____, the _____ of P. J. Keating Company, a State of Massachusetts corporation, to me known and known by me to be the party executing the foregoing instrument on behalf of P. J. Keating Company, and he/she/they acknowledged said instrument by him/her/them executed, to be his/her/their free act and deed in said capacity and the free act and deed of P.J. Keating Company.

_____
Notary Public
My Commission Expires: _____

State of Rhode Island, Department of Environmental Management

By: _____
David E. Chopy, Administrator
Office of Compliance and Inspection

Dated: _____

Engineering Technologies Group, Inc.

Prudent Solutions for Environmental Issues

Particulate Matter (PM) Control Plan

P.J. Keating Company
875 Phenix Avenue
Cranston, RI 02921

The following plan outlines steps that P.J. Keating Company (PJK) will implement to control particulate matter (PM) emissions and fugitive dust at their facility in Cranston, RI.

Person responsible for the Overall Implementation of this PM Control Plan:

P.J. Keating Company
998 Reservoir Road
Lunenburg, MA 01462
Responsible party/title: Robert Robinson, VP Aggregate Operations
Office phone: 978-582-5238
Cell Phone: 978-732-4286
Email: robert.robinson@pjkeating.com

Person responsible for this PM Control Plan and the tasks identified herein at the subject property:

P.J. Keating Company
875 Phenix Avenue
Cranston, RI 02921
Michael Warner, Site Manager
Office phone: 401-808-8775
Cell Phone: 774-473-7090
Email: michael.warner@pjkeating.com

Sources of Particulate Matter (PM):

- Roadways (paved, unpaved, and haul roads)
- Asphalt plant

- Quarry Blasting Operation
- Crushing plant
- Portable Crushing Plant

Paved Roadways / Unpaved Roadways / Haul Roads

- Paved roadways on site are swept on a regular basis including Tuesday, Thursday, and Saturday for a minimum of three (3) hours per day. In addition to the scheduled sweeping frequency, the street sweeping company is nearby, on-call and can be at the site within 30-60 minutes of being notified. Sweeping is typically done in the early afternoon. The Site manager does a site drive through inspection at the beginning of each day and inspects the site and crushing operation visually throughout the day. The Site Manager will spend time at the southern point of the property to monitor for potential fugitive emissions. Site Manager monitors the effectiveness of the sweeping operation and will direct the sweeper to areas of need outside of the normal routine.

- Phenix Avenue along the PJK property frontage (approximately 2,200 linear feet) shall be swept with a street sweeper with the same periodicity as stated above. A logbook of the street sweeping will be maintained daily and kept in the Site Manager's office. The logbook will be available for inspection upon request to the Site Manager. Please see Inspection Logs in Attachment A.

- PJK has installed a Vehicle Track Out Prevention System (Vehicle TOPS). Please see Attachment D – Vehicle TOPS.

- PJK shall have a designated employee on site whose responsibility includes wetting the site down with the water truck. There will always be one water truck at the site.

- To control dust, paved roadways on-site shall be wetted regularly with the water truck throughout the day. This condition does not apply when it is raining or snowing or when there is snow cover on the ground.

- The sprinkler system is equipped with a timer that will be activated at the start of the business day on all dry days above freezing temperatures.

- Water source for the sprinkler system located at the main entrance of the subject property and the Vehicle TOPS system shall come from the on-site groundwater well.

- When the plant is in operation, unpaved roadways on site shall be wetted continuously using the water truck throughout the day. This condition does not apply when it is raining or snowing or when there is snow cover on the ground. Water truck usage and weather conditions will be recorded and maintained in the daily logbook.

- The water used to fill the water truck will come from the quarry floor, which is typically clearer than other retention ponds. Using this water for dust control on site will reduce the potential for dust creation from less clean sources.

- Speed limit signs of 15 mph shall be posted throughout the site. A speed limit of 10 mph shall be posted near the scale house. Speed limit shall be enforced by PJK personnel. Those who exceed the speed limit will be warned. Incidents from repeat offenders will be reviewed on a case-by-case basis.

- To further control fugitive dust and improve plant aesthetics from Phenix Avenue, a four-foot high earthen berm, planted with 105, 5 to 6-foot-tall green giant arborvitaes creates a vegetative barrier along approximately 850-feet of the active stone plant frontage on Phenix Avenue.

Asphalt Plant

- PJK installed an EssTee, Model No. ST-468 Pulse Jet Baghouse (RIDEM Permit No. 2478 issued July 20, 2020) and resumed asphalt production in September 2020.

- PJK will maintain daily production logs for the previous day's production on-site. PJK will continuously monitor pressure drop across the baghouse and shall be checked a minimum of once per day, with date, time and measurement recorded. The logs will be available on site for inspection.

- Maintenance and malfunction logs will be up to date and kept available on site and in PJK's computer data base that may be accessed by PJK personnel and made available at any time.

- In the event of an excessive upset or malfunction to the facility's equipment or monitoring equipment, PJK will contact the Administrator of RIDEM's Office of Air Resources by telephone or email. An excessive upset or malfunction occurs when the equipment exhibits greater than their allowed 10% opacity limits and emission limits as established in Permit No. 2478.

- A visolite test shall be performed before startup of every season. Additional visolite tests shall be performed as needed to locate leaks, bag failures, or problems with the operation of the baghouse, such as excessive stack gas

opacity as well as a minimum of every 90-days. Records shall be maintained on-site documenting the results of the visolite test.

- Replacement filter bags shall be maintained on site per the manufacturer's recommendations. If the baghouse shows high opacity and bags need to be replaced, it shall be done immediately.

- At a minimum of once per workday, a designated employee familiar with facility operations and air pollution matters, shall conduct an inspection of all air pollution control equipment. A recordkeeping log shall be maintained, and it shall include a report of conditions noted by the observer and any corrective actions taken.

- Trucks are required to cover all loads prior to leaving the site.

Quarry Blasting Operations

- PJK employs a drilling and blasting contractor for the controlled use of gas pressure blasting pyrotechnics, to break rock for excavation. In Cranston, the blasting contractor uses a typical blasting agent consisting of ammonium nitrate and diesel fuel (ANFO) that is most-entirely consumed within the blast.

- To control the inevitable dust generated by the blast at the quarry face. PJK monitors the weather forecast in the days leading to the blast, particularly wind speed, direction, and precipitation. If the wind is forecasted to be in an unfavorable direction (N-NE for the Cranston Quarry), the blast is postponed. However, if the wind is forecast in a favorable direction and the drill holes are loaded with blasting agent, the blast must be completed regardless if there is a sudden change in wind direction.

