Dane County Conditional Use Permit Application

Application Date	C.U.P Number
06/04/2024	DCPCUP-2024-02629
Public Hearing Date	
08/27/2024	

OWNER INFORMATION		AGENT INFORMATION	
OWNER NAME SOUTHWEST INVESTMENTS LLC	Phone with Area Code	AGENT NAME MICHAEL MARQUETTE	Phone with Area Code (608) 289-2931
BILLING ADDRESS (Number, Street) 930 10TH AVE		ADDRESS (Number, Street) 801 W. VERONA AVENUE #349	
(City, State, Zip) NEW GLARUS, WI 53574		(City, State, Zip) Verona, WI 53593	
E-MAIL ADDRESS		E-MAIL ADDRESS akmjm8@gmail.com	

ADDRESS/LOCATION 1		ADDRESS/LOCATION 2		ADDRESS/LOCATION 3	
ADDRESS OR LOCATION OF CUP		**ADDRESS OR LOCATION OF CUP**		**ADDRESS OR LOCATION OF CUP**	
7228 Pine Row Rd.					
TOWNSHIP VERONA	SECTION 28	TOWNSHIP	SECTION	TOWNSHIP	SECTION
PARCEL NUMBERS INVOLVED		**PARCEL NUMBERS INVOLVED**		**PARCEL NUMBERS INVOLVED**	
0608-282-8000-6		---		---	

CUP DESCRIPTION

mineral extraction

DANE COUNTY CODE OF ORDINANCE SECTION	ACRES
10.231(3)(c)	159.21

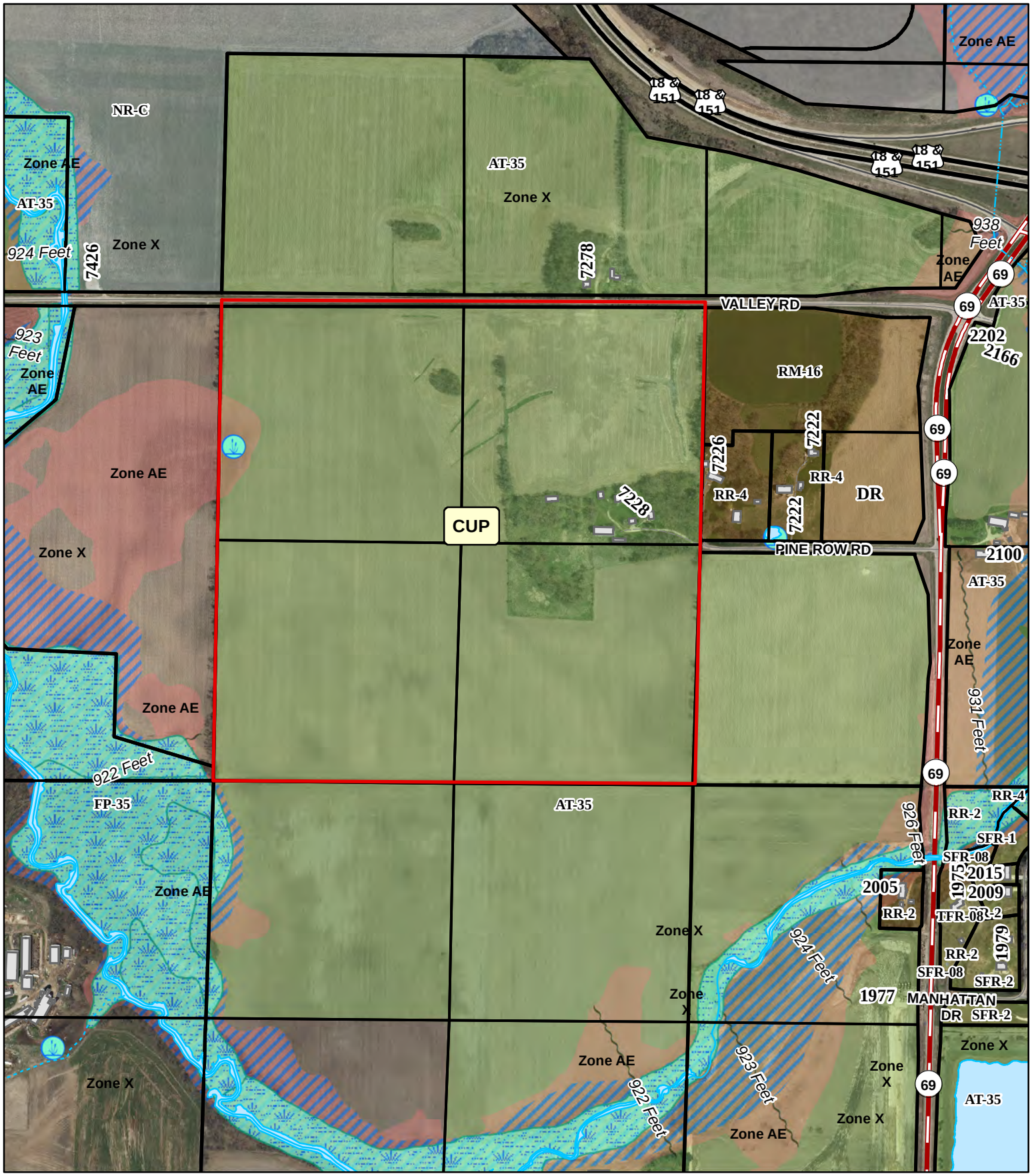
DEED RESTRICTION REQUIRED?	Inspectors Initials
☐ Yes ☐ No Applicant Initials_____	DJE1

SIGNATURE:(Owner or Agent)

PRINT NAME:

DATE:

Form Version 01.00.03



CUP 2629

- Wetland
- Floodway Areas in Zone AE
- Floodplain

Feet
0 375 750 1,500

Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

17975 West Sarah Lane
Suite 100
Brookfield, WI 53045
T: 262.754.2560
F: 262.923.7758
www.gza.com

May 29, 2024
Revised June 13, 2024
File No. 20.0158848.00

Mr. Roger Lane, Planning and Development, Administrator
Dane County Department of Planning & Development
City County Building, Room 116
210 Martin Luther King Jr. Boulevard
Madison, Wisconsin 53703

Re: Conditional Use Permit Application
Wildcat Pit
Southwest Investments LLC Property
7228 Pine Row
Town of Verona, Wisconsin

Dear Mr. Lane,

GZA GeoEnvironmental, Inc. (GZA) prepared the enclosed Conditional Use Permit Application ("Application") on behalf of JMM LLC for the proposed Wildcat Pit sand and gravel operation at the 159-acre Southwest Investments LLC Property at 7228 Pine Row in the Town of Verona, Wisconsin. The Application was prepared to meet the requirements of the Dane County Zoning Ordinance, Chapter 10. The Application was revised to incorporate comments received from Dane County Planning and Development via email on June 7, 2024, included at the end of the Application as **Attachment 6**.

We trust you will find the Application to be complete and Code-compliant and are looking forward to the successful permitting of the proposed sand and gravel operation to the benefit of the local community and Dane County.

Should you have questions or requests, please contact the undersigned at (262) 754-2565 or mark.krumenacher@gza.com.

Sincerely,

GZA GeoEnvironmental, Inc.

Mark J. Krumenacher, P.G.
Senior Principal

J:\158800to158899\158848 JMM LLC Verona S&G Property\CUP Application\Resubmittal June 2024\2024 06 13_CUP Application Revision No 1.docx

Attachment

Conditional Use Permit Application

Wildcat Pit
Proposed Sand and Gravel Operation
Southwest Investments LLC Property
7228 Pine Row
Town of Verona, Wisconsin

The Conditional Use Permit (CUP) Application (the "Application") for the Wildcat Pit at the Southwest Investments LLC property at 7228 Pine Row in the Town of Verona, Wisconsin ("Site") was prepared on behalf of JMM LLC ("JMM"/"Applicant") in general accordance with the following:

- Dane County Dane County Zoning Ordinance:
  - Chapter 10.101(6) Site Plans.
  - Chapter 10.101(7) Conditional Use Permits.
  - Chapter 10.103(15) Mineral Extraction.
- Town of Verona Land Division and Development Ordinance 2022-01 July 2023.
- Comments received from Dane County Planning and Development via email on June 7, 2024.

Information required in Chapter 10 pertaining to the CUP are addressed below. The CUP Application form is provided in **Attachment 1** and a Mineral Extraction Application Checklist is provided in **Attachment 2**.

Chapter 10.101(7) Conditional Use Permit

"(b) Application Requirements. An application for a conditional use shall be filed with the zoning administrator on a form prescribed by the zoning administrator. Only complete applications will be accepted. The application shall be accompanied by such plans and other information as required by this section, by requirements for particular uses or as prescribed by the zoning administrator, and shall include, at a minimum, the following:

"1. Statement. The applicant shall provide a written statement and adequate evidence demonstrating that the proposed conditional use conforms to:"

10.101(7)(b)1.a. *"the standards for approval described in s.10.101(7)(d)"*

Chapter 10.101(7)(d) "requirements and standards for conditional use permits" are addressed below.

"1. Standards for approval. Before approving any conditional use permit, the town board and zoning committee must find that all of the following conditions are met:

a. That the establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare."

The proposed use will be on private property with no public access allowed during non-operating hours. The mining operation must comply with strict United States Department of Labor Mine Safety and Health Administration (MSHA) and State of Wisconsin safety and health regulations, and United States Department of Environmental Protection (USEPA) and Wisconsin Department of Natural Resources (WDNR) environmental regulations. Concerns raised by the public, Township, or County regarding public health and safety and harm to the general welfare of occupants on adjacent properties will be addressed.

Construction aggregate mining is governed by statutes and laws, rules, and regulations, and local ordinances established by a multitude of government and regulatory agencies at the federal, state, and local levels. The magnitude and depth of regulatory control and oversight of nearly every aspect of nonmetallic mining that includes land use, environmental protection, and public safety, provide the matrix within which mining is performed sustainably and safely. The regulations are designed to prevent widespread negative effects no different than those applicable to every other industrial, agricultural, and commercial enterprise.

Decades of research by experts in health, safety, environment, and other areas, and the application of existing rules and regulations in nonmetallic mining operations demonstrate that nonmetallic mining is one of the most highly regulated industrial businesses in the United States. Potential known impacts on the environment and public health, safety, and welfare are addressed by existing laws, regulations, and additionally on the CUP permitting process through the Dane County Zoning and other Ordinances. Balancing the demands of every community through adherence to the complex regulatory control and oversight of the nonmetallic mining industry results in a sustainable and reliable source of construction aggregate for Dane County.

"b. That the uses, values and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use"

The proposed use will, in no foreseeable manner, impair or diminish any of the uses, values, and enjoyment of other properties in the neighborhood for purposes already permitted. The adjacent land and neighborhood are agricultural with a density of two to three residences per square mile.

Other land use near the Site includes:

- The property adjacent to the southeast that is permitted for nonmetallic mining and is also used for agriculture;
- Sugar River Natural Resource Area, which abuts the Site to the south is primarily agricultural, but includes segments of the Sugar River and Badger Mill Creek; and
- Sugar River Wetlands State Natural Area to the north, across Valley Road also includes agricultural land use within the portions nearest the Site.

"c. That the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district"

Nonmetallic mining is a conditional use within the AT-35 zoning district and will not impeded the normal and orderly development and improvement of the surrounding property for uses that may be permitted by the County. Development and improvement of surrounding property will benefit from the nonmetallic minerals that will be produced at the proposed mine.

"d. That adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the conditional use."

The Site includes the necessary utilities for the proposed use. Electricity is provided by Alliant Energy. Liquefied petroleum gas (LPG) and septic systems also serve the Site and neighboring properties.

Site access will be from Valley Road. The access road into the mine property will be adequately sized to accommodate incoming and outgoing truck traffic from the east. Improvements to Valley Road will be based on discussions with the Town of Verona Public Works Director. There are no interior roads beyond the entrance road shown in the attached Site Plan, **Figure 1** in **Attachment 5**. Internal traffic at the

proposed mine will be limited to the approximately 30-acre processing area shown on the Site Plan, **Figure 1** in **Attachment 5**. There is only one entrance/exit. Trucks entering the mine property will weigh empty if no tare weight is available, travel to the appropriate material stockpile location, then weigh filled and exit. Material stockpiles will vary in number and size, making it impossible to identify traffic patterns on a drawing.

Drainage on the Site is limited to sheet flow across agricultural land toward adjacent agricultural land to the southwest, south, and southeast. There are no drainage features physically present on the Site and none are evident on aerial photographs from 1937 and 1974 through 2024. No drainage features, ephemeral, intermittent or perennial streams, are mapped on the United States Geological Survey (USGS) Quadrangle maps, the Dane County DCiMap, or the WDNR Surface Water Data Viewer.

The Dane County DCiMap includes three short lines representing "surface drainage network" that were apparently added based on an interpretation of topographic contours drawn with a contour interval of 2 feet. The surface drainage network shown on the DCiMap does not correspond to physical drainage features at the Site and none of them lead to similarly drawn "drainage network" or streams beyond the Site boundary. As the mine is developed, surface water drainage will remain the same until mine development diverts water into the mine.

"e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets."

Site access will be from Valley Road. The mine entrance will be designed to meet Town of Verona design standards. Neighboring traffic patterns will not be impacted.

*"f. That the conditional use shall conform to all applicable regulations of the district in which it is located.***"**

The proposed nonmetallic mine is designed to be compliant with the applicable regulations of the AT-35 zoning district, in addition to the statutes, laws, rules, and regulations established by the government and regulatory agencies at the federal, state, and local levels. The magnitude and depth of regulatory control and oversight of nearly every aspect of nonmetallic mining, including land use, environmental protection, and public safety, provide the matrix within which mining is performed sustainably and safely. The regulations are designed to prevent widespread negative effects as with every other industrial, agricultural, and commercial enterprise.

"g. That the conditional use is consistent with the adopted town and county comprehensive plans."

The Site is included in the Dane County Comprehensive Plan Mineral Resources Map with "High Potential Sources of High Quality Sand & Gravel". The County Comprehensive Plan recognizes the importance of mineral resources and established a goal to "Identify and protect as much of the county's nonmetallic mineral resources as is practicable, in the context of environmental, residential and other land use planning objectives, to supply local and regional needs."

The Town of Verona Comprehensive Plan recognizes "the importance of mineral extraction sites as a source of construction material, agricultural lime and the risks this activity entails." The Town Comprehensive Plan provides for the establishment of new sites provided criteria are met. Those criteria are consistent with the requirements of the Dane County zoning ordinance (Chapter 10) and Non-Metallic Mining Ordinance (Chapter 74).

"h. If the conditional use is located in a Farmland Preservation Zoning district, the town board and zoning committee must also make the findings described in s. 10.220(1)."

The Site is not located in a Farmland Preservation Zoning district.

10.101(7)(b)1.b. "*any standards applicable to the particular use under s. 10.103*"

"Chapter 10.103(15) Mineral Extraction"

"(a) Application materials. In addition to materials required for all conditional use permits, applicants must provide, in a format acceptable to the zoning administrator, the following:

1. A legal description of the land for which the permit is requested.

a. This may be a lot in a Certified Survey Map, a lot (and block, if any) in a subdivision, or an exact "metes and bounds" description."

The legal description of the property is provided in **Attachment 3**.

"b. The description must include the size of the CUP area in acres or square feet."

The CUP area is 159.21 acres.

"2. Tax parcel number(s) of the lot(s) or parcel(s) where the conditional use is to be located. If the area proposed for the conditional use is a part of a larger parcel, applicant must provide the tax parcel number of the larger parcel."

The tax parcel numbers for the Site are:

- 062/0608-282-8500-1;
- 062/0608-282-8000-6;
- 062/0608-282-9000-4; and
- 062/0608-282-9500-9.

"3. A written statement containing the following information:

a. General description of the operation"

The proposed conditional use is nonmetallic mining and processing of sand and gravel. Mining will be done by mechanical excavation and dredge mining. Mined material will be processed by crushing, screening, and washing, then temporarily stockpiled until sold or used. Excavated bedrock from areas of shallow bedrock will also be accepted from properties within 2 miles of the Site.

A 4-foot-high perimeter fence will be installed around the property prior to mining with a single strand of barbed wire at the top with "No Trespassing" signs.

The processing and mine entrance will be developed on the northeastern portion of the Site. Mining will commence in the northwest area. Overburden from the processing and initial mine area will be used to construct berms within the setback area along Valley Road and along the northeastern and northwestern Site boundaries. As mining expands south, the overburden will be used to create additional berms, be sold, and used to reclaim mined areas. Berms will be designed to be low maintenance consistent with the Town of Verona Land Division and Development Ordinance 2022-01 and Dane County Ordinance.

Excavators and front-end loaders will be used to strip overburden and mine sand and gravel to depths of about 15 to 20 feet below ground surface (bgs). The mined material will be transported to the processing areas using haul trucks where it will be temporarily stockpiled. Processing will include crushing, screening, washing, and stockpiling for customer sales.

After approximately 1 acre of open water is created, or if the ground is suitable after stripping the overburden, the mining operation will transition to dredge mining. Dredge mining will pump sand and gravel, which will be discharged near the processing plant and allowed to drain. The dredge mining operation will extend vertically to the bottom of the sand and gravel deposit, generally at a depth of 70 to 90 feet. The anticipated maximum depth of the pit is 90 feet.

Areas of the Site not involved in the extraction or processing operations will remain in agricultural use.

"b. Existing use of the land"

The property is zoned AT-35 – Agriculture Transition Zoning District and used for row crop agriculture.

"c. Existing natural features including approximate depth to groundwater"

The Wisconsin Wetland Inventory posted on the WDNR Surface Water Data Viewer website includes a symbol on the western margins of the Site that designates a "wetland too small to delineate". The symbol is from the WDNR Wisconsin Wetland Inventory Point Layer, WiDNR Open Data website, which indicates that the "wetland too small to delineate" is based on review of a 2008 aerial photograph. Based on aerial photographs, the area is farmed in most years indicating the area is commonly not wet. The area will be evaluated and any wetland boundaries delineated and setbacks maintained, as specified in Chapter 11.03(2)(a).

There are no other natural features on the Site. Badger Mill Creek is located less than ¼-mile southeast and flows southwest. Sugar Creek is located less than ¼-mile southwest and flows southeast.

Depth to groundwater was encountered at 10 to 15 feet bgs in soil borings drilled in the west and two south quarter-quarter sections. The depth to groundwater is expected to be deeper than 15 feet in the northeast quarter-quarter section.

"d. The types and quantities of materials that would be extracted"

The deposit is a glacial outwash consisting of high-quality sand and gravel with reserves of approximately 20 to 25 million tons. The overburden consists of clay loam that will be used to construct berms, reclaim the mine or be sold.

"e. Proposed dates to begin extraction, end extraction and complete reclamation"

Mine development and extraction will commence upon receipt of the CUP, anticipated in 2024. Depending on market conditions, the mine may operate for 35 years.

"f. Proposed hours and days of operation"

Proposed hours and days of operations are:

Daily Operation:	Monday through Friday
Hours of Operation:	6:00 a.m. to 6:00 p.m. (including equipment maintenance)
Saturday	8:00 a.m. to 2:00 p.m., as needed for maintenance

We understand that the County and Town board may approve limited exceptions to normal hours of operations for projects associated with Wisconsin Department of Transportation or municipal road projects requiring night work.

"g. Geologic composition and depth to the mineral deposit"

There is approximately 6 feet of overburden, consisting of topsoil and clay loam over more than 65 feet of sand and gravel.

"h. Maximum proposed pit depth"

The anticipated maximum proposed pit depth is 90 feet.

"i Identify all major proposed haul routes to the nearest Class A highway or truck route. Indicate traffic flow patterns"

Site access will be from Valley Road. State Highway 69 (STH 69) is located about 0.3-mile east of the proposed entrance to the mine. Traffic to and from the mine will generally follow Valley Road to STH 69.

"j. Proposed phasing plan, if any (recommended for larger sites)"

The conceptual mine plan is provided as **Attachment 4**.

"k. Types, quantities, and frequency of use of equipment to extract, process, and haul"

Mining equipment to be used includes two or more scrapers, front-end loaders, excavators, and haul trucks; and a floating dredge. Processing equipment will include primary and secondary crushers, screens, conveyors, stackers, and wash plant. Mining and processing are anticipated as weather permits, generally March or April through November or December. Some dry processing may be done December through March. Customer loading may occur year-round.

"l. Whether and how frequently blasting, drilling, crushing, screening, washing, refueling, fuel storage, asphalt batching or concrete mixing would be performed on site"

There will be no blasting.

Drilling to evaluate geology in unmined areas may occur as needed.

Crushing, screening, and washing will occur during processing, as described above.

Refueling will occur as needed using a contractor.

Asphalt batching, concrete mixing, and construction material recycling are not proposed.

"m. Whether excavation will occur below the water table and, if so, how ground water quality will be protected"

Mining will occur below the water table, resulting in the creation of a lake that will increase in size and depth as the mine is developed. The mining process and creation of a lake do not pose a risk to groundwater quality. There is no technical justification to monitor groundwater quality during mining. The WDNR has jurisdiction over groundwater quality and JMM LLC is obligated to comply with the state standards.

The mine/lake water will be from groundwater and reflect the water table surface, it is the same water, and will not have compromised water quality. In general, groundwater will flow toward the mine/lake, the mine/lake water will not flow into the groundwater.

"n. Any proposed temporary or permanent structures (e.g., scales, offices)"

No permanent structures are proposed. The scale, office building, and maintenance building will be temporary structures used during mining operations.

"o. Any special measures that will be used for spill prevention and control, dust control, transportation, or environmental protection"

A Spill Prevention, Control, and Countermeasures (SPCC) Plan will be prepared if oil storage exceeds 1,320 gallons.

A Stormwater Management Plan will be prepared in general accordance with the Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit for Mineral (Nonmetallic) Mining and/or Processing.

A Fugitive Dust Control Plan will be implemented consistent with the industry standard of care.

No special measures are planned for transportation.

No special measures beyond compliance with applicable state and federal regulations are planned for environmental protection.

"p. Proposed use after reclamation as consistent with Chapter 74"

Final reclamation will be uplands surrounding an estimated 70-acre lake as described and depicted in the reclamation plan prepared in accordance with Chapter 74. It is the intent of the Applicant to reclaim the Site as a public park and engage stakeholders in the design, if the Town of Verona is interested in retaining ownership of the property.

