Tel: (734) 241-8966
Fax: (734) 241-3636
15203 South Telegraph Road
Monroe, Michigan 48161
www.stoneco.net

Michigan Materials & Aggregate Co
Stoneco of Michigan, Sharon Township, Manchester Pit

Application for Special Land Use Approval
For Extraction of Natural Resources
Demonstration of No Very Serious Consequences

September 2022

Natural Resources Management, LLC

7901 Sylvania Avenue
Sylvania, Ohio 43560
Local 419-841-3232
Fax 419-882-8772

September 29, 2022

Sharon Township
18010 Pleasant Lake Rd.
Manchester, Michigan 48158

Attention: Township Clerk – Ms. Michelle Mrocko

Reference: Michigan Material & Aggregates Co
Stoneco of Michigan, Sharon Township, Manchester Pit
Special Land Use Approval for Extraction of Natural Resources Application

Natural Resources Management, LLC (NRM) has prepared the following application to sufficiently address all items within Sharon Township's Application for Special Land Use (SLU) Approval for Extraction of Natural Resources dated June 12, 2022.

The SLU application wording in the narrative is presented in black text *italic* print. The response we prepared for each item is presented in red text. All Site Plans are printed on 24-inch x 36-inch paper at a scale of no more than 1-inch equals 200 feet, unless otherwise noted.

Along with this cover letter, we have enclosed the following:

- 5 hard copies of the application narrative and site plans
- 2 USB flash drives containing digital copies of the application

An escrow check #333095 from Stoneco of Michigan was sent September 19, 2022 to the township office to cover the application review fee referenced in the Sharon Township Zoning Ordinance Section 5.12.F. If you have any questions, please contact Austin Fisher (Stoneco) at (734) 241-8966 or Chip Tokar (NRM) at 419-841-3232.

Sincerely,

Chip Tokar, CPG
Natural Resources Management, LLC

cc: Mr. Austin Fisher – Stoneco of Michigan

Michigan Material & Aggregate Co.
Manchester Pit
Narrative For Special Land Use Application
September 29, 2022

Table of Contents:

SHARON TOWNSHIP
APPLICATION FOR SPECIAL LAND USE APPROVAL
FOR EXTRACTION OF NATURAL RESOURCES

Name of Proposed Development: Stoneco of Michigan – Manchester Pit

General Location of Property: 19024 Pleasant Lake Road, Sharon Township, Washtenaw County, Michigan

Present Zoning Classification: A-1 General Agriculture

Legal Description – Please attach complete metes and bounds description and a boundary map.
See Appendix A for the metes and bounds description and boundary map dated August 12, 2020.

Applicant's Name: Stoneco of Michigan

Name and phone of contact person for the Operator of the proposed site, as well as Applicant (if applicable)
Name: Austin Fisher (Stoneco of Michigan)
Phone: (734) 241-8966
Address: 15203 South Telegraph Road
City: Monroe *State:* Michigan
zip code: 48161
Phone: (734) 241-8966 *e-mail:* austin.fisher@mipmc.com

Sole Legal owner of possessory interest in the property? *X Yes* *• No*
- if 'no' provide the same information required for the applicant.
Stoneco is the sole legal owner of the property.

Please confirm the extent of "need" for the natural resources proposed to be extracted on the property, as determined by the Township Board in Part I of the application review proceedings under Section 5.12.c of the Sharon Township Zoning Ordinance:
During the Sharon Township Board Meeting on June 2, 2022 the Board voted and passed the Supervisor's motion that the extent of "need" for the natural resources proposed to be extracted was satisfied. Although the Board found merely that the need was "low to moderate, Stoneco strongly disagrees with this characterization, as this pit is absolutely necessary to replace two existing operations that will soon be depleted. These existing operations have consistently produced approximately 1.5 million tons of aggregate per year, which is absolutely critical to Stoneco's business, and to the public interest in obtaining aggregate construction materials. See Appendix A for a copy of the Township Board-approved meeting minutes.

A. PROVIDE BACKGROUND DATA.

1. A detailed topographic map and aerial photos showing the property and adjacent areas within 5,280 feet of the boundaries of the site.

See Sheet 7 for the topographic map and aerial within 5,280 feet of the subject property boundary. In order to map the required 5,280 feet from the subject property boundary, this site plan is mapped using a scale of 1inch = 600 feet.

2. Detailed site engineering plan, drawn at a scale of at least one (1) inch equals two hundred (200) feet which:

See Sheets 3, 3A, and 3B for the Detailed Mining Plan.

a. identifies the general location of each type of natural resource material to be removed and/or transported from the site, including whether silica dust is likely to be produced as part of some or all of the operation;

The natural resource proposed to be mined on the subject property is a mixture of sand and gravel. Samples were obtained from the site identifying the average make-up of the excavated material will be approximately 15% gravel (G > 3/8"), 65% sand (3/8 > S > #50/.3mm), and 20% fines (#50/.3mm > F). This composition of the in-situ material will allow for the creation of numerous end-use products such as Michigan Department of Transportation (MDOT) Class 1, MDOT Class 2, MDOT Class 2, MDOT Class 2aa, MDOT Class 3, MDOT Class 3a, MDOT 2NS, 34R (pea stone), 22a, 23a, asphalt splits, and various other commercial aggregate products.

A general permit to install (PTI) will be issued by the Michigan Department of Environment, Great Lakes and Energy Air Quality Division (EGLE-AQD) and will require the proposed facility to operate in accordance with the fugitive dust control plan specified in the permit. Stoneco will use water to mitigate any fugitive dust that may be generated during operations. This will include water trucks to apply water to ground surfaces and other water application measures as necessary. While minor amounts of visible emissions may be generated during operations during very dry conditions, Stoneco will augment its water applications as necessary during these periods. Visual emissions will not exceed the permit requirements and because the operations are conducted at a distance over 250-feet from the property boundaries and 500-feet from any residential dwelling, as required in the Sharon Township Mineral Extraction Ordinance (Mineral Extraction Ordinance).

Stoneco's intent is to move the Zeeb Road processing plant to the proposed subject property to this SLU application. Dust (particulate matter [PM]) and respirable silica concentrations were monitored at the Stoneco Zeeb Road sand and gravel mining operation located in Lodi Township, Washtenaw County Michigan during operations at two different times during July and August of 2022, but total PM, respirable dust and respirable silica concentrations were not detected above the laboratory detection limits. A detailed description of the sampling and

analysis along with a summary of the findings are presented in the Noise, Dust, and Fumes Evaluation in Appendix B.

Based upon the observations and sample analyses presented in this report, the concentrations of total particulate matter (dust), respirable dust, and respirable silica concentrations were not detected above the laboratory detection limits at the site boundary or adjacent to the truck entrance.

It is our professional opinion, that operations conducted in accordance with EGLE-AQD PTI and the fugitive dust control plan, will not result in any adverse impact on existing ambient air conditions at the property boundary or near the truck entrance as they relate to the particulate matter and respirable silica content beyond the site boundaries.

b. indicates the specific places on the property where the fill (redistributed material) is to be placed;

Fill will be redistributed by creating earthen berms and incorporated into the reclamation grading. These locations are shown on Sheets 3, 3A and 3B of the Site Plans.

c. indicates the maintenance areas, location of processing plant(s), storm drainage design including off- site ditch and drain elevations, and truck stacking and loading area;

See Sheets 6A and 6B for the Soil Erosion and Sediment Control Plan (SESC) Plan that indicates the above-referenced areas and drainage design for the subject property. Once Stoneco receives Township approval of the project, an application will be submitted for the Washtenaw County SESC and Michigan EGLE Permits. The subject property will be graded to direct all stormwater on the subject property into the on-site lakes. Existing surface water drainage will be maintained in any of the areas near the property where earthen berms are located using underdrain tiles. This will ensure that surface water will not inadvertently pond onto adjoining properties, and the surface water hydrology to any wetland areas will be maintained. Maintenance areas will be located adjacent to the plant processing area. Stoneco will submit the SESC plan to the Western Washtenaw Construction Authority upon final Site Plan approval.

d. includes the final grading plan, method of operation (such as wet or dry method), and if wet, the maximum depth to which extraction operations may reach;

The final grading plan is presented on Sheets 4, 4A, and 4B (Reclamation Plan). Dry mining will be completed to the water table and wet mining will be completed to a depth of approximately 50-feet below the water table. The dry excavation method will require the use of the following equipment: dozers, excavators, loaders, water trucks, haul trucks, feed bind, and conveyors. The wet excavation method will require the following equipment: excavators, draglines, dredges, water trucks, haul trucks, loaders, feed bins, and conveyors.

e. identifies the location of all areas to be used for stockpiling, and the grade of the area situated between the stockpile and adjoining property, including the height of proposed stockpile(s) and the nature of the materials stockpiled;

Material stockpiles will be located by material classification and will be located on the north side of Pleasant Lake Road within the plant processing area. As stated in the Sharon Township Zoning Ordinance (Zoning Ordinance) dated August 8, 2022, Section 5.12.D.4.b(3), stockpiles associated with the mining operations will be no more than 25-feet above the surrounding area grade.

3. The total duration or life of the proposed mining operation. It is recognized that the response to this specification will require assumptions. Therefore, provide an estimate of the shortest duration and longest duration of the mining (not including reclamation).

Trends predicted in the future are speculative; however, the United States Geological Survey predicts that "Long-term increases in construction aggregate demand will be influenced by activity in the public and private construction sectors, as well as by construction work related to security measures being implemented around the Nation. The underlying factors that would support a rise in prices of construction sand and gravel are expected to be present in 2021, especially in and near metropolitan areas."

Stoneco has consistently sold approximately 1.5 million tons per year in this market. Much of this demand is for products used in road building. The proposed operation is intended to replace two existing operations, which produce up to 1.5 million tons per year. With approximately 30 million tons of mineral resources on the property, the expected duration of the proposed extraction on the property is to complete all extraction and sequential reclamation operations in approximately 20 years, but could be longer or shorter depending on actual market conditions.

B. ATTACH A MINING USE PLAN AND ASSOCIATED MATERIALS, prepared by a licensed professional civil engineer, or comparable professional, including

1. A detailed plan for the property which is the subject of the application.

This property will be a mining operation that will remove the sand and gravel from three mining cells to create three permanent lakes. Dry excavation and wet excavation below the water table will be completed. The setback distance from the existing natural gas pipelines are subject to change based on the finalized pipeline easement area. The dry excavation method will require the use of the following equipment: dozers, excavators, loaders, water trucks, haul trucks, feed bind, and conveyors. The wet excavation method will require the following equipment: excavators, draglines, dredges, water trucks, haul trucks, loaders, feed bins, and conveyors. No wet mining will exceed more than 50-feet below the water table.

The specific mining plans, reclamation plans and cross sections are presented on Site Plan Sheets: 3, 3A, 3B (Mining Plan), 4, 4A, 4B (Reclamation Plan), 5A, 5B, and 5C (Cross Sections). These sheets present the topographic contours, proposed lake elevations and details of the site features including plans for soil erosion and control. The maximum depth of each lake will not exceed 50-feet as indicated in the requirements of the Zoning Ordinance Article 2 Mineral Extraction (Mineral Extraction Ordinance) Section 2.9.d.

All slopes on the property will be stabilized using creeping red fescue and/or perennial ryegrass or equivalent mixture, based on Michigan EGLE suggested mixture for well and moderately well-drained sand and loamy sand (coarse textured soils). Straw or alternate mulching material will be used after seeding to protect soils from the impact of falling rain, preserve soil moisture and protect germinating seeds.

2. *The location, setbacks from public roadways and adjoining property lines, area, height, and all intended functions, for and of buildings, structures, improvements, general operational plan, including without limitation, conveyor, all crushers, stockpile area, storage of overburden, truck loading, wash plant and water supply for such plant, and other features on the subject property, and the location, materials, and height of all berms intended to provide a screen of the noise, dust, appearance of all aspects and operations on the property from residences and adjoining roads.*

All setbacks for the mining components referenced above are presented in Sheets 3, 3A, and 3B. As stated in the Zoning Ordinance, Section 5.12.D.4.b(2), the setback of the mining area from the nearest public roadway or adjoining property line of not less than 200 feet. Mineral Extraction Ordinance Section 2.8.f-g states all fixed machinery, equipment, buildings, extraction, processing, loading, weighing, and stockpiling shall take place closer than 250-feet from any property boundary.

Due to this inconsistency between the Zoning Ordinance and Mineral Extraction Ordinance setbacks, the site plans were created using the 250-foot setback rather than the 200-feet. All of the following minimum setbacks of equipment used for screening and crushing are as follows:

- 150 feet from the perimeter of the site to internal roads.
- 200 feet from the nearest adjoining non-residential property line, and 400 feet from the nearest residential property line.
- 300 feet from the nearest public roadway.
- 500 feet from the nearest residential dwelling on adjacent property as of the date of submission of the plan for extraction.