- PJK removes all loose impediments on the ground in the area of the blast to reduce the likelihood of shot rock. PJK also typically doses the blast area with water to control surface dust generation. Since the blast forces the quarry rock out from the face of the quarry (i.e., rather than from the top) blast mats are not a viable option to reduce the explosive force and dust from the blast.

- PJK will continue to research and monitor all blasts. Seismographs are in place at previously approved locations and are moved as necessary to satisfy monitoring requirements required by the Cranston Fire Department (Cranston FD). All monitoring data is available and provided to the Cranston FD to ensure compliance with state and local regulations.

Crushing Plant

- Wet dust suppression systems are located on the primary, secondary, and tertiary plants. The wet dust suppression systems are manufactured by NESCO and are considered a state-of-the-art system. Spray nozzles are located at crusher discharges, as well as some crusher inlets, and belt conveyors. The plant is evaluated by NESCO, who in turn determines where spray nozzles should be located to maximize the effectiveness dust suppression. Please see Attachment B - Plant Flow Diagram with Wet Suppression Locations.

- Shrouding is located around Secondary Crusher (above screen and crusher) and Tertiary Crusher surge bin. If it is determined that shrouding around more of the crusher discharges is necessary (opacity exhibits greater than 15%), PJK will install additional shrouding as soon as possible. Please see Attachment C - Site Plan with Relevant PMCP Features.

- Two (2) water cannons are located at the primary crusher to control dust. The water cannons are in operation whenever the plant is running. This condition does not apply when it is raining or snowing. Please see Attachment C - Site Plan with Relevant PMCP Features.

- The steel structure will be observed as part of the daily inspection. Any Steel structure areas that show accumulated dust shall be washed off as needed.

- Wet dust suppression water shall be in use when the plant is in operation. This condition does not apply when it is raining or snowing.

- If the wet dust suppression system is inoperable or malfunctioning, the affected portion of the plant shall be shut down until the problem is fixed.

- Spray nozzles on the plant and on site shall be cleaned per manufacturer's guidelines and as needed. In addition, nozzles are replaced whenever necessary.

- An on-going throughput the day inspection is conducted by the Site Manager as well as all employees to consistently report any and all matters of fugitive dust generation. On a daily basis, the Site Manager (or designee in the absence of the Site Manager being on site) inspects all operations and air pollution matters of all air pollution control equipment, including the wet dust suppression system and shrouding. These inspections are recorded and maintained in the referenced logbook.

- Under high wind and unfavorable direction ((N-NE for the Cranston Quarry) and when all efforts to suppress dust from leaving the site prove insufficient.

PJK will shut down aggregate crushing operations throughout the duration of the high wind event. In such an event, PJK will contact RIDEM to inform of the shutdown period.

- PJK will implement a particulate matter (PM_{10}) monitoring plan. Please see Attachment E – Particulate Matter Monitoring Program.

- All trucks are required to be covered prior to leaving the site.

Portable Crushing Plant

- PJK contracts portable crushing operations for the reclamation of used asphalt pavement (RAP). Production of RAP is encouraged by regulatory agencies to reduce the volume of virgin materials to produce asphalt by as much as 15-25% depending on the required asphalt specification.

- Waste asphalt is processed utilizing a contracted portable crushing plant. The plant is situated immediately adjacent to the waste asphalt pile and consists of a crusher and simple conveyor system. The waste asphalt crushing bin is continually wetted with spray nozzles situated above the crushing bin. The wetted asphalt (RAP) is conveyed to the process pile where the drop point from the conveyor is also wetted as necessary. Typically, the wetting of the asphalt at the point of initial crushing is sufficient to ensure the product is wet on the other end therefore, dust is seldom observed. If there is dust present at the drop point the conveyor spray nozzles are engaged.

- PJK contracts portable crushing operations that sets up on the quarry floor to produce specifically sized rock (e.g., 1/2”, 3/8”), that may have a by-product of manufactured unwashed sand (‘sand’). In accordance with RIDEM Regulation 250-RICR-120-05-5, water sprays are in-place to control dust during the crushing operation as well as wetting of stockpiles created through the process. Additionally, the location of the portable crusher and stone stockpiles are greater than 1,500 feet from the nearest occupied dwelling.

    - The portable rock crushing plant will be located at the eastern corner of the quarry floor, approximately 180 feet below the nearest top rim of the quarry as well as more than 2,000 feet from the nearest occupied dwelling.

    - The portable plant will have a water tank and spray nozzles on all transfer points and crushers for dust suppression during the production process. The production process is proposed to include the by-product of manufactured unwashed sand (‘sand’).

- PJK utilizes water (dust suppression) trucks on site and will keep the sand stockpile wetted throughout the day. Additionally, PJK will keep the stockpile height as low as possible, not to exceed 30' above the existing quarry floor.

- Sand will be blended into dense graded base products, which will take place in the immediate vicinity of the portable plant. The sand will be introduced to the main fixed plant and loaded directly for sale from the pile as finished product.

Please see Attachment G – Portable Rock Crushing and Manufactured Unwashed Sand.

Control Plan Document Management

- This PM Control Plan will be reviewed for effectiveness on a quarterly basis by the Site Manager and Environmental Compliance Manager. If it is determined by PJK personnel that changes need to be made, they will be done so immediately. Records of the changes will be kept on-site.

- A copy of the PM Control Plan will be posted at the main office so that employees can view it at any time. The Plan will be reviewed with employees on a quarterly basis. Please see Attachment F – PMCP Training and Log Sheet.

- PJK has a public 24-hour phone line monitored by an answering service. When a call comes in, the appropriate manager is notified. The manager will call the person back as soon as possible. The complaints will be investigated within 72-hours and logged into a complaint book. Any actions taken to correct the problem will be logged as well.