"4. Additional Site Plan Information. In addition to the submittal requirements described in s. 10.101(7)(b), applications for a mineral extraction conditional use permit shall include a Site Plan prepared by a qualified professional, drawn to a measurable scale large enough to show detail and at least 11" by 17" in size, showing the following information:"

"a. Boundaries of the permit area and of the extraction site."

The boundaries of the permit area and extraction site are shown on the Conceptual Mine Plan in **Attachment 4** and the attached Site Plan, **Figure 1** in **Attachment 5**.

"b. Existing contour lines (not more than 10 foot intervals)."

See attached Site Plan, **Figure 1** in **Attachment 5.**

"c. All residences within 1,000 feet of the property."

See attached Site Plan, **Figure 1** in **Attachment 5.** The residence at 7228 Pine Row will be demolished**.**

"d. Specific location of proposed extraction area, staging area, equipment storage."

See Conceptual Mine Plan in **Attachment 4.**

"e. Proposed location and surfacing of driveways."

See attached Site Plan, **Figure 1** in **Attachment 5.**

"f. Proposed phasing plan, if any (recommended for larger sites)."

See Conceptual Mine Plan in **Attachment 4.**

"g. Proposed fencing of property, if any, and gating of driveways."

A 4-foot-high perimeter fence will be installed around the property prior to mining with a single strand of barbed wire at the top with "No Trespassing" signs.

"h. Proposed location of stockpiles."

Stockpiles will be in the processing area shown on the Conceptual Mine Plan in **Attachment 4.**

"i. Proposed location and type of screening berms and landscaping."

Berms will be placed along the property boundaries, as shown on the Conceptual Mine Plan in **Attachment 4**. Landscaping of the berms will be consistent with Town of Verona berms at the Town

Hall on County Highway PB and berms near Epic along Northern Lights Road. The berm slopes will be consistent with Town of Verona Land Division and Development Ordinance 2022-01 and Dane County Ordinance.

The landscape plan for the berms will include deciduous and coniferous trees and grass. Grass will be consistent with Wisconsin Department of Transportation (WisDOT) Standard Specifications; NRCS Critical Area Planting Code 342; and Wisconsin Agronomy Technical Note 5, Section 630 Seeding, Seed Mixture No. 10 included in Attachment 4 of the Reclamation Plan.

"j. Proposed temporary and permanent structures, including scales and offices."

The scale and office location are shown on the Site Plan, **Figure 1** in **Attachment 5.**

"5. Erosion control plan. An erosion control plan, drawn to scale by a professional engineer, meeting all applicable state and county requirements."

As required under Chapter 10.103(15)(b)2 (below), an Erosion Control Plan will be prepared per Dane County Chapter 14 prior to commencing operations.

"6. Reclamation plan. A reclamation plan prepared in accordance with this ordinance, Chapter 74, Dane County Code and Chapter NR 135, Wisconsin Administrative Code."

A Reclamation Plan prepared in accordance with Chapter 10 and Chapter 74 is provided under separate cover.

"(b) Conditions on mineral extraction conditional use permits. In addition to conditions required for all conditional use permits, the town board and zoning committee shall impose, at a minimum, the following conditions on any approved conditional use permit for mineral extraction."

"1. Topsoil, or appropriate topsoil substitute as approved in a reclamation plan under Chapter 74, Dane County Code, from the area of operation shall be saved and stored on site for reclamation of the area. Topsoil or approved topsoil substitute must be returned to the top layer of fill resulting from reclamation."

Topsoil will be stored on the Site to be used in upland areas. Excess topsoil will be sold.

"2. The applicant shall submit an erosion control plan under Chapter 14, Dane County Code covering the entire CUP area for the duration of operations, and receive approval of an erosion control permit prior to commencing extraction operations."

An Erosion Control Plan will be prepared per Dane County Chapter 14 prior to commencing operations.

"3. The Town and Committee will set an expiration date for the conditional use permit based on the quantity of material to be removed and the expected duration of mineral extraction activities."

The expected duration of mineral extraction is 35 years.

"a. Extensions. Due to uncertainty in estimating duration for mineral extraction, conditional use permit holders who have operated without violations, may have the duration of their permit extended for a period no to exceed five years, based on an administrative review by the zoning administrator, in consultation with the town board. No more than one such extension shall be granted over the lifespan of the conditional use permit, and all conditions shall remain the same as the original permit. Further extensions or any modifications of conditions shall require re-application and approval of a new conditional use permit."

Understood.

"4. Reclamation shall meet all requirements of Chapter 74 of the Dane County Code of Ordinances. In addition, all reclamation plans must meet the following standards:"

A Reclamation Plan prepared in accordance with Chapter 10 and Chapter 74 is provided under separate cover. Final reclamation will be uplands surrounding an estimated 70-acre lake as described and depicted in the reclamation plan prepared in accordance with Chapter 74. It is the intent of the Applicant to reclaim the Site as a public park and engage stakeholders in the design, if the Town of Verona is interested in retaining ownership of the property.

"a. Final land uses after reclamation must be consistent with any applicable town comprehensive plan, the Dane County Comprehensive Plan and the Dane County Farmland Preservation Plan."

The final land use after reclamation will be consistent with the County Zoning and comprehensive plans.

"b. Final slopes shall not be graded more than 3:1 except in a quarry operation."

Final slopes will not be graded more than 3H:1V.

"c. The area shall be covered with topsoil and seeded to prevent erosion."

Upland areas will be covered with topsoil and seeded. The landscape plan will include grass consistent with WisDOT Standard Specifications; NRCS Critical Area Planting Code 342; and Wisconsin Agronomy Technical Note 5, Section 630 Seeding, Seed Mixture No. 10 included in Attachment 4 of the Reclamation Plan.

"d. The area shall be cleared of all debris and left in a workmanlike condition subject to the approval of Dane County:

Upland areas will be cleared of all debris and left in a workmanlike condition.

"e. Highwalls shall be free from falling debris, be benched at the top, and certified by a civil engineer to be stable."

There will be no mining highwalls.

"5. The driveway accessing the subject site shall either be paved or covered with crushed asphalt for a minimum distance of 100 feet from the public right-of-way. The operator shall maintain the driveway in a dust free manner in accordance with local, state, and federal regulations, and shall clean any dust or mud tracked onto public roads."

The driveway will be crushed asphalt and kept clean.

"6. The access to the driveway shall have gates securely locked when the extraction site is not in operation. The site shall be signed "no trespassing.""

A gate will be installed near the entrance.

"7. All surface and subsurface operations shall be setback a minimum of 20' from any property line that does not abut a public right of way."

Surface and subsurface operations will be setback a minimum of 20 feet from property lines.

"8. Excavations below the grade of an abutting public street or highway shall be set back from the street or highway a distance at least equal to the distance that is required for buildings or structures under s. 10.102(9). The committee and town board may require greater setbacks where necessary to avoid subsidence, or for consistency with Chapters 11, 14, 17 or 74, Dane County Code."

Excavations will be at least 63 feet from the center line of Valley Road.

"9. The Town and Committee will assign hours of operation appropriate to the particular application. No operations of any kind shall take place on Sundays or legal holidays. The committee and town board may

approve limited exceptions to normal hours of operations for projects associated with Wisconsin Department of Transportation or municipal road projects requiring night work. [Note: Typical hours of operation are from 6:00 a.m. to 6:00 p.m., Monday through Friday, and 8 a.m. to early afternoon on Saturday. If there are residences nearby, hours may be more limited (e.g., start at 7:00 a.m. with no Saturday hours).] "

Proposed hours and days of operations are:

Daily Operation:	Monday through Friday
Hours of Operation:	6:00 a.m. to 6:00 p.m. (including equipment maintenance)
Saturday	8:00 a.m. to 2:00 p.m., as needed for maintenance

"10. There shall be a safety fence around the entire extraction area at all times. That safety fence shall be a minimum of 4 feet in height."

A 4-foot-high perimeter fence will be installed around the property prior to mining with a single strand of barbed wire at the top with "No Trespassing" signs.

"11. Except for incidental removal associated with dust spraying or other routine operations under this permit, water shall not be pumped or otherwise removed from the site."

Water will not be pumped or removed from the Site.

"12. The operator shall require all trucks and excavation equipment to have muffler systems that meet or exceed then current industry standards for noise abatement."

Operator trucks and excavation equipment will have muffler systems that meet or exceed the current industry standards for noise abatement.

"13. The operator shall meet DNR standards for particulate emissions as described in NR 415.075 and NR 415.076, Wisconsin Administrative Code."

The operator will meet WDNR standards for particulate emissions.

"14. Dane County and the Town shall be listed as additional named insureds on the operator's liability insurance policy, which shall be for a minimum of $1,000,000 combined single limit coverage per occurrence. The operator shall furnish a copy of a Certificate of Insurance as evidence of coverage before operations commence. The liability insurance policy shall remain in effect until reclamation is complete."

Dane County and the Town of Verona will be listed as additionally named insureds on the operator's liability insurance policy.

"15. At their own initiative or at the applicant's request, the town board and zoning committee may set further reasonable restrictions on a mineral extraction operation, or prohibit any mineral extraction accessory use."

Understood.

"(c) Additional conditions for particular circumstances. Where any of the following circumstances apply, the zoning committee and town board shall also impose the following conditions on any approved conditional use permit for mineral extraction: "

"1. Blasting."

"a. Blasting Schedule. Blasting shall occur between sunrise and sunset, as required by SPS 307. The zoning committee and town board may set further daily limits on hours when blasting may occur, to minimize impact on neighboring properties. Schedules for blasting need not conform to hours of operation for the overall mineral extraction project."

"b. Notice of Blasting Events. Prior to any blasting event, notice shall be provided to nearby residents as described in SPS 307, Wisconsin Administrative Code. In addition, operators will honor the requests of residents within 500' of the mineral extraction site to either receive or stop receiving such notices at any time."

"c. Other standards. All blasting on the site must conform with all requirements of SPS 307, Wisconsin Administrative Code, as amended from time to time, or its successor administrative code regulations."

"d. Fly rock shall be contained within the permitted mineral extraction area."

There will be no blasting.

"2. Fuel storage. All fuel storage must comply with ATCP 93, Wisconsin Administrative Code, including provisions for secondary spill containment."

Bulk fuel oil storage will be near the scale and scale house shown on the Site Plan, **Figure 1** in **Attachment 5,** at approximate ground elevation 950 to 960 feet. A double-wall fuel storage tank will be used and fuel storage will comply with ATCP 93.

"3. Mineral extraction at or near groundwater. All excavation equipment, plants, and vehicles shall be fueled, stored, serviced, and repaired on lands at least 3 feet above the highest water table elevation to prevent against groundwater contamination from leaks or spills."

Excavation equipment, plants, and vehicles will be fueled, stored, serviced, and repaired on lands at least 3 feet above the highest water table elevation.

"4. In the event that a mineral extraction operation will destroy an existing Public Land Survey Monument, witness monuments must be established in safe locations and a new Monument Record filed by a Professional Surveyor, prior to excavation and disturbance of the existing monument."

Mining will not destroy an existing Public Land Survey Monument.

10.101(7)(b)1.c. "*any additional standards required in the applicable zoning district."*

No additional standards were identified

10.101(7)(b)2. Legal Description

"The applicant shall provide a written legal description accurately describing the specific area on the property where the conditional use will operate and the conditional use permit will be effective. Conditional use permit areas should be the minimum size necessary to accommodate the proposed use, and need not conform to lot, zoning lot or tax parcel boundaries."

The legal description of the property is provided in **Attachment 3**.

10.101(7)(b)3. Site Plan

"All applications for a conditional use permit must be accompanied by a site plan, meeting all the standards described in s.10.101(6)"

Chapter 10.101(6) Site Plans a) Site plans required. Applicants must submit site plans with any of the following applications:

1. Any Zoning Permit application within the CO-1, NR-I or UTR zoning districts.

2. Any Conditional Use Permit application.

3. Any rezone petition to the HAM-R, HAMM, LC, GC, HC, RI or MI zoning districts.

4. Any rezone petition within the NR-I overlay zoning district, except for petitions to rezone to the FP-35, FP-1 or NR-C districts."

Site Plans prepared in general accordance with Chapter 10.101(6) are submitted in support of the CUP Application in **Attachment 5**.

*"(b) Information included. Site plans must be drawn to a scale large enough to show sufficient detail on 11" by 17" paper, that includes, at a minimum the following information, as applicable: [**List omitted**]*

The Site Plans in **Attachment 5** include the required information.

10.101(7)(b)4. Operational Plan

"All applications for a conditional use permit must be accompanied by an operational plan that describes, at a detail acceptable to the zoning administrator, the following characteristics of the operation, as applicable"

"a. Hours of operation."

Proposed hours and days of operations are:

Daily Operation:	Monday through Friday
Hours of Operation:	6:00 a.m. to 6:00 p.m. (including equipment maintenance)
Saturday	8:00 a.m. to 2:00 p.m., as needed for maintenance

"b. Number of employees, including both fulltime equivalents and maximum number of personnel to be on the premises at any time."

The proposed mining operation will employ approximately two to five personnel. The number of personnel on the premises will depend on activities, season, and customer demand.

"c. Anticipated noise, odors, dust, soot, runoff or pollution and measures taken to mitigate impacts to neighboring properties."

Noise typical of nonmetallic mining operations will be mitigated by distance to/from neighboring properties and physical barriers. The physical barriers between noise sources, such as power equipment and the crusher, will include berms along property boundaries and the mine wall. Backup alarms will utilize white noise or other non-beeping legal safety device.

Dust will be mitigated naturally by the process of wet bank mining (dredge mining) and further mitigated by implementation of a Fugitive Dust Control Plan.

Runoff will be controlled by diverting stormwater into the mine.

"d. Descriptions of any materials stored outside and any activities, processing or other operations taking place outside an enclosed building."

Sand and gravel, as excavated and processed, will be stored outside. Processing operations will not be within an enclosed building.

"e. Compliance with county stormwater and erosion control standards under Chapter 11 or Chapter 14, Dane County Code."

The proposed mining operation will comply with County stormwater and erosion control standards under Chapter 14 during mine development. The mining operation will also comply with the stormwater requirements of the WPDES General Permit for Mineral (Nonmetallic) Mining and/or Processing.

"f. Sanitary facilities, including adequate private onsite wastewater treatment systems and any manure storage or management plans approved by the Madison & Dane County Public Health Agency and/or the Dane County Land and Water Resources Department."

Portable toilets will be used at the Site.

"g. Facilities for managing and removal of trash, solid waste and recyclable materials."

A private waste management contractor will be used for disposal of trash.

"h. Anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic."

Daily traffic is anticipated to vary by season and may range from less than 100 to close to 200 trucks per day capable of hauling up to 22 tons of sand and gravel. Improvements to Valley Road will be based on discussions with the Town of Verona Public Works Director. Improvements to the Valley Road intersection with STH 69 are not anticipated to accommodate the trucks or traffic.

"i. A listing of hazardous, toxic or explosive materials stored on site, and any spill containment, safety or pollution prevention measures taken."

Hazardous, toxic, or explosive materials will not be used or stored on-Site. Oil storage will be managed in accordance with industry standard of care and, if applicable, a SPCC Plan.

"j. Outdoor lighting and measures taken to mitigate light-pollution impacts to neighboring properties."

Outdoor lighting will be limited to near the processing operations for safety and security and when in use will be pointed down to minimize light pollution.

"k. Signage, consistent with ss. 10.800."

Signage will be consistent with ss. 10.800.

ATTACHMENT 1

CUP Application Form

Dane County
Department of Planning and Development
Zoning Division
Room 116, City-County Building
210 Martin Luther King Jr. Blvd.
Madison, Wisconsin 53703
(608) 266-4266

Application Fees	
General:	$495
Mineral Extraction:	$1145
Communication Tower:	$1145 (+$3000 RF eng review fee)
PERMIT FEES DOUBLE FOR VIOLATIONS OR WHEN WORK HAS STARTED PRIOR TO ISSUANCE OF PERMIT	

CONDITIONAL USE PERMIT APPLICATION

APPLICANT INFORMATION

Property Owner Name:	Southwest Investments LLC	**Agent Name:**	Michael Marquette
Address (Number & Street):	930 10th Avenue	**Address (Number & Street):**	801 W. Verona Avenue, #349
Address (City, State, Zip):	New Glarus, WI 53574	**Address (City, State, Zip):**	Verona, WI 53593
Email Address:	bkahl1@icloud.com	**Email Address:**	akmjm8@gmail.com
Phone#:	(608) 513-0826	**Phone#:**	(608) 289-2931

SITE INFORMATION

Township:	Verona	**Parcel Number(s):**	[062-0608-282-]8000-6; 8500-1; 9000-4; 9500-9
Section:	28	**Property Address or Location:**	7228 Pine Bow
Existing Zoning: AT-35 / **Proposed Zoning:** AT-35		**CUP Code Section(s):**	[Ch 10.101] (6); (7); (15)

DESCRIPTION OF PROPOSED CONDITIONAL USE

Type of conditional use permit (for example: limited family business, animal boarding, mineral extraction, or any other listed conditional use):
Mineral extraction

Is this application being submitted to correct a violation? Yes ☐ No ■

Provide a short but detailed description of the proposed conditional use:
The proposed conditional use is nonmetallic mining and processing of sand and gravel. Mining will be done by mechanical excavation and dredge mining. Mined material will be processed by crushing, screening and washing then temporarily stockpiled until sold or used.

See Narrative and Site Plan for additional details.

GENERAL APPLICATION REQUIREMENTS

Applications will not be accepted until the applicant has met with department staff to review the application and determined that all necessary information has been provided. Only complete applications will be accepted. All information from the checklist below must be included. Note that additional application submittal requirements apply for particular uses or as may be required by the Zoning Administrator. Applicants for significant and/or potentially controversial conditional uses are strongly encouraged to meet with staff prior to submittal.

☐ Complete attached information sheet for standards	☐ Site Plan drawn to scale	☐ Detailed operational plan	☐ Written legal description of boundaries	☐ Detailed written statement of intent	☐ Application fee (**non-refundable**), payable to Dane County Treasurer

I certify by my signature that all information presented herein is true and correct to the best of my knowledge. I hereby give permission for staff of the Dane County Department of Planning and Development to enter my property for the purpose of collecting information to be used as part of the review of this application. I acknowledge that submittal of false or incorrect information may be grounds for denial of this application.

Owner/Agent Signature: _____ Date: 6/4/24

STANDARDS FOR CONDITIONAL USE PERMITS

Applicants must provide adequate evidence demonstrating to the Town and Dane County Zoning & Land Regulation Committee that the proposed conditional use satisfies the following 8 standards for approval, along with any additional standards specific to the applicable zoning district or particular use found in sections 10.220(1) and 10.103 of the code.

Please explain how the proposed land use will meet the following standards (attach additional pages, if necessary):

1. The establishment maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

See attached narrative.

2. The uses, values, and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use.

See attached narrative.

3. The establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

See attached narrative.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the conditional use.

See attached narrative.

5. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

See attached narrative.

6. That the conditional use shall conform to all applicable regulations of the district in which it is located.

See attached narrative.

7. The conditional use is consistent with the adopted town and county comprehensive plans.

See attached narrative.

8. If the conditional use is located in a Farmland Preservation (FP) Zoning district, the conditional use is subject to the following additional standards found in section 10.220(1). Attach additional pages, if necessary.

- Explain how the use and its location in the Farmland Preservation Zoning District are consistent with the purposes of the district:

Not Applicable

- Explain how the use and its location in the Farmland Preservation Zoning district are reasonable and appropriate, considering alternative locations:

Not Applicable

- Explain how the use is reasonably designed to minimize the conversion of land from agricultural use or open space use:

Not Applicable

- Explain how the use does not substantially impair or limit the current or future agricultural use of surrounding parcels zoned for agricultural use:

Not Applicable

- Explain how construction damage to land remaining in agricultural use is minimized and repaired, to the extent feasible:

Not Applicable

WRITTEN STATEMENT OF INTENT AND OPERATIONS PLAN

Applicants must provide a detailed written statement of intent describing the proposed conditional use along with an operational plan that explains how the conditional use will be operated. Please use the form below and provide responses, as applicable, to your proposed conditional use. Attach additional pages, if necessary.

Describe in detail the proposed conditional use. Provide the specific location of the use(s), type of equipment used, planned property improvements, including description / size of existing or proposed new buildings to be used, and any other relevant information. For existing or proposed commercial operations, provide the name of the business and describe the nature and type of business activity. See attached narrative
List the proposed days and hours of operation. See attached narrative
List the number of employees, including both full-time equivalents and maximum number of personnel to be on the premises at any time. See attached narrative
List any anticipated noise, odors, dust, soot, runoff or pollution associated with the conditional use, along with any proposed measures that will be taken to mitigate impacts to neighboring properties. See attached narrative
Describe any materials proposed to be stored outside and any activities, processing or other operations taking place outside an enclosed building. See attached narrative
For proposals involving construction of new facilities and/or infrastructure, describe, as applicable, any measures being taken to ensure compliance with county stormwater and erosion control standards under Chapter 11 of Chapter 14, Dane County Code. See attached narrative
List and describe existing or proposed sanitary facilities, including adequate private onsite wastewater treatment systems, associated with the proposed conditional use. For uses involving domestic pets or livestock, list and describe measures taken to address manure storage or management. See attached narrative
List and describe any existing or proposed facilities for managing and removal of trash, solid waste and recyclable materials. See attached narrative
Describe anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic. See attached narrative
Provide a listing of any hazardous, toxic or explosive materials to be stored on site, and any spill containment, safety or pollution prevention measures. See attached narrative
Describe any existing or proposed outdoor lighting along with any measures that will be taken to mitigate light-pollution impacts to neighboring properties. The Zoning Administrator may require submittal of a photometric plan for outdoor lighting if deemed necessary to determine potential impacts to neighbors. See attached narrative
Describe any existing or proposed signage, including size, location, and materials, consistent with the county's sign ordinance found in s. 10.800. See attached narrative
Briefly describe the current use(s) of the property on which the conditional use is proposed. See attached narrative
Briefly describe the current uses of surrounding properties in the neighborhood. See attached narrative

APPLICATION CHECKLIST FOR A CONDITIONAL USE PERMIT

A scaled site plan and detailed operations plan must be submitted with your Conditional Use Permit application. Please use the checklist below to ensure you are submitting all required information applicable to your request. Please attach to your application form the required maps and plans listed below, along with any additional pages.