The material processing plant will initially be located in Cell 3 on the subject property. A fence surrounding the mining area on the subject property will be a minimum of 6 feet tall with

"danger keep out" signs posted every 200 feet at a minimum. The berms depicted in Sheets 3, 3A, 3B, 6A and 6B will be a minimum height of 6 feet taller than the centerline of Pleasant Lake Road or an improved property line.

3. A description of processing activities, including, but shall not limited to, washing, screening, transporting, crushing, and blending of stone, sand, gravel, and other materials. In describing the wash plant, the design and other specifications, including depth and water transportation facilities, and the amount, depth and source of water to be utilized in processing, and the anticipated means and location of disbursement of such water following use.

Mineral processing is likely in the form of an active mining face and a processing plant with the ability to switch between multiple modes to allow for a variety of products to be made while minimizing the amount of equipment required. The two primary types of modes will be sand processing and stone processing.

The active mining face will consist of both dry and wet excavation. The dry excavation method will require the use of the following equipment: dozers, excavators, loaders, water trucks, haul trucks, feed bins, and conveyors. The wet excavation method will require the following equipment: excavators, draglines, dredges, water trucks, haul trucks, loaders, feed bins, and conveyors. No wet mining will exceed 50 feet below the groundwater table.

Sand processing will be fed by the conveyors that move material from the active face to the plant. The plant will then screen, sort, wash and blend material to make salable products. The washing portion of the plant will have waters supplied from a freshwater pond on site near the plant, and process water will be sent to a slurry or settling pond to settle out. All water will be transported using pumps, see Mining Plan Sheet: 3, 3A, and 3B for additional details.

Stone processing will utilize the same techniques as sand processing but will also include crushing. The stone processing mode will be fed from a surge pile screened from the sand processing mode.

4. Each type and location of machinery and equipment to be used, including whether the applicant proposes to create one or more permanent water bodies on the property, and whether a dredging operation may be used. Include:

Stoneco will create three permanent lakes ranging in size from 32.2 acres to 99.1 acres. The property section north of Pleasant Lake Road will contain two permanent lakes, 38.4 acres and 32.2 acres in size. The property section located south of Pleasant Lake Road will contain one lake, 99.1 acres in size. The excavation methods will require the use of the following equipment: dozers, excavators, loaders, draglines, dredges, water trucks, haul trucks, loaders, and a processing plant described in Section B.3 of this narrative.

a. The estimated period of time that any such operations will occur each day, week, and month; and

The subject property will follow the operation hours and days listed in the Mineral Extraction Ordinance, Section 2.8 (d). Stoneco will operate between 7:00 a.m. and 6:00 p.m. Monday through Saturday. No operations will be conducted on Sundays or legal holidays.

Production processing will be conducted within an approximate nine-month season. This nine-month season's start and end dates will depend on the weather each year and will generally be between the months of March and November. Sales will be conducted year-round.

b. The projected noise to be generated by each type of machinery and equipment, assuming a measurement would be taken at the property line, taking into consideration any mitigation measures that will be utilized.

The Mineral Extraction Ordinance Section 2.8 (k) sets specific limits of noise generated by the operation shall not at any one time exceed 70 decibels ('a' scale) for a period longer than one (1) minute when measured at the legal boundary. An evaluation of sound pressure levels (SPLs) was conducted at Stoneco's Zeeb Road operation on September 1, 2022, by NRM and compared to the performance standards listed in the Mineral Extraction Ordinance.

One meter was placed on the north side approximately 250 feet from the processing plant area, Station A. Station A was chosen to represent the Sharon Township 250-foot setback from the property line requirement (Mineral Extraction Ordinance Section 2.8 f). The second meter was placed northeast approximately 500 feet from the processing plant area at the entrance/exit driveway to the pit, Station B. Station B was chosen to represent the truck entrance and exit from the pit. The SPLs measured at both stations did not exceed 70dBA for any one-minute increment of time.

A detailed description and map of the sampling and analysis along with a summary of the findings are presented in the Noise, Dust and Fumes Evaluation conducted by NRM dated September 26, 2022 in Appendix B.

5. Location, timing, and other relevant details with respect to the phasing of work on the site.

This mining operation will be removing sand and gravel construction aggregate from all three mining cells. All disturbed areas will be sloped towards the on-site lakes so that all storm water flows will be directed to the proposed on-site lakes. Before placing the aggregate plant on-site, significant site preparation must be completed. Topsoil and overburden will be removed from the proposed aggregate plant and mining locations and then placed in the proposed berms. Berms will be installed in areas to screen the operations from the public roadways and adjoining residences. A fence will be placed around the mining area at a minimum of 6 feet tall with "danger keep out" signs posted every 200 feet at a minimum.

Mining will start in Cell 1 and will progress to Cell 2 and end in Cell 3. All cells will begin as dry mining and switch to wet mining once the groundwater table is encountered. Wet mining will not exceed 50-feet below the groundwater table in accordance with the Mineral Extraction Ordinance. Equipment that may be used for dry mining are dozers, excavators, haul trucks, loaders, feed bins, and conveyors. Wet mining will begin after dry mining is completed in the cell. Equipment that may be used for wet mining are excavators, draglines, dredges, haul trucks, loaders, feed bins, and conveyors.

Cell 1- North Lake: Cell 1 excavation will begin with the creation of a settling pond in the northwest corner and a water supply pond in the southwest corner. The southwest pond will be used to supply the plant with water. Storm water flow and sedimentation during excavation will be directed to the settling pond. Mining will then move from north to south with a dry bench of excavation followed by a drag-line "wet" bench. This cell has approximately 5,167,000cubic yards of minable natural resources and will take approximately 3.5 years.

Cell 2- South Lake: Cell 2 dry mining will be from the south to north and wet mining will continue from south to north. This cell has approximately 20,082,000 cubic yards of minable natural resources and will take approximately 14 years.

Cell 3- Central Lake: Cell 3 dry mining will be from north to south and wet mining will continue from north to south. During the mining of cell 3, the processing plant will be removed and a portable plant will be used to finish aggregate processing. This cell has approximately 6,093,000 cubic yards of a minable natural resource. Cell 3 will take approximately 4 years if the farming structures in the southwest corner of the cell are removed. Cell 3 will take approximately 2.5 years to mine if the farming structures in the southwest corner of the cell remain.

6. Calculations by a Registered Civil Engineer of Land Surveyor specifying, based on best available information,

a. The location and approximate cubic yards of each type of natural resource material to be removed, and

The total natural resource material to be excavated from the e property t is approximately 31,342,000 cubic yards, rounded. The natural resource will be extracted in three cells to create three permanent lakes that are located within the required setbacks to a depth of no more than 50 feet below the groundwater table.

Cell 1, North Lake, has approximately 5,167,000 cubic yards of minable natural resource material.

Cell 2, South Lake, has approximately 20,082,000cubic yards of minable natural resource material.

Cell 3, Central Lake, has approximately 6,093,000 cubic yards of minable natural resource material.

These calculations were completed and compared to Stoneco's calculated volumes and qualified by a certified Professional Engineer in the State of Michigan, Mr. George Oravecz of Oravecz & Associates and a Professional Land Surveyor Mr. Richard Cummins, of Oravecz & Associates, LLC (Appendix E).

b. Detailed statement explaining how the removal is to be accomplished in each area, and the sequence of mining such areas.

The dry excavation method will require the use of the following equipment: dozers, excavators, loaders, haul trucks, feed bind, and conveyors. The wet excavation method will require the following equipment: excavators, draglines, dredges, haul trucks, loaders, feed bins, and conveyors. No wet mining will exceed 50 feet below the groundwater table.

Mining in Cell 1 will begin as dry mining moves from the north to the south. Mining in Cell 2 will begin as dry mining moves from the south to the north. Mining in Cell 3 will begin as dry mining moves from the north to the south. During the wet mining of this cell, the processing plant will be removed and a portable plant will be used to finish the aggregate material processing.

7. An inventory of the following features on and within 1,000 feet of the site and along the haul route that leads to a numbered state route:

Section B.7 (a through d) of the SLU application form:

NRM has completed a comprehensive environmental impact assessment (EIA) for the subject property, properties within 1,000 feet of the subject property and associated haul route (the "Study Area"), and where applicable, the general watershed district. This report is in response to Section B.7 (a through d) as well as section 5.12.D.3 of the Zoning Ordinance. The report provides all the information required in these sections if applicable and contains references and supporting documents for each item. This report is titled Environmental Impact Assessment, dated September 26, 2022, and is provided in Appendix C.

a. A description of the natural features of the area, including topography, drainage, soil type(s), streams, lakes, rivers, floodplains, and regulated wetlands, and the mechanisms proposed to be employed to prevent or mitigate impacts from the operation.

A review of the natural features on and within 1,000 feet of the property and haul route ("Study Area") did not include any lakes, rivers, or mapped floodplains. A map of the natural features is provided below as Figure A. The following natural features were located within the study area:

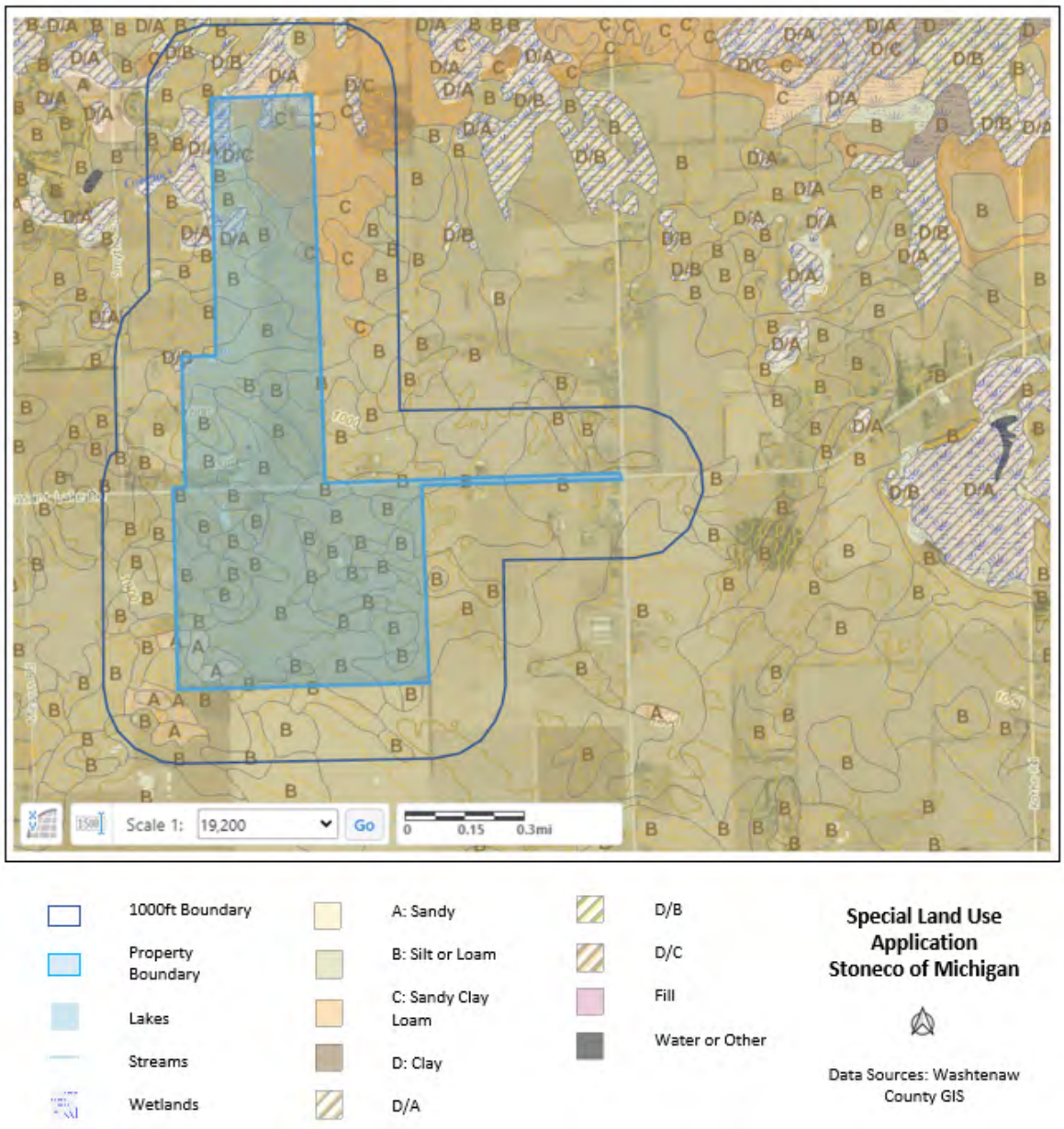


Figure A: Map of Natural Features

Topography - The subject property consists of rolling hills throughout. The elevation of the center and south sections of the property and 1000ft boundary ranges between approximately 980 and 1,010 feet, msl. The north section and southwest corner are respectively lower, with ranges between 950 and 980 feet, msl. See Figure B below.

