

**Town of Mount Desert Planning Board  
Regular Meeting Minutes  
Meeting Room, Town Hall  
6:00 PM, August 29, 2019**

**Public Present:**

Larry Goldfarb, Gerda Paumgarten, Paul MacQuinn, Attorneys for the Applicant Katie Foster, Frank McGuire, and Ed Bearor, Charles F. Wallace, Andy Odeen, Attorney for the Shencavitz' and the Aylens Daniel Pileggi, Jeff Gammelin, Karen Steverson, Jane Vris, Kelly O'Neil, Maureen McGuire, H. Scott Stevens, Joanna Krasinski, Steve Krasinski, Janet Ellis, Debbie Musetti, Jane Skelton, Meg Bearor, Tom Bearor, Betsy Roberts, John MacDuffie, C. H. Breedlove, M. Christine Breedlove, Catherine A. Willey, Jim Willey, Ellen Brawley, C. Keith Martin, George Gilpin, Charlotte Singleton, Jean B. Gilpin, Seth Singleton, Peter Aylen, Judy Aylen, Nancy Colter, Howard Colter, Alice Savage, Gerald Shencavitz, Laurie Shencavitz, Robert Clifford, Pam Bowie, Keith Bowie, Dick Broom, Andrea Gilmore, David Gilmore, Attorney for the Planning Board James W.J. Collier, Joe Smullin, John Kelly, Stephanie Clement, Maya Sosland, Katrina Carter, Sheridan Steele, Barb Steele, Gail Cook, Harald Paumgarten, Susan Ceurvels, Michael Ceurvels, Jim Sterba, Joan Fitzgerald, Sheila Pulling

**Board Members Present:** Tracy Loftus Keller, Chairman Bill Hanley, Dave Ashmore, Joanne Eaton, Christie Anastasia, Meredith Randolph.

Tracy Loftus Keller is an Alternate, non-voting Board Member.

**I. Call to Order:**

Chairman Hanley called the meeting to order at 6:00 PM. Board Members were identified. Those present were reminded of the protocol used thus far during the Public Hearing process.

**II. Quarrying License Application:**

**Public Hearing:**

**A. Quarrying License Permit #001-2014**

**OWNER(S):** Harold MacQuinn, Inc.

**OPERATOR(S):** Fresh Water Stone & Brickwork, Inc.

**AGENT(S):** Steven Salsbury, Herrick and Salsbury, Inc.

**LEGAL REPRESENTATION:** Edmond J. Bearor, Rudman Winchell

**LOCATION:** Off Crane Road, Hall Quarry

**TAX MAP:** 007      **LOT:** 075      **ZONE(S):** Residential 1 (R1)

**PURPOSE:** Quarry License Application – Section 6.2 Performance Standards for Existing Quarries – J. Noise

Chairman Hanley read Section 6.2.J of the Quarrying Licensing Ordinance:

1       *"The best practicable means of reducing noise shall be employed which may including (sic) the use*  
2       *of sound reduction equipment, acoustic enclosures or sheds, limiting on-site speeds to no more*  
3       *than 10 mph, or other best industry practices for noise attenuation, to the extent permitted by*  
4       *state and federal laws and regulations."*

5  
6       Attorney James Collier stated for the record that this meeting was a continuation of the last  
7       meeting, to a date certain, and therefore did not require Public Notice. No conflict of interest has  
8       been found among the Board Members.

9  
10      Attorney Collier interpreted Section J to mean that there is a presumption that the Standard is  
11      valid. The Board is looking for the best practicable means as a reasonable test of Noise. A  
12      reasonable way must be found to keep the sound to a reasonable level.

13  
14      Attorney for the Applicant Frank McGuire introduced noise expert Joe Smullin.

15  
16      Attorney McGuire reiterated that the best practicable means for noise control must be  
17      determined. He pointed out that the Board could simply approve the Section contingent upon  
18      the Applicant using the best practicable means to maintain adequate noise control. As technology  
19      changes, best practicable means would also change. It would not necessarily be advantageous to  
20      tie sound mitigation efforts to specific requirements. A finding determining what the best  
21      practicable means are is not necessary to satisfy the standard.

22  
23      Per the Applicant's submission, sound mitigation practices proposed include a berm 15 feet across  
24      and five to six feet in height. Evergreens will be planted and maintained on top of the berm. A  
25      number of pieces of equipment have been replaced since 2014, and noise reduction methods  
26      have been employed for other pieces of equipment. Vehicle backup alarms have been replaced  
27      with alarms that are quieter. The Applicant has committed to using a portable barrier to be used  
28      around pieces of equipment as they operate to deflect sound. This barrier can travel with the  
29      equipment and be placed to deflect noise from the nearest property line. Noise expert Mr.  
30      Smullin designed and tested the barrier. The Applicant has volunteered to refrain from engaging  
31      in stone extraction in the months of July and August. In summary, the Applicant is using the best  
32      practicable means to limit noise.

33  
34      Attorney McGuire stated that DEP rules do not apply to this quarry. It would not be appropriate  
35      or lawful to pull a quantitative standard from the DEP rules and apply them to this quarry. The  
36      Applicant has technical concerns with conducting a soundscape study as others have proposed.  
37      Due to the fact that the Town does not have a quantitative sound standard in place, the suggestion  
38      is a misdirection.

39  
40      Attorney for the Aylen's and Shencavitz' Dan Pileggi stated that the Quarrying Licensing Ordinance  
41      requires the Board to deny an Application if the applicant is not using best practicable means for  
42      noise mitigation. The Ordinance states that in determining the standard, applicable state and  
43      federal laws and regulations should be used. No modeling has been done, test results presented  
44      are the product of testing on a single drill/dust collector with a generator. There are no test

1 results for proposed mitigation for other pieces of equipment. There's been no noise mitigation  
2 testing on multiple pieces of equipment running simultaneously. Modeling is required to  
3 determine what the best means are for noise mitigation, and to determine the changes in noise  
4 when equipment is moved around.

5  
6 Chairman Hanley asked for opening statements from members of the public.

