Date: May 26, 2021

To: Swampscott Select Board and Town Administrator

From: John Picariello, Chair

Earth Removal Advisory Committee (ERAC)

Re: ERAC Report to Select Board and Recommendation on Issuance of Annual Earth Removal permit to Aggregated Industries.

Pursuant to Section 14(c) of the General Bylaws, ERAC submits this report regarding the reissuance of the Aggregate Industries (AI) annual permit for its quarry operations. Based on year-long discussions ERAC had with AI, and the numerous new requirements that have been made to the permit, ERAC recommends the Select Board issue the attached draft permit. It is noted that Town Counsel, as well as the Town’s blasting consultant, also provided input on a number of the new provisions.

ERAC believes that this draft provides significant additional protections to residents and, while the town may continue investigating additional requirements in future permits, advises that the Select Board issue this permit so as to put in place these expanded protections. ERAC believes that the additional permit provisions requiring AI to pay for independent consultants in the area of noise, dust, and seismograph will better inform the Town on the possible expansion of requirements in those areas in the next annual permit. Likewise continued discussions with the Town’s current blasting consultant, and review of ongoing blasting data, will better inform the Town on the potential expansion of blasting requirements in a future permit.

Of particular importance in the new permit are the expanded dust, noise, blasting and seismograph provisions which were all added to address concerns raised by town residents:

* The new permit now requires AI to pay for a dust consultant hired by the Town to conduct dust testing for both fugitive dust and heavy metals three time a year (in the spring, summer and November); it also gives the Town the ability to require additional dust sampling. In addition to dust control measures already in place under the old permit, the new permit requires AI to investigate and submit for Town approval a plan for improved dust control. The report of findings from tests will be available to the public for review;
* The new permit also mandates new noise testing requirements as well as development of a noise management plan by a consultant selected by the Town and paid for by AI;
* To further address noise issues, the hours of operation for crushing operations have been reduced from 7:00 am to 10:00 pm to 7:00 am to 9:00 pm during the work week. (Hours ending at 6:00 pm during the period from Memorial Day to Labor Day are still in force);
* A new expanded blasting section was added placing restrictions and limitations on blasting.The level of peak particle velocity (PPV) has been set to try to limit the human annoyance with every blast. The Town intends to continue to work with its consultant to review data on blasting and potentially propose additional restrictions and requirements in next permit;
* Added in the new permit are also expanded seismograph monitoring and reporting requirements, including a requirement that there be at least four seismograph readings per blast and, again, the hiring of an independent consultant, approved by the Town and paid for by AI, to do the testing;
* Blasting is limited in the new permit to no more than 50 times in a year, and no more than twice per week (on additional blast per week may be allowed, but only request to, and approval of the Town);
* Blasting design for PPV is limited to 0.5 inches per second (”/s) (the legal limit is 2”/s). Should a blast occur at higher vibrations, AI shall have the blasting company perform a formal review to identify the reasons for the higher vibration and to recommend improvement actions; (Jay Perkins suggested the 0.5”/sec, after review of previous blasting data, which will probably be contested by AI)
* During blasts, the air-overpressure shall not exceed 130 dB(L) at any occupied structure;
* Blast hole diameters shall not exceed 4 inches;
* Blast designs shall be engineered to achieve ground vibrations having a DOMINANT frequency of equal to or greater than 30 Hz. Blast patterns shall also be designed to direct ground vibration energy away from the nearest residential areas, when possible; and
* The new permit also requires the blasting company to prepare an annual report of blasting data with blasting designs that were successful and those that were not.

Other changes in the new permit include:

* To ensure that the Town is aware of any changes in the original excavation plan submitted annually with AI’s permit application, AI has to now submit a request and receive Town approval for any modifications from the original plan;
* The “green buffer zone map” will be updated from the original submitted 1997 map;
* AI is required to submit annually an information packet to area residents that provides claim information and an offer for a pre-blast survey (similar to the one the company sent on February 5, 2020);
* Damage claim findings and reporting has been expanded to include all monitoring records, summary of blast design, graphs of PPV, for each reported claim. All records will be submitted to the claimant, Fire Department, ERAC and the Select Board within 14 days;
* AI is required to deliver a guaranty of $500,000 for the sufficient and adequate closure of the quarry if exiting operations cease;
* An additional section on site safety and security is included; and
* A section has also been added to address violations of the new permit, including Town issuance of notices of cessation for any improper activities, a requirement for a show-cause hearing on why permit should not be revoked or amended, and/or imposition of penalties for violations.

Should the Select Board or Town Administrator have any questions regarding the recommended permit, ERAC is more than happy to provide additional information.