▣ SCALED SITE PLAN. Show sufficient detail on 11" x 17" paper. Include the following information, as applicable:

- ▣ Scale and north arrow.
- ☐ Date the site plan was created.
- ▣ Existing subject property lot lines and dimensions.
- ▣ Existing and proposed wastewater treatment systems and wells.
- ▣ All buildings and all outdoor use and/or storage areas, existing and proposed, including provisions for water and sewer.
- ▣ All dimension and required setbacks, side yards and rear yards.
- ▣ Location and width of all existing and proposed driveway entrances onto public and private roadways, and of all interior roads or driveways.
- ▣ Location and dimensions of any existing utilities, easements or rights-of-way.
- ▣ Parking lot layout in compliance with s. 10.102(8).
- ▣ Proposed loading/unloading areas.
- ▣ Zoning district boundaries in the immediate area. All districts on the property and on all neighboring properties must be clearly labeled.
- ▣ All relevant natural features, including navigable and non-navigable waters, floodplain boundaries, delineated wetland areas, natural drainage patterns, archeological features, and slopes over 12% grade.
- ▣ Location and type of proposed screening, landscaping, berms or buffer areas if adjacent to a residential area.
- ▣ Any lighting, signs, refuse dumpsters, and possible future expansion areas.

▣ NEIGHBORHOOD CHARACTERISTICS. Describe existing land uses on the subject and surrounding properties:

- ▣ Provide a brief written statement describing the current use(s) of the property on which the conditional use is proposed.
- ▣ Provide a brief written statement documenting the current uses of surrounding properties in the neighborhood.

▣ OPERATIONS PLAN AND NARRATIVE. Describe in detail the following characteristics of the operation, as applicable:

- ▣ Hours of operation.
- ▣ Number of employees, including both full-time equivalents and maximum number of personnel to be on the premises at any time.
- ▣ Anticipated noise, odors, dust, soot, runoff or pollution and measures taken to mitigate impacts to neighboring properties.
- ▣ Descriptions of any materials stored outside and any activities, processing or other operations taking place outside an enclosed building.
- ▣ Compliance with county stormwater and erosion control standards under Chapter 11 of Chapter 14, Dane County Code.
- ▣ Sanitary facilities, including adequate private onsite wastewater treatment systems and any manure storage or management plans approved by the Madison and Dane County Public Health Agency and/or the Dane County Land and Water Resources Department.
- ▣ Facilities for managing and removal of trash, solid waste and recyclable materials.
- ▣ Anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic.
- ▣ A listing of hazardous, toxic or explosive materials stored on site, and any spill containment, safety or pollution prevention measures taken.
- ▣ Outdoor lighting and measures taken to mitigate light-pollution impacts to neighboring properties.
- ▣ Signage, consistent with section 10.800.

▣ ADDITIONAL MATERIALS. Additional information is required for certain conditional uses listed in s. 10.103:

- ☐ Agricultural entertainment, special events, or outdoor assembly activities anticipating over 200 attendees must file an event plan.
- ☐ Domestic pet or large animal boarding must provide additional information in site and operations plans.
- ☐ Communication towers must submit additional information as required in s. 10.103(9).
- ☐ Farm residences proposed in the FP-35 district must submit additional information as required in s. 10.103(11).
- ▣ Mineral extraction proposals must submit additional information as required in s. 10.103(15).

ATTACHMENT 2

Mineral Extraction Checklist

Conditional Use Permit - Mineral Extraction Application Checklist

Applicant			Zoning
Plan Requirement	✓	**Location in plan - page #**	✓
1. Legal description - CSM and/or exact metes & bounds.		Attachment 1	
Size of area requesting - acreage		Page 4	
Parcel number(s)		Page 4	
2. Written statement that includes the following:			
General description of the operation.		Page 4/5	
Existing uses of the land.		Page 5	
Existing natural features including depth to groundwater.		Page 5	
Types and quantities of materials that will be extracted.		Page 5	
Proposed dates to begin extraction, end extraction and complete reclamation.		Page 5	
Proposed hours and days of operation.		Page 5	
Geologic composition and depth to the mineral deposit.		Page 5	
Identify all major proposed haul routes to the nearest Class A highway or truck route.		Page 6	
Indicate traffic flow patterns.		Page 6	
Proposed phasing plan (recommended for larger sites)		Page 6, Attachment 4	
Types, quantities and frequency of use of equipment to extract, process and haul.		Page 6	
Frequency of blasting, drilling, mining, crushing, screening, washing, refueling.		Page 6	
Bulk fuel storage.		Page 6	
Asphalt batching or concrete mixing.		Page 6	
Proposed storage of recycled materials.		Page 6	
Does extraction occur below the water table / protection of groundwater.		Page 6	
Permanent or temporary structures.		Page 6	
Spill prevention and or dust control.		Page 6/7	
Proposed use after final reclamation as consistent with Ch. 74. Separate checklist for reclamation permit.		Page 7, Reclamation Plan provided under separate cover	

This checklist is required in addition to a complete application for a conditional use permit. Application may be deemed incomplete if required information is not submitted.

ATTACHMENT 3

Legal Description

Attachment 3

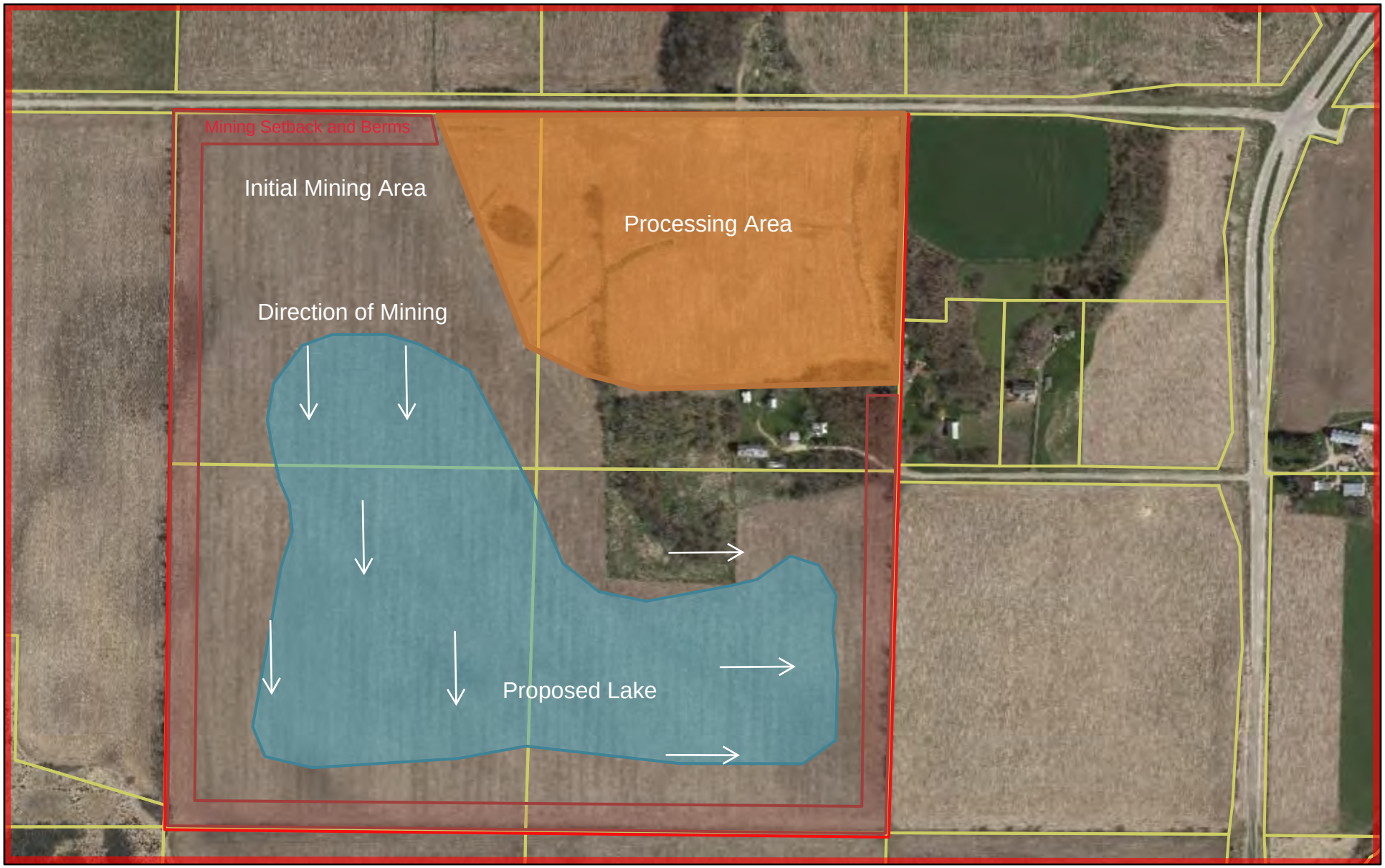
Legal Description

NORTHWEST QUARTER (NW 1/4) OF SECTION TWENTY-EIGHT (28), TOWN SIX (6) NORTH, RANGE EIGHT (8) EAST, BEING IN THE TOWN OF VERONA, DANE COUNTY, WISCONSIN.

ATTACHMENT 4

Conceptual Mine Plan

JMM LLC Conceptual Mine Plan



May 10, 2024

Parcels

1:6,000

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

ATTACHMENT 5

Site Plans

Conditional Use Permit Application

Site Plans

JMM LLC
Proposed Sand and Gravel Operation
Southwest Investments LLC Property
7228 Pine Row
Town of Verona, Wisconsin

The Conditional Use Permit (CUP) Site Plan for the Southwest Investments LLC property at 7228 Pine Row in the Town of Verona, Wisconsin ("Site") was prepared on behalf of JMM LLC ("JMM"/"Applicant") in general accordance with the following:

- Dane County Dane County Zoning Ordinance:
  - Chapter 10.101(6) Site Plans.

Information required in Chapter 10 pertaining to the Site Plans are addressed below.

Chapter 10.101(6)(b) Information included. Site plans must be drawn to a scale large enough to show sufficient detail on 11" by 17" paper, that includes, at a minimum the following information, as applicable:

"1. A small vicinity map that clearly identifies the site's location within Dane County."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"2. Location of subject property, tax parcel number(s), and any relevant certified survey (CSM) or plat information related to the identification of the property."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"3. Scale and north arrow."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"4. Date the site plan was created and/or last revised."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"5. Existing subject property lot lines and dimensions."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"6. Existing and proposed wastewater treatment systems and wells."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"7. All buildings and all outdoor use and/or storage areas, existing and proposed, including provisions for water and sewer. Existing and proposed uses must be clearly labeled."

Existing buildings and land use are shown on **Figure 1** and the Building Layout Plan included in **Attachment 5.** Proposed development is shown on the Conceptual Mine Plan, **Attachment 4**. If the existing septic and well are not used for the mine office, portable toilets and bottled water will be used.

"8. All dimensions and required setbacks, side yards and rear yards."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"9. Location and width of all existing and proposed driveway entrances onto public and private roadways, and of all interior roads or driveways. Traffic flow patterns must be indicated."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"10. Location and dimensions of any existing utilities, easements or rights-of-way."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"11. Parking lot layout in compliance with s.10.102(8)."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"12. Proposed loading/unloading areas."

Loading and unloading are throughout the processing area shown on the attached Site Plan, **Figure 1** in **Attachment 5**.

"13. Zoning district boundaries in the immediate area. All districts on the property and on all neighboring properties must be clearly labeled."

See attached Site Plan, **Figure 1** in **Attachment 5**.

"14. All relevant natural features, including but not limited to:"

"a. Navigable waters, including ordinary highwater marks and shoreland setbacks required under Chapter 11, Dane County Code, for all lakes, ponds, rivers, streams (including intermittent streams) and springs within 300 feet of the property."

There are no lakes, ponds, rivers, streams (including intermittent streams) and springs within 300 feet of the property.

b. Non-navigable water features, including drainage ditches, culverts and stormwater conveyances.

There are no non-navigable water features, including drainage ditches, culverts, and stormwater conveyances on or near the property.

"c. Floodplain boundaries and field-verified elevations, including flood fringe, floodway, flood storage and general floodplain districts as described in Chapter 17, Dane County Code"

See attached Site Plan, **Figure 1** in **Attachment 5**.

"d. Delineated wetland areas, including wetland setbacks required under Chapter 11, Dane County Code"

See attached Site Plan, **Figure 1** in **Attachment 5**.

"e. Natural drainage patterns"

See attached Site Plan, **Figure 1** in **Attachment 5**.

"f. Archaeological features and"

There are no know Archaeological features at the Site.

"g. Slopes over 12% grade."

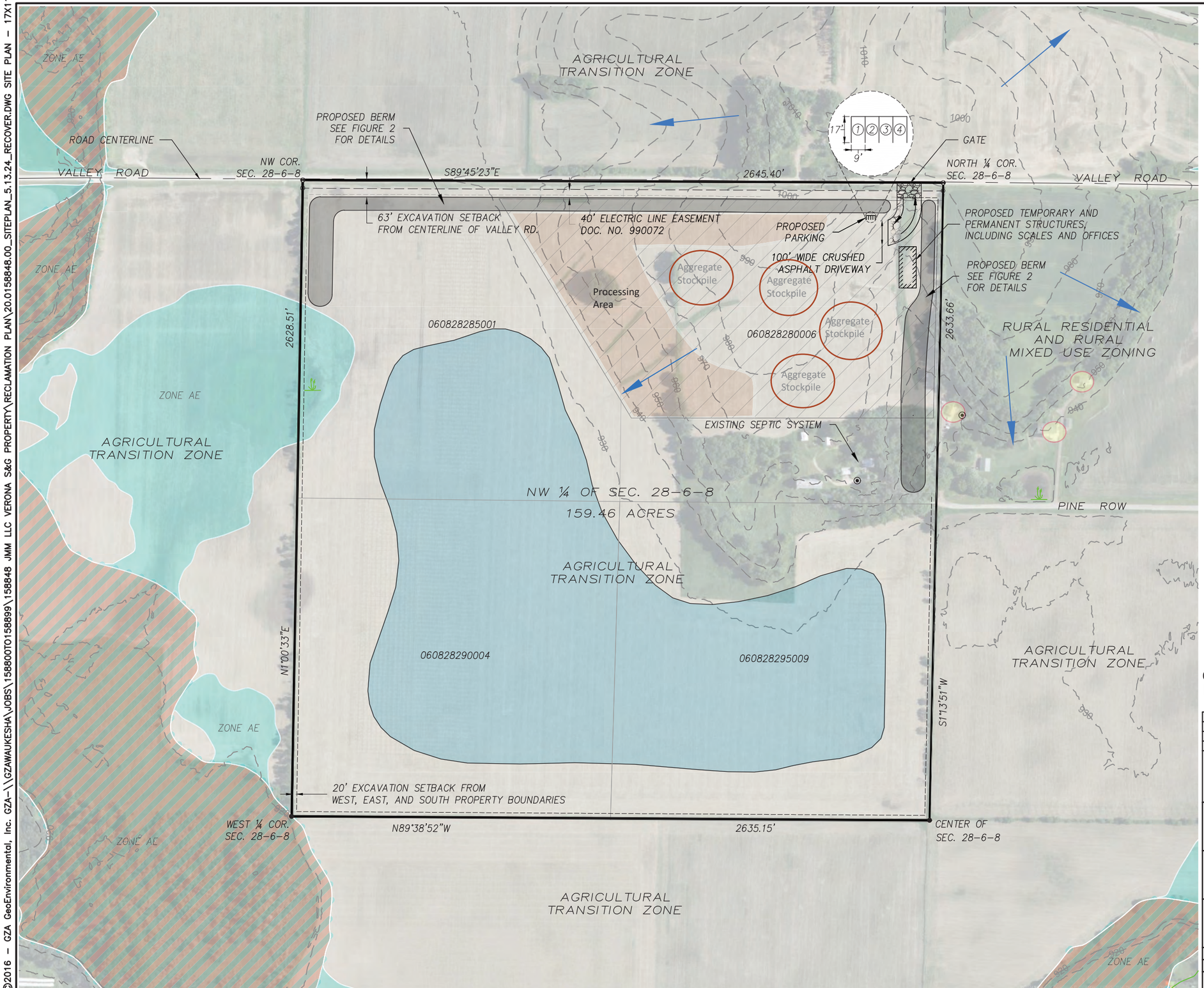
There are no slopes over 12% grade on the property.

"15. If required by s. 10.102(12), location and type of proposed screening, landscaping, berms or buffer areas."

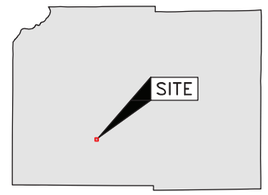
Although not required by s. 10.102(12), berms will be constructed along the north, northeast and northwest property boundaries.

"16. The zoning administrator may require, at his or her discretion, site plans to show additional detail, including, but not limited to contours, drainage, screening, fences, landscaping, lighting, signs, refuse dumpsters, and possible future expansion areas."

Understood



DANE COUNTY VICINITY MAP



GENERAL NOTES

1. AERIAL MAP UNDERLAY DEVELOPED FROM INTEGRATED BING MAP SERVICE PROVIDED IN AUTOCAD SOFTWARE.
2. THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.
3. HORIZONTAL DATUM REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM OF 2011 (NSRN2011), WISCONSIN COORDINATE REFERENCE SYSTEMS (WISCRS), DANE COUNTY, US FOOT.

LEGEND

- SUBJECT PROPERTY BOUNDARY
- TAX PARCELS
- 940 — 10 FOOT ELEVATION CONTOUR
- PROPOSED POND
- PROCESSING AREA
- NATURAL DRAINAGE PATTERN
- EXISTING WELL LOCATION
- WETLAND TOO SMALL TO DELINEATE
- 1% ANNUAL CHANCE FLOOD HAZARD; 100-YEAR FLOODPLAIN
- REGULATORY FLOODWAY
- RESIDENCE

N, W, E, S

0 200' 400' 800'

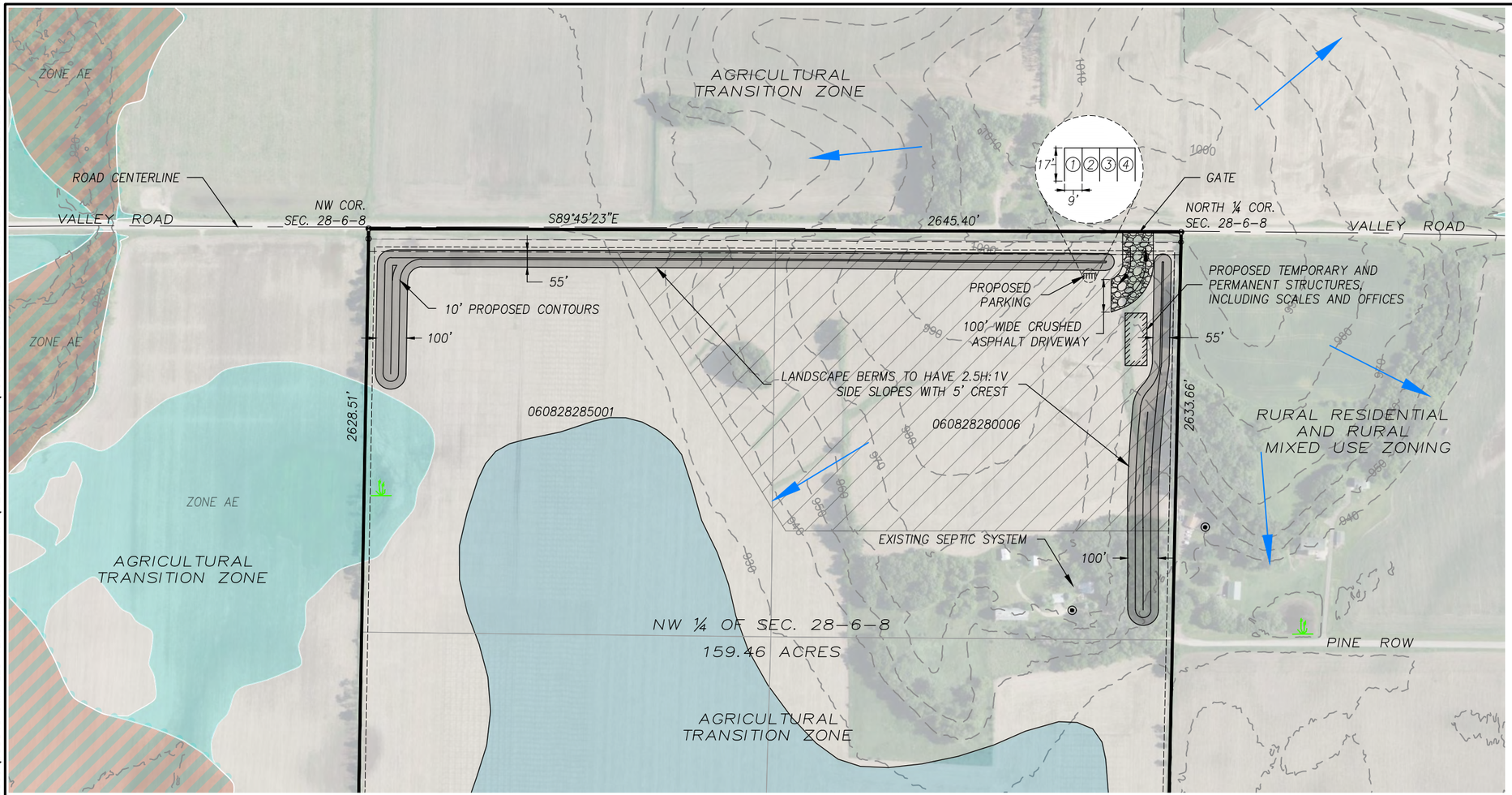
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

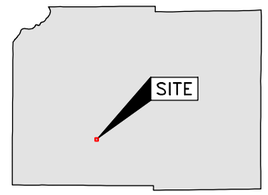
PROPOSED SAND AND GRAVEL OPERATION
SOUTHWEST INVESTMENTS LLC PROPERTY
7228 PINE ROW, TOWN OF VERONA, WISCONSIN

SITE PLAN

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		JMM, LLC.	
PROJ MGR: JDG	REVIEWED BY: JDG	CHECKED BY: MJK	FIGURE 1
DESIGNED BY: HKP	DRAWN BY: HKP	SCALE: AS NOTED	
DATE: MAY, 2024	PROJECT NO. 20.0158848.00	REVISION NO. 0	SHEET NO.



