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E-mail: solutions@rwdi.com

# MEMORANDUM

DATE:	2024-03-13	RWDI Reference No.: 2202279
то:	David & Debbie Sim	EMAIL: magnoliagallery@rogers.com
FROM:	Monika Greenfield Slavi Grozev	<b>EMAIL:</b> Monika.Greenfield@rwdi.com Slavi.Grozev@rwdi.com
RE:	Sim Land Severance Noise Asso Burnside Bridge Road Land Sev Burnside Bridge Road, McDoug	

Dear David & Debbie,

This memorandum was prepared as a follow up to the meeting held between RWDI AIR Inc. (RWDI), List Planning and the Municipality of McDougall (McDougall) on March 7, 2024, regarding the severance of Part of Lots 69 & 71 RCP Plan 328 to create three new lots along the south side of Burnside Bridge Road in McDougall. RWDI was requested to provide additional information to aid in McDougall's decision-making process.

### **Background**

RWDI prepared a noise study in support of the severance titled "Burnside Bridge Road Municipality of McDougall, Ontario Land Use Compatibility / Mitigation Study (Noise)", dated December 24, 2021.

The lots are opposite of the Hall Construction Quarry (Quarry). The Quarry retained SLR Consulting (Canada) Ltd. (SLR) to prepare a noise report documenting the site's activities and their sound levels. The results are found in a report titled "Environmental Noise & Vibration Assessment, Parry Sound Area Planning Board Consent Application B46/2021 (McDougall) – (Sim Consent)" dated October 25, 2023. This report has been provided to McDougall and RWDI. In addition to preparing the study, SLR also peer-reviewed RWDI's report and issued comments in a letter titled "Burnside Bridge Road Severance – Land Use Compatibility / Mitigation Study (Noise)", dated July 11, 2022.

SLR's study provides Quarry site plans and licensing figures. These are provided for context in **Appendix A**.

The Quarry's operational plan notes that the following equipment will be normally used on site, but does not provided details on how and where:





- Air track drills;
- Scales;
- Screening Plants;
- Crushers;
- Asphalt Plant;
- Concrete Plant;
- Boom Trucks;
- Forklifts;
- Generators;
- Loaders;
- Excavators;
- Bulldozers;
- Backhoes;
- Other excavation equipment; and
- Trucks.

This is a general list of equipment and typical of such Quarry activities.

Current Quarry operations include removal of overburden (considered temporary construction activity, thus not subject to noise assessment), drilling and excavation, and blasting (subject to a different assessment).

# **Potential Future Quarry Activities**

In addition to the equipment that is currently in use, future activities may also include aggregate operations such as crushing and screening.

The plan also notes that portable asphalt plants and concrete plants operating above grade are subject to a Ministry of the Environment, Conservation and Parks (MECP) Certificate of Approval (now called Environmental Compliance Approval, or ECA), as well as municipal approval. Therefore, pending approval, such activities may also be present in the future. Condition 1.2.17 in the site plans states that this equipment will be portable and temporary in nature but could be permanently established in the future.

Temporary plants are subject to mobile ECA requirements set by the MECP. Mobile ECAs contain setback distances intended to demonstrate compliance with MECP sound level limits regardless of where they are located in the province. Mobile ECAs also limit the time equipment can spend on site within a calendar year to 60 days. The Director can extend this, if there is a case to do so.

The plans also show the excavation depths and cross sections indicating the required sloping. As excavation progresses, it appears that a natural berm (i.e. barrier) will form which will reduce the sound levels off-site, more specifically towards the lots to be severed.



## **Quarry Noise Assessment**

RWDI's assessment focused on current operations, and some future aggregate activities, but did not include the entire range of future aggregate activities, an asphalt plant, or a concrete plant.

SLR's assessment included several scenarios, including future aggregate activities, asphalt, and a concrete plant.

Although there are some differences in operating assumptions, at a high level both assessments arrive at similar conclusions – there will be sound level exceedances at the proposed lots (i.e. sound levels in excess of MECP's default sound level limits as outlined in NPC-300). However, under most modelled cases, these exceedances are limited to the northern portion of the lots, as well as some of the middle sections. Both studies show that compliance, even under the most-conservative future activities can be achieved at the southern portion of Lots 1 and 2. There are a couple of operational scenarios where compliance at Lot 3 will be limited, but assessments show that compliance can be achieved under most scenarios. **Figure 1** below shows where compliance can be achieved under the most conservative scenario SLR has presented.

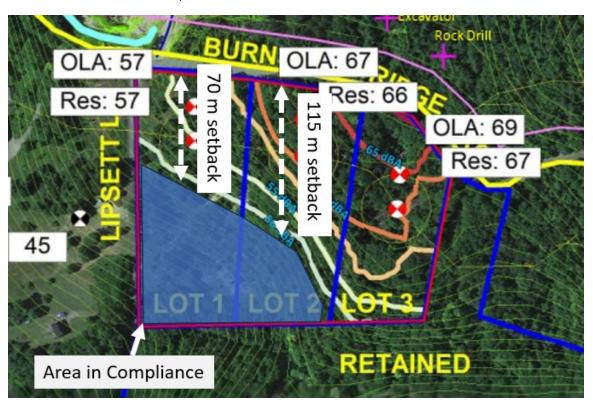


Figure 1: SLR Worst-Case Sound Level Impacts and Compliance Areas

**Figure 2** shows a less conservative, but still impactful scenario and the parts of the lots that are in compliance.



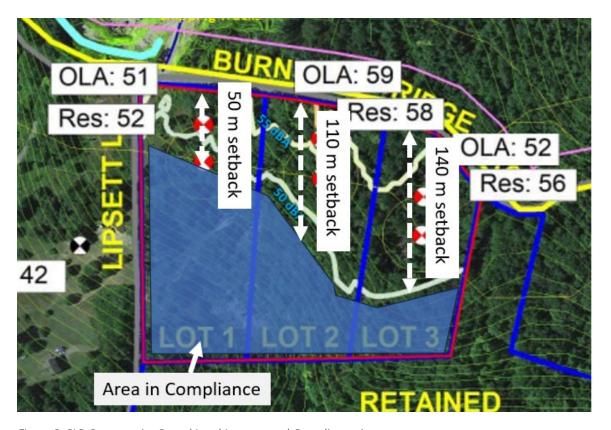


Figure 2: SLR Conservative Sound Level Impacts and Compliance Areas

Both figures show the setbacks from Burnside Road at which compliance is demonstrated in SLR's report which was prepared for the Quarry.