7  
8 Hall Quarry Resident Bob Clifford spoke on behalf of Janet Leston Clifford who could not be  
9 present at this meeting. In her absence, Mr. Clifford shared Ms. Leston Clifford's wish that she  
10 could be the last person to present on the issue. Should the meeting be continued to another  
11 date, she will make her presentation then, pertinent to the following presentation  
12 outline/discussion points Mr. Clifford was directed to share.

- 13
- 14 1. What is the standard the Planning Board will use to determine adverse impact for the
  - 15 Quarrying Licensing Ordinance purpose? What logical chain of evidence is needed to make a
  - 16 decision about minimizing adverse impact and minimizing noise pollution that can be
  - 17 discharged into the Town environment?
  - 18 2. How much industrial quarrying noise pollution is appropriate in a residential setting?
  - 19 3. What does the residential neighborhood Hall Quarry normally sound like? And since Acadia
  - 20 National Park is part of this neighborhood, what does the Park's natural ambient soundscape
  - 21 contain?
  - 22 4. What noise pollution are residents of the neighborhood and the Town of Mount Desert
  - 23 protected from by State and federal laws?
  - 24 5. When does the tipping point occur when an unusual or out of the ordinary or aberrant noise
  - 25 pollution source causes harm to the public health, welfare, and safety and causes a negative
  - 26 impact on Town assets and property values?
  - 27 6. When does the tipping point occur when an unusual or out of the ordinary or aberrant noise
  - 28 pollution source disrupts the natural resource, natural soundscape, to the point of adverse
  - 29 impact and encroachment on normal experiences of wildlife and people?
  - 30 7. What should be taken into account by those who are charged with managing noise pollution
  - 31 from quarrying in the Town of Mount Desert, in this case the Planning Board?
  - 32 8. What is the threshold for when sounds become noise pollution and this becomes an
  - 33 encroachment or nuisance and prevents normal everyday life from being experienced by
  - 34 property owners?
  - 35 9. What is the threshold for when noise pollution becomes an endangerment and not just an
  - 36 annoyance?

37  
38 Abutter to the quarry, Judy Aylen, presented a statement regarding the quarry noise, from when  
39 it began in 2014. At that time noise in the quarry began at 6:30AM with the sound of trucks. This,  
40 along with the noise of drilling machinery, lasted until 3 or 4pm. Ms. Aylen pointed out that Ms.  
41 Shencavitz was retired and home much of the day. Ms. Shencavitz was unable to enjoy her  
42 gardens when the quarry was operating. Mr. Shencavitz was forced to use protective headgear  
43 when outside. The Shencavitz' had to keep their windows and doors shut during the day. They  
44 experienced their house shaking. Ms. Shencavitz developed health issues due to the stress of the

1 noise. Ms. Aylen and her husband are retired now and spend most of their time in their home.  
2 Ms. Aylen has health issues directly affected by stress levels.  
3

4 Ms. Aylen noted her neighbors were the O'Neill Boatright family. They have children that play  
5 outside. Ms. Aylen felt the excessive levels of noise would be detrimental to the children's health  
6 and development. There are elderly residents in the area, and they require hours per day to nap  
7 and rest. These elderly residents spend a great deal of time at home.  
8

9 Ms. Aylen quoted from the EPA Protective Noise Levels Information: noise is defined as unwanted  
10 sound. Noise causes adverse effect on people and the environment. It causes hearing loss,  
11 interferes with human activity, and is injurious to people's health and wellbeing. Noise is linked  
12 to other physiological and psychological problems. Noise obstructs communication and thought  
13 and affects performance.  
14

15 The Planning Board is charged to protect the health and welfare of the community.  
16

17 Ms. Aylen requested her statement in full be added to the August 29 Meeting Minutes and the  
18 official record. Her statement is attached to these Minutes.  
19

20 Hall Quarry resident Betsy Roberts felt the question of what happens to the granite once removed  
21 from the bedrock has not yet been addressed. She guessed the rock was loaded onto a truck to  
22 be removed from the quarry. Granite is quarried in "benches" 20 feet long and 8 to 12 feet high.  
23 These benches are loaded onto trucks and driven over the Hall Quarry residential roads. The Hall  
24 Quarry road is a loop, entering and exiting Route 102. It is not wide. There are no lines painted  
25 on the road. There are no sidewalks. People walking and riding bikes share the road with traffic.  
26

27 Chairman Hanley reminded those in attendance that traffic and road standards were previously  
28 discussed in Section G of the Quarrying Licensing Ordinance during previous meetings devoted to  
29 discussion of the quarry.  
30

31 Hall Quarry resident Chris Breedlove has lived in Hall Quarry over 20 years. She reported that the  
32 noise is excessive at the Shencavitz property – so loud that communication with the Shencavitz'  
33 while in their yard was impossible. Ms. Breedlove stated that a working quarry does not belong  
34 in a residential neighborhood.  
35

36 Hall Quarry resident Seth Singleton pointed out that the noise generated by the quarry will travel.  
37 He estimated the sound would be heard from several sites within Acadia National Park, and across  
38 Somes Sound.  
39

40 Hall Quarry resident and quarry abutter, Peter Aylen, felt that noise was the most damaging  
41 aspect of the quarry operating within the neighborhood. A granite quarry is not compatible with  
42 the residential area. There is not enough space within the neighborhood to adequately isolate  
43 the noise generated by the machinery. He hoped the Board would reject the Application.  
44

1       Somes Sound resident Larry Goldfarb reported that sound travels across the Sound, and residents  
2       across the Sound will be affected by quarry operation. He cautioned that property values in Hall  
3       Quarry would decrease if the quarry were allowed to operate. Decreased property values will  
4       result in tax assessments and subsequent tax revenue going down. Many in Town will pay a price  
5       if the quarry is approved. He hoped this would be considered as the Board makes their decision.

6  
7       Hall Quarry resident C.H. Breedlove vigorously opposed the quarry application. He noted that the  
8       neighborhood has already endured the effects of quarrying in the area when quarrying was  
9       occurring there without permit. Residents want quiet, and natural sound and not industrial noise.  
10      The quiet and natural sound is in part why residents chose to live in Hall Quarry. He noted that  
11      Freshwater Stone is an off-island business, and guessed they were likely not contributing to the  
12      Town with property taxes or fees. He asked about other costs to the Town that will result from  
13      the quarry, such as road repairs. Mr. Breedlove pointed out there were other quarries in the state  
14      where pink granite can be obtained.

