

**ISABELLA COUNTY**  
**Application for Special Use Permit**

**Applicant:**

Name Fisher Construction Aggregates Owner/Agent/Other interest (circle one)  
Address 900 S. Bradley, Mt. Pleasant, Michigan 48858  
Phone 989-772-0720 Fax 989-773-7640

**Property Owner: (if different from applicant)**

Name Milan & Betty Robison  
Address 1104 El Camino Grande, Weidman, Michigan 48893  
Phone 989-330-3180 Fax \_\_\_\_\_

**Property Location:**

Township Sherman Section 28 Zoning District AG3  
Address 1134 North Rolland Rd. Weidman, Michigan 48893  
Tax I.D. Number 13-028-40-001-00 13-028-40-003-01

Description of Project and Proposed Use: See attachment.

Milan W. Robison 3-9-2020  
MILAN W. Robison - OWNER  
Van B. Johnson 3/16/2020  
Signature of Applicant VAN B. JOHNSON, V.P. FISHER CONSTRUCTION AGGREGATES

**Optional:** I hereby grant permission for members of the Isabella County Planning Commission and Zoning Administrator to enter the above described property for the purposes of gathering information related to this application.

Signature of Applicant

Date

NOTE: All information received by this department is subject to the Freedom of Information Act. Under this Act, persons are allowed to request copies of said information. This includes, but not limited to, all copyrighted drawings/blueprints.

**Office Use Only**

File No. 006 Fee \$175.00 Check # 7588 Receipt No. 5384  
Date Application Received 3-18-2020 Application Received By RD  
Legal Description Attached? ☒ YES ☐ NO Site Plan Attached? ☒ YES ☐ NO  
Applicable Ordinance Section(s) 12.05 X



900 South Bradley Street | Mt. Pleasant, MI 48858  
Phone: (989) 546-5526 | Fax: (989) 546-5528

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- ISABELLA COUNTY ROAD COMMISSION LETTER FROM MARCH 12<sup>TH</sup>, 2020
- ROBISON LEASE AGREEMENT
- PLAN SHEETS (3 TOTAL)



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The members of the Isabella County Planning Commission and Zoning Administrator may make arrangements for a site visit by contacting Vance Johnson at Fisher Construction Aggregates, Phone Number (989) 772.0720

Thank you.



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March 16, 2020

## Attachment to Application for Special Use Permit Form

### Project Description and Proposed Use –

The project being proposed involves reopening a sand and gravel source that was previously operated years ago by Chelsea Utterback, followed by The Isabella County Road Commission, subsequently used as hunting and recreational property, and a source of gravel for use by the current owner, Milan (Lucky) Robison and Family.

Fisher Construction Aggregates (FCA) has entered into a lease to operate a gravel pit from this location as provided by Isabella County Zoning ordinance by issuance of a special use permit for a gravel extraction business in areas zoned AG3. A description of the planned operation proposed by Fisher Construction Aggregates is as follows:

Following acquisition of all governmental permits required for operation of this business, including the County Special Use Permit, Soil Erosion and Sedimentation Permit and County driveway and roadway maintenance agreement (see attached letters from ICRC), we would have a licensed surveyor establish the boundaries of the proposed operation as provided by the SUP utilizing the 100' property line setbacks and 150' residential property setbacks. All existing trees, shrubs, brush, grass etc. in the setback areas will remain untouched and utilized for screening of the operational area. In conjunction with the owner, the merchantable timber would then be sold and the remaining brush and stumps would be stripped from the working area and placed into controlled piles. The topsoil would be stripped from the surface and placed into berms surrounding the operational area on the inner line of the setback areas as shown on the site plans, providing a barrier (as required by the federal Mine Safety and Health Administration) from inadvertent entry into the operational area and providing visual screening of the site from casual view, along with noise abatement. All topsoil stripped from this location will be stockpiled onsite for use in future reclamation and no topsoil will be sold. This would be followed by removing the unusable overburden material from





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the top of the gravel and placing this material in stockpiles for use in future reclamation. Following the completion of this site preparation, the gravel crusher, screens, conveyors, generators, loaders, truck scale and support equipment would be moved onsite to begin processing the raw aggregates onsite to comply with MDOT specifications for products such as 22A and 23A road gravel used widely in the local area by the Road Commission and area contractors for construction project parking lots, driveways, and roadways. The operation envisioned would involve the production and stockpiling of a volume of these products that would supply the demand for the entire construction season. FCA projects that this would require one to two months of activity to produce the gravel for an entire year of sales. The crushing activity would normally take place Monday through Friday from 6:00 AM to 6:00 PM and Saturday from 6:00 AM to 2:00 PM. There would be no activity on Sundays or Holidays. Upon completion of the crushing operations, all of the equipment would be removed from the site with the exception of the truck scale and front end loader. During the time that the crushing equipment and personnel are operating onsite, there will product available for loadout and sale as any potential customer may arrive onsite – however, once the crushing equipment has been removed from the site, the loadout operation will only be staffed for large volume custom orders made by prior arrangement to have our loader operator onsite.

During operation of the pit, dust control will be utilized as needed based upon industry best practices and in compliance with our State Air Quality Permit. These measures may include spraying of water on the crushing chambers and transfer points. Water and/or calcium chloride or brine application on haul roads and gravel roads along with lowering of truck speed limits and other appropriate methods as dictated by site conditions will be utilized. Maintenance of Rolland Road while in use by our customers from the pit driveway exit north to Drew Road will be per our agreement with the Isabella County Road Commission on as "as needed basis" at no additional cost to the general public or local governments. Note: Our customers will be directed to exit only from our internal driveway exit onto Drew Road or from the exit onto Rolland Road to go north to Drew Road.



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Reclamation of the site will proceed as an area is depleted of useable gravel. The remaining stockpiles of brush and roots will be placed at the toe of the vertical cut in the excavated area and backfilled with the overburden previously stripped and stockpiled on site. The slopes will be graded to a minimum of 4' horizontal to 1' vertical as required by ordinance. This allows for easy traversal of slopes by equipment and animals, and minimizes potential for erosion prior to re-establishment of vegetation. The topsoil previously utilized for berm construction will then be uniformly graded over the slopes and pit bottom in preparation for seeding. Seed and fertilizer types and application rates will be determined in conjunction with recommendations of the Isabella County Soil Conservation District for use in establishing growth for surface stabilization of the restored area.

The anticipated duration of this SUP would be until 12/31/2030 with consideration for re-application if gravel reserves have not been depleted and the owner consents.



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Date: March 17, 2020

Subject: Attachment to Application for Special Use Permit

1. Is the special use allowed within the site's zoning district and does the use agree with the County's comprehensive plan?
  - Yes, Mineral extraction industries is an allowed Special Land Use (SLU) in the AG-3 district according to the table in Article 5 of the Zoning Ordinance.
  - The future land use map for Sherman Township (in the Master Plan) indicates the subject parcel to be Rural Agricultural Residential (RAR). The proposed use would be well suited for this future classification as it would be less desirable to have the use in other anticipated classifications such as agricultural conservation, higher density residential, commercial or industrial.
2. Will the proposed use be detrimental to adjacent properties or land uses?
  - No, the proposed use will not be detrimental to the adjacent properties or land uses. The surrounding lands for the most part are used for hunting & recreation, limited farming and low density residential. There is nothing proposed that would be a detriment to the adjacent properties or the continued uses of the properties. The proposed site is only about one-half of a mile from a former (larger) commercial mining operation to the North and portions of the proposed project site were used as a sand and gravel source in the past.
3. How will the proposed use be designed, constructed, operated and maintained in a manner harmonious with the character of adjacent property and surrounding areas?
  - The property boundaries in the area of the proposed excavation are wooded for the most part. These wooded areas along with a proposed perimeter berm will provide screening from adjacent properties and Jordan Road which will promote harmony with the character of adjacent properties and the surrounding area. The areas of the proposed activity that are not encompassed by woods are interior to the parcel which has sufficient size so the activities will not impact the surrounding areas.



- The applicant does not propose to continuously mine and produce gravel on the site. The production and stockpiling stage of the operation is currently estimated to be one to two months out of the year. In the remaining portions of the construction season the operation would consist of loading and hauling the product off site. The loading will take place near the center of the site which will negate impacts to the surrounding area.
4. Will any hazard to adjacent property be generated by the special use or will it involve uses, activities, materials or equipment which will be detrimental to the health, safety or welfare of persons or property due to traffic, noise, smoke, odor, fumes or glare?
- The applicant is not proposing a full time commercial operation which would be detrimental to the area based on traffic volumes. However, the Applicant has been proactive in working with the Isabella County Road Commission and has the understanding that an agreement will be entered into with the Road Commission to address any issues that should arise with respect to dust control, gravel patching and blacktop maintenance.
  - Dust will be controlled as needed based upon industry best practices and in compliance with a State Air Quality Permit. These measures may include spraying of water on the crushing chambers and transfer points, applying either water, calcium chloride or brine to haul routes, reduced truck speeds and other appropriate measures as site conditions dictate.
  - Noise will not be produced at levels that would constitute being detrimental to health, safety or welfare. The perimeter berm and forested screening will reduce noise levels to the surrounding area and the production process and loading will be performed near the center of the property which will negate potential impacts based on noise.
  - Likewise, the proposed operation will not produce excessive amounts of smoke, odor, fumes or glare that would constitute it as being detrimental to health, safety or welfare of persons or property.
5. Does the special use require and have an appropriate and adequate waste handling system? If so, can person(s) responsible for the proposed special use demonstrate that





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the Central Michigan District Health Department has approved such a system or facility for continual use?

- N/A – no waste handling system is required or proposed. Portable restrooms will be utilized.

6. Will the special use need to be conducted before 8:00 a.m. or after 8:00 p.m.? If yes, why?

- Yes, the Applicant is proposing normal work hours on Monday through Friday from 6:00 am to 6:00 pm and on Saturday from 6:00 am to 2:00 pm (no work on Sundays or Holidays). Due to short construction season in the area and current industry practices it is not practical for the operation to commence at 8:00 am. The later start time would not be harmonious with the rest of the construction industry and would limit the work that could be completed in one season.
- It should be noted that the proposed work hours are in concurrence with item number 9 in Section 12.05 X of the zoning ordinance which allows mineral extraction industries to work from 6:00 am to 10:00 pm.

## **ISABELLA COUNTY ROAD COMMISSION**

2261 E. Remus Road, Mt. Pleasant, Michigan 48858  
Office 989-773-7131 Fax 989-772-2371

Wednesday, February 19, 2020

Dear Mr. Johnson,

The Isabella County Road Commission held a discussion at its February 13<sup>th</sup> board meeting. During the discussion, the board understands that there are limited resources throughout the county for future gravel needs. Due to our yearly maintenance and gravel programs, the Board supports the idea of reopening and utilizing the existing pit.

The Board recommended that before a permit is issued to the Fisher Construction Aggregates, the ICRC engineer will need to review and approve the following items:

- a. Dust Control
- b. Upgrades to Driveways
- c. Travel Routes
- d. Gravel and Blacktop Maintenance due to wear and tear
- e. Bonding/Escrow account to protect road infrastructure

If you have any further questions please feel free to contact our office.

Sincerely,

Tony Casali  
ICRC Manager  
Ext: \*103



**2261 E. REMUS ROAD**

**MT. PLEASANT, MI 48858**

**OFFICE PHONE: 989-773-7131**

**FAX: 989-772-2371**

March 12, 2020

Fisher Company  
900 S. Bradley Street  
Mount Pleasant, MI 48858  
**Attn: Vance Johnson**

RE: Robinson Pit, Section 28, Sherman Township

Dear Mr. Johnson,

As per our meeting on March 3<sup>rd</sup> to discuss the opening of the Robinson Pit on Rolland Road north of Jordan Road. All issues were addressed concerning additional truck traffic on the gravel and paved roads that are not Class A. We discussed drafting a road use agreement to address issues stated in our letter dated 2/19/2020.

This agreement would cover the additional cost to the road commission for dust control, gravel patching and blacktop maintenance due to any damage from the additional truck traffic by means of an Escrow Account or the donation of gravel to cover the required patching.

We look forward to working with you on this project.

If you have any question please give me a call.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrick J. Gaffney".

Patrick J. Gaffney, PE  
Engineer Superintendent

Cc:

File

Tony Casali, Manager – Isabella CRC



2/24/20

## EXCLUSIVE SAND, STONE, AND GRAVEL PURCHASE AGREEMENT

This agreement involves the purchase of sand, clay, stone, and gravel by Fisher Construction Aggregates (FCA), 900 S. Bradley, Mt. Pleasant, Michigan (Lessee), from Milan & Betty Robison, 1104 El Camino Drive, Weidman, Mi., 48893 (Lessor). The products to be removed from the property of approximately 117 total acres described as the N ½ of SE ¼ (80 acres) and a 37 acre portion of the SE ¼ of SE 1/4 Section 28 T15N R6W, Sherman Township, Isabella County, Michigan. The mutually agreed upon excavation area within the property boundaries is as identified on attachment #1.

Purchase Price:

[REDACTED]

Stone & Gravel Products

Fill Sand or Clay

[REDACTED] to Lessee and [REDACTED] to Lessor of Selling Price for Landscape Boulders, described as rocks too large to process via crushing and sold as large single rocks. Prices shall be jointly reviewed after 5 years of operation for adjustment to product prices generally in effect in the local gravel market at that time.

Payment Schedule:

Lessor shall be paid a minimum of [REDACTED] per year during the course of this agreement. This annual payment accumulates over the course of this agreement and will be first applied toward payment of materials removed at the prices listed in this agreement, "Accumulated Annual Payment." The Accumulated Annual Payment is due January 31<sup>st</sup> of each year. Lessee shall generate a summary report on a semiannual basis showing quantities of materials removed from the property. The summary report will be due on or before January 31<sup>st</sup> and July 31<sup>st</sup> of each year. Balances from the summary report that are in excess of the accumulated annual payments will be paid at the same time the summary report for materials removed is due.

Lessee will regrade the land disturbed by surface mining as required by local zoning ordinance, by utilizing materials salvaged from onsite, within one year of sale and removal of all completed products from this location. Lessee will regrade the disturbed surface to the water's edge if the excavation results in a pond/lake that Lessor desires to remain in place. Lessee will seed the areas restored utilizing ground cover grasses suggested by the local Soil Conservation District.

FCA will provide Owners and or Owner's Agent with a certificate of liability insurance each year.

This agreement will be in effect until 12/31/2029 or upon depletion of economically viable reserves, at FCA's sole discretion and judgment, whichever comes first. It is further agreed that Lessee will have until 12/31/2030 to remove produced products, unsold and in inventory at 12/31/2029. This agreement may be extended upon mutual agreement.

Lessee agrees to weigh all material using a certified scale, or if scales are not available, the conversion factor for truck yards to tons will be, 1.4 x truck yards = tons.

Lessee shall be responsible for the cost of dust control and maintenance of onsite haul roads. In addition, Lessee shall be responsible for added costs of dust control and maintenance of Rolland Road from the pit to Drew Road attributable to traffic generated by operation of the gravel pit.

This agreement grants Lessee exclusive right to carry on activity and operate equipment as they deem necessary to process, stockpile, blend, and sell aggregate products in an economically viable manner from this property. This exclusivity applies only to activity related to the operation of the sand, stone, and gravel business and does not preclude the Lessor from enjoyment of property for any personal use and activity as they wish to partake except as such use may inhibit the ability of Lessee to safely function as described. Safety is within the sole discretion of Lessee.

Each party shall, to the fullest extent permitted by law, indemnify, hold harmless, and defend the other party, including its managers, officers, directors, employees, agents, affiliates, successors and permitted assigns (collectively, "Indemnified Party") from and against any and all suits, losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs, or expenses of whatever kind, including professional fees and reasonable attorney's fees directly or indirectly caused, occasioned, related, or contributed to, or claimed to be caused, occasioned, related or contributed to by any claimed act, omission, fault or breach of the other party or anyone acting under its direction or control in connection with or incident to the work contemplated by this agreement. Neither party's obligations under this paragraph shall be applicable to any liability caused by the negligence of the other party.

This agreement is contingent upon Lessee receipt of any permits necessary to operate as a sand and gravel mining operation from governmental agencies having zoning jurisdiction over the permitting process. Lessee will take responsibility for securing all required zoning permits. Soil Erosion and sedimentation permits and any permits required for operation of equipment necessary to the operation of a gravel pit shall also be the responsibility of and at the cost of the Lessee.

Lessee agrees they will not assign said lease without the permission of Lessor.

Both parties understand that this agreement shall survive the sale or transfer of rights of the property to others, remaining in place under the terms as agreed.

Agreed upon by both parties as of this date 2-25-2020.

By: Milan Robison  
Milan Robison

Witness: Betty Robison

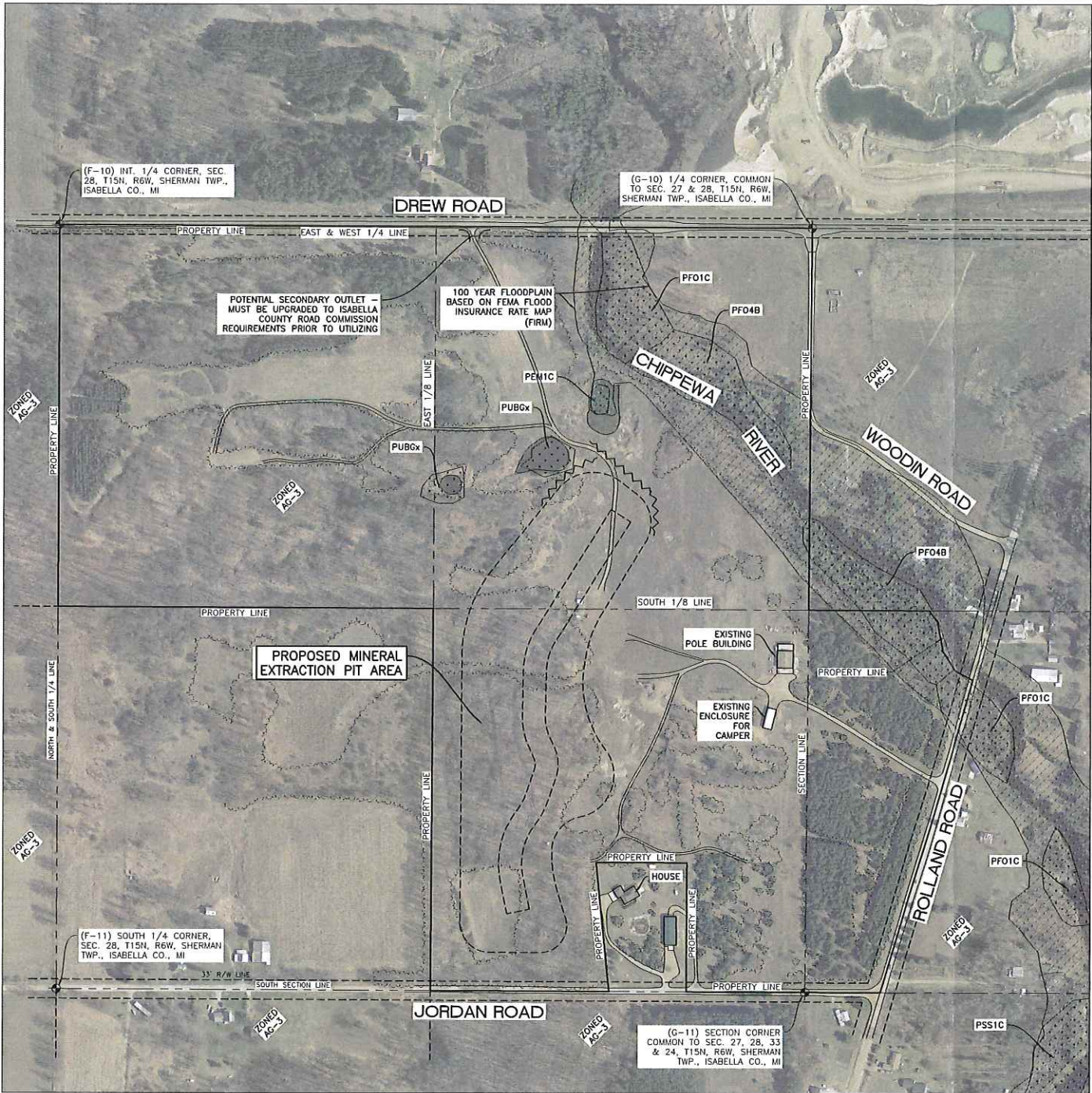
By: Betty Robison  
Betty Robison

Witness: Betty Robison

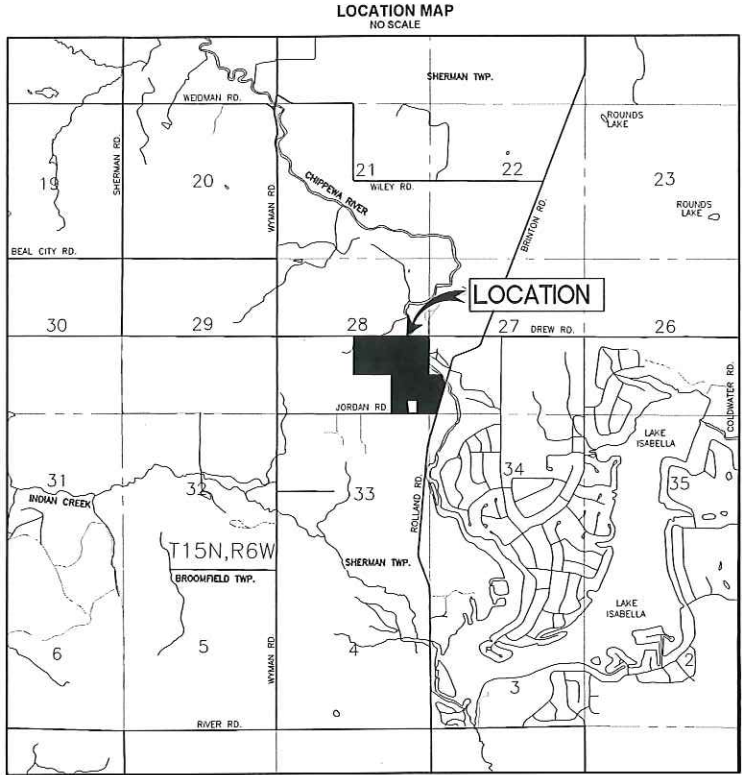
By: Vance Johnson  
Fisher Construction Aggregates, Vance Johnson VP

Witness: Megan Cottle





SHEET INDEX	
C-1	COVER SHEET - PROPERTY DRAWING
C-2	MINERAL EXTRACTION PLAN
C-3	SOIL EROSION CONTROL PLAN



**PROPERTY DESCRIPTION**

THE SOUTHEAST 1/4 OF THE SOUTH 1/4 OF SECTION 28, T15N, R6W, AND THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27, T15N, R6W, LYING SOUTH OF THE CHIPPEWA RIVER AND WEST OF ROLLAND ROAD, AND THE NORTH 1/4 OF THE SOUTHEAST 1/4 OF SECTION 28, T15N, R6W. (DESCRIPTION TAKEN FROM QUIT CLAIM DEED RECORDED IN LIBER 1371, PAGE 534)

**PREPARED FOR**

FISHER CONSTRUCTION AGGREGATES, INC.  
900 S. BRADLEY  
MT. PLEASANT, MI 48858

**PROPERTY OWNER**

MILAN & BETTY ROBISON  
1104 EL CAMINO GRANDE  
WEIDMAN, MI 48893

**PROPERTY ZONING**

AGRICULTURAL BUFFER DISTRICT (AG-3)

- SETBACKS FOR MINERAL EXTRACTION**
- NO EXCAVATION SHALL COME WITHIN 150' OF A RESIDENCE
  - NO EXCAVATION SHALL COME WITHIN 100' OF A PROPERTY LINE

WETLANDS IDENTIFIED ON NATIONAL WETLANDS INVENTORY	
SYMBOL FOR WETLAND INDICATED ON NATIONAL WETLAND INVENTORY	
ATTRIBUTE	CLASS NAME
PFO4B	FORESTED
PFO1C	FORESTED
PSS1C	SCRUB-SHRUB
PEM1C	EMERGENT
PUBGx	UNCONSOLIDATED BOTTOM

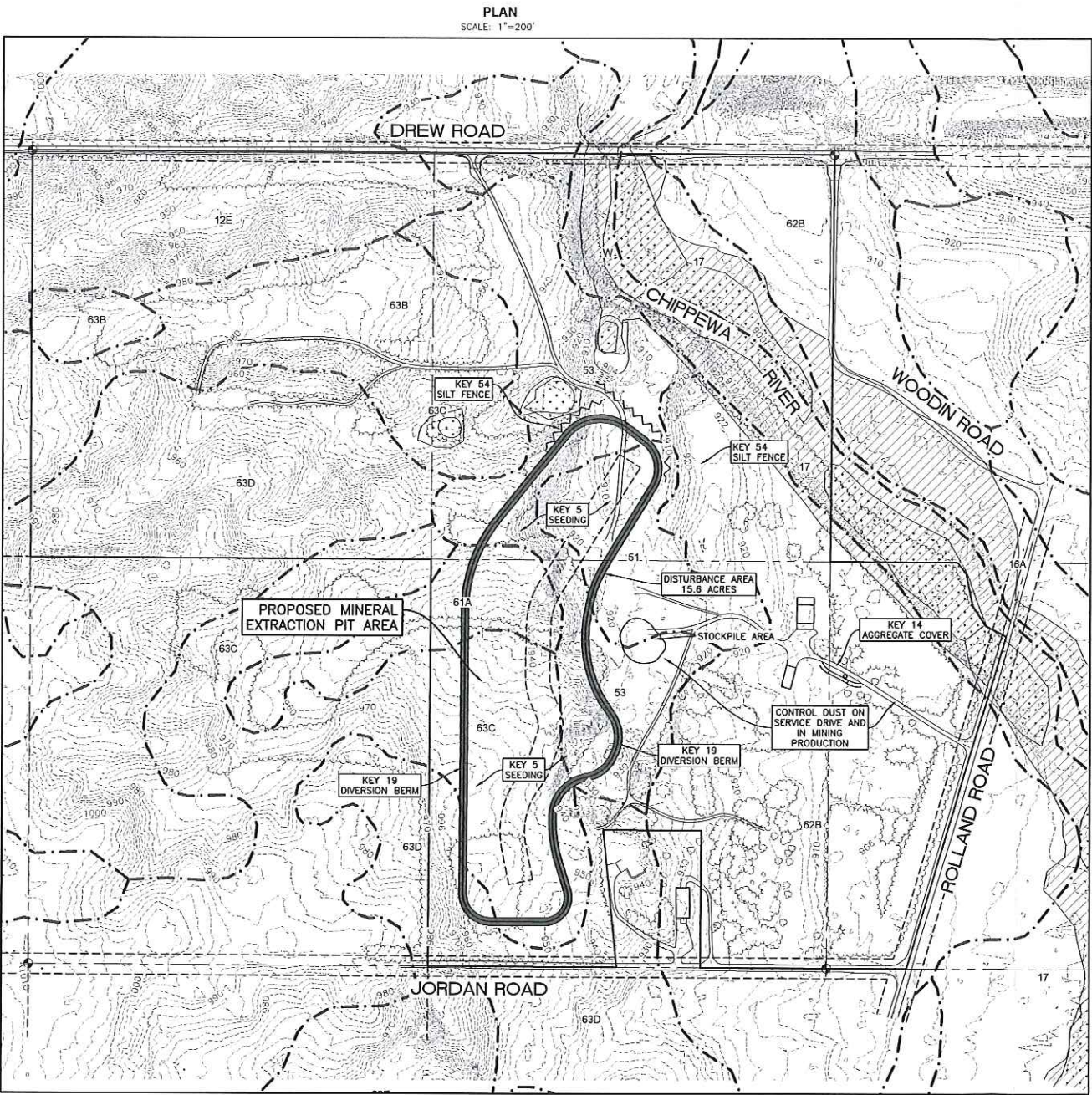


PLAN ISSUE	PERMIT
REVISION	NO
DESCRIPTION	DATE
NO	DATE
DESCRIPTION	DATE
NO	DATE
COVER SHEET - PROPERTY DRAWING	
FISHER CONSTRUCTION AGGREGATES	
Section 27 & 28, T15N., R6W, Sherman	
Township, Isabella County, Michigan	
<b>LORENZ</b>	
SURVEYING & ENGINEERING, INC.	
3229 W. Beal City Road Weidman, Michigan 48893	
Phone: (989) 644-5953 Fax: (989) 644-4859	
pete@lorenzse.com	
JOB NO	200006
SCALE	1" = 200'
DRAWN BY	TPL
DATE	March 17, 2020
SHEET NO	C1









GENERAL NOTES

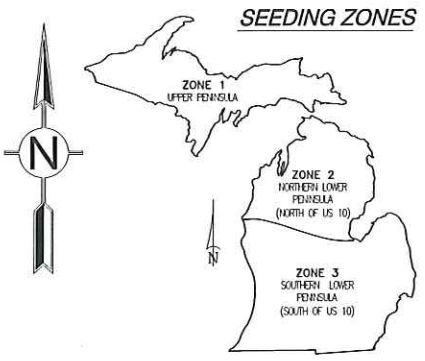
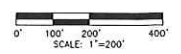
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY AND PERMANENT CONTROL MEASURES UNTIL VEGETATION HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS. MAINTENANCE SHALL INCLUDE: PERIODIC INSPECTIONS, REMOVING ACCUMULATED SEDIMENT AND REPAIRING OR REPLACING DAMAGED CONTROL MEASURES. INSPECTIONS SHALL BE PERFORMED DAILY DURING THE CONSTRUCTION PROCESS. FOLLOWING CONSTRUCTION, INSPECTIONS SHALL BE PERFORMED AT LEAST ON A WEEKLY BASIS AND AFTER EVERY SIGNIFICANT RAIN EVENT UNTIL VEGETATION HAS BEEN ESTABLISHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF TEMPORARY CONTROL MEASURES AFTER ALL DISTURBED AREAS HAVE BEEN RESTORED AND VEGETATION HAS BEEN ESTABLISHED. ALL CATCH BASINS WITHIN THE CONSTRUCTION INFLUENCE AREA SHALL BE PROTECTED UNTIL PERMANENT MEASURES HAVE TAKEN EFFECT. INLETS SHALL BE PROTECTED WITH GEOTEXTILE SILT SACKS. INSTALL SILT FENCES PRIOR TO ANY SITE WORK.
- THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF PERMANENT CONTROL MEASURES AFTER THE ESTABLISHMENT OF VEGETATION ON DISTURBED AREAS. THE OWNER SHALL MAKE PERIODIC INSPECTIONS, AND REPLACE OR REPAIR DAMAGED PERMANENT CONTROL MEASURES AS REQUIRED.
- PERMANENT CONTROL MEASURES SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL EARTH CHANGE IS COMPLETED.

PREPARED FOR

FISHER CONSTRUCTION AGGREGATES, INC.  
800 S. BRADLEY  
MT. PLEASANT, MI 48858  
CONTACT: MR. BOB MURPHY  
PHONE: (989) 330-1947

DISTURBANCE AREA

TOTAL DISTURBANCE AREA = 680,376 SQ. FT.  
TOTAL DISTURBANCE AREA = 15.6 ACRES



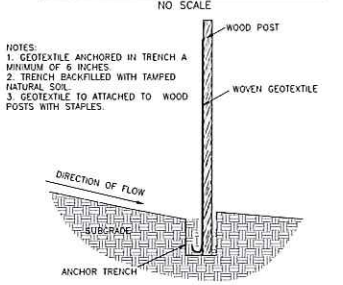
SEEDING DATE RANGES FOR PERMANENT VEGETATION COVER			
PLANTING ZONE	WITH IRRIGATION AND/OR MULCH	WITHOUT IRRIGATION OR MULCH	DORMANT SEEDING
1. UPPER PENINSULA	5/1 TO 9/10	5/1 TO 6/15 OR 8/1 TO 9/20	10/25 TO FREEZE-U P
2. NORTHERN LOWER PENINSULA	5/1 TO 9/20	5/1 TO 6/10 OR 8/1 TO 9/20	10/25 TO FREEZE-U P
3. SOUTHERN LOWER PENINSULA	4/1 TO 10/1	4/1 TO 5/20 OR 8/10 TO 10/1	11/1 TO FREEZE-U P

SEEDING FOR TEMPORARY VEGETATION COVER TYPES				
PLAT TYPE	1. UPPER PENINSULA	2. NORTHERN LOWER PENINSULA	3. SOUTHERN LOWER PENINSULA	POUNDS PER 1,000 SQUARE FEET
BUCKWHEAT	6/15 TO 7/15	6/1 TO 7/15	6/1 TO 7/15	2
CEREAL RYE	8/1 TO 10/1	8/1 TO 10/10	8/1 TO 10/15	3
OATS	5/1 TO 8/1	4/15 TO 8/1	4/1 TO 9/15	2
PERENNIAL RYGRASS	8/1 TO 10/1	6/1 TO 8/1	8/1 TO 10/15	0.5
SUNDRAGRASS	NOT RECOMMENDED	6/1 TO 7/15	6/1 TO 7/15	1
WHEAT	9/10 TO 10/1	9/10 TO 10/1	9/20 TO 10/15	3

CONSTRUCTION SCHEDULE

- STAGE 1  
DIVERSION INSTALLATION AND STRIPPING
  - PLACE GEOTEXTILE SILT FENCE (PRIOR TO COMMENCING ANY WORK)
  - PLACE AGGREGATE COVER IN DIVERSION
  - TEMPORARY SEED PORTIONS OF TOPSOIL STOCKPILE THAT ARE NOT ACTIVE
- STAGE 2  
BERM INSTALLATION AND EXCAVATION OF POND AREA
  - MAINTAIN SILT FENCE
  - INSTALL DIVERSION BERM & SEED
  - SEED AREAS WHERE PERMANENT EARTH GRADE CHANGE COMPLETE
- STAGE 3  
FINAL RESTORATION
  - SEED AREAS THAT HAVE BEEN DISTURBED

SILT FENCE INSTALLATION



MICHIGAN UNIFIED KEYING SYSTEM

KEY	DETAIL	CHARACTERISTICS
5	SEEDING	HYPODURIC AND VERY EFFECTIVE. FERTILIZER USE: THIS MINIMUM EROSION SHOULD POLICE PREPARED TOPSOIL BED
13	R/SP/PP, RUBBLE, CASCADS	USED WHERE VEGETATION IS NOT DAILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS. FERTILIZER: POLICE TO IMPROVE SOIL. DELAYS ENERGY FLOW AT SYSTEM OUTLETS
15	PAVING	PROTECTS AREAS WHICH CHANNELED OTHERWISE BE PROTECTED. BUT IRREGULAR SURFACE WILL HELP SLOW VELOCITY
35	STORM SEWER	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS. CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF. LOCATED PRIOR TO MINING. NEVER EXPOSED TO FLOODING. DETAILED LOCATION, USE EXISTING BASINS TO COLLECT SEDIMENT
54	SILT FENCE	USERS GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY

SOIL INFORMATION

Map Unit Symbol	Horizon Depth Range	Textures
12D: Coloma	0-11 11-60	Sand Loamy sand, sand
12E: Coloma	0-3 3-28 28-60	Loamy sand, sand Loamy sand, sand Fine sand, sand
16A: Wasipi	0-10 10-21 21-60	Loamy sand Gravelly sandy loam, sandy clay loam, sandy loam G, gravelly sand, sand
17: Cohoctah	0-13 13-35 35-60	Fine sandy loam Fine sandy loam, loam, loamy sand Gravelly sand, loamy sand, sand
51: Pits	Pits	
52: Udpasments	0-60	Sand
61A: Salfidge	0-9 9-30 30-34 34-60	Sand Loamy sand, sand Clay loam, loam, sandy loam Clay loam, loam, silty clay loam
62B: Omas	0-22 22-33 33-60	Sand Gravelly sandy clay loam, sandy clay loam, sandy loam Gravelly coarse sand, gravelly sand, very gravelly sand
63B: Remus	0-9 9-43 43-60	Fine sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
63B: Spinks	0-9 9-60	Sand Loamy fine sand, loamy sand, sand
63C: Remus	0-9 9-43 43-60	Fine sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
63D: Remus	0-9 9-43 43-60	Fine sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
63D: Spinks	0-9 9-60	Sand Loamy fine sand, loamy sand, sand
63E: Remus	0-9 9-43 43-60	Fine sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
67B: Remus	0-9 9-43 43-60	Sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
67D:	0-9 9-43 43-60	Sandy loam Loam, sandy clay loam, sandy loam Loam, sandy loam
W: Water		

PLAN ISSUE  
PERMIT

REVISIONS  
NO. DATE DESCRIPTION

NO. DATE DESCRIPTION

SHEET TITLE  
SOIL EROSION CONTROL PLAN

PROJECT NAME  
FISHER CONSTRUCTION AGGREGATES  
Section 27 & 28, T15N., R6W, Sherman  
Township, Isabella County, Michigan

LORENZ  
SURVEYING & ENGINEERING, INC.  
3229 W. Dea City Road  
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Phone: (989) 644-6553  
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JOB NO. 200006  
SCALE: 1" = 200'  
DRAWN BY: TPL  
DATE: March 17, 2020  
SHEET NO. C3