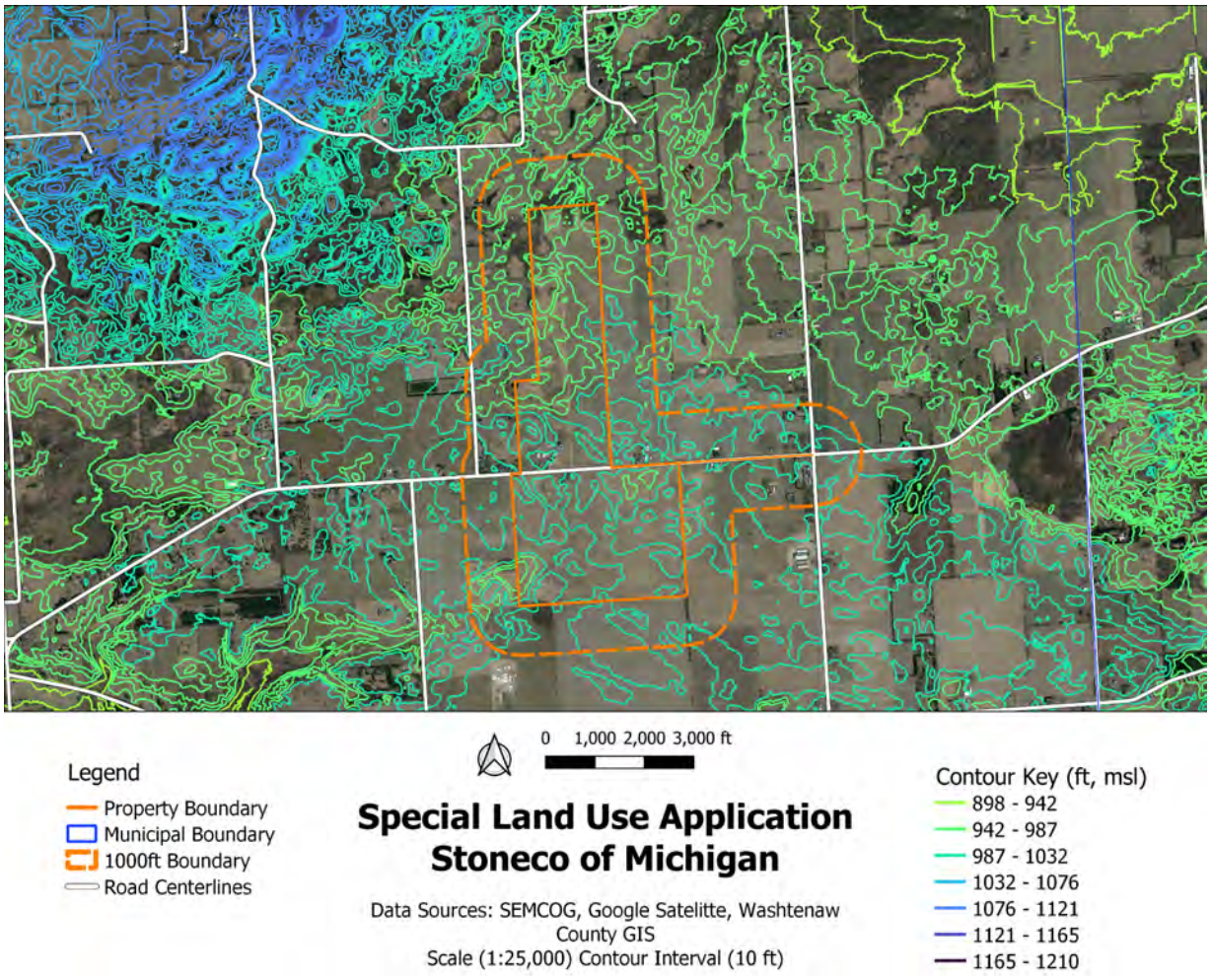


Figure B: Topography Map

Surface Water Drainage - The existing surface water drainage, based on topography is presented in the Comprehensive EIA report. The report shows the direction of surface water drainage based on site topography. Once project development begins, all surface water currently directed to the proposed excavation areas of the property will continue to drain in that direction. Surface water flows near the earthen berms will be facilitated through the installation of underdrains at various locations perpendicular to the berms in order to avoid ponding of water at the toe of the berms or on adjoining property and will be in accordance with EGLE and County SESC requirements. Surface water drainage to the wetland areas will not be restricted and therefore, those areas will not be impacted due to the buffer between the existing stream and wetlands and disturbed areas.

Soil Types - The soil on the property and within 1,000 ft of the property consists primarily of class B (silt or loam) with the exception of the northern portion which includes class C (sandy clay loam) on the eastern corner and D/A (sandy clay) on the western corner. There is also a small section of class A (sandy) soils in the southwest corner. (See Figure 6 of the EIA report). The dominant soil units on the property were identified as the Oshtemo loamy sand (28.2%), the Fox sandy loam (21.9%), Kendallville loam (10.3%), Kidder sandy loam (8.4%) and Morley loam (7.5%) which comprise approximately 76% of the soils covering the site. The remaining areas were mapped by the Natural Resources Conservation Service (NRCS) as minor soil units consisting mainly of sandy loam, loamy sand, muck, loam, clay loam, or complex (23.7%).

Regulated Wetlands, Lakes, and Streams - There are three regulated and three unregulated wetlands scattered throughout the subject property totaling 10.27 acres (Figure C). A full wetland & stream delineation report for the property is available within the EIA in Appendix C. There may be additional wetlands outside of the property boundary however, determining if they are regulated would require a full delineation and review of property not owned or impacted by the applicant. Estimated wetland coverage outside of the boundary can be seen on Figure A. No wetlands or natural features will be impacted and the proposed mitigation is unwarranted at this time.

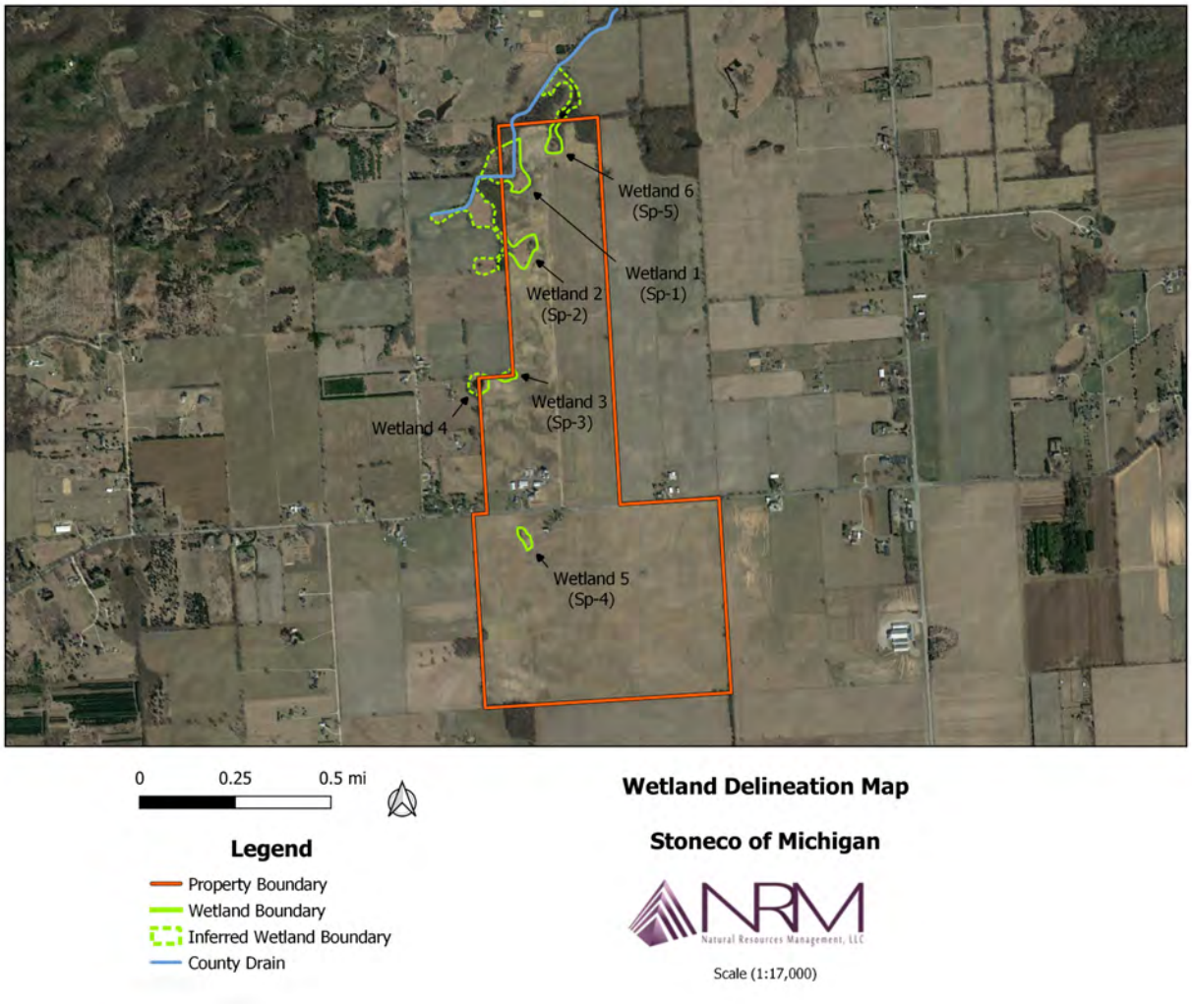


Figure C: Wetland Delineation Map

The northwest corner of the property intersects with the Comstock County Drain and a secondary drain (Drain A) that flows into the Comstock Drain on the property (Figure D). The Comstock Drain is under the Washtenaw County Drain Commission's jurisdiction. No disturbance or improvements to the Comstock Drain or the unnamed tributary to Comstock Drain are proposed. Therefore, there will be no impacts to any streams on or within 1,000 feet within the subject property or haul routes. Details of the stream assessment are presented in the Comprehensive EIA report.

The mechanisms proposed to be employed to prevent or mitigate impacts (if any) are included in the EIA report provided in Appendix C.

b. Description and location of any of the following:
See Figure E for further information.

i. Areas in which there are Residences

Twenty (20) residences were located within the Study Area. See Figure F.

ii. Schools

No schools were located within the Study Area

iii. Nonresidential developments

Four (4) non-residential developments were located within the Study Area. All nonresidential developments are located at the intersection of Pleasant Lake Road and M-52 and consist of one church (Sharon United Methodist Church), one gas station (BP), one airport (Rosettie Airport), and one real estate business (Vereit Real Estate).

iv. Public and private roads

Three (3) public roads and no private roads were located within the Study Area. Pleasant Lake Road is a public road and is located near the center of the subject property and runs east and west. Smythe Road is a public road and is located west of the subject property and runs north to south and intersects with Pleasant Lake Road. M-52 is a public road located east of the subject property and runs north to south and intersects with Pleasant Lake Road.

v. Power lines (underground and overhead) that could be impacted by the operation

Approximately eighty-three (83) powerlines were located within the Study Area and are primarily distributed along the north side of Pleasant Lake Rd. and the east side of M-52.