15  
16      Hall Quarry resident Maureen McGuire pointed out that although the discussion is centered on  
17      noise, the vibration caused by the quarry is also an issue. The vibration of the quarry operation  
18      shakes area houses and people.

19  
20      Hall Quarry resident Joanna Krasinsky noted she moved into the area in 2015 and has not  
21      witnessed first-hand the quarry noise. However, she is very concerned by what she has heard so  
22      far. Noise is the issue that most affects the area. She hoped the Board would assess the  
23      Application with knowledge and not make their decisions blindly. She requested the noise be  
24      measured and quantified in order to assess and set limits. She stated the express purpose of the  
25      Quarrying Licensing Ordinance is to protect the health, safety, and general welfare of Mount  
26      Desert residents and to minimize the adverse impact of quarrying to the residents and wildlife in  
27      the area. She directed the Board to do their due diligence and comprehend completely the issue  
28      of noise.

29  
30      Chairman Hanley asked for further public statements. There were none.

31  
32      Attorney McGuire invited Freshwater Stone General Manager Andy Odeen to provide some  
33      testimony. As General Manager, Mr. Odeen stated it was his job to oversee general operations  
34      of fabrication, sales, quarry, and construction divisions.

35  
36      Mr. Odeen was familiar with the berm proposed for the quarry. He described it as a ten- to fifteen-  
37      foot-wide berm, five to six feet in height, and planted with evergreens on top. It would be placed  
38      at the northwest section of the quarry between the quarry and the properties of the Aylen's,  
39      Shencavitz' and Ms. Coates. Relative to the quarry floor, the top of the berm will be approximately  
40      ten feet high on one end, lowering as the berm approaches the Shencavitz property.

41  
42      The quarrying activity proposed, and the process were described by Mr. Odeen as first drilling  
43      horizontally into the vertical face of the granite ledge. This is followed by drilling down the ledge  
44      to meet that horizontal drilling. These holes are three and one-half inches in diameter. A wire

1 saw is used to cut from those holes, resulting in the left and right side of the granite block being  
2 free. The width of such a stone is ten feet by five feet. A series of lines are then drilled, and an  
3 expanding water mixture is poured in the holes which then expands over a period of 24 hours.  
4 Hydraulic pressure cracks the stone along the drilled lines. Steel wedges and sledge hammers are  
5 then used to expand the cracking. Once the crack has expanded to three or four inches, the  
6 excavator can pull the stone block away from the ledge. Smaller hand drills are then used to cut  
7 the stone into smaller pieces if necessary. The process lasts over three to four days.

8  
9 Mr. Odeen stated these processes do not occur concurrently and equipment is not run  
10 simultaneously. One block is created at a time.

11  
12 Attorney Collier asked for clarification that the blocks once removed are then broken into smaller  
13 pieces on site. How much noise is created when cutting the large block into smaller? Mr. Odeen  
14 said this step of the process generated less noise because smaller drills are used to break up the  
15 blocks. The block size can be adjusted based on the needs of the quarry.

16  
17 Ms. Randolph pointed out that most of the cliff face Mr. Odeen referred to is at the perimeter of  
18 the allowed setback and could not be further encroached upon. Most of the stone that can be  
19 removed will be flat to the operators. How does one start excavating the next level down in a  
20 quarry?

21  
22 Mr. Odeen explained there is a lower level within the quarry. There are half faces there that can  
23 be worked. A new level is started by cutting out a few feet at a time from the floor until a ledge  
24 is created.

25  
26 Mr. Odeen confirmed the sledgehammer was not automated.

27  
28 Attorney McGuire requested that Mr. Odeen speak to the sound mitigation changes planned for  
29 the equipment. Mr. McGuire presented Exhibit C with a list of twenty pieces of equipment.

- 30  
31 1. Link-Belt 5800Q Excavator, 1998 – Mr. Odeen stated this was an excavator used to move  
32 blocks of granite. He estimated use of the excavator for this purpose to be approximately an  
33 hour. Noise reduction efforts for this piece of equipment include installing a new white-noise  
34 backup alarm.  
35 2. Caterpillar 988 – This is a wheel loader used to lift blocks off the quarry bed and place them  
36 on a truck or trailer. The backup alarm on this piece of equipment has also been replaced  
37 with a white-noise backup alarm. The muffler was replaced. A replacement was looked at  
38 but deemed not financially feasible.  
39 3. Sol-Air H600/150 Compressor, 1992 – The Sol-Air compressor is no longer in use. This piece  
40 of equipment has been replaced with a Dusan P600, manufactured in 2015.  
41 4. Ingersoll Rand 185 Compressor - This is an air compressor used to supplement the P600. Due  
42 to the strength of the P600, the Ingersoll Rand is not in heavy use. It is used when additional  
43 hand drilling is necessary. Hand drilling occurs when a block needs to be split into a smaller