Other operating scenarios modelled by SLR show larger compliance areas, thus are not as restrictive as the ones shown above.

### **Recommendations**

As demonstrated in the figures above, compliance can be shown based on the Quarry's worst-case operations. In addition to the setbacks noted in the figures, RWDI has the following recommendations that would aid in demonstrating compatibility with the Quarry:

- Maintain dense (i.e. enough to completely block line-of-sight to the Quarry), tall foliage within the setback distances shown in Figures 1 and 2;
- Construct dwellings at the rear of the lots as indicated in the figures;
- Limit dwellings on Lot 3 to a single storey;



- Consider locating garages or workshops (i.e. non-noise sensitive spaces) on the northern side of any dwellings and facing the Quarry;
- Orient windows to sensitive spaces (e.g. bedrooms and living rooms) away from the Quarry.

All studies done to date conclude that a combination of the above recommendations will result in compatibility between the lands.

### **Conclusions**

Although RWDI's and SLR's noise assessment assumptions differ, the overall conclusions show that compliance with the Quarry operations can be achieved at large areas of the lots. That, paired, with a combination of the recommendations made above, would result in compatibility between the land uses. Thus, the lands can be severed and used to construct residential dwellings.

Yours truly,

Monika Greenfield, M.Sc. Senior Project Manager

Manipa Greenfield

**RWDI** 

March 13, 2024

Attach.



# STATEMENT OF LIMITATIONS

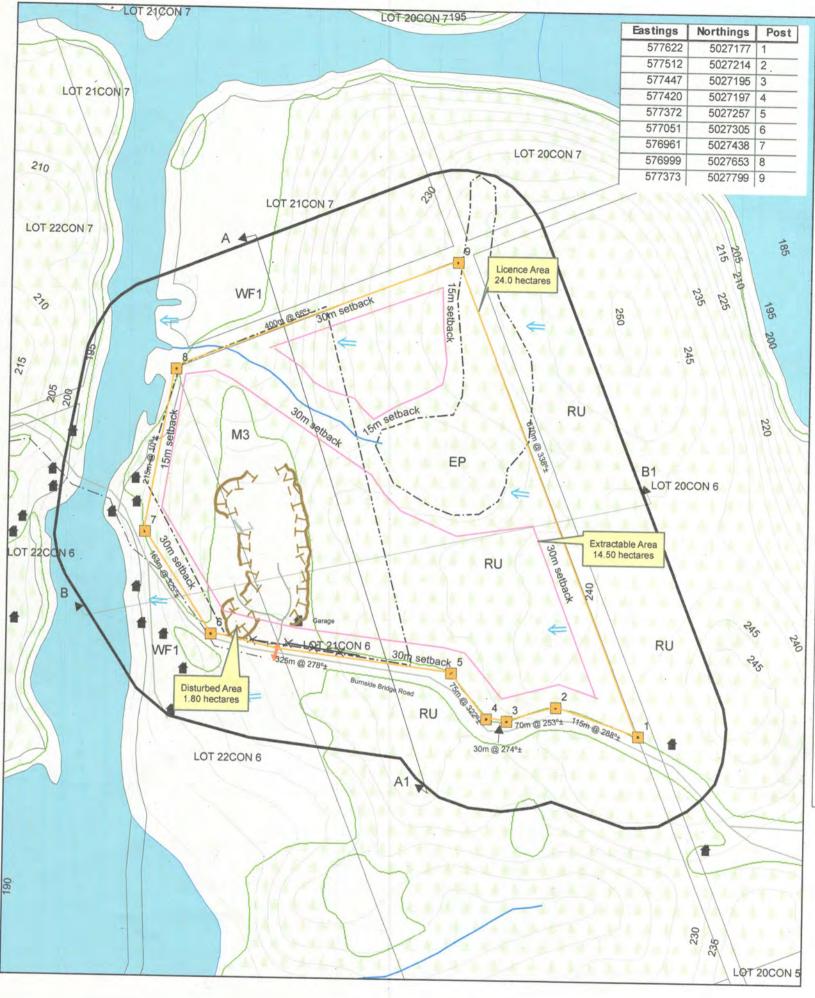
This letter entitled "Sims Land Severance Noise Assessment Background Information" was prepared by RWDI AIR Inc. ("RWDI") for David & Debbie Sim ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect changes made to the facility and/or the operations therein after the date of this report, RWDI recommends that it be retained by Client in the event such changes are contemplated/implemented in order to verify that the results and recommendations provided in this report are still applicable for such changes.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein to understand the different factors which may impact the conclusions and recommendations provided.