vi. Pipelines that could be impacted by the operation

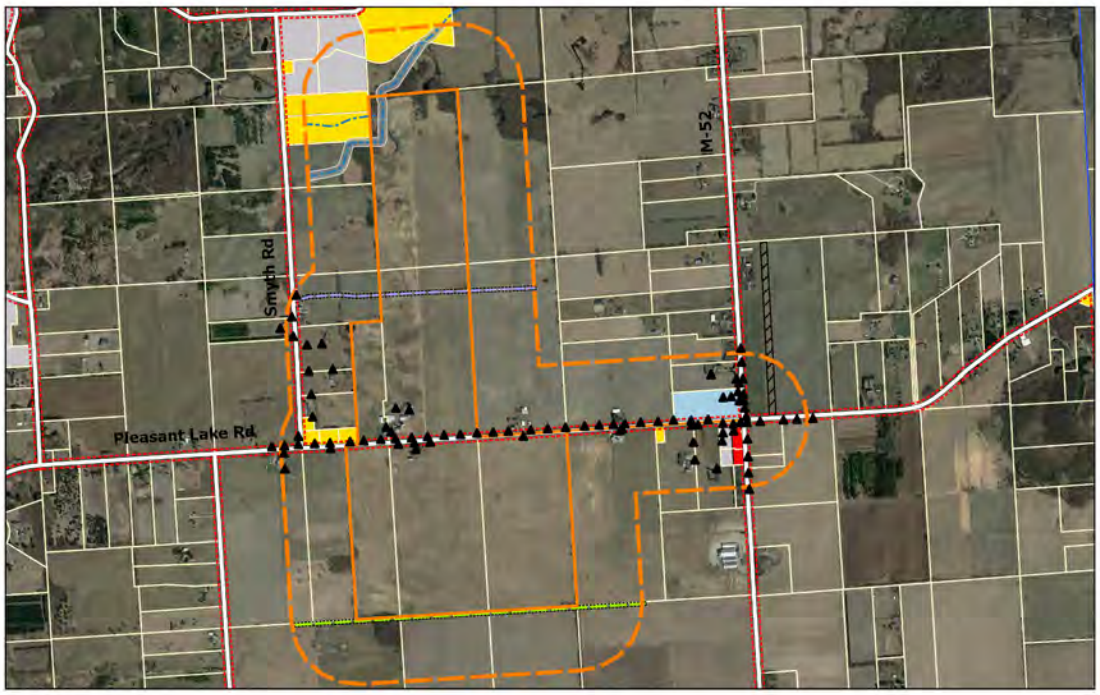
Two (2) pipelines were located within the Study Area. One natural gas pipeline owned by Panhandle Eastern Pipeline Co. is located on the north side of the subject property. One refined and/or petroleum product (non-HVL) pipeline owned by Whiting-River Amoco Oil Co is located on the south side of the subject property. Both pipelines are not located within the mining area and all easements will not be impacted by the operations. See Section B.7.b(viii) for easement information.

vii. Areas owned and maintained for public recreation, and

No public recreation areas were located within the Study Area.

viii. Easements and rights-of-way believed to exist that are associated with the improvements listed above

Easements and rights-of-way for each parcel of the project site are shown on the ALTA survey conducted by Midwestern Consulting provided in Sheets 1a and 1b.



Legend

- Power Poles
- Property Boundary
- Municipal Boundary
- 1000ft Boundary
- Road Centerlines (white)
- Road Rights-of-way
- County Drain
- Drain Rights-of-way
- Drain A
- HL Easement
- Ca. Pipeline (HL)
- Gas Easement
- Ca. Pipeline (Gas)
- Airport
- Parcels

0 1,000 2,000 ft

Special Land Use Application
Stoneco of Michigan

Data Sources: SEMCOG, Google Satellite, Washtenaw County GIS, Google Earth, PVNPMS
Scale (1:22,000)

Existing Land Use

Sharon Township Master Plan

- AGRICULTURAL / RURAL RES (clear)
- CEMETERY
- EXTRACTIVE
- HOSPITALITY
- INDUSTRIAL
- INSTITUTIONAL
- MEDICAL
- OFFICE
- RECREATION / OPEN SPACE
- RETAIL
- SINGLE-FAMILY HOUSING
- TCU
- VACANT
- WATER

Figure D: Inventory and Land Use Map

Inventory				
Item	Description	Found on or within 1,000 ft?	Address / Parcel	Total
Residences	Multiple residences were within the 1,000 ft boundary.	Yes	See Residence Location Table	20
Schools	N/A	No	N/A	N/A
Nonresidential Developments	Confined to intersection of Pleasant Lake Rd. and M-52 1.) Sharon United Methodist Church (Old Sharon Cemetary/ Rowe's Corners Cemetary) 2.) BP Shop (BMH Realty) 3.) Vereit Real Estate 4.) Rosettie Airport	Yes	1. 19980 Pleasant Lake (O -15-23-400-020) 2. 9060 M-52 (O -15-26-100-008) 3. 9050 M-52 (O -15-26-100-001) 4. 8875 M-52 (O -15-24-300-002)	4
Public & Private Roads	1.) Pleasant Lake Rd. 2.) Smyth Rd. 3.) M-52 **all public roads*	Yes	N/A	3
Powerlines	Powerlines primarily distributed along north side of Pleasant Lake Rd. and east side of M-52.	Yes	See Figure 3	ca. 83
Pipelines	1.) Edgerton Discharge - Panhandle Eastern Pipeline Co (Natural Gas) 2.) Whiting-River_Rouge - Amoco Oil Co (Non-HVL Product)	Yes	See Figure 3	
Public Recreation	N/A	No	N/A	N/A
Easements	Easements for both pipelines.	Yes	See Figure 3	2
Rights-of-way	Rights-of way for Comstock County Drain and public roads.	Yes	See Figure 3	4

Figure E: Inventory Table

Residence Location				
Marker	Latitude	Longitude	Address	Parcel No
B/R1	42°12'30.82"N	84° 3'7.84"W	N/A	O -15-14-300-010
R2	42°12'19.62"N	84° 3'23.49"W	8321 Smyth	O -15-22-100-007
R3	42°12'15.25"N	84° 3'22.32"W	8383 Smyth	O -15-22-100-006
R4	42°11'47.56"N	84° 3'26.76"W	8701 Smyth	O -15-22-400-010
R5	42°11'46.39"N	84° 3'29.28"W	8720 Smyth	O -15-22-400-012
R6	42°11'44.29"N	84° 3'21.32"W	8735 Smyth	O -15-22-400-009
R7	42°11'37.09"N	84° 3'20.39"W	8881 Smyth	O -15-22-400-008
R8	42°11'34.19"N	84° 3'25.40"W	8897 Smyth	O -15-22-400-007
R9	42°11'31.35"N	84° 3'25.14"W	8901 Smyth	O -15-22-400-006
R11	42°11'28.95"N	84° 3'25.17"W	18742 Pleasant Lake	O -15-22-400-002
R12	42°11'28.75"N	84° 3'21.09"W	18750 Pleasant Lake	O -15-22-400-003
R13	42°11'28.99"N	84° 3'17.70"W	18806 Pleasant Lake	O -15-22-400-004
R14	42°11'25.31"N	84° 3'32.97"W	19732 Pleasant Lake	O -15-27-100-003
R18	42°11'27.21"N	84° 2'22.78"W	19732 Pleasant Lake	O -15-26-100-005
R19	42°11'27.97"N	84° 2'13.82"W	N/A	O -15-26-100-004
R20	42°11'22.79"N	84° 2'8.56"W	19811 Pleasant Lake	O -15-26-100-010
R21	42°11'21.03"N	84° 2'2.41"W	19825 Pleasant Lake	O -15-26-100-009
R22	42°11'37.18"N	84° 2'2.23"W	8940 Chelsea-Manchester	O -15-23-400-008
R24	42°11'29.94"N	84° 2'21.50"W	19732 Pleasant Lake	O -15-23-400-002
R25	42°11'31.18"N	84° 2'41.88"W	19732 Pleasant Lake	O -15-23-300-001

Figure F: Residence Location Table

c. The adjacent existing land uses and approved land use plans.

The adjacent land uses of the subject property consisted of three single-family land uses on the west side of the subject property and the remaining land use was agricultural.

Within the Study Area, the existing land use consisted of eight (8) single-family housing, five (5) vacant uses, two (2) retail uses, and one (1) institutional use. All remaining areas consisted of agricultural land use. See Figure D for the land use map. A review of the future land use map within the Sharon Township Master Plan noted that the study area would remain primarily agricultural with a small section in the northwest designated as resource conservation.

d. An environmental impact statement, including the following (an environment impact statement required by another agency that covers the listed items may be used):
i. Existing flora, fauna, or wildlife habitats likely to be impacted by the proposed operation.
ii. Existing threatened or endangered plant or animal species likely to be impacted by the proposed operation.

NRM completed both a desktop review and field assessment of the project site in order to identify existing flora/fauna, T&E species, and wildlife habitats within the project site and associated 1,000 feet boundary. NRM has conducted multiple field assessments of flora and fauna on the property during several site visits from 2020 through 2022, and most recently on September 22, 2022.

Wildlife species found on the proposed project site during the field inspections included white-tailed deer, cottontail rabbit, groundhog, Sandhill Crane, Mallard duck, wood duck, turkey vulture, American bullfrog, Fowler's Toad, and various amphibious breeding pools containing tadpoles too young to be positively identified. Several species of songbirds were present including but not limited to Red-Winged Blackbird, American Goldfinch, Mourning Dove, Crow, Blue-Jay, Tree Swallow and Field Sparrow. Other signs of common wildlife from tracks and trails were observed on the property during a biological assessment of the project site and included the following species: coyote, racoon, squirrel, and chipmunk. Variation in flora was observed as well including but not limited *to Acer saccharinum, Quercus palustris, Cephalanthus occidentalis, Phalaris arundinacea, Asclepias syriaca, Typha angustifolia*, *Urtica dioica, Persicaria amphibia, Persicaria sagitatta, Onoclea sensibilis,and Impatiens capensis* in the wetland/upland areas and agricultural crops including beans and wheat and corn in previous growing seasons.

During the biological assessment of the proposed project site, the current flora and fauna population and habitat conditions were documented and described. The existing condition of the

action area is an active agricultural farm field. Wetland areas are situated around the perimeter of the action area and consist of several Palustrine Forested and Freshwater Emergent Wetlands.

Preliminary information was gathered before the biological field evaluation to identify any listed or proposed species or critical habitat areas that could potentially be within the project action area. Information was first gathered from the U.S. Fish and Wildlife Midwest region federally listed threatened, endangered, and candidate species county distribution for Washtenaw County Michigan. There were eight (8) species listed within Washtenaw County that were either threatened or endangered with one additional listed candidate that could possibly be located in the area of the property. These species are Indiana Bat, Northern Long-eared Bat, Eastern Massasauga, Snuffbox Mussel, Mitchell's Satyr Butterfly, Monarch Butterfly, Poweshiek Skipperling, and the Eastern Prairie Fringed Orchid. No evidence of listed threatened or endangered species were observed or identified on the project site or within the proposed mining areas during the site visits conducted by NRM. Further, no critical habitats were identified within the project site boundaries.

Supporting research via Michigan Natural Features Inventory is documented below in section 5.2. If the species had a documented occurrence in Washtenaw County via MNFI in the last two years AND suitable habitat was found on the project site, the MNFI recommended survey method was conducted. If outside of the aforementioned parameters, a visual survey only was conducted.

1. *Myotis sodalis*, Indiana Bat – habitat requirements include loose bark or hollows/cavities in mature trees of a floodplain forest.

    • Species has not had a documented occurrence in Washtenaw County since 2005.

    • Neither suitable habitat nor the species itself was found on project site.

    • Mist net survey unwarranted, visual survey (meander search) conducted.

2. *Epioblasma triquetra*, Snuffbox Mussel – habitat requirements include a swift river current.

    • Has not had a documented occurrence in Washtenaw County since 1977.

    • Neither suitable habitat nor the species itself was found on project site.

    • Scuba/ Snorkel survey unwarranted, visual survey (meander search) conducted.

3. *Myotis septentrionalis*, Northern Long-eared Bat – habitat requirements are associated with karst topography and mature deciduous or mixed hardwood-coniferous forests.

• Has not had a documented occurrence in Washtenaw County since 2003.

• Neither suitable habitat nor the species itself was found on project site.

• Mist net survey unwarranted, visual survey (meander search) conducted.

4. *Sistrurus catenatus*, Eastern Massasauga – habitat requirements include a variety of wetland habitats but population in southern Michigan are typically associated with prairie fens. No prairie fens are located on the project site. The project site does include a small percentage of mixed forested and emergent wetlands. Generally suitable habitat was present which included 'open sunny areas intermixed with shaded areas, water table near the surface, and variable elevations between lowland and upland habitats.'

• Last documented occurencein Washtenaw County was listed in 2020.

• Visual encounter survey conducted.

• No evidence of the species was found on project site.

5. *Neonympha mitchellii mitchellii*, Mitchell's Satyr Butterfly – Larvae requires specific host plants (such as Carex buxbaumii, C. lasiocarpa, C. leptalea, C. prairea, C. sterilis) generally only occurring in prairie fens

• Last documented occurrence in Washtenaw County was listed in 2021

• Visual survey (meander search) conducted.

• Neither suitable habitat nor the species itself was found on project site.

6. *Danaus plexippus*, Monarch Butterfly – species is a listed candidate only and not T/E. Potentially suitable habitat was found on project site which included Common milkweed located on the edges of wetlands/ upland boundary.

• County observation data unavailable.

• Visual survey (meander search) conducted.

• No evidence of the species was found on project site.

7. *Oarisma poweshiek*, Poweshiek Skipperling – habitat requirements include sedgy meadows, cinquefoil seeps, open fens, and high-quality tall grass prairie. Plants include shrubby cinquefoil, white clover, lobelia, and black-eyed Susan

• Last documented occurrence in Washtenaw County was listed in 2013.