- 1 block. A series of lines are drilled and then wedges, and hammers are used to split the stone.  
2 This compressor is also used for the vacuum.
- 3 5. Marini Line Drill – The Marini line drill is no longer in use. It's been replaced with the mobile  
4 rock drill.
- 5 6. Atlas Cutco #12 Hand Drill, 2000 – This is a hand drill used to drill blocks into smaller blocks.  
6 This piece of equipment runs off the air compressor.
- 7 7. Continental Tools 5560 Hand Drill – This equipment is used to set pinholes. Pinholes are  
8 drilled and a pin is inserted to secure a larger drill for drilling. It was confirmed the mobile  
9 noise barrier could be used for the smaller drills as well as the larger.
- 10 8. JCB 532 Road-All – The 532 has been replaced with the 550 and is no longer in use.
- 11 9. Pellegrini Slim Drill DTH, 2002 – This is a down-the-hole hammer and the first drill to be used  
12 to drill the horizontal and vertical holes previously described. The holes created are 3.5 inches  
13 in diameter. Mr. Odeen noted that the further the drill hammers down into the hole, the  
14 more the sound of the drill is muffled. This drill is powered through air on the drill bit. The  
15 acoustic barrier can be used with this piece of equipment.
- 16 10. Granville Super Diesel Wire Saw – This piece of equipment was replaced by an Atlas Cutco  
17 and is no longer in use.
- 18 11. Dusan P600 Compressor – This 2015 compressor has insulated panels and a 76 dba at seven  
19 meters per the manufacturer. This makes it quieter than the compressor it replaced.
- 20 12. Dusan G290 Generator – This 2015 Generator was acquired in 2016. This generator runs the  
21 new wire saw. The sound for this generator is 70 dba.
- 22 13. Pellegrini DF16 Dust Collector – This collects dust created when drilling. This piece of  
23 equipment is operating during the time the drills are being used. This piece was acquired in  
24 2015 and replaced an older Pellegrini dust collector.
- 25 14. Gardner Denver S55 Hand Drill – This drill is like the Continental drill. This drill is used to drill  
26 pinholes. Drills of this type are used less than an hour during the day.
- 27 15. Atlas Cutco DBD12 Hand Drill – This is a similar drill to the Atlas Cutco #12 Hand Drill. It's a  
28 smaller drill used to split a block into smaller pieces. This is an older drill.
- 29 16. Atlas Cutco Speed cut 100 Wire Saw – This is the new electric wire saw. Mr. Odeen noted this  
30 saw has changed the operation for the better with faster cuts.
- 31 17. Atlas Cutco DTH Speed Drill VH, 2016 – This is another down-the-hole drill, similar to the  
32 Pellegrini. This drill is used to make primary horizontal and vertical drill hole cuts. Mr. Odeen  
33 reiterated that the deeper the drill goes, the more muffled the sound gets. The drill has a  
34 rating of 124. This is a sound rating different from dba.
- 35 18. Novomac P212V – This is a bigger line drill, acquired earlier this year. At this time, a smaller  
36 drill is better for the job, and there are no plans to use this piece of equipment in Hall Quarry.
- 37 19. Mobile Line Drill BL24 – This line drill was used in the testing of the acoustic barrier created  
38 by Mr. Smullin. Additionally, a vent silencer has been purchased for the drill. The Applicant  
39 intends to have their sound expert take a reading on the silencer. It is rated for a 35 to 40  
40 dba reduction in sound on high frequencies and 10 - 20 dba reduction on low frequencies.
- 41 20. JCB 550 Telehand – This equipment is capable of picking up larger stone, and also has rubber  
42 tires, making it quieter.
- 43

1 Additionally, Freshwater Stone continues to research best practicable means for noise reduction efforts.  
2 Mr. Odeen knew of nothing further Freshwater Stone could do to reduce noise at this time.

3  
4 Attorney Pileggi pointed out that many of the pieces of equipment have no manufacturer decibel rating.  
5 Mr. Odeen agreed, Freshwater Stone has nothing regarding noise from the manufacturer on some of the  
6 equipment. Attorney Pileggi inquired why the chart provided by the Applicant did not include testing of  
7 the equipment to determine decibel levels. Mr. Odeen noted that the Mobile Line Drill BL24 was  
8 considered the loudest of the equipment and therefore was the focus of testing. Further equipment  
9 testing would have to be determined. Mr. Odeen affirmed that it was possible to quantify the noise  
10 produced by each of these pieces of equipment in a rock quarry. Attorney Pileggi asked for confirmation  
11 that generally speaking, a quarry would run more than a single piece of equipment. Mr. Odeen noted  
12 that in order to run a drill, a compressor and a dust collector must also be running. A test of that  
13 equipment was made May 31. The generator would be used with the wire saw. It was reiterated that a  
14 test could be made of the wire saw and generator running simultaneously while cutting granite.

15  
16 Attorney Pileggi asked about the acoustic barrier. It was a three-sided barrier. Mr. Pileggi asked why a  
17 barrier that fully enclosed the piece of equipment was not designed. Mr. Odeen reported this was for the  
18 safety of the equipment operator. The operator would require a way to remove themselves from the  
19 piece of equipment quickly should there be a malfunction. Attorney Pileggi noted the barrier is plywood  
20 with acoustic material on the inside. He wondered if a curtain of acoustic material could be used to  
21 enclose the fourth side. Mr. Odeen noted that acoustic material is quite heavy; he would not be  
22 comfortable enclosing the fourth side, as the weight would make a quick exit difficult. Attorney Pileggi  
23 mentioned commercially available acoustic tents. Mr. Odeen was not familiar with such products.

24  
25 Attorney Pileggi inquired how many tons of granite were produced per year at Hall Quarry. Mr. Odeen  
26 stated production depends on weather conditions and the conditions of extraction. He did not have  
27 production details available. Attorney Pileggi stated that Mr. Odeen stated to the Planning Board that the  
28 quarry could produce sufficient stone by pulling out a block of granite every three to four days, and that  
29 they had met this production.

30  
31 Mr. Odeen pointed out that granite production varied depending on the needs, and Freshwater Stone  
32 used other quarries as well. Production fluctuates for these reasons.

33  
34 Attorney Pileggi asked if Mr. Odeen had figures of sound reduction quantified by using down-the-hole  
35 drills. Mr. Odeen did not.

36  
37 Attorney Pileggi asked about the use of the acoustic barrier, asking if testing had been done to quantify  
38 any possible increase in sound decibel in any particular direction. Mr. Odeen noted that per OSHA  
39 requirements, operators are required to wear hearing protection during operation.

40  
41 Hall Quarry Resident and abutter Gerald Shencavitz stated that in the 2012 records, an amount of granite  
42 is noted as having been taken from the quarry. Mr. Shencavitz opined that the amount was more than  
43 what equals a single block every three to four days. Mr. Shencavitz felt the new saw would not alleviate  
44 sound. It would merely increase the amount of granite being removed and the number of trucks on the



1 road. Mr. Shencavitz inquired of Mr. Odeen whether one block of granite was being removed every three  
2 to four days in 2012. Mr. Odeen was not on site at the time in question and could not answer the question.

3  
4 Hall Quarry resident Steve Krasinski asked whether the intention was to have barriers for all the machines.  
5 Mr. Odeen stated the focus was on the drills, which have been deemed the loudest. Localized physical  
6 barriers will be used for them. There will be more than one barrier on site. Smaller hand drills will have  
7 a smaller barrier, and the bigger drills will have a larger barrier.