Attachment A - Inspection Logs

- Plant Inspection - Zone Task Distribution
- Inspection Log High-Pressure Dust Suppression

DAILY SITE INSPECTION

Cranston Facility

Zone 1 - Entrance/Exit, Quarry, Recycle, Process Piles

TIME: _____
WEATHER: _____
WIND: _____

HAUL ROADS

- ☐ Haul roads are in good repair
- ☐ Appropriate berming is in place
- ☐ Warning signs are posted and visible
- ☐ Open faces are blocked off with berming or cones
- ☐ Unused roads are blocked off
- ☐ Gate is in good condition

ENVIRONMENTAL

Y	N	Water truck operating	
Y	N	Sweeper operating on site	
Y	N	Sprinklers operating	
Y	N	Sediment tracked off site	If yes, list corrective action below
Y	N	Fugitive dust visible	If yes, list corrective action below

HIGHWALLS

- ☐ Benches are clear
- ☐ Highwall does not indicate areas of failure
- ☐ Overburnden is pulled back or at the angle of repose

ELECTRICAL (PUMP)

- ☐ Wires are secured and not frayed or pulled out
- ☐ Cover plates are in place and secure

STOCKPILES

- ☐ Check that stockpiles are stable
- ☐ Stockpiles with travel ways have appropraite berming

- ☐ There are safety issues that need to be corrected
- ☐ There are environmental issues that need to be corrected

NOTES / CORRECTIVE ACTIONS:

SIGNED: _____ DATE: _____

Primary, Secondary, Tertiary Crusher Inspection of High-Pressure Water Spray System
Daily Inspection Log - PJK Cranston, RI Facility

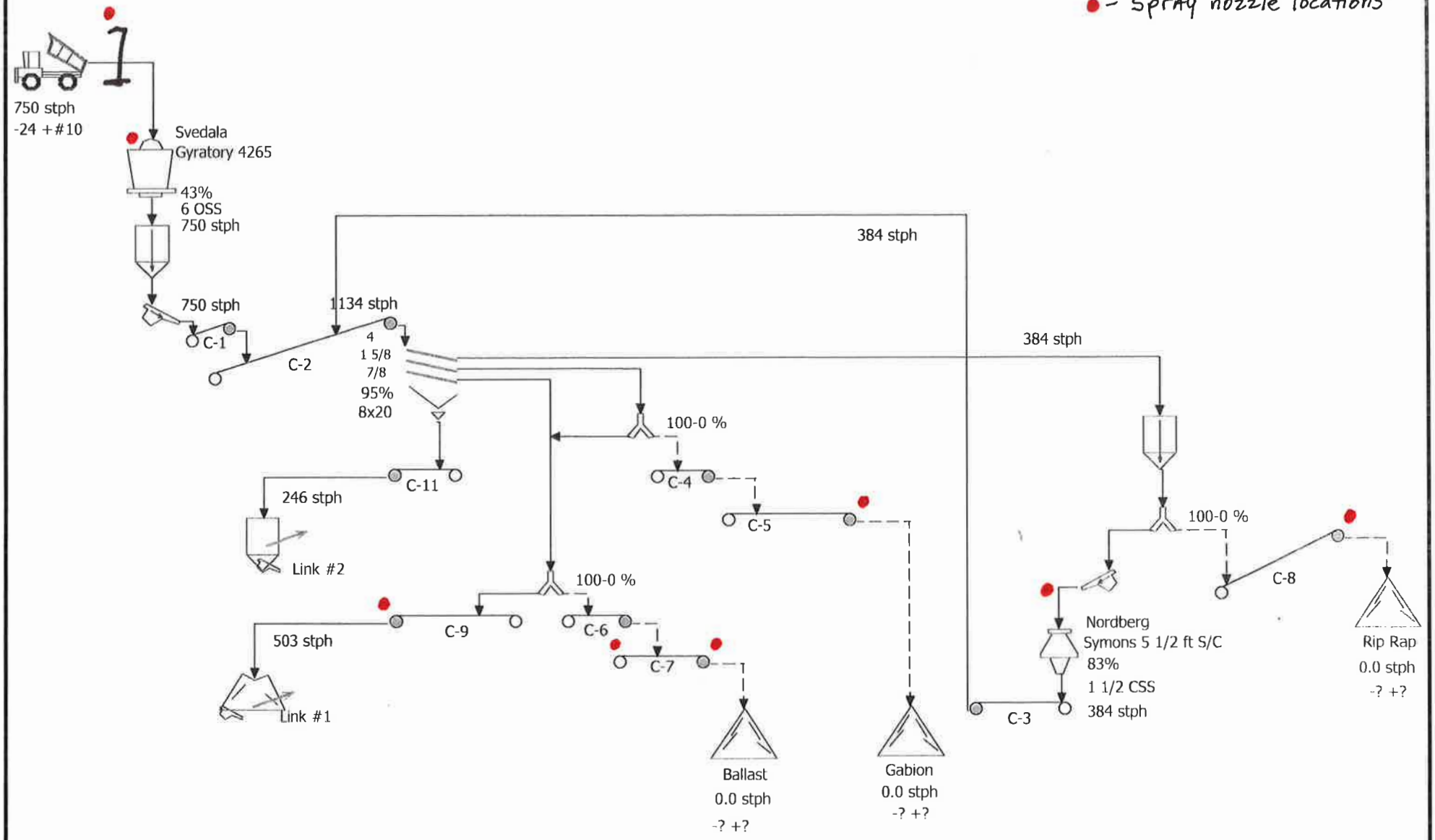
Month:	Yr:	Operating (Y/N)				
Date	Weather	1^0	2^0	3^0	Inspector	Corrective Action/Notes

Attachment B

Plant Flow Diagram with Wet Suppression Locations

Cranston 2017 CAPX

● - spray nozzle locations



Calculation results may differ due to variations in operating conditions and application of crushing and screening equipment. This information does not constitute an express or implied warranty, but shows results of calculations based on information provided by customers or equipment manufacturers. Use this information for estimating purposes only.

All calculations performed by AggFlow. http://www.AggFlow.com

PJ Keating Company

Cranston CAP-X

Moe Langlois

Plant Stage #1:

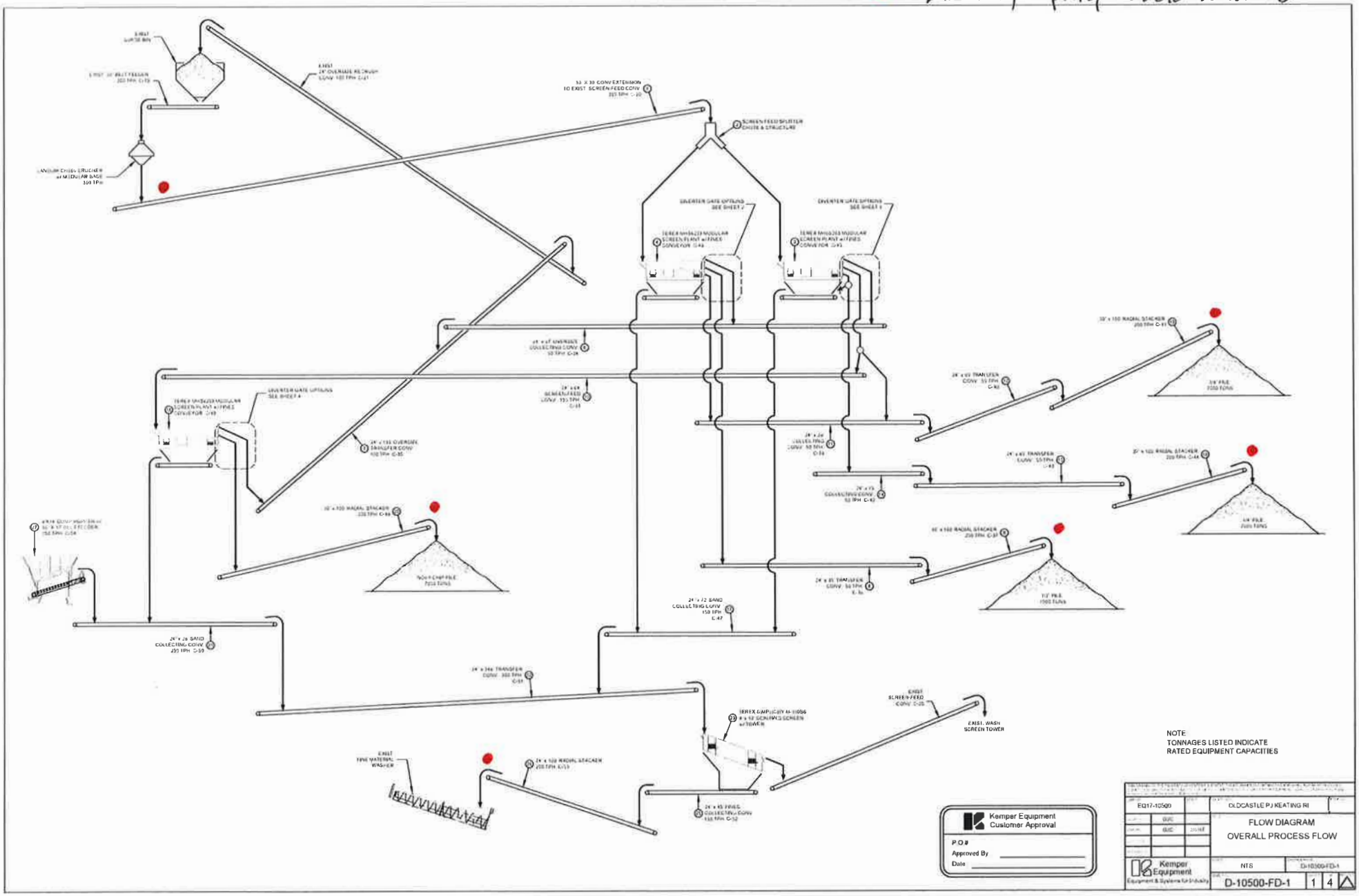
Project #: 46591 Revision #: 177000 Date: June/12/2017

● - Existing spray nozzle locations

EN17-10500		P J KEATING CRANSTON
	QUC	PLANT ADDITIONS GENERAL ARRANGEMENT ISOMETRIC VIEWS
Kemper Equipment Equipment & Systems for Industry		1 = 20 · D-10500-GA-1r3
		D-10500-GA-1 · 3 · 4 · A

REVISION BLOCK

● - Existing spray nozzle locations



NOTE
TONNAGES LISTED INDICATE
RATED EQUIPMENT CAPACITIES

Kemper Equipment
Customer Approval

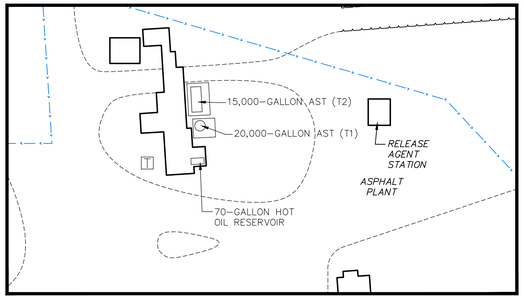
P.O.#
Approved By
Date

EQ17-10500		OLDCASTLE PJ KEATING RI
	DJC	FLOW DIAGRAM
	DJC	OVERALL PROCESS FLOW
Kemper Equipment	NTS	D-10500-FD-1
	D-10500-FD-1	1 4

Attachment C

Site Plan with Relevant PMCP Features

REV.	DESCRIPTION	APP'D	DATE
–	–	–	–



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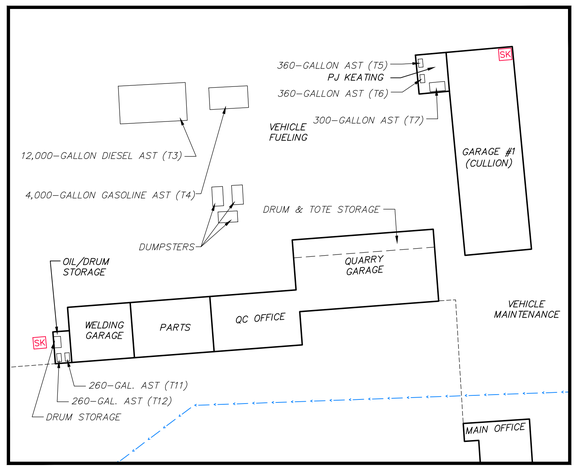

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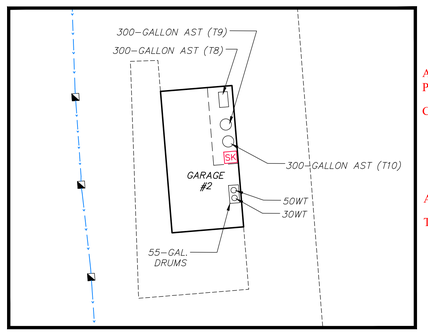