• Visual survey (meander search) was conducted.

• Neither suitable habitat nor the species itself was found on project site.

8. *Platanthera leucophaea*, Eastern Prairie Fringed Orchid – habitat requires alkaline and lacustrine soils usually associated with lake plains but can also occur in open or semi-open bogs and peaty lakeshores

• Last documented occurrence in Washtenaw County was listed in 2016.

• Visual survey (meander search) was conducted.

• Neither suitable habitat nor the species itself was found on project site.

The mining area has been reviewed through a biological assessment of the subject property in order to determine the potential for impacts on flora and wildlife habitat. The mining area consisted of an active agricultural farm field. The flora within the mining area consisted mainly of agricultural farm crops due to the activity on the property. None of the wetland areas identified above will be impacted during or after mining is completed. The wetland areas, flora, and fauna will continue to exist after reclamation has been completed. The mining plan (Sheet

3) was designed to avoid the wetlands on-site and that conservation measures will be incorporated to monitor the wetland areas to ensure their protection. It was determined, through the biological assessment, that the mining area does not contain significant wildlife habitats and will not affect flora due to the absence of fertile soils in relation to stripping and the isolated nature of natural features.

Based on the biological assessment of the site, aforementioned research, and visual observations of the existing site conditions presented herein, that the proposed mining activities will not affect any wildlife, flora, and or threatened or endangered species on the property and within 1,000 feet from the boundary.

iii. Existing historical or archaeological resources in the area.

A review of local historical resources on and within 1,000 feet of the boundary revealed seven (7) marked locations, see Figure G. Information collected below is correct as of 2003 but surveys are dated below and were gathered via 'HistWeb' of Washtenaw County Historical Society. Resource reports for each item below can be found in Appendix F. Washtenaw County's historic markers map was reviewed separately and did not show any markers (historical or archaeological) on or within the boundary of the proposal site.

1.) 8321 Smyth Road – Agricultural property containing a pole barn, chicken coop, and outhouse. With a physical site setting of fallow fields, forested and wetland areas. Owned by Thomas and Linda Dyer. [1994-1996]

2.) 19024 Pleasant Lake – property (on the subject property) containing a barn, two silos, and shed. Owned by James Schnearle. [1994-1996]

3.) 19732 Pleasant Lake – property containing a building constructed in 1873 as well as two barns, three silos, shed, 'comcrib', and an additional outbuilding denoted as "other." Owned by Charles Ronald Kuhl. [1994-1996]

4.) 19732 Pleasant Lake – property containing a barn. Owned by Charles F Kuhl Trust. [1994-1996]

5.) 19890 Pleasant Lake – property owned by Sharon United Methodist Church with the primary resource denoted as an abandoned structure. Also contains a barn, chicken coop, and a buggy house. [1994-1996]

6.) Secondary listing for Sharon United Methodist Church is for the church itself. [1981]

7.) 17020 Pleasant Lake – denoted two undescribed resources. Owned by Victor and Esther Grossman (on the subject property). [1994-1996]

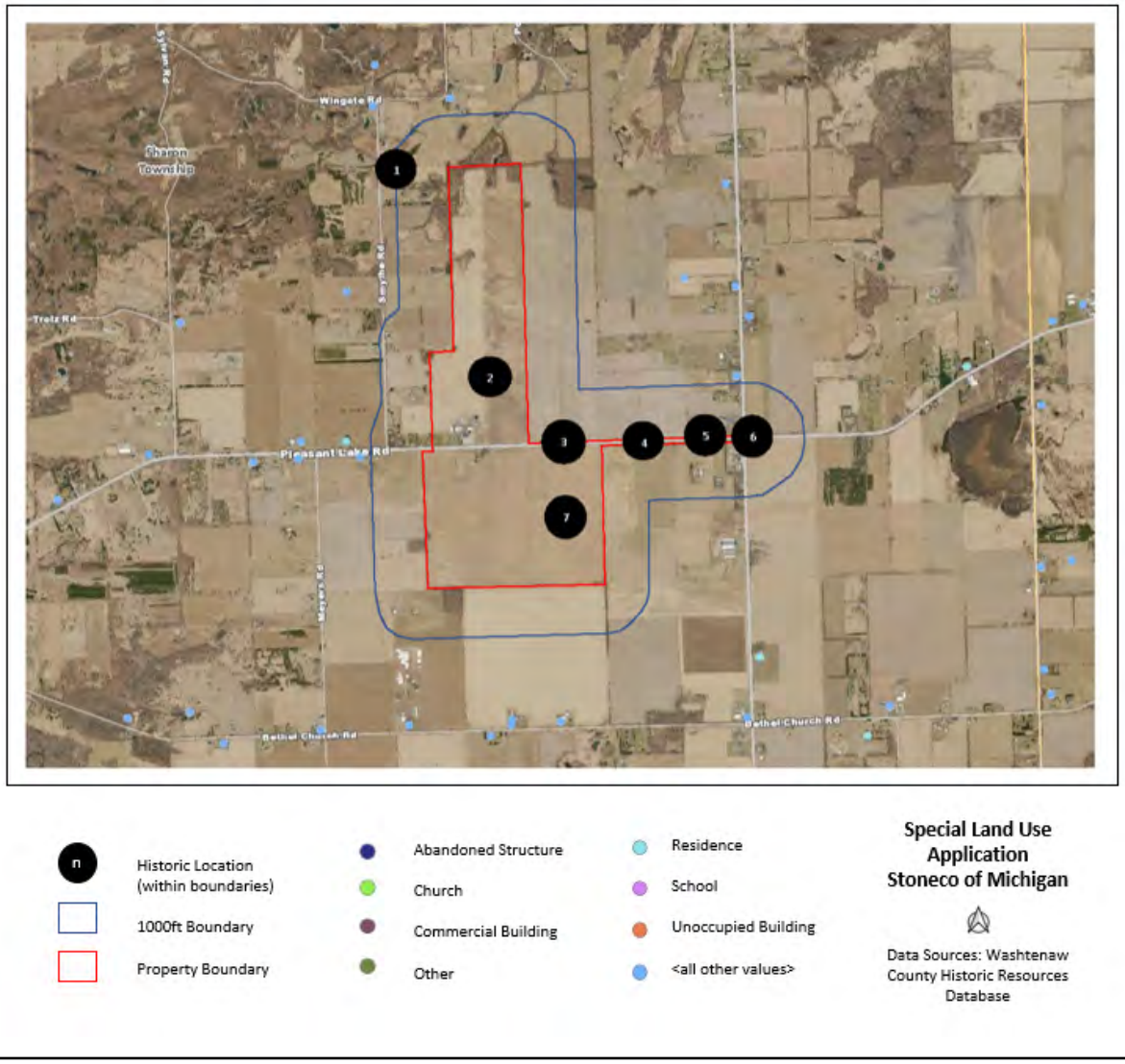


Figure G: Historical and Archaeological Resources Map

A review of the National Register of Historic Places for the entirety of Manchester revealed only two properties, neither of which were located on or within 1,000 feet of the subject property and haul route. All seven aforementioned properties have not been registered federally in accordance with 36 CFR 60.

A review of the State Register of Historic Sites via Michigan Department of Natural Resources (MDNR) Historical Markers found only one relevant marker listed as "Salem Church" at 19980 Pleasant Lake, Sharon United Methodist Church listed above. This marker is located at the intersection of Pleasant Lake Road and M-52.

In summary, none of the researched properties were federally registered and only one property, the Sharon United Methodist Church, was registered with the state of Michigan. This property will not be impacted by the proposed mining activity. The additional properties in the local database will also not have any impact as they are outside of the property boundary as well. Items 2 and 7 are within the property boundary but as previously noted, they are not registered with state or federal and therefore not subject to regulatory requirements.

iv. Groundwater level, quality, and flow on-site. If dewatering or excavation below the water table is proposed, water flow within 1,000 feet of the site boundaries proposed for mining activity.

The proposed operation will have no significant impact on the groundwater flow on the project site due to the creation of three lakes and will not impact the groundwater quality or quantity. A detailed hydrogeologic investigation has been conducted by NRM and is presented in the Environmental Impact Assessment report dated September 26, 2022. The hydrogeological investigation addresses the baseline conditions of the groundwater levels, quality, and flow on the subject property and within 1,000 feet of the subject property. Additionally, the project will create additional recharge for the groundwater aquifer and support a more ecologically diverse community of wildlife, flora, and fauna when completed through creation of:

- Surface Water Features including deep lake and cool water habitat for fish and invertebrates
- Shallow Lake perimeter and emergent wetland habitats
- For more detailed information, see the EIA located in Appendix C

e. A map showing proposed and alternate truck routes. This map shall also show improvements and structures and design characteristics likely to be subject to impairment by proposed truck traffic.

No alternative truck route is proposed due to the location in regards to the designated truck line, M-52. The proposed haul route will have ingress and egress to and from the site at the same location, which is the current access road for farm equipment as shown on the site map. Inbound traffic will travel from M-52, a designated trunk line, and then proceed west approximately 0.9 miles on Pleasant Lake Road to the property. Additional inbound trucks may come from the west side of the subject property along Pleasant Lake Road depending on truck routes. All outbound traffic will travel east on Pleasant Lake Road to M-52. Outbound traffic will not be allowed to travel westbound on Pleasant Lake Road after leaving the site. For more information, see Traffic Impact Study located in Appendix D.

f. The estimated average and maximum number of total trucks per day on each part of the proposed haul route(s) and the maximum number of trucks per day that are estimated to haul extracted materials from the site during each year of the operation on each route. The estimate must indicate truck weight empty, the type and cargo, and also include a breakdown of truck weight with cargo loaded and number of trips on each haul route with and without cargo. To

the extent necessary, truck weight and size information may be estimated based on the best information available to the applicant based on past practice and the like.

Assuming 1.5 million tons are produced annually, during a nine-month production season that includes 225 working days, the average number of trucks per day is estimated to be 167 with a maximum number of 330 per day. This estimation is based on shipping an average of 6,000 tons per day loaded into 40 tons per truckload. The empty truck weights will depend on the truck size and therefore no average truck weight can be estimated at this time. Trucks leaving the subject property will not be loaded past the MDOT standards and the gross weights will depend on the size of the haul truck.

Figure H: Truck Weights

g. A hydrogeological analysis, prepared by a registered professional engineer or qualified professional geologist or hydrologist with experience in hydrogeological studies, shall be provided addressing the question whether and how the proposed operation will have impact on existing private water supply wells of residences and businesses within the proximity of the site operations likely to be impacted. The hydrogeological report shall include the following:

A Hydrogeological Model was prepared by an NRM Hydrogeologist and a Hydrogeological Water Budget was prepared by an NRM professional geologist and is presented within the EIA located in Appendix C.

i. Test pumping data (including packer tests) at and around the site, and analytical computations used to assess potential hydrological impacts.

NRM requested conducting slug tests in lieu of the required pumping tests in a letter to the Township Engineer, Mr, Phil Westmoreland of Spicer Group, Inc dated July 12, 2022, and approved by Mr. Westmoreland in an email dated July 27, 2022.

Due to the type of unconsolidated materials encountered and expected higher hydraulic conductivity (K) values, NRM gathered data from the six monitoring wells (MW-1 through MW-6) from the subject property on August 16, 2022. Slug tests are a standard method of determining hydraulic conductivity from monitoring wells and gathering this information from six different locations spread throughout the site will provide a more comprehensive range of values in the aquifer. Along with the slug test, Visual MODFLOW FLEX Version 8.0 was used to assess potential hydrological impacts.

ii. A water quality test well and computer model shall be used to determine the probable hydrological impacts, including aquifer piercing, probable drawdown that may impact local wells, impact on surface water, and the like (such impacts to be reference below as "Hydrological Impacts")

Baseline water quality testing has been conducted and is contained in the EIA provided in Appendix C. A full assessment of hydrological impacts is provided in the EIA and includes evaluation for drawdown, details of local wells, surface water, wetlands and streams.

(A) The hydrogeological report shall determine, at minimum, the direction and rate of flow of groundwater, the up-gradient and down-gradient water quality, aquifer characteristics (when soil dewatering or excavations into the water table are planned), extent of dewatering influence, and impact on surface waters, wetlands and surrounding water supply wells. All data used as input for computer modeling must be calibrated to field data.