8  
9 Attorney Pileggi inquired whether Freshwater Stone has considered an increase in berm size to assist in  
10 noise reduction. Mr. Odeen did not believe at this time it had been discussed.

11  
12 Hall Quarry resident Keith Martin inquired about the size of the trees discussed for the berm. It might  
13 take years before they become an effective sound barrier. Mr. Odeen noted the trees would be five to  
14 six feet tall evergreens. Mr. Martin voiced concern over the size of the trees and how effectively they'd  
15 cover the space. Chairman Hanley informed the public that the berm and vegetation to be planted there  
16 was discussed at the previous meeting.

17  
18 Hall Quarry resident and abutter Judy Aylen asked why a sound barrier could not be put around every  
19 piece of equipment. The collective noise of multiple pieces of equipment is a problem. Mr. Odeen noted  
20 it has to be practical. Ms. Aylen suggested it was merely too expensive. Mr. Odeen stated that Freshwater  
21 Stone was currently focused on the drills.

22  
23 Ms. Krasinski asked how the direction the barrier was facing was determined. Mr. Odeen stated that the  
24 barrier would generally be facing the abutters. The barrier could be moved to ensure it was in the best  
25 position.

26  
27 Mr. Aylen recalled more than one large drill running at a time when the quarry was operating. It was  
28 noted that the testimony being heard is the plan moving forward and has nothing to do with past  
29 practices.

30  
31 Chairman Hanley noted that berm construction would most likely be subcontracted out to an earthwork  
32 contractor who likely has experience installing berms. Mr. Odeen concurred. Freshwater Stone would  
33 not be building the berm.

34  
35 Somes Sound resident Larry Goldfarb asked for clarification on quarry production levels being one stone  
36 every three to four days. He asked if one stone every three to four days was the business model or is it  
37 based on demand. And if it's based on demand, and the demand was greater, would production increase?  
38 Mr. Odeen tried to clarify that the process itself of removing a granite stone from the quarry takes three  
39 to four days. It could take less time, based on the conditions, and if so, then the quarry could produce  
40 more stone. It would be hard to determine how much stone can be produced without looking at the  
41 granite. Mr. Goldfarb asked whether the stone would be removed one at a time – not starting a new  
42 stone until the last stone was fully removed from the bedrock - or could multiple stones be worked on  
43 concurrently? Mr. Odeen stated the operators could start the next stone, before the first one had been

1 fully removed. It was determined there could be as many as three stones being worked concurrently if  
2 there was demand.

3  
4 Hall Quarry resident Betsy Roberts noted there was no mention of vibration in the Quarrying Licensing  
5 Ordinance, however vibration is generated when sound is generated. Mr. Odeen explained the drill was  
6 percussive and this creates a vibration as the drill works. The drill operates by banging into the granite  
7 then turning in a fast, repetitive motion. Mr. Odeen was not able to describe the speed at which the drill  
8 hits the granite. He noted that as the drill gets deeper into the granite its speed diminishes.

9  
10 Ms. Randolph inquired whether she was correct in assuming that equipment ratings from a manufacturer  
11 measures the noise the motor makes. It does not measure additional noise created by the equipment's  
12 interaction with the material the equipment is being used on. Mr. Odeen did not know how noise levels  
13 were measured by the manufacturer, or what was included. He did point out the wire saw cutting the  
14 stone is not a high-pitched sound.

15  
16 Hall Quarry Resident Sheridan Steele asked whether once the rock is cut from the bedrock, is further  
17 cutting done on site. Mr. Odeen stated the large rock was being cut into smaller pieces before leaving the  
18 site. Sometimes the rocks will be removed from the bedrock in smaller sizes. Mr. Odeen estimated  
19 average block sizes leaving the quarry would be four feet by five feet by four feet. It was confirmed the  
20 large stone was cut to smaller on site.

21  
22 Hall Quarry Resident Charlotte Singleton asked for confirmation that there would be no testing of the  
23 individual pieces of equipment at the site to see what level of noise is made. Chairman Hanley felt the  
24 Hearing process had not reached the point of determining further testing needs. Further testing was  
25 certainly a possibility, but he noted the Board has not yet entered into deliberation at this point.

26  
27 Mr. Goldfarb asked what happens if the operation changes and different equipment is needed. Do  
28 changes to equipment require further review from the Planning Board? Mr. Odeen did not know.  
29 Attorney Collier discussed a review process done every year and every five years. The Ordinance is new,  
30 and this is the first Application. Because of that, it is unclear how the process will move forward. It's  
31 challenging to require ongoing review and research into the best practices. It's difficult to enforce.

32  
33 Ms. Breedlove asked what happens if the best practicable methods are still too loud? Chairman Hanley  
34 felt this was a question for the Board to address.

35  
36 It was confirmed that all loaders at the site will have rubber tires.

37  
38 Ms. Randolph asked about the sound of stone being loaded onto a truck and whether that sound could  
39 be mitigated in some way. Mr. Odeen assured Ms. Randolph that stone is not dropped onto trucks. It  
40 would damage both the stone and the truck. Stone is placed carefully on a wood bed. Leftover rock is  
41 moved by loader bucket to the debris pile.

42  
43 Ms. Roberts voiced concern regarding the size of the rock being moved. She cited the Application  
44 description of a Bench. Mr. Odeen explained that a Bench is the section of stone being extracted. The

1 Application describes the Bench as typically having a height and depth of eight to twelve feet and can be  
2 20 feet or more in length. Ms. Roberts felt there was a discrepancy between this description and what's  
3 been explained at the meeting. Mr. Odeen noted that the rock formation in Hall Quarry does not allow  
4 for an eight to ten-foot height. Twenty-foot length can be the case sometimes, but it's usually closer to  
5 ten feet in length.

6  
7 Hall Quarry resident Pam Bowie asked for clarification regarding the generator. Home generators are  
8 typically quite loud. Mr. Odeen stated the generators used by the quarry are measured at 70 dba.

9  
10 Attorney Pileggi asked if the noise mitigation plan proposed includes managing the way rubble, or tailings,  
11 are handled so as to mitigate the noise from the movement of the excess rock. Mr. Odeen was not sure  
12 whether this aspect was addressed in the noise mitigation plan. Quarry operators minimize the amount  
13 of time they spend moving excess rock to a grout pile. Cranes and the 550 pick up larger stone from the  
14 excess that can be utilized. Mr. Odeen did not believe dump trucks would be loaded with the excess and  
15 moved.