# APPENDIX A



# 1:5,000 150 300 600 Meters

# Existing Features and Cross Sections 1.1 EXISTING FEATURES NOTES 1.1.1 DRAWINGS NUMBERED AND TOTAL NUMBER OF DRAWINGS SUBMITTED THERE ARE THREE PAGES IN THIS SITE PLAN. EACH PAGE IS NUMBERED CONSECUTIVELY. 1.1.2 KEY MAP SHOWING THE LOCATION OF THE SITE THE KEY MAP IS SHOWN ON PAGE 1 OF 3. 1.1.3 GENERAL DESCRIPTION OF THE LOCATION THE SITE IS LOCATED IN PART OF LOTS 21 & 22, CONCESSION 6, GEOGRAPHIC TOWNSHIP OF McDOUGALL, MUNICIPALITY OF McDOUGALL OF McDOUGALL. 1.1.4 SCALE REFERENCE USING BOTH RATIO AND GRAPHIC METHODS SHOWN ON SITE PLAN 1.1.5 LICENSEE'S NAME AND ADDRESS Georgian Rock Company Ltd. Georgian Rock Company Ltd. 176 Louisa Street, Parry Sound, Ont P2A 3C1 1.1.6 STATEMENT OF PURPOSE THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS A LICENCE, CATEGORY 3&4. 1.1.7 A STAMP AND SIGNATURE OF A PROFESSIONAL ENGINEER, ONTARIO LAND SURVEYOR, LANDSCAPE ARCHITECT OR SIGNATURE OF OTHER QUALIFIED PERSON AS APPROVED UNDER SUBSECTION 8(4) OF THE AGGREGATE RESOURCES ACT UNDER WHOSE DIRECTION THIS PLAN WAS PREPARED AND CERTIFIED. SHOWN ON ALL THREE PAGES. 1.1.8 NORTH ARROW SHOWN ON ALL THREE PAGES. 1.1.9 SECTION FOR RECORDING SITE PLAN AMENDMENTS, INCLUDING APPROVAL DATES SHOWN ON ALL THREE PAGES. 1.1.10 LIST OF REFERENCES WHICH APPLY SPECIFICALLY TO THE PREPARATION OF THE SITE PLAN CONTOUR AND TOPOGRAPHIC MAPPING WAS COMPLETED BY TIMBER CRAFT CONSULTATIONS INC. USING OBM MAPPING PROVIDED BY MINR. THE ACCURACY OF THE DIGITAL DATA IS SUBJECT TO THE ACCURACIES OF THE OBM MAPPING AND THE GPS DATA. PROVIDED BY MNR. THE ACCURACY OF THE DIGITAL DATA IS SUBJECT TO THE ACCURACIES OF THE OBM MAPPING THE GPS DATA. 1.1.11 LEGEND SHOWN ON ALL THREE PAGES. 1.1.12 BOUNDARY OF THE AREA TO BE LICENSED, INCLUDING THE DIMENSIONS AND HECTARAGE OF THE SITE SHOWN ON PAGE 1 OF 3. THE LICENCE IS 24.0 HECTARES IN SIZE. A LICENCE BOUNDARY THAT ABUTS ANY ROAD AND/OR ROAD ALLOWANCE IS ASSUMED TO BE AT THE EDGE OF THIS ROAD AND/OR ROAD ALLOWANCE AS IT IS (GPS AND OBM) 1.1.13 DEMARCATION OF LOT AND CONCESSION LINES LOT AND CONCESSION LINES ARE SHOWN ON PLAN 1.1.13 DEMARCATION OF LOT AND CONCESSION LINES LOT AND CONCESSION LINES ARE SHOWN ON PLAN. 1.1.14 USE AND EXISTING ZONING OF LAND ON AND WITHIN 120 METRES OF THE SITE THE USE AND ZONING ARE SHOWN ON PAGE 1. ZONING REFERENCES ARE FROM DATA PROVIDED BY THE LOCAL MUNICIPALITY. THE ACCURACIES OF THE ZONING BOUNDARIES ARE SUBJECT TO THE ACCURACIES OF THE DATA AVAILABLE AND THE ERRORS INDUCED BY TRANSFERRING BOUNDARIES BETWEEN MAPS OF DIFFERENT SCALES. 1.1.15 TOPOGRAPHY OF THE SITE ILLUSTRATED BY A ONE OR TWO METRE CONTOUR INTERVAL, EXPRESSED AS METRES ABOVE SHOWN ON PLAN -5 METRE CONTOUR INTERVALS 1.1.16 LOCATION AND USE OF ALL BUILDINGS AND OTHER STRUCTURES EXISTING ON AND WITHIN 120 METRES OF THE SITE SHOWN ON PLAN. THE BUILDINGS WITHIN THE 120 M. ZONE WOULD APPEAR TO BE RESIDENCES AND ASSOCIATED OUTBUILDINGS.

OUTBUILDINGS.

1.1.17 LOCATION OF EVERY EXISTING BENTRANCE TO AND EXIT FROM THE SITE
THERE IS ONE ENTRANCE/EXIT ON THE SITE.

1.1.18 MAIN INTERNAL HAUL ROADS ON THE SITE
ALL ROADS ARE TEMPORARY FOR EXTRACTION AND HAULING AND ARE SHOWN ON THE PLAN.

1.1.19 ELEVATION OF THE ESTABLISHED GROUNDWATER TABLE ON SITE
THE WATER TABLES HAVE NOT BEEN ESTABLISHED.

1.1.20 EXISTING SURFACE WATER DRAINAGE AND DRAINAGE FACILITIES ON AND WITHIN 120 METRES OF THE SITE
DRAINAGE COURSES ON THE SITE ARE SHOWN ON PAGE 1.

1.1.21 THE LOCATION AND TYPE OF EXISTING FENCES ON THE SITE
THERE IS SOME FENCING AT THE ENTRANCE TO THE SITE.

1.1.22 LOCATION OF EXISTING TREE COVER (I.E. WOOD LOTS AND HEDGEROWS) ON THE SITE AND WITHIN 120 METRES OF THE SITE

SHOWN ON PAGE 1 OF 3.