Groundwater in the project area flows in the east and south-southeast direction, following areas of high topography to areas of low topography with some discharge into channels of rivers and

creeks. Groundwater flow direction on the project site flows east and northeast north of Pleasant Lake Road and east-southeast on the south side of Pleasant Lake Road. The groundwater model generated in MODFLOW 2005 simulates the volume rate of flow for water entering and leaving the system and it was nearly equal before and after mining is completed. The primary aquifer at and within the mining area is unconsolidated glacial drift. The sand and gravel aggregate will be removed from the pits using draglines, clamshell dredges and/or other wet-mining methods that do not require dewatering. As such, groundwater level changes computed as part of the modeling analysis would be attributed solely to aquifer changes caused by removing sand and gravel and to increased evaporation from the quarry lake surfaces. Groundwater will be pumped from the pond north of the processing area to supply the processing plant. This water will be recirculated into the shallow groundwater settling pond and through infiltration into the ground surface which will result in no significant influence from dewatering. This groundwater will be pumped at an average of 6,000 gallons per minute during hours of plant processing operations.

The final simulation for the model determines insignificant impacts on groundwater flow from the development of these three lake systems. Therefore, surrounding wetlands and supply wells will not be impacted by the development of the three lake systems. Primary input data to the MODFLOW model included land-surface elevations, climatic data (precipitation & runoff), river/stream locations, and geological data. The model was calibrated using the domain area's water elevations and potentiometric surface contours. The data includes a) static water elevations from 300 water wells, including the onsite six monitoring wells (MW-1 to MW-6), two wetland piezometers (PZ-2 and PZ-3), one domestic well (DM-1), and b.) potentiometric surfaces created from the EGLE water well logs. Water quality baseline sampling has been conducted in the up-gradient and downgradient directions of flow. No impacts are expected based on similar water quality testing at operating sand and gravel quarries being conducted on monitoring wells and domestic supply wells in Washtenaw County. See Appendix C for details of the groundwater studies.

> *(B) Not less than ten (10) monitoring wells shall be installed according to the requirements of the Michigan Department of Natural Resources and Environment and must operate over time and frequency sufficient to make reliable predictions with a ninety percent (90%) rate of certainty, unless it can determined with certainty to the satisfaction of the Township that fewer monitoring wells are sufficient to provide the necessary information.*

A total of fourteen wells are located on the subject property: six monitoring wells (MW-1 to 6), six wetland piezometers (PZ-1 to 6), and two domestic wells (DM-1 to 2) available for use in the model calibration. In addition, 292 water wells gathered from the Michigan EGLE WellLogic online database located within an eight-mile radius of the mining site were used during the calibration of the model.

The calibration statistics indicate a 0.99 correlation coefficient and 0.99 Nash Efficiency between the observed and simulated heads, along with an absolute residual mean of 3.29-ft. There is uncertainty with static water levels calibrating the model because different drillers measured these levels from various periods. However, the model calibration results appear to reproduce the regional flow system of the unconsolidated aquifer within this study area. Therefore, the model can reasonably simulate the effects on groundwater flow caused by the Manchester Pits' vertical and horizontal extraction.

(C) Applicants must perform and include the results and underlying data for a standard hydrologic uncertainty analysis and integrated hydrologic modeling (coupled ground/surface water flow modeling).

NRM included all data required that is referenced in the Michigan EGLE (formerly DEQ) Groundwater Modeling Program Guidelines. See the Hydrogeologic Report Plates 3 & 4 and Table 3 in Appendix C.

(D) Locations of wells shall be approved by the Township engineer or other engineering professional designated by the Township.

The monitoring well locations were approved by Mr. Westmoreland within the same email referenced in Section B.7g(i).

iii. Available well logs of existing wells, not located on the site, within 10,500 feet of the site boundaries.

Two-hundred ninety-two (292) water well logs gathered from EGLE were used for calibration within an 8-mile radius, approximately 42,240 feet from the subject property.

iv. A written statement of the Hydrological Impact that the proposed operation will have on private wells, as well as a plan for mitigation measures in the event that existing off-site wells are impacted by the dewatering operations.

It was determined that the final expansion of the three proposed lake systems will not significantly impact the water levels at or within the subject property boundaries, given the assumptions and uncertainties of the model. Off-site existing wells will not be impacted due to the proposed operations. If an off-site well complaint is received, Stoneco will review the potential impact the operation has on the specific well at that time. See Hydrogeologic Report Section 6.0 in Appendix C for the complete Hydrological Impact Statement. No dewatering is proposed and therefore, no plan for mitigation measures is presented.

v. The Sharon Township Application for Special Land Use does not contain Section B.7.g(v) and therefore no answer is required.

vi. A description of the discharge rates and discharge location(s) associated with any Hydrological Impacts, including an assessment of the potential for flooding in the area and downstream from the point of any planned dewatering discharge.

No off-site discharge for dewatering is proposed with this operation. Therefore, no potential flooding will occur at the downstream area from a dewatering discharge point.

vii. In the event that Hydrological Impacts are likely, the applicant shall provide sufficient data to establish the direction and levels of groundwater movement in the area before, during, and after mining. This shall be accomplished by the utilization of a variety of methods that adequately describe the current groundwater flow direction and rates in the vicinity of the site and data which predicts the impact of the mineral extraction operation on groundwater flow and quality.

No hydrogeological impacts are proposed to the subject property or to the surrounding area during and after the creation of the three lakes. On-site groundwater elevations have been collected monthly from the monitoring wells (MW-1 to MW-3) for more than one year to document the seasonal fluctuations and determine the average rate of flow and direction. This data was used to model the groundwater flow and rate, direction and complete predictions of any potential future changes. This is presented in the Hydrogeologic Report and Groundwater Model Reports provided in Appendix C.

viii. The hydrogeologic and related analyses for determining Hydrological Impacts required by this subparagraph shall have been conducted within the scientifically recent past, and, in combination with other site-specific data submitted, shall contain sufficient information for the Township to evaluate all potential impacts to water quantity and water quality that may result from the proposed natural resource extraction operations.

A comprehensive Hydrogeological Report, Groundwater Model and Groundwater quality investigation has been completed for this project in 2022 using current and historical information and is provided in Appendix C. In addition to regional hydrogeologic information, site-spefic information includes on-site monitoring well quality, flow and elevation data. The regional groundwater model assesses the project site and the regional watershed.

ix. Location and anticipated volume and rate of discharge for any outlets of water from the site.

No off-site drainage through any outlets is proposed with this operation. Therefore, there is no location or anticipated volume information for this proposed site.

h. A post-mining reclamation plan, including a reclamation contour map and a description of reclamation methods and materials proposed for renewal of topsoil and replanting, including a proposed sequence of reclamation, indicating the time sequence within which each area to be mined will be reclaimed as mining operations progress.

The post-mining reclamation plan will create three permanent lakes on the subject property with a total water body acreage of 155.1: Cell 1- North Lake: 38.4 acres, Cell 2- South Lake: 99.1 acres, and Cell 3- Central Lake: 32.2 acres, see Sheets 4, 4A, and 4B.

During the reclamation process, dozers, excavators, trucks, wheel scrapers, and loaders will be utilized in sloping the banks of the excavated area. All restored slopes above the water table will be a minimum of 1 foot vertical to 4 feet horizontal (1:4) slope. The slopes below the water surface for the first 5 feet of depth will be a minimum of 1 foot vertical to 5 feet horizontal (1:5) slope. After the first 5 feet below the water surface to the bottom of the excavation area, the slope will continue at the angle of repose which is typically 1 foot vertical to 2 feet horizontal (1:2) slope.

8. *A traffic study addressing issues and concerns relating to all haul routes, including the sufficiency of road width, strength, conflicts with driveways and other potential obstructions, and including a detailed study of conditions and proposed improvements at any intersection of any and all haul routes and a numbered state highway.*

A Traffic Impact Study was conducted by Midwestern Consulting on June 8, 2022. This study addresses issues and concerns relating to the haul route and is located in Appendix D. The proposed site truck traffic is not expected to significantly impact the delays, queues, or level of service (LOS) at the intersection M-52 and Pleasant Lake Road. Level of service grades (LOS A-F) represent ranges of average control delays set forth in the Highway Capacity Manual. The existing LOS is currently a B, which is considered acceptable and represents conditions with few stops and short average delays. The intersection LOS will remain at a B even when applying a small background growth factor to the existing traffic volume, the proposed typical truck trips, or the maximum truck trips on one of their unusually busy days.

The proposed access driveway for the sand and gravel mine is located approximately 4,900 feet to the west of M-52 along Pleasant Lake Road on the north side of the road. The closest driveways, both to single residences, are located about 140 feet to the west and 1,405 feet to the east.

According to the American Association of State Highway Transportation Officials (AASHTO), the minimum required sight distance for a left-turning vehicle onto an unposted (55 MPH) roadway is 610 feet for a passenger vehicle and 930 feet for a large truck. The sight distance was measured to be in excess of 1,100 feet in either direction and so truck drivers will have plenty of visibility to make safe turning decisions into and out of the driveway.

Stoneco will be responsible for converting Pleasant Lake Road from a paved county normal route to a designated all-season route from the site driveway to M-52 to accommodate the

proposed haul route. No other improvements would be needed at the intersection of M-52 and Pleasant Lake Road.

C. REQUIREMENT TO ADDRESS ALL STANDARDS IN SECTION 5.12.D.3

Introduction

Stoneco has conducted numerous studies and investigations with respect to the proposed mining operation, including an Environmental Impact Assessment, Hydrogeologic, Property Value Impact Study, Noise, Dust and Fumes Evaluation, Traffic Impact Study, Vibration Study, and Wetlands Delineation, all of which confirm that the proposed mining operation will not result in "Very Serious Consequences" as required by the Michigan Zoning Enabling Act. However, an equally compelling proof is the fact that gravel mining operations have been conducted in Sharon Township and through Washtenaw County for over seventy years, without any indication of Very Serious Consequences resulting from any such operations. There have been no material human health impacts, environmental impacts, property value impacts, traffic or safety impact, land use impacts, or other health, safety or welfare impacts as a result of these operations over many decades.

As can be easily recognized by reviewing the aerial photos (Figures I and J) of the proposed Manchester Road mining area with Stoneco's Zeeb Road and Burmeister operations, the Manchester Road property is located in a predominantly rural/agricultural use area, with limited development and no materially sensitive uses in close proximity. In contrast, the Zeeb Road location, which has been in operation since the 1960's, has a large residential development immediately adjacent and bordering the property on the north and northwest borders, and the Burmeister property is located in close proximity to a highly residential developed area around Pleasant Lake. Yet neither of these operations has resulted in Very Serious Consequences to the health, safety or welfare of local residents or the environment.