DANE COUNTY VICINITY MAP



GENERAL NOTES

1. AERIAL MAP UNDERLAY DEVELOPED FROM INTEGRATED BING MAP SERVICE PROVIDED IN AUTOCAD SOFTWARE.
2. THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.
3. HORIZONTAL DATUM REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM OF 2011 (NSRN2011), WISCONSIN COORDINATE REFERENCE SYSTEMS (WISCRS), DANE COUNTY, US FOOT.

LEGEND

- SUBJECT PROPERTY BOUNDARY
- TAX PARCELS
- 940 — 10 FOOT ELEVATION CONTOUR
- PROPOSED POND
- PROCESSING AREA
- NATURAL DRAINAGE PATTERN
- EXISTING WELL LOCATION
- WETLAND TOO SMALL TO DELINEATE
- 1% ANNUAL CHANCE FLOOD HAZARD; 100-YEAR FLOODPLAIN
- REGULATORY FLOODWAY

N / W / E / S

0 200' 400' 800'

SCALE IN FEET

LANDSCAPE BERMS PLANTING CONCEPTS

NO.	ISSUE/DESCRIPTION	BY	DATE

PROPOSED SAND AND GRAVEL OPERATION
SOUTHWEST INVESTMENTS LLC PROPERTY
7228 PINE ROW, TOWN OF VERONA, WISCONSIN

LANDSCAPE PLAN

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		JMM, LLC.	
PROJ MGR: JDG	REVIEWED BY: JDG	CHECKED BY: MJK	FIGURE 2
DESIGNED BY: HKP	DRAWN BY: HKP	SCALE: AS NOTED	
DATE: MAY, 2024	PROJECT NO. 20.0158848.00	REVISION NO. 0	SHEET NO.

ATTACHMENT 6

Response to Review Comments From Dane County

ATTACHMENT 6
Response to Review Comments from Dane County
Land Division Plat Review Officer/Mining Regulatory Authority

Information requested in a June 7, 2024 email from Dane County is addressed below. Requested information is "*quoted and italicized*"

"Traffic External: *Valley Road is not adequate for truck traffic. It's 20 to 21 feet wide and is in poor shape near the shoulders. County is suggesting major improvements to Valley Rd. from the site entrance to STH 69. For example: Turn lane and passing lane built, all trucks coming and going are to be from the east. No truck traffic to and from the west. Town of Verona will be a major player on this subject as this is a town road. The CUP application should provide more detail on this and could be a major hurdle by the town and public. CUP application should offer some solutions."*

See CUP Application, Pages 2 and 13. Improvements to Valley Road will be based on discussions with the Town of Verona Public Works Director.

"Traffic Internal: *Internal haul patterns/traffic flow shall be identified. Provide a separate map that illustrates this."*

See CUP Application Pages 2 and 3. There are no interior roads beyond the entrance road shown in the attached Site Plan, Figure 1 in Attachment 5. Internal traffic at the proposed mine will be limited to the approximately 30-acre processing area shown on the Site Plan, Figure 1 in Attachment 5. There is only one entrance/exit. Trucks entering the mine property will weigh empty if no tare weight is available, travel to the appropriate material stockpile location, then weigh filled and exit. Material stockpiles will vary in number and size making it impossible to identify traffic patterns on a drawing.

"Sensitive Environmental features to the west: *There is a small area mapped as wetlands and this should not be overlooked. Wetland delineation report should be conducted to determine the extents or size. The CUP extraction area will need to provide a buffer/setback to all and any floodplain/wetlands."*

See CUP Application, Page 5. The Wisconsin Wetland Inventory posted on the Wisconsin Department of Natural Resources (WDNR) Surface Water Data Viewer website includes a symbol on the western margins of the Site that designates a "wetland too small to delineate". The symbol is from the WDNR Wisconsin Wetland Inventory Point Layer, WiDNR Open Data website which indicates that the "wetland too small to delineate" is based on review of a 2008 aerial photograph. Based on aerial photograph, the area is farmed in most years indicating the area is commonly not wet. The area will be evaluated, and any wetland boundaries delineated and setbacks maintained as specified in Chapter 11.03(2)(a).

"Blasting: *Be specific, either yes or no. Don't say "is not anticipated""*

See CUP Application Pages 6 and 11. There will be no blasting.

"Residences: *Provide a separate map that highlights the locations of the existing homes within 1000 foot radius. What is the plan for the existing home at 7228 Pine Row Rd.?"*

See CUP Application, Pages 7 and 11. The existing homes within 1,000 feet are highlighted on the Site Plan, Figure 1 in Attachment 5.

The residence at 7228 Pine Row will be demolished.

"Topsoil: *All topsoil will be required to be saved and used to build the berms. Excess topsoil may be sold after reclamation is complete."*

See CUP Application, Page 8. Topsoil will be stored on the Site to be used in upland areas. Excess topsoil will be sold.

"Maximum pit depth: *"Greater than 70' to 90 feet" mentioned, but what will be the anticipated maximum* depth?"

See CUP Application, Page 6. The anticipated maximum depth of the pit is 90 feet.

"Refueling/Bulk fuel storage: Need more specifics on location, elevation, type of containment and protection to avoid any contamination with groundwater."

See CUP Application, Page 11. Bulk fuel oil storage will be near the scale and scale house shown on the Site Plan, Figure 1 in Attachment 5, at approximate ground elevation 950 to 960 feet. A double-wall fuel storage tank will be used and fuel storage will comply with ATCP 93.

"Ground water quality: *How will the water quality be monitored and tested? DNR oversight? Pumping stormwater off site with discharge approvals by DNR or is everything being stored internally?"*

See CUP Application, Page 6. There is no technical justification to monitor groundwater quality. The WDNR has jurisdiction over groundwater quality and JMM LLC is obligated to comply with the state standards.

See also CUP Application, Page 7. A Stormwater Management Plan will be prepared in general accordance with the Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit for Mineral (Nonmetallic) Mining and/or Processing.

See also CUP Application, Page 12. Runoff will be controlled by diverting stormwater into the mine."

"Fencing: *More detail as to how the entire site or extraction area is fenced. Fencing the entire perimeter right off the bat or will the fencing be moved around as construction occurs?*

See CUP Application Pages 4, 7, and 10. A 4-foot-high perimeter fence will be installed around the property prior to mining with a single strand of barbed wire at the top with "No Trespassing" signs.

"Berms: *Plan shows slopes as 2.5:1. County requires nothing to exceed 3:1. More detail as to the landscape plan, what type of plantings and seed mixture."*

See CUP Application, Pages 7 and 8. The berm slopes will be consistent with Town of Verona Land Division and Development Ordinance 2022-01 and Dane County Ordinance. The landscape plan for the berms will include deciduous and coniferous trees and grass. Grass will be consistent with Wisconsin Department of Transportation (WisDOT) Standard Specifications; NRCS Critical Area Planting Code 342; and Wisconsin Agronomy Technical Note 5, Section 630 Seeding, Seed Mixture No. 10 included in Attachment 4 of the Reclamation Plan.

NONMETALLIC MINING RECLAMATION PLAN

Prepared for:
JMM LLC
Proposed Wildcat Pit Sand and Gravel Operation
Southwest Investments LLC Property
7228 Pine Row
Town of Verona, Wisconsin

Mailing Address:
801 W. Verona Ave, #349
Verona, Wisconsin 53593

INTRODUCTION

This Nonmetallic Mining Reclamation Plan (the "2024 Plan") was prepared by GZA GeoEnvironmental, Inc. ("GZA") for the proposed Wildcat Pit sand and gravel mining operation of JMM LLC (hereinafter referred to as "JMM" or the "Owner") at 7228 Pine Row in Verona Township, Dane County, Wisconsin (the "Site"). The Site is comprised of approximately 159 acres and four parcels.

The 2024 Plan was prepared in accordance with the following:

- Dane County Chapter 74 Nonmetallic Mining; and
- Wisconsin Administrative Code (Wis. Adm. Code) NR 135.19 (NR135).

The requirements of NR135 are incorporated into the Dane County Chapter 74. The language from Chapter 74 is "*quoted and italicized"* followed by the requested information where applicable.

Chapter 74.121,
"Reclamation Permits; Non-Metallic Mining Reclamation Permit Application. *[intro.] All operators of non-metallic mining sites shall apply for a reclamation permit from the zoning administrator before beginning mining operations. The requirement for a permit under this chapter is in addition to the required conditional use permit under ch. 10. All applications for reclamation permits under this section shall include the following:*

"(1)A brief description of the general location and nature of the non-metallic mine."

The proposed mine will extract and process sand and gravel on property located on the south side of Valley Road less than ¼-mile west of State Highway 69. Mined material will be processed by crushing, screening, and washing, then temporarily stockpiled until sold or used.

"(2) A legal description of the property on which the non-metallic mine is located or proposed, including the parcel identification number."

The legal description of the property is provided in **Attachment 1**.

"(3) The names, addresses and telephone numbers of all persons or organizations who are owners or lessees of the property on which the non-metallic mining site is located.

Current Property Owner:

Southwest Investments LLC
930 10th Avenue
New Glarus, Wisconsin
Ben Kahl
608-513-0826

Proposed Property Owner:

JMM LLC
801 W. Verona Ave, #349
Verona, Wisconsin 53593
Michael Marquette
606-289-2931

"(4) The name, address and telephone number of the person or organization who is the operator."

JMM LLC
801 W. Verona Ave, #349
Verona, Wisconsin 53593
Michael Marquette
606-289-2931

"(5) A certification by the operator of his or her intent to comply with the statewide non-metallic mining reclamation standards established by subchapter II."

A certification by JMM is included as **Attachment 2**.

"(6) A reclamation plan conforming to s. 74.131."

This document provides the reclamation plan prepared in general accordance with Chapter 74.131.

"(7) Certification that the operator will provide financial assurance as required by s. 74.141 as a condition of granting a reclamation permit and before mining begins."

A certification by JMM is included as **Attachment 3**.

"(8) The plan review fee as required by s. 12.21 and the first year's annual fee, as required by s.12.27."

The plan review fee, as required by s. 12.21, and the first year's annual fee, as required by s.12.27, are included with the original submittal of this application and plan.

74.131 RECLAMATION PLANS; REQUIREMENTS. [intro.] "All operators of non-metallic mining sites subject to this chapter shall prepare and submit a reclamation plan that meets the following requirements.

"(1) Plan required. An operator who conducts or plans to conduct non-metallic mining shall submit to the zoning administrator a reclamation plan that meets the requirements of this section and complies with the standards of subchapter II. To avoid duplication, the reclamation plan may, by reference, incorporate existing plans or materials that meet the requirements of this chapter."

The Reclamation Plan complies with the reclamation standards of Chapter 74.

"(2) Site information. The reclamation plan shall include information sufficient to describe the existing natural and physical conditions of the site including, but not limited to:

(a) Maps of the non-metallic mining site including the general location, property boundaries, the areal extent, geologic composition and depth of the non-metallic mineral deposit, the distribution, thickness and type of topsoil, the location of surface waters and the existing drainage patterns, the approximate elevation of ground water as determined by existing hydrogeologic information. In specific instances where the existing hydrogeologic information is insufficient for purposes of the reclamation plan, the applicant may supplement the information with the opinion of a licensed professional hydrologist.[3]"

A Site Location Map is provided as **Figure 1**.

A Site Plan depicting the parcel boundaries is provided as **Figure 2**.

Geology of the Site and vicinity is provided on **Figure 3**. Drilling on the Site confirmed that the depths of the mineral deposit, sand, and gravel range from 70 to 88 feet below ground surface (bgs).

Topsoil is described by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) as 0 to 16 inches very dark, grayish-brown, silt loam. Topsoil thickness varies from 0 to 6 inches in the northeast, 0 to 9 inches in the south half, and 0 to 16 inches in the northwest.

Surface water and wetland features near the Site are shown on **Figure 4**.

Ground surface topography and drainage patterns are depicted on **Figure 5**.

Groundwater elevation can be estimated from the elevation of permanent surface water bodies that represent the surface expression of groundwater. The elevation of the surface water in Sugar River and Badger Mill Creek near the Site is about 920 feet, which represents the approximate groundwater elevation at those locations. Groundwater was encountered during drilling on the Site at depths of 8 to 13 feet, approximate elevation 920 to 930 feet.

The surface water elevation of the created lake will be approximately 920 feet and will be controlled by the groundwater elevation, which may fluctuate seasonally, from year to year, in response to droughts and wet periods, etc. Similarly, the surface water elevations of other regional lakes, ponds, and streams will fluctuate.

"(am) Topsoil or topsoil substitute material, if required to support revegetation needed for reclaiming the site to approved post-mining land use, can be identified using county soil surveys or other available information including that obtained from a soil scientist or the University of Wisconsin soil science extension agent or other available information resources."

The existing topsoil will be used to reclaim the upland portions of the Site. There is no plan to import topsoil or use topsoil substitute material at the Site.

"(b) Information available to the mine operator on biological resources, plant communities and wildlife use at and adjacent to the proposed or operating mine site."

The biological resources, plant communities, and wildlife use at the Site and abutting properties are limited due to sustained agricultural cropping of the Site.

"(c) Existing topography as shown on contour maps of the site at a minimum of ten (10) foot contour intervals."

Ground surface topography is depicted on **Figure 5**.

"(d) Location of manmade features on or near the site."

Manmade features are limited to the homestead on the northeast area of the Site depicted on **Figure 6**.

"(e) For proposed non-metallic mine sites that include previously mined areas, a plan view drawing showing the location and extent of land previously affected by non-metallic mining, including the location of stockpiles, wash ponds and sediment basins.[4]"

There are no previous mined areas on the Site.

"(3) Post-mining land use.

(a) The reclamation plan shall specify a proposed post-mining land use for the non-metallic mine site. The proposed post-mining land use shall be consistent with local land use plans and local zoning at the time the plan is submitted, unless a change to the land use plan or zoning is proposed. The proposed post-mining

land use shall also be consistent with all applicable local, state or federal laws in effect at the time the plan is submitted.[5]"

Final reclamation will be uplands surrounding an estimated 70-acre lake as described and depicted in the reclamation plan prepared in accordance with Chapter 74. It is the intent of the Applicant to reclaim the Site as a public park and engage stakeholders in the design, if the Town of Verona is interested in retaining ownership of the property.

"(b) Land used for non-metallic mineral extraction in areas zoned under an exclusive agricultural use ordinance pursuant to s. 91.75, Wis. Stats., shall be restored to agricultural use.[6]"

The Site is not zoned exclusive agriculture.

"(4) Reclamation measures. The reclamation plan shall include a description of the proposed reclamation, including methods and procedures to be used and a proposed schedule and sequence for the completion of reclamation activities for various stages of reclamation of the non-metallic mining site. The following shall be included:

"(a) A description of the proposed earthwork and reclamation, including final slope angles, highwall reduction, benching, terracing and other structural slope stabilization measures and, if necessary, a site-specific engineering analysis performed by a registered professional engineer as provided by s. 74.115(1) and (2)."

Proposed earthwork and reclamation are limited to the areas identified on **Figure 7** within and around the proposed lake and the processing area encompassing approximately 55 acres. In that area, ground slopes along the proposed lakeshore will generally be 3H:1V (horizontal to vertical) and extend vertically 6 feet below the lowest seasonal water level of the lake consistent with Chapter 74.115(3) and NR135.10(3). The majority of the grading associated with the lake will be done during mining. No benching, terracing, other structural slope stabilization measures, or Site-specific engineering analysis and design are anticipated.

"(b) The methods of topsoil or topsoil substitute material removal, storage, stabilization and conservation that will be used during reclamation."

Topsoil will be stripped from areas proposed for berm construction, processing and mining using bulldozers and excavators. Topsoil will be placed on berms and will also be stored on the inside slope of berms for future use in mine reclamation. Berms will be stabilized with grass consistent with Wisconsin Department of Transportation (WisDOT) Standard Specifications; NRCS Critical Area Planting Code 342; and Wisconsin Agronomy Technical Note 5, Section 630 Seeding, Seed Mixture No. 10 included in **Attachment 4**. Landscaping of the berms will be consistent with Town of Verona berms at the Town Hall on County Highway PB and berms near Epic along Northern Lights Road.

"(c) A plan or map which shows anticipated topography of the reclaimed site and any water impoundments or artificial lakes needed to support the anticipated future land use of the site."

Anticipated topography and lake are shown on **Figure 7**.

"(d) A plan or map which shows surface structures, roads and related facilities after the cessation of mining."

Figure 7 includes the roads that will remain following mine reclamation.

"(e) The estimated cost of reclamation for each stage of the project or the entire site if reclamation staging is not planned."

The reclamation financial assurance cost estimate is provided in **Attachment 5**.

"(f) A revegetation plan which shall include timing and methods of seed bed preparation, rates and kinds of soil amendments, seed application timing, methods and rates, mulching, netting and any other techniques needed to accomplish soil and slope stabilization."

Seed bed preparation will commence as the final lakeshore begins to take shape. The shore areas will be reclaimed as grass. Areas to be seeded will be consistent with WisDOT Seed Mixture No. 10 included in **Attachment 4**.

"(g) Quantifiable standards for revegetation adequate to show that a sustainable stand of vegetation has been established which will support the approved post-mining land use. Standards for revegetation may be based on the percent of vegetative cover, productivity, plant density, diversity or other applicable measures."

The quantifiable standard for revegetation will be a 70% coverage rate.

"(h) A plan and, if necessary, a narrative showing erosion control and stormwater measures to be employed to meet the requirement of chapter 14 of the Dane County Code of Ordinances. These shall address how reclamation activities will be conducted to minimize erosion and pollution of surface and groundwater."

The purpose of Chapter 14 Erosion Control and Stormwater Management is to "set forth the minimum requirements for construction site erosion control and stormwater management that will diminish threats to public health, safety, public and private property and natural resources of Dane County." The proposed mine development and mining activities will have very little if any potential to result in threats to public health, safety, public and private property and natural resources of Dane County.

The berms along portions of the property perimeter will be vegetated, so erosion will be controlled and not exacerbated by the presence of the berms. Stormwater inside of the berms on the Site will naturally flow or be diverted to flow into the mine pit eliminating any potential threat of erosion or stormwater management concerns to adjacent private or public property or the natural resources of Dane County.

It is helpful to recognize that the Site is typically without vegetation and subject to erosion with no stormwater management for at least seven months of the year. During the remaining five months, the property contains corn at a density of one plant per 2 square feet or soybeans at a density of 2 plants per square feet. The same plant density and erosion and stormwater management will occur on the unmined areas of the Site. After mining, the upland areas that will remain outside of the lake will be revegetated at a much higher plant density proposed to be 70% coverage.

Erosion control and stormwater management will be implemented in accordance with the conditions of the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-B046515-07-1 (or current revision). Temporary erosion control measures will follow current Wisconsin Department of Natural Resources (WDNR) Conservation Practice Standards (Standard name and number in parentheses):

- Erosion bales and sediment logs may be placed as ditch checks in swales and ditches (Sediment Bale Barrier - 1055, Ditch Checks - 1063).
- Silt fence may be installed where appropriate (Silt Fence - 1056).
- Erosion mats may be placed in concentrated flow channels, if developed, although not anticipated (Channel Erosion Mat - 1053, Non-Channel Erosion Mat - 1052).
- Stone tracking pads may be used at the Site access point (Stone Tracking Pad - 1057).

Erosion control best management practices (BMPs), when used, will need to be inspected weekly and within 24 hours after rainfall events of ½-inch or greater during a 24-hour period until the drainage area has either been temporarily or permanently reclaimed. Weekly inspections occur

seasonally. In the event of slope failures, failed seeding, or persistent erosion problems, additional BMPs will be assessed and applied where practicable.

"(i) A description of any areas which will be reclaimed on an interim basis sufficient to qualify for the waiver of fees pursuant to ss. 74.292 or 74.294, and release of financial assurance pursuant to s. 74.293, and which will be subsequently disturbed prior to final reclamation. Descriptions shall include an identification of the proposed areas involved, methods of reclamation to comply with the standards in subchapter II and timing of interim and final reclamation."

Contemporaneous reclamation will occur over most of the proposed mine area resulting in the creation of a lake as mining progresses. Areas requiring the administration of fees will be limited to the processing area and stripped areas proposed to be mined. It is anticipated that as areas of the Site are stripped in anticipation of mining, those areas will be subject to financial assurance for reclamation, and as those areas are mined, they will simultaneously be reclaimed as lake and no longer subject to financial assurance.

"(j) A description of how the reclamation plan addresses the long-term safety of the reclaimed mining site. The description shall include a discussion of site-specific safety measures to be implemented at the site and include measures that address public safety with regard to adjacent land uses.[8]"

The proposed reclamation is a lake surrounded by relatively flat ground or subtle slopes to the lakeshore. The ground slopes along the proposed lakeshore will extend vertically 6 feet below the lowest seasonal water level of the lake, enabling pedestrian egress. No other safety measures are proposed or necessary, like the estimated 15,000 lakes in Wisconsin.

"(5) The reclamation plan shall contain criteria for assuring successful reclamation in accordance with s. 74.118."