16  
17 Attorney Collier asked if it were possible to line the truck beds used. Mr. Odeen noted there are no plans  
18 to haul quarry material with a dump truck. Attorney Collier asserted there had been complaints about  
19 moving stone. Mr. Odeen was unaware of any appropriate sound mitigation product for the equipment  
20 used. Applicant Paul MacQuinn agreed there are no liners of the sort described. Perhaps a blasting mat  
21 could be used on a truck.

22  
23 Mr. Odeen stated that when rock is removed from the quarry it is placed on a pallet and strapped in and  
24 placed on the truck or trailer with a boom truck. The bed of the truck or trailer has cribbing, so the pallet  
25 is not hitting the bed. The rock is then trucked to Orland. Mr. MacQuinn pointed out that a quarry  
26 operation wants to move stone carefully. Stone has seams that can crack open, and rough movement of  
27 stone can damage vehicles.

28  
29 Ms. Ashmore inquired about the rubble that must be moved to get it out of the way. Once the desired  
30 granite is pulled out, there must be some rock in the area where the work is occurring that is not usable.  
31 Mr. Odeen reported the bucket will be used to carry such rubble to the grout pile. Where a bucket can't  
32 be used, people with shovels are used. It does generate noise for a short period of time.

33  
34 Hall Quarry Resident Kelly O'Neil noticed grout piles on Crane Road. Neither Mr. Odeen nor Mr. MacQuinn  
35 knew where the piles had come from.

36  
37 Ms. Bowie asked about the equipment list. There were no dump trucks listed. Would dump trucks be  
38 idling in the quarry, and what exit from the quarry would the trucks plan to use. Mr. Odeen noted that  
39 trucks are limited in their idling time. Boom trucks or dump trucks with a trailer would haul stone from  
40 the quarry. Stone is not put into a dump truck. The Hall Quarry exit closest to Southwest Harbor is the  
41 exit they intend to use, turning right onto Route 102.

42  
43 Chairman Hanley asked for more public comment. There was none.  
44

1 Attorney McGuire asked for confirmation that speeds would be limited to 10 miles per hour. Mr. Odeen  
2 confirmed that speed would be limited to 10 miles per hour. Mr. Odeen confirmed that blasting is not  
3 part of Freshwater Stone's business plan for any of their quarries. Blasting can deform the rock and crack  
4 it.

5  
6 MS. EATON MOVED, WITH MR. ASHMORE SECONDING, TO RECESS. MOTION APPROVED 5-0-1 (MS.  
7 LOFTUS KELLER IN ABSTENTION).

8  
9 A short recess ensued.

10  
11 Sound experts were at the meeting to testify on behalf of both the Applicant and the Shencavitz' and  
12 Aylen's.

13  
14 Sound expert for the Applicant Joe Smullin introduced himself as President of J & A Enterprises – a  
15 consulting engineering company specializing in noise and vibration. He described his educational and  
16 professional background.

17  
18 Mr. Smullin stated he was asked by the Applicant to provide sound mitigation techniques to a rock drill,  
19 specifically to design an enclosure or barrier for the drill. The barrier or enclosure had to be portable and  
20 it had to allow the worker to enter and exit the barrier. The size and selection of materials used would  
21 have to give the barrier its best performance. Mr. Smullin tried to give the best practicable solution given  
22 those parameters.

23  
24 Mr. Smullin has designed barriers before. He described the rock drill as being on a type of gantry. The  
25 equipment starts in the air and works down. The noise is generated along the length of the drill, from the  
26 piece that looks like a jackhammer down the rod that penetrates into the granite. Mr. Smullin reviewed  
27 what reports he could find on the equipment. Noise is generated from the drill head and from the exhaust  
28 of the drill head, and significant noise is generated from the drill rod. The high frequency ringing comes  
29 from the vibration of the drill rod, produced by the hammering. Through the basic principles of acoustics  
30 and the drill's noise generation, barrier dimensions, structure material and acoustic material were  
31 determined.

32  
33 The barrier is the length of the drill bed; approximately eight feet in length. The height is ten feet high,  
34 above the top of the drill head. This means the barrier is breaking the direct line of transmission between  
35 the source of sound and the receiver. The depth of the barrier is four feet. Deeper would be better, but  
36 this depth allows for more mobility of the barrier. This size also allows for easy access, and for the barrier  
37 to fit in the depth of the bench being worked in. The barrier will be most effective in the direction of the  
38 eight-foot wall, and with the equipment inside it. It will be less effective to the sides. The sound will  
39 reflect out the back of the barrier. There will be an increase in noise in that direction.

40  
41 To reduce the noise off the front of the enclosure, acoustic foam is used to absorb sound. This foam is  
42 more effective at higher frequencies. A laminate material was used with acoustic foam on the front and  
43 a vinyl sheet with barium salts in it making it less pervious to sound. To this another layer of foam was

1 added behind. This reduces the sound transmitted through the drill head and plywood. Additionally, it  
2 absorbs a significant amount of sound that would otherwise be reflected out the front.

3  
4 Assembly of the materials include scaffolding strong enough to allow a crane to reposition the barrier.  
5 Plywood is then attached to the scaffolding, then the sound mitigation layers are attached using  
6 mechanical fasteners and adhesive. Mr. Smullin referred to his submission showing photographs of the  
7 barrier, including the assembly process.

8  
9 The barrier has been tested. The barrier was set up on a bench at a quarry site with the drill inside it.  
10 Sound was measured on the drill with the barrier in place and without the barrier. Noise was measured  
11 around the barrier and at a distance of 50 feet from the barrier. Measurements at the sides of the barrier  
12 were taken at greater distances. Schematics of the testing was presented. Measurements of sound were  
13 taken from directly behind the barrier and to both sides. Measurements were taken at 126 feet behind  
14 the barrier and at 76 feet from the right side. The noise reduction attained was a reduction of 10 decibels  
15 from behind the barrier, five to eight decibels from either side, and a possible increase of one to two  
16 decibels from the front of the barrier.