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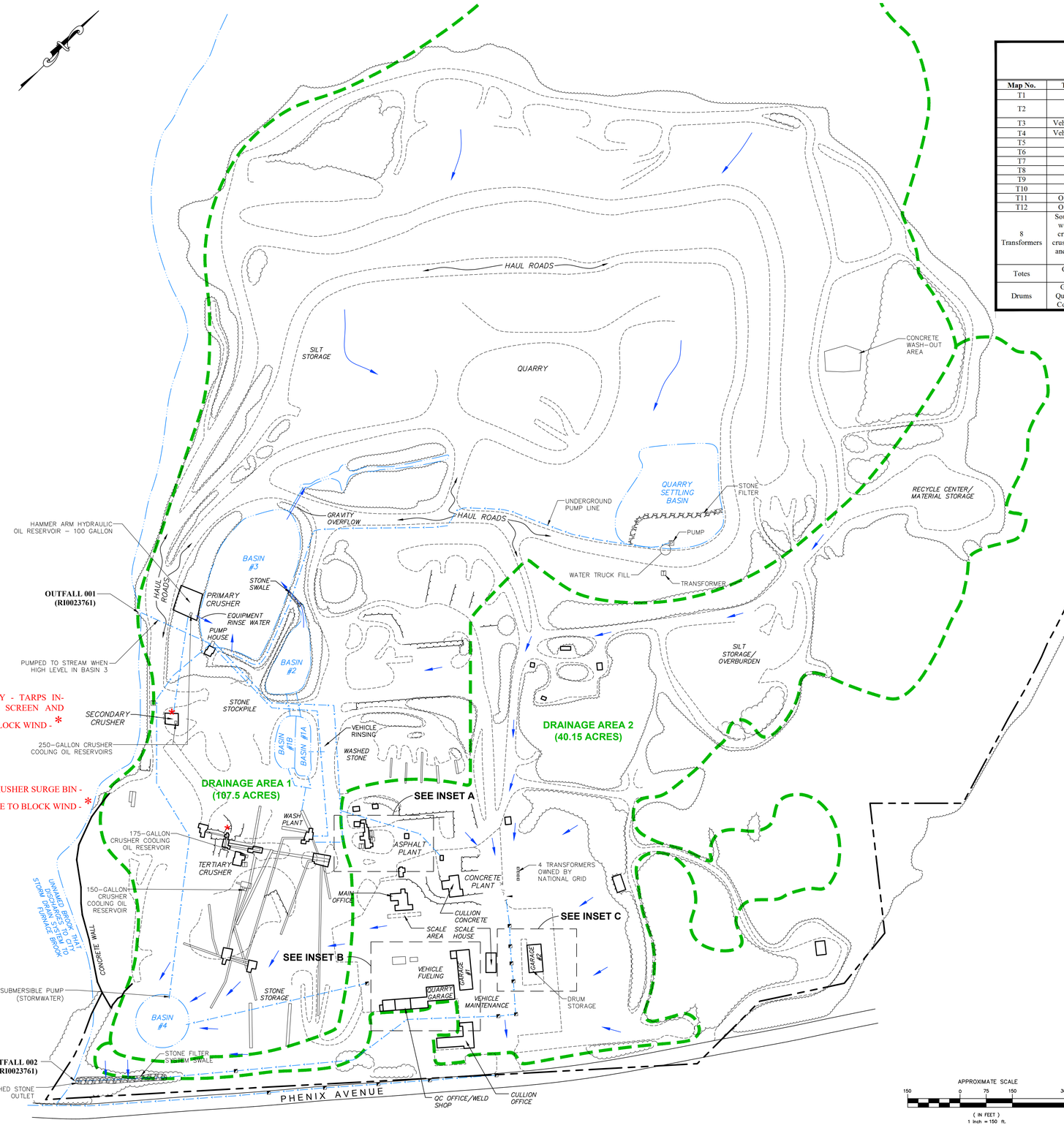


TABLE 1
P.J. Keating Company – Cranston, RI Facility
Summary of Aboveground Petroleum Storage

Map No.	Tank Location	Product	Approx. Shell Capacity	Tank Type
T1	Asphalt Plant	Liquid Asphalt	20,000 gal.	SW Steel
T2	Asphalt Plant	No. 2 On-Spec Used Oil	15,000 gal.	SW Steel
T3	Vehicle Fueling Area	Diesel Fuel	12,000 gal.	SW Steel
T4	Vehicle Fueling Area	Gasoline	4,000 gal.	DW Steel
T5	Garage #1	15W-40 Motor Oil	360 gal.	DW Steel
T6	Garage #1	Hydraulic Oil	360 gal.	DW Steel
T7	Garage #1	Waste Oil	300 gal.	DW Steel
T8	Garage #2	15W-40 Motor Oil	300 gal.	DW Steel
T9	Garage #2	Hydraulic Oil 10W	300 gal.	DW Steel
T10	Garage #2	Waste Oil	300 gal.	DW Steel
T11	Oil/Drum Storage	Gear Oil	260 gal.	DW Steel
T12	Oil/Drum Storage	Gear Oil	260 gal.	DW Steel
8 Transformers	Southeast of quarry, west of secondary crusher, at tertiary crusher, asphalt plant, and east of concrete facility (4)	Dielectric Fluid	100 to 500 gal.	Steel
Totes	Quarry Garage, Asphalt Plant	Vehicle maintenance fluids and Flocculants	300-gal. each	Poly Tank
Drums	Garage #1 & #2, Quarry Garage, and Compressor Room	Hydraulic Oil, Lube Oil, Gear Oil, Grease, etc.	55-gal. each	Steel

LEGEND

- PROPERTY LINE
- RETAINING WALL
- TREELINE
- STREAM/EDGE OF WATER
- DIRT/GRAVEL ROAD
- PIPE FLOW
- EXISTING CATCH BASIN
- TRANSFORMER
- STORMWATER FLOW
- SPILL KIT
- PUMP
- DRAINAGE AREA BOUNDARY

DRAINAGE AREA	IMPERVIOUS SURFACE AREA (Square Feet)
001	4,301,064
002	1,349,926

NOTE: IMPERVIOUS SURFACE AREAS AS IDENTIFIED ON THIS DRAWING HAVE BEEN PRESENTED TO ILLUSTRATE GENERAL STORMWATER DRAINAGE FEATURES. THIS DOES NOT REPRESENT AN OPINION ON THE ABILITY OF THE SPECIFIED SURFACE AREAS TO CONTAIN RELEASED PRODUCT OR OTHER MATERIALS RELATIVE TO THE EPAs SPCC DEFINITION OF AND THE DEP SWP3 REQUIREMENT FOR "SUFFICIENTLY IMPERVIOUS".

APPROXIMATE SCALE
150 0 75 150 300
(IN FEET)
1 inch = 150 ft.

NOTES:

1. THE LOCATION OF ALL STRUCTURES, EQUIPMENT, DELINEATIONS AND OTHER FEATURES PRESENTED ON THIS DRAWING SHOULD BE CONSIDERED APPROXIMATE. THIS DRAWING SHOULD ONLY BE USED FOR GENERAL PRESENTATION PURPOSES AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. TRITON MAKES NO WARRANTY AS TO THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION CONTAINED IN THIS DRAWING, AND THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND PROPERTY FROM RELIANCE THEREON.