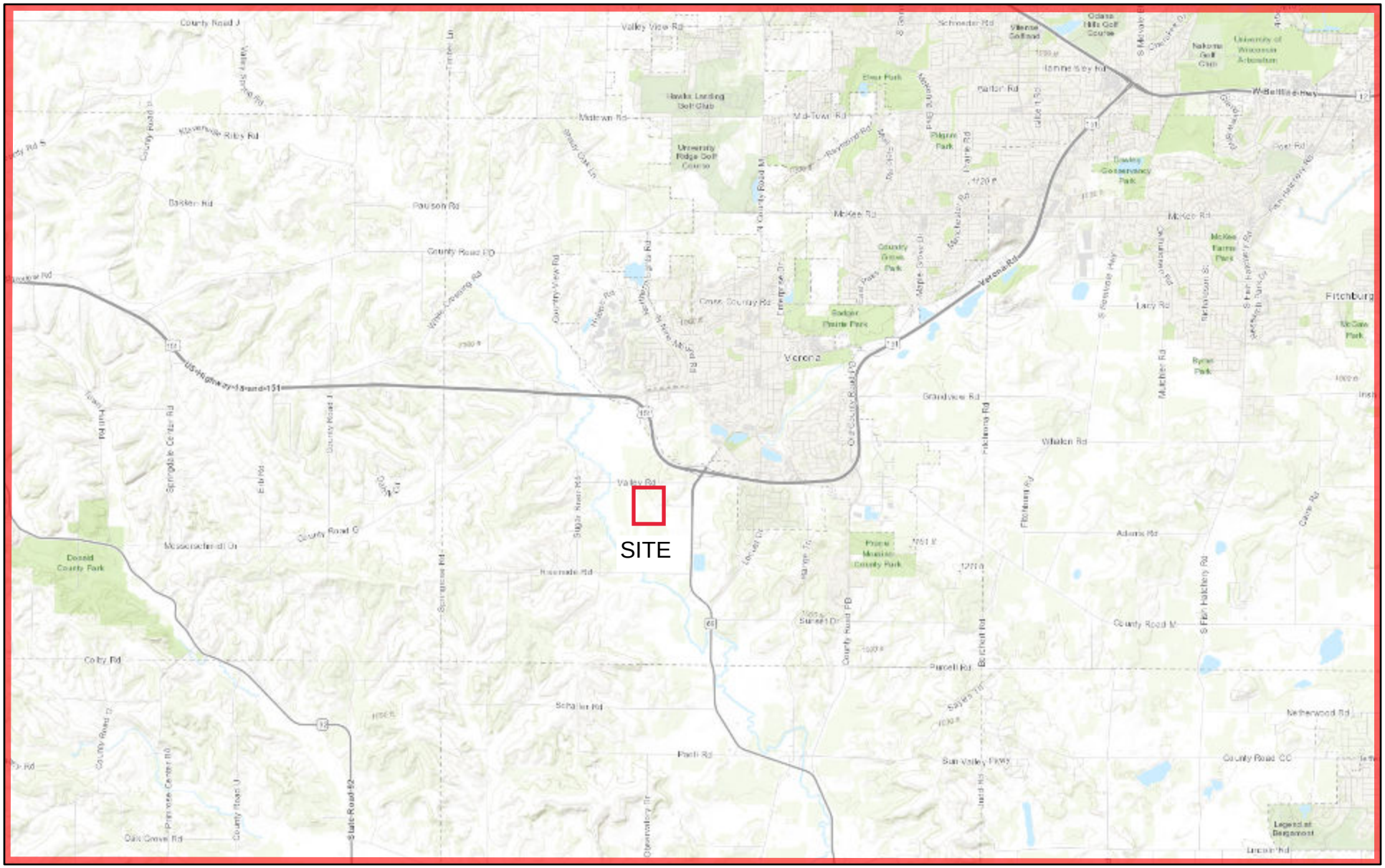
The criteria for successful reclamation will be the creation of a lake and grass-covered upland areas with a 70% plant density.

"(6) Certification of reclamation plan. The operator shall provide a signed certification that reclamation will be carried out in accordance with the reclamation plan. If the operator does not own the land, the landowner or lessor, shall also provide a signed certification that he or she concurs with the reclamation plan and will allow its implementation."

An executed Certification of Reclamation Plan is provided in **Attachment 2**.

FIGURES

FIGURE 1 - JMM LLC Site Location Map



May 2, 2024

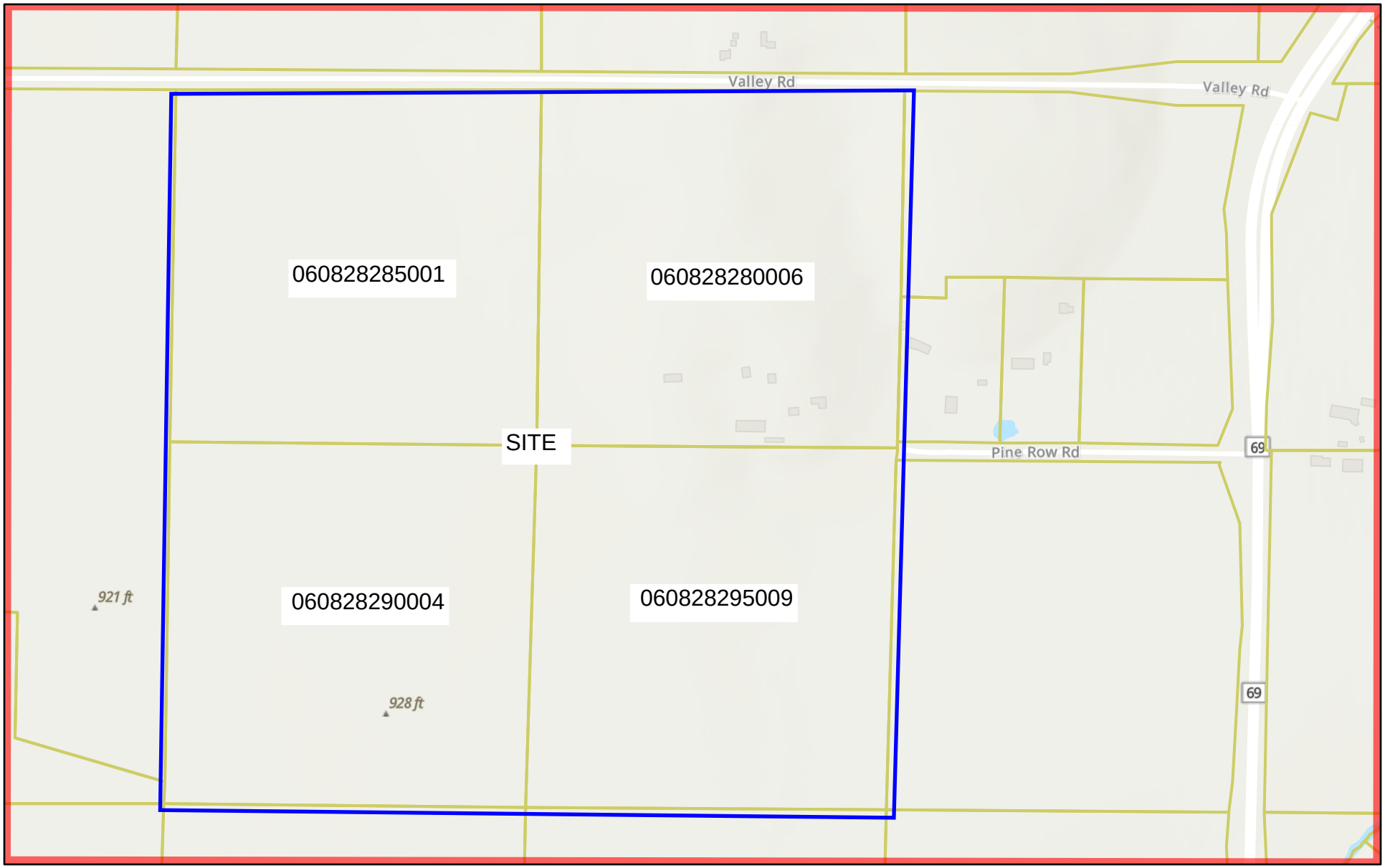
1:96,000

0 0.75 1.5 3 mi

0 1.25 2.5 5 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

FIGURE 2 - JMM LLC Site Plan Parcels



May 2, 2024

Parcels

Municipalities

1:6,000

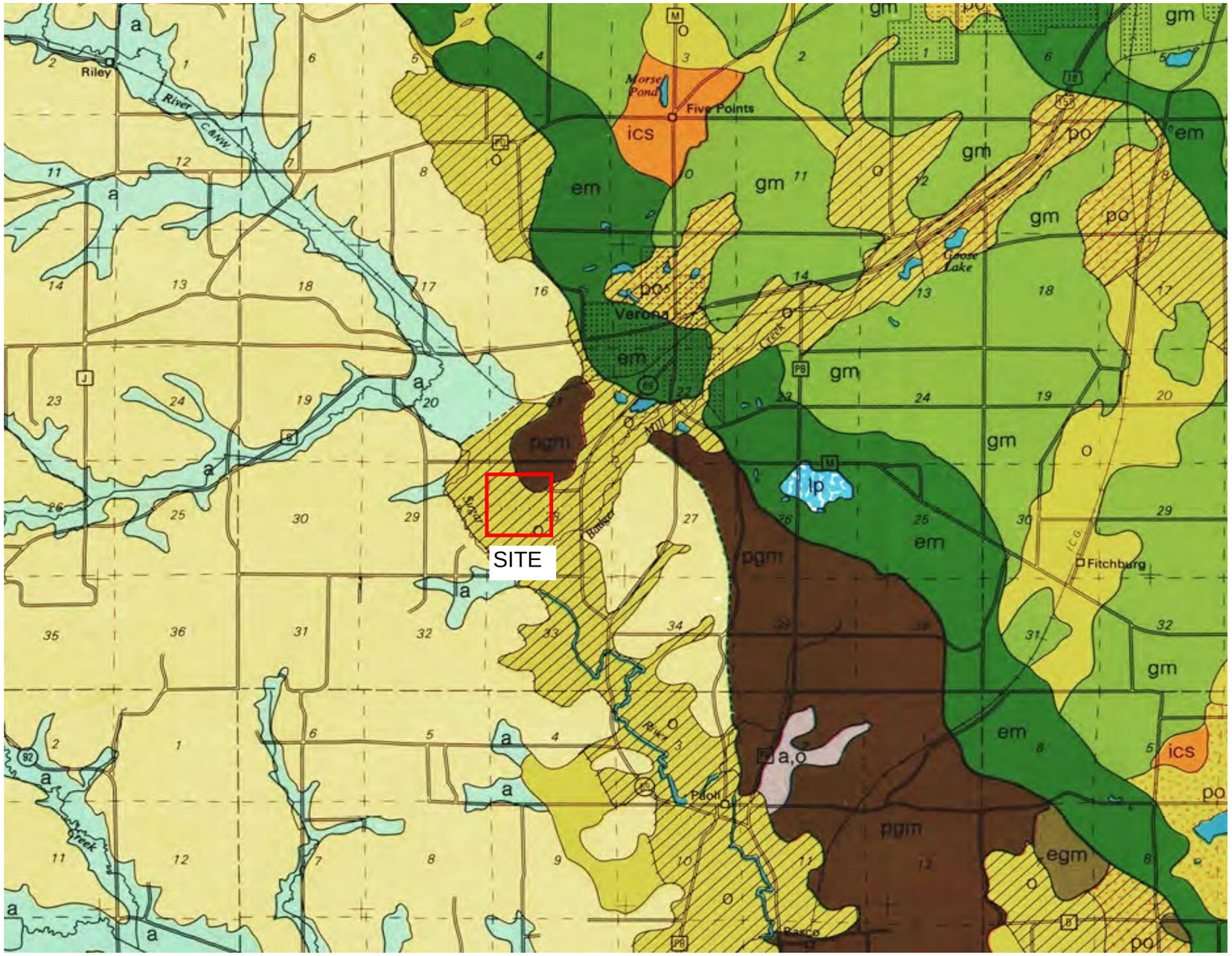
0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

FIGURE 3
Geologic Map

Source:
GLACIAL GEOLOGY OF DANE COUNTY, WISCONSIN
D.M. MICKELSON and M.C. McCARTNEY
UNIVERSITY OF WISCONSIN- EXTENSION
GEOLOGICAL AND NATURAL HISTORY SURVEY
1979



OUTWASH PLAIN OR VALLEY TRAIN

Sand and gravel deposited by meltwater in an apron in front of the ice margin or in valleys leading away from the margin. Generally coarse aggregate near moraines and finer away. Better sorted and more predictable than ice-contact deposits but often have high watertable. Generally better for concrete aggregate.

PITTED OUTWASH PLAIN

Outwash plain with kettle holes which formed by melting buried ice blocks. Materials similar to outwash but deposited on ice which later melted, creating kettle holes or depressions.

LACUSTRINE PLAIN

Glacial lake bottom. Materials generally fine-grained silt and clay although sand is present near former shorelines and near stream inlets. Often flat, poorly drained areas with peat accumulation.

EARLY WOODFORDIAN (approx. 22,000 years B.P. to 17,000 years B.P.)

END MORAINE

Subdued ridge which marks the terminal position of an earlier advance. Composed mostly of till of slightly different character than of Mid-Woodfordian moraine.

GROUND MORAINE

Similar to above but much more bedrock control of topography. Drift generally thin and many bedrock exposures present.

PRE-WOODFORDIAN (more than 22,000 years old)

GROUND MORAINE

Similar to above but much more bedrock control of topography. Drift generally thin and many bedrock exposures present.

BEDROCK, WIND-BLOWN SILT AND RESIDUUM IN DRIFTLESS AREA

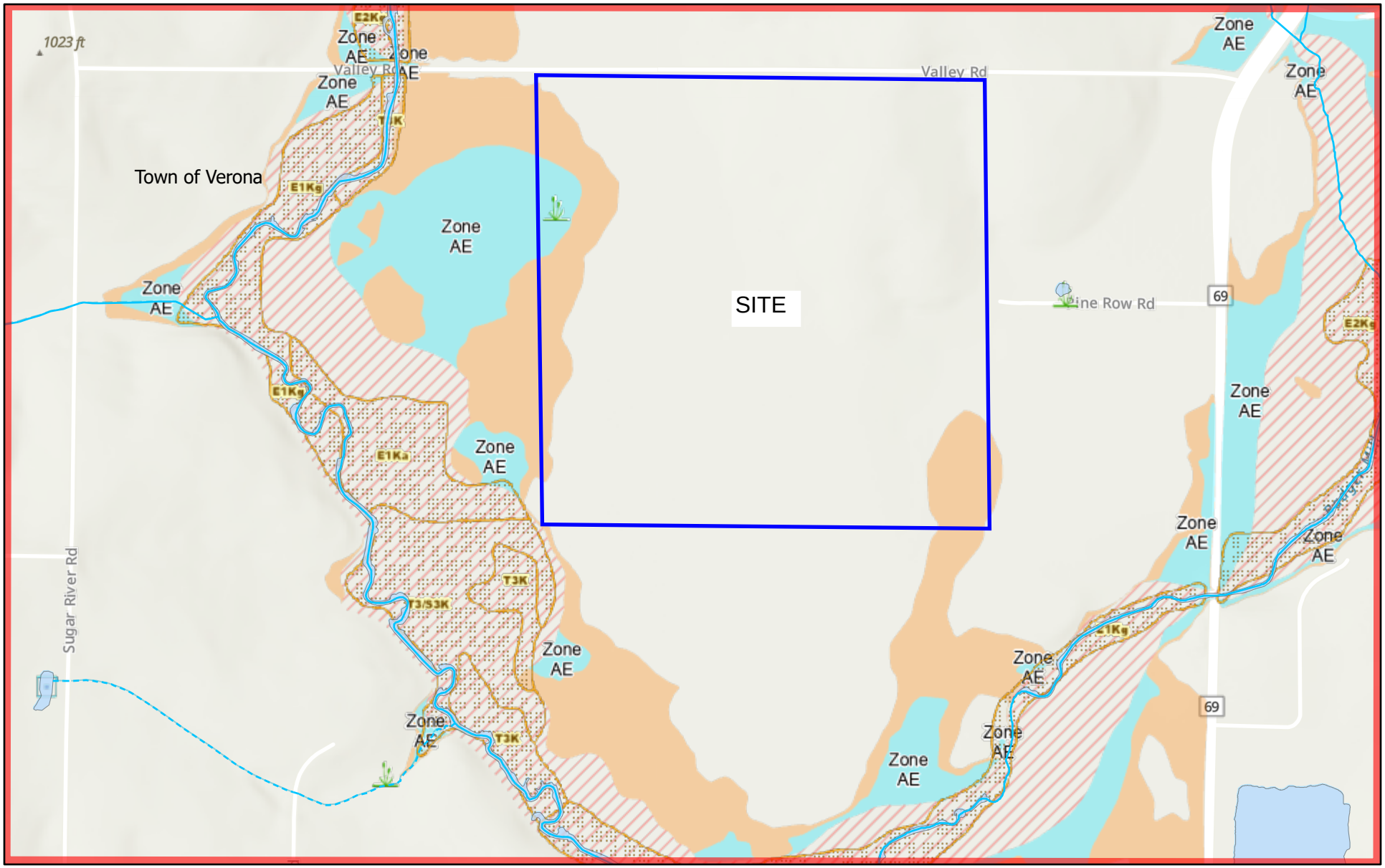
No evidence of glacial deposits.

Other Symbols

COARSE AGGREGATE POTENTIAL

Areas with high potential for sand and gravel production. Outwash and pitted outwash are less variable than ice contact stratified drift. Site examination must be done to determine economic feasibility (e.g. thickness and quality of deposit and depth to water table).

FIGURE 4 - JMM LLC Surface Water and Wetland Features



May 2, 2024

1:9,600

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Municipalities

Rivers and Streams

Perennial Stream; Hidden Perennial Stream

Perennial Stream; Hidden Perennial Stream

Intermittent Stream; Hidden Intermittent Stream

Intermittent Stream; Hidden Intermittent Stream

Constructed Drainage

Lakes and Ponds

Wetland Class Points

Excavated pond

Wetland too small to delineate

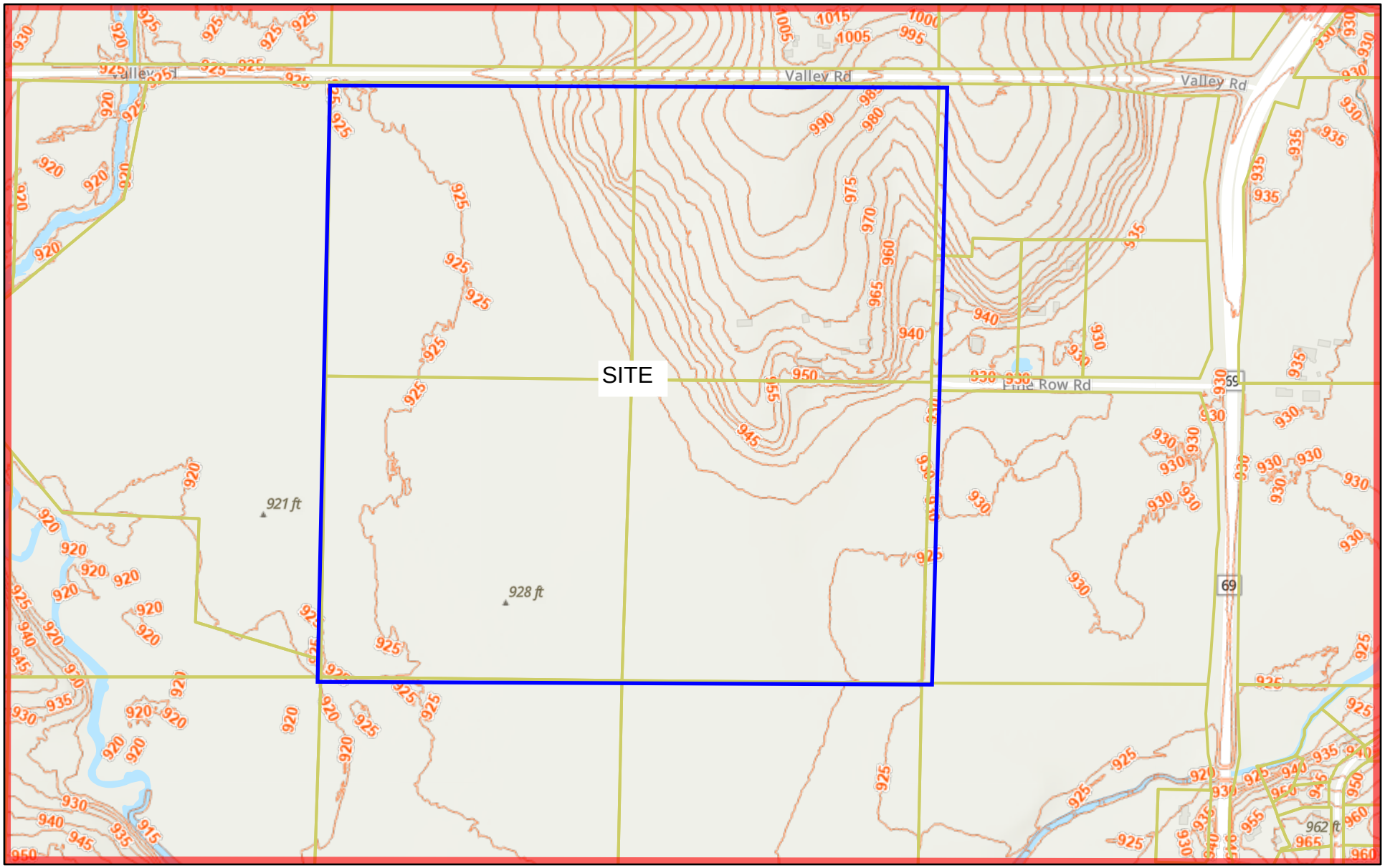
Wetland Class Areas

Flood Hazard Zones

1% Annual Chance Flood Hazard

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

FIGURE 5 JMM LLC - Ground Surface Topography and Drainage Patterns



May 2, 2024

Parcels

5 foot Intervals

Index

Index Depression

1:7,200

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA,

NOTES
1) SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITAL GLOBE, EARTH STAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, AEROGRID, IGN, AND THE GIS USER COMMUNITY.

2) THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.

3) THE APPROXIMATE LOCATION OF THE SITE BOUNDARY WAS OBTAINED THROUGH THE USE OF THE LOCAL COUNTY ONLINE GIS MAPPING TOOL. THE PROGRAM NOTES THAT ALL PROPERTY BOUNDARIES ARE NOT SURVEYED AND ARE ONLY APPROXIMATE REPRESENTATIONS OF ACTUAL BOUNDARIES.