17  
18 Mr. Smullin explained there is a change in decibel and the acoustic spectrum. To the human ear, a ten-  
19 decibel increase is twice the noise. A ten-decibel decrease is perceived as half the noise. This perceived  
20 increase or decrease is the same regardless of the original level of sound.

21  
22 The front of the barrier, where there is a slight increase in sound will be the side facing away from the  
23 abutters and toward the rest of the Applicant's Hall Quarry property.

24  
25 The decibel level dropped from 89 decibels to 74 at fifty feet from the barrier. At 126 feet from the barrier,  
26 decibel level dropped from 70-72 to 60-62.

27  
28 The low-frequency noise is less attenuated. The high frequency noise is the most affected by the barrier.

29  
30 Mr. Smullin stated that per OSHA standards, typically 85 decibels is a level at which hearing protection is  
31 required to be worn. 80 decibels hearing protection must be offered by an employer but is not required.  
32 Mr. Smullin opined that hearing loss from the residences abutting the quarry was not a risk.

33  
34 Regarding the two-decibel increase reflecting off the front of the barrier towards the back, that  
35 measurement was taken at 50 feet. A one decibel increase is hard to detect simply listening to it. A three-  
36 decibel increase is noticeable to the human ear.

37  
38 An earlier report on the quarry created by a consultant noted the rock drill as the loudest piece of  
39 equipment. A ten-decibel reduction in sound brings that drill down to the level of the other equipment  
40 sounds.

41  
42 A compressor was running the rock drill at the time of the tests. The level of noise from the compressor  
43 was minimal. The compressor was at some distance and in a manufacturer-made sound enclosure. Mr.  
44 Smullin deemed it not a significant component of the noise. A dust vacuum was also running at the time

1 the tests were made. It did make some noise and it might be reasonable to try to quiet it further.  
2 Additionally, there was noise from drill head's exhaust. This noise was run through a small automotive  
3 silencer. Mr. Smullin was given to understand that this silencer would be replaced by a larger, more  
4 effective silencer. Such a change may result in noise reduction at the lower frequency percussive noise.  
5 The test results given were measured while all three pieces of equipment were running.

6  
7 Mr. Smullin explained the differences between sound and vibration. Sound is a vibratory phenomenon.  
8 The same process that allows the ear to hear can also put vibration in the ground. The ear is sensitive to  
9 a higher frequency. Peak sensitivity is between 1000 and 2000 hertz cycles per second. This tapers off as  
10 the cycles get either lower or higher in frequency. Body sensitivity to vibration is the opposite. The body  
11 senses lower frequency vibration at levels the ear does not sense. The percussive process of drilling or of  
12 dropping rock creates vibration. Sound coming from those sources radiates due to the vibration. People  
13 sensing noise at their residence will likely experience low-frequency vibration. Hammering and rock  
14 knocking against rock will cause low-frequency sound. Rock transmits noise better than a soft soil would.

15  
16 Attorney McGuire referred to a section of noise expert Charles Wallace's report in which Mr. Wallace  
17 assessed the effectiveness of a portable barrier to be a six-decibel reduction, instead of Mr. Smullin's  
18 stated ten decibels. Mr. Smullin noted that Mr. Wallace provides a plot of the decibel A-level at given  
19 measurement points when the barrier was in place and when it was not. The levels noted when the  
20 barrier was not in place show several events. The peak when the rock is being drilled, a gap in between  
21 when the drill was no operating, and then again when the drill is operating. On the left-hand side, when  
22 the barrier was in place, it is not as obvious when the drill was being operated or not. There were  
23 differences of three to five decibels, but not clear peaks and valleys of sound. When the barrier was not  
24 in place, there was a significant difference. Mr. Smullin determined that Mr. Wallace took the arithmetic  
25 average using points when the drilling was happening and also using points when the drilling was not  
26 happening. The same technique to average the sound for when the barrier was in place. These  
27 comparisons are of noise averages and not based on moments when sound was occurring only. Mr.  
28 Smullin disagreed with the way the numbers were calculated.

29  
30 A discussion regarding time, and how long the meeting would last ensued. Chairman Hanley felt it was  
31 inevitable that the experts would need to be at the next meeting as well. Attorney Pileggi hoped to have  
32 the chance to ask questions of Mr. Smullin prior to the end of the meeting. Mr. Pileggi was comfortable  
33 with bringing Mr. Wallace back to the next meeting. Chairman Hanley agreed.

34  
35 It was agreed this meeting would be adjourned after Attorney Pileggi questioned Mr. Smullin and would  
36 be resumed at a later date with the public being allowed to ask questions of Mr. Smullin.

37  
38 Mr. Smullin stated that he was specifically charged with the task of reducing sound in certain locations  
39 resulting from one piece of equipment. Mr. Smullin confirmed Attorney Pileggi's assessment that he has  
40 the ability and expertise to create an overall noise mitigation plan. Mr. Smullin noted he was willing to do  
41 so if given the charge by the Applicant. An overall noise mitigation plan would have to have parameters  
42 determined and a goal of what the Applicant hoped to achieve.

1 Mr. Smullin confirmed he was able to create a plan to mitigate noise from each piece of equipment used  
2 on the site at the abutting property lines. It was confirmed that Mr. Smullin was not asked to measure or  
3 model ambient noise at the property line or adjacent houses. Mr. Smullin reported he had measured  
4 ambient noise the day he was on site. A study would have to be done over several different days to get  
5 an appropriate understanding of the ambient noise. This Mr. Smullin has not done. He confirmed he was  
6 capable of making such a study.

7  
8 Attorney Pileggi opined that there was value in knowing what the ambient noise is when discerning the  
9 best practicable means of reducing noise to neighbors. Mr. Smullin agreed that generally such  
10 information was of value. If a model can be made, a sound expert can understand how to reduce noise.  
11 Additionally, the level of ambient noise tells an expert when it becomes pointless to try for more noise  
12 reduction. Attorney Pileggi suggested that knowing the ambient noise level might help determine the  
13 point when additional noise from an industrial site might become irritating or bothersome. Mr. Smullin  
14 felt the point noise becomes irritating would be when it was apparent to the neighbors. This was again  
15 something Mr. Smullin could work on with the Applicant, but clarified that noise is statistical. There are  
16 more variations in statistics than in simply telling someone that ten decibels are twice as loud. Some  
17 people will be bothered if they hear the noise at all. Others may not care. It would be difficult to pinpoint.