1.1.23 LOCATION OF EXISTING STOCKPILES OF TOPSOIL AND OVERBURDEN ON THE SITE

NONE
1.1.24 LOCATION OF EXISTING AGGREGATE STOCKPILES, INCLUDING ANY RECYCLABLE MATERIALS ON THE SITE

NONE 1.1.25 EXISTING SCRAP LOCATION(S) ON THE SITE

NONE
1.1.26 EXISTING FUEL STORAGE AREA(S) ON THE SITE

NONE 1.1.27 SIGNIFICANT NATURAL FEATURES ON AND WITHIN 120 METRES OF THE SITE

SEE PLAN.

1.1.28 SIGNIFICANT MAN-MADE FEATURES ON AND WITHIN 120 METRES OF THE SITE

AS SHOWN ON PLAN.

1.1.29 ALL EXISTING EXCAVATION FACES AND REHABILITATED AREAS

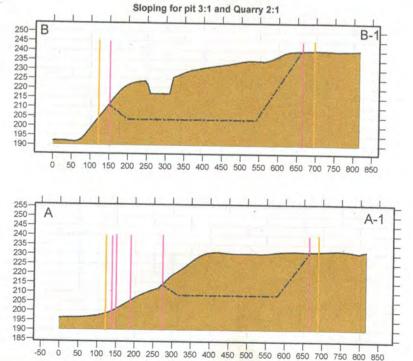
SHOWN ON PAGE 1 OF 3.

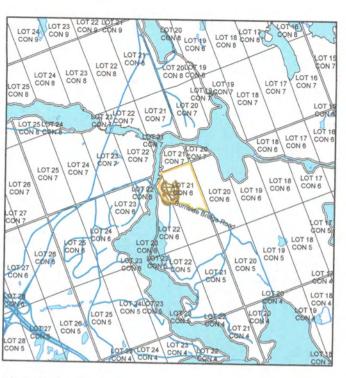
1.1.30 LOCATION OF EXISTING PROCESSING AREA(S) AND WHETHER OR NOT THE EQUIPMENT IS STATIONARY AND/OR PORTABLE PROCESSING IS NORMALLY CONFINED TO THE FLOOR OF THE PIT/QUARRY/STOCKPILE AREA. ALL EXISTING EQUIPMENT USED IS PORTABLE.

1.1.31 LOCATION OF EXISTING BERMS AND THEIR HEIGHT

NONE
1.1.32 LOCATION OF CROSS-SECTION(S)
TWO CROSS SECTIONS ARE SHOWN ON PAGE 1.

**Cross Sections** 



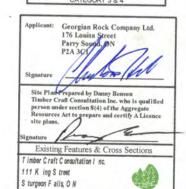


1:50,000



PART LOT 21 & 22 CONCESSION 6

DECLARATION OF PURPOSE
THIS SITE PLAN IS PREPARED UNDER
THE AGGREGATE RESOURCES ACT
FOR A CLASS 'A' LICENCE,



P2B 1P9

T el: (705) 753-6743

Cell: (705) 471-6570



### **APPROVED** 1:5,000 Dec.11, 2013 Aggregate Inspector Date Ontario Ministry of Natural Resources 600 Meters 0 150 300

# Operational Plan

#### 1.2 OPERATIONS NOTES

1.2.1 SEQUENCE AND DIRECTION OF THE PIT AND QUARRY DEVELOPMENT

THE QUARRY/PIT WILL CONTINUE TO BE DEVELOPED IN THE SAME DIRECTIONS THAT HAS BEEN WORKED TO DATE. EXTRACTION WILL CONTINUE AS INDICATED IN ON THE PLAN IN THREE PHASES THROUGH TO THE LIMIT OF EXTRACTION. DUE TO THE VARIABILITY OF THE MATERIAL AND THE MARKET DEMAND, THE LICENSEE MAY NEED TO OPERATE IN SEVERAL PHASES AT ONE TIME. WHEN THE QUALITY OF THE MATERIAL DOES NOT MEET THE OPERATOR'S MARKET REQUIREMENTS, THE HORIZONTAL EXTENT OR DEPTH OF EXTRACTION MAY BE REDUCED. ACCESS TO PHASE 3 WILL BE VIA A DEEDED ROAD TO BE CONSTRUCTED ACROSS THE INTERMITTENT STREAM. A CULVERT WILL BE INSTALLED.

1.2.2 DETAILS OF HOW STRIPPING AND STOCKPILING OF TOPSOIL AND OVERBURDEN WILL BE DEALT WITH

TREES WILL BE HARVESTED AND ALL REMAINING STUMPS WILL BE REMOVED AND PLACED IN A STOCKPILE FOR FUTURE USE IN SITE REHABILITATION. ALL REMAINING TOPSOIL AND OVERBURDEN WILL BE STRIPPED AND STOCKPILED TOGETHER, BUT SEPARATELY FROM THE WOODY MATERIALS, IN A LOCATION FOR FUTURE PROCESSING. NO TREE

REMOVAL SHALL OCCUP IN THE EXCAVATION SETBACK AREAS.

1.2.3 MAXIMUM NUMBER OF LIFTS AND MAXIMUM HEIGHT OF LIFTS

THE NATURE OF EXTRACTION IS SUCH THAT THERE COULD BE SEVERAL LIFTS AT ANY GIVEN TIME. HEIGHTS OF EACH LIFT IN THE QUARRY WILL GENERALLY BE DEPENDANT ON THE HEIGHT OF THE OUTCROPS. MAXIMUM HEIGHTS WILL BE GOVERNED BY THE OCCUPATIONAL HEALTH AND SAFETY ACT.

1.2.4 MAIN INTERNAL HAUL ROADS ON THE SITE INTERNAL ROADS ARE TEMPORARY AND WILL BE MOVED AS NEED ARISES

INTERNAL ROADS ARE TEMPORARY AND WILL BE MOVED AS NEED ARISES.

1.2.5 LOCATION OF EVERY PROPOSED ENTRANCE TO AND EXIT FROM THE SITE

AS SHOWN ON PLAN (THERE IS ONE).