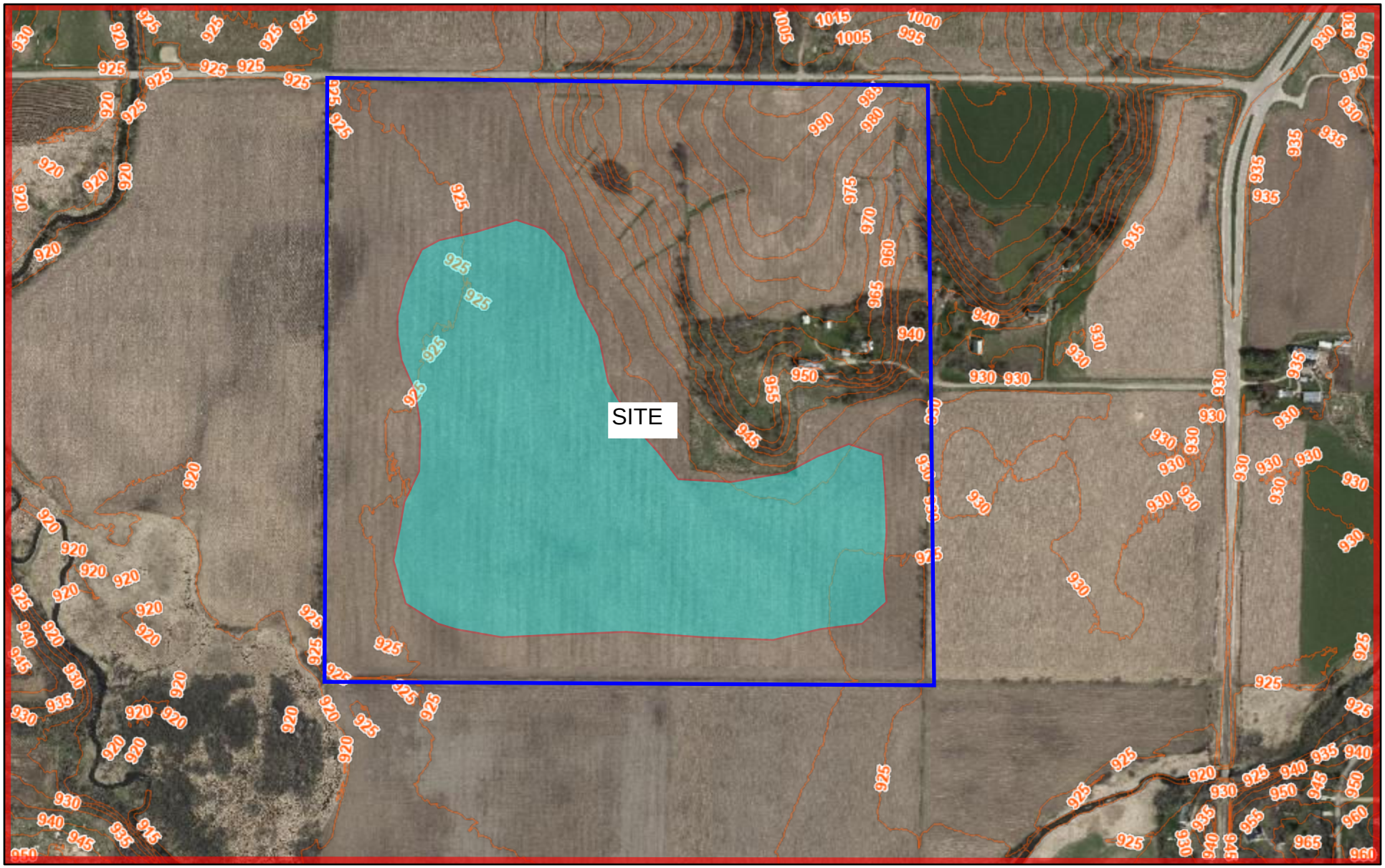
0 40 80 160
SCALE IN FEET

PHASE I ENVIRONMENTAL SITE ASSESSMENT
7228 PINE ROW
TOWN OF VERONA, WISCONSIN

BUILDING LAYOUT

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: JMM LLC 1096 RED RIDGE ROAD FAIRBANKS, ALASKA	
PROJ MGR: HAW	REVIEWED BY: HAW	CHECKED BY: VWG	FIG 6
DESIGNED BY: VWG	DRAWN BY: PLR	SCALE: SEE ABOVE	
DATE: 04/29/2024	PROJECT NO: 20.0158848.00	REVISION NO:	SHEET NO: OF

FIGURE 7 JMM LLC - Conceptual Reclamation Plan



May 3, 2024

5 foot Intervals

Index Depression

Index

1:7,200

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

ATTACHMENT 1

Legal Description

Attachment 1

Legal Description

NORTHWEST QUARTER (NW 1/4) OF SECTION TWENTY-EIGHT (28), TOWN SIX (6) NORTH, RANGE EIGHT (8) EAST, BEING IN THE TOWN OF VERONA, DANE COUNTY, WISCONSIN.

ATTACHMENT 2

Certification to Comply with the Statewide Non-metallic Mining Reclamation Standards

Reclamation Plan

JMM, LLC

Town of Verona, Dane County, Wisconsin

Certification of the Reclamation Plan

I hereby certify, as a duly authorized representative or agent, that JMM LLC will comply with the provisions of this reclamation plan as well as the statewide nonmetallic mining reclamation standards established in ss. NR 135.05 through NR 135.15, Wis. Adm. Code.

Signature of Applicant or Duly Authorized Agent

Date Signed

5/29/24

ATTACHMENT 3

Certification to Provide Financial Assurance

Financial Assurance

JMM, LLC

Town of Verona, Dane County, Wisconsin

Certification of the Financial Assurance

I hereby certify, as a duly authorized representative or agent, that JMM LLC will provide financial assurance as required by s. 74.141 as a condition of granting a reclamation permit and before mining begins.

Signature of Applicant or Duly Authorized Agent

Date Signed

5/29/24

ATTACHMENT 4

WisDOT Specs, NRCS Technical Note 5, Section 630

Appendix XI

WisDOT Standard Specifications;

NRCS Critical Area Planting Code 342;

Wisconsin Agronomy Technical Note 5

Section 630 Seeding

630.1 Description

(1) This section describes preparing seed beds and furnishing and sowing the required seed on slopes, appurtenances, and other areas, and on borrow pits and material disposal sites.

(2) This section also describes furnishing and sowing temporary seed mixture on the slopes and appurtenances of temporary embankments and roadways.

630.2 Materials

630.2.1 Seed

630.2.1.1 General Requirements

(1) Conform to the Wisconsin statutes and Wisconsin administrative code chapter ATCP 20 regarding noxious weed seed content and labeling.

http://docs.legis.wi.gov/statutes/statutes/

http://docs.legis.wi.gov/code/admin_code/atcp/020/20.pdf

(2) Use seed within one year of the test date appearing on the label.

(3) Seed mixtures 70, 70A, 75, and 80 contain wild type forbs and grasses. Wild type is defined as seed that is derived directly from native, wild stock, including seed that was wild collected and placed into production or has been harvested directly from native stands.

630.2.1.2 Purity and Germination

(1) Test seed according to the methods and procedures used for sampling and analyzing seed for purity, germination, and noxious weed seed content specified in the current edition of Rules for Testing Seed, published by the Association of Official Seed Analysts.

630.2.1.3 Inoculation

(1) Inoculate legume seed (white clover, red clover, ladino clover, alsike clover, alfalfa, partridge pea, purple prairie clover, Canada tick-trefoil, and lupine) unless it has been pre-inoculated by the vendor. Follow the inoculation instructions that come with the culture purchases. If applying the seed according to method B, 630.3.3.2, treat seeds requiring inoculation with 5 times the amount of inoculant recommended in the instructions.

(2) Avoid exposure of the culture or inoculated seed to the sunlight, and in no case shall any exposure exceed 1/2 hour.

630.2.1.4 Storing Seed

(1) Store any seed delivered before use in a way that protects it from damage by heat, moisture, rodents, or other causes. Discard and replace any previously tested and accepted seed that becomes damaged.

630.2.1.5 Seed Mixtures

630.2.1.5.1 Right of Way

630.2.1.5.1.1 Permanent

####### 630.2.1.5.1.1.1 Composition

(1) Seed mixtures for use on the right of way and easements shall, unless specified otherwise, be composed of seeds of the purity, germination, and proportions, by weight, as given in the Table of Highway Seed Mixtures and the Table of Native Seed Mixtures.

(2) Use seed of the species and varieties listed below. If no variety is listed, there will be no restriction on the variety furnished, except as follows:

1. Species composed of pure live seed (PLS) shall contain no named or improved varieties. PLS shall be grown in Wisconsin or northern Illinois, northeastern Iowa, or eastern Minnesota. Seed produced out-of-state must be grown in one of the following counties:

1.1 From northern Illinois:

Boone	Bureau	Carroll	Cook	De Kalb	Du Page	Grundy
Henry	Jo Daviess	Kane	Kendall	Lake	La Salle	Lee
McHenry	Ogle	Putnam	Rock Island	Stevenson	Whiteside	Will
Winnebago						

1.2 From northeastern Iowa:

Allamakee	Benton	Black Hawk	Bremer	Buchanan	Cedar	Chickasaw
Clayton	Clinton	Delaware	Dubuque	Fayette	Floyd	Howard
Jackson	Johnson	Jones	Linn	Mitchell	Muscatine	Scott
Winneshiek						

1.3 From eastern Minnesota:

Aitkin	Anoka	Carlton	Carver	Chisago	Dakota	Dodge
Fillmore	Goodhue	Hennepin	Houston	Isanti	Kanabec	La Sueur
Mille Lacs	Mower	Olmsted	Pine	Ramsey	Rice	Scott
Sherburne	Steele	Wabasha	Washington	Winona	Wright	

2. PLS for seed mixtures 70, 70A, 75, and 80 shall be packaged separately by species and clearly labeled with the vendor's name, species common and botanical names, gross weight, percent PLS, year of harvest and any specialized treatments that have been applied to ensure or enhance germination. If PLS is not listed, determine PLS by multiplying the percent germination times the percent purity.

3. Minimum percent purity for native for species is 90 percent. If a listed species is not available, substitutions may be made with engineer's approval and must be documented.

(3) Mix native species at the project site. Clean and debeard seeds having awns or excessive hairs before mixing.

SPECIES COMMON NAME	SPECIES BOTANICAL NAME	ACCEPTABLE VARIETIES
Kentucky Bluegrass	Poa pratensis	Low Maintenance
Red Fescue	Festuca rubra	Creeping
Hard Fescue	Festuca ovina var. duriuscula	Improved
Tall Fescue	Festuca arundinacea	Improved turf type
Salt Grass	Puccinella distans	Fult's
	Puccinella distans	Salty
Redtop	Agrostis alba	
Timothy	Phleum pratense	
Canada Wild Rye[1]	Elymus canadensis	
Perennial Ryegrass	Lolium perenne	
Perennial Ryegrass	Lolium perenne	Improved Fine
Annual Ryegrass	Lolium multiflorum	
Alsike Clover	Trifolium hybridum	
Red Clover	Trifolium pratense	
White Clover	Trifolium repens	
Japanese Millet	Echinochola crusgalli var. frumentacea	
Annual Oats	Avena sativa	
Alfalfa	Medicago sativa	
Bromegrass	Bromus inermis	
Orchardgrass	Dactylis glomerata	
Ladino Clover	Trifolium repens var. latum	Ladino
Agricultural Rye	Secale cereale	
Winter Wheat	Triticum aestivum	

[1] Pure live seed

TABLE 630-1 HIGHWAY SEED MIXTURES

SPECIES	PURITY minimum %	GERMINATION minimum %	MIXTURE PROPORTIONS in percent				
			NO.10	NO.20	NO.30	NO.40	NO.60
Kentucky Bluegrass	98	85	40	6	10	35	
Red Fescue	97	85	25		30	20	
Hard Fescue	97	85		24	25	20	
Tall Fescue	98	85		40			
Salt Grass	98	85			15		
Redtop	92	85	5				
Timothy	98	90					12
Canada Wild Rye		PLS[1]					10
Perennial Ryegrass	97	90	20	30			
Improved Fine Perennial Ryegrass	96	85			20	25	
Annual Ryegrass	97	90					30
Alsike Clover	97	90					4
Red Clover	98	90					4
White Clover	95	90	10				
Japanese Millet	97	85					20
Annual Oats	98	90[1]					20

[1] Substitute winter wheat for annual oats in fall plantings started after September 1.

TABLE 630-2 NATIVE SEED MIXTURES

	SPECIES	SPECIES BOTANICAL NAME	PURITY & GERMINATION minimum %	MIXTURE PROPORTIONS in percent			
				NO. 70	NO. 70A	NO. 75	NO. 80
FORBES	Canada Anemone	*Anemone canadensis*	PLS	2			
	Butterflyweed	*Asclepias tuberosa*	PLS		2		
	New England Aster	*Aster novae-angliae*	PLS	2	2		
	Partridge-pea	*Chamaecrista (Cassia) fasciculata*	PLS		2		
	Purple Prairie Clover	*Dalea (Petalostemum) purpurea*	PLS	2	2	4	
	Canada Tick-trefoil	*Desmodium canadense*	PLS	2			
	Flowering Spurge	*Euphorbia corollata*	PLS		2		
	Wild Geranium	*Geranium maculatum*	PLS	2			
	Western Sunflower	*Helianthus occidentalis*	PLS	3	2		
	Rough Blazingstar	*Liatris aspera*	PLS		2		
	Prairie Blazingstar	*Liatris pycnostachya*	PLS	2			
	Lupine	*Lupinus perennis*	PLS		3		
	Wild Bergamot	*Monarda fistulosa*	PLS	2			
	Horse Mint	*Monarda punctata*	PLS		2		
	Yellow Coneflower	*Ratibida pinnata*	PLS	2	2		
	Blackeyed Susan	*Rudbeckia hirta*	PLS			1	
	Showy Goldenrod	*Solidago speciosa*	PLS	2	2		
	Spiderwort	*Tradescantia ohiensis*	PLS	2	2		
	Golden Alexanders	*Zizia aurea*	PLS	2			
GRASSES	Big Bluestem	*Andropogon gerardi*	PLS	15	15	10	
	Sideoats Grama	*Bouteloua curtipendula*	PLS	15	20	20	25
	Canada Wildrye	*Elymus Canadensis*	PLS	15	15	35	23
	Slender Wheatgrass	*Elymus trachycaulus*	PLS				20
	Junegrass	*Koeleria macrantha*	PLS		5		
	Annual Ryegrass	*Lolium multiflorum*	[1]			10	10
	Switchgrass	*Panicum virgatum*	PLS				10
	Salt Grass	*Puccinella distans*	[1]				2
	Little Bluestem	*Schizachyrium (Andropogon) scoparium*	PLS	15	20	10	10
	Indiangrass	*Sorgastrum nutans*	PLS	15		10	
ALTERNATE FORBES	Sky Blue Aster	*Aster azureus*	PLS	[2]	[2]		
	White Wild Indigo	*Baptisia leucantha*	PLS	[2]	[2]		
	Pale Purple Coneflower	*Echinacea pallida*	PLS	[2]	[2]		
	White Prairie Clover	*Petalostemum candidum*	PLS	[2]	[2]		
	Stiff Goldenrod	*Solidago rigida*	PLS	[2]	[2]		
	Hoary Vervain	*Verbena stricta*	PLS	[2]	[2]		

[1] Provide the minimum purity and germination specified in 630.2.1.5.1.1.1(3) in the table of highway seed mixtures.

[2] The contractor may, if the engineer approves, substitute an alternate forb for a required forb that is not available using the same percentage as specified for the required forb. Use a different alternate forb for each unavailable required forb. Provide documentation showing that a required forb is not available before using an alternate.

630.2.1.5.1.1.2 Mixture

(1) The contractor shall select a seed mixture or mixtures that meet with the engineer's approval, and unless specified otherwise in the contract, shall conform to the following:

1. Use seed mixture No. 10 where average loam, heavy clay, or moist soils predominate.
2. Use seed mixture No. 20 where light, dry, well-drained, sandy, or gravelly soils predominate and for all high cut and fill slopes generally exceeding 6 to 8 feet, except where using No. 70.
3. Use seed mixture No. 10 or No. 20 on all ditches, inslopes, median areas, and low fills, except where using No. 30 or No. 70.
4. Use seed mixture No. 30 for medians and on slopes or ditches generally within 15 feet of the shoulder where a salt-tolerant turf is preferred.
5. Use seed mixture No. 40 in urban or other areas where a lawn type turf is preferred.
6. Use seed mixture No. 60 only on areas, the contract designates or the engineer specifies. Use it as a cover seeding for newly graded wet areas or as a nurse crop for specified wetland seed mixtures. The contractor shall not apply it to flooded areas.
7. Use seed mixture Nos. 70 and 70A on slopes and upland areas the contract designates or the engineer specifies. Use seed mixture No. 70 on loamy soils and seed mixture No. 70A on sandy soils.
8. Use seed mixture No. 75 where native grasses are desired for erosion control.
9. Use seed mixture No. 80 on inslopes where a salt tolerant seed mix containing native grasses is desired.

630.2.1.5.1.2 Temporary

(1) Under the Seeding Temporary bid item, use a temporary seed mixture conforming to 630.2.1.5.1.4. Use oats in spring and summer plantings. Use winter wheat or rye for fall plantings started after September 1.

630.2.1.5.1.3 Nurse Crop

(1) If seeding bare soil with either mixture 70, 70A, 75, or 80, include the Seeding Nurse Crop bid item.

630.2.1.5.1.4 Borrow Pits and Material Disposal Sites

(1) For seeding borrow pits and material disposal sites beyond the right of way, use seed mixtures conforming to seed mixture 10, 20, 70, 70A, or 75 of 630.2.1.5.1.1 or a borrow pit mixture composed of seeds of the species, purity, germination and proportions, by weight as given below:

PERMANENT

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
Alfalfa	98	90
Bromegrass	85	85
Orchardgrass	80	85
Timothy	98	90
Red Clover	98	90
Alsike Clover	97	90
Ladino Clover	95	90
Kentucky Bluegrass	98	85

TEMPORARY

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
Annual Oats	98	90
Agricultural Rye	97	85
Winter Wheat	95	90

NURSE CROP

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
Annual Oats	98	90
Annual Ryegrass	97	90
Winter Wheat	95	90

(2) For the borrow pit mixture use, by weight, 60 percent temporary species seeds and 40 percent permanent species seeds.

(3) For the temporary component, use any combination of temporary seeds listed in the table above.

(4) For the permanent component, use seeds from not more than 4 of the permanent species listed in the table above in any combination.

(5) When nurse crop is required for spring seeding before June 15, use annual oats. For fall seeding after October 15, use winter wheat, or annual ryegrass.

630.3 Construction

630.3.1 General

(1) If not protecting with a mulch cover, perform seeding, except Nos. 60, 70 and 70A mixtures at times of the year when temperature and moisture conditions are suitable for seeding, except during midsummer.

(2) Perform seeding, except Nos. 60, 70 and 70A mixtures, in conjunction with mulching as specified in 627 at any time the engineer allows.

(3) The contractor may perform seeding of Nos. 60, 70 and 70A mixtures at any time soil conditions are suitable, except between June15 and October 15, unless the engineer allows otherwise.

(4) Perform seeding with the selected seed mixture, sown at the specified rate.

630.3.2 Preparation of Seed Bed

(1) Complete grading, shouldering, topsoiling, and fertilizing, if part of the work under contract, before permanent seeding, except the contractor may place the fertilizer and seed mixture in one operation if using equipment designed for the purpose.

(2) Just before seeding, work the area being seeded with discs, harrows, or other appropriate equipment to obtain a reasonably even and loose seedbed. Place topsoil as specified in 625.3.3.

630.3.3 Sowing

(1) Select the method of sowing from either method A, method B, method C, or an appropriate combination of methods A, B, and C. Obtain the engineer's approval for the sowing method and specific procedures used for each seed mixture used before sowing that mixture.

630.3.3.1 Method A

(1) Sow the selected seed mixture using equipment adapted to the purpose, or by scattering it uniformly over the areas to be seeded. Lightly rake or drag to cover the seed with approximately 1/4 inch of soil. After seeding, lightly roll or compact the areas using suitable equipment, preferably the cultipacker type, when the engineer judges the seedbed too loose, or if the seedbed contains clods that might reduce seed germination. The contractor shall not roll slopes steeper than 1:3.

(2) If scattering seed by hand, perform this work with satisfactory hand seeders and only when the air is calm enough to prevent seeds from blowing away.

630.3.3.2 Method B

(1) Sow or spread the seed upon the prepared bed using a stream or spray of water under pressure and operated from an engineer-approved machine designed for that purpose. Place the selected seed mixture and water into a tank, provided within the machine, in sufficient quantities that when spraying the seed on a given area it is uniformly spread at the required application rate. During this process, keep the tank contents stirred or agitated to provide uniform distribution. Spread the tank contents within one hour after adding the seed to the tank. The engineer will reject seed that remains mixed with the water for longer than one hour. The engineer will not require dragging or rolling.

630.3.3.3 Method C

(1) For spring seeding of seed mixtures 70 and 70A into existing ground cover, mow existing vegetation to 4 inches or less in height 2 to 4 weeks before seeding. Ten to 14 days after mowing, spray with vegetation control herbicide conforming to 632.2.12.

(2) For fall seeding of seed mixtures 70 and 70A into existing ground cover, mow existing vegetation to 4 inches or less in height 4 to 6 weeks before seeding. Ten to 14 days after mowing, spray with vegetation control herbicide conforming to 632.2.12. Retreat with vegetation control herbicide 10 to 14 days after initial application if live vegetation persists.

(3) Seed with a rangeland type drill with one or more seed boxes that can be calibrated independently to deliver different sized seeds uniformly at the required rate and equipped with a rear-mounted press wheel for each seed drop tube. If seeding into existing vegetation or thatch, use a rangeland type drill equipped with a no-till attachment that can cut through the vegetation or thatch in front of the V disc and seed drop tube. If the configuration of the area to be seeded allows, apply seed at 1/2 the specified seed rate and apply the second 1/2 in a perpendicular direction.

630.3.3.4 Borrow Pits and Material Disposal Sites

(1) Seed borrow pits, and material disposal sites off the right of way, with the selected seed mixture specified in 630.2.1.5.1.4. Consult with the landowner or the landowner's agent when selecting the seed mixture.

630.3.3.5 Seeding Rates

630.3.3.5.1 Right of Way

(1) Use the following sowing rate for seeds in pounds per 1000 square feet:

- Seed mixture No. 10 at 1.5 pounds
- Seed mixture No. 20 at 3 pounds
- Seed mixture No. 30 at 2 pounds
- Seed mixture No. 40 at 2 pounds
- Seed mixture No. 60 at an equivalent seeding rate of 1.5 pounds[1]
- Seed mixture No. 70 or 70A at 0.4 pounds
- Seed mixture No. 75 at an equivalent seeding rate of 0.7 pounds[1]
- Seed mixture No. 80 at an equivalent seeding rate of 0.8 pounds[1]
- Temporary seeding at 3 pounds
- Nurse crop seeding at 0.8 pounds

[1] Determine the actual seeding rate by multiplying the equivalent seeding rate by the sum of the unadjusted and adjusted percentages of the various species in the seed mixtures as sown.

(2) The unadjusted percentage equals the minimum percent of purity and germination specified in the table of seed mixtures contained in 630.2.1.5.1.1.1 for the applicable species.

(3) Obtain the adjusted percentage for each of the PLS species by dividing the specified percentage of the species by the product of the percent of purity and the percent of germination for each of the PLS species as delivered.