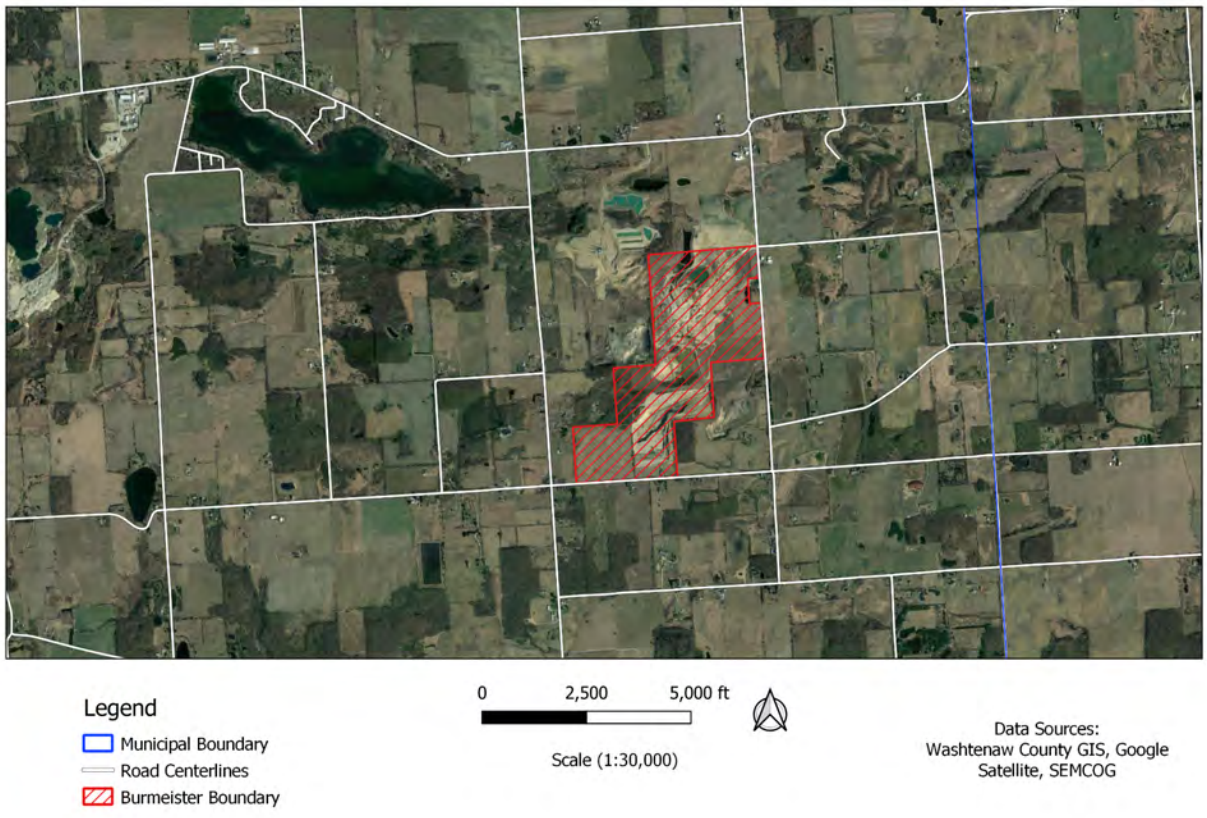


Figure I: Burmeister Operations and Surrounding Area

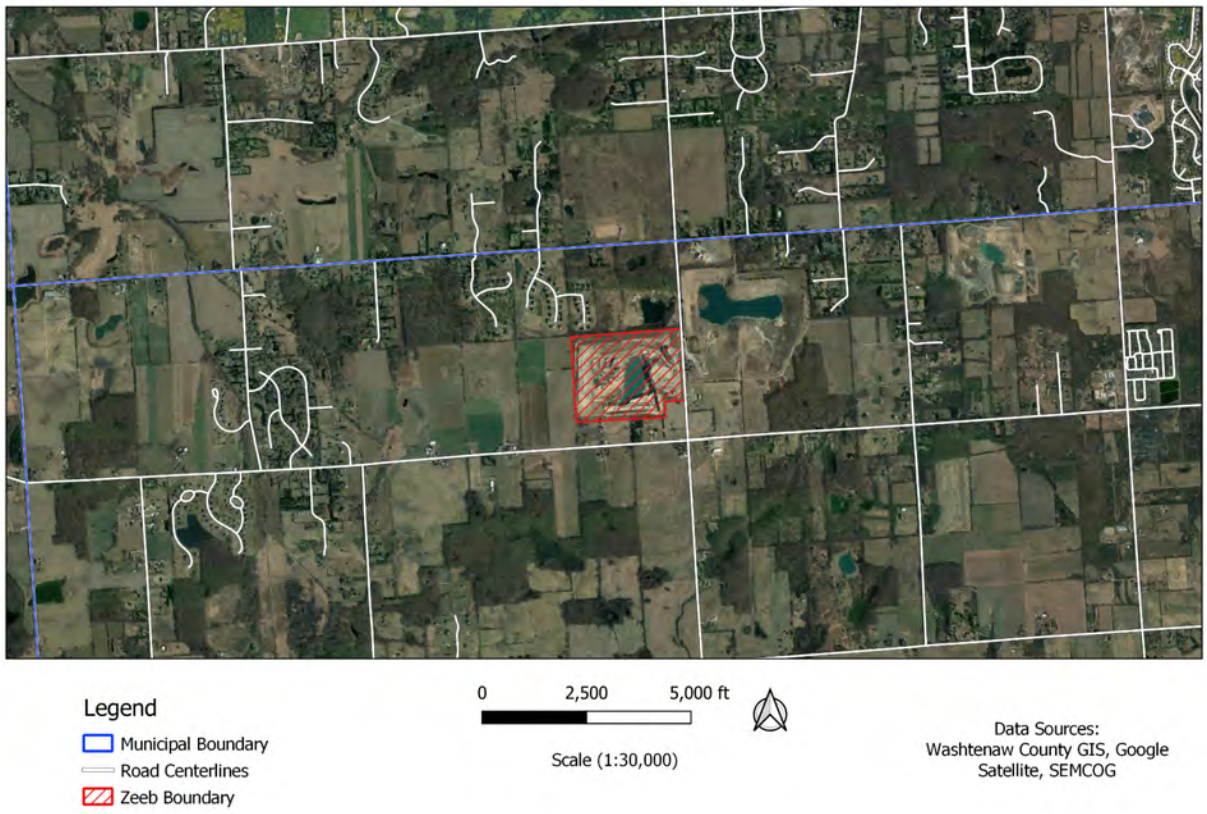


Figure J: Zeeb Operations and Surrounding Area

a. Existing Land Uses

(1) The relationship and impact of applicant's proposed use and associated activities with and upon existing land uses anticipated to be impacted, particularly those properties in the vicinity of the property and along the haul route(s).

The existing land use of the subject property and surrounding properties are mainly agricultural with single-family housing to the west, northwest, and southeast of the property and along the haul route. At the intersection of Pleasant Lake Road and M-52, the existing land uses consist of institutional use containing Sharon Township Methodist Church and cemetery, one retail use, one gas station, and one vacant land use west of the gas station. See Figure D.

As explained more fully above, Stoneco's proposed use and associated activities will have no very serious consequences upon existing land uses, including those properties in the vicinity of the Manchester Road property or along haul routes.

(2) The impact upon the public health, safety and welfare from the proposed use, including haul route(s), considering, among other things, the proposed design, location, layout and operation in relation to existing land uses.

The proposed mining activity for the subject property is subject to be regulated by numerous agencies including, EGLE, U.S. Environmental Protection Agency (EPA), and Mine Safety Health Administration (MSHA). These numerous agencies ensure that the proposed use of the subject property will not pose a threat to the public health, safety, and welfare of existing and future uses.

As explained more fully in the introduction section above, Stoneco's proposed use and associated activities will have no very serious consequences on the health, safety, and welfare, including those properties in the vicinity of the Manchester Road property or along haul routes.

b. Property Values

(1) The impact of applicant's proposed use and associated activities on property values in the vicinity of the property and along the proposed haul route(s) serving the property.

According to the research and analysis of the data collected via George Bratcher of Bratcher & Associates, and the statistical analysis prepared by NRM, there is no detrimental impact on residential market values resulting from proximity to an active gravel mining operation and or along proposed haul routes (Appendix F). For more information, see Market Study Potential Impact of Active Gravel Mining Operation on Residential Market Values Report Appendix I. In addition, property values in the immediate vicinity of the existing gravel mining operations in Sharon Township have increased at the same rate as properties in other areas of Sharon Township.

(2) The effect on the general demand for and value of properties in the Township anticipated to be caused by the proposed use, including use of the haul route(s).

The general demand for and value of residential real estate is not adversely impacted by an active gravel mining operation or along proposed haul routes. For more information, see Market Study Potential Impact of Active Gravel Mining Operation on Residential Market Values Report (Appendix F of the narrative).

(3) The impacts considered in this subsection b may taking into consideration: the number and type of vehicles proposed; machines and equipment to be used in the operation; location and height of buildings, equipment, stockpile or structures; location, nature and height of walls, berms, fences and landscaping; and all other aspects of the proposed use.

For more information regarding impacts considered in this subjection with regards to the study and determinations, see Market Study Potential Impact of Active Gravel Mining Operation on Residential Market Values (Appendix F of the narrative).

c. Pedestrian and Traffic Safety

(1) The impact of the proposed use and associated activities on pedestrian and traffic safety in the vicinity of the property and along the proposed haul route(s) serving the property.

During Midwestern Consulting's traffic study conducted on June 8, 2022, no pedestrians or bicyclists were present at the intersection of M-52 and Pleasant Lake Road in the 24-hour period counted and so any pedestrian/truck interactions will be almost non-existent. Outbound truck traffic will be stopped at the intersection with Pleasant Lake Road and there is plenty of sight distance available for vehicles and pedestrians to avoid each other. For more information, see Traffic Impact Study in Appendix D.

(2) Consistency with and authorization of the proposed use and haul route(s) under state, county, and/or local regulations that have been established for roadways, including regulations applicable to the use of roads for proposed haul route(s).

Stoneco will follow the requirements set forth by the Washtenaw County Road Commission per Section 8.5 (Designated Haul Routes) in Washtenaw County Road Commission Procedures & Regulations for Permit Activities dated June 1, 2021.

(3) The impact of the proposed use, including haul route(s), on vehicular and pedestrian traffic, particularly in relation to hazards reasonably expected in the district(s) impacted, taking into consideration the number, size, weight, noise, and fumes of vehicles, vehicular control, braking, and vehicular movements in relation to routes of traffic flow, proximity and relationship to intersections, adequacy of sight distances, location and driveways and other means of access, off street parking and provisions for pedestrian traffic. Consideration shall be given to the interaction of heavy vehicles used for the use with children, the elderly and the handicapped.

The proposed mine is not expected to significantly impact the traffic operations at the nearby intersection of Pleasant Lake Road and M-52. There is currently no material pedestrian presence at that intersection. The sight distance at the proposed access driveway along Pleasant Lake Road is approximately 1,100 feet in either direction. According to AASHTO, the minimum required sight distance for a left-turning vehicle onto an unposted (55 MPH) roadway, i.e. Pleasant Lake Road is 610 feet for a passenger vehicle and 930 feet for a large truck. Therefore, the truck drivers will have plenty of visibility to make safe turning decisions into and out of the driveway, see Traffic Impact Study in Appendix D.

(4) Whether the proposed use and associated activities would result in a hazard to children attending schools or other activities within the Township.

The proposed sand and gravel mine will not result in a hazard to children attending schools or other activities within the Study Area.

(5) Overall, the impact of the proposed use, including haul route(s), on children, older persons, and handicapped persons, with consideration to be given to the extent to which such persons shall be required to forego or alter their activities.

The proposed mine will not significantly impact children, the elderly, or handicapped persons within the study area, given that there were no pedestrian or bicycle movements present at the intersection of M-52 and Pleasant Lake Road at the time of study. Although the study lasted for 24-hours and there was no pedestrian or bike traffic at that time, the proposed operations will not increase the current hazards that are already present as a result of existing vehicle traffic.

d. Identifiable Health, Safety, and Welfare Interests

(1) If the property has been designated in the Master Plan as an appropriate site for heavy industrial use, this shall weigh in favor of the applicant under this provision, subject to consideration of the specific scope and impact of the operation and associated activities. Similarly, if the property has been designated in the Master Plan for non-industrial use, this shall weigh in favor of determining that the proposed use would result in a very serious adverse consequence.

The MP states "Sand and gravel are important construction materials, especially for new developments and roadways. Some of these deposits in Sharon Township are commercially recoverable." The Township designates natural resources as important. This project site has conclusively demonstrated that valuable natural mineral resources are located on the subject property in a significant volume that is feasible to extract and supply to the market (see need application). In addition, the Township has no designated areas for "heavy industrial use".

(2) The impact of applicant's proposed use and associated activities on identifiable health, safety, and welfare interests in the Township.

The proposed operations will be regulated by several local, State, and Federal agencies with respect to the health, safety, and welfare interests of the Township. Stoneco will operate in accordance with these various rules and regulations, including but not limited to, the Sharon Township Mineral Extraction Ordinance. As explained in more detail in the Introduction above, historic gravel mining operations have not resulted in very serious consequences to health, safety, or welfare interests in the Township, the County, or throughout the State of Michigan, and there is no reason to suggest that the proposed Stoneco operation will be any different.

(3) The impact of the proposed use, including haul route(s), upon surrounding property in terms of noise, dust, fumes, smoke, air, water, odor, light, and/or vibration. In determining whether a proposed use amounts to a very serious consequence, the standards for the stated

impacts contained within the Township's regulatory ordinance, as the same may be amended, will be considered, along with any one or a combination of components proposed for the use that have unique qualities relating to these impacts (such as crusher noise and vibration).

NRM has conducted an evaluation of noise, respirable dust, respirable silica, diesel vapors, and diesel particulates (air), groundwater, odors, light, and vibrations at current operating locations that will be similar in setting, hours of operation, site access, and haul route use at the proposed facility. We also evaluated these items during the normal operating conditions at the operational facility that will be located on the proposed project site. Based on the evaluation of these environmental factors conducted by NRM and as observed by Stoneco at similar operations they operate, we do not expect any impact from proposed use would be realized from the proposed operation, including the haul route.

Monitoring was conducted at varying locations along the site boundary, near the processing plant, pit entrance/exit, and one background location at the Stoneco Zeeb Road Pit. Based upon this evaluation, we have developed the following findings:

- Noise: The SPL measurements conducted at the Zeeb Road Pit did not exceed the Sharon Township limit of 70 dBA for any one-minute increment during the duration of monitoring and the average LAeq is below 70 dBA. The measurements were collected approximately 250 feet and 500 feet from the processing plant and at the entrance of the pit. The processing equipment generally includes a floating dredge, mobile equipment, conveyors, on-road diesel gravel trucks, off-road haul trucks, a truck scale, and a paved entrance to a Class A all-season haul road in a rural residential and agricultural setting. The facility was in full operation at the time of assessment. See Appendix C for more information.