2. BASEMAP IS BASED ON A SPCC PLAN – SITE LAYOUT BY ENSR CORPORATION FOR P.J. KEATING INC.; DATED: OCTOBER 2007; SCALE: NOT TO SCALE.

3. STORMWATER DRAINAGE INFORMATION INCLUDED ON THIS FIGURE WAS DERIVED FROM ONE OR MORE OF THE FOLLOWING SOURCES: PREVIOUSLY PROVIDED MAPS WITH DEFINED DRAINAGE AREAS, SURVEYED CONTOUR LINES, AERIAL MAPS, FIELD INSPECTIONS, OR COMMUNICATED DIRECTLY FROM THE CLIENT. DUE TO ON-GOING SITE OPERATIONS OR ACTIVITIES, THESE DRAINAGE AREAS, AND THEIR ASSOCIATED OUTFALLS, ARE SUBJECT TO CHANGE AND ACTUAL CONDITIONS MAY DIFFER FROM THIS DRAWING.

TRITON ENVIRONMENTAL, INC.
Environmental Consulting & Engineering
385 Church Street, Suite 201 • Guilford, Connecticut 06437 • 203.458.7200

DRAFT

FIGURE 2
SITE PLAN
SPCC & SWPPP

P.J. KEATING COMPANY
875 PHENIX AVENUE
CRANSTON, RHODE ISLAND

DRAWN BY: FSM | APPROVED BY: PCS
DATE: 7/2/19 | SCALE: 1"= 150' | FILE No.: 104035CRAN016

P:\CAD\DRAWINGS\104000\104035\FIGURES\SPCC AND SWP3\CRANSTON\104035CRAN016.DWG
Layout:Layout1

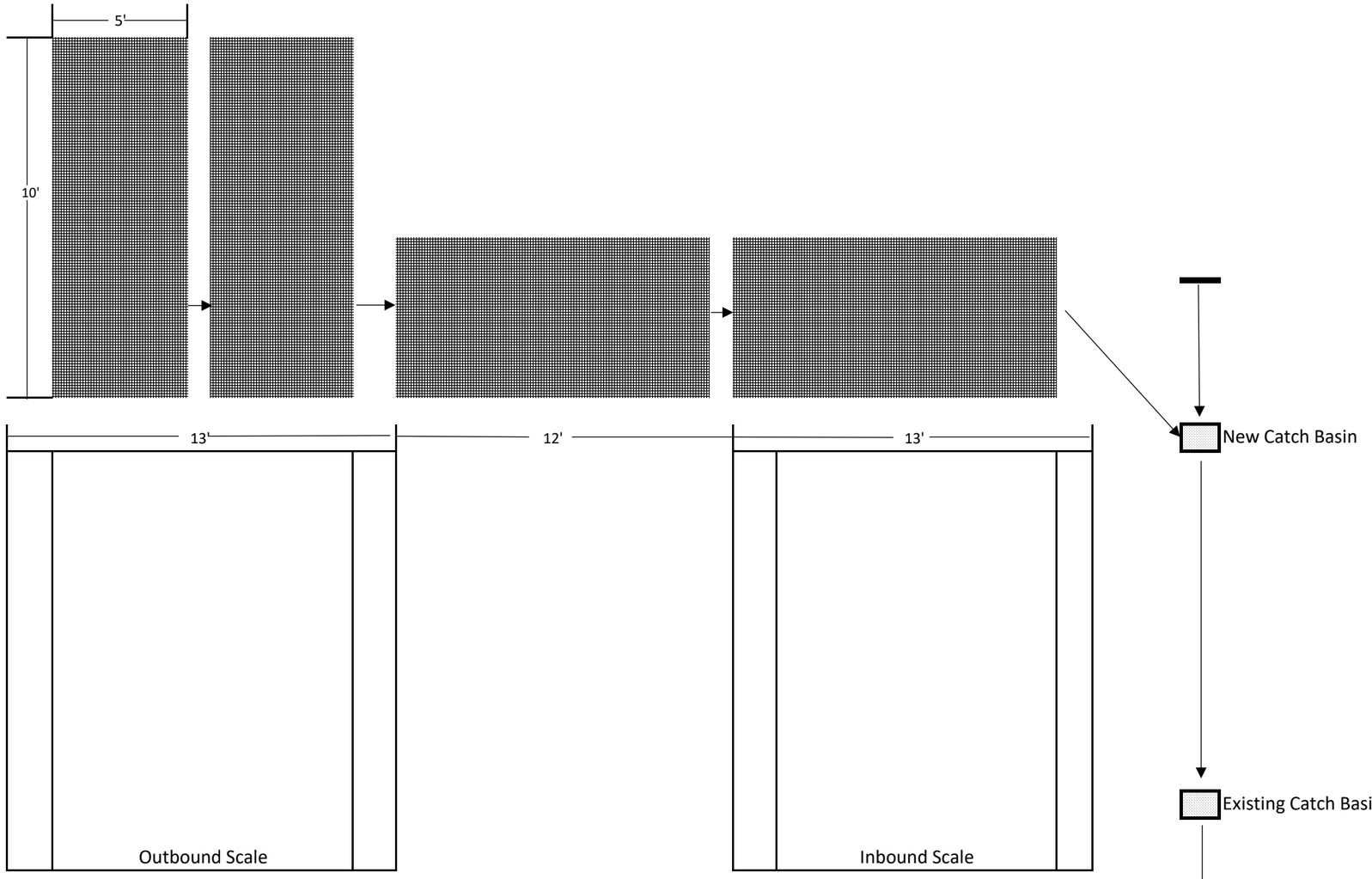
Attachment D – Vehicle TOPS

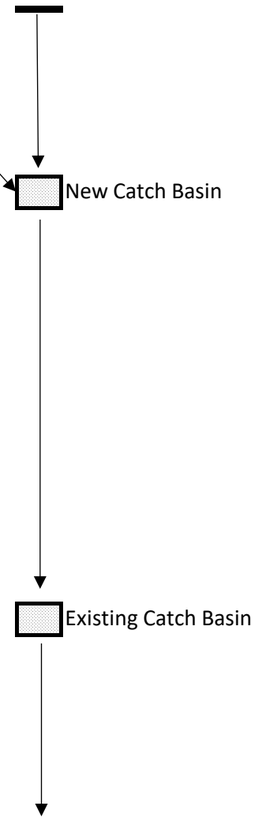
LEGEND

Water flow

10' x 5' Sediment trap grates

Dimensions Not to Scale





P.J. Keating Company
875 Phenix Avenue
Cranston, RI

Highlighted location of new Vehicle Track-Out Prevention System (Vehicle TOPS)

PJ Keating Company - 875 Phenix Avenue, Cranston, RI

Attachment E - Fugitive Dust Monitoring Plan

Fugitive Dust Monitoring Program (January 31, 2022)

PJ Keating Company – Cranston, RI

Program Purpose and Objectives

Measure fugitive dusts (as PM_{10}) along the perimeter of the facility for all times while the facility is maintaining representative operating conditions.