630.3.3.5.2 Borrow Pits and Material Disposal Areas

(1) For seeding borrow pits and material disposal off the right of way, sow the seed mixtures specified in 630.2.1.5.1.4 at the following rates per pound per 1000 square feet:

- Seed mixture No. 10 at 0.75 pound
- Seed mixture No. 20 at 1 pound
- Seed mixture No. 70 or 70A at 0.4 pounds
- Seed mixture No 75 at 0.7 pounds
- Borrow pit mixture at 1.5 pounds

630.3.3.6 Establishment Period for Native Seeding

(1) During the growing season after planting seed mixture 70 or 70A, mow all seeded areas twice as the engineer directs. Mow vegetation back to 6 inches when it has reached a height of at least 12 inches.

(2) During the growing season after planting seed mixture 70 or 70A, eradicate the following species from the seeded areas as soon as they become evident:

SPECIES COMMON NAME	SPECIES BOTANICAL NAME
Musk thistle	Carduus nutans
Spotted knapweed	Centaurea maculosa
Canada thistle	Cirsium arvense
Bull thistle	Cirsium vulgare
Field bindweed	Convolvulus arvensis
Leafy spurge	Euphorbia esula
Sweetclover	Melilotus species
Wild parsnip	Pastinaca sativa

(3) Eradicate by hand pulling or by applying a vegetation control herbicide conforming to 632.2.12 to individual plants.

630.4 Measurement

(1) The department will measure the Seeding bid items by the pound acceptably completed.

(2) The department will measure quantities based on net weights of seed shipments, or on quantities weighed on department-approved scales the contractor furnishes.

(3) The department will make deductions for all quantities wasted or not actually incorporated in the work according to the contract.

(4) The department will determine the equivalent pounds of seed furnished and applied by dividing the actual pounds of seed applied by the sum of the unadjusted and adjusted percentages of the various species in the seed mixture sown.

(5) The department will use the unadjusted and adjusted percentages determined in 630.3.3.5.1.

630.5 Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
630.0100 - 0199	Seeding (mixture)	LB
630.0200	Seeding Temporary	LB
630.0300	Seeding Borrow Pit	LB
630.0400	Seeding Nurse Crop	LB

(2) Payment for the Seeding bid items is full compensation for providing, handling, and storing all seed; for providing the required culture and inoculating seed as specified; and for preparing the seed bed, sowing, covering and firming the seed. If the landowner does not want the pit or material disposal site seeded, or seeded with any of the mixtures allowed, the department will not pay for fertilization or seeding of those areas.

ATTACHMENT 5

Wildcat Pit Financial Assurance Cost Estimate

Attachment 5
Wildcat Pit
Reclamation Financial Assurance Cost Estimate

#	Item	Unit	Estimated Qty	Unit Cost	Item Total	Notes/Basis
1	Remove Processing Equipment and Scale	Each	1	$ 10,000	$ 10,000	
2	Grading - Upland Around Lake	SY	24,000	$ 2.50	$ 60,000	General grading to stable slope, spreading topsoil. Estimated Area = 5 acres / 217,800 SF / 24,200 SY. Basis = WisDOT Historical Unit Prices (Topsoil / SY)
3	Grading - Processing Area	SY	160,000	$ 1.25	$ 200,000	General grading, spreading topsoil. Estimated Area = 33 acres / 1,437,480 SF / 159,720 SY. Basis = WisDOT Historical Unit Prices (Topsoil / SY)
5	Revegetation - Seeding - Upland Around Lake and Processing Area	LB	2,500	$ 7.50	$ 18,750	Estimated 1.5 lbs/1,000 sq ft = ~65 lbs/acre, 38 total acres. Basis = WisDOT Historical Unit Prices (Seed Borrow Pit / LB)
6	Erosion and Sediment Control Practice Implementation	Estimate	1	$ 5,000	$ 5,000	
				Subtotal	**$ 293,750**	

Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

17975 West Sarah Lane
Suite 100
Brookfield, WI 53045
T: 262.754.2560
F: 262.923.7758
www.gza.com

May 29, 2024
File No. 20.0158848.00

Town Board Chairman: Mr. Mark Geller
Supervisors: Ms. Deb Paul, Tom Mathies, Mr. Dave Lonsdorf, Mr. Mike Duerst
Plan Commission: Ms. Haley Saalsaa Miller, Ms. Sarah Slack and Ms. Lori Lukens

Town of Verona
7669 County Highway PD
Verona, Wisconsin 53593

Re: Evaluation of Public Concerns
Proposed Wildcat Pit
Southwest Investments LLC Property, Valley Road
Town of Verona, Dane County, Wisconsin

Dear Town Board Chairman, Supervisors, and Plan Commission:

To help address the anticipated public comments regarding the JMM LLC (the "Applicant") proposed Wildcat Pit sand and gravel operation ("Site"), GZA is providing an evaluation of certain public concerns identified during the recent (2022) public hearings associated with nearby Land Use Applications for a sand and gravel operation and 54 unit residential development, both within 1 mile of the Site. The Applicant is sensitive to the concerns of the community and strives to be a good neighbor and looks forward to developing a positive lasting relationship in Verona for years to come.

BACKGROUND

For about two decades, GZA (and this author in particular) has continually focused on reviewing public concerns to nonmetallic mining in Wisconsin. The concerns raised by the public in meetings, in the press, on social media, and elsewhere are important and are taken seriously by the mining industry and GZA. The nature of concerns over mining are limited in number, and concerns have been raised in multiple forms, forums, and media. Issues surrounding concerns are often addressed privately and publicly by GZA; by mining companies at permitting hearings; by environmental and health professionals at public meetings and forums; during professional and governmental association meetings organized by pro- and anti-mining groups; Universities, Public Radio, County, and Township groups; and by the Wisconsin Department of Natural Resources (WDNR).

With such a large number of nonmetallic mines in and near local communities, the WDNR estimates 2,500 in Wisconsin alone, negative public opinion concerning mining is believed to be based on a misunderstanding of the industry due to a lack of public education on the mining process and importance of mining, and a lack of awareness of the widespread presence of mining until a new mine or expansion is proposed. Substantial public education is clearly needed in every community for every age. Opposition to mining based solely on principle makes no sense, since everything in our lives must either come from a mine if not from a farm.

GZA focuses substantial effort to identify and address the public's concerns with nonmetallic mineral mining and during the past 12 years this author presented more than 50 times to a wide variety of stakeholder groups on the importance of properly and thoroughly addressing those

concerns. In addition to the technical presentations, I have provided technical comments and support to State environmental departments, including the WDNR, Illinois Environmental Protection Agency (IEPA), Minnesota DNR (MDNR), Minnesota Environmental Quality Board (EQB), and Minnesota Pollution Control Agency (MPCA) on environmental rulemaking. These efforts also included serving on the Minnesota Silica Sand Rulemaking Advisory Panel and providing testimony before the Illinois Pollution Control Board and the Wisconsin Senate. In addition, I have:

- Provided subject matter expertise during preparation of the Health Impact of Industrial Sand Mining in Western Wisconsin, prepared by the Institute for Wisconsin's Health, Inc.;
- Developed technical white papers addressing nonmetallic mining matters;
- Planned and led training seminars addressing compliance with State environmental regulations in Wisconsin and Illinois;
- Co-authored six Policy Studies comprising 250 pages of text with 400 citations addressing Environmental, Economic, Traffic, Social, Air Quality, Regulatory Control, and Oversight and other issues associated with Industrial Sand Mining applicable to nonmetallic mining; and
- Published a book in 2021, entitled, Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society.

SUMMARY OF IDENTIFIED PUBLIC CONCERNS

This report is based on our understanding of the proposed mine plan and processing plant, previous experience, and comments at a recent public hearing concerning Land Use Applications.

CONCLUSION

GZA concludes the following based on our experience, the details contained in the Application, and the information presented above and in the attached documents:

- There is no evidence that the proposed Wildcat Pit will necessarily or certainly create a nuisance.
- There is no evidence that the proposed Wildcat Pit will create a nuisance and harm that is inevitable and undoubted.

We appreciate the opportunity to submit this supplemental information. Should you have any questions or comments, please contact the undersigned at (262) 754-2565 or via email at mark.krumenacher@gza.com.

Very truly yours,

GZA GeoEnvironmental, Inc.

Mark J. Krumenacher, P.G.
Senior Principal

J:\158800to158899\158848 JMM LLC Verona S&G Property\Addressing Concerns\Submittal\2024 05 29_Evaluation of Public Concerns_Verona FINAL.docx

Attachments: Summary Sheets and Fact Sheets

cc: Mike Marquette, JMM, LLC

Summary Sheets and Fact Sheets

Social Concerns

SOCIAL CONCERNS

Social concerns are, understandably, very important issues and in many instances, can be challenging to address as they represent seemingly less tangible issues and reflect personal preferences and lifestyle. Public concerns relating to social issues were grouped into **Quality of Life** and **Impact on Tourism** summarized in the following subsections.

Quality of Life

Concern:

- A mine will have a negative impact on quality of life in the Town.
- A mine will forever change the character of the Town.
- A mine will be disruptive and create disturbances.
- A mine will destroy the open fields, the beautiful vistas, the wooded areas - "these were the qualities that drew us there many years ago and these are the same qualities that keep us there year after year,"

Basis of Concern:

- Based on the comments, it appears that mining is considered an unacceptable and inappropriate activity in the Town and area and is an activity that has not previously occurred in the Town or area.
- Presumably, disruption and disturbances may be referring to the presence of earthwork equipment, trucks, and physical changes in the landscape. Noise is addressed in a separate Fact Sheet.

Discussion of Concern:

- It is important to recognize that aggregate mining is as important to the area as farming. The area history is that of an agricultural community with sparse residential development that was able to develop because of the presence of aggregate.
- History has proven that the balance between local mining and quality of life, rural tranquility, the beauty and character of the state is not negatively affected by the past and present operation of 2,500 mines.
- Despite the history of mining in the Town and surrounding area, the local population continues to rise. With increased population comes the construction of new homes on former farmland built using, on average, 200 to 500 tons of locally sourced aggregate from a mine such as the one proposed.
- Experience has shown that for the long-term residents of a rural community, residential and commercial development has the largest impact on changing the character of a community.
- Coincidentally, in the majority of cases, it is not the local farming community that creates and organizes opposition to a local mine, but it is the non-farming residents.
- With any land use, it cannot be invisible and there will be some degree of noise, traffic, and activity that will occur as a result. This is equally true for residential, commercial, tourist and agricultural uses. Compared to other land uses, the proposed mine will have minimal physically visible exposure to the public.
- It is reasonable to expect that based on the general lack of awareness of mines in Wisconsin that the proposed mine will not be noticed by the vast majority of residents.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine and the history of mining in the Township and area, there is Insufficient Evidence to demonstrate negative effects on the quality of life in the Township and area of the proposed mine.
- **Intensity**: Available data does not indicate that the proposed changes in temporary land use is substantially different from past and existing use in the Township and area to contribute to negative effects on quality of life at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of effects for the Township are anticipated to be Low. There is Insufficient Evidence to judge the negative effects on the County.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact the quality of life in the Township or County.

Conclusion:

- The proposed use will not be disruptive or create disturbances.
- There is no evidence that the proposed mine will necessarily or certainly impact quality of life and create a nuisance.
- There is no evidence that the proposed mine will impact quality of life and cause harm that is inevitable and undoubted.

Impact on Tourism

Concern:

- A mine will negatively impact tourism.

Basis of Concern:

- Belief that all mines are visually unattractive.
- Belief that truck use of local roads will deter tourism.
- Belief that the presence of a mine will deter patronization of local commercial and tourist businesses.

Discussion of Concern:

- The mine may be noticed by tourists travelling on Valley Road.
- Local tourist attractions that might be impacted were not identified.
- Local commercial businesses that might be negatively impacted were not identified.
- An increase in tourism and commercial businesses would have a significant impact on and change the character of the Township and County and also impact local road use.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine there is Insufficient Evidence to demonstrate negative effects on tourism and commercial businesses in the Township and area of the proposed mine.
- **Intensity**: Available data do not indicate that the proposed use is substantially different from past and existing use in the Township and area to contribute to negative effects on tourism and commercial businesses at the local or community level. There is Insufficient Evidence to judge the intensity of effects on the Township or County.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact tourism or commercial businesses in the Township or area.

Conclusion:

- The proposed mine will not negatively impact local tourism or commercial businesses.
- There is no evidence that the proposed mine will necessarily or certainly impact tourism and commercial businesses and create a nuisance.
- There is no evidence that the proposed mine will impact tourism and commercial businesses and cause harm that is inevitable and undoubted.

Summary Sheets and Fact Sheets

Economic Impact Concerns

ECONOMIC IMPACT CONCERNS

Comments relating to economic issues may potentially revolve around sentiment suggesting it is wrong, or for some reason unfair, for a property owner to realize economic or related benefit from use of their land such as the creation of ponds or lakes. The Applicant, property owner, or any other existing or proposed business should not need to defend their desire to prosper. This issue is another of the several unique challenges companies face in the process of obtaining a license to operate. Although there should be no obligation to defend this position, we address the issue because of its prevalence as a concern commonly raised.

Whether an area of a proposed mine has a general land use primarily focused on industry, commercial, agriculture, or tourism, the overarching objective of the particular business or land use sector is economic. Each land use has an impact one way or another on the nearby, perhaps different, land use. Individuals that promote tourism are driving to bring in people so they can spend their money on the local tourist businesses who can then realize economic benefit. Industrial, commercial, and agricultural businesses similarly work for the same reasons, to realize an economic benefit and a profit. Realizing an economic benefit is generally allowed if the proposed land use and activity will not cause adverse effects on other properties in the neighborhood and on the general health, safety, and welfare of the public. The Application for the proposed mine considered each of those potential impacts and were developed to avoid negative impacts and becoming a nuisance.

Need

Concern:

- There is no need for a mine.
- Would set major precedent for other petitions in this gravel-hungry economy.
- Available aggregate will create a demand for additional growth and increase the energy and carbon footprint.

Basis of Concern:

- There are existing nearby sand and gravel pits, there is no need for another one.
- The existing sources of aggregate should be sufficient for the Town's use.

Discussion of Concern:

- Concern does not recognize the fact that the need is driven in part by continued development of residential properties on agricultural land – similarly forcing more road improvements and commercial development to expand.
- Asphalt is comprised of 95% aggregate = sand, gravel, crushed stone, and 5% bitumen (asphalt).
- 100% of the base course beneath asphalt layers is aggregate.
- Aggregate comprises 100% of the roads, driveways, and parking lots in the Township and County – with or without asphalt or concrete.
- Every new home will require, on average, 200 to 500 tons of aggregate.
- The majority of housing units in the Town are single-family homes.
    - 100% have aggregate or paved driveways (>100 miles), garages, and basements.

  - 100% will need additional aggregate at some point in the future.
  - All future homes will require about 200 to 500 tons of aggregate.
- There is substantial need for aggregate in the community and a local mine will provide benefit to the Town and County.
- There are about 25 to 30 miles of roads in Verona Township.
  - 100% will require additional aggregate and pavement in the future.
    - ~5 miles of US and State Highways;
    - ~8 to 9 miles of County roads; and
    - ~25 to 30 miles of Township roads.
  - Each mile of road will require >6,000 cubic yards of aggregate, more for US and State highways.
- It is increasingly challenging for paving contractors to obtain the locally sourced high quality aggregate for use in asphalt and concrete.
- Aggregate properties vary amongst deposits and the ideal aggregate for use in asphalt is not available in every aggregate mine.
- The ideal aggregate properties summarized below are obtained from crushed gravel and will be achieved from the aggregate produced at the proposed Wildcat Pit.
  - **Toughness.** Toughness or hardness is the ability of the aggregate to resist crushing or disintegration during mixing, placing, and compacting; or under traffic loading.
  - **Soundness.** Although similar to toughness, soundness is the aggregate's ability to resist deterioration caused by natural elements such as the weather.
  - **Particle shape.** The shapes of aggregate particles influence the asphalt mixture's overall strength and workability, as well as the density achieved during compaction. When compacted, irregular particles such as crushed stone and gravel tend to lock together and resist displacement.
  - **Surface texture.** Workability and pavement strength are influenced by surface texture. A rough, sandpapery texture results in a higher strength than a smooth texture. Although smooth-faced aggregates are easy to coat with an asphalt film, they are generally not as good as rough surfaces; it is harder for the asphalt to grip the smooth surface.
  - **Absorption.** The porosity of an aggregate permits the aggregate to absorb asphalt and form a bond between the particle and the asphalt. A degree of porosity is desired, but aggregates that are highly absorbent are generally not used.

<u>Conclusion</u>:

- The Applicant and road owners need the ideal quality of aggregate to produce quality asphalt and concrete.
- The ideal aggregate quality is present at the proposed Wildcat Pit and is not found everywhere.
- The closer the aggregate, the lower the cost of aggregate and pavement to the local community.

Summary Sheets and Fact Sheets

Environmental Concerns

ENVIRONMENTAL CONCERNS

Environmental concerns raised pertaining to **noise, dust/air quality, surface water,** and **groundwater** are addressed below.

Mining is the most highly regulated industrial business in the United States. Mining is regulated at the federal, State and local level on environmental, health and safety performance. Environmental performance is tightly controlled through permit-required regulations, self-implementing regulations, and industry-standard Best Management Practices (BMPs). Permits are required as a result of various federal and State programs, including:

- Federal Clean Water Act, administered by the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit, and other related laws and programs;
- Federal Clean Air Act; administered by the WDNR Air Permit;
- Wisconsin Department of Agriculture Trade and Consumer Protection Vehicle Scale Operator License;
- WDNR High-Capacity Well Permit; and
- Wisconsin Mining Reclamation Permit, administered by the local unit of government that issues the Conditional Use Permit to mine.

In addition to the permits, mines must adhere to several self-implementing regulations such as storm water, spill prevention, Toxic Substances Control Act (TSCA), waste management, etc. Additionally, the Applicant, like all companies that operate in Wisconsin, are obligated to comply with the Wisconsin Spill Law.

Through implementation and oversight of federal and State environmental programs, United States Environmental Protection Agency (USEPA), WDNR, and operators address the environmental concerns. Wisconsin law does not have a requirement for nonmetallic mines to prepare an Environmental Impact Study (EIS) in addition to the established federal and State environmental regulations that address air, surface water, groundwater, and reclamation. In addition, local units of government, such as municipalities, townships, and counties do not have an established regulatory framework, review process, or budget to initiate such a complex process for permit applications.

Noise

Concern:

- Neighbors are worried about noise.

Basis of Concern:

- Belief that mining operations produce a significant amount of noise.

Discussion of Concern:

- It is reasonable to expect that like any land use there will be some degree of noise.
- Proposed noise control procedures are described in the Conditional Use Permit Application.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine, the location of sound sources below surrounding grade, the distances to nearby receptors, and the presence of nearby residences on roads and highways with speed limits of 45 to 55 miles per hour (mph), negative effects on noise in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects of noise at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of noise effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is Weak Evidence for the concern that the proposed mine will impact noise in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on noise in the Township.

Conclusion:

- Valley Road is parallel to the northern boundary of the proposed mine property, which has a speed limit of 45 mph. Latest Wisconsin Department of Transportation (WisDOT) traffic counts on State Highway 69, within ¼ mile east and State Highway 18/US Highway 151 is less than ¼ mile north were 6,200 Annual Average Daily Traffic (AADT) and about 27,000 AADT respectively; 4 to 19 vehicles per minute.
- Noise levels collected proximal to other roadways determined that typical road traffic traveling at 45 mph can range from 68 to 84 dB when measured 50 feet from the roadway. The existing noise generated from highway 69 and highway 18/151 traffic will be significantly louder and continuous (24/7) at residential properties than the proposed mining operation.
- The proposed mine will generate minimal noise that will be detected by nearby residents, particularly while mining and crushing operations are proposed for a short period of time during the winter when most people are located indoors.
- There is no evidence that the proposed mine will necessarily or certainly impact noise and create a nuisance.
- There is no evidence that the proposed mine will impact noise and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing noise is attached.

NOISE

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix H - Noise Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.1.2.1, 2.1.2.3, 2.1.2.4, and 2.2.8

- Under the Clean Air Act, the USEPA established the Office of Noise Abatement and Control (ONAC) to carry out investigations and studies on noise and its effect on public health and welfare. In 1981 the USEPA concluded that noise issues were best handled at the State and local level. As a result, ONAC was closed and the primary responsibility of addressing noise issues was transferred to State and local governments.
- Primary responsibility for the control of noise rests with state and local governments.
- Twelve states and the District of Columbia have noise statutes and regulations, most of which are applicable to quarry operations.
- Noise standards are regulated at the local level through ordinances, but there are no universal standards applied.

Technical Summary

For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.5

- Like any land use from industrial to agricultural and residential, quarrying is not silent. Some amount of noise is inevitable.
- Noise is regulated in all industries for worker safety and health. In the quarry industry, the U.S. Mine Safety and Health Administration (MSHA) imposes limits on noise based on established guidelines considered protective of workers. Noise reduction beyond that is subject to local noise ordinances or is a voluntary good business practice.
- Noise complaints associated with new quarry development often reference quality of life and moving to the country for quiet and tranquility. Such comments do not recognize the fact that living without noise is impossible or recognize the magnitude of noise created by daily life.
- Quarry operations control noise through the selection of equipment that has a lower noise rating where feasible and available.
- On stationary equipment, barriers can be installed to shield, reflect, or absorb noise to limit its propagation beyond property boundaries.
- Heavy equipment manufacturers have improved engine design to the point where the backup alarms commonly produce the highest noise level and have become the subject of more noise complaints than the equipment itself due in part to its unpredictability when heard.
- Backup alarms are not only required, but they are necessary, and they are intentionally designed to be heard and capture attention.
- Backup alarms are evolving and can vary the decibels based on sensors that measure ambient noise and object detection.
- Directional white noise multi-frequency alarms focus in the area of risk rather than in all directions away from the equipment in an audible “ssh-ssh” locatable sound.
- Most local governments do not have the scientific background and expertise necessary to regulate noise levels.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Dust/Air Quality

Concern:

- Industrial dust
- The mine will produce dust.

Basis of Concern:

- Exposed soil and sand have the potential to form dust.

Discussion of Concern:

- The proposed mining operation will implement a fugitive dust plan and operate in accordance with applicable State air permitting regulations.
- The proposed mining operation will be a wet operation.
- The Wisconsin Department of Natural Resources (WDNR) regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415, Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.
- Proposed dust control procedures are described in the Special Exemption Permit Application on page 8 and Attachment 5.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the implementation of the proposed dust control procedures, negative effects caused by dust in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects caused by dust at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is Weak Evidence for the concern that the proposed mine will impact dust and air quality in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on dust or air quality in the Township.