1.2.6 ELEVATION OF ESTABLISHED GROUNDWATER TABLE OR PROVIDE INFORMATION THAT FINAL DEPTH OF EXTRACTION IS AT LEAST 2 METRES ABOVE THE ESTABLISHED WATER TABLE

THE GROUNDWATER TABLES IN THE SURFICIAL MATERIAL AND IN THE BEDROCK HAVE NOT BEEN ESTABLISHED. THE FINAL DEPTH OF THE QUARRY (214 M.) AND THE FINAL DEPTH OF THE PIT ( 204 M.) SHALL BE THE DEPTHS AS OF JANUARY 1, 2007.

1.2.7 ANY PROPOSED WATER DIVERSION AND POINTS OF DISCHARGE TO SURFACE WATER

1.2.8 LOCATION, TYPE AND INSTALLATION SCHEDULE OR PHASING FOR ANY PROPOSED FENCING AROUND THE LICENSED

BOUNDARY OF THE SITE

BOUNDARIES THAT ARE NOT FENCED SHALL BE CLEARLY IDENTIFIED SUCH THAT THEY ARE EASY TO FOLLOW. FROM

ANY ONE MARK, THE MARK AHEAD AND THE ONE BEHIND SHOULD BE CLEARLY VISIBLE.

1.2.9 LOCATION OF ANY PROPOSED BUILDINGS AND OTHER STRUCTURES TO BE ERECTED ON SITE
PIT PRIVIES AND PORTABLE TRAILERS ARE LOCATED ON THE SITE FOR WORKERS, AS REQUIRED BY MINISTRY OF
LABOUR REQUIREMENTS AND WILL BE LOCATED SO AS NOT TO IMPACT EXTRACTION AND SO THAT THEY DO NOT VIOLATE THE OPERATIONAL STANDARDS

1.2.10 LOCATION OF ANY PROPOSED STOCKPILES OF TOPSOIL AND OVERBURDEN ON SITE

STOCKPILES WILL BE ESTABLISHED IN VARIOUS LOCATIONS, HOWEVER THEY WILL BE LOCATED IN ACCORDANCE WITH THE OPERATIONAL STANDARDS

1.2.11 LOCATION OF ANY PROPOSED AGGREGATE STOCKPILE AREA(S), INCLUDING ANY RECYCLABLE MATERIALS ON SITE STOCKPILES WILL LOCATED THROUGHOUT THE SITE TO FACILITATE SORTING OF THE VARIOUS PRODUCTS. RECYCLABLE ADHERE TO POLICY A.R. 5.00.15.

Any rebar and other structural metal must be removed from the recycled material during processing and placed in a designated scrap pile which will be removed on an ongoing basis. Removal of recycled aggregate is to be ongoing.

Once the aggregate on the site has been depleted there will be no further importation of recyclable materials permitted.

Once the final rehabilitation has been completed and approved in accordance with the site plan, all recycling operations must

AUXILLARY USES OF THE SITE

Aggregate products from offsite may be imported and temporarily stored in an active area on the quarry floor for the purpose of resale and/or blending with on site material.

1.2.12 ANY PROPOSED SCRAP LOCATION (S) ON SITE

1.2.12 ANY PROPOSED SCRAP LOCATION (S) ON SITE
SCRAP FOUND ON THE SITE WILL BE COLLECTED PERIODICALLY AND REMOVED FROM THE SITE AT LEAST ANNUALLY. A
SCRAP LOCATION IS SHOWN ON PAGE 2 OF 3.

1.2.13 LOCATION OF ANY PROPOSED FUEL STORAGE AREA(S) ON SITE
TEMPORARY PORTABLE FUEL STORAGE WILL BE LOCATED ON THE SITE AND MAY BE MOVED TO VARIOUS LOCATIONS TO
FACITATE FUELING AND EXTRACTION. A SPILLS PLAN WILL BE DEVELOPED PRIOR TO ANY FUEL STORAGE OR

1.2.14 AREA IN HECTARES TO BE EXTRACTED

14.50 HECTARES WILL BE EXCAVATED.

1.2.15 LOCATION AND LABELLING OF ALL EXCAVATION SETBACKS FROM THE LICENSED BOUNDARY

SHOWN ON PAGE 1 OF 3. IN THE AREA THAT HAS BEEN PREVIOUSLY EXCAVATED WITHIN THE SETBACK AND/OR OUTSIDE

THE LICENCE BOUNDARY, STAKES WILL BE INSTALLED TO DEFINE THE EXTRACTION BOUNDARY TO ENSURE THAT NO FURTHER EXTRACTION OCCURS OUTSIDE THE LICENCE BOUNDARY OR WITHIN THE SETBACKS.

1.2.16 FINAL EXTRACTION ELEVATION OF THE SITE USING SPOT ELEVATIONS

1.2.17 LOCATION OF ANY PROPOSED PERMANENT AND/OR TEMPORARY PROCESSING AREA(S) ON SITE
PROCESSING AREAS WILL NORMALLY BE RESTRICTED TO THE PIT/QUARRY/STOCKPILE AREA. EQUIPMENT WILL BE
PORTABLE AND OF A TEMPORARY NATURE, ALTHOUGH SOME EQUIPMENT MAY BE ESTABLISHED PERMANENTLY IN THE