Approach and Network Design

Four (4) particulate monitoring devices are located predominantly upwind of the locations that have historically reported dust issues along Phenix Avenue. The monitors are located at the following locations:

1. PJK property west end of-site by power lines at the rear of the quarry;
    - Location coordinates: 41.767315, -71.493956;
    - Ground Elevation: 222’ (USGS Topo); Cyclone Collector set at 6.5 feet above ground elevation.
2. Cranston DPW – on top of truck trailer used for storage;
    - Location Coordinates: 41.760513; -71.487165;
    - Ground Elevation: 90’ (USGS Topo); Cyclone collector set at 20 feet above ground elevation.
3. Cranston Senior Van Parking Area;
    - Location Coordinates: 41.760016, -71.484161;
    - Ground Elevation: 90’ (USGS Topo); Cyclone collector set at 6.5 feet above ground elevation.
4. Cranston Quarry Northern Rim;
    - Location Coordinates: 41.770450, -71.492378;
    - Ground Elevation: 260’ (USGS Topo); Cyclone collector set at 6.5 feet above ground elevation.

Please refer to Figure 1: Air Monitoring Network Schematic

All units will operate continuously 24 hours per day and 7 days per week.

Representative Operations

The program will be divided into monthly monitoring periods each reflecting variable seasonal

meteorology and representative facility operating conditions. As defined in the facility Particulate Matter (PM) Control Plan these operations include the following:

- Asphalt Plant
- Quarry
- Blasting
- Crushing Plant
- Portable Plant in Quarry (sub-contracted)
- Roadway Use (paved, unpaved and haul roads)

Meteorology

Wind directional data will be provided using a PJK's on-site weather monitoring equipment mounted on the office building. Wind speed and directional data for each monitoring period

will be recorded. Weather data will also be taken from the National Weather Service (NWS) station located at the Theodore Francis Green State Airport (KPVD). These data will be reviewed for each monitoring period in order to sort data sets based upon wind orientation (upwind or downwind).

Methodology

A DustTrak particulate monitor (or performance equivalent unit) will be situated at each of the four (4) monitoring stations. Each unit will be fitted with a PM_{10} cyclone. Particulate matter with an aerodynamic diameter < 10 um will serve as a surrogate for visible fugitive dusts. Data will be collected at each location on a continuous basis. Data is registered as averages (i.e., 15-minute, 30-minute, hourly, daily basis). In other words, any period of time can be specified and the data for that specific time period can be presented.

Data Analyses and Reporting

Data analyses will include the following:

- Comparison of upwind and downwind data sets;
- 24-hour average values will be compared to the National Air Quality Standard (NAAQS) for PM_{10} of 150 ug/m^3;
- Correlate data to facility operations during each monitoring period;

- Correlate data to facility maintenance activities and dust control measures prescribed in the PM Control Plan. Data reports will be prepared on a quarterly basis during the term of the program and available to RIDEM and the City of Cranston, upon request;
- In the event of an exceedance of 150 micrograms per cubic meter over a 24-hour average period (per the National Ambient Air Quality Standards), PJK shall notify DEM and the City of Cranston to identify further actions to be taken to eliminate dust leaving its property. In the event of an exceedance, the parties' experts (TRC and RIDEM) shall work towards a solution and Keating shall implement the agreed upon solution as soon as practicable.

Figure 1: Air Monitoring Network Schematic

Attachment F – Training Protocol and Sign-off Log Sheet

P.J. Keating Company
Particulate Matter Control Plan Training

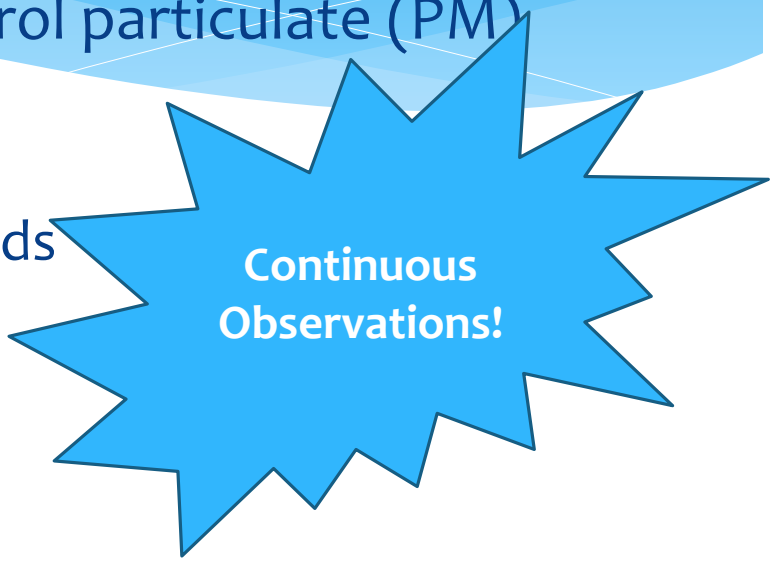
Regulations

* Rhode Island Code of Regulations
  * 250-RICR-120-05-5 – 'Fugitive Dust Regulation'
  * 250-RICR-120-05-7 – 'Emissions Regulation'
  * RIDEM PJK Facility Particulate Matter Control Plan

* City of Cranston Bylaws
  * Nuisance Conditions including Dust and Noise

Particulate Matter Control Plan

- Best Management Practices to control particulate (PM) emissions and fugitive dust
- Sources of Particulate Matter
  - Roadway – paved, unpaved, haul roads
  - Asphalt Plant
  - Quarry Blasting Operation
  - Crushing Plant
  - Portable Crushing Plant
- It is everyone's responsibility to ensure the creation of dust is minimized and reduced to the maximum extent possible on-site and in-turn off-site
  - Fugitive Dust that leaves the site is subject to Notice of Violations from RIDEM



PJK PM Control Plan

- Wetting Systems on Conveyors and Crushing Operations and Roadway need to be monitored throughout the day everyday
- Spray Nozzles need to be replaced when inoperable
- Interior and Exterior Street Sweeping
- Reporting of Issues to Foreman
- Logging of issues and remedies required

Continuous Observations!