Conclusion:

- Dust will be controlled and will not create a nuisance.
- The health effects of dust are discussed in the Safety and Health Risk Concerns Fact Sheet that follows.
- There is no evidence that the proposed mine will necessarily or certainly impact dust and air quality and create a nuisance.
- There is no evidence that the proposed mine will impact dust and air quality and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing air quality is attached.

AIR QUALITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix D - Air Quality Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.1

- Air quality is protected by several federal and state regulations designed to manage and minimize the potential impacts on air quality from quarry operations. The federal regulator is the USEPA and the state regulator is the state environmental protection agency.
- The Clean Air Act (CAA) is the federal law regulating air emissions and is one of the most comprehensive air quality laws in the world. In addition to federal CAA regulations, each state established a series of regulations to comply with the CAA requirements.
- The primary pollutant regulated and controlled at quarry operations is dust, also referred to as particulate matter (PM). The USEPA regulates PM emissions, including particles 10, 4, and 2.5 micrometers in diameter or smaller, referred to as PM_{10}, PM_4, and $PM_{2.5}$. As a point of reference, a typical human hair is about 50-70 microns thick.
- Fugitive dust is regulated by specific requirements for fugitive dust control plans applicable to quarry operations.
- State regulations include requirements for plans to include when specific dust suppression activities will be implemented and require companies to keep records of those dust suppression activities.
- Quarry operations often need to obtain an air permit approval before constructing a new source of emissions or modifying an existing source of emissions.
- Ultimately, the quarry operation is subject to a comprehensive air permit that addresses emission sources through applicable requirements, including testing, monitoring, recordkeeping, and reporting.

Technical Summary

For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.1

- Air quality concerns raised in association with quarrying pertain to dust and particles of crystalline silica small enough to be inhaled, particles measuring below 10 micrometers in diameter.
- Particles sized PM_{10} are inhalable but are generally too large to deposit in the distal (deep) airways of the lungs; whereas PM_4 and $PM_{2.5}$ are of concern because these particle sizes are small enough to be inhaled and travel to the distal airways where alveolar respiration occurs.
- Silicosis is an inflammation of the lung and other respiratory tissues that eventually causes fibrosis, a hardening of the lungs, reducing the ability to breathe efficiently.
- The concentrations of dust during quarry operation are controlled to be lower than occupational exposure limits. Much of the material handling is done when the material is wet or moist.
- Concerns over crystalline silica dust and silicosis in the quarry industry are legitimate, but the issue is not a new or lightly considered issue by the quarry industry and has been studied for almost 100 years.
- Fears of a public outbreak of silicosis as a result of quarry operations are not supported by air monitoring data.
- Quarry operations are required to take actions to prevent and minimize fugitive particulate matter emissions, perform an annual survey to identify uncontrolled sources of particulate matter emissions and prepare a written fugitive dust control plan.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate air quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Safety and Health Risk

Concern:

- The mine will have negative health effects and cause or worsen asthma.
- The dust from gravel pits can have harmful effects on human health.

Basis of Concern:

- Dust will cause negative health effects.
- The dust may contain silica.

Discussion of Concern:

- Like any industrial operation, mining is not without risks. Those risks are managed to the extent practicable under strict regulatory oversight by the WDNR and the Mine Safety and Health Administration (MSHA). It should be made clear that properly managed sand and gravel operations are safe and do not pose unnecessary risk to the public or mine workers and the proposed operations will also be safe.
- The proposed mining operation will implement a fugitive dust plan and operate in accordance with applicable State air permitting regulations.
- The WDNR regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415 of the Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.
- Proposed Dust Control Procedures are described in the CUP Application.
- The sand is the same that is present on area beaches, unpaved driveways, and farm fields in the Township and County.
- Sources of crystalline silica dust in ambient air include agricultural fields, unpaved roads, silica-containing soil that naturally washes onto paved roads or is spread onto paved roads in the winter, mining, construction, foundries, glass manufacturing, abrasive blasting, or any industrial use of sand and quartz.
- Silica may comprise 50% of the sand present in the glacial outwash sand and gravel deposits in Dane County.
- Concern over silica dust is not a new issue but is one that has been under consideration and study for almost 100 years.
- It is logical to assume that the potential for exposure to crystalline silica would be highest at industrial sand mine and processing operations where the material mined is 99+% pure silica. Most industrial sand operations in western Wisconsin mine and process one-half to more than one million tons of sand per year at each facility.
- Studies have demonstrated that industrial sand mine workers and the public are not exposed to PM (dust) or silica. The same regulatory controls and Best Management Practices (BMPs) are used to control exposure at sand and gravel mining operations.

Characterizing the Effects

The Institute for Wisconsin's Health, Inc. (2016), Health Impact Assessment of Industrial Sand Mining in Western Wisconsin, evaluated PM10 and silica.

- In regard to PM10:
  - **Likelihood:** Based on the available data collected at industrial sand facilities and on published epidemiologic literature, health effects from the impact of industrial sand mining on community-level air quality related to PM10 are Unlikely.
  - **Intensity**: Available data do not indicate that the levels of PM10 are high enough to contribute to health effects at the community level. Though there may be some individuals who are exceptionally sensitive, the intensity of health effects for vulnerable populations (children, elderly, those with existing respiratory conditions) and the community are anticipated to be Low.
  - **Quality of Evidence**: Evidence is Very Strong for the conclusion that industrial sand facilities are Unlikely to Substantially Impact PM10 to the extent of exceeding air quality standards. The evidence is based on site-specific PM10 data collected using methods that meet federal standards. These data have been reviewed by air quality experts at the WDNR and made publicly available.
- In regard to silica exposure:
  - **Likelihood**: Based on the available data collected at industrial sand facilities and on published epidemiologic literature, it is unlikely that community members will be exposed to respirable crystalline silica from industrial sand mining as currently regulated; therefore, health effects from exposure are Unlikely.
  - **Intensity**: Available data do not indicate that levels of respirable crystalline silica near industrial sand facilities or nearby communities exceed the long-term reference exposure level and, as a result, the intensity of health effects at the community level are anticipated to be Low.
  - **Quality of Evidence**: Evidence is Very Strong for the conclusion that industrial sand facilities, as currently regulated in Wisconsin, Are Unlikely to Substantially Impact levels of respirable crystalline silica on a community level. The evidence is based on site-specific respirable crystalline silica data collected in Wisconsin and Minnesota. This data was collected according to federal air monitoring standards, reviewed by air quality experts, and made publicly available.

Conclusion:

- Dust will be controlled and will not result in negative health effects for the mine workers or neighbors.
- There is no evidence that the proposed mine will necessarily or certainly cause dust and create safety and health risks to the Township and create a nuisance.
- There is no evidence that the proposed mine will cause dust and create safety and health risks to the Township and cause harm that is inevitable and undoubted.

Surface Water

Concern:

- This project is too close to rivers and wetlands in the area.
- Groundwater pumping in the mines will negatively impact the nearby wetlands.

Basis of Concern:

- Mine dewatering can lower the water table at the mine and in nearby wetlands.
- Excavations expose soil and sand that may become entrained in surface water runoff from precipitation.

Discussion of Concern:

- There are no wetlands on the proposed mine property.
- The potential for surface water impact exists today due to tilling of the land.
- The mine will be internally drained, so there is no potential for runoff from the mine and the potential for runoff from the property will continually decrease with mine development.
- The mine will remain wet and become a lake with limited exposed soil.
- Surface water concerns are considered at every existing and proposed mining and processing operation, groundwater and surface water experts, and the WDNR. Appropriate permits will be obtained, and safeguards developed for the proposed operations.
- Several environmental regulations are in place to restrict mining activities and protect waters of the State, including the Wisconsin Pollutant Discharge Elimination System (WPDES), Storm Water, Construction and Operation Discharge Permits. Storm water and process water are regulated and closely monitored through the WPDES Permits. From WDNR's perspective, the WPDES permitting system ensures that water samples are collected and analyzed to demonstrate that water is not discharged that could impact surface water. Through adherence to this process, the WDNR is confident that the quality of water discharged to surface water is adequately regulated.
- The WDNR issues the operator and other nonmetallic mining operations a General Permit to Discharge under the WPDES and routinely inspects compliance with the permit at the existing operations.
- The operator recognizes surface water as a critical natural resource that they are obligated to protect to ensure the mining and processing operations do not impact surface water.
- Water will not be pumped and discharged from the proposed mining operation. The only water that will leave the property and potentially flow into a nearby ditch or drainage system is storm water that never enters the mine but either falls directly on the property or flows across the agricultural portion of the mine property during precipitation events as presently occurs.
- The proposed mining and processing operations will not discharge process water or waste of any kind into area streams. The process water used to wash the sand will be in a closed-loop system and recycled. The fine material washed out of the sand will be allowed to settle in ponds and returned to the mine as part of the reclamation process or beneficially used elsewhere.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations, the lack of mine dewatering, and the design of the mine to be internally drained, negative effects on surface water in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects on surface water at the local level and the intensity of effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact surface water in and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on surface water in the Township.

Conclusion:

- Based on the mine design and plans, there is no conceivable mechanism by which the proposed mining operation will have a detrimental effect on nearby streams or wetlands.
- There is no evidence that the proposed mine will necessarily or certainly impact surface water and create a nuisance.
- There is no evidence that the proposed mine will impact surface water and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing stormwater is attached.

SURFACE WATER

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix G - Surface Water Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.3

- Federal regulations developed to ensure surface water quality are administered by the USEPA through the Clean Water Act (CWA); Safe Drinking Water Act (SDWA); Spill Prevention, Control, and Countermeasure (SPCC) Rule; and Facility Response Plan (FRP) Rule. The regulations are enforced by authorized state environmental agencies.
- The CWA is the primary federal law in the United States governing water pollution, regulating discharges of pollutants into the waters of the United States, and regulating quality standards for surface waters.
- Congress amended the CWA to control stormwater pollution caused by rain or melting snow that flows from rooftops and over paved areas, bare soil, and sloped lawns that may collect and transport waste, litter, salt, pesticides, fertilizers, oil and grease, soil, and other materials to waters of the U.S.
- Federal regulations require owners of stormwater pollution sources to have a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit and create plans and implement management practices that eliminate or reduce stormwater pollution.
- Many states regulate wastewater discharges at quarry operations. The most common discharges are quarry dewatering and wash water generated from the rinsing of crushed stone, sand, and gravel with water to remove clay and silt-sized particles.
- Discharges to surface water are considered waters of the state and groundwater via seepage and are regulated. Many states issue general permits for wastewater discharges from quarry operations.
- Permitted facilities must develop a site-specific Stormwater Pollution Prevention Plan (SWPPP). The goal of the SWPPP is to outline how a facility will minimize stormwater pollution and implement site-specific Best Management Practices (BMPs) with implementation schedules to prevent contaminated stormwater runoff from a facility.
- Some states also regulate the construction of ponds, lakes, or artificial waterways developed by quarrying.
- Many states also regulate the management of accumulated sediment from stormwater management structures.

Technical Summary
For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.4

- Quarries have potential interactions with surface water present at or near operations in the form of wetlands, ditches, streams, ponds, or lakes.
- Potential surface water quality impacts may arise from stormwater or process water used to wash sand, gravel, and crushed stone of fine clay and silt particles.
- Accidental discharges can occur during extreme precipitation events if components of a stormwater or process water management system fail.
- Although the discharge of sediment into surface waters is a form of pollution regulated at multiple levels, such pollution differs from other forms of pollution and in many ways mimics natural processes. It is important to recognize that stream valleys would not exist if it were not for erosion.
- Most Local governments lack the expertise of the federal and state environmental agencies to regulate surface water.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Groundwater Quantity

Concern:

- Mining will negatively impact groundwater.
- Mining will negatively impact water supply wells.

Basis of Concern:

- Mine dewatering can lower the groundwater table.

Discussion of Concern:

- The impact of mine dewatering on groundwater quantity is a common concern.
- The mine plan does not include mine dewatering, so the mining operation is not designed to lower the groundwater table to facilitate mining in the dry.
- The majority of water supply wells in the area obtain water from the sand and gravel aquifer.
- The aquifer will have the capacity to provide the required water needs of the proposed mine with minimal impact on the groundwater table surface.
- With very little drawdown expected near the mine pit where water will be pumped and returned to the mine, there is no possible means to lower the water table near Sugar River or Badger Mill Creek.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the lack of mine dewatering, negative effects on groundwater quantity in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that groundwater use at the proposed mine will contribute to negative effects on groundwater quantity at the local or community level. Though groundwater use may result in some changes to groundwater levels, the intensity of effects for neighbors and the Township are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact groundwater quantity in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on groundwater quantity in the Township.

Conclusion:

- There is no evidence that the proposed mine will necessarily or certainly impact groundwater quantity and create a nuisance.
- There is no evidence that the proposed mine will impact groundwater quantity and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing groundwater quantity is attached.

GROUNDWATER QUANTITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix E - Groundwater Quantity Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.2

- Water supply wells may be used by quarry operations to obtain water for washing aggregate to remove fine particles and produce a clean or "clear" stone.
- Use of high-capacity wells may prompt concern that quarries will affect the quantity of water available for neighboring properties.
- Water rights laws vary in each state. Wisconsin and other states define a high-capacity well system as one or more wells on a property that have a combined pump capacity of 70 or more gallons per minute.
- Where required, high-capacity well permit applications are evaluated by environmental and/or natural resources regulatory agencies to assess the potential impacts to waters of the state.

Technical Summary
For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.2

- Private wells are the primary source of drinking water in many rural areas.
- Most quarries are groundwater sinks, meaning that groundwater flows toward most quarries.
- Quarries that do not pump groundwater may have a slight inward hydraulic gradient but would not have an overall negative impact on the groundwater table and impact potable water supply wells or most ecological resources.
- Quarries that dewater will lower the groundwater table surface and need to understand the extent of that decline through predictive modeling and monitoring. Such monitoring is best accomplished through cooperation with nearby residents that have potable water supply wells.
- The amount of water used at a quarry varies greatly and the extent to which water is recycled. Closed-loop systems that recycle 90 percent of the water can consume as little as a few thousand gallons per day.
- Open-loop quarry wash systems are rarely used as it is more economical and logical to recycle water within the quarry and processing area through reuse.
- Although the term water consumption is often used, water used in the wash process is not actually consumed. Water pumped from a well or a quarry sump is ultimately returned to the same regional surface water/groundwater system.
- As unpleasant as it may seem, consider each well and septic system at a farm or dense subdivision where all the water pumped, used, consumed by people and livestock, and flushed may be reused many times over.
- Groundwater experts (hydrogeologists) study the groundwater for federal, state, and local governments as well as the quarry industry, and state hydrogeologists and engineers evaluate permits where required for wells.
- The impact of groundwater pumping at a quarry is site-specific and is based on the ground surface and groundwater elevation, geology, hydrogeologic characteristics of the groundwater aquifer, proximity to surface water, and presence of other nearby groundwater users.
- Quarry operators rarely go to war with neighbors over groundwater.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate groundwater quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Groundwater Quality

Concern:

- Mining will negatively impact groundwater quality because diesel powered equipment will be used.

Basis of Concern:

- Concern over the potential for groundwater pollution from chemical and petroleum use in the mine.

Discussion of Concern:

- The chemical use at the mine will be less than that used in agricultural applications.
- The petroleum use at the mine will be similar to that used in agricultural applications. Underground petroleum storage tanks will not be installed. Aboveground petroleum storage tanks are not anticipated at this time and, if used, would need to comply with State and federal regulations.
- Nonmetallic mining operations are not known to be common sources of groundwater contamination.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the minimal chemical and petroleum use consistent with current use, negative effects on groundwater quality in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects on groundwater quality at the local or Township level and the intensity of effects for the area are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact groundwater quality in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on groundwater quality in the Township.

Conclusion:

- The potential for negative impacts to groundwater quality are not present at the proposed mine.
- There is no evidence that the proposed mine will necessarily or certainly impact groundwater quality and create a nuisance.
- There is no evidence that the proposed mine will impact groundwater quality and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing groundwater quality is attached.

GROUNDWATER QUALITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix F - Groundwater Quality Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.3

- Federal regulations developed to ensure water quality are administered by the USEPA through the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA). The regulations are enforced by authorized state environmental agencies.
- Under the law, the USEPA sets national standards for drinking water. The states must meet or exceed those standards.
- The SDWA regulates all drinking water from aboveground and underground sources.
- Drinking water is also regulated at the state level.

Technical Summary
For more detailed information refer to Chapter 5.3 Addressing Environmental Concerns

- Groundwater quality is a genuine concern but is a very low risk. Documented cases of contamination of groundwater aquifers or potable water supply wells from nonmetallic quarry operations are rare.
- Potential groundwater contaminant sources at most quarry operations consist of oil and fuel used in equipment and blasting agents used in bedrock mining operations.
- Concerns have been raised over the use of water-soluble polymers used to treat wash water, but those chemicals have little to no potential for contaminating groundwater or drinking water supply wells.
- Fuels and oil use and storage are closely regulated and monitored at all commercial and industrial operations with a primary focus on the prevention of surface water contamination.
- Stormwater Pollution Prevention Plans (SWPPP) and/or Spill Prevention, Control, and Countermeasure (SPCC) Plans are required of most quarries and provide the best management practices to identify and address spills to avoid impact to groundwater.
- To recycle the water used in some quarry processing, operators use water-soluble polymers to remove small clay particles from the water. One of those polymers is polyacrylamide, the same safe chemical used by most municipal drinking water and wastewater treatment facilities.
- Although acrylamide is a neurotoxin and is highly mobile in water, it does not present a threat to public health because naturally occurring microbes in soil and water can degrade acrylamide to nontoxic products in days to months.
- The water-soluble polymers used at quarry operations are approved by the National Sanitation Foundation (NSF) and American National Standards Institute (ANSI) Standard 60 for the treatment of drinking water.
- For comparative purposes, municipal drinking water treatment facilities add polyacrylamide directly to drinking water; quarry operations add polyacrylamide to the wash water, which is muddy water from washing sand or rock and is not a source of drinking water.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate groundwater quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Traffic and Road Concerns

Concern:

- The mine will result in excessive traffic.
- The mine will damage Valley Road.
- A large number of trucks will enter and leave the mine.
- Truck traffic/road wear and tear.

Basis of Concern:

- Dump trucks are used to haul sand and gravel.
- Trucks cause wear and tear on roads.

Discussion of Concern:

- Trucking is inherent to the mining business.
- The proposed mine is located ¼-mile from state and US highways designed, built, and maintained for truck traffic.
- The WisDOT Traffic Counts TCMap[1] reports that Highway 69 had an AADT count of 6,200 vehicles per day; measured near Valley Road in 2018. Vehicle use by the proposed mine will represent a small fraction of the total volume.
- Besides ¼-mile of Valley Road other Township or County roads will not be used by the Applicant as a primary transportation route.
- The Town of Verona Comprehensive Plan recognizes that "The Town is focused on preservation and maintenance of roads rather than new construction."
- The Comprehensive Plan does not state that development and truck traffic should be discouraged to preserve roads.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine and the use of State highways, negative effects on the roads and traffic in the Township and area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed use of State highways will contribute to negative effects on traffic or roads in the area of the proposed mine and the intensity of effects for the Township and area are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact traffic or roads in the Township or area.

Conclusion:

- Traffic volume added by the proposed mine will be immaterial and unnoticed.

[1] Wisconsin Department of Transportation WisDOT Traffic Counts TCMaps found at:
https://wisdot.maps.arcgis.com/apps/webappviewer/index.html?id=2e12a4f051de4ea9bc865ec6393731f8

- The proposed use will not negatively impact the County highways or local roads.
- There is no evidence that the proposed mine will necessarily or certainly impact traffic and roads and create a nuisance.
- There is no evidence that the proposed mine will impact traffic and roads and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing roadways is attached.

ROADWAYS

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix J - Roadways Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.1.2.5

- The U.S. Department of Transportation (USDOT) is a federal cabinet department of the United States government that regulates transportation and roadways.
- All mineral and construction aggregate transportation must comply with USDOT regulations.
- Each state has established an agency responsible for planning, building, and maintaining a safe network of state highways and the federal Interstate highway system.
- All users of the transportation system are required to adhere to the rules established by the state transportation agencies.
- In addition to the common rules that address road safety, quarry operators must understand and comply with rules developed to maintain road integrity.
- State departments of transportation have the authority for licensing truck drivers transporting aggregate and other minerals, as well as truck safety, load limits, and size restrictions. State DOT's also review designs and provide permits for developing access onto state highways.
- The transport of all commodities, including quarried material, is subject to rules regulating weights and measures. These can apply to weight restrictions on local and state roads.

Technical Summary

For more detailed information refer to Chapter 6 Addressing Infrastructure Concerns – Section 6.2

- Roads, like all other structures, deteriorate over time.
- Deterioration of roads is primarily the result of two factors: the traffic load, which is greatly affected by the volume of traffic, especially heavy vehicle traffic; and environmental factors.
- Over the lifetime of a road, a combination of these factors will cause the materials used to build the road to fail, resulting in cracking, rutting, and potholes in addition to other structural failures.
- Environmental factors affect pavement mainly through precipitation and temperature. Rainfall can penetrate the structure of the road and alter the properties of the different layers, including the underlying soil/bedrock, making the roadway more vulnerable to traffic loads.
- Temperature affects pavement properties by generating stresses and causing the road materials to expand and contract.
- Several factors influence the degree to which roads are affected by traffic, including vehicle weight, average daily traffic.
- The relationship between vehicle weight and a vehicle's potential impact on a road is exponential, not linear, meaning heavier vehicles have a significantly greater impact than lighter vehicles.
- The most common truck types for transporting quarry materials are five-axle semi-trailers (Gross Vehicle Weight, or GVW, of 80,000 lb.) and quad-axle dump trucks (GVW 73,000).
- The distribution of weight over axles has a greater influence on how the vehicle may impact a road. For example, doubling the axle weight from 18,000 lb. to 36,000 lb. on a single axle has 15 to 24 times the impact on a road not designed for that weight.
- Increasing the number of axles, while maintaining even load distribution, can reduce the impact of heavy vehicles on rural roads.
- On the state and county highway systems, the bridges and roads are structurally capable of handling traffic at the expected volumes and weight without damage or unusual wear.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)