1.2.18 LOCATION OF ANY PROPOSED BERMS AND THE MINIMUM HEIGHT

1.2.19 DETAILS ON HOW BERMS WILL BE VEGETATED AND MAINTAINED

N/A

1.2.20 GENERAL TYPES OF EQUIPMENT THAT WILL NORMALLY BE USED ON SITE

EQUIPMENT USED ON THE SITE WILL INCLUDE AIR TRACK DRILLS, SCALES, SCREENING PLANTS, CRUSHERS, ASPHALT
PLANT, CONCRETE PLANT, BOOM TRUCKS, FORK LIFTS, GENERATORS, LOADERS, EXCAVATORS, BULLDOZERS,
BACKHOES, AND OTHER EXCAVATION EQUIPMENT AND A VARIETY OF TRUCKS. A CERTIFICATE OF APPROVAL IS
REQUIRED FROM MOE FOR PORTABLE ASPHALT PLANTS AND CONCRETE PLANTS OPERATING ABOVE GRADE. AND NUMBER OF APPROVAL AS PER PRS. 2065

1.2.21 LOCATION, DESIGN AND PHASING OF ANY PROPOSED TREE SCREENS AND WHETHER DECIDIOUS, CONIFEROUS OR BOTH

1.2.22 DETAILS ON HOURS OF OPERATION OF THE SITE TAKING INTO ACCOUNT ALL FACETS OF THE OPERATION WHICH INVOLVES

1.2.22 DETAILS ON HOURS OF OPERATION OF THE SITE TAKING INTO ACCOUNT ALL FACETS OF THE OPERATION WHICH INVOLVES THE ACTUAL PHYSICAL MOVEMENT OF AGGREGATE

HOURS WILL BE 7 AM TO 7 PM MONDAY TO SATURDAY, EXCLUDING STATUTORY HOLIDAYS. EMERGENCY WORK MAY REQUIRE LOADING AND HAULING OUTSIDE OF THE NORMAL WORK HOURS.

1.2.23 DETAILS ON HOW TREES AND STUMPS SHALL BE DISPOSED OF OR UTILIZED

TREES WILL BE HARVESTED AND ALL REMAINING STUMPS WILL BE REMOVED AND PLACED IN A STOCKPILE FOR FUTURE USE IN SITE REHABILITATION. ALL REMAINING TOPSOIL AND OVERBURDEN WILL BE STRIPPED AND STOCKPILED TOGETHER, BUT SEPARATELY FROM THE WOODY MATERIALS, IN A LOCATION FOR FUTURE PROCESSING. NO TREE PROMOVAL SHALL OCCUBIN THE EVALUATION SETBACK ADEAS.

REMOVAL SHALL OCCUR IN THE EXCAVATION SETBACK AREAS

1.2.24 LOCATION OF CROSS-SECTION(S)

TWO SECTIONS RUN THROUGH THE SITE; ONE EASTWEST AND ONE NORTH/SOUTH.

1.2.25 A SECTION TO RECORD ANY VARIATIONS FROM THE OPERATIONAL STANDARDS THAT RELATE TO THE SITE

LICENSED BOUNDARIES WILL NOT BE FENCED. (5.1)

TOPSOIL ANDS OVERBURDEN MAY BE STOCKPILED TOGETHER (5.6)
THERE HAS BEEN EXTRACTION INTO THE SETBACK ALONG THE SOUTH BOUNDARY. THE LICENSEE IS ATTEMPTING TO OBTAIN COMMON BOUNDARY AGREEMENTS FOR THE SOUTH AND EAST BOUNDARIES SO AS TO ELIMINATE THE SETBACKS. (5.10)

EXISTING SLOPE WITHIN THE SOUTH SETBACK WILL BE LEFT AS IS. (5.19).

BLASTING WILL BE CONDUCTED PERIODICALLY AS NEED FOR QUARRIED STONE ARISES. THERE WILL BE NO BLASTING ON A HOLIDAY OR BETWEEN 6 PM ON ANY DAY AND 8 AM ON THE FOLLOWING DAY.

1.2.27 A STATEMENT TO INDICATE THE MAXIMUM NUMBER OF TONNES OF AGGREGATE TO BE REMOVED FROM THE SITE IN ANY CALENDAR YEAR

1.2.28 ANY RECOMMENDATIONS AND/OR MONITORING PROGRAM(S) IDENTIFIED IN THE TECHNICAL REPORTS.

		SCHEDULE OF AMENDMENT	S
VO.	DATE	DESCRIPTION	APPROVED
1			
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_			-
-	-		
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	Legend	
1	120m Information Area	
	Licence Boundary	
	Extractable Area	
	Corner Posts	
	Quarry Face	
	Phasing Quarry	
	Pit Face	
	Phasing pit	
	Entrance/ Exit	
1	Proposed Culvert	
	Proposed Entrance/Exit	
	Natural Water Drainage	
	⊢ Gate	
	Spot Elevations	
	Residential Buildings	
	Proposed Scrap Pile	
	Cross Section Line A-A1	
	Cross Section Line B-B1	
	· — · Utility Line	
	Municipal_Roads	
1	Existing Internal Roads	
	X— Fences	
	Lots/Concessions	
	- Streams	
	Lakes	
1	Forested Areas Operational	

PART LOT 21 & 22 CONCESSION 6 TOWNSHIP OF McDOUG

**DECLARATION OF PURPOSE** EGATE RESOURCES ACT FOR A CLASS 'A' LICENCE CATEGORY 3 & 4

SECT. 2.5.5.

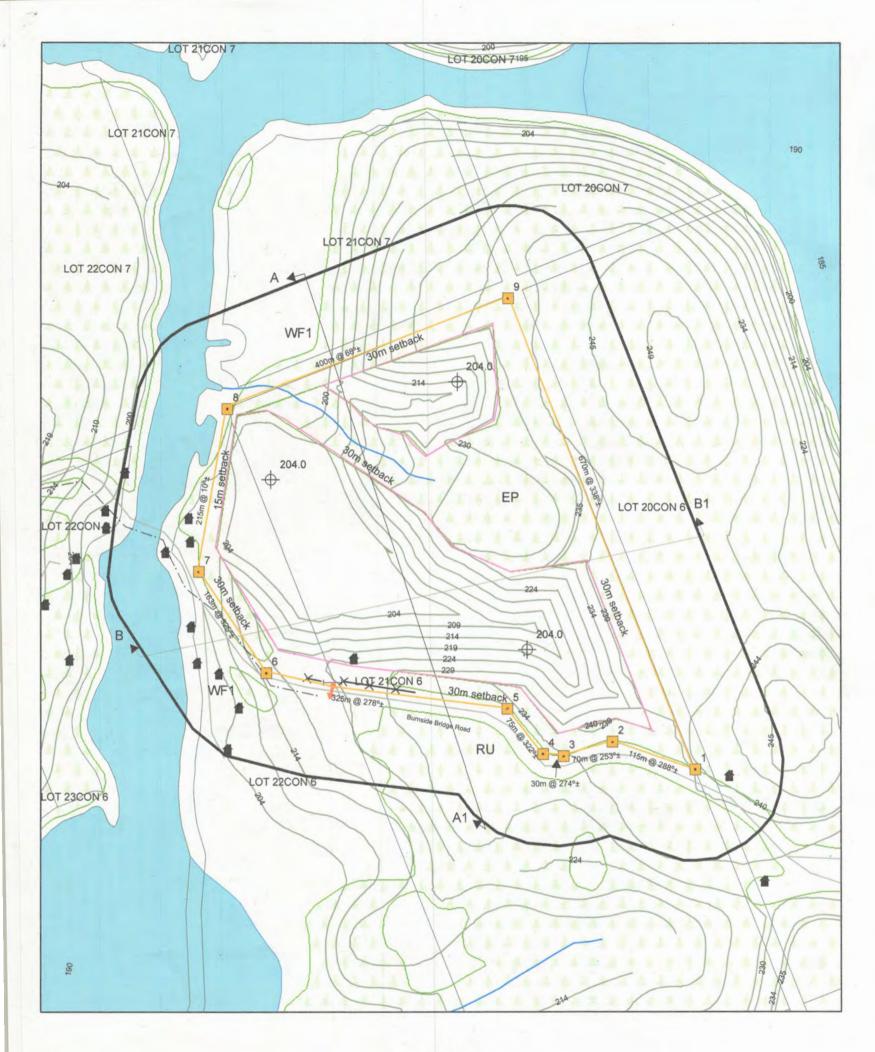
St. Dec. 11, 2013

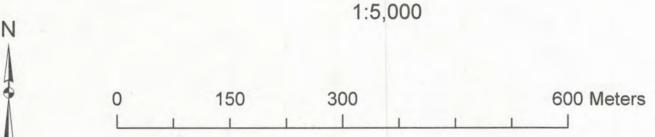
Pac11, 2013

Signature	Georgian Rock Company Ltd. 176 Louisa Street Parry Sound, ON P2A 3C1
Timber ( person u	Prepared by Danny Benson Craft Consultation Inc. who is qualified adder section 8(4) of the Aggregate es Act to prepare and certify site plans.
	Operational Plan

imber Craft Consultation I no 111 K ing S treet S turgeon F alls, O N

T el: (705) 753-6743 Cell: (705) 471-6570





# Rehabilitation Plan

SCHEDULE OF AMENDMENTS				
NO.	DATE	DESCRIPTION	APPROVED	
	-			
-				
			1	
-				

**APPROVED** 

Aggregate Inspector

Dec 11, 2013 Date

Ontario Ministry of Natural Resources

### 1.3 PROGRESSIVE REHABILITATION NOTES

1.3.1 SEQUENCE AND DIRECTION OF PROGRESSIVE REHABILITATION
PROGRESSIVE REHABILITATION WILL OCCUR AS AREAS BECOME DEPLETED OR REACH THE EXCAVATION
LIMIT. THE NATURE OF THE EXCAVATION IS SUCH THAT THERE WILL BE MINIMAL PROGRESSIVE REHABILITAITON, AS EXTRACTION WILL OCCUR THROUGHOUT THE ENTIRE LICENCE AT THE SAME TIME.

1.3.2 DETAILS ON HOW OVERBURDEN AND TOPSOIL WILL BE USED TO FACILITATE PROGRESSIVE REHABILITATION ALL TOPSOIL AND OVERBURDEN WILL BE USED TO REHABILITATE THE SITE. SLOPES CREATED IN THE QUARRY WILL BE AT LEAST 2 HORIZONTAL FOR EACH METRE VERTICAL. SLOPES CREATED IN THE PIT, WILL BE AT LEAST 3 METRES HORIZONTAL FOR EACH METRE VERTICAL. ANY AVAILABLE MATERIAL FROM THE SITE WILL BE UTILIZED TO FILL VOIDS NEAR THE SURFACE. THESE SLOPES WILL THEN BE COVERED WITH TOPSOIL AND OVERBURDEN AND SEEDED. STUMPS AND OTHER WOODY MATERIAL WILL BE SPREAD OVER THE REHABILITATED SLOPE TO DETER UNAUTHORISED RECREATIONAL VEHICLES FROM DISTURBING THE SITE, AND TO CREATE COVER FOR SMALL ANIMALS.

1.3.3 LOCATION, DESIGN AND TYPE OF VEGETATION (E.G. GRASSES, LEGUMES, SHRUBS AND TREES, ETC.) THAT WILL BE ESTABLISHED ON SITE DURING PROGRESSIVE REHABILITATION

THE ENTIRE SITE, OTHER THAN THAT REQUIRED FOR ROADS FOR ACCESS, WILL BE VEGETATED WITH A GRASS/LEGUME SEED MIX OR NATURAL VEGETATION.

1.3.4 HOW THE SLOPE WILL BE ESTABLISHED ON EXCAVATION FACES AND THE PIT/QUARRY FLOOR

DW THE SLOPE WILL BE ESTABLISHED ON EXCAVATION FACES AND THE PIT/QUARRY FLOOR

ALL SLOPES WILL BE CREATED USING CUT/FILL OR BACKFILL METHODS, USING CLEAN MATERIAL FROM THE
SITE. BEDROCK AND PIT SLOPES AND FLOORS WILL BE COVERED WITH FILL TO DEVELOP DRAINAGE AND
ROOTING ZONE SUFFICIENT TO ACCOMMODATE PLANT GROWTH. THE LICENCE BOUNDARIES MUST BE
VISIBLY MARKED. AS EXCAVATION APPROACHES, THE EXCAVATION SETBACK BOUNDARIES WILL ALSO BE VISIBLY MARKED TO TRIGGER SLOPE CONSIDERATIONS AND PREVENT EXCAVATION INTO THE SETBACK

1.3.5 DETAILS ON HOW PROGRESSIVE REHABILITATION WILL BE CONDUCTED IN RELATION TO THE OPERATIONAL

EXCAVATION WILL BE DIRECTED TO FINAL DEPTH AND UPON REACHING EXCAVATION LIMITS, WHERE ROOM PERMITS, AREAS WILL BE PROGRESSIVELY REHABILITATED.

1.3.6 IF PROPOSED, DETAILS ON THE IMPORTATION OF TOPSOIL OR INERT MATERIAL TO FACILITATE REHABILITATION

OF THE SITE

NO MATERIALS WILL BE IMPORTED TO ASSIST IN SITE REHABILITATION.

### 1.4 FINAL REHABILITATION NOTES

1.4.1 IF PROPOSED, DETAILS ON THE IMPORTATION OF TOPSOIL OR INERT MATERIAL TO FACILITATE REHABILITATION OF THE SITE

NO MATERIALS WILL BE IMPORTED FOR SITE REHABILITATION

1.4.2 HOW FINAL SLOPES WILL BE ESTABLISHED ON ALL EXCAVATION FACES AND THE QUARRY FLOOR
ALL SLOPES WILL BE CREATED USING CUT/FILL OR BACKFILL METHODS, USING CLEAN MATERIAL FROM THE

SITE

1.4.3 LOCATION, DESIGN AND TYPE OF VEGETATION (E.G. GRASSES, LEGUMES, SHRUBS, AND TREES, ETC.) THAT

WILL BE STABLISHED ON SITE DURING FINAL REHABILITATION

THE ENTIRE SITE, OTHER THAN THAT REQUIRED FOR ROADS FOR ACCESS, WILL BE VEGETATED WITH A

GRASS/LEGUME SEED MIX OR A NATURAL VEGETATION.

1.4.4 ANY BUILDING(S) OR STRUCTURE(S) TO REMAIN ON THE SITE

EXISTING AND PROPOSED BUILDINGS MAY REMAIN ON THE SITE AFTER LICENCE SURRENDER.

1.4.5 ANY INTERNAL HAUL ROADS THAT WILL REMAIN ON THE SITE

1.4.5 ANY INTERNAL HAUL ROADS THAT WILL REMAIN ON THE SITE

SOME ROADS FOR ACCESS WILL REMAIN.

1.4.6 FINAL SURFACE WATER DRAINAGE AND DRAINAGE FACILITIES ON THE SITE

DRAINAGE WILL BE BY PERCOLATION, EVAPORATION AND RUNOFF, FOLLOWING EXISTING PATTERNS.

(REFER TO THE PLAN). IN ORDER TO ALLEVIATE COMPACTION, THE PIT FLOOR WILL NEED TO BE RIPPED AND/OR TILLED TO ALLOW FOR GREATER INFILTRATION.

1.4.7 FINAL ELEVATIONS OF REHABILITATED AREAS OF THE SITE ILLUSTRATED BY A ONE OR TWO METRE CONTOUR INTERVAL, EXPRESSED AS METRES ABOVE MEAN SEA LEVEL.

REFER TO THE PLAN

1.4.8 LOCATION OF CROSS-SECTION(S)
TWO CROSS-SECTIONS ARE SHOWN ON THE PLAN.

### 1.5 CROSS-SECTIONS

1.5.1 ONE OR MORE CROSS-SECTIONS OF EXISTING CONDITIONS AND THE REHABILITATION OF THE SITE

TWO CROSS-SECTIONS A-A1 AND B-B1 RUN THROUGH THE SITE.

1.5.2 THE ELEVATION OF THE ESTABLISHED GROUNDWATER TABLE, OR SHOW THAT EXTRACTION WILL REMAIN AT LEAST 1.5/2.0 METRES ABOVE THE ESTABLISHED GROUNDWATER TABLE.

THE FINAL DEPTH OF THE QUARRY (214 M.) AND THE FINAL DEPTH OF THE PIT (204 M.) SHALL BE THE DEPTHS AS OF JANUARY 1, 2007.

AS OF JANUARY 1, 2007.

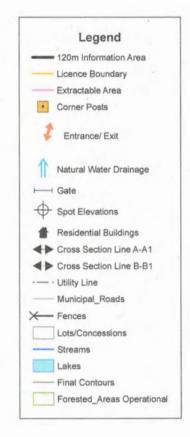
1.5.3 FINAL SLOPE GRADIENT THAT WILL BE ESTABLISHED

SLOPE GRADIENTS WILL BE 2:1 FOR THE QUARRY AND 3:1 FOR THE PIT.

1.5.4 CROSS-SECTION OF A TYPICAL BERM DESIGN THAT WILL BE CONSTRUCTED ON SITE NO BERMS ARE PROPOSED

1.5.5 APPROPRIATE HORIZONTAL AND VERTICAL SCALES

SEE CROSS SECTION



PART LOT 21 & 22 CONCESSION 6 TOWNSHIP OF McDOUG

DECLARATION OF PURPOSE THIS SITE PLAN IS PREPARED UNDEF THE AGGREGATE RESOURCES ACT



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