PJK PM Control Plan

- Blasting Operations
  - Monitor Wind Speed and Direction 48-hours in advance of Blast
  - Dose blast area with water to control dust
  - Monitor blast with seismographs
  - Inspect off-site surroundings for dust
  - Logging of issues and remedies required

Continuous Observations!

PJK PM Control Plan

- Crushing Plant
  - Daily inspection of all spray nozzles locations and replace nozzles as necessary immediately
  - Daily inspection of shrouding on crushers
  - Monitor Wind Speed and Direction
  - Shut plant down if dust is leaving site
  - Implement Particulate Matter Monitoring Plan

PJK PM Control Plan

- Portable Crushing Plant
  - Contractor required to have water on crushing operations
  - PJK to inspect contractor operations daily
  - Monitor Wind Speed and Direction
  - Shut plant down if dust is leaving site

Training Requirements

* All personnel are responsible for the control of airborne particulate matter
* Everyone must be knowledgeable of protocol
* Training required at beginning of each season and periodically, as necessary as well as for all new employees – Site Manager Responsible.

Training Log Sheet

CRANSTON ANNUAL PMCP TRAINING

Please provide the length of the meeting, information regarding any additional topics discussed as well as the length of time spent on those topics.

TOPIC (S): _____ **DATE:** _____

LENGTH: _____ minutes

LED BY: _____

LOCATON / SHIFT: _____

Meeting Attended By:

(Print Name)	(Employee Number)
_____	_____
_____	_____

Suggestions or input received from crew: _____

Attachment G

Portable Rock Crushing Plant and Manufactured Unwashed Sand

Portable Rock Crushing Plant and Manufactured Unwashed Sand

P.J. Keating Cranston Quarry

Nearest Neighbor to the North

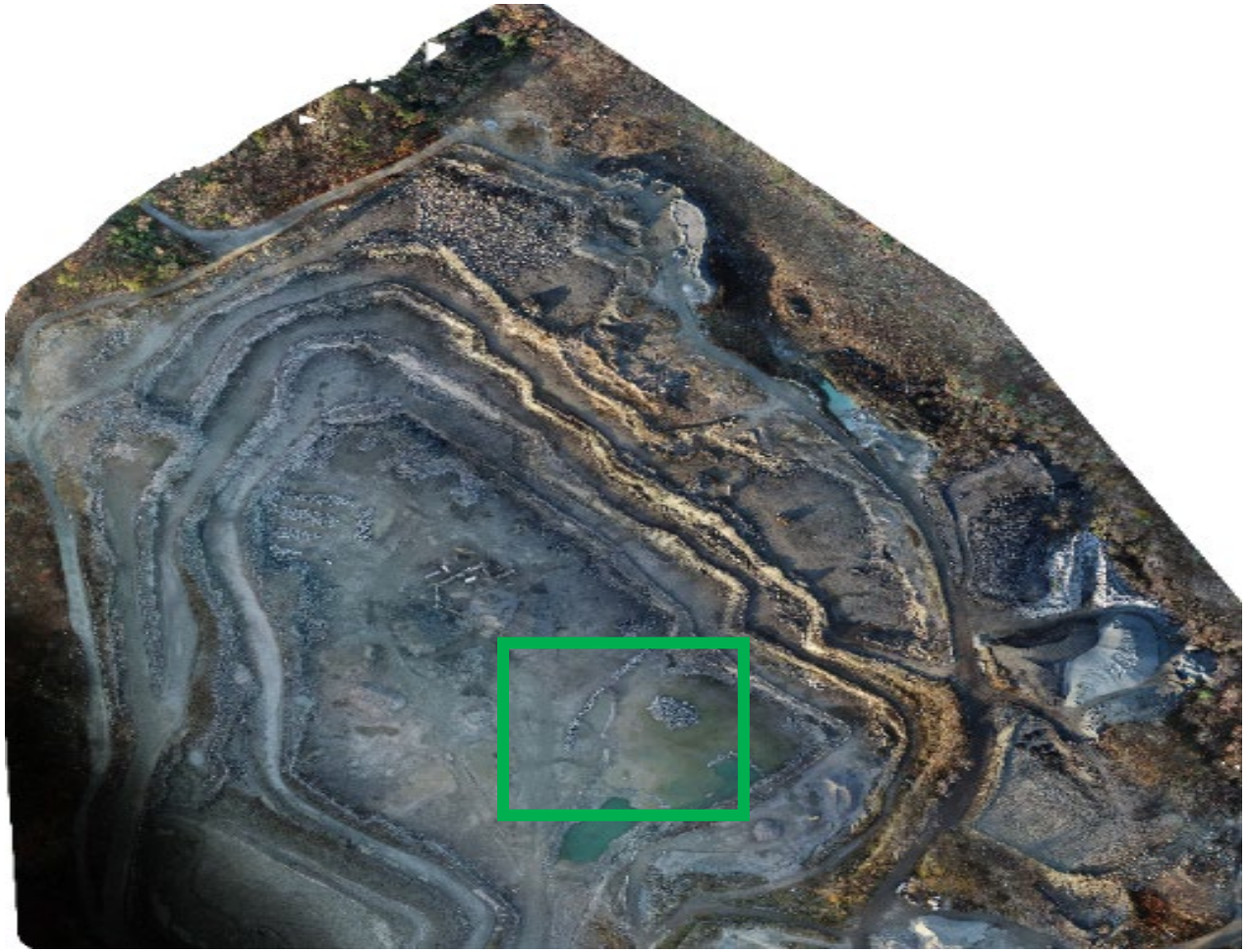
3,319 Ft

Nearest Neighbor to the East

Nearest Neighbor to the South

Closest Neighbor to the West

P.J.KEATING
A CRH COMPANY




Approximate location of
portable plant

Management of Manufactured Unwashed Sand

- As depicted on the slides, the portable rock crushing plant will be located at the eastern corner of the quarry floor, approximately 180’ below the nearest top rim of the quarry.
- The portable plant will have a water tank and spray nozzles on all transfer points and crushers for dust suppression during the production process. The production process is proposed to include the by-product of manufactured unwashed sand (‘sand’).
- P.J. Keating utilizes water (dust suppression) trucks on site and will keep the sand stockpile wetted throughout the day. Additionally, P.J. Keating will keep the stockpile height as low as possible, not to exceed 30’ above the existing quarry floor.
- Sand will be blended into dense graded base products, which will take place in the immediate vicinity of the portable plant. The sand will be introduced to the main fixed plant and loaded directly for sale from the pile as finished product.