- Dust (Air): Respirable Dust and Silica were not detected above laboratory reporting limits at the Zeeb Road Pit. Based on the concentration of dust, operations at the plant are not likely to produce dust at concentrations that would affect the health of residents or cause more dust to migrate off the proposed site that would naturally migrate off the site if no mining occurred.

- Fumes (Air): Diesel fumes were not detected above the laboratory reporting limits at the Zeeb Road Pit. The operations are not likely to produce diesel or other vapors or particulates at concentrations that would affect the health of residents.

- Smoke: No odors are associated with this proposed project.

- Water: Based upon the surface water and groundwater evaluations for the proposed Manchester Pit, it is our professional opinion that the creation of the lakes will not have an impact on local drinking water wells, groundwater quality, groundwater-supported

wetland areas, or surface water drainage systems due to Stonco's use of the water located on the project site or the surrounding community. In addition, any evaporative losses of the water due to the creation of the lakes, and any changes in groundwater or surface water flow direction or volume are shown to be negligible and can be shown in the evaluations and scientific studies provided in the Environmental Impact Assessment provided in Appendix C.

- Odor (Air): No odors are associated with this proposed project.

- Light: The Zoning Ordinance Article 18 Section 18.04 requires lighting direct and reflected light is confined to the lot or parcel upon which the light source is located to ensure that it minimizes light spilling onto adjacent properties and producing glare. Lights will be located on the processing plant area and scale house for the purposes of safety and security. The lights will be directed onto the processing plant equipment and equipped with covers to direct the light to the ground. The plant's general elevation is lower than the adjoining properties and perimeter berms will assist in minimizing light onto adjacent properties. Lights will be minimal outside of operating hours and are similar in nature to the existing lights located at the barns and farmhouse.

- Vibration: A vibration study was conducted by Vibra-Tech Inc. at the nearby active Stoneco Burmeister Pit in September 2021. The Burmeister Pit is located at 6068 Steinbach Road and in this study, the vibration readings collected at the pit 150 and 420 feet from the active mining area are negligible. See Appendix H for more information.

(4) The extent of impact of the proposed use, including haul route(s), on economic development and on the character and features that defines the community, or on development in other units of government that will be impacted by the use, including haul route(s).

As stated in the Traffic Impact Study in Appendix D, the proposed use of the subject property is not expected to significantly impact traffic along the haul route.

(5) The impacts of the proposed use on the planning, functioning and spirit of the community, factoring into such consideration whether the proposed use would be likely to render the applicable regulations in the zoning ordinance on other properties in the area unreasonable. This review shall analyze whether the heavy industrial nature of the proposed use would undermine reciprocity of advantage by creating impacts and character that would raise a reasonable question whether residential zoning restrictions on area property would represent arbitrary limitations on the use and enjoyment of such area property.

As explained more fully in the introduction section above, Stoneco's proposed use and associated activities will have no very serious consequences on the planning, functioning, and spirit of the community. As demonstrated at Stoneco's existing Zeeb Rd. location, residentially zoned

property is located immediately adjacent to the gravel mining operation and has not resulted in any question or challenge to such zoning restrictions.

(6) The operation of the proposed use, including the haul route(s), shall be evaluated in light of the proposed location and height of buildings or structures and location, nature and height of stockpiles, walls, berms, fences and landscaping, and all other proposed aspects of the overall use, including whether such improvements would interfere with or discourage the appropriate development and use of adjacent land and buildings.

As stated in the Zoning Ordinance Section 5.12.D.4.b(3), stockpiles associated with the mining operations will be no more than 25 feet above the surrounding area grade. A fence surrounding the mining area on the subject property will be a minimum of 6 feet tall with "danger keep out" signs posted every 200 feet at a minimum. The berms will be a minimum height of 6 feet taller than the centerline of Pleasant Lake Road or an improved property line. All current residential buildings located on the subject property on the north and south sides of Pleasant Lake will continue to be located on the subject property.

(7) The extent to which the proposed use, including haul route(s), would be likely to cause limitations on the use and enjoyment of other property in the vicinity (zoning district or districts, as impacted) in which it is to be located and along the haul route(s), and the extent to which the proposed use would likely be detrimental to existing and/or other permitted land uses and future redevelopment in the manner specified in the Master Plan.

As explained more fully in the introduction section above, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences on the use and enjoyment of other properties in the vicinity, and will not be detrimental to existing and/or other permitted land uses and future redevelopment in the manner specified in the Master Plan.

(8) The extent to which the proposed use, including haul route(s), would likely be detrimental to the development of new land uses in the zoning districts impacted.

Sharon Township's Zoning Map dated December 2005 depicts the subject property and the vicinity of the subject property as general agricultural (A-1) with local commercial (C-1) at the intersection of Pleasant Lake Road and M-52.

As explained more fully in the introduction section above, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences to the development of new land uses in other zoning districts.

(9) The burden from the proposed use, including haul route(s), on the capacity of public services, infrastructure or facilities.

The subject property is currently not and has no plans to connect to the public water or sewer system. No improvements would be needed at M-52 and Pleasant Lake Road at this time to accommodate the additional traffic from the subject property (Appendix D). However, Stoneco will be required to improve Pleasant Lake Road to a Class A road in accordance with Washtenaw County Road Commission requirements. This improvement will be funded and completed by Stoneco. Therefore, no additional burdens are proposed to be placed in regards to the road or public services.

(10) The burden of the proposed use, including haul route(s), on retail uses, arts and culture, equestrian activities, non-motorized vehicle travel or recreation, school use, parks, playgrounds, residential uses, and the likely creation of physical vulnerability or degradation of any uses and resources, including the creation of the need for added public or private expenditures for maintenance of buildings, structures, and infrastructure.

As stated in the Traffic Impact Study in Appendix D, the additional truck traffic estimated for the proposed use along Pleasant Lake Road and M-52 is not expected to significantly impact traffic. The proposed use on a typical day is expected to generate approximately 167 trucks and no improvements would be needed at M-52 and Pleasant Lake Road at this time to accommodate the additional traffic from the subject property.

Retail use is currently located at the corner of Pleasant Lake Road and M-52 along the proposed use haul route. As stated in the Traffic Impact Study, the proposed property truck traffic is not expected to significantly impact the delays, queues or level of service (LOS) at the intersection of M-52 and Pleasant Lake Road. Level of service grades (LOS A-F) represent ranges of average control delays set forth in the Highway Capacity Manual. The existing LOS is currently a B, which is considered acceptable and represents conditions with few stops and short average delays. The intersection LOS will remain at a B even when applying a small background growth factor to the existing traffic volume, the proposed typical truck trips, or the maximum truck trips on one of their unusually busy days.

There were no pedestrians or bicycle traffic observed at this intersection on June 8th 2022, according to the counting service used for this traffic study. No schools, equestrian activities, or parks are located adjacent to the subject property or haul route and therefore will not be affected by the proposed use.

(11) The extent to which the proposed use, including haul route(s), would cause diesel fumes, dust, truck noise or physical/mental health issues, including along the haul route(s).

As explained more fully in the introduction section above, and demonstrated by decades of similar mining operations in the Township and County, Stoneco's proposed use and

associated activities and haul routes will have no very serious consequences on the use and enjoyment of other properties in the vicinity, whether in terms of diesel fumes, dust, noise, physical/mental health issues or otherwise.

(12) The nature and extent of impact from the proposed use, including haul route(s), in relation to environmental resources in the Township, including air, groundwater, surface water, soils, and wetlands. In determining impacts, the cumulative effect upon all environmental resources shall be evaluated.

As explained more fully in the introduction section above, and demonstrated by decades of similar mining operations in the Township and County, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences on environmental resources in the Township.

The air, groundwater, surface water, soils and wetlands in the Township will not be adversely affected by the proposed mining operation, as confirmed by the Noise, Dust and Fumes Investigation, Hydrogeologic Investigation and EIA, and as required by the State of Michigan Air Permit that will regulate mining operations. See Appendix B, C, D, F, G and H for supporting documents.

e. Overall Public Interest in the Proposed Extraction

(1) The overall public interest in the extraction of the specific natural resources on the property both in absolute terms and in relative terms in relation to the need for resources and the adverse consequences likely to occur.

Contrary to the Planning Commission's finding, Public interest in the proposed extraction of the specific natural resources (namely MDOT-spec quality sand and gravel) is very high, both in terms of the public's current and projected increased need for aggregate resources, and particularly in light of the two existing Stoneco operations (Zeeb Rd. and Burmeister) that currently produce an average of 1.5 million tons per year, but will be exhausted in the very near future. The FMI study concluded that other permitted sand and gravel deposits will not be sufficient to replace this volume (Appendix H). Given that any adverse consequences related to the proposed operation are minimal at best, the public interest is essentially the same, both in absolute and relative terms.

(2) Public interest in the proposed use, as measured against any inconsistencies with the interests of the public as are proposed to be protected in Master Plan for the area to be impacted by the use and haul route(s).

The Master Plan dated October 1, 2020, maps the Future Land Use of the site mainly as Agricultural and sections of the Resource Conservation on the north side and the southwest side of the site. As stated in the Master Plan Land Use Areas – Mineral Extraction, "Reclamation after the useful life of the resource deposit will provide for the ultimate conversion of extraction areas to appropriate land uses and zoning categories consistent with Sharon Township's long-range planning objectives. In the Master Plan, the future use and development of land designated for Resource Conservation is limited to open space and natural resource-based land uses such as farming, wildlife management, and low-density development. The end use of this site will coincide with the proposed land uses documented in the Sharon Township Master Plan and therefore will be consistent with the proposed use listed in the Master Plan.

(3) Public interest in the proposed extraction, as measured against any inconsistencies with regard to physical, historic, and economic interests in relation to the use and haul route(s).

Contrary to the Planning Commission's finding, Public interest in the proposed extraction is very high, both in terms of the public's current and projected increased need for aggregate resources, and particularly in light of the two existing Stoneco operations (Zeeb Rd. and Burmeister) that currently produce an average of 1.5 million tons per year, but will be exhausted in the very near future. The FMI study concluded that other permitted sand and gravel deposits will not be sufficient to replace this volume (Appendix H).

And as explained more fully in the introduction section above, and demonstrated by decades of similar mining operations in the Township and County, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences on physical, historic, or economic interests in the Township.

(4) Public interest in the proposed extraction, as measured against any likely creation of valid environmental concerns, including without limitation impairment, pollution and/or destruction of the air, water, natural resources and/or public trust therein.

Contrary to the Planning Commission's finding, Public interest in the proposed extraction is very high, both in terms of the public's current and projected increased need for aggregate resources, and particularly in light of the two existing Stoneco operations (Zeeb Rd. and Burmeister) that currently produce an average of 1.5 million tons per year, but will be exhausted in the very near future. The FMI study concluded that other permitted sand and gravel deposits will not be sufficient to replace this volume.

And as explained more fully in the introduction section above, and demonstrated by decades of similar mining operations in the Township and County, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences on the environment, and will not impair, pollute or destroy the air, water, natural resources and/or the public trust therein.

(5) Public interest in the proposed extraction, as measured against public costs likely to be caused by the proposed use, including haul route(s), considering alternative supplies of natural resources.

Contrary to the Planning Commission's finding, Public interest in the proposed extraction is very high, both in terms of the public's current and projected increased need for aggregate resources, and particularly in light of the two existing Stoneco operations (Zeeb Rd. and Burmeister) that currently produce an average of 1.5 million tons per year, but will be exhausted in the very near future. The FMI study concluded that other permitted sand and gravel deposits will not be sufficient to replace this volume.

And as explained more fully in the introduction section above, and demonstrated by decades of similar mining operations in the Township and County, Stoneco's proposed use and associated activities and haul routes will have no very serious consequences on the environment, and will not impair, pollute or destroy the air, water, natural resources and/or the public trust therein.

D. CONDITIONS

E. ADDITIONAL INFORMATION

References

1. *Southeast Michigan Council of Governments (SEMCOG), Open Data Portal: Contours, Land Use 2020* https://maps-semcog.opendata.arcgis.com/
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5. *Historical Markers – State of Michigan, Michigan History Center* https://www2.dnr.state.mi.us/HistoricalMarkers/
6. *National Park Service, National Register of Historic Places, Digital Asset Search* https://npgallery.nps.gov/NRHP/
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11. *U.S. Fish & Wildlife Service Information for Planning and Consultation (IPaC) https://ipac.ecosphere.fws.gov/*
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16. *Sharon Township Code of Ordinances, Article 2: Mineral Extraction, Amended March 3, 2022*
17. *Sharon Township Master Plan, Adopted October 1, 2020*
18. *Sharon Township Zoning Map, Updated December 2005*
19. *Washtenaw County Road Commission Procedures & Regulations for Permit Activities dated June 1, 2021*