18  
19 Attorney Pileggi noted that Mr. Smullin's model was restricted to just the drill. The barrier did not address  
20 issues like the noise of the hand drills that might be used in tandem with the rock drill. Mr. Smullin  
21 reiterated he worked with just the three pieces of equipment previously noted.

22  
23 Attorney Pileggi inquired whether it was possible the barrier designed could have had vinyl on the open  
24 side to prevent noise leaking around the edges. Mr. Smullin noted it was not in his expertise to decide  
25 whether fully enclosing the barrier was best practicable methods. It would be the decision of the quarry  
26 operator. A vinyl barrier could be hung, but would it be appropriate for the operation? Mr. Smullin could  
27 not make that judgment. He agreed such a hanging would further reduce noise emanating out the front  
28 and might slightly reduce noise coming out the back. If anything were to be hung it should be something  
29 with absorptive material.

30  
31 Attorney Pileggi inquired how the length of the barrier and sidewalls were determined. Mr. Smullin  
32 reported the length of the sidewalls was reached through discussion with the operator. Mr. Pileggi asked  
33 if there were common standards of the angle of sidewall when making a barrier. Mr. Smullin noted that  
34 if the intent was to project sound outward perhaps angling the sidewall so that what was reflected inside  
35 had more directivity from the sidewalls out the front, so it could reduce what was attenuated to the side.  
36 In the layout arrangement of the panels, it was Mr. Smullin's understanding that to the south were areas  
37 much less sensitive to noise.

38  
39 Attorney Pileggi asked Mr. Smullin to comment on the effectiveness of a barrier enveloping the equipment  
40 itself, as opposed to a barrier of the size designed. Mr. Smullin felt enclosing a unit itself would be good.  
41 Ultimately, to mitigate the noise of a drill, an enclosure for the particular piece of equipment would be  
42 best. However, it would have to have openings with which to access the drill. It would take time to  
43 develop such an enclosure.

44

1 Mr. Smullin estimated he was first approached by the applicant for consultation around the beginning of  
2 April 2019. Attorney Pileggi suggested that between 2014 and 2019 a system of shields and barricades  
3 could have been developed for each piece of equipment in order to reduce noise at the boundary lines.  
4 Mr. Smullin agreed that it could be done, but at great cost of time and materials. Such a task might be  
5 more appropriate for a company manufacturing the equipment.

6  
7 Attorney Pileggi asked how, based on the testing done, would Mr. Smullin modify the barrier design to  
8 improve noise mitigation, in general and also with respect to the low frequency noise the barrier does not  
9 currently address well.

10  
11 Mr. Smullin noted low-frequency noise is not well attenuated by the barrier. Installing the Maxim Silencer,  
12 the Applicant has purchased would be the first change to improve noise mitigation. Beyond that, perhaps  
13 some other testing could be done to ascertain where the noise is coming from. Mr. Smullin did not do  
14 diagnostic studies of what was happening. His task was to determine what would be a good barrier and  
15 determine its effectiveness. Reducing the low-frequency noise is not the priority. The Silencer that will  
16 be applied is likely to improve the noise, though Mr. Smullin noted he has not done diagnostic studies on  
17 the silencer. Beyond this and exempting the possibility of building an enclosure on each piece of  
18 equipment, Mr. Smullin suggested a larger enclosure. A larger enclosure however, might not be  
19 practicable.

20  
21 Attorney Pileggi asked if there were standards within the industry that deal with attenuation of short-  
22 duration repetitive sound. Mr. Smullin noted there were, and there are also definitions. For example,  
23 sound from a jackhammer might fall under the definition of pulsive sound and not repetitive sound.  
24 Attorney Pileggi asked if the barrier would reduce in any way pulsive sound or short-duration repetitive  
25 sound. Mr. Smullin affirmed the barrier would reduce those types of sounds.

26  
27 Attorney Pileggi asked for a definition of a tonal sound. Mr. Smullin noted it was a sound in a tone. Maine  
28 State Ordinances define it as a third-octave spectrum when a particular third-octave band is louder than  
29 both its neighbors by five or more decibels. This type of sound does not exist in the measurements Mr.  
30 Smullin took with the barrier in use. Attorney Pileggi pointed out that there was no way of knowing  
31 whether it existed when other equipment was being used. Mr. Smullin stated it would have to be  
32 measured.

33  
34 Attorney Pileggi asked about the perception of noise. A change in noise level of 20 decibels would be  
35 perceived as how much of an increase? Mr. Smullin noted it would be perceived as doubling the noise  
36 level twice. If the ambient sound of the area was approximately 40, then 60 decibels at the property line  
37 would be significant.

38  
39 Attorney Pileggi had no further questions of Mr. Smullin.

40  
41 Chairman Hanley stated that at this point, the meeting should be continued to a date certain, if possible.

42  
43 Mr. Goldfarb stated he was a spokesperson for nine families on Somes Sound. He hoped the meeting  
44 continuation would occur before he left the area for the season, perhaps the following Thursday.



1  
2 Chairman Hanley assured those in attendance that the next meeting would be scheduled to occur as  
3 quickly after this one as possible. However, there were a number of people involved and a date must be  
4 found to accommodate everyone's ability to be present.

5  
6 Lengthy discussion ensued regarding scheduling. It was agreed that having a full Planning Board in  
7 attendance was critical to the process. A date acceptable to all was not found.

8  
9 CEO Keene agreed to send out a poll to find a date that worked for all participants. It was noted that  
10 without the meeting continued to a date certain, Public Notice would have to be given

11  
12 MR. RANDOLPH MOVED, WITH MS. EATON SECONDING, TO TABLE THE MEETING. MOTION APPROVED  
13 5-0-1 (LOFTUS KELLER IN ABSTENTION).

14  
15 MS. ANASTASIA MOVED, WITH MR. ASHMORE SECONDING, TO ADJOURN THE MEETING. MOTION  
16 APPROVED 5-0-1 (LOFTUS KELLER IN ABSTENTION).

17  
18 The meeting adjourned at 9:27PM.  
19  
20